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- Commercial & Institutional
- Environmental Restoration

# 2000 City Park Drive

## Transportation Impact Assessment

# Proposed Mixed-Use Development
# 2000 City Park Drive

# Transportation Impact Assessment

Prepared By:

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

May 2023
*Revised November 2023*
*Revised May 2025*

Novatech File: 123006
Ref: R-2023-017

NOVATECH
Engineers, Planners & Landscape Architects

May 30, 2025

City of Ottawa
Planning and Growth Management Department
110 Laurier Ave. W., 4th Floor,
Ottawa, Ontario K1P 1J1

**Attention:** **Mr. Mike Giampa**
**Project Manager, Transportation Review**

Dear Mr. Giampa:

**Reference:** **2000 City Park Drive**
**Transportation Impact Assessment**
**Novatech File No. 123006**

We are pleased to submit the following revised Transportation Impact Assessment Report, in support of Official Plan Amendment and Zoning By-law Amendment applications at 2000 City Park Drive, for your review and signoff. The TIA has been updated to remove the Phase 2 development at 1900 City Park Drive. The revisions did not change the findings of the report. The structure and format of this report is in accordance with the City of Ottawa Transportation Impact Assessment Guidelines (June 2017).

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

Yours truly,

**NOVATECH**

Trevor Van Wiechen, P.Eng.
Project Engineer | Transportation



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# TIA Plan Reports

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

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

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

**CERTIFICATION**

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

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

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Dated at Ottawa (City) this 30 day of May, 2025 .

Name: Brad Byvelds
(Please Print)

Professional Title: P. Eng. - Project Manager

B. Byvelds

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

| **Office Contact Information (Please Print)** | |
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## TABLE OF CONTENTS

## Figures



## Tables



## Appendices

## EXECUTIVE SUMMARY

This Transportation Impact Assessment (TIA) has been prepared in support of Official Plan Amendment and Zoning By-law Amendment applications for the property located at 2000 City Park Drive. The subject site is currently vacant. The subject site is surrounded by the following:

- City Park Drive and residential lands to the north,
- Highway 174 to the south,
- Residential and commercial land uses to the east, and
- An existing office building and City Centre Park to the west.

The City of Ottawa's Official Plan identifies the subject site is within the Outer Urban Transect and has 'Hub' and 'Evolving Neighbourhood' designations on Schedule B3. 2000 City Park Drive is currently zoned 'Transit Oriented Development' (TD2).

For the purposes of this TIA, the proposed development is anticipated to include approximately 1,192 residential units within five buildings. This is considered the maximum density for the subject site. The final development statistics and access locations for each building will be confirmed as part of future Site Plan Control applications for the development phases. A preliminary concept plan for the subject site is provided in **Appendix A**. The subject site is anticipated to be developed in one phase with an assumed build-out year of 2037.

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

*Forecasting*

- The proposed development is anticipated to generate a net additional 505 person trips during the AM peak hour (including 114 vehicle trips), and an additional 499 person trips during the PM peak hour (including 118 vehicle trips). Compared to the previous concept plan, the proposed development results in a net reduction in person and vehicle trips.

*Development Design*

- The proposed development is anticipated to include one new vehicular access to City Park Drive and one shared access with the adjacent office building at 1900 City Park Drive. Pedestrian connections are anticipated to be provided to the MUP's east and south of the site, as well as to the sidewalks along City Park Drive.

*Transportation Demand Management (TDM)*

- A review of the City's TDM Measures Checklist has been conducted by the proponent, who will consider the following TDM measures on a phase by phase basis within this development:

    - Display local area maps with walking/cycling access routes and key destinations at major entrances;
    - Display relevant transit schedules and route maps at entrances;
    - Unbundle parking from purchase cost (condo) or monthly rent (apartment); and
    - Provide multi-modal travel information package to new residents.

*Neighbourhood Traffic Management*

- Traffic generated by the proposed development is anticipated to increase traffic along City Park Drive at Ogilvie Road/Bathgate Drive by 29-30 vehicles, or one vehicle every two

minutes during peak hours. Traffic at City Park Drive at Ogilvie Road/1941 Ogilvie Road is anticipated to increase by 85-89 vehicles, or one to two vehicles a minute during peak hours.

- Since City Park Drive is expected to have lower volumes close to the subject site, no neighbourhood traffic management measures have been recommended as part of this proposed development.

*Transit*

- The proposed development is anticipated to generate an additional 262 transit trips during the AM peak hour and an additional 252 transit trips during the PM peak hour. The additional transit trips generated by the proposed development are anticipated to have a marginal impact on the current transit operations surrounding the site.

- A total of 14-22 people are anticipated to cross the street to Stop #4447 during the peak hours. As the existing transit stop is considered a desire line for pedestrians from the proposed development, consideration should be given to providing a pedestrian crossover along City Park Drive as the development advances. The timing for implementation of a future pedestrian crossover will be reviewed on a phase-by-phase basis through future Site Plan Control applications.

*Network Concept*

- The additional traffic generated by the subject site is not anticipated to have a significant impact on the overall operations of Blair Road or Ogilvie Road. Peak directional traffic along all roadways are anticipated to meet the target LOS E under the 2037 total traffic conditions.

*Intersection MMLOS*

- None of the study area intersections meet the target PLOS. There is limited opportunity to improve the PLOS at all intersections without reducing the number of lanes crossed;

- None of the study area intersections meet the target BLOS except for Ogilvie Road/Cadboro Road. There is limited opportunity to improve the BLOS at all intersections without providing two-stage left turning cycling facilities;

- All of the study area intersections meet the target TLOS except for Ogilvie Road/City Park Drive/Bathgate Drive, Ogilvie Road/City Park Drive, Ogilvie Road/Blair Road, and HWY 174 Westbound off-ramp/Blair Road;

- None of the study area intersections meet the target TkLOS except for HWY 174 Westbound off-ramp/Blair Road and HWY 174 Eastbound off-ramp/Blair Road; and

- All intersections meet the target AutoLOS except for Ogilvie Road/Blair Road.

*Background Traffic Analysis*

- The westbound left turning movement and northbound through movements at the Ogilvie Road/Blair Road intersection do not meet the target LOS E during the AM peak hour and the northbound right, westbound left, eastbound right and eastbound through movements do not meet the target LOS E in the PM peak hour. All other intersections within the study area are expected to meet the City's target.

- During the AM peak hour at the Ogilvie Road/Blair Road intersection, the average and maximum queue lengths of the westbound left movement exceed the current storage capacity. Additionally, the maximum queue lengths of the northbound left, the northbound through, and the southbound left turn movements exceed the existing storage capacity.

- During the PM peak hour at the Ogilvie Road/Blair Road intersection, the average and maximum queue lengths of the northbound right, the southbound through/right, and the westbound left movements and the maximum queue length for the southbound left turn movement exceed the existing storage length.

*Total Traffic Analysis*

- Traffic generated by the proposed development is anticipated to have marginal operational effects within the study area. The discussion of over-capacity movements and queue lengths are generally consistent with the background traffic analysis.

- Monitoring of collisions associated with the westbound left turn movement should be completed by the City as this development proceeds. Should the westbound left turn collision pattern continue, consideration by the City could be given for implementing a fully protected left turn phase. While queueing does increase under fully protected phasing the 95th percentile queues in the left turning lanes could be supported by existing storage lengths at the intersection.

Based on the foregoing, the proposed development can be recommended from a transportation perspective.

# 1.0 SCREENING

## 1.1 Introduction

This Transportation Impact Assessment (TIA) has been prepared in support of Official Plan Amendment and Zoning By-law Amendment applications for the property located at 2000 City Park Drive. The subject site is currently vacant. The subject site is surrounded by the following:

- City Park Drive and residential lands to the north,
- Highway 174 to the south,
- Residential and commercial land uses to the east, and
- An existing office building and City Centre Park to the west.

An aerial photo of the subject site is provided in **Figure 1** below.

**Figure 1: Site Location**

## 1.2 Proposed Development

The City of Ottawa's Official Plan identifies the subject site is within the Outer Urban Transect and has 'Hub' and 'Evolving Neighbourhood' designations on Schedule B3. 2000 City Park Drive is currently zoned 'Transit Oriented Development' (TD2).

For the purposes of this TIA, the proposed development is anticipated to include approximately 1,192 residential units within five buildings. This is considered the maximum density for the subject site. The final development statistics and access locations for each building will be confirmed as part of future Site Plan Control applications for the development phases. A preliminary concept plan for the subject site is provided in **Appendix A**. The subject site is anticipated to be developed in one phase with an assumed build-out year of 2037.

## 1.3 Screening Form

The City's *2017 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 expected to generate more than 60 person trips/peak hour; further assessment **is required** based on this trigger.

- Location Triggers – The development is located within 600m of a transit station and is located in the Blair TOD Zone; further assessment **is required** based on this trigger.

- Safety Triggers – The development proposes no new accesses and does not flag any safety triggers; further assessment **is not required** based on this trigger.

# 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.

City Park Drive is a collector road that loops to the south of Ogilvie Road. Within the study area, City Park Drive has a two-lane undivided urban cross-section, concrete sidewalks on both sides of the road, and an unposted regulatory speed limit of 50km/hr. The City's Official Plan does not identify a right-of-way protection along City Park Drive.

Ogilvie Road is an arterial road that runs in an east-west direction between Montreal Road and St. Laurent Boulevard. North of Montreal Road, Ogilvie Road continues as a major collector roadway to Quincy Avenue. Within the study area, Ogilvie Road has a four-lane divided urban cross-section, concrete sidewalks and bike lanes on both sides of the road and a posted speed limit of 60km/h.

Bathgate Drive is a collector road that that runs in a north-south direction between Montreal Road and Ogilvie Road. Within the study area, Bathgate Road has a two-lane undivided urban cross-section, concrete sidewalks on both sides of the road and a posted speed limit of 40km/h.

Blair Road is an arterial road that that runs in a north-south direction between Montreal Road and Innes Road. North of Montreal Road, Blair Road continues as a major collector roadway. To the north of Ogilvie Road, Blair Road has a two-lane undivided urban cross-section, a concrete sidewalk on the east side, and a posted speed limit of 50km/h. To the south of Ogilvie Road, Blair Road has a four-lane divided urban cross-section, concrete sidewalks on both sides of the road, and a posted speed limit of 70km/h.

Matheson Road is a collector road that that runs in a north-south direction between Bathgate Drive and Ogilvie Road. North of Ogilvie Road, Matheson Road has a has a two-lane undivided urban cross-section, concrete sidewalks on both sides of the road and a posted speed limit of 40km/h.

Palmerston Drive is a local road that that runs in a north-south direction between Ogilvie Road and Halmont Drive. Within the study area, Palmerston Drive has a two-lane undivided urban cross-section, concrete sidewalk on the east side of the road and a posted speed limit of 40km/h.

Highway 174 is a city freeway that runs in an east-west direction. Highway 174 has a divided four-lane cross-section and a posted speed limit of 100km/hr.

### 2.1.2 Intersections

*Ogilvie Rd/Matheson Rd/Palmerston Dr*

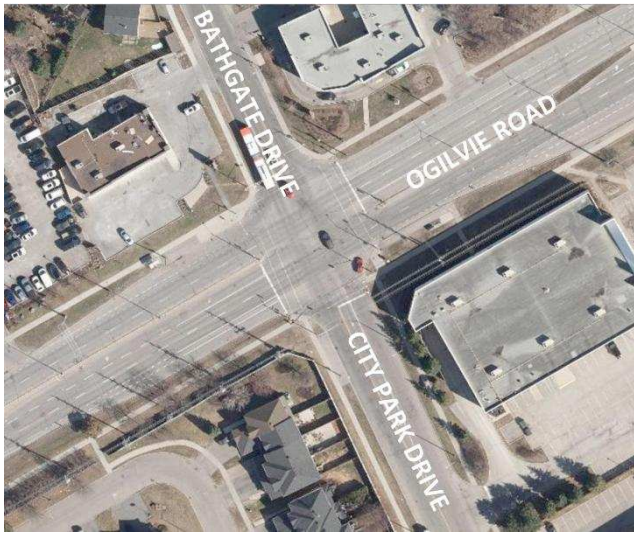
- Signalized four-legged intersection
- Northbound Approach (Palmerston Drive): one left turn lane and one shared through/right turn lane
- Southbound Approach (Matheson Road): one shared through/left turn lane and one channelized right turn lane
- Eastbound/Westbound Approach (Ogilvie Road): one left turn lane, one through lane, and one shared through/right turn lane
- Standard crosswalks are provided on each approach
- Bike lanes are provided on the eastbound and westbound approaches
- Bus bay's are provided in the southeast and northwest corners of the intersection

*Ogilvie Rd/Cadboro Rd*

- Signalized three-legged intersection
- Southbound Approach (Cadboro Road): one right turn lane
- Eastbound Approach (Ogilvie Road): two through lanes
- Westbound Approach (Ogilvie Road): one through lane and one shared through/right turn lane
- Standard crosswalks are provided on each approach
- Bike lanes are provided on the eastbound and westbound approaches
- A bus bay is provided on each of the northwest and southeast corners of the intersection
- A roughly 4.5m wide centre island pedestrian refuge is available for pedestrians crossing from north-south
- The southbound left turn movement is prohibited by the centre median island


*Ogilvie Rd/Bathgate Dr/City Park Dr*

- Signalized four-legged intersection
- Northbound/Southbound Approach (Bathgate Drive/City Park Drive): one left turn lane and one shared through/right turn lane
- Eastbound/Westbound Approach (Ogilvie Road): one left turn lane, two through lanes, and one right turn lane
- Standard crosswalks are provided on each approach
- Pocket bike lanes are provided on the eastbound and westbound approaches
- A bus bay is provided in the northwest corner of the intersection
- U-turns are prohibited on the westbound Ogilvie Road approach

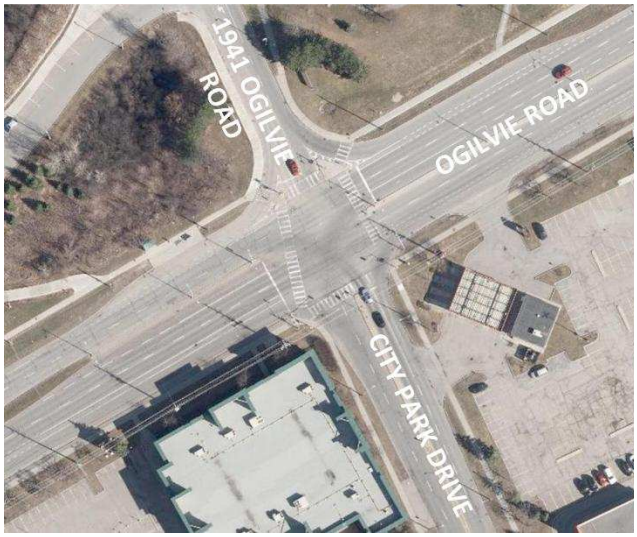


*Ogilvie Rd/1929 Ogilvie Rd/1900 Ogilvie Rd*

- Signalized four-legged intersection
- Northbound Approach (1900 Ogilvie Road): one left turn lane and one shared through/right turn lane
- Southbound Approach (1929 Ogilvie Road): one shared through/left turn lane and one right turn lane
- Eastbound Approach (Ogilvie Road): one left turn lane, two through lanes, and one right turn lane
- Westbound Approach (Ogilvie Road): one left turn lane, one through lane, and one shared through/right turn lane
- Standard crosswalks are provided on each approach
- A bike lane/pocket bike lane is provided on the eastbound and westbound approach


*Ogilvie Rd/City Park Dr/1941 Ogilvie Rd*

- Signalized four-legged intersection
- Northbound Approach (City Park Drive): one shared through/left turn lane, and one right turn lane
- Southbound Approach (1941 Ogilvie Road): one left turn lane and one shared through/channelized right turn lane
- Westbound Approach (Ogilvie Road): one left turn lane, two through lanes, and one channelized right turn lane
- Eastbound Approach (Ogilvie Road): one left turn lane, two through lanes, and one right turn lane
- Painted zebra crosswalks are provided on all approaches
- Pocket bike lanes are provided on the eastbound and westbound approach
- A bus bay is provided in the northwest corner of the intersection



*Ogilvie Road/1980 Ogilvie Road*

- Intersection pedestrian signal crossing Ogilvie Road
- Northbound Approach (1980 Ogilvie Road): one right turn lane
- Eastbound Approach (Ogilvie Road): two through lanes and one right turn lane
- Westbound Approach (Ogilvie Road): two through lanes
- A bike lane/pocket bike lane is provided on the eastbound and westbound approaches
- A roughly 2.0m wide centre island pedestrian refuge is available for pedestrians crossing from north-south
- The northbound left turn movement is prohibited by the centre median island


*Ogilvie Rd/Blair Rd*

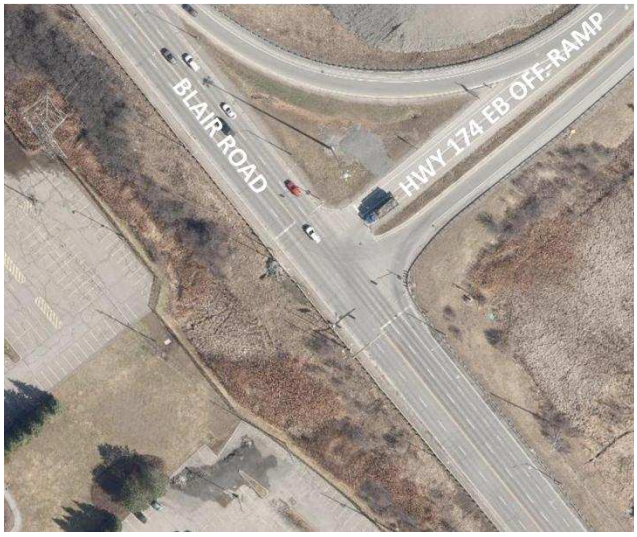
- Signalized four-legged intersection
- Northbound Approach (Blair Road): two left turn lanes, one through lane, and one channelized right turn lane
- Southbound Approach (Blair Road): one left turn lane, one through lane, and one shared through/right turn lane
- Eastbound Approach (Ogilvie Road): one left turn lane, two through lanes, and one channelized right turn lane
- Westbound Approach (Ogilvie Road): two left turn lanes, one through lane, and one shared through/right turn lane
- Standard crosswalks are provided on all approaches.
- A bike lane/pocket bike lane is provided on the eastbound and southbound approach

*Blair Rd/Highway 174 WB off-ramp/ 1980 Ogilvie Rd*

- Signalized four-legged intersection
- Northbound Approach (Blair Road): two left turn lanes and two through lanes
- Southbound Approach (Blair Road): three through lanes and one channelized right turn lane
- Westbound Approach (Hwy 174 WB off-ramp): one left turn lane, two through lanes, and one right turn lane
- Eastbound Approach (1980 Ogilvie Road): one left turn lane and one right turn lane
- Standard crosswalks are provided on the southbound, westbound, and eastbound approaches.


*Blair Road/Highway 174 EB off-ramp*

- Signalized three-legged intersection
- Northbound Approach (Blair Road): two through lanes and one right turn lane
- Southbound Approach (Blair Road): one through lane and one shared through/left turn lane
- Westbound Approach (Hwy 174 EB off-ramp): one left turn lane, one bus lane, and one by-pass right turn lane
- Standard crosswalks are provided on all approaches.




### 2.1.3 Driveways

A review of adjacent driveways along the boundary roads are provided as follows:

**City Park Drive, South Side:**

- One Driveway to City Centre Park
- One driveway to 1820 City Park Drive
- Two driveways to Frontier developments at 2280 City Park Drive
- One driveway to shopping mall at 1980 Ogilvie Road
- One driveway to gas station at 1970 Ogilvie Road

**City Park Drive, North Side:**

- Four driveways to commercial development at 1900 City Park Drive
- One driveway to residential parking for 4461 Harper Avenue
- One driveway to residential parking for 4430 Harper Avenue

### 2.1.4 Pedestrian and Cycling Facilities

Sidewalks within the study area are summarized as follows:

- Both sides of Ogilvie Road, City Park Drive, Matheson Road, Bathgate Drive, and Blair Road between Ogilvie Road and Highway 174 Westbound off-ramp; and
- The east side of Palmerston Drive and Blair Road north of Ogilvie Road.

In the City of Ottawa's primary cycling network, Ogilvie Road and Blair Road are classified as Spine Routes. City Park Drive is classified as a local route to the west of the proposed development and is classified as a pathway link to the east of the proposed development. Bike lanes are provided on both sides of Ogilvie Road. Off-road pathways are provided through City Centre Park, connecting City Park Drive to Halmont Drive/Palmerston Drive.

### 2.1.5 Transit

The closest OC Transpo bus stops that serve various routes in the vicinity of the subject site are described in **Table 1** and are shown in **Figure 2**. A summary of OC Transpo 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**. **Tables 1** and **2** and **Figure 2** have been updated as per the New Ways to Bus. Based on a comparison of the previous routes offered near the site and the new ways to bus, Routes 28, 31, 231, 232, and 236 have been removed and Routes 226 and 621 have been added.

**Table 1: OC Transpo Transit Stops**

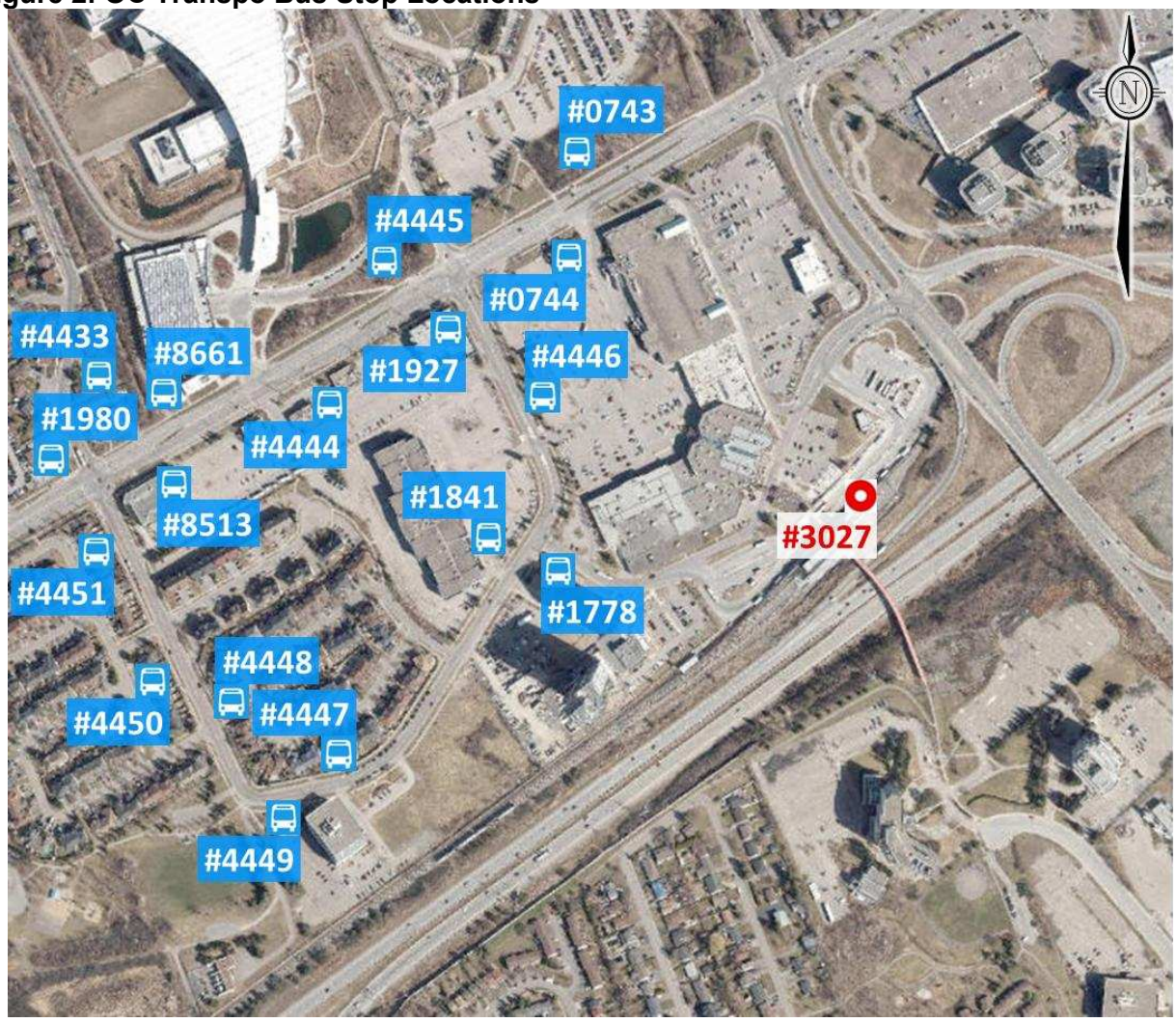
| Stop | Location | Routes Serviced |
|---|---|---|
| #1778 | South corner of City Park Drive/Blair Station access road | 15, 25 |
| #1841 | North side of City Park Drive mid-block between Frontier Path Private and Ambassador Avenue | 15, 25 |
| #4433 | Northeast of City Park Drive/Bathgate Drive | 15, 25, 633 |
| #4447 | North side of City Park Drive near 1900 City Park Drive | 15, 25 |
| #4448 | Northeast of City Park Drive/Jobin Crescent | 15, 25 |
| #4449 | South side of City Park Drive near 1900 City Park Drive | 15, 25 |
| #4450 | West side of City Park Drive mid-block between Wilbury Road and Jobin Crescent | 15, 25 |
| #4451 | Southwest corner of Ogilvie Road/City Park Drive/Bathgate Drive | 15, 25 |
| #1927 | Southwest corner of Ogilvie Road/City Park Drive | 12, 23, 24, 35, 39, 619, 621, 624, 630, 631 |
| #4446 | East side of City Park Drive and 130m south of Blair Road | 12, 23, 24, 26, 35, 39, 619, 621, 624, 630, 631 |
| #1980 | Northwest corner of Ogilvie Road/City Park Drive/Bathgate Drive | 24, 39, 624, 633 |
| #8513 | Southeast corner of Ogilvie Road/City Park Drive/Bathgate Drive | 24, 39, 624, 633 |
| #3027 | Blair Station | 1, 12, 15, 21, 23, 24, 25, 26, 30, 32, 33, 34, 35, 38, 39, 42, 221, 222, 226, 228, 234, 237, 619, 621, 624, 628, 630, 631 |

**Table 2: OC Transpo Route Information**

| Route | From ↔ To | Frequency |
|---|---|---|
| **1** | Tunney's Pasture ↔ Blair | 5-minute headways, 7-days per week |
| **12**[1] | Blair ↔ St-Laurent | 15-minute headways, 7-days per week all day service |
| **15**[1] | Blair ↔ Parliament | 15-minute headways, 7-days per week all day service |
| **21** | Canotek ↔ Blair | Monday-Friday, Routes offered in peak direction of travel |
| **23** | Rothwell Heights ↔ Blair | 30-minute headways, Monday-Friday limited service |
| **24** | Beacon Hill ↔ St-Laurent | 30-minute headways, 7-days per week all day service |
| **25** | La Cité ↔ Millennium | 10-minute headways, 7-days per week all day service |
| **26** | Pineview ↔ Blair | 30-minute headways, 7-days per week all day service |
| **30** | Blair ↔ Millennium | 30-minute headways, 7-days per week all day service |
| **32** | Blair ↔ Chapel Hill | 30-minute headways, Monday-Friday Routes offered in peak direction of travel |
| **33** | Blair ↔ Portobello | 30-minute headways, 7-days per week, all day service and select trips in the evening |
| **35** | Blair ↔ Esprit | 30-minute headways, 7-days per week, all day service |
| **38** | Blair ↔ Jeanna d'Arc/Trim | 30-minute headways, 7-days per week, all day service |
| **39** | Blair & N Rideau ↔ Millennium | 15-minute headways, 7-days per week, all day service and overnight service |
| **42** | Blair ↔ Hurdman | 30-minute headways, 7-days per week, no evening service on weekends and no late evening service on weekdays |
| **221** | Blair ↔ Cumberland | 30-minute headways, Monday to Friday, Routes offered in peak direction of travel during peak periods |
| **222** | Blair ↔ Vars | 30-minute headways, Monday to Friday, Routes offered in peak direction of travel during peak periods |
| **226** | Chapel Hill ↔ Blair | Monday-Friday, Routes offered in peak direction of travel |
| **228** | Blair ↔ Navan-Sarsfield | 30-minute headways, Monday to Friday, Routes offered in peak direction of travel during peak periods |
| **234** | Blair ↔ Tenth Line | 30-minute headways, Monday to Friday, Routes offered in peak direction of travel during peak periods |
| **237** | Blair ↔ Jeanna d'Arc | 60-minute headways, Monday to Friday, Routes offered in peak direction of travel during peak periods |
| **619** | Louis Riel ↔ Blair | One school bus route per day each direction Monday-Friday |
| **621** | Bearbrook ↔ Colonel By H.S. | Three school bus routes per day each direction Monday-Friday |
| **624** | Gloucester H.S. ↔ Rideau | One school bus route per day each direction Monday-Friday |
| **628** | Louis Riel | Four school bus routes in the morning, Monday-Friday |
| **630** | Blair/Colonel By/Gloucester H.S. ↔ Millennium | One school bus route per day each direction Monday-Friday |
| **631** | Colonel By/Gloucester H.S. ↔ Chapel Hill | One school bus route per day each direction Monday-Friday |
| **633** | Lester B Pearson ↔ St-Laurent | One school bus route per day each direction Monday-Friday |

1. As of April 23, 2023, Routes 12 and 15 have returned to their pre-construction schedule and routing.

**Figure 2: OC Transpo Bus Stop Locations**




### 2.1.6 Area Traffic Management

There are no Area Traffic Management (ATM) studies within the study area that have been completed or are currently in progress.

The following traffic calming measures are currently in place within the study area:

- Matheson Road: 40KMHR MAX pavement markings, midblock and intersection narrowings, and flex posts
- Bathgate Drive: midblock and intersection narrowings and flex posts
- Palmerston Drive: 40KMHR MAX pavement markings
- Full signalization at the Ogilvie Road/Cadboro Road intersection and a Mid-Block Pedestrian Signal (MPS) at Ogilvie Road mid-block between Blair Road and City Park Drive East.

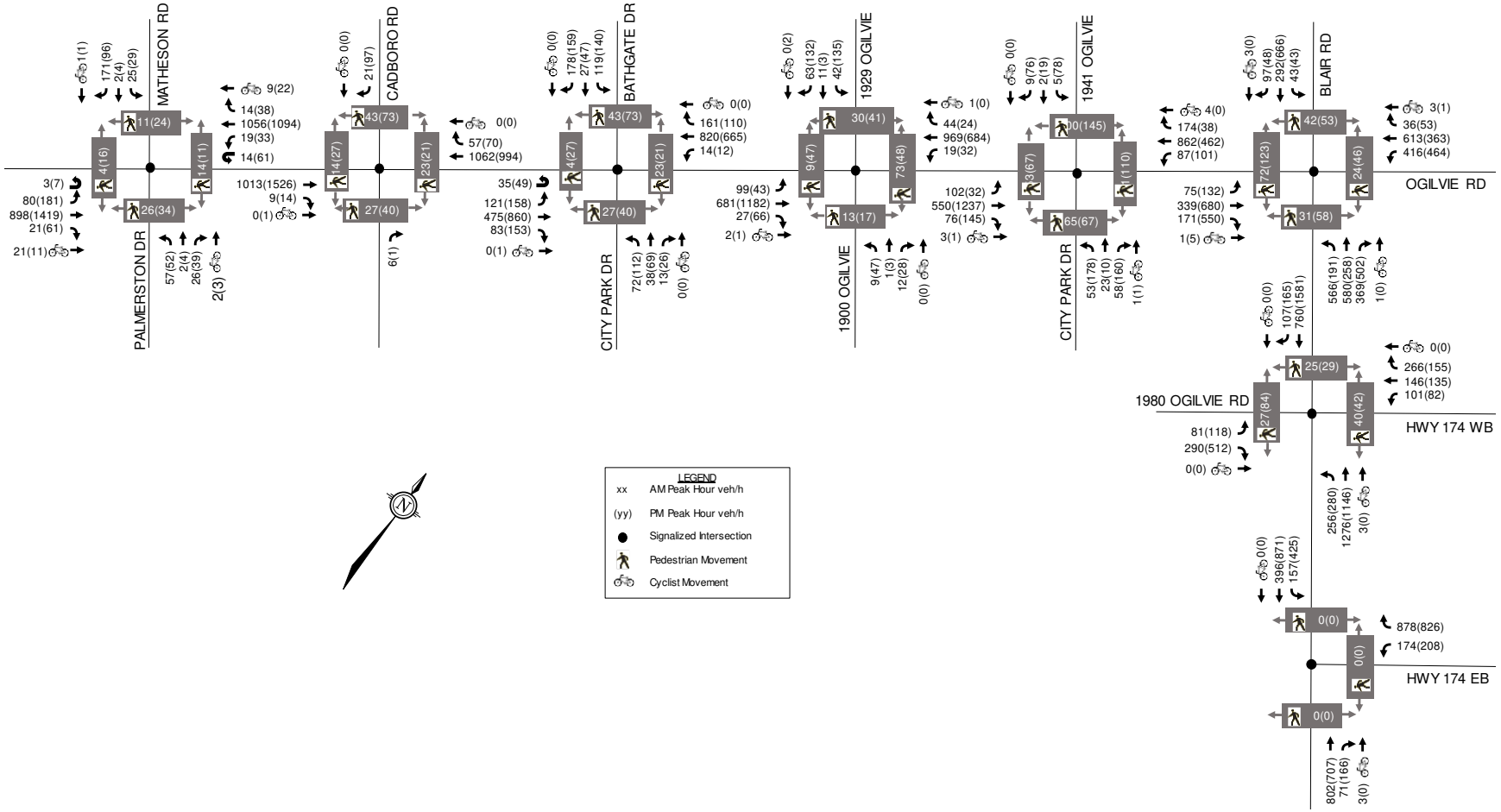
### 2.1.7 Existing Traffic Volumes

Weekday traffic counts 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:

- Blair Road/Highway 174 EB off-ramp — March 22, 2023
- Blair Road/Highway 174 WB off-ramp — March 22, 2023
- Blair Road/Ogilvie Road — April 24, 2019
- Blair Road/185m East of Bathgate Drive — January 16, 2019
- Ogilvie Road/Bathgate Drive/City Park Drive — February 10, 2020
- Ogilvie Road/Cadboro Road — January 9, 2019
- Ogilvie Road/City Park Drive/1941 Ogilvie Road — January 9, 2019
- Ogilvie Road/Matheson Road/Palmerston Drive — May 9, 2017

Observed weekday AM and PM peak hour traffic volumes at the study area intersections are shown in **Figure 3**. Peak hour summary sheets of the above traffic counts are included in **Appendix D**.

## Figure 3: Existing Traffic Volumes



### 2.1.8 Collision Records

Historical collision data from the last five years were obtained from the City's Public Works and Service Department for the study area intersections. Copies of the collision summary reports are included in **Appendix E**.

The collision data have been evaluated to identify collision patterns, which are defined in the 2017 TIA Guidelines as more than six collisions in five years for any one movement. **Table 3** summarizes the number of collisions at each intersection from January 1, 2016 to December 31, 2020. During the five-year period there were no reported fatal collisions in the analyzed area.

**Table 3: Reported Collisions**

| Intersection/ Street Segment | Collision Types | | | | | | Total |
|---|---|---|---|---|---|---|---|
| | Approaching | Angle | Rear End | Sideswipe | Turning Movement | SMV[1]/ Other | |
| Ambassador Avenue/City Park Drive | - | 1 | 1 | - | - | - | **2** |
| Blair Road/Ogilvie Road | - | 1 | 65 | 12 | 1 | 5 | **84** |
| Blair Road/Highway 174 Westbound On-Ramp | - | - | 1 | - | - | 1 | **2** |
| Blair Road/Highway 174 Eastbound Off-Ramp | - | - | 2 | - | - | - | **2** |
| Blair Road/Highway 174 Westbound Off-Ramp/1980 Ogilvie Road | - | 10 | 37 | 5 | 10 | 4 | **66** |
| Blair Road/Highway 174 Eastbound Off-ramp | 2 | 3 | 21 | 5 | 17 | 6 | **54** |
| Blair Road between Ogilvie Road and Highway 174 Westbound Off-Ramp/1980 Ogilvie Road | - | - | 5 | 3 | - | - | **8** |
| Blair Road between Highway 174 Westbound Off-Ramp/1980 Ogilvie Road and Highway174 Westbound On-Ramps | - | - | 1 | 1 | - | - | **2** |
| Blair Road between Highway174 Westbound On-Ramps and Highway 174 Eastbound Off-Ramp | - | - | 2 | - | - | - | **2** |
| Blair Road between Highway 174 Eastbound Off-Ramp and Highway 174 Eastbound On/Off-Ramp intersection | - | - | 1 | - | - | 1 | **2** |
| Cadboro Road/Ogilvie Road | - | - | 7 | - | - | 2 | **9** |
| City Park Drive/Wilbury Rd/Harper Ave | - | - | - | - | - | 1 | **1** |
| City Park Drive between Ambassador Avenue and Ogilvie Road | - | 1 | - | 1 | 3 | 1 | **6** |
| City Park between Ogilvie Road and Wilbury Road | - | - | - | - | 1 | 1 | **2** |
| Ogilvie Road/1900 Ogilvie Road/1929 Ogilvie Road | - | - | 1 | - | - | - | **1** |
| Ogilvie Road at pedestrian signal 240m west of Blair Road | - | - | 6 | - | - | - | **6** |

| Intersection/ Street Segment | Collision Types | | | | | | Total |
|---|---|---|---|---|---|---|---|
| | Approaching | Angle | Rear End | Sideswipe | Turning Movement | SMV[1]/ Other | |
| Ogilvie Road/Bathgate Drive/City Park Drive | 1 | 6 | 10 | 5 | 9 | 6 | **37** |
| Ogilvie Road/City Park Drive East/1941 Ogilvie Road | - | 1 | 9 | - | 12 | 2 | **24** |
| Ogilvie Road/Matheson Road/Palmerston Drive | - | 3 | 8 | - | 4 | 4 | **19** |
| Ogilvie Road between City Park Drive West/Bathgate Drive and Cadboro Road | - | 1 | 3 | - | - | 2 | **6** |
| Ogilvie Road between City Park Drive West/Bathgate Drive and 1929 Ogilvie Road/1900 Ogilvie Road | - | - | 4 | 2 | - | - | **6** |
| Ogilvie Road between 1929 Ogilvie Road/1900 Ogilvie Road and City Park Drive East | - | - | 1 | 1 | - | - | **2** |
| Ogilvie Road between Blair Road and City Park Drive East | - | 1 | 2 | 2 | - | 2 | **7** |
| Ogilvie Road between Cadboro Road and Matheson Road | - | 1 | 3 | 1 | - | 2 | **7** |

1. SMV = Single Motor Vehicle

*Blair Road/Ogilvie Road*

A total of 84 collisions were reported at this intersection over the last five years, of which there were one angle collision, 65 rear end collisions, 12 sideswipe collisions, one turning movement collisions, and five single-vehicle/other collisions. Nine of the collisions involved an injury and none involved a fatality. None of the collisions involved cyclists or pedestrians.

Of the 84 collisions at this location, nine of them occurred during rain conditions, six of them occurred during snow conditions, and one occurred during freezing rain conditions, for all other collisions weather was not a factor. Additionally, of the 84 collisions, 58 of them occurred during daylight hours.

Of the 65 rear end collisions, 26 involved northbound vehicles, 16 involved southbound vehicles, 22 involved eastbound vehicles, and 20 involved westbound vehicles. The rear end collision patterns at this intersection are anticipated to be attributable to high traffic volumes and congestion during peak periods.

Of the 12 side swipe collisions, two involved northbound vehicles, two involved southbound vehicles, three involved eastbound vehicles, and five involved westbound vehicles.

Calculations of the intersection collision rate per Million Entering Vehicles (MEV) for all collision types across the five-year study period showed an intersection collision rate of 1.08/MEV. Based on this analysis, Blair Road/Ogilvie Road does not experience an abnormally high rate of collisions.

*Blair Road/Highway 174 Westbound Off-Ramp/1980 Ogilvie Road*

A total of 66 collisions were reported at this intersection over the last five years, of which there were ten angle collisions, 37 rear end collisions, five sideswipe collisions, ten turning movement collisions, and four single-vehicle/other collisions. Thirteen of the collisions involved an injury and none involved a fatality. None of the collisions involved cyclists and two of the collisions involved a

pedestrian. Both collisions involving a pedestrian occurred during rainy nighttime conditions with an eastbound left turning vehicle failing to yield the right-of-way.

Of the 66 collisions at this location, 13 of them occurred during rain conditions, four of them occurred during snow conditions, and one occurred during freezing rain conditions, for all other collisions weather was not a factor. Additionally, of the 66 collisions, 47 of them occurred during daylight hours.

Of the ten angle collisions, five involved northbound and westbound vehicles, four involved southbound and westbound vehicles, and one involved a southbound and eastbound vehicle.

Of the 37 rear end collisions, two involved northbound vehicles, 16 involved southbound vehicles, one involved eastbound vehicles, and 18 involved westbound vehicles.

Southbound rear end collisions at this location could be attributed to high southbound traffic volumes. Westbound rear end collisions at this location could be attributed to a combination of the horizontal curvature of the road impacting sight lines, high traffic volumes, and the slight downward grade impacting stopping distance.

Of the ten turning movement collisions, northbound left turning vehicles, five involved eastbound left turning vehicles, and one involved a westbound left turning vehicle.

Calculations of the intersection collision rate per MEV for all collision types across the five-year study period showed an intersection collision rate of 0.77/MEV. Based on this analysis, Blair Road/Highway 174 Westbound Off-Ramp/1980 Ogilvie Road does not experience an abnormally high rate of collisions.

*Blair Road/Highway 174 Eastbound Off-ramp*

A total of 54 collisions were reported at this intersection over the last five years, of which there were two approaching collisions, three angle collisions, 21 rear end collisions, five sideswipe collisions, 17 turning movement collisions, five single vehicle collisions, and one other type collision. Thirteen of the collisions involved an injury and none involved a fatality. None of the collisions involved cyclists or pedestrians.

Of the 54 collisions at this location, 13 of them occurred during rain conditions and three of occurred during snow conditions, for all other collisions weather was not a factor. Additionally, of the 54 collisions, 34 of them occurred during daylight hours.

Of the 21 rear end collisions, five involved northbound vehicles, ten involved southbound vehicles, four involved eastbound vehicles, and two involved westbound vehicles.

Southbound rear end collisions at this location could be attributed to a slight downward grade impacting stopping distance and sight lines.

Of the 17 turning movement collisions, 16 involved southbound left turning vehicles and one involved a northbound vehicle performing a U-turn. Southbound turning movement collisions at this location could be attributed to the permitted left turn movement crossing multiple lanes of oncoming traffic with high volumes of southbound left turning vehicles and oncoming traffic.

Calculations of the intersection collision rate per MEV for all collision types across the five-year study period showed an intersection collision rate of 0.84/MEV. Based on this analysis, Blair Road/Highway 174 Eastbound Off-Ramp does not experience an abnormally high rate of collisions.

*Cadboro Road/Ogilvie Road*
A total of nine collisions were reported at this intersection over the last five years, of which there were seven rear end collisions and two single-vehicle/other collisions. Two of the collisions involved an injury and none involved a fatality. None of the collisions involved cyclists and one collision involved a pedestrian. The collision involving a pedestrian occurred during nighttime conditions with a southbound right turning vehicle.

Of the nine collisions at this location, one of them occurred during rain conditions and one of them occurred during snow conditions, for all other collisions weather was not a factor. Additionally, of the nine collisions, seven of them occurred during daylight hours.

Of the seven rear end collisions, three involved westbound vehicles and four involved eastbound vehicles.

As there are less than six collisions of any specific collision type, there are no identifiable collision patterns at this intersection. Calculations of the intersection collision rate per MEV for all collision types across the five-year study period showed an intersection collision rate of 0.16/MEV. Based on this analysis, Cadboro Road/Ogilvie Road experiences a relatively low rate of collisions.

*Ogilvie Road at pedestrian signal 240m west of Blair Road*
A total of six collisions were reported at this intersection over the last five years, all six of which were rear end collisions. Two of the collisions involved an injury and none involved a fatality. None of the collisions involved cyclists and one collision involved a pedestrian.

Of the six collisions at this location, one of them occurred during snow conditions, for all other collisions weather was not a factor. Additionally, all six collisions occurred during daylight hours.

Of the six rear end collisions, one involved southbound vehicles, three involved westbound vehicles and two involved eastbound vehicles.

As there are less than six collisions of any specific collision type, there are no identifiable collision patterns at this intersection. Calculations of the intersection collision rate per MEV for all collision types across the five-year study period showed an intersection collision rate of 0.14/MEV. Based on this analysis, Ogilvie Road at pedestrian signal 240m west of Blair Road experiences a relatively low rate of collisions.

*Ogilvie Road/Bathgate Drive/City Park Drive*
A total of 37 collisions were reported at this intersection over the last five years, of which there were one approaching collision, six angle collisions, 10 rear end collisions, five sideswipe collisions, nine turning movement collisions, and six single-vehicle/other collisions. Twelve of the collisions involved an injury and none involved a fatality. None of the collisions involved cyclists and two of the collisions involved a pedestrian. Both collisions involving a pedestrian occurred during daytime conditions with vehicles travelling in the westbound direction.

Of the 37 collisions at this location, two of them occurred during rain conditions, three of them occurred during snow conditions, and one occurred during freezing rain conditions, for all other

collisions weather was not a factor. Additionally, of the 37 collisions, 29 of them occurred during daylight hours.

Of the six angle collisions, two involved northbound and eastbound vehicles, two involved southbound and westbound vehicles, one involved a northbound and westbound vehicle, and one involved a southbound and eastbound vehicle.

Of the ten rear end collisions, one involved northbound vehicles, one involved southbound vehicles, four involved eastbound vehicles, and four involved westbound vehicles.

Of the nine turning movement collisions, seven involved eastbound left turning vehicles, one involved a westbound left turning vehicle, and one involved a southbound left turning vehicle. The eastbound and westbound left turn movements at this intersection currently operate with a protected and permitted left turn phase. It is recommended that the City monitor the collision history for the eastbound left turn movement. Should the collision pattern continue, consideration could be given to implementing fully protected left turn phasing.

Of the six single motor vehicle or other collisions, one involved a northbound vehicle, one involved a southbound vehicle, one involved an eastbound vehicle, and three involved westbound vehicles.

Calculations of the intersection collision rate per MEV for all collision types across the five-year study period showed an intersection collision rate of 0.68/MEV. Based on this analysis, Ogilvie Road/Bathgate Drive/City Park Drive does not experience an abnormally high rate of collisions.

*Ogilvie Road/City Park Drive/1941 Ogilvie Road*

A total of 24 collisions were reported at this intersection over the last five years, of which there were one angle collision, nine rear end collisions, 12 turning movement collisions, and two single-vehicle/other collisions. Eight of the collisions involved an injury and none involved a fatality. None of the collisions involved cyclists and one collision involved a pedestrian. The collision involving a pedestrian occurred during daytime conditions with a westbound vehicle.

Of the 24 collisions at this location, four of them occurred during rain conditions, one occurred during snow conditions, and one of them occurred during fog/mist/smoke/dust conditions, for all other collisions weather was not a factor. Additionally, of the 24 collisions, 19 of them occurred during daylight hours.

Of the nine rear end collisions, one involved northbound vehicles, three involved westbound vehicles and five involved eastbound vehicles.

Of the twelve turning movement collisions, nine involved westbound left turning vehicles, one involved a northbound left turning vehicle, one involved a southbound vehicle performing a U-turn, and one involved an eastbound vehicle performing a U-turn. The eastbound left turn movement at this intersection currently operates with a protected and permitted left turn phasing while the westbound left turn movement operates with a permitted left turn phase. It is recommended that the City monitor the collision history for the westbound left turn movement. Should the collision pattern continue, consideration could be given to implementing a protected and permitted left turn phasing, consistent with the eastbound left turn movement.

Due to the high volume of oncoming eastbound through and westbound left turning vehicles there are perhaps insufficient gaps for westbound vehicles to make safe turning movements at the Ogilvie Road/City Park Drive/1941 Ogilvie Road intersection.

Calculations of the intersection collision rate per MEV for all collision types across the five-year study period showed an intersection collision rate of 0.47/MEV. Based on this analysis, Ogilvie Road/City Park Drive/1941 Ogilvie Road does not experience an abnormally high rate of collisions.

*Ogilvie Road/Matheson Road/Palmerston Drive*
A total of 19 collisions were reported at this intersection over the last five years, of which there were three angle collisions, eight rear end collisions, four turning movement collisions, and four single-vehicle/other collisions. Two of the collisions involved an injury and none involved a fatality. None of the collisions involved cyclists or pedestrians.

Of the 19 collisions at this location, two of them occurred during rain conditions and three occurred during snow conditions, for all other collisions weather was not a factor. Additionally, of the 19 collisions, 14 of them occurred during daylight hours.

Of the eight rear end collisions, one involved southbound vehicles, six involved westbound vehicles and one involved eastbound vehicles. Rear end collisions at the Ogilvie Road/Matheson Road/Palmerston Drive intersection could be attributed to high westbound and eastbound traffic volumes.

Calculations of the intersection collision rate per MEV for all collision types across the five-year study period showed an intersection collision rate of 0.35/MEV. Based on this analysis, Ogilvie Road/Matheson Road/Palmerston Drive experiences a relatively low rate of collisions.

*Other Intersections and Roadway Segments*
As all other intersections and roadway segments have less than six collisions of any specific collision type, a further review of collisions is not required.

## 2.2 Planned Conditions

### 2.2.1 Planned Transit and Roadway Projects

The City of Ottawa's 2013 Transportation Master Plan (TMP) identifies the following projects within the study area:

- Blair Road - The 2031 Affordable Transit Network identifies transit signal priority and queue jump lanes between Innes Road and Blair station and exclusive bus lanes and transit signal priority between Blair Station and Montreal Road. Bus lanes are to be provided through a combination of road widening (north of Ogilvie Road) and conversion of existing traffic lanes (south of Ogilvie Road).

- Eastern LRT - The 2031 Affordable Transit Network identifies extension of LRT service following Highway 174 between Blair Station and Place d'Orléans Station. The 2031 Transit Network Concept identifies extension of LRT service following Highway 174 between Place d'Orleans Station and Trim Station. At the time of this writing the extension is scheduled for handover to the City in 2025.

- Ogilvie Road - The 2031 Transit Network Concept identifies transit signal priority between Montreal Road and St. Laurent Boulevard.

- Ottawa Road 174 - The 2031 Road Network Concept identifies widening of the road from four to six lanes between Highway 417 and Trim Road.

The City's 2013 Ottawa Cycling Plan (OCP) identifies the addition of Multi-Use Pathway on City Park Drive as well as the access to Blair Station as part of Phase 2 and bike lanes on Blair Road between Ogilvie Road and Meadowbrook Road as part of Phase 3.

The subject site is located within the Blair Transit Oriented Development (TOD) area. Consistent with the OCP, the Blair TOD Plan recommends improved cycling facilities along City Park Drive and the access to Blair Station. In addition to improved cycling facilities, the Blair TOD Plan recommends new sidewalks within the surrounding community. The proposed pedestrian and bicycle network from the Blair TOD Plan are included in **Appendix F**.

A new east-west Multi-Use pathway (MUP) will be constructed by the City of Ottawa along the rail corridor to the south. A new north-south MUP will also be constructed by the City within a 6m wide parcel along the eastern property line, connecting City Park Drive and the east-west MUP along the rail corridor. The new MUP network will form part of the City's Cross-town bikeway network. The timing for implementation of both pathways is currently unknown.

The Blair Road Transit Priority Environmental Assessment Study (April 2021) shows numerous changes to the Blair Road corridor. Notable changes to the Blair Road/Highway 174 Westbound off-ramp/1980 Ogilvie Road intersection include:

- Protected intersection design;
- Addition of a second westbound through lane;
- Removal of the westbound right turn channel;
- Addition of a new transit only eastbound right turn lane between the left turn lane and right turn lane; and
- Removal of the southbound channelized right turn lane and conversion of the curbside through lane to a through/right turn lane.

Notable changes to the Blair Road/Highway 174 Eastbound off-ramp include:

- Protected intersection design;
- Addition of a second westbound left turn lane;
- Modifications to the westbound right turn channel;
- Conversion of one northbound through lane to a transit only lane; and
- Addition of a southbound left turn lane.

A multi-use pathway will be provided on the west side of Blair Road with dedicated cycling and pedestrian facilities provided on the east side of Blair Road throughout the study area.

The Montreal-Blair Road Transit Priority Corridor Environmental Assessment Study (February 2022) shows numerous changes at the Blair Road/Ogilvie Road intersection, including:

- Protected intersection design;
- Addition of a second northbound through lane; and
- Addition of a new southbound right turn auxiliary lane.

Relevant excerpts from the Blair Road Transit Priority Environmental Assessment and the Montreal-Blair Road Transit Priority Corridor Environmental Assessment are included in **Appendix G**.

### 2.2.2 Other Area Developments

Other developments in the area include:

- Shoppers City East Redevelopment (1405 Blair Towers) – Proposed mixed-use development including retail, coffee shop, warehouse membership club store, and an 18-position gas-bar land uses to be developed in two phases. A TIS dated May 2016 was prepared in support of Phase 2. Full buildout was expected in 2017 and it is currently fully occupied.

- 2280 City Park Drive Residential Development – Proposed mixed-use development including residential, retail, and commercial land uses to be developed in five phases. A TIA dated August 2018 was prepared in support of Phase 2 and a TIA dated January 2019 was prepared in support of Phases 3-5. Build-out of all five phases is anticipated to occur in 2030.

- 1980 Ogilvie Road – Proposed mixed-use development including residential, office, and ground floor retail land uses to be developed in 4 stages. A TIA dated September 2019 was prepared in support of Stage 1. Stage 1 was anticipated to be built out in 2020.

Excerpts from relevant transportation studies have been attached in **Appendix H**.

## 2.3 Study Area and Time Periods

The study area for this report includes the boundary roadway City Park Drive as well as the following intersections:

- Ogilvie Road/Matheson Road/Palmerston Drive
- Ogilvie Road/Cadboro Road
- Ogilvie Road/City Park Drive/Bathgate Drive
- Ogilvie Road/1900 Ogilvie Road
- Ogilvie Road/City Park Drive
- Ogilvie Road/1980 Ogilvie Road (Intersection Pedestrian Signal)
- Ogilvie Road/Blair Road
- 174 Westbound off-ramp/Blair Road
- 174 Eastbound off-ramp/Blair Road

The selected time periods for the analysis are the weekday AM and PM peak hours, as they represent the 'worst case' combination of site generated traffic and adjacent street traffic. Analysis will be completed for the ultimate build-out year of 2037. Due to the extended buildout period, a five-year horizon will not be completed. A further review of traffic operations will be provided as each phase proceeds to the Site Plan Control application stage.

## 2.4 Exemptions Review

This module reviews possible exemptions from the final Transportation Impact Assessment, as outlined in the *2017 TIA Guidelines*. The applicable exemptions for this site are shown in **Table 4**.

**Table 4: TIA Exemptions**

| Module | Element | Exemption Criteria | Status |
|---|---|---|---|
| **Design Review Component** | | | |
| **4.1** Development Design | *4.1.2* Circulation and Access | • Only required for site plans | Exempt |
| | *4.1.3* New Street Networks | • Only required for plans of subdivision | Exempt |
| **4.2** Parking | *4.2.1* Parking Supply | • Only required for site plans | Exempt |
| | *4.2.2* Spillover Parking | • Only required for site plans where parking supply is 15% below unconstrained demand | Exempt |
| **Network Impact Component** | | | |
| **4.5** Transportation Demand Management | *All elements* | • Not required for non-residential site plans expected to have fewer than 60 employees and/or students on location at any given time | Not Exempt |
| **4.6** Neighbourhood Traffic Management | *4.6.1* Adjacent Neighbourhoods | • Only required when the development relies on local or collector streets for access and total volumes exceed ATM capacity thresholds | Not Exempt |
| **4.8** Network Concept | *All elements* | • Only required when proposed development generates more than 200 person-trips during the peak hour in excess of the equivalent volume permitted by the established zoning | Not Exempt |

As this TIA has been prepared in support of Zoning By-law Amendment and Official Plan Amendment applications, the Design Review components (Modules 4.1 to 4.4) are exempt from the analysis. A detailed review of Modules 4.1 to 4.4 will be conducted as part of the future Site Plan Control application.

## 3.0 FORECASTING

### 3.1 Development-Generated Travel Demand

#### 3.1.1 Trip Generation

The proposed development is anticipated to include a maximum of 1,192 residential units within five buildings. Trips generated by the proposed development have been estimated using the *2020 TRANS Trip Generation Manual*. The trip generation rates are taken from Table 3 and correspond to High-Rise Residential. The directional split between inbound and outbound trips are based on the blended splits presented in Table 9 of the report.

The estimated trip generation are summarized in **Table 5**.

**Table 5: Person Trips Generated by Proposed Development**

| Land Use | TRANS Rate | Units | AM Peak (ppp)[1] | | | PM Peak (ppp)[1] | | |
|---|---|---|---|---|---|---|---|---|
| | | | IN | OUT | TOT | IN | OUT | TOT |
| High-Rise Residential, Beacon Hill Area | AM: 0.80<br>PM: 0.90 | 1,192 | 296 | 658 | *954* | 622 | 451 | *1073* |

1. ppp: person trips per period

The 2020 TRANS Trip Generation Manual provides modal shares for residential developments within the Beacon Hill Area. However, developments within 600m of rapid transit stations can be considered as Transit Oriented Developments (TOD). In TOD zones, the transit share is assumed to increase significantly compared to any TRANS O-D District. A summary of the TRANS residential mode shares (average of AM and PM peak, rounded to nearest 5%), TOD mode shares, and assumed residential mode shares is provided in **Table 6**.

**Table 6: TRANS and TOD Mode Share Comparison (Residential)**

| | Auto Driver | Auto Passenger | Transit | Cycling | Walking |
|---|---|---|---|---|---|
| TRANS | 50% | 15% | 30% | 0% | 5% |
| TOD | 15% | 5% | 65% | 5% | 10% |
| **Proposed** | **25%** | **10%** | **50%** | **5%** | **10%** |

Using the trips generated in **Table 5** and the proposed mode share from **Table 6** trips generated during the peak period were broken down by modal share in **Table 7**. After breaking down the trips by modal shares in **Table 7** adjustment factors were applied to convert the peak period trips to peak hour trips in **Table 8**.

**Table 7: Proposed Peak Period Person Trips by Mode**

| Travel Mode | Mode Share | AM Peak (ppp)[1] | | | PM Peak (ppp)[1] | | |
|---|---|---|---|---|---|---|---|
| | | IN | OUT | TOT | IN | OUT | TOT |
| **TOTAL** | | **296** | **658** | **954** | **622** | **451** | **1073** |
| Auto Driver | 25% | 74 | 164 | 238 | 156 | 113 | 269 |
| Auto Passenger | 10% | 30 | 66 | 96 | 62 | 45 | 107 |
| Transit | 50% | 148 | 329 | 477 | 311 | 225 | 536 |
| Cyclist | 5% | 15 | 33 | 48 | 31 | 23 | 54 |
| Pedestrian | 10% | 29 | 66 | 95 | 62 | 45 | 107 |

1. ppp: person trips per period

Table 4 of the *2020 TRANS Trip Generation Manual* includes adjustment factors to convert the estimated number of trips generated for each mode from peak period to peak hour. A breakdown of the peak hour trips by mode is shown in **Table 8**.

**Table 8: Proposed Peak Hour Person Trips by Mode**

| Travel Mode | Adjustment Factor | | AM Peak (pph)[1] | | | PM Peak (pph)[1] | | |
|---|---|---|---|---|---|---|---|---|
| | AM | PM | IN | OUT | TOT | IN | OUT | TOT |
| **TOTAL** | | | **157** | **349** | **505** | **289** | **210** | **499** |
| Auto Driver | 0.48 | 0.44 | 35 | 79 | 114 | 68 | 50 | 118 |
| Auto Passenger | 0.48 | 0.44 | 14 | 32 | 46 | 27 | 20 | 47 |
| Transit | 0.55 | 0.47 | 81 | 181 | 262 | 146 | 106 | 252 |
| Cyclist | 0.58 | 0.48 | 9 | 19 | 28 | 15 | 11 | 26 |
| Pedestrian | 0.58 | 0.52 | 17 | 38 | 55 | 33 | 23 | 56 |

1. pph: person trips per hour

From the previous table, the proposed development is projected to generate 505 person trips (including 114 vehicle trips) during the AM peak hour and 499 person trips (including 118 vehicle trips) during the PM peak hour. The previous concept plan generated 135 AM peak hour two-way vehicle trips and 143 PM peak hour two-way vehicle trips. This represents a decrease of 21 AM and 25 PM peak hour two-way vehicle trips. Compared to the previous concept plan, the proposed development results in a net reduction in person and vehicle trips.

### 3.1.2 Trip Distribution

The assumed distribution of trips generated by the proposed development has been derived from existing commuter traffic patterns within the study area as well as a review of existing traffic movements exiting the study area during the AM peak hour and entering the study area during the PM peak hour. The anticipated trip distribution is:

- 30% to/from the west via Highway 174
- 25% to/from the west via Ogilvie Road
- 15% to/from the north via Blair Road
- 10% to/from the south via Blair Road
- 10% to/from the east via Ogilvie Road
- 10% to/from the east via Highway 174

### 3.1.3 Trip Assignment

All traffic generated by this development is expected to access Ogilvie Road at either of two City Park Drive intersections. Traffic travelling to/from the west along Ogilvie Road is expected to access Ogilvie Road at the Ogilvie Road/Bathgate Drive/City Park Drive west intersection. Traffic travelling to/from the east along Ogilvie Road, along Blair Road, or on Highway 174 are expected to access Ogilvie Road at the Ogilvie Road/1941 Ogilvie Road/City Park Drive east intersection.

Although there is potential for cut through traffic utilizing the private roadway associated with 1980 Ogilvie Road near Blair Station to travel to and from Blair Road, traffic has not been assigned to this private roadway. Due to the presence of traffic calming measures within the 1980 Ogilvie Road site as well as high volumes of pedestrians and cyclists in the vicinity of Blair Station, trips generated by the subject site have been assigned to the adjacent public roadways during peak hours.

## 3.2 Background Traffic

### 3.2.1 Other Area Development

A review of other area development traffic has been conducted, per the developments listed in Section 2.2.2. Traffic generated by these developments have been considered in this analysis and added to the future background traffic volumes, as the development was completed after the most recent available traffic data. Relevant excerpts of the traffic study associated with the development below are included in **Appendix H**.

*Shoppers City East Redevelopment (1405 Blair Towers)*
The proposed mixed-use development is expected to generate 771 and 1072 vehicle trips during the AM and PM peak hours, respectively. Construction was completed in 2020.

2280 City Park Drive Residential Development
Phase 2 of the proposed residential development is expected to generate 41 and 43 vehicle trips during the AM and PM peak hours, respectively. Phases 3, 4, and 5 of the proposed residential development is expected to generate an additional 54 and 64 vehicle trips during the AM and PM peak hours, respectively. Construction of phase 2 was recently completed. Full build-out of the site is expected to be complete by 2030.

1980 Ogilvie Road
The proposed residential development is expected to generate 54 and 76 vehicle trips during the AM and PM peak hours, respectively. Full build-out of the site was expected by 2020 but the construction has not commenced.

### 3.2.2 General Background Growth Rate

A review has been conducted of snapshots of the City's *Strategic Long-Range Model,* which are included in **Appendix I**. Comparing snapshots of the 2011 and 2031 AM peak hour traffic volumes, showed growth rates between 0.1%-0.5% along Ogilvie Road, 0.2%-2% along Blair Road, and 0.7%-1.2% at the Highway 174 off-ramps. A background growth rate of 1% is assumed for Ogilvie Road, Blair Road, and Highway 174. This is consistent with other approved transportation studies in the study area that were completed in recent years.

## 3.3 Future Traffic Conditions

The figures listed below present the following future traffic conditions:

- Proposed site-generated traffic volumes in 2037 are shown in **Figure 4**;
- Background traffic volumes in 2037 are shown in **Figure 5**;
- Total traffic volumes in 2037 are shown in **Figure 6**;

## 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. The intersection parameters used in the analysis are consistent with the *2017 TIA Guidelines* (Saturated Flow Rate: 1,800 vphpl, Peak Hour Factor: 0.9 in existing conditions and 1.0 in future conditions).

Per Exhibit 22 of the *Multi-Modal Level of Service (MMLOS) Guidelines* (produced by IBI Group in October 2015), the target vehicular level of service (Auto LOS) for an arterial or collector road within 600m of a rapid transit station is an Auto LOS E, which equates to a vehicle-to-capacity (v/c) ratio of 1.0 or better at signalized intersections. This target applies to the following study area intersections: Ogilvie Road/1900 Ogilvie Road/1929 Ogilvie Road, Ogilvie Road/City Park Drive East/1941 Ogilvie Road, Blair Road/Ogilvie Road, Blair Road/1980 Ogilvie Road/HWY 174 WB Off-Ramp, and Blair Road/HWY 174 EB.

All other study area intersections are located in a 'General Urban Area' and have a target Auto LOS D, which equates to a vehicle-to-capacity (v/c) ratio of 0.9 or better at signalized intersections.

Signal timing plans were obtained from the City, and are included in **Appendix J**.

**Figure 4: Site-Generated Volumes**

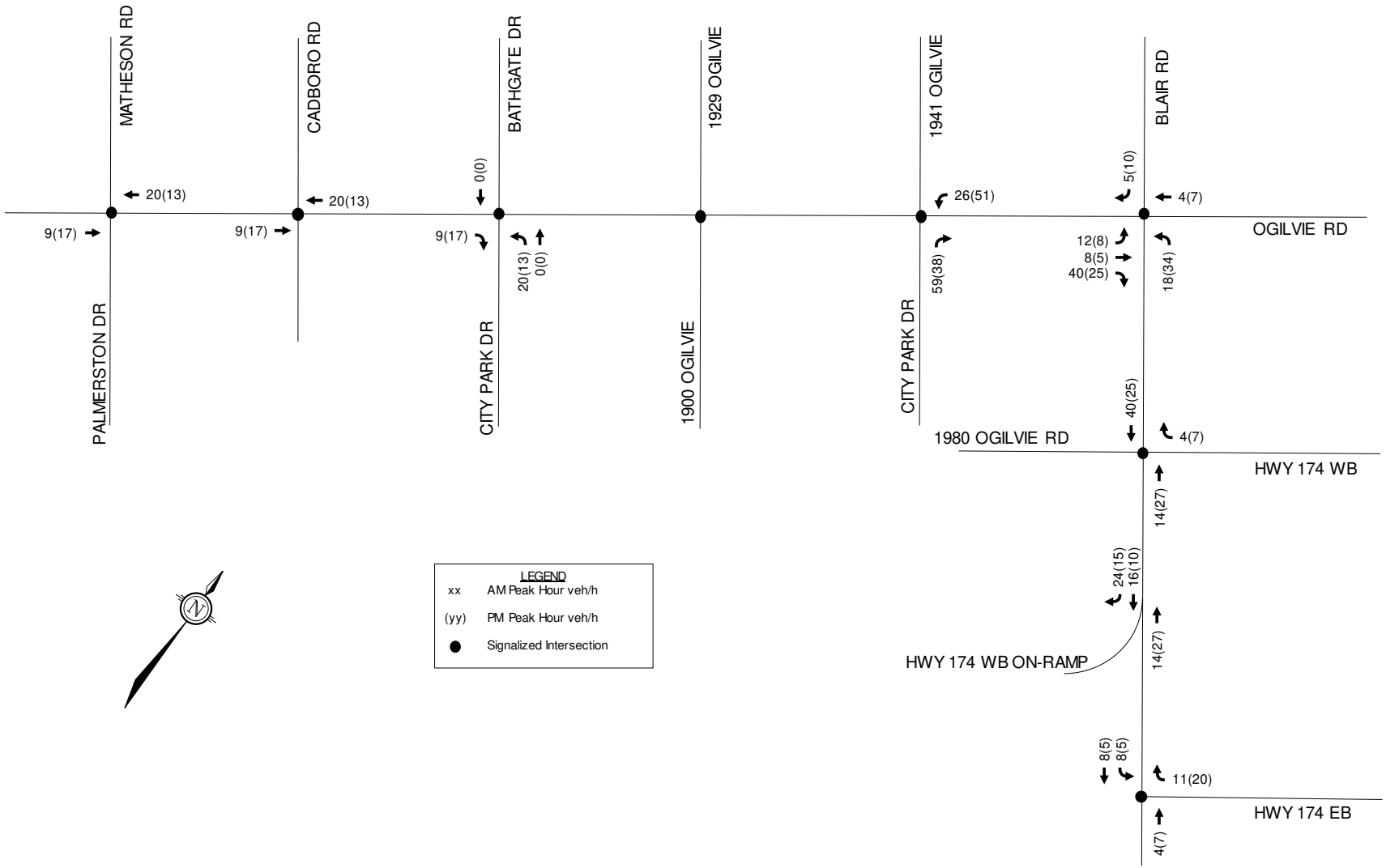
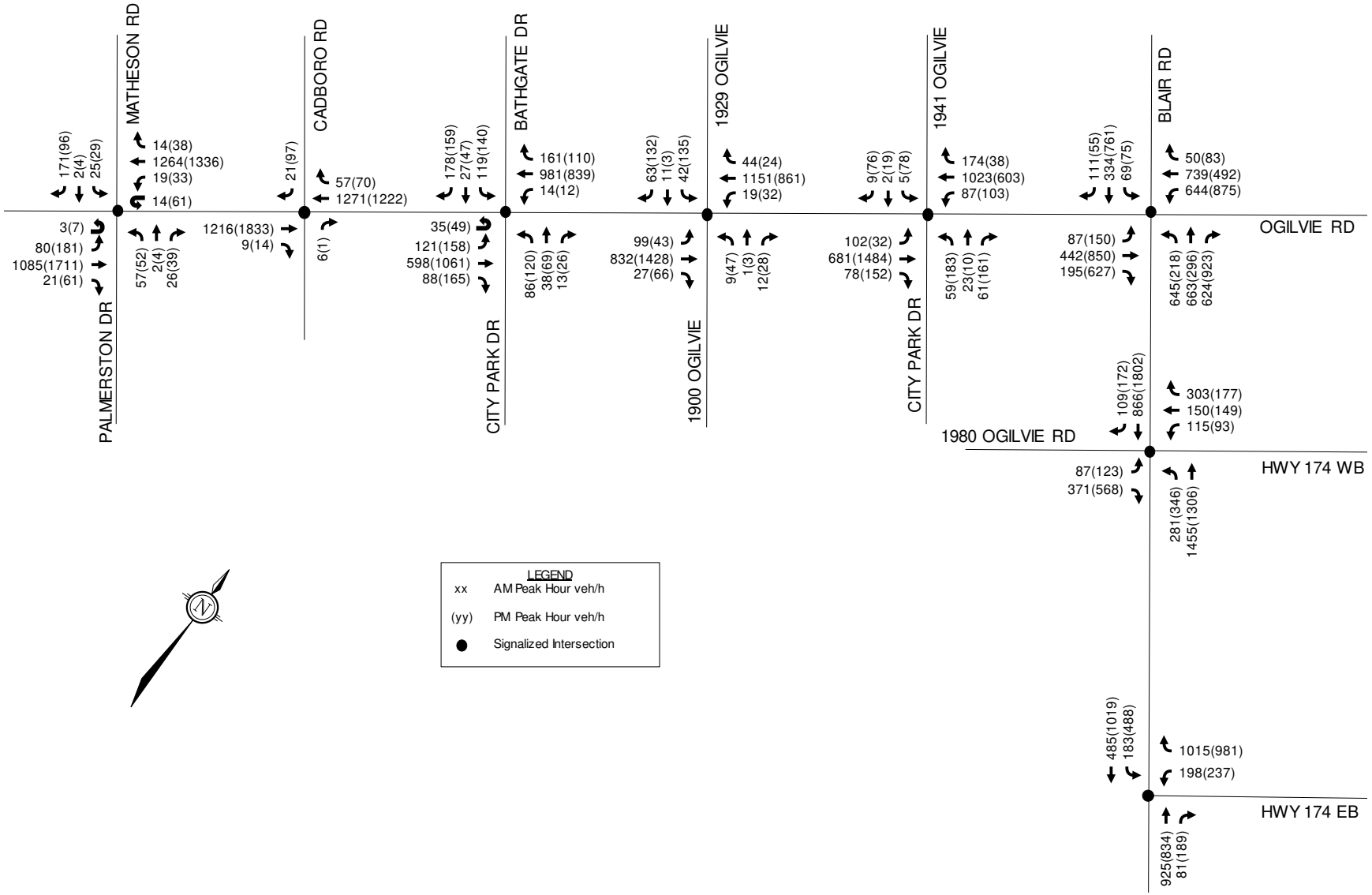
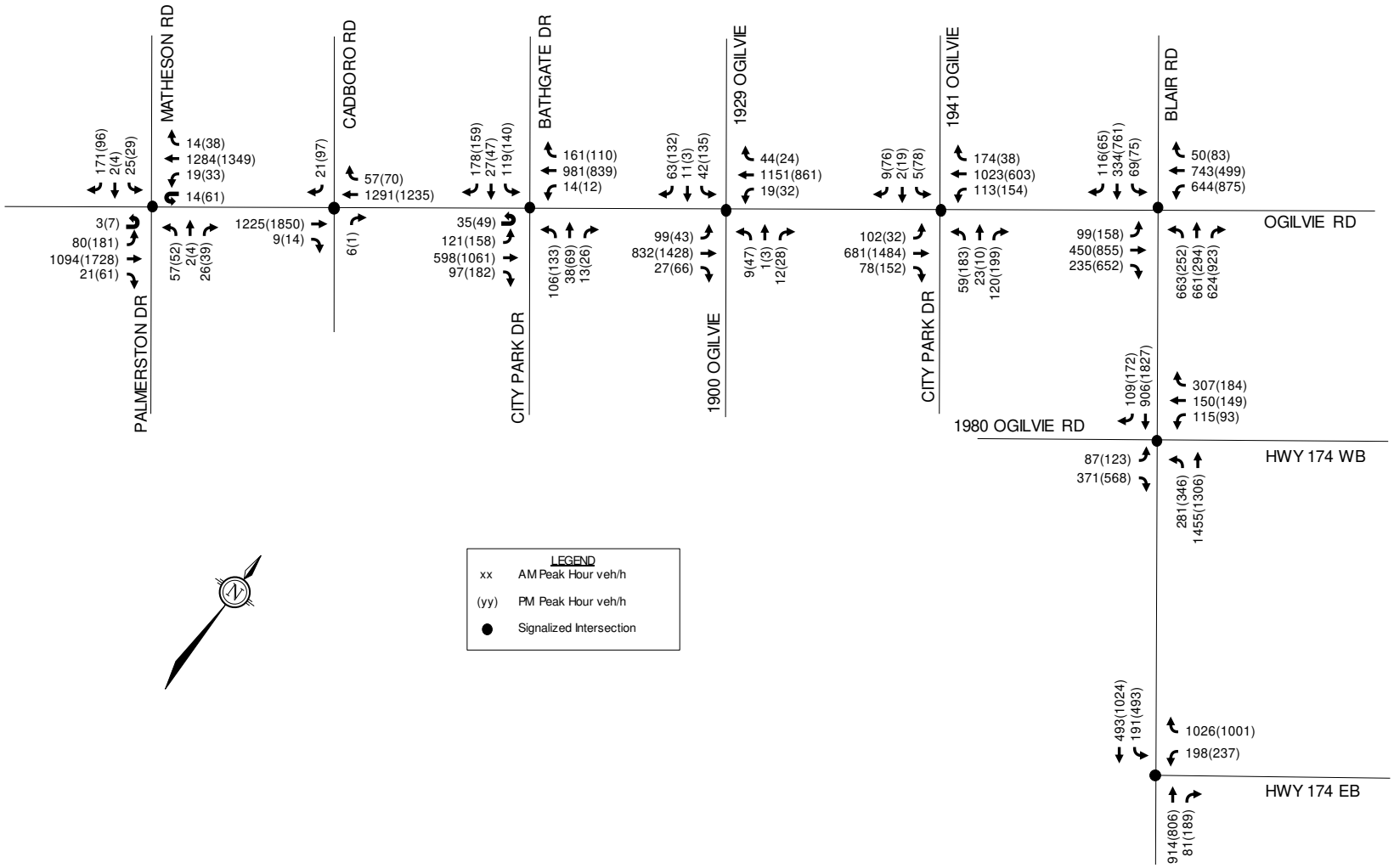


**Figure 5: 2037 Background Traffic**



## Figure 6: 2037 Total Traffic



### 3.4.1 Existing Intersection Operations

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

**Table 9: Existing Traffic Operations**

| Intersection | AM Peak | | | PM Peak | | |
|---|---|---|---|---|---|---|
| | V/C | LOS | Mvmt | V/C | LOS | Mvmt |
| Ogilvie Road/Matheson Road/Palmerston Drive | 0.56 | A | WBT/R | 0.75 | C | EBT/R |
| Ogilvie Road/Cadboro Road | 0.47 | A | WBT/R | 0.70 | B | EBT/R |
| Ogilvie Road/City Park Drive/Bathgate Drive | 0.65 | B | SBL | 0.72 | C | NBL |
| Ogilvie Road/1900 Ogilvie Road | 0.48 | A | WBT/R | 0.60 | A | EBT |
| Ogilvie Road/City Park Drive | 0.42 | A | WBT | 0.83 | D | EBT |
| Ogilvie Road/Blair Road | 0.97 | E | NBT | **1.04** | **F** | **EBR** |
| HWY 174 Westbound off-ramp/Blair Road | 0.70 | B | WBR NBT | 0.89 | D | EBR |
| HWY 174 Eastbound off-ramp/Blair Road | 0.66 | B | WBR | 0.92 | E | SBT/L |

Under existing traffic conditions, there is one failing movement at the Ogilvie Road/Blair Road intersection during the PM peak hour. All other intersections meet the target Auto LOS of E within 600m of Blair Station and the target Auto LOS of D elsewhere.

During the PM peak hour, the eastbound right turn lane on Ogilvie Road at Blair Road operates with a LOS F and a v/c ratio of 1.04. To achieve the target LOS E at this intersection, a reduction of 22 eastbound right turning vehicles is required. The reduction in eastbound right turning vehicles can be achieved by increased use of non-auto modes of transportation, alternative travel times (peak period spreading), and alternative routes of travel. A further description of each option is provided in the subsequent sections.

### 3.4.2 2037 Background Traffic Conditions

Intersection capacity analysis has been conducted for the 2037 background traffic conditions and are summarized in **Tables 10** and **11**. Detailed reports are included in **Appendix K**.

**Table 10: 2037 Background Traffic Operations**

| Intersection | AM Peak | | | PM Peak | | |
|---|---|---|---|---|---|---|
| | Delay or V/C | LOS | Mvmt | Delay or V/C | LOS | Mvmt |
| Ogilvie Road/Matheson Road/Palmerston Drive | 0.60 | A | WBT/R | 0.80 | C | EBT/R |
| Ogilvie Road/Cadboro Road | 0.50 | A | WBT/R | 0.73 | C | EBT/R |
| Ogilvie Road/City Park Drive/Bathgate Drive | 0.60 | A | WBT SBL | 0.66 | B | NBL |
| Ogilvie Road/1900 Ogilvie Road | 0.51 | A | WBT/R | 0.65 | B | EBT |
| Ogilvie Road/City Park Drive | 0.44 | A | WBT | 0.85 | D | EBT |
| Ogilvie Road/Blair Road | **1.30** | **F** | **WBL** | **1.27** | **F** | **NBR** |

| Intersection | AM Peak | | | PM Peak | | |
|---|---|---|---|---|---|---|
| | Delay or V/C | LOS | Mvmt | Delay or V/C | LOS | Mvmt |
| | | | | **1.25** | **F** | **WBL** |
| | **1.02** | **F** | **NBT** | **1.17** | **F** | **EBR** |
| | | | | **1.03** | **F** | **EBT** |
| HWY 174 Westbound off-ramp/Blair Road | 0.72 | C | NBT | 0.89 | D | EBR |
| HWY 174 Eastbound off-ramp/Blair Road | 0.69 | B | WBR | 0.98 | E | SBT/L |

**Table 11: 2037 Background 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) |
| Ogilvie Road/Blair Road | NBL | 120m | 0.95 [E] | 91 | #127 | 0.70 [B] | 30 | 44 |
| | NBT | 220m | **1.02 [F]** | **~194** | **#267** | 0.62 [B] | 73 | 107 |
| | NBR | 200m | 0.76 [C] | 51 | 103 | **1.27 [F]** | **~227** | **#310** |
| | SBL | 30m | 0.70 [B] | 19 | #42 | 0.56 [A] | 20 | 36 |
| | SBT/R | 100m | 0.62 [B] | 55 | 74 | 0.97 [E] | ~119 | #164 |
| | EBL | 70m | 0.58 [A] | 24 | 40 | 0.77 [C] | 40 | #68 |
| | EBT | 230m | 0.57 [A] | 57 | 75 | **1.03 [F]** | **~132** | **#173** |
| | EBR | 230m | 0.39 [A] | 0 | 19 | **1.17 [F]** | **~157** | **#230** |
| | WBL | 110m | **1.30 [F]** | **~118** | **#155** | **1.25 [F]** | **~155** | **#195** |
| | WBT/R | 225m | 0.81 [D] | 106 | #149 | 0.51 [A] | 66 | 85 |

1. Indicates the storage length for auxiliary lanes or the spacing to the nearest upstream intersection for through lanes
#: volume for the 95th percentile cycle exceeds capacity
~: approach is above capacity

The westbound left turning movement and northbound through movements at the Ogilvie Road/Blair Road intersection do not meet the target LOS E during the AM peak hour and the northbound right, westbound left, eastbound right and eastbound through movements do not meet the target LOS E in the PM peak hour. All other intersections within the study area are expected to meet the City's target. A summary of the critical queueing at the study area intersections is provided below.

During the AM peak hour at the Ogilvie Road/Blair Road intersection, the average and maximum queue lengths of the westbound left movement exceed the current storage capacity. Additionally, the maximum queue lengths of the northbound left, the northbound through, and the southbound left turn movements exceed the existing storage capacity.

During the PM peak hour at the Ogilvie Road/Blair Road intersection, the average and maximum queue lengths of the northbound right, the southbound through/right, and the westbound left movements and the maximum queue length for the southbound left turn movement exceed the existing storage length.

The approximate required reduction in volumes to meet the target Auto LOS for each over-capacity movement is included below.

<u>AM Peak Hour</u>

- Ogilvie Road/Blair Road
  - Westbound left turn (v/c: 1.30): reduction of 148 vehicles required;
  - Northbound through (v/c: 1.02): reduction of 9 vehicles required.

PM Peak Hour

- Ogilvie Road/Blair Road
    - Northbound right turn (v/c: 1.27): reduction of 192 vehicles required;
    - Westbound left turn (v/c: 1.25): reduction of 170 vehicles required;
    - Eastbound right turn (v/c: 1.17): reduction of 88 vehicles required;
    - Eastbound through (v/c: 1.03): reduction of 22 vehicles required.

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 further description of each option is provided below.

*Increased Use of Non-Auto Modes*

As stated in Section 2.2.1 exclusive bus lanes and transit signal priority along Blair Road and the Eastern LRT extension to Trim Road are anticipated to be constructed prior to the 2037 build-out year. The transit network concept also includes transit signal priority and queue jump lanes along Ogilvie Road. These transit projects are anticipated to increase the transit modal share and decrease the auto modal share, thereby reducing traffic volumes within the study area.

Additionally, the new east-west MUP will be constructed by the City of Ottawa along the rail corridor to the south and will form part of the City's Cross-town bikeway network. This project is expected to increase the active modal shares and decrease the auto modal share, thereby reducing traffic volumes within the study area.

*Alternate Travel Times*

As congestion increases within the study area, some motorists may alter their travel to occur outside of the peak hours. This shift in travel times may result in a reduction of peak hour traffic volumes.

*Alternate Routes of Travel*

As congestion increases within the study area, some motorists may choose alternate routes of travel outside the study area. Other alternative east-west routes outside of the study area include Highway 174, Montreal Road, and Aviation Parkway.

## 4.0 ANALYSIS

### 4.1 Development Design

The proposed development is anticipated to include one new vehicular access to City Park Drive and one shared access with the adjacent office building at 1900 City Park Drive. Pedestrian connections are anticipated to be provided to the MUP's east and south of the site, as well as to the sidewalks along City Park Drive.

### 4.2 Parking

A detailed review of Module 4.2 will be conducted as part of the future Site Plan Control application.

### 4.3 Boundary Streets

A detailed review of Module 4.3 will be conducted as part of the future Site Plan Control application.

## 4.4 Access Intersections

A detailed review of Module 4.4 will be conducted as part of the future Site Plan Control application.

## 4.5 Transportation Demand Management

### 4.5.1 Context for TDM

The proposed development is anticipated to include a maximum of 1,192 residential units within five buildings. The unit type breakdown will be provided as part of the future Site Plan Control applications.

### 4.5.2 Need and Opportunity

As first discussed in Section 3.1.1, the mode share targets for the proposed development are a blended rate based on the observed mode shares for the Beacon Hill region, as outlined in the *TRANS Trip Generation Manual* and mode shares typically seen within a Transit Oriented Development zone.

Failure to meet the proposed mode share is not anticipated, due to the proximity of the subject site to large commercial developments and employment generators as well as planned active transportation projects and rapid transit projects in the area. To improve the use of non-auto modes for the proposed development, Transportation Demand Management (TDM) measures will be considered on a phase by phase basis as part of future Site Plan Control applications.

### 4.5.3 TDM Program

A review of the City's *TDM Measures Checklist* has been conducted to outline TDM measures that will be considered as part of future Site Plan Control applications. TDM measures include:

- Display local area maps with walking/cycling access routes and key destinations at major entrances;
- Display relevant transit schedules and route maps at entrances;
- Unbundle parking from purchase cost (condo) or monthly rent (apartment);
- Provide multi-modal travel information package to new residents.

## 4.6 Neighbourhood Traffic Management

The *2017 TIA Guidelines* identify two-way peak hour traffic volume thresholds for considering when a Neighbourhood Traffic Management (NTM) plan should be developed. The NTM two-way volume thresholds are as follows:

- Local Roadways: 120 vehicles during the peak hour, or 1,000 vehicles per day;
- Collector Roadways: 300 vehicles during the peak hour, or 2,500 vehicles per day;
- Major Collector Roadways: 600 vehicles during the peak hour, or 5,000 vehicles per day.

The proposed development will rely on the collector road City Park Drive for direct access. Based on the 2023 existing traffic conditions presented in **Figure 3**, two-way traffic volumes on the City Park Drive leg of the Ogilvie Road/Bathgate Drive/City Park Drive intersection is 247 in the AM peak hour and 419 in the PM peak hour and on the City Park Drive leg of the Ogilvie Road/1941 Ogilvie

Road/City Park Drive intersection the traffic volumes are 299 in the AM peak hour and 613 in the PM peak hour. Traffic generated by the proposed development is anticipated to increase traffic along City Park Drive at Ogilvie Road/Bathgate Drive by 29-30 vehicles, or one vehicle every two minutes during peak hours. Traffic along City Park Drive at Ogilvie Road/1941 Ogilvie Road is anticipated to increase by 85-89 vehicles, or one to two vehicles a minute during peak hours.

Traffic volumes currently show that City Park Drive currently operates as a Major Collector Roadway according to the *NTM thresholds*. These high volumes can largely be attributed to the commercial developments along City Park Drive closer to Ogilvie Road. Since City Park Drive is expected to have lower volumes close to the subject site, no neighbourhood traffic management measures have been recommended as part of this proposed development.

## 4.7 Transit

Based on the trip generation estimates presented in Section 3.1.1, the proposed development is anticipated to generate the following number of transit trips:

- AM Peak Hour: 262 transit trips, including 181 boarding and 81 alighting;
- PM Peak Hour: 252 transit trips, including 106 boarding and 146 alighting.

The distribution of transit trips to/from the development has been estimated based on origin-destination data from the *TRANS O-D Survey Report*. The destinations of trips from the Beacon Hill district to all TRANS O-D districts during the AM peak period were used to develop the following transit distribution:

- 15% to/from the north via Routes 12, 23, and 24;
- 10% to/from the south via Routes 26, 42, 222, and 228;
- 20% to/from the east via Routes 21, 25 ,30, 32, 33, 35, 38, 39, 221, 226, 234, and 237;
- 55% to/from the west via Route 1 and 15

Trips to/from the north are anticipated to be served by a combination of routes 12, 23, and 24. Trip distribution between these routes are anticipated to be roughly equal due to all routes serving slightly different areas and have similar headway times between busses. During the AM peak hour roughly 2-5 people would board each bus and roughly 1-3 people would alight from each bus. During the PM peak hour roughly 1-2 people would board each bus and roughly 2-4 people would alight from each bus. The net additional people added to each bus is not anticipated to impact the capacity of any bus heading to/from the north.

Trips to/from the south are anticipated to be served by a combination of routes 26, 42, 222, and 228. Trip distribution between these routes are anticipated to be roughly equal due to all routes serving slightly different areas and all routes having headway times between busses of roughly 30 minutes. During the AM peak hour roughly 2 people would board each bus and roughly 1 person would alight from each bus. During the PM hour peak hour roughly 1 person would board each bus and roughly 2 people would alight from each bus. The net additional people added to each bus is not anticipated to impact the capacity of any bus heading to/from the south.

Trips to/from the east are anticipated to be served by a combination of routes 21, 25 ,30, 32, 33, 35, 38, 39, 221, 226, 234, and 237. Trip distribution between these routes is anticipated to be roughly equal due to all routes serving slightly different areas and all routes have similar headway times between busses. During the AM peak hour roughly 1-3 people would board each bus and

roughly 1 person would alight from each bus. During the PM hour peak hour roughly 1-2 people would board each bus and roughly 1-2 people would alight from each bus. The net additional people added to each bus is not anticipated to impact the capacity of any bus heading to/from the east.

Trips to/from the west are anticipated to be served by a combination of routes 1 and 15. Route 1 has a 5-minute headway and Route 15 has a 15-minute headway. Route 1 is preferable to Route 15 when the final destination is similar due to estimated travel time. Therefore, it is assumed that 80% of trips travelling west will use Route 1.

On Route 1 during the AM peak hour roughly 7 people would board each train and roughly 3 people would alight from each train. During the PM peak hour roughly 4 people would board each train and roughly 5 people would alight from each train. The net additional people added to each train is not anticipated to impact the capacity of any train heading to/from the west.

On Route 15 during the AM peak hour roughly 5 people would board each bus and roughly 2 people would alight from each bus. During the PM peak hour roughly 3 people would board each bus and roughly 4 people would alight from each bus. The net additional people added to each bus is not anticipated to impact the capacity of any bus heading to/from the west.

Based on the foregoing, the proposed development at ultimate buildout is not anticipated to have a significant impact on the existing operations of OC Transpo route.

As Bus Stop #4447 is located over 200m from the nearest pedestrian crossing along City Park Drive and expected to handle a significant amount of transit users from the subject site, volumes were studied to determine if a pedestrian crossover is warranted. Based on the previous analysis the number of pedestrian crossing the road at this location was estimated and shown in the following table.

**Table 12: Crossing Volumes at Stop #4447**

| Route | AM Peak | | PM Peak | |
|---|---|---|---|---|
| | Boarding | Alighting | Boarding | Alighting |
| 15 | 20 | - | 12 | - |
| 25 | - | 1 | - | 1 |
| 39 | - | 1 | - | 1 |
| **TOTAL** | **20** | **2** | **12** | **2** |

Based on the above table a total of 14-22 people are anticipated to cross the street to Stop #4447 during the peak hours. As the existing transit stop is considered a desire line for pedestrians from the proposed development, consideration should be given to providing a pedestrian crossover along City Park Drive as the development advances. The timing for implementation of a future pedestrian crossover will be reviewed on a phase-by-phase basis through future Site Plan Control applications.

## 4.8 Network Concept

A review of the future lane capacities at the boundaries of the study area has been conducted to determine if additional capacity is required. The directional capacities for each roadway have been estimated based on typical roadway characteristics and lane capacities used in the City's TRANS Long-Range Transportation Model. For the purposes of this analysis, the lane capacity of Ogilvie Road and Blair Road at both ends of the study area is considered to be 1,000 vphpl.

A summary of the lane capacity analysis for the 2037 background traffic conditions is included in **Table 13**.

**Table 13: Network Lane Capacity Analysis – 2037 Background Traffic**

| Roadway | Directional Capacity (vph) | Traffic Volume AM (PM) | v/c Ratio AM (PM) | Auto LOS AM (PM) | Deficiency to Auto LOS 'F'[1] AM (PM) |
|---|---|---|---|---|---|
| Blair Rd, north of Ogilvie Rd | | | | | |
| Northbound | 1,000 | 800 (529) | 0.80 (0.53) | C (A) | - |
| Southbound | 1,000 | 514 (891) | 0.51 (0.89) | A (D) | - |
| Blair Rd, south of Highway 174 | | | | | |
| Northbound | 2,000 | 1,006 (1,023) | 0.50 (0.51) | A (A) | - |
| Southbound | 2,000 | 683 (1,256) | 0.34 (0.63) | A (B) | - |
| Ogilvie Rd, east of Blair Rd | | | | | |
| Eastbound | 2,000 | 1,135 (1,848) | 0.57 (0.92) | A (E) | - |
| Westbound | 2,000 | 1,433 (1,450) | 0.72 (0.73) | C (C) | - |
| Ogilvie Rd, west of Palmerston Dr | | | | | |
| Eastbound | 2,000 | 1,189 (1,960) | 0.59 (0.98) | A (E) | - |
| Westbound | 2,000 | 1,495 (1,491) | 0.75 (0.75) | C (C) | - |

1: Target LOS F within 600m of Rapid Transit Station

Peak directional traffic along all roadways are anticipated to meet the target LOS E under the 2037 background traffic conditions.

A summary of the lane capacity analysis for the 2037 total traffic conditions is included in **Table 14**.

**Table 14: Network Lane Capacity Analysis – 2037 Total Traffic**

| Roadway | Directional Capacity (vph) | Traffic Volume AM (PM) | v/c Ratio AM (PM) | Auto LOS AM (PM) | Deficiency to Auto LOS 'F'[1] AM (PM) |
|---|---|---|---|---|---|
| Blair Rd, north of Ogilvie Rd | | | | | |
| Northbound | 1,000 | 812 (537) | 0.81 (0.54) | D (A) | - |
| Southbound | 1,000 | 519 (901) | 0.52 (0.90) | A (E) | - |
| Blair Rd, south of Highway 174 | | | | | |
| Northbound | 2,000 | 1,010 (1,030) | 0.51 (0.52) | A (A) | - |
| Southbound | 2,000 | 691 (1,261) | 0.35 (0.63) | A (B) | - |
| Ogilvie Rd, east of Blair Rd | | | | | |
| Eastbound | 2,000 | 1,143 (1,853) | 0.57 (0.93) | A (E) | - |
| Westbound | 2,000 | 1,437 (1,457) | 0.72 (0.73) | C (C) | - |
| Ogilvie Rd, west of Palmerston Dr | | | | | |
| Eastbound | 2,000 | 1,198 (1,977) | 0.60 (0.99) | A (E) | - |
| Westbound | 2,000 | 1,515 (1,504) | 0.76 (0.75) | C (C) | - |

1: Target LOS F within 600m of Rapid Transit Station

The additional traffic generated by the subject site is not anticipated to have a significant impact on the overall operations of Blair Road or Ogilvie Road. Peak directional traffic along all roadways are anticipated to meet the target LOS E under the 2037 total traffic conditions. Detailed intersection analysis is presented in Section 4.9.2 and includes more in-depth discussion of the anticipated impacts of the proposed development within the study area.

## 4.9 Intersection Design

### 4.9.1 Intersection MMLOS Review

This section provides a review of the signalized study area intersections using complete streets principles. The signalized intersections within the study area has been evaluated for PLOS, BLOS, TLOS, TkLOS, and AutoLOS based on existing conditions. The MMLOS targets considered in this review are associated with those outlined in Exhibit 22 of the *MMLOS Guidelines* for the 'General Urban Area' and when applicable 'Within 600m of a rapid transit station' Policy Area.

The full intersection MMLOS analysis is included in **Appendix L**. A summary of the results is shown in **Table 15**.

**Table 15: Intersection MMLOS Summary**

| Intersection | PLOS | | BLOS | | TLOS | | TkLOS | | AutoLOS | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Actual | Target | Actual | Target | Actual | Target | Actual | Target | Actual | Target |
| Ogilvie Road/Matheson Road/Palmerston Drive | **F** | C | **F** | C | C | D | **E** | D | C | D |
| Ogilvie Road/Cadboro Road | **F** | C | A | C | B | D | **E** | D | B | D |
| Ogilvie Road/City Park Drive/Bathgate Drive | **F** | C | **F** | C | **F** | D | **E** | D | C | D |
| Ogilvie Road/1900 Ogilvie Road | **F** | A | **F** | C | B | D | **E** | D | A | E |
| Ogilvie Road/City Park Drive | **F** | A | **F** | C | **F** | D | **E** | D | D | E |
| Ogilvie Road/Blair Road | **F** | A | **F** | C | **F** | C | **E** | D | **F** | E |
| HWY 174 Westbound off-ramp/Blair Road | **F** | A | **F** | C | **F** | C | B | D | D | E |
| HWY 174 Eastbound off-ramp/Blair Road | **F** | A | A | C | D | - | C | D | E | E |

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

- None of the study area intersections meet the target PLOS;
- None of the study area intersections meet the target BLOS except for Ogilvie Road/Cadboro Road;
- All of the study area intersections meet the target TLOS except for Ogilvie Road/City Park Drive/Bathgate Drive, Ogilvie Road/City Park Drive, Ogilvie Road/Blair Road, and HWY 174 Westbound off-ramp/Blair Road;
- None of the study area intersections meet the target TkLOS except for HWY 174 Westbound off-ramp/Blair Road and HWY 174 Eastbound off-ramp/Blair Road; and
- All intersections meet the target AutoLOS except for Ogilvie Road/Blair Road.

*Ogilvie Road/Matheson Road/Palmerston Drive*
The intersection does not meet the target PLOS C, BLOS C, or TkLOS.

There is limited opportunity to improve the PLOS and BLOS at this intersection without reducing the number of lanes crossed and providing two-stage left turning cycling facilities on all approaches. The northbound and eastbound right turn movement do not meet the target TkLOS. As the south leg of the intersection does not form part of the City's truck routes, the eastbound and northound right turn movements are considered acceptable.

*Ogilvie Road/Cadboro Road*
The intersection does not meet the target PLOS C or TkLOS C.

There is limited opportunity to improve the PLOS at this intersection without reducing the number of lanes crossed. The westbound right turn movement does not meet the target TkLOS. As the north leg of the intersection does not form part of the City's truck routes, the westbound right turn movement is considered acceptable.

*Ogilvie Road/City Park Drive/Bathgate Drive*
The intersection does not meet the target PLOS C, BLOS C, TLOS, or TkLOS.

There is limited opportunity to improve the PLOS and BLOS at this intersection without reducing the number of lanes crossed and providing two-stage left turning cycling facilities on all approaches. The north and south approaches do not meet the target TLOS. As the major street is in the east-west direction any additional capacity will come at the expense of the transit routes along the main corridor and is therefore assumed to be acceptable. The eastbound and westbound right turn movements do not meet the target TkLOS. As the north and south legs of the intersection do not form part of the City's truck routes, the eastbound and westbound right turn movements are considered acceptable.

*Ogilvie Road/1900 Ogilvie Road*
The intersection does not meet the target PLOS C, BLOS C, or TkLOS.

There is limited opportunity to improve the PLOS and BLOS at this intersection without reducing the number of lanes crossed and providing two-stage left turning cycling facilities on all approaches. The eastbound and westbound right turn movements do not meet the target TkLOS. As the north and south legs of the intersection do not form part of the City's truck routes, the eastbound and westbound right turn movements are considered acceptable.

*Ogilvie Road/City Park Drive*
The intersection does not meet the target PLOS C, BLOS C, TLOS, or TkLOS.

There is limited opportunity to improve the PLOS and BLOS at this intersection without reducing the number of lanes crossed and providing two-stage left turning cycling facilities on all approaches. The south approach does not meet the target TLOS. As the major street is in the east-west direction any additional capacity will come at the expense of the transit routes along the main corridor and is therefore assumed to be acceptable. The westbound right turn movement does not meet the target TkLOS. As the north leg of the intersection does not form part of the City's truck routes, the westbound right turn movement is considered acceptable.

*Ogilvie Road/Blair Road*
The intersection does not meet the target PLOS C, BLOS C, TLOS, TkLOS, or AutoLOS.

No mitigation measures are proposed as part of the proposed development, as the City's planned Blair-Blair Transit Priority Corridor is anticipated to provide improvements for all modes at the Ogilvie Road/Blair Road intersection. As described in Section 2.2.1, the proposed alterations include a protected intersection design with painted zebra pavement markings at crosswalks, dedicated cycling facilities, and additional travel lanes.

*HWY 174 Westbound off-ramp/Blair Road*
The intersection does not meet the target PLOS C, BLOS C or TLOS.

No mitigation measures are proposed as part of the proposed development, as the City's planned Blair Transit Priority Project (Innes Road to Blair LRT Station) is anticipated to provide improved pedestrian, bike, and transit facilities along the Blair Road corridor. As described in Section 2.2.1, among the proposed alterations at this intersection are protected northeast and northwest corners, a sidewalk, and cycle track along the east side of Blair Road, a multi-use path on the west side of Blair Road, painted zebra pavement markings at crosswalks, and dedicated transit turning lanes on the 1980 Ogilvie Road approach.

*HWY 174 Eastbound off-ramp/Blair Road*
The intersection does not meet the target PLOS C.

No mitigation measures are proposed as part of the proposed development, as the City's planned Blair Transit Priority Project (Innes Road to Blair LRT Station) is anticipated to provide improved pedestrian, bike, and transit facilities along the Blair Road corridor. Among the proposed alterations at this intersection are a protected southeast corner, a sidewalk, and cycle track along the east side of Blair Road, a multi-use path on the west side of Blair Road, and painted zebra pavement markings at crosswalks.

### 4.9.2 2037 Total Intersection Operations

Intersection capacity analysis has been conducted for the 2037 total traffic conditions. As described in Section 3.1.1, the proposed development results in a net reduction in vehicle trips compared to the previous concept. As such, the analysis previously presented represents a conservative analysis and has not been updated. The results of the analysis are summarized in **Tables 16** and **17** for the weekday AM and PM peak hours based on the previous concept plan. Detailed reports are included in **Appendix K**.

**Table 16: 2037 Total Traffic Operations**

| Intersection | AM Peak | | | PM Peak | | |
|---|---|---|---|---|---|---|
| | Delay or V/C | LOS | Mvmt | Delay or V/C | LOS | Mvmt |
| Ogilvie Road/Matheson Road/Palmerston Drive | 0.62 | A | WBT/R | 0.81 | D | EBT/R |
| Ogilvie Road/Cadboro Road | 0.51 | A | WBT/R | 0.74 | C | EBT/R |
| Ogilvie Road/City Park Drive/Bathgate Drive | 0.65 | B | NBL | 0.68 | B | NBL |
| Ogilvie Road/1900 Ogilvie Road | 0.51 | A | WBT/R | 0.65 | B | EBT |
| Ogilvie Road/City Park Drive | 0.47 | A | WBT | 0.92 | E | EBT |
| Ogilvie Road/Blair Road | **1.30** | **F** | **WBL** | **1.27** | **F** | **NBR** |
| | | | | **1.25** | **F** | **WBL** |
| | **1.02** | **F** | **NBT** | **1.19** | **F** | **EBR** |
| | | | | **1.03** | **F** | **EBT** |
| | | | | **1.02** | **F** | **SBT/R** |
| HWY 174 Westbound off-ramp/Blair Road | 0.72 | C | NBT | 0.89 | D | EBR |
| HWY 174 Eastbound off-ramp/Blair Road | 0.69 | B | WBR | 0.98 | E | SBT/L |

**Table 17: 2037 Total 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) |
| Ogilvie Road/Blair Road | NBL | 120m | 0.95 [E] | 91 | #126 | 0.84 [D] | 39 | #61 |
| | NBT | 220m | **1.02 [F]** | **~194** | **#267** | 0.62 [B] | 73 | 107 |
| | NBR | 200m | 0.76 [C] | 51 | 103 | **1.27 [F]** | **~227** | **#310** |
| | SBL | 30m | 0.70 [B] | 19 | #42 | 0.56 [A] | 20 | 36 |
| | SBT/R | 100m | 0.62 [B] | 56 | 74 | **1.02 [F]** | ~129 | #170 |
| | EBL | 70m | 0.63 [B] | 29 | 47 | 0.79 [C] | 42 | #73 |
| | EBT | 230m | 0.59 [A] | 60 | 78 | **1.03 [F]** | **~133** | **#173** |
| | EBR | 230m | 0.48 [A] | 0 | 23 | **1.19 [F]** | **~165** | **#238** |
| | WBL | 110m | **1.30 [F]** | **~118** | **#155** | **1.25 [F]** | **~155** | **#195** |
| | WBT/R | 225m | 0.84 [D] | 108 | #157 | 0.52 [A] | 68 | 87 |

1. Indicates the storage length for auxiliary lanes or the spacing to the nearest upstream intersection for through lanes
#: volume for the 95th percentile cycle exceeds capacity
~: approach is above capacity

Comparing the previous tables and the 2037 background conditions, traffic generated by the proposed development is anticipated to have marginal operational effects within the study area. The southbound through/right turn lane is now over capacity with a V/C of 1.02 and previously had a V/C ratio of 0.97 during background traffic conditions and the 50th and 95th percentiles queues have increased by roughly one vehicle. The discussion of over-capacity movements and queue lengths are generally consistent with those described in Section 3.4.2.

Traffic generated by the development is expected to increase the volume of westbound left turning vehicles at Ogilvie Road/City Park Drive (east) by 85% in the PM peak hour while no additional westbound left traffic is projected in the AM peak hour. Currently the westbound left turn lane experiences a collision rate per MEV of 3.27 when comparing the ten collisions that occurred in the left turn lane (nine turning movement collisions and one rear end collision) and the existing traffic volumes. While a collision rate of 3.27 per MEV could be considered high, collision rates tend to over-emphasize intersections or movements with lower volumes.

The westbound left turn movement at this intersection currently operates with a permitted phasing in the AM peak hour and permitted and protected left turn phasing in the PM peak hour. Monitoring of collisions associated with the westbound left turn movement should be completed by the City as this development proceeds. Should the westbound left turn collision pattern continue, consideration by the City could be given for implementing a fully protected left turn phase. Analysis was completed to compare the impacts of including a fully protected left turn phase to the east and west bound legs with 2037 total traffic conditions. The results of the analysis are summarized in **Table 18** for the weekday AM and PM peak hours. Detailed reports are included in **Appendix K**.

**Table 18: Ogilvie Road/City Park Drive Fully Protected Phasing Comparison**

| Intersection | AM Peak | | | PM Peak | | |
|---|---|---|---|---|---|---|
| | Delay or V/C | LOS | Mvmt | Delay or V/C | LOS | Mvmt |
| Ogilvie Road/City Park Drive | 0.60 | A | EBL | 1.00 | E | EBT |

The existing storage length of the westbound left turn lane is 100m and the eastbound left turn lane is 40m. The protected phasing is anticipated to increase the 95th percentile westbound left turn queues from 18m to 31m in the AM peak hour and from 56m to 82m during the PM peak hour. Eastbound left turn queues are also anticipated to increase from 8m to 37m during the AM peak

hour and from 3m to 9m during the PM peak hour. While queueing does increase under fully protected phasing the 95th percentile queues in the left turning lanes could be supported by existing storage lengths at the intersection.

## 5.0 CONCLUSIONS AND RECOMMENDATIONS

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

*Forecasting*

- The proposed development is anticipated to generate a net additional 505 person trips during the AM peak hour (including 114 vehicle trips), and an additional 499 person trips during the PM peak hour (including 118 vehicle trips).

*Development Design*

- The proposed development is anticipated to include one new vehicular access to City Park Drive and one shared access with the adjacent office building at 1900 City Park Drive. Pedestrian connections are anticipated to be provided to the MUP's east and south of the site, as well as to the sidewalks along City Park Drive.

*Transportation Demand Management (TDM)*

- A review of the City's TDM Measures Checklist has been conducted by the proponent, who will consider the following TDM measures on a phase by phase basis within this development:

    - Display local area maps with walking/cycling access routes and key destinations at major entrances;
    - Display relevant transit schedules and route maps at entrances;
    - Unbundle parking from purchase cost (condo) or monthly rent (apartment); and
    - Provide multi-modal travel information package to new residents.

*Neighbourhood Traffic Management*

- Traffic generated by the proposed development is anticipated to increase traffic along City Park Drive at Ogilvie Road/Bathgate Drive by 29-30 vehicles, or one vehicle every two minutes during peak hours. Traffic at City Park Drive at Ogilvie Road/1941 Ogilvie Road is anticipated to increase by 85-89 vehicles, or one to two vehicles a minute during peak hours.

- Since City Park Drive is expected to have lower volumes close to the subject site, no neighbourhood traffic management measures have been recommended as part of this proposed development.

*Transit*

- The proposed development is anticipated to generate an additional 262 transit trips during the AM peak hour and an additional 252 transit trips during the PM peak hour. The additional transit trips generated by the proposed development are anticipated to have a marginal impact on the current transit operations surrounding the site.

- A total of 14-22 people are anticipated to cross the street to Stop #4447 during the peak hours. As the existing transit stop is considered a desire line for pedestrians from the proposed development, consideration should be given to providing a pedestrian crossover

along City Park Drive as the development advances. The timing for implementation of a future pedestrian crossover will be reviewed on a phase-by-phase basis through future Site Plan Control applications.

*Network Concept*

- The additional traffic generated by the subject site is not anticipated to have a significant impact on the overall operations of Blair Road or Ogilvie Road. Peak directional traffic along all roadways are anticipated to meet the target LOS E under the 2037 total traffic conditions.

*Intersection MMLOS*

- None of the study area intersections meet the target PLOS. There is limited opportunity to improve the PLOS at all intersections without reducing the number of lanes crossed;

- None of the study area intersections meet the target BLOS except for Ogilvie Road/Cadboro Road. There is limited opportunity to improve the BLOS at all intersections without providing two-stage left turning cycling facilities;

- All of the study area intersections meet the target TLOS except for Ogilvie Road/City Park Drive/Bathgate Drive, Ogilvie Road/City Park Drive, Ogilvie Road/Blair Road, and HWY 174 Westbound off-ramp/Blair Road;

- None of the study area intersections meet the target TkLOS except for HWY 174 Westbound off-ramp/Blair Road and HWY 174 Eastbound off-ramp/Blair Road; and

- All intersections meet the target AutoLOS except for Ogilvie Road/Blair Road.

*Background Traffic Analysis*

- The westbound left turning movement and northbound through movements at the Ogilvie Road/Blair Road intersection do not meet the target LOS E during the AM peak hour and the northbound right, westbound left, eastbound right and eastbound through movements do not meet the target LOS E in the PM peak hour. All other intersections within the study area are expected to meet the City's target.

- During the AM peak hour at the Ogilvie Road/Blair Road intersection, the average and maximum queue lengths of the westbound left movement exceed the current storage capacity. Additionally, the maximum queue lengths of the northbound left, the northbound through, and the southbound left turn movements exceed the existing storage capacity.

- During the PM peak hour at the Ogilvie Road/Blair Road intersection, the average and maximum queue lengths of the northbound right, the southbound through/right, and the westbound left movements and the maximum queue length for the southbound left turn movement exceed the existing storage length.

*Total Traffic Analysis*

- Traffic generated by the proposed development is anticipated to have marginal operational effects within the study area. The discussion of over-capacity movements and queue lengths are generally consistent with the background traffic analysis.

- Monitoring of collisions associated with the westbound left turn movement should be completed by the City as this development proceeds. Should the westbound left turn

collision pattern continue, consideration by the City could be given for implementing a fully protected left turn phase. While queueing does increase under fully protected phasing the 95th percentile queues in the left turning lanes could be supported by existing storage lengths at the intersection.

Based on the foregoing, the proposed development can be recommended from a transportation perspective.

**NOVATECH**

Prepared by:


Trevor Van Wiechen, P.Eng.
Project Engineer | Transportation

Reviewed by:


Brad Byvelds, P.Eng.
Senior Project Manager | Transportation

# APPENDIX A

Proposed Concept Plan


| PROPOSED LOT AREAS | |
|---|---|
| NAME | AREA |
| EASEMENT | 802 m² |
| LOT A | 2183 m² |
| LOT B | 2468 m² |
| LOT C | 2137 m² |
| LOT D | 2137 m² |
| LOT E | 1570 m² |
| PARK LOT | 1560 m² |
| PRIVATE ROAD | 2658 m² |
| | **15515 m²** |

## SITE PLAN

1 : 500

1
A100

NOTES GÉNÉRALES General Notes

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ARCHITECTURE DE PAYSAGE Landscape Architect
**Nom de la firme**
Adresse de la firme
Téléphone et adresse courriel

CIVIL Civil
**Nom de la firme**
Adresse de la firme
Téléphone et adresse courriel

ARCHITECTES Architect
**NEUF architect(e)s**
630, boul. René-Lévesque O. 32e étages, Montréal QC H3B 1S6
T 514 847 1117 NEUFarchitectes.com

**SCEAU** / Seal

NEUF
ARCHITECT(E)S

CLIENT Client

OUVRAGE Project
**13048 - 2000 CITY PARK**

EMPLACEMENT Location
Adresse / Address

NO PROJET No.
00000.00

| NO | RÉVISION | DATE (aa-mm-jj) |
|---|---|---|

Préliminaire
NE PAS UTILISER POUR CONSTRUCTION

DESSINÉ PAR Drawn by
RD

VÉRIFIÉ PAR Checked by
CI

DATE (aa.mm.jj)
04/14/25

ÉCHELLE Scale
1:500

TITRE DU DESSIN Drawing Title
**SITE PLAN**

RÉVISION Revision

NO. DESSIN Dwg Number
A100

# APPENDIX B

---

TIA Screening Form

# City of Ottawa 2017 TIA Guidelines Screening Form

## 1. Description of Proposed Development

| | |
|---|---|
| Municipal Address | **1900/2000 City Park Drive** |
| Description of Location | **Mid-block between Ambassador Ave and Jobin Crescent** |
| Land Use Classification | **Multi-tower mixed-use** |
| Development Size (units) | |
| Development Size ($m^2$) | |
| Number of Accesses and Locations | **Two access on south side of City Park Drive** |
| Phase of Development | |
| Buildout Year | |

**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.

| Land Use Type | Minimum Development Size |
|---|---|
| Single-family homes | 40 units |
| Townhomes or apartments | 90 units |
| Office | 3,500 $m^2$ |
| Industrial | 5,000 $m^2$ |
| Fast-food restaurant or coffee shop | 100 $m^2$ |
| Destination retail | 1,000 $m^2$ |
| Gas station or convenience market | 75 $m^2$ |

** If the development has a land use type other than what is presented in the table above, estimates of person-trip generation may be made based on average trip generation characteristics represented in the current edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual.*

**If the proposed development size is 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 City's Transit Priority, Rapid Transit or Spine Bicycle Networks? | | X |
| Is the development in a Design Priority Area (DPA) or Transit-oriented Development (TOD) zone?* | ✓ | |

**DPA and TOD are identified in the City of Ottawa Official Plan (DPA in Section 2.5.1 and Schedules A and B; TOD in Annex 6). See Chapter 4 for a list of City of Ottawa Planning and Engineering documents that support the completion of TIA).*

**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 km/hr or greater? | | X |
| Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway? | | X |
| Is the proposed driveway within the area of influence of an adjacent traffic signal or roundabout (i.e. within 300 m of intersection in rural conditions, or within 150 m of intersection in urban/ suburban conditions)? | | X |
| Is the proposed driveway within auxiliary lanes of an intersection? | | X |
| Does the proposed driveway make use of an existing median break that serves an existing site? | | X |
| Is there is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development? | | X |
| Does the development include a drive-thru facility? | | X |

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

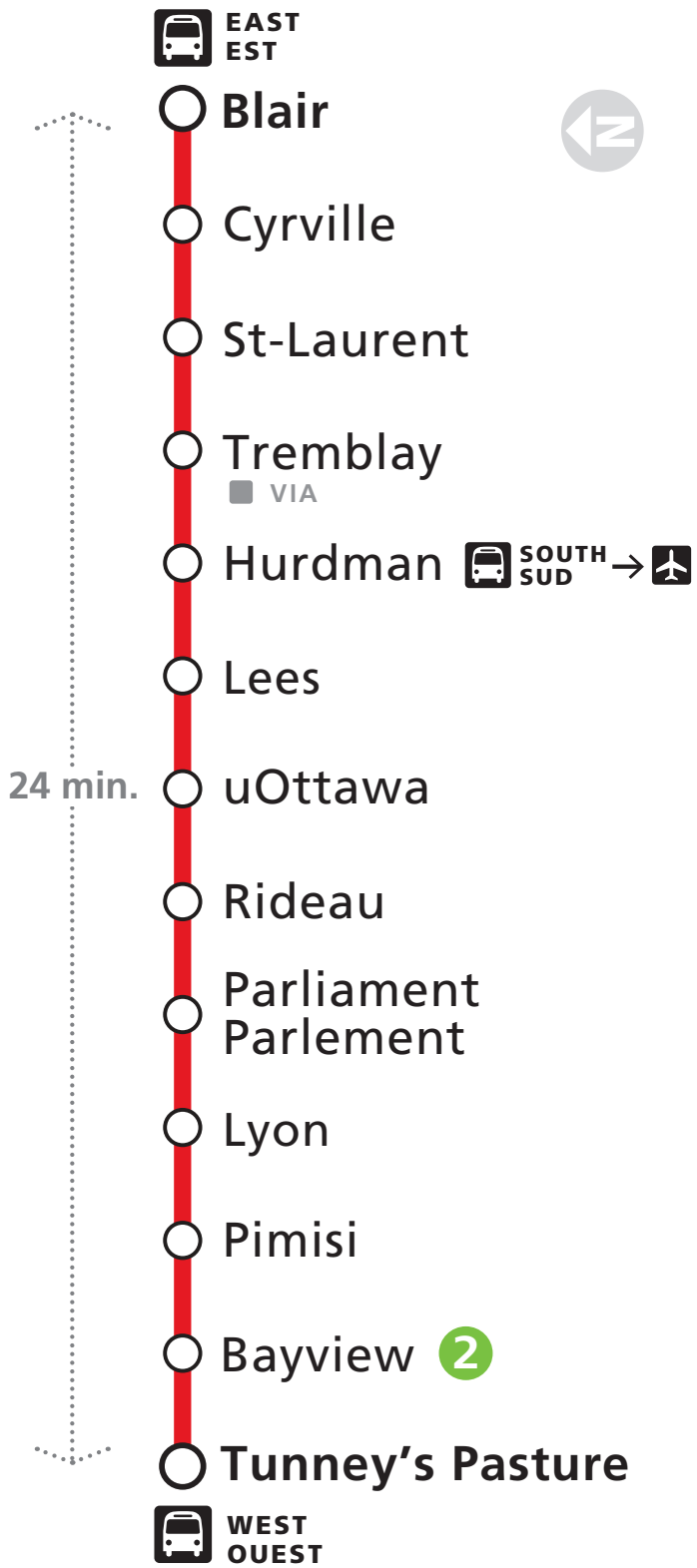
## 5. Summary

| | Yes | No |
|---|---|---|
| Does the development satisfy the Trip Generation Trigger? | ✓ | |
| Does the development satisfy the Location Trigger? | ✓ | |
| Does the development satisfy the Safety Trigger? | | X |

**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


EAST
EST
Blair
Cyrville
St-Laurent
Tremblay
VIA
Hurdman
SOUTH
SUD
Lees
24 min.
uOttawa
Rideau
Parliament
Parlement
Lyon
Pimisi
Bayview
2
Tunney's Pasture
WEST
OUEST

# 12

## BLAIR

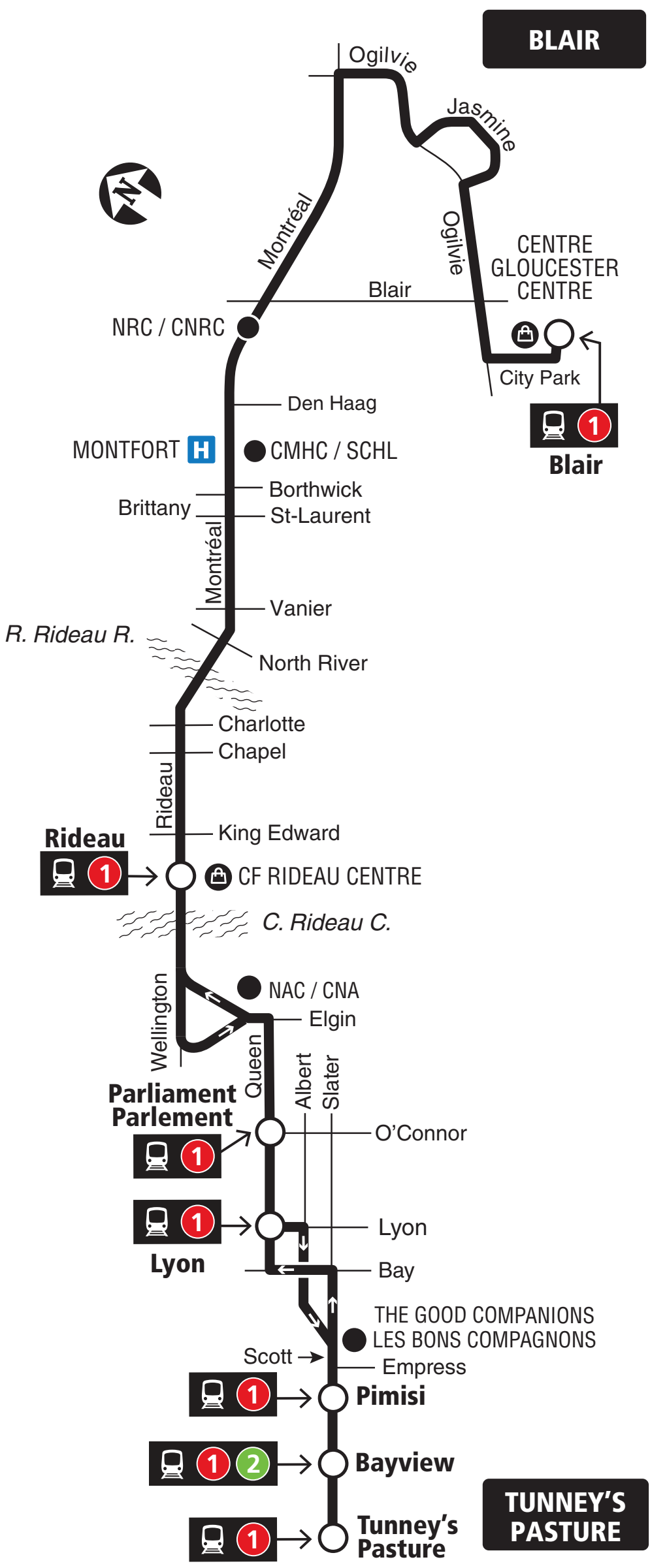
## TUNNEY'S PASTURE

*Fréquent*

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

All day service

Service toute la journée




04.2025

Station

Shopping Centre / Centre commercial

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**

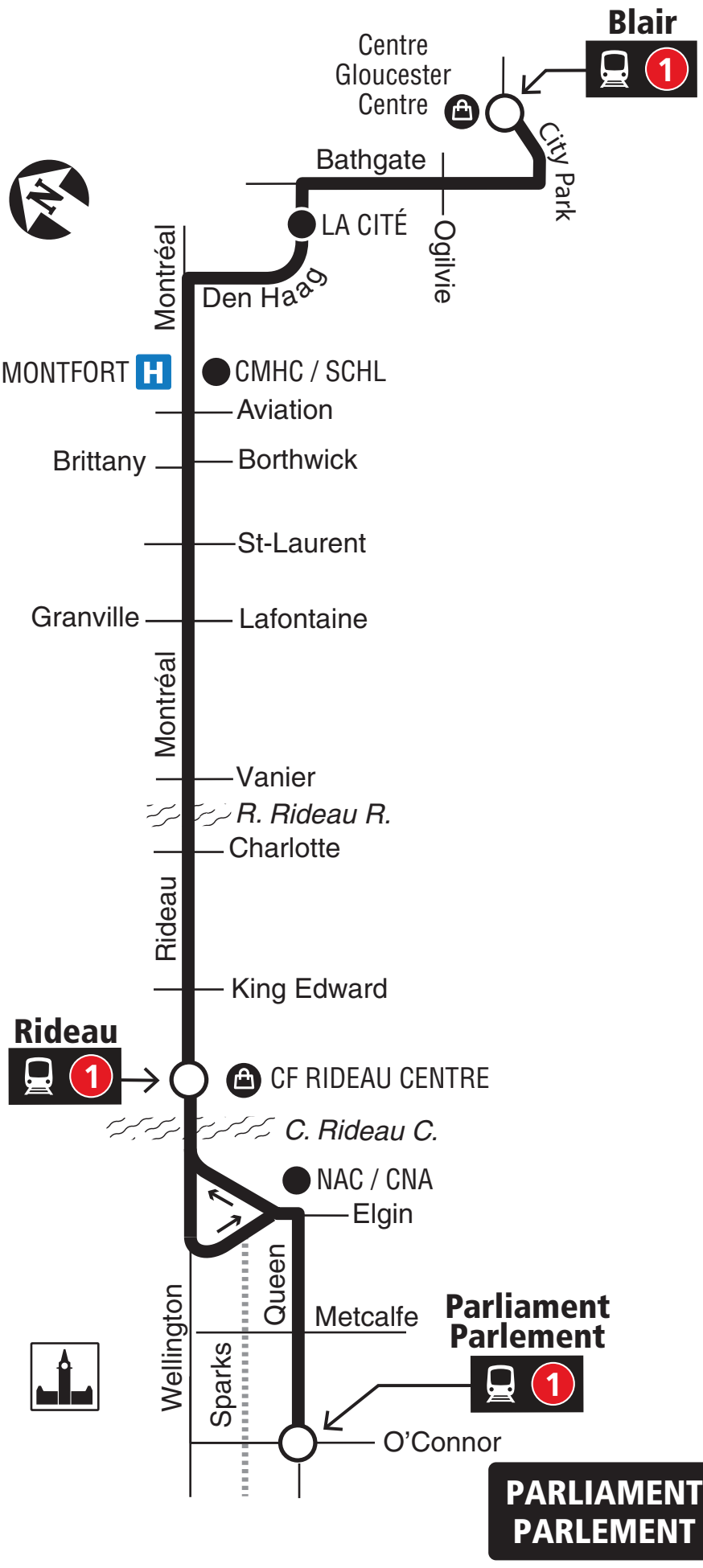
# 15

## BLAIR
## PARLIAMENT
## PARLEMENT

*Local*

**Monday to Friday / Lundi au vendredi**
Peak periods only
Périodes de pointe seulement

**BLAIR**




04.2025

Station

Shopping Centre / Centre commercial

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.

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

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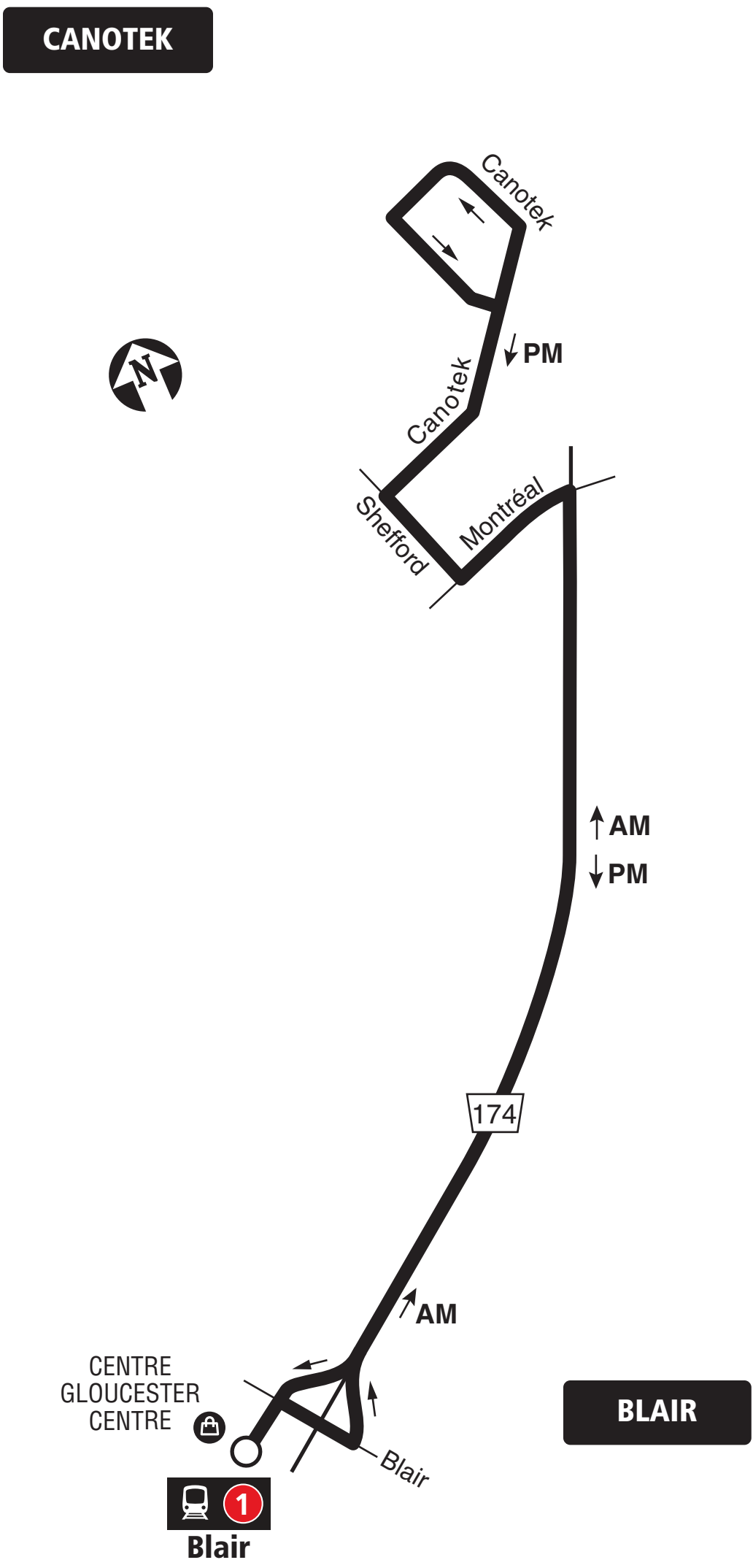
# 21

## Local

# CANOTEK
# BLAIR

**Monday to Friday / Lundi au vendredi**
Peak periods only
Périodes de pointe seulement




04.2025

Station

Shopping Centre / Centre commercial

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.

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

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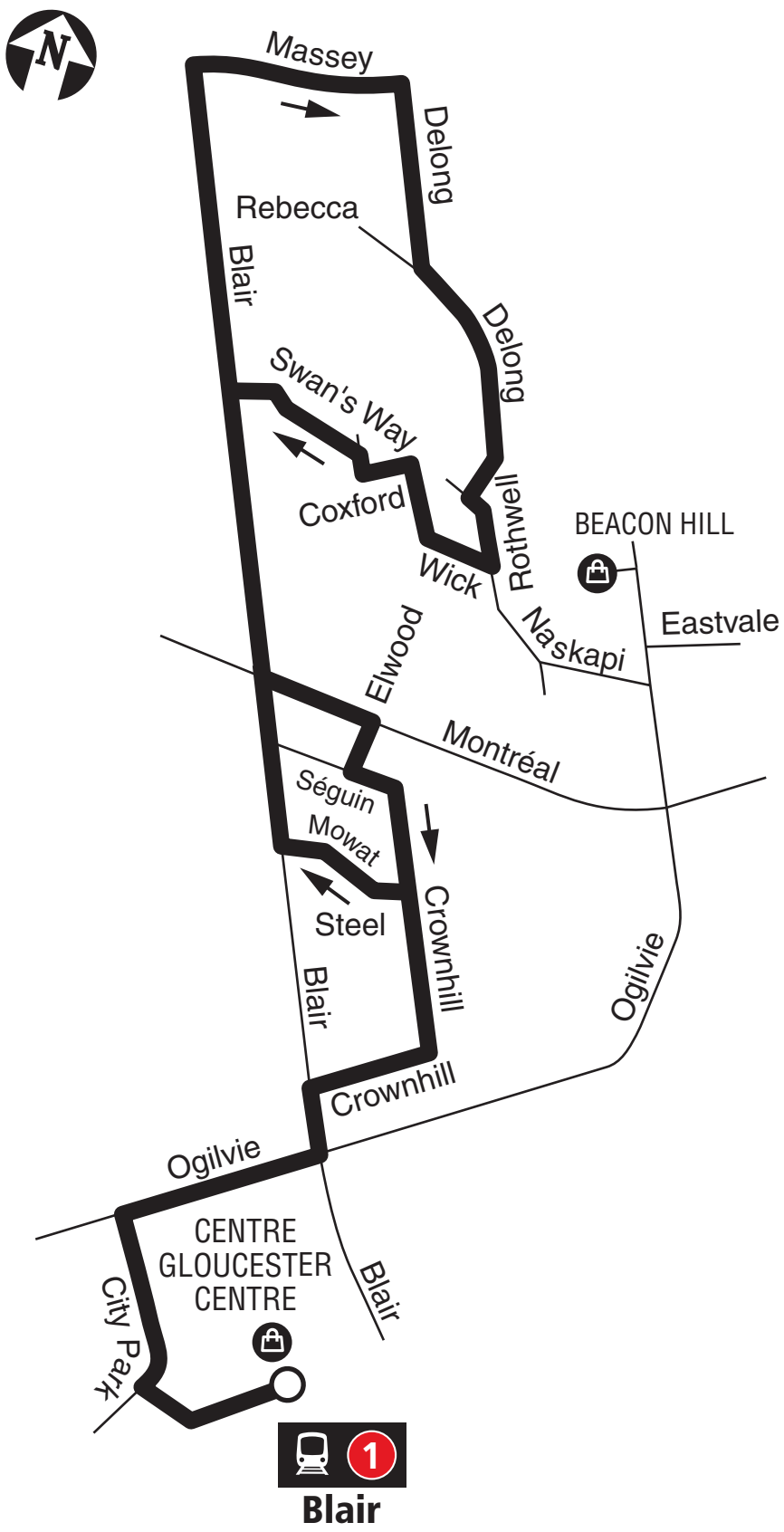
# 23

## Local

# ROTHWELL HEIGHTS
# BLAIR

**Monday to Friday / Lundi au vendredi**
Peak periods only
Périodes de pointe seulement

**ROTHWELL HEIGHTS**




**BLAIR**

Station

Shopping Centre / Centre commercial

04.2025

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**

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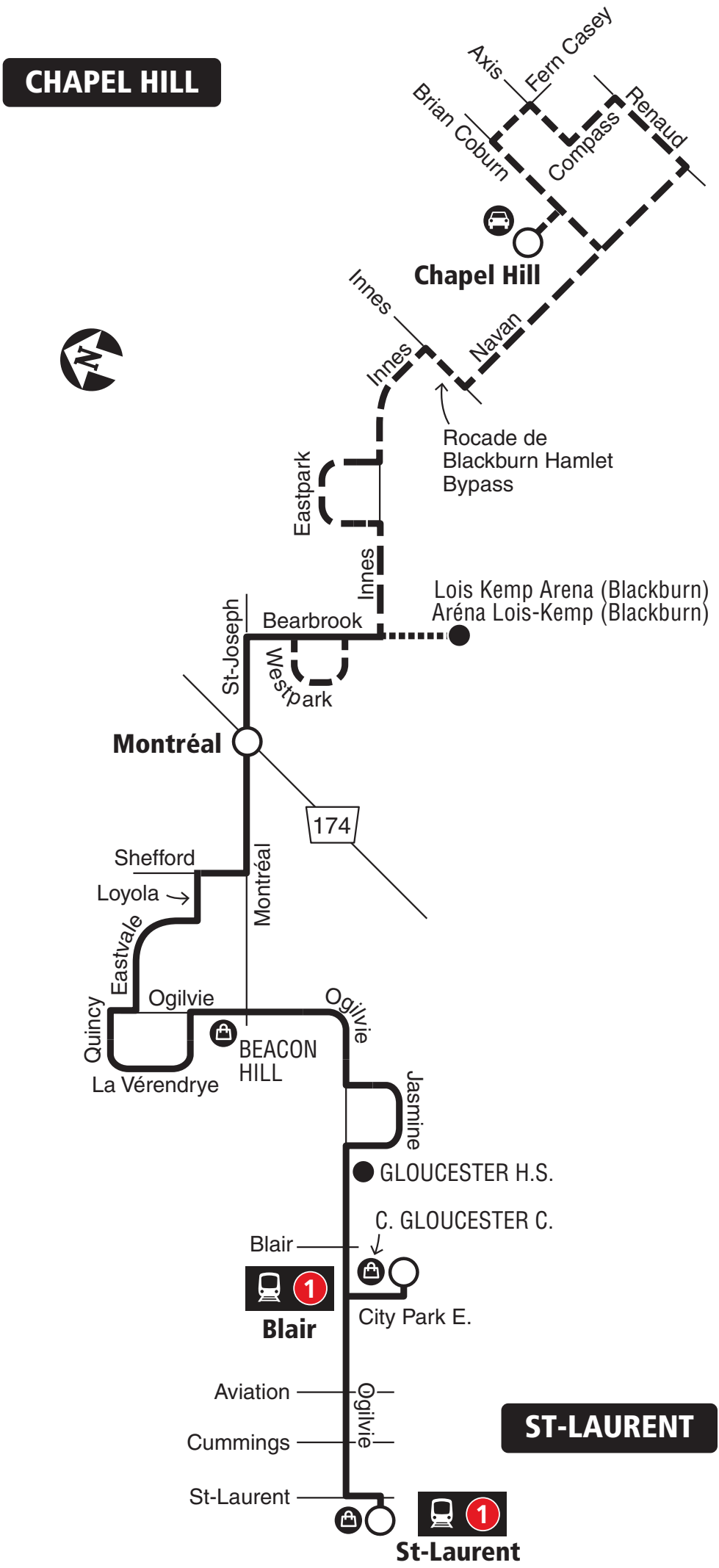
# 24

# CHAPEL HILL
# ST-LAURENT

## *Local*

## 7 days a week / 7 jours par semaine

All day service
Service toute la journée




04.2025

- Weekdays only / En semaine seulement
- Weekends only / Fin de semaine seulement
- Station
- 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**

# 25

Fréquent

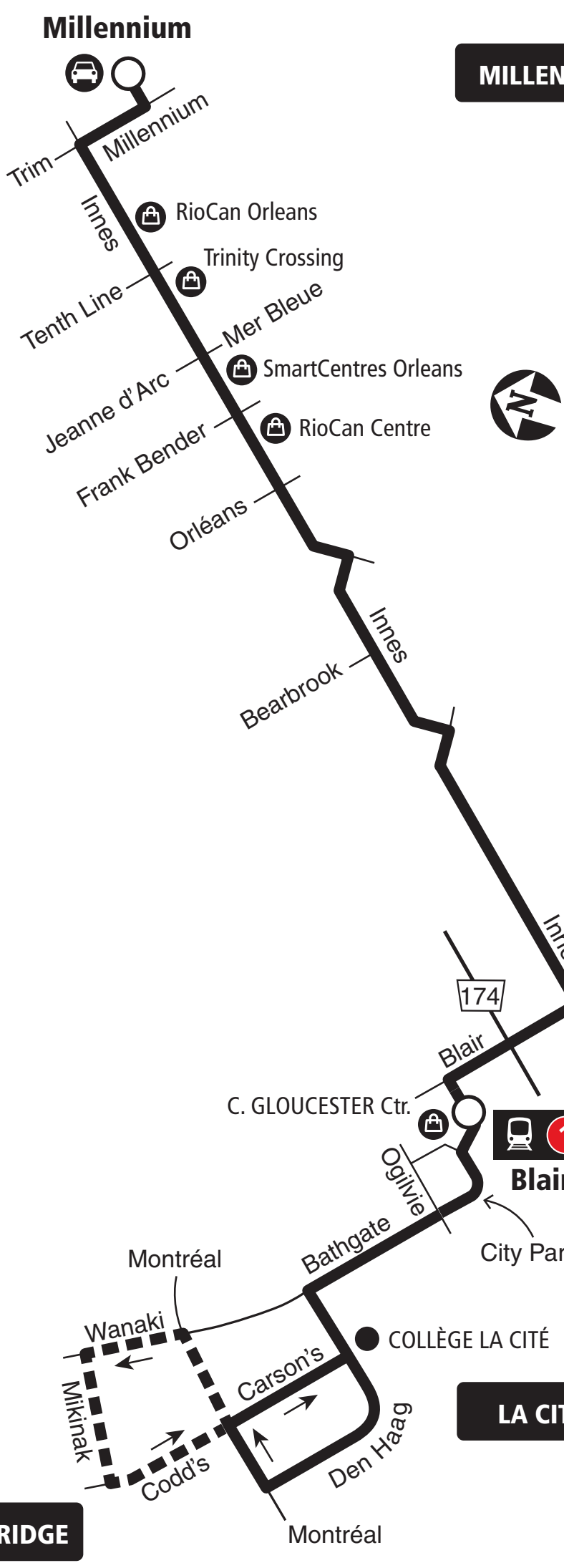
# WATERIDGE LA CITÉ

# MILLENNIUM

## 7 days a week / 7 jours par semaine

All day service

Service toute la journée




| | |
|---|---|
| ○ | Station |
| P | Park & Ride / Parc relais |
| | Shopping Centre / Centre commercial |
| - - - - | Monday to Friday only<br>Lundi au vendredi seulement |

04.2025

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**

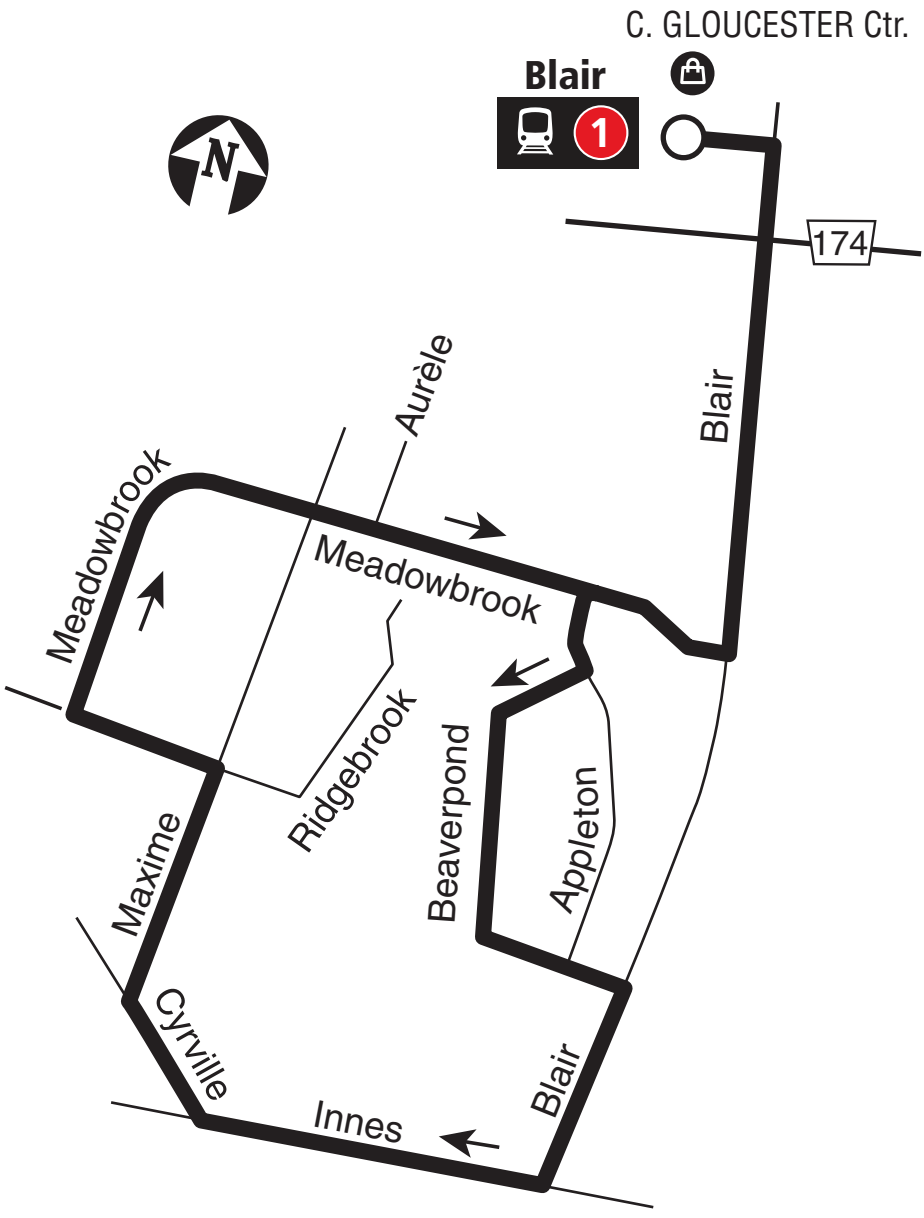
# 26

## Local

# PINEVIEW
# BLAIR

**Monday to Friday / Lundi au vendredi**
Peak periods only
Périodes de pointe seulement

**BLAIR**




**PINEVIEW**

Station

Shopping Centre / Centre commercial

04.2025

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**

# 30

# BLAIR

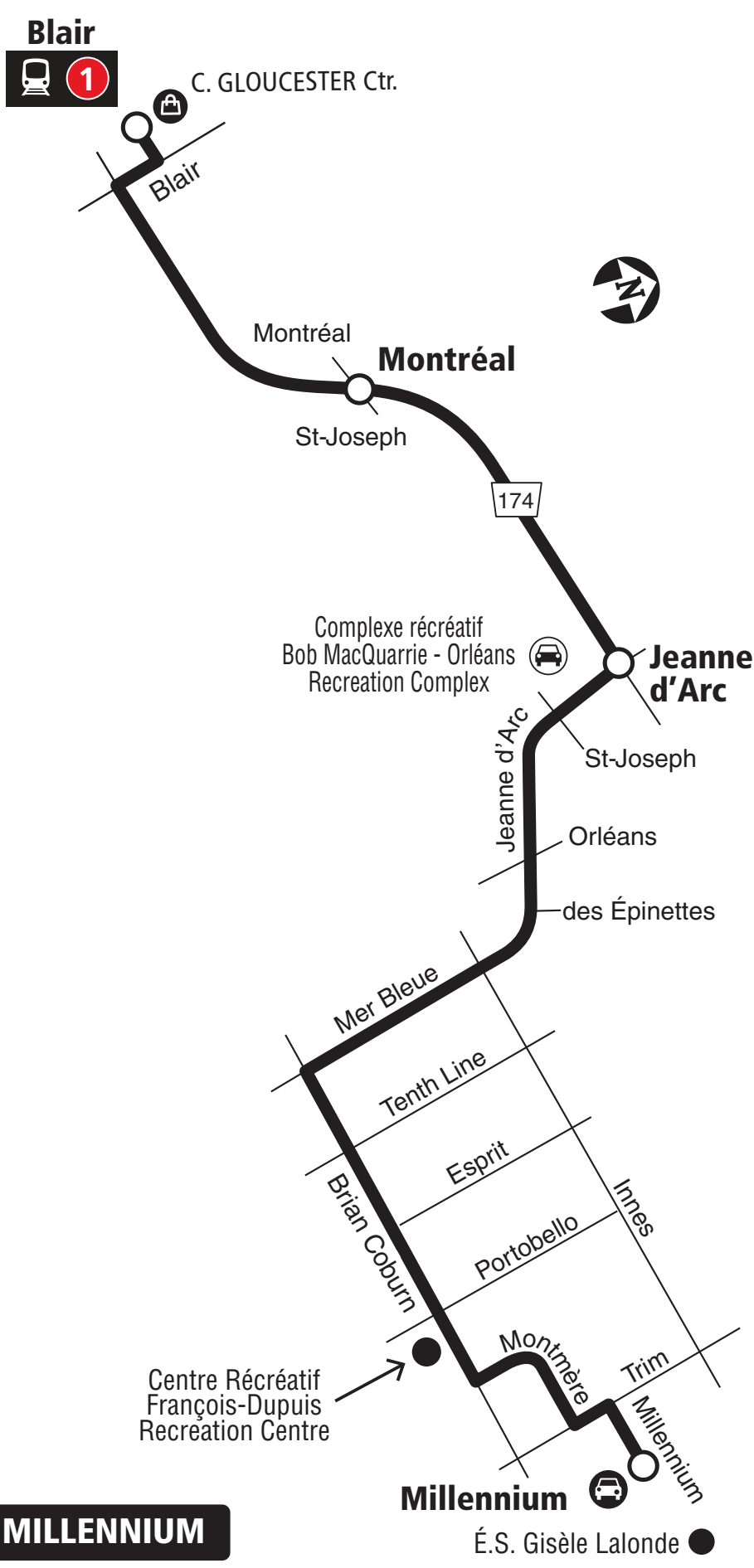
# MILLENNIUM

*Local*

## 7 days a week / 7 jours par semaine

All day service
Service toute la journée

**BLAIR**




**MILLENNIUM**

04.2025

- Station
- Park & Ride / Parc relais
- Shopping Centre / Centre commercial

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**

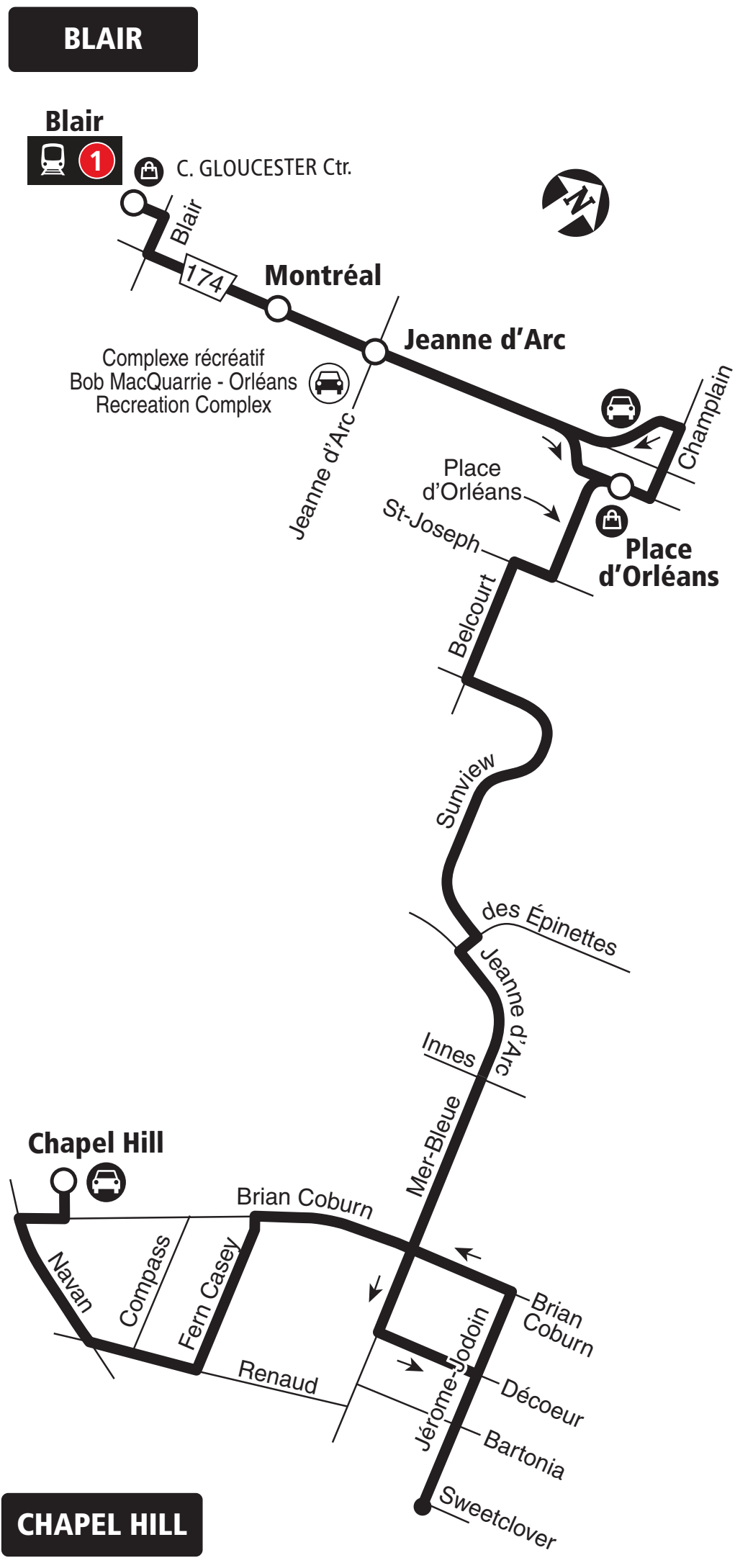
OC Transpo **octranspo.com**

# 32

## BLAIR
## CHAPEL HILL

*Local*

**Monday to Friday / Lundi au vendredi**
Peak periods - Limited midday service
Périodes de pointe - Service limité en mi-journée




Station
Park & Ride / Parc relais
Shopping Centre / Centre commercial

04.2025

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**

# 33

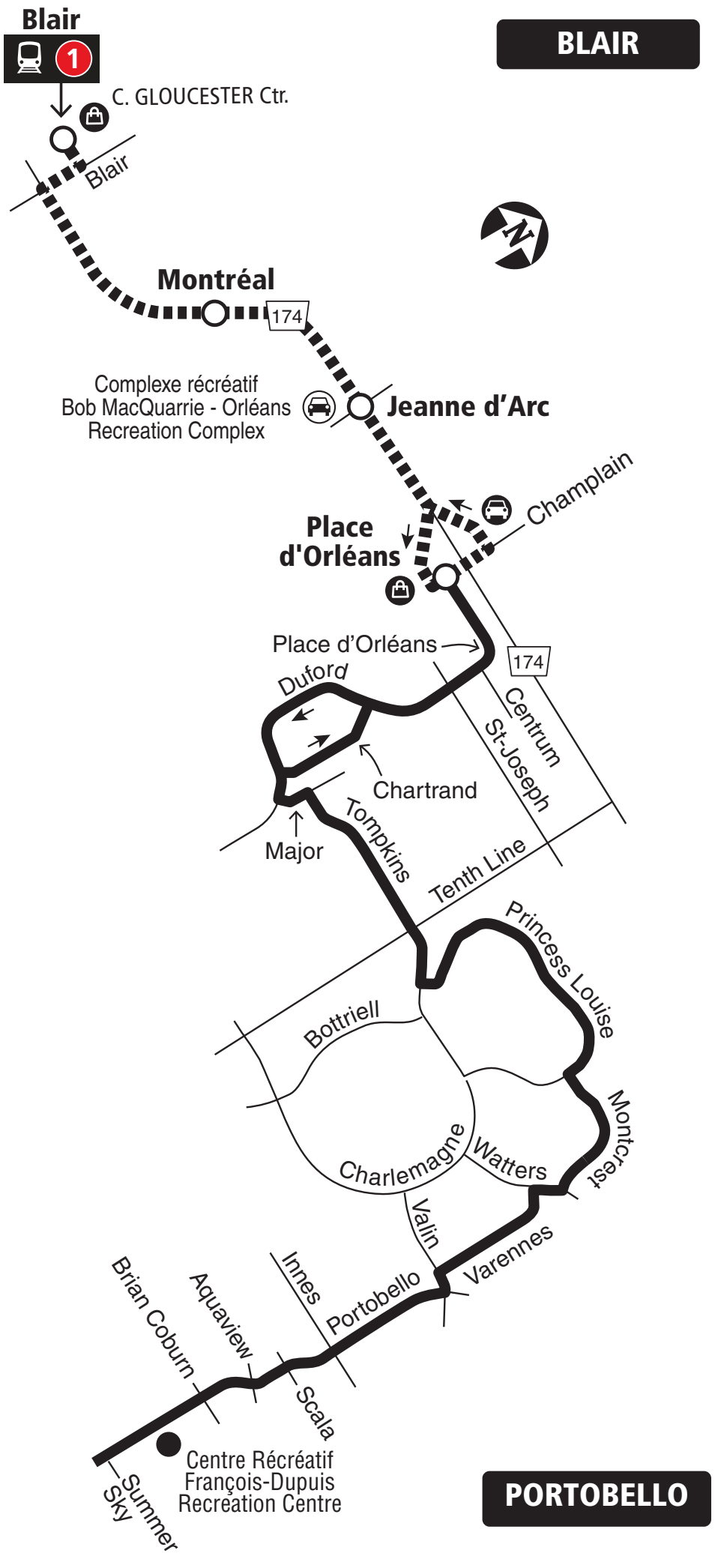
# PLACE D'ORLÉANS
# BLAIR

# PORTOBELLO

*Local*

## 7 days a week / 7 jours par semaine

All day service
Service toute la journée




04.2025

| | |
|---|---|
| ○ | Station |
| ▮▮▮▮▮▮▮▮▮▮ | Peak period and select midday trips / Périodes de pointe et trajets sélectionnés en mi-journée |
| 🚗 🚗 | Park & Ride / Parc relais |
| 🛍 | Shopping Centre / Centre commercial |

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**

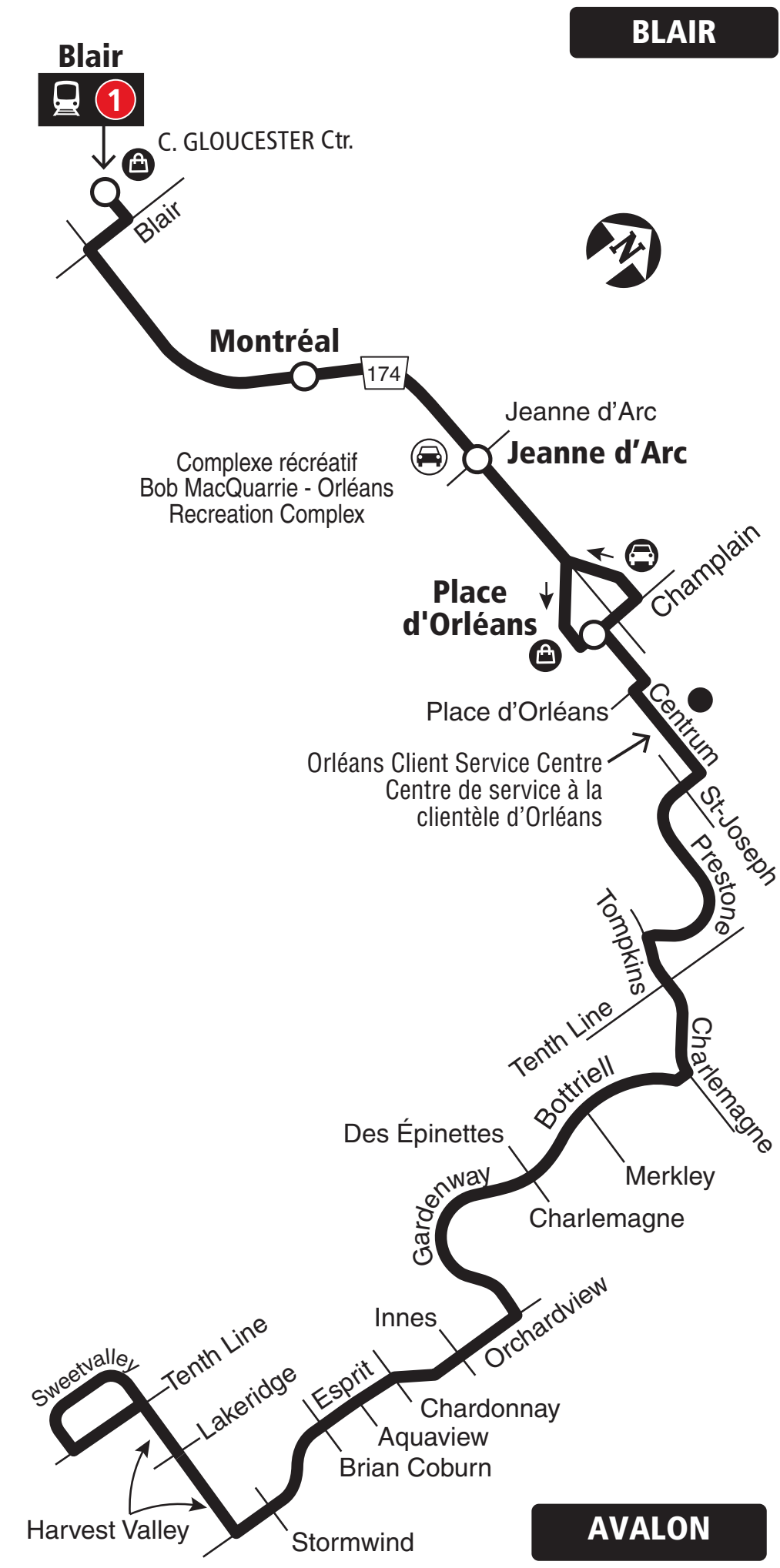
# 35

## AVALON
## BLAIR

*Local*

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

All day service
Service toute la journée




04.2025

- Station
- Park & Ride / Parc relais
- Shopping Centre / Centre commercial

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**

# 38

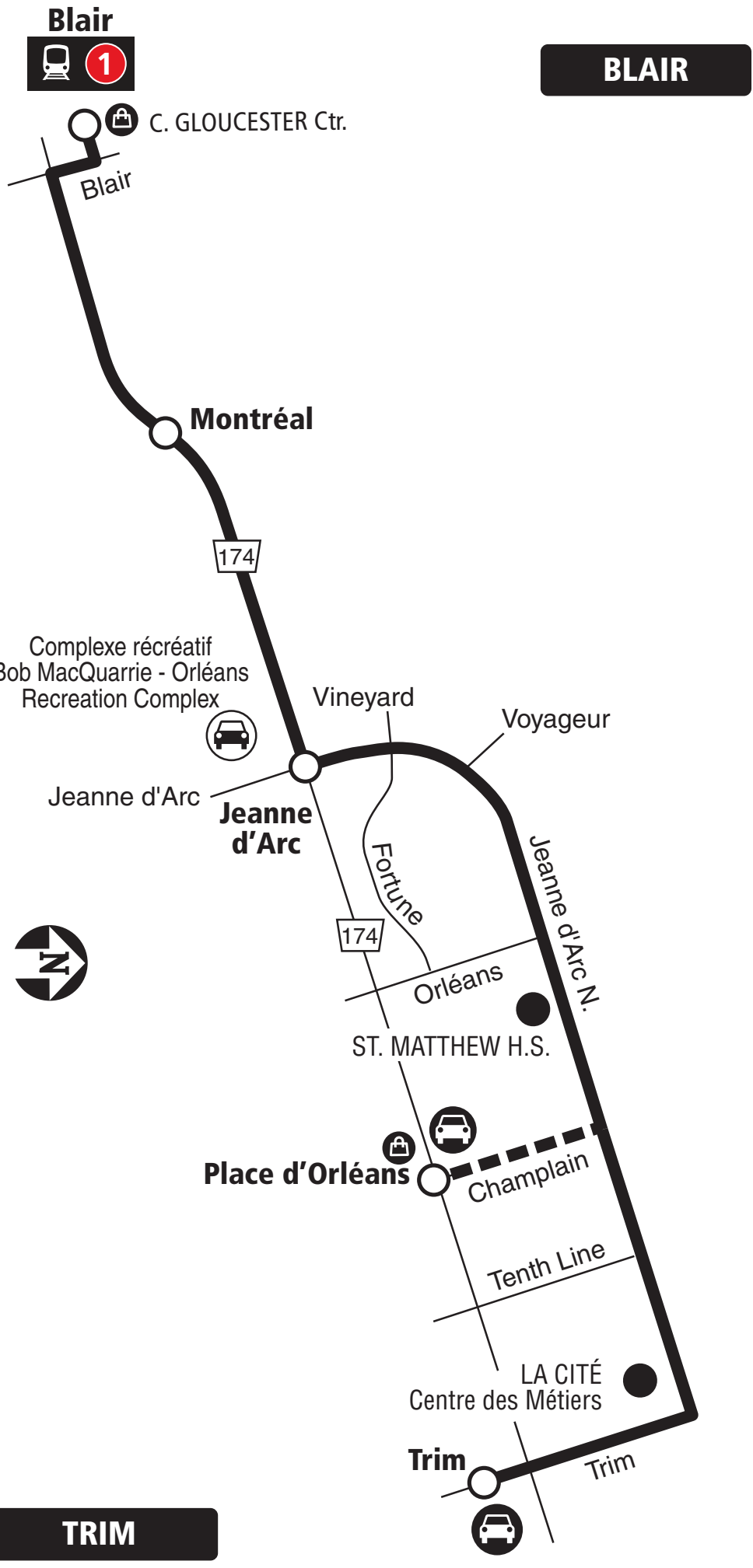
## BLAIR

## TRIM

*Local*

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

All day service
Service toute la journée




04.2025

- Station
- No service westbound AM and eastbound PM / Aucun service vers l'ouest AM et vers l'est PM
- Park & Ride / Parc relais
- Shopping Centre / Centre commercial

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**

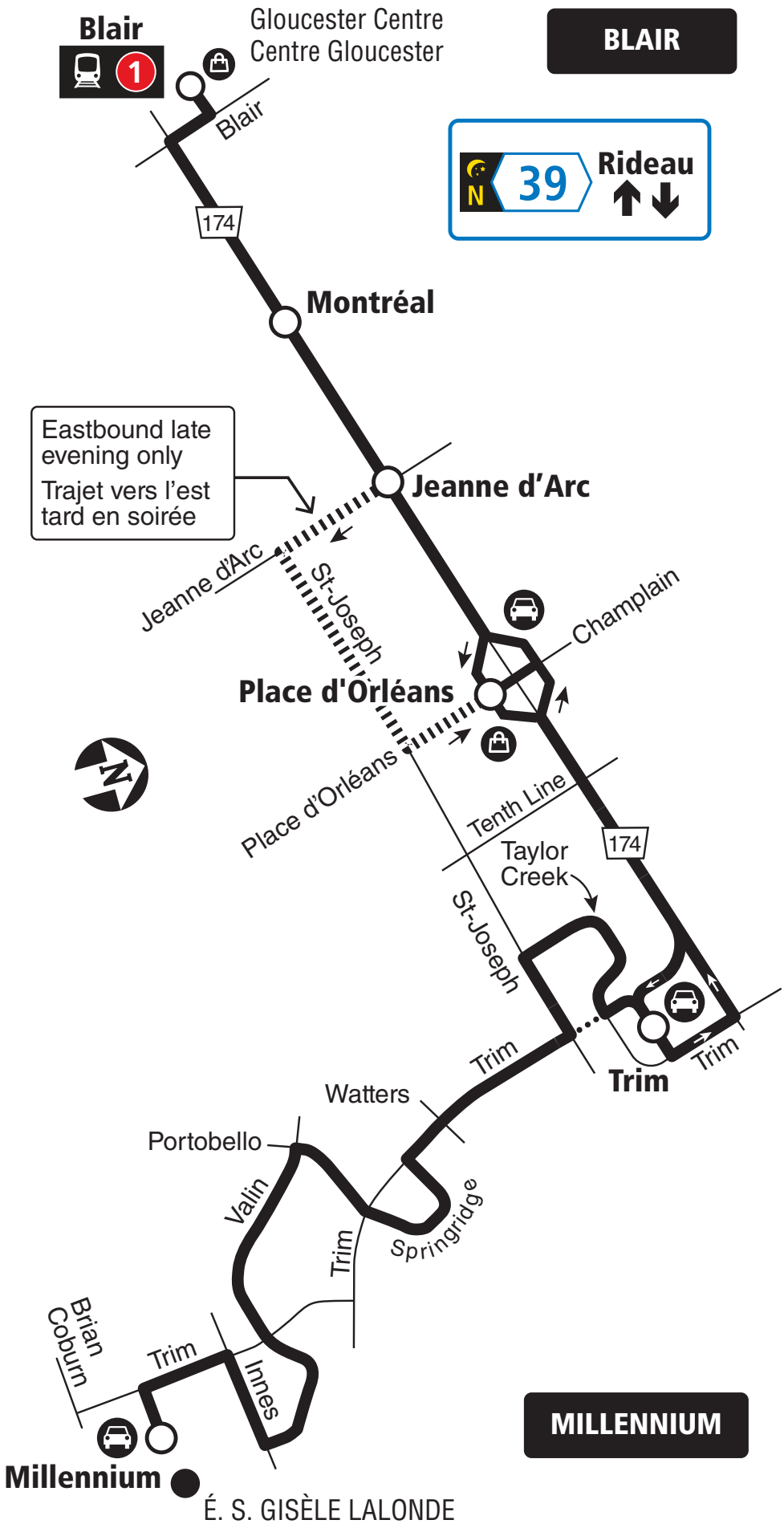
# 39

## Fréquent

# BLAIR
# MILLENNIUM

## 7 days a week / 7 jours par semaine

All day and overnight service
Service toute la journée et la nuit




04.2025

- Station
- Eastbound late evening / Trajet vers l'est tard en soirée
- Some trips / Quelques trajets
- Park & Ride / Parc relais
- Shopping Centre / Centre commercial

N 39 When O-Train Line 1 is not running overnight, Route 39 will be extended downtown to Rideau Station. / Lorsque la Ligne 1 de l'O-Train ne circule pas la nuit, le circuit 39 sera prolongée au centre-ville jusqu'à la station Rideau.

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**

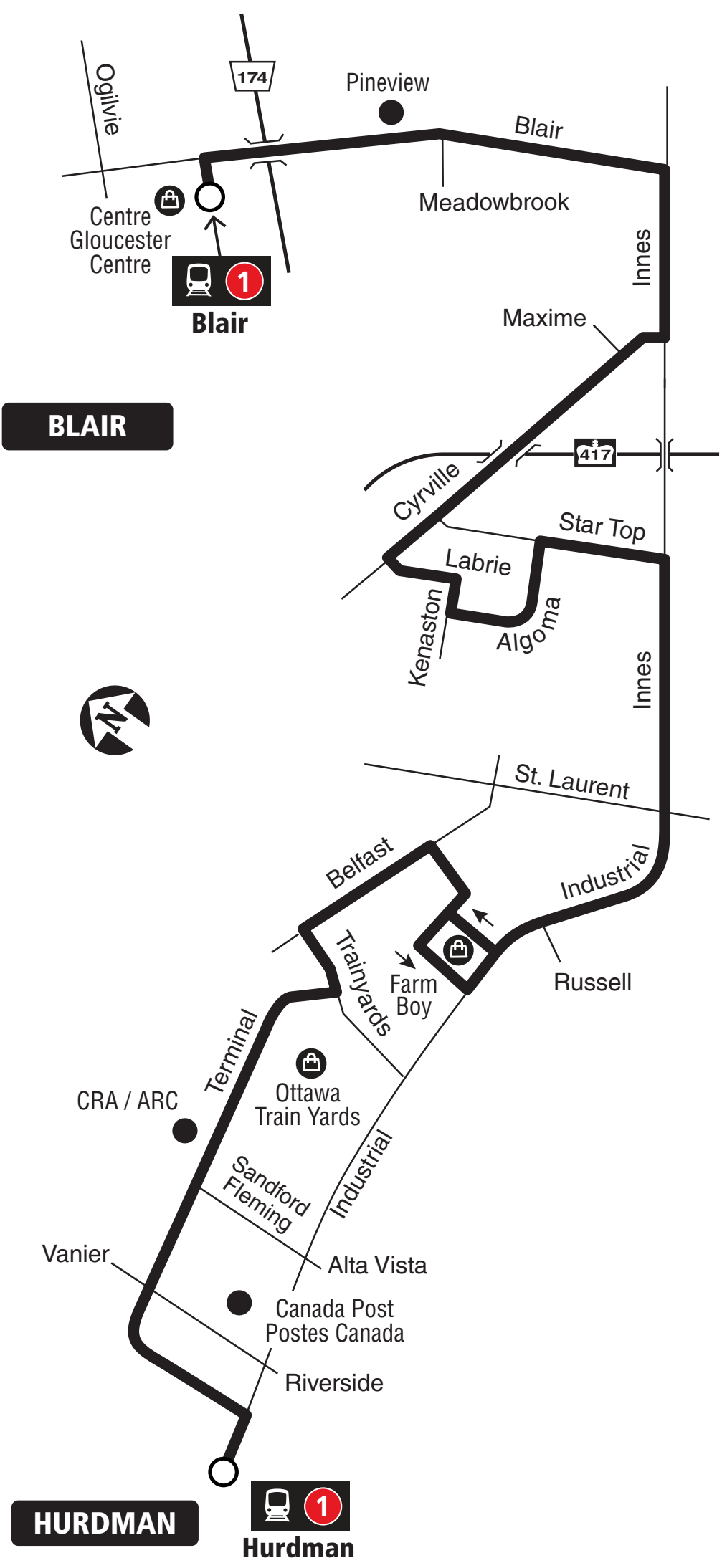
# 42

# BLAIR
# HURDMAN

## *Local*

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

No late eve. service Mon. to Fri. No eve. service Sunday / Aucun service en fin de soirée du lun. au ven. Aucun service le soir le dimanche




Station

Shopping Centre / Centre commercial

04.2025

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**

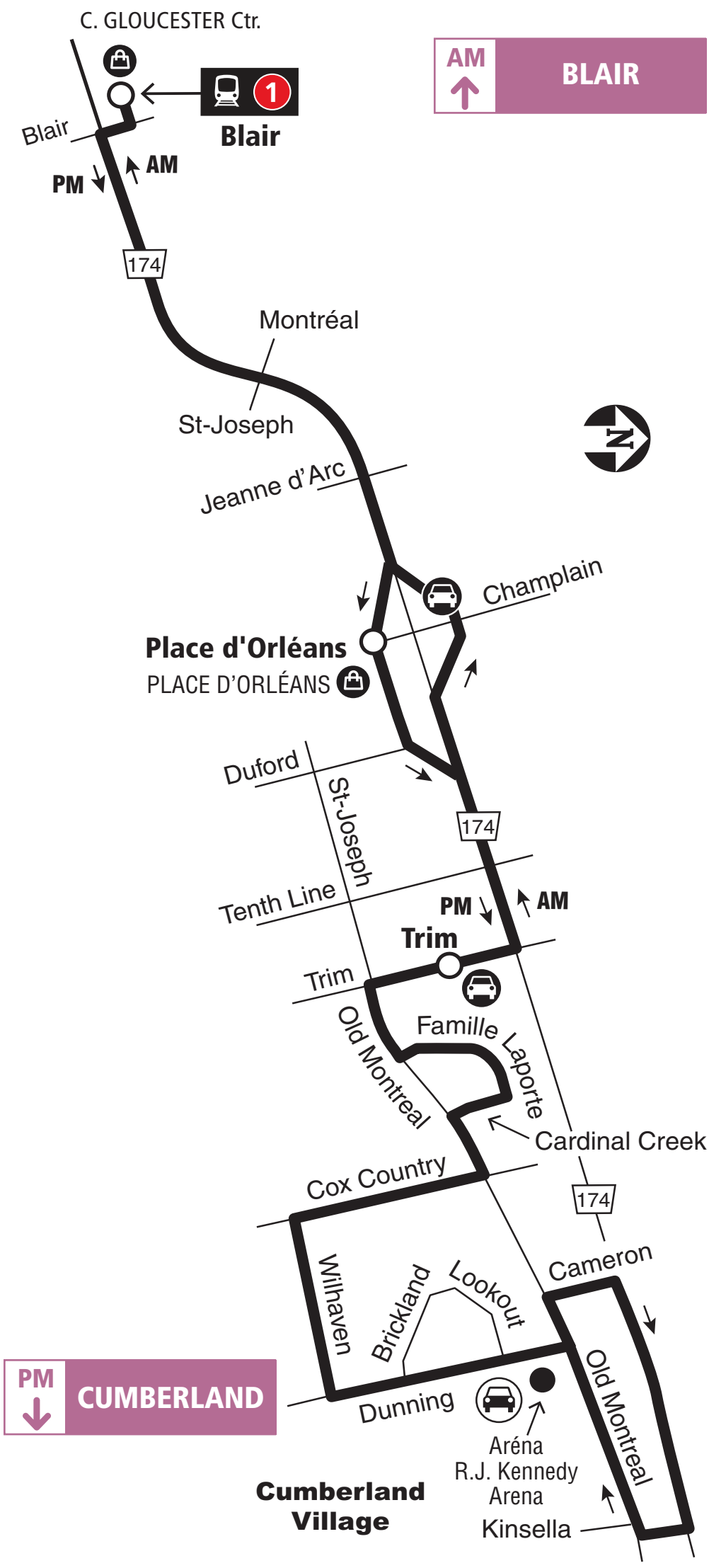
OC Transpo **octranspo.com**

# 221 Connexion

# BLAIR
# CUMBERLAND

## Monday to Friday / Lundi au vendredi

Peak periods only
Périodes de pointe seulement




04.2025

- Station
- Park & Ride / Parc relais
- Shopping Centre / Centre commercial

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**

# 222 Connexion

# BLAIR

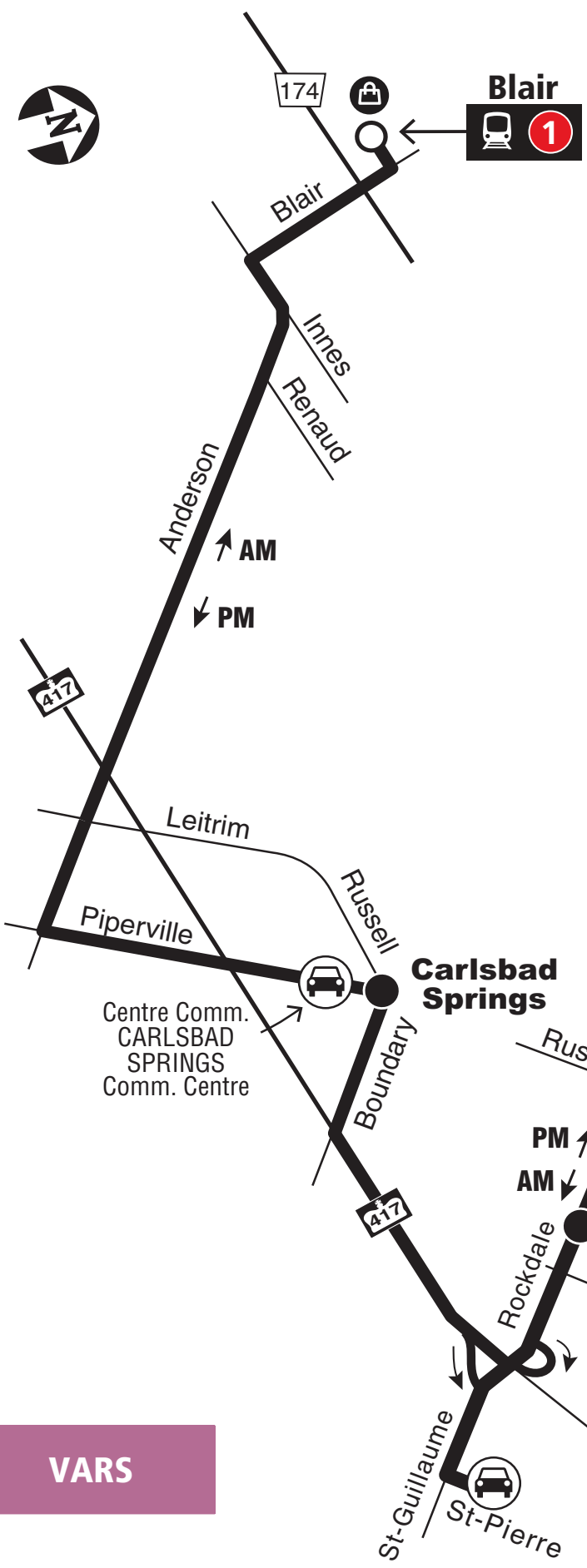
# VARS

## Monday to Friday / Lundi au vendredi

Peak periods only

Périodes de pointe seulement

**AM** ↑ **BLAIR**




**PM** ↓ **VARS**

04.2025

- Station
- Park & Ride / Parc relais
- Shopping Centre / Centre commercial

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**

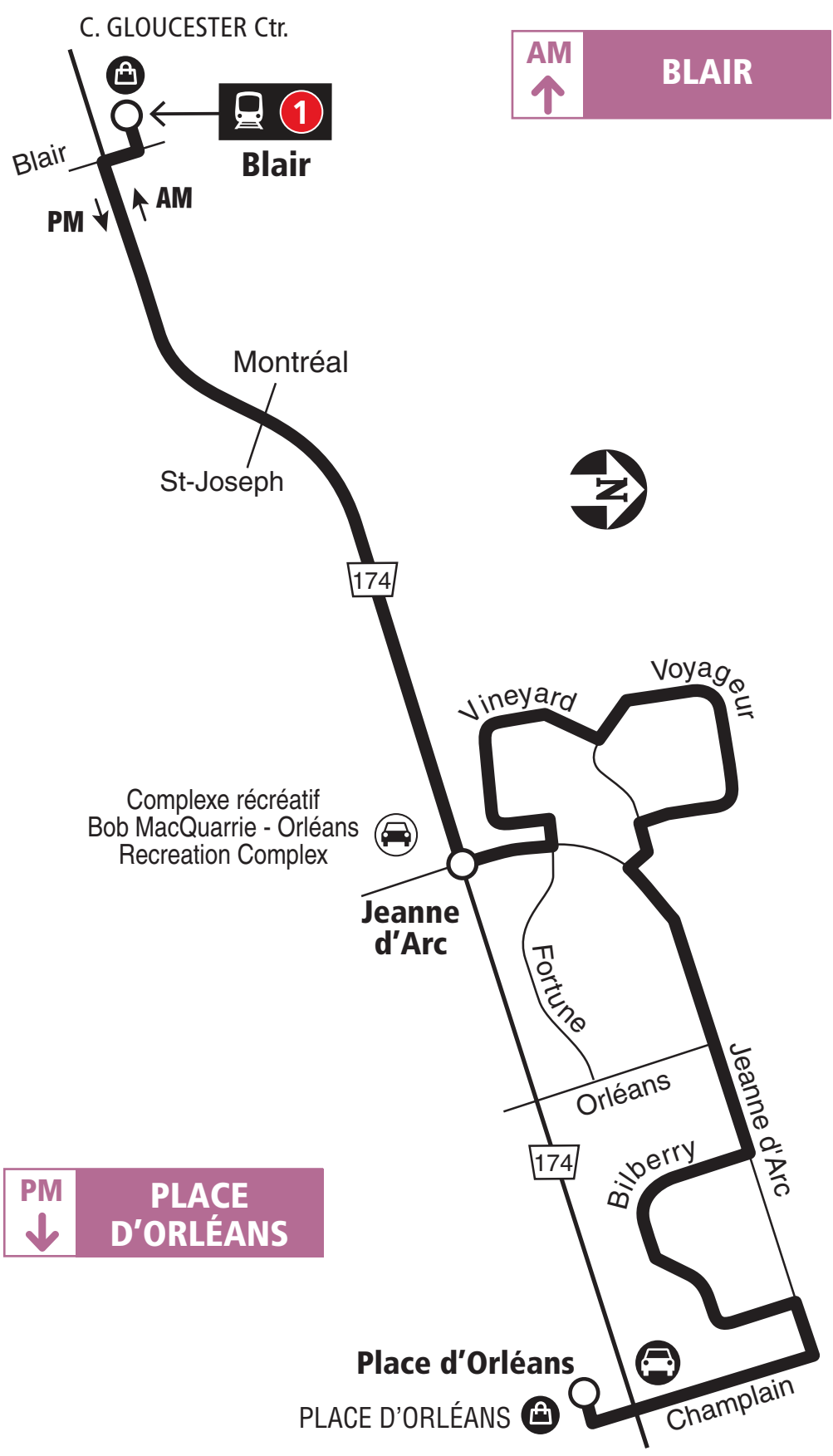
OC Transpo **octranspo.com**

# 237 Connexion

# BLAIR
# PLACE D'ORLÉANS

## Monday to Friday / Lundi au vendredi

Peak periods only
Périodes de pointe seulement




04.2025

- Station
- Park & Ride / Parc relais
- Shopping Centre / Centre commercial

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**

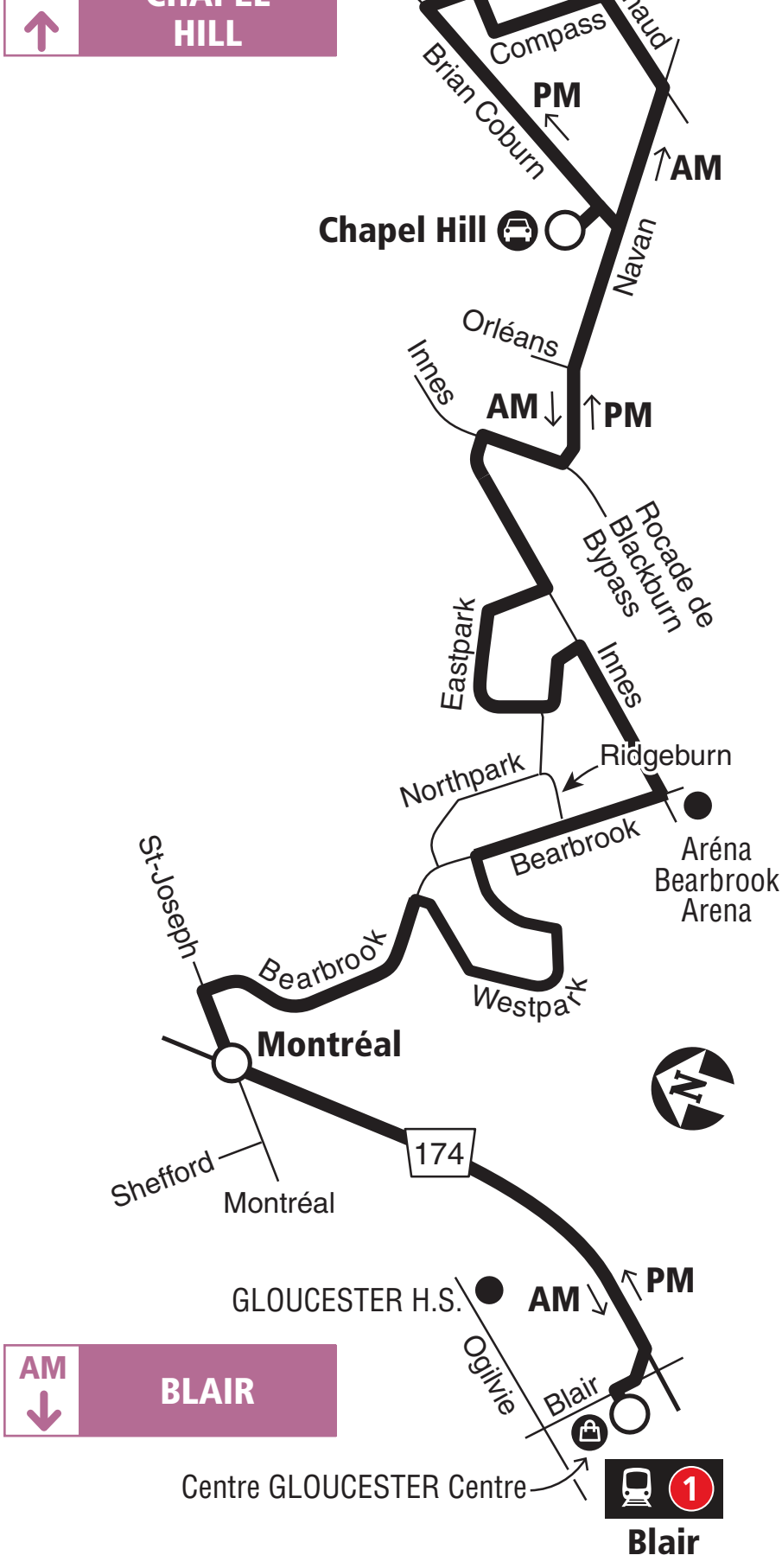
OC Transpo **octranspo.com**

# 226 Connexion

# BLAIR
# CHAPEL HILL

## Monday to Friday / Lundi au vendredi

Peak periods only /
Période de pointe seulement




Station

Park & Ride / Parc relais

Shopping Centre / Centre commercial

04.2025

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**

# 228 Connexion

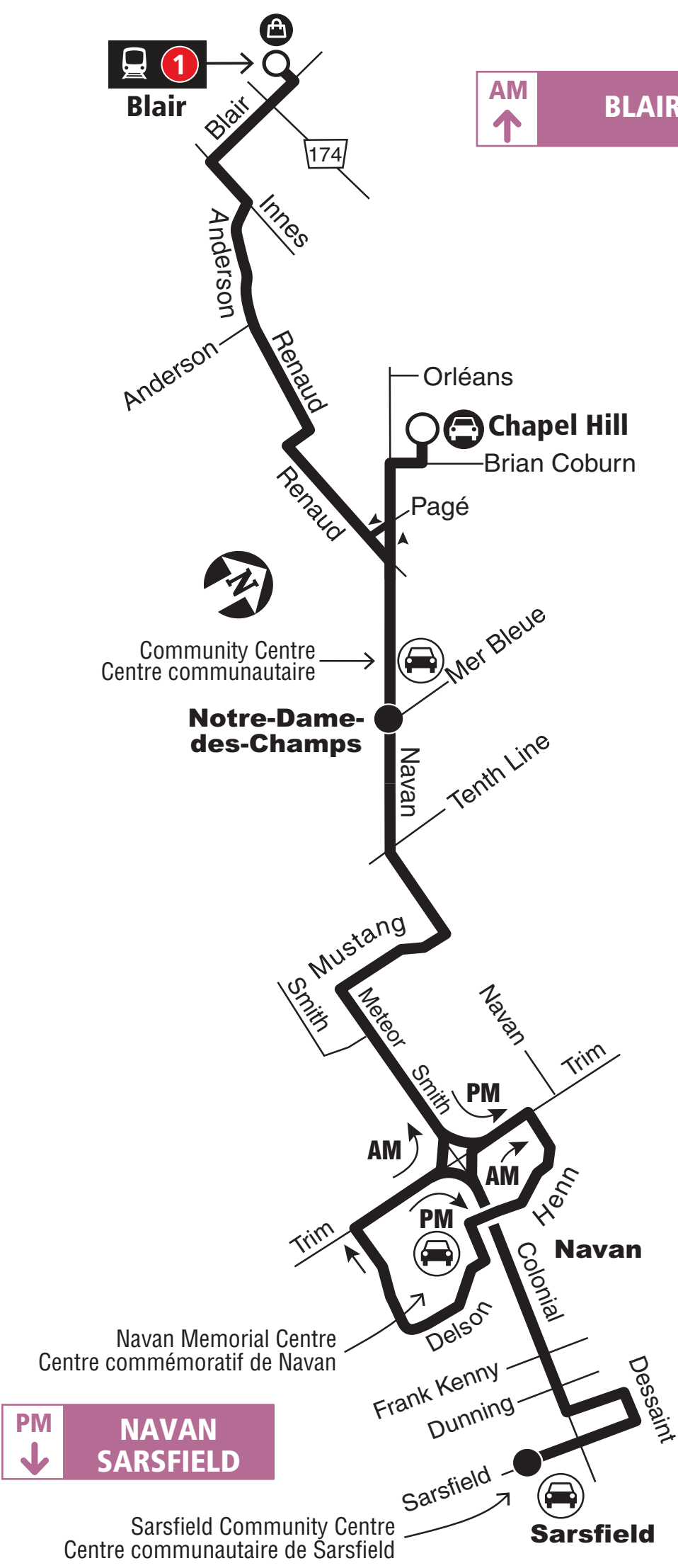
# BLAIR

# NAVAN / SARSFIELD

## Monday to Friday / Lundi au vendredi

Peak periods only

Périodes de pointe seulement




Station

Park & Ride / Parc relais

Shopping Centre / Centre commercial

04.2025

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**

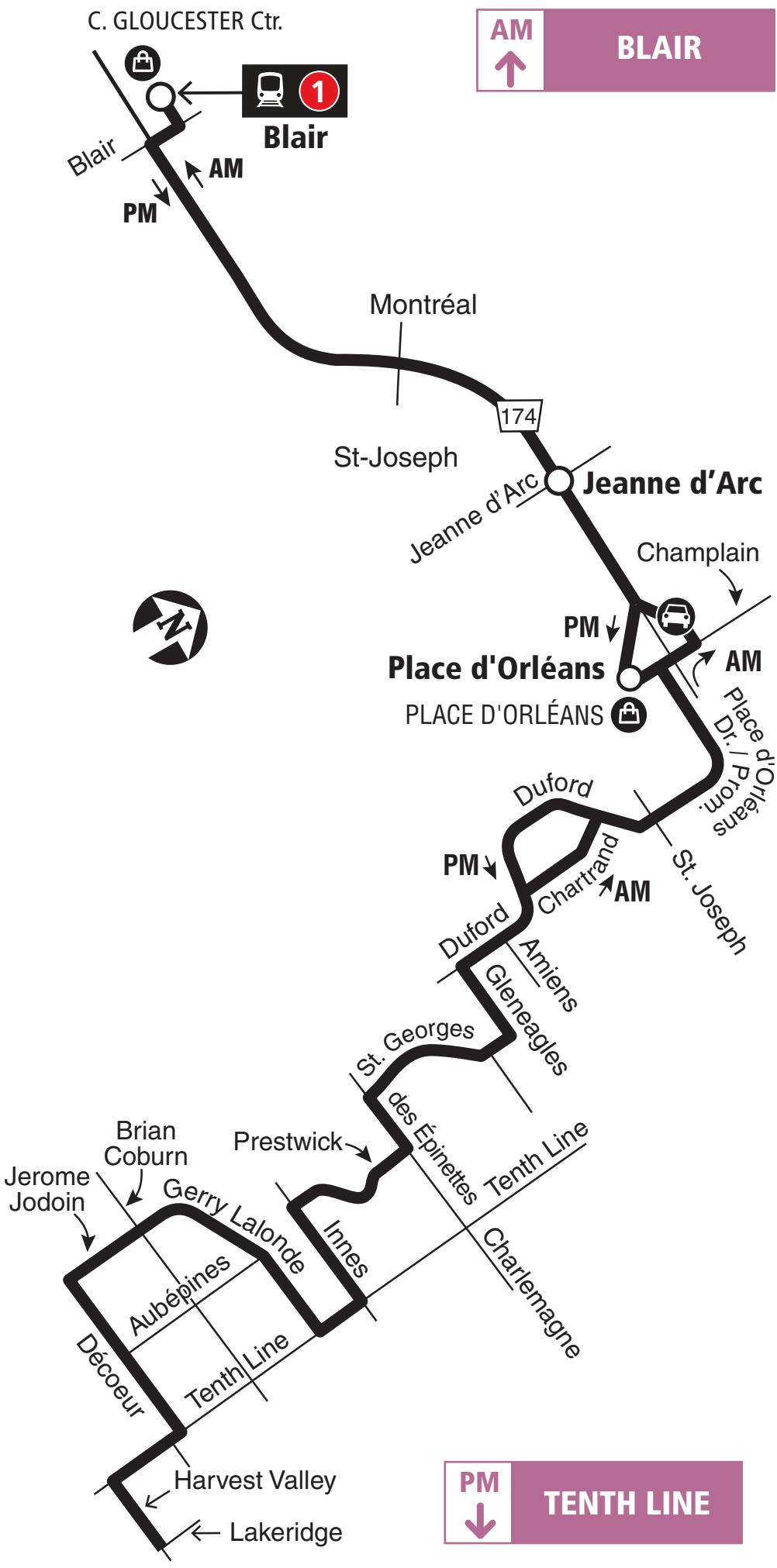
OC Transpo **octranspo.com**

# 234 Connexion

# BLAIR
# TENTH LINE

## Monday to Friday / Lundi au vendredi

Peak periods only
Périodes de pointe seulement




04.2025

- Station
- Park & Ride / Parc relais
- Shopping Centre / Centre commercial

2025.04

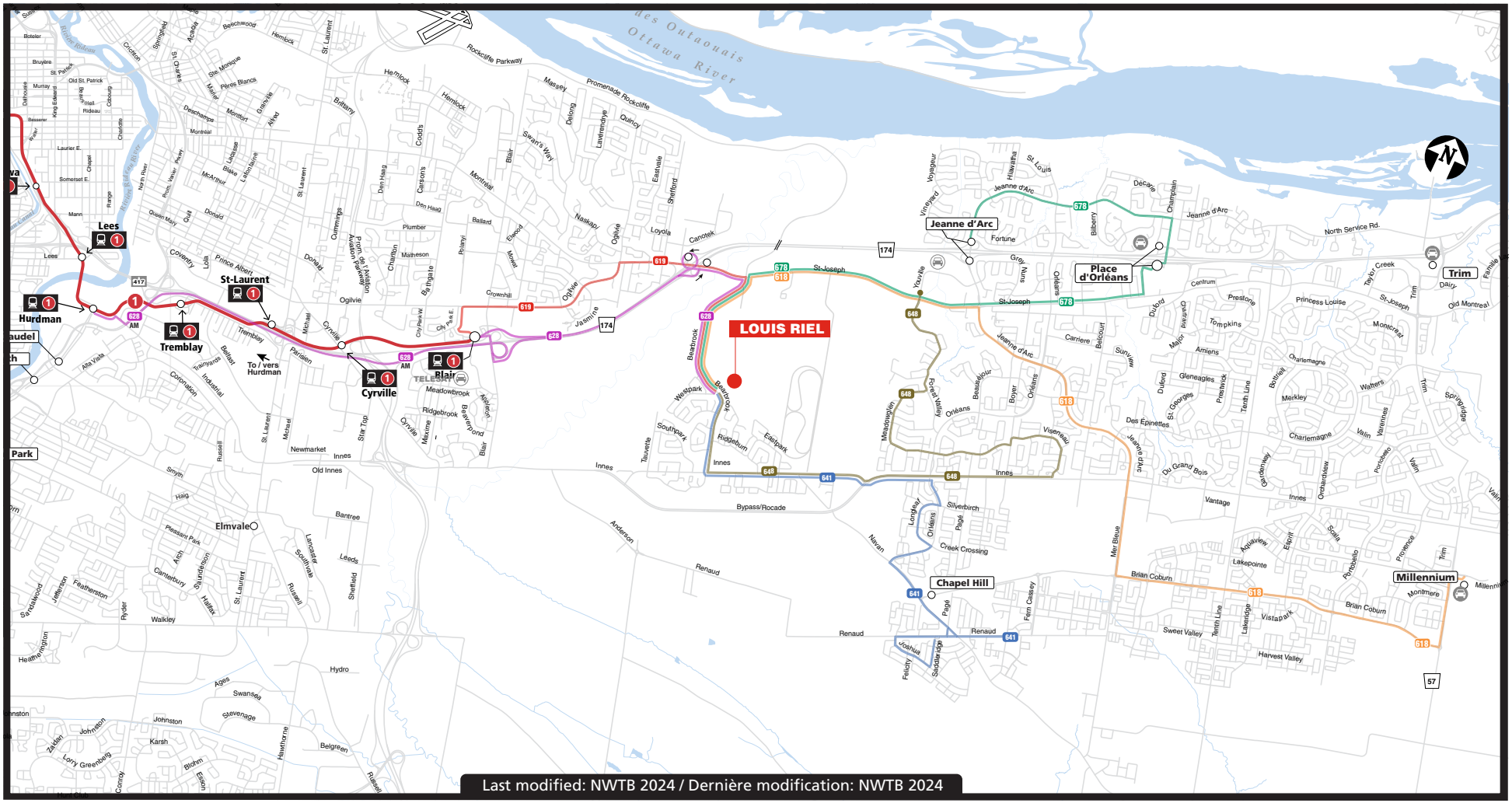
**This route starts on April 27, 2025** when the New Ways to Bus network comes into effect.

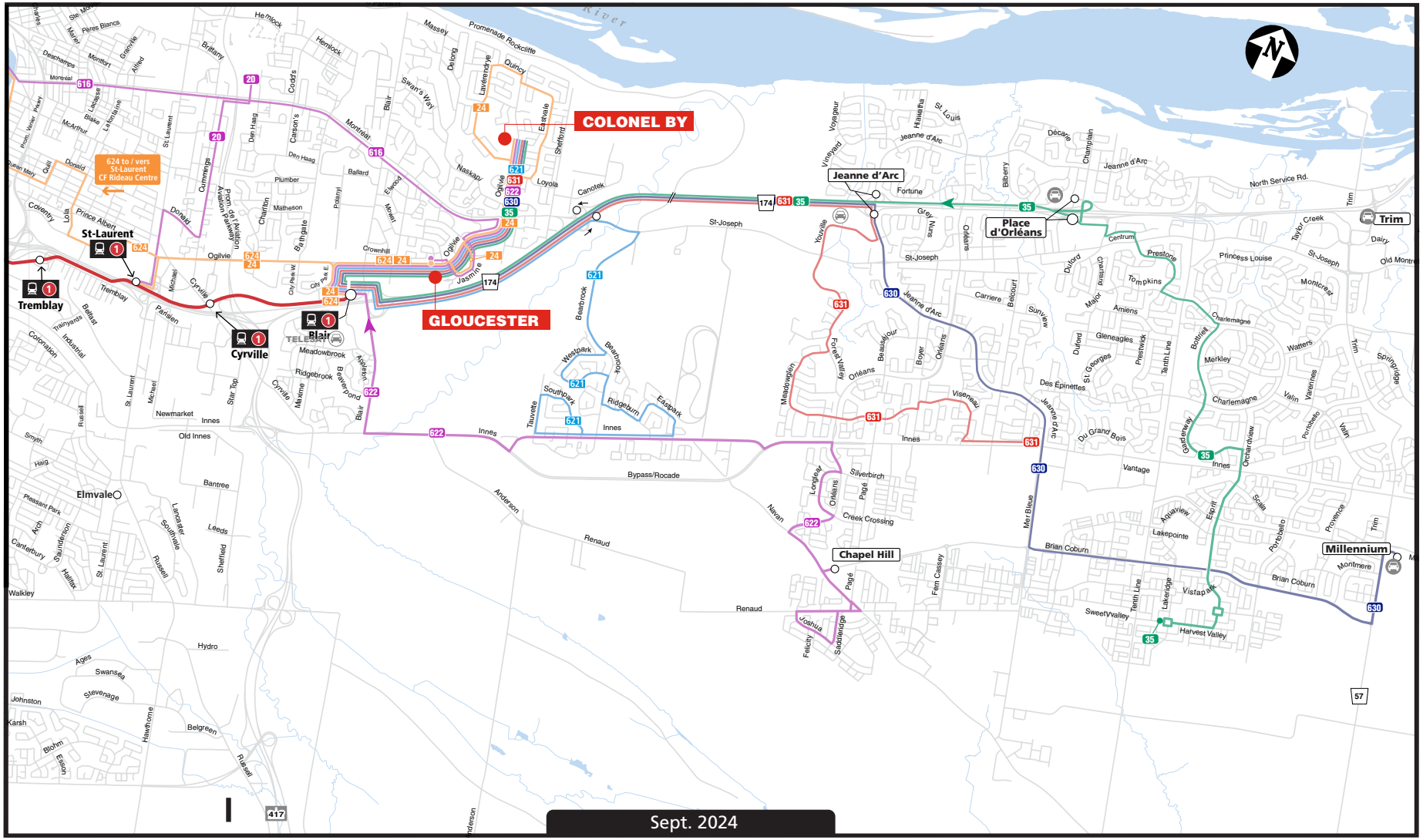
**Ce circuit sera mis en service le 27 avril 2025,** lorsque le réseau L'autobus réinventé entrera en vigueur.

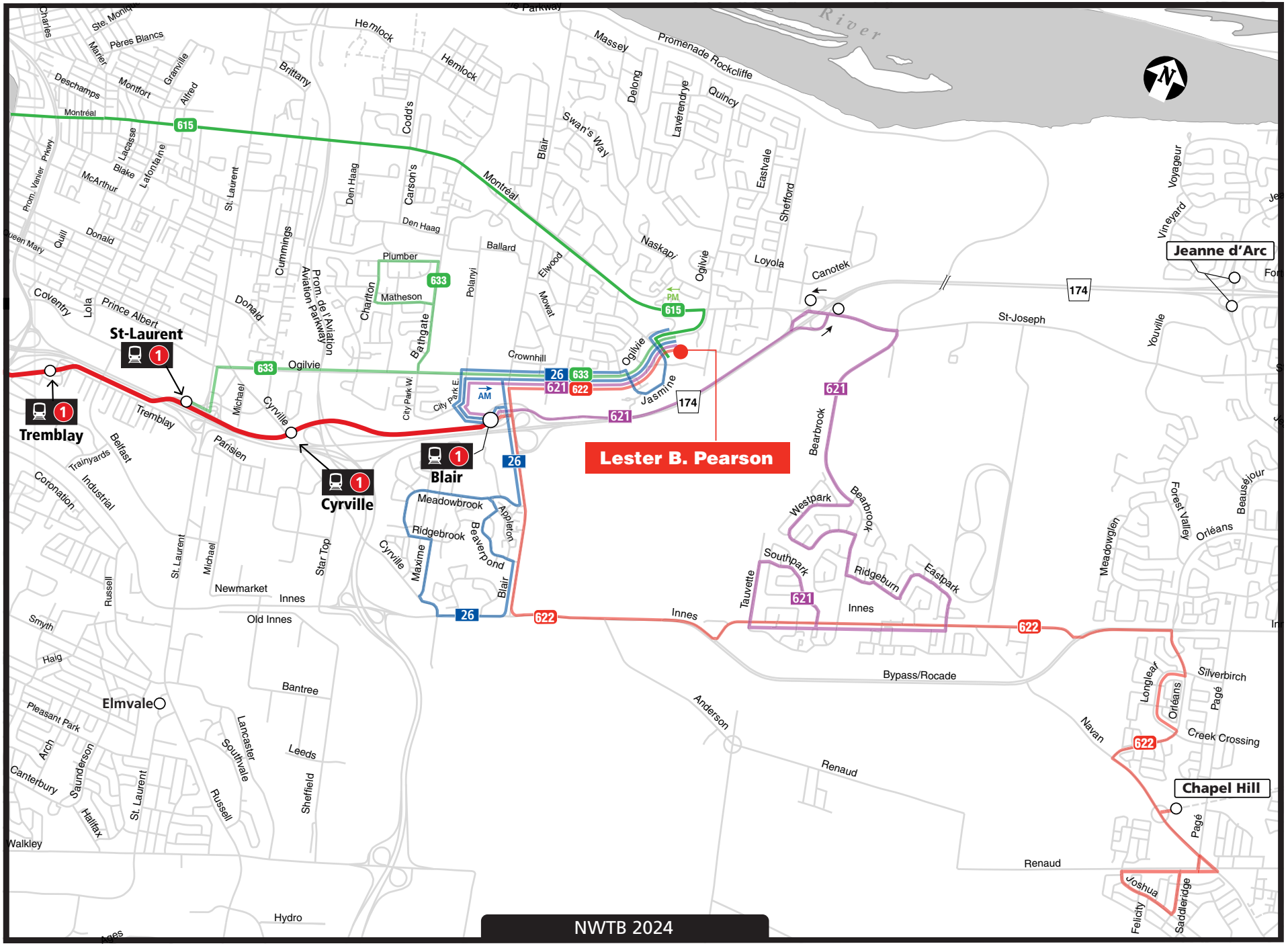
Customer Service / Service à la clientèle . . . . . **613-560-5000**

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

OC Transpo **octranspo.com**


LOUIS RIEL
Lees
Hurdman
St-Laurent
Tremblay
To / vers Hurdman
Cyrville
Blair
Jeanne d'Arc
Place d'Orléans
Trim
Millennium
Chapel Hill
Elmvale
Park
Bypass/Rocade
Last modified: NWTB 2024 / Dernière modification: NWTB 2024


COLONEL BY
GLOUCESTER
Jeanne d'Arc
Place d'Orléans
Trim
Millennium
Chapel Hill
St-Laurent
Cyrville
Blair
Tremblay
Elmvale
624 to / vers St-Laurent CF Rideau Centre
Sept. 2024


St-Laurent
Tremblay
Cyrville
Blair
Lester B. Pearson
Jeanne d'Arc
Chapel Hill
Elmvale
Hydro
NWTB 2024

# APPENDIX D

Traffic Count Data

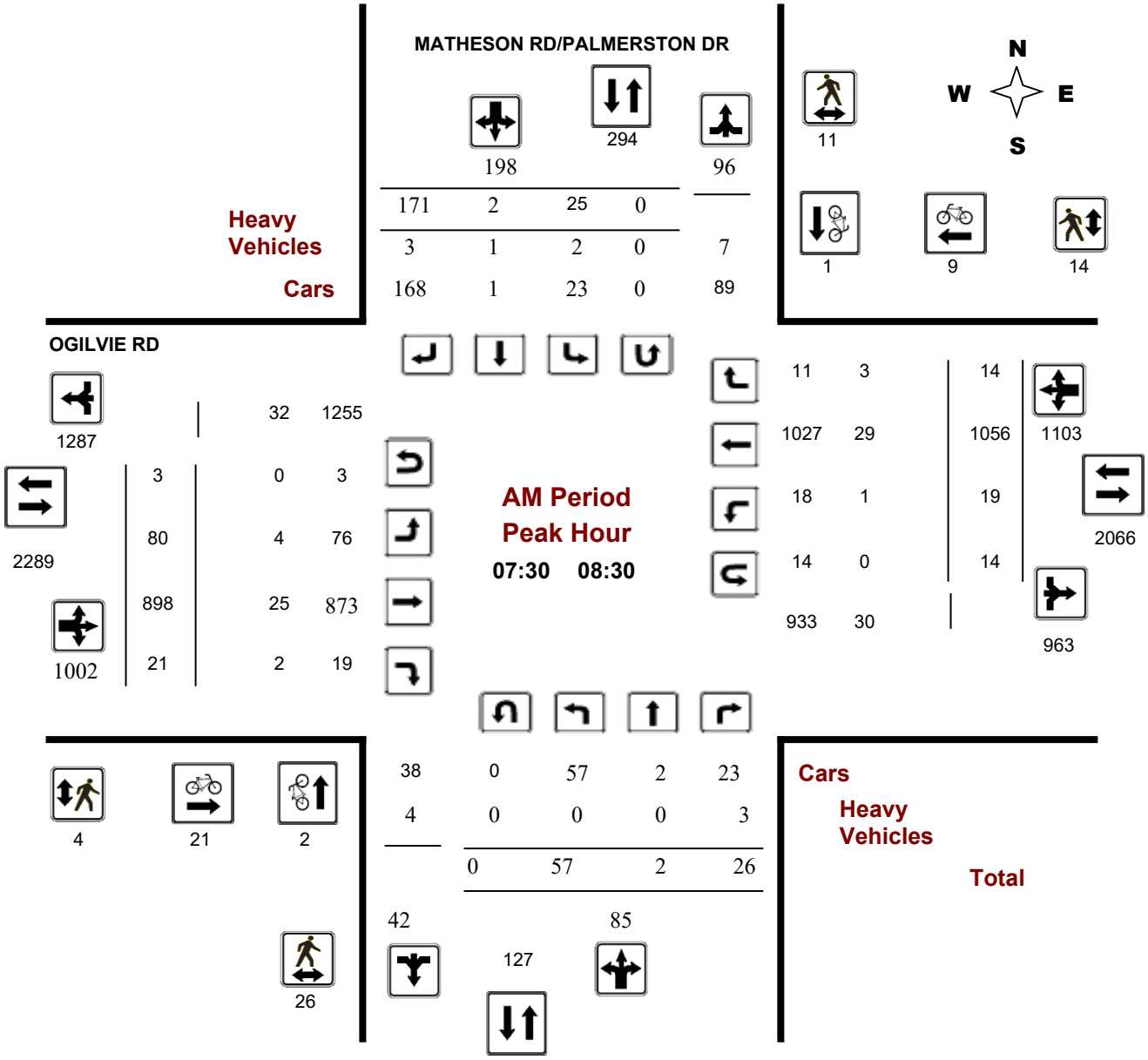
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## OGILVIE RD @ MATHESON RD/PALMERSTON DR

**Survey Date:** Tuesday, May 09, 2017 **WO No:** 37015

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




**Comments**

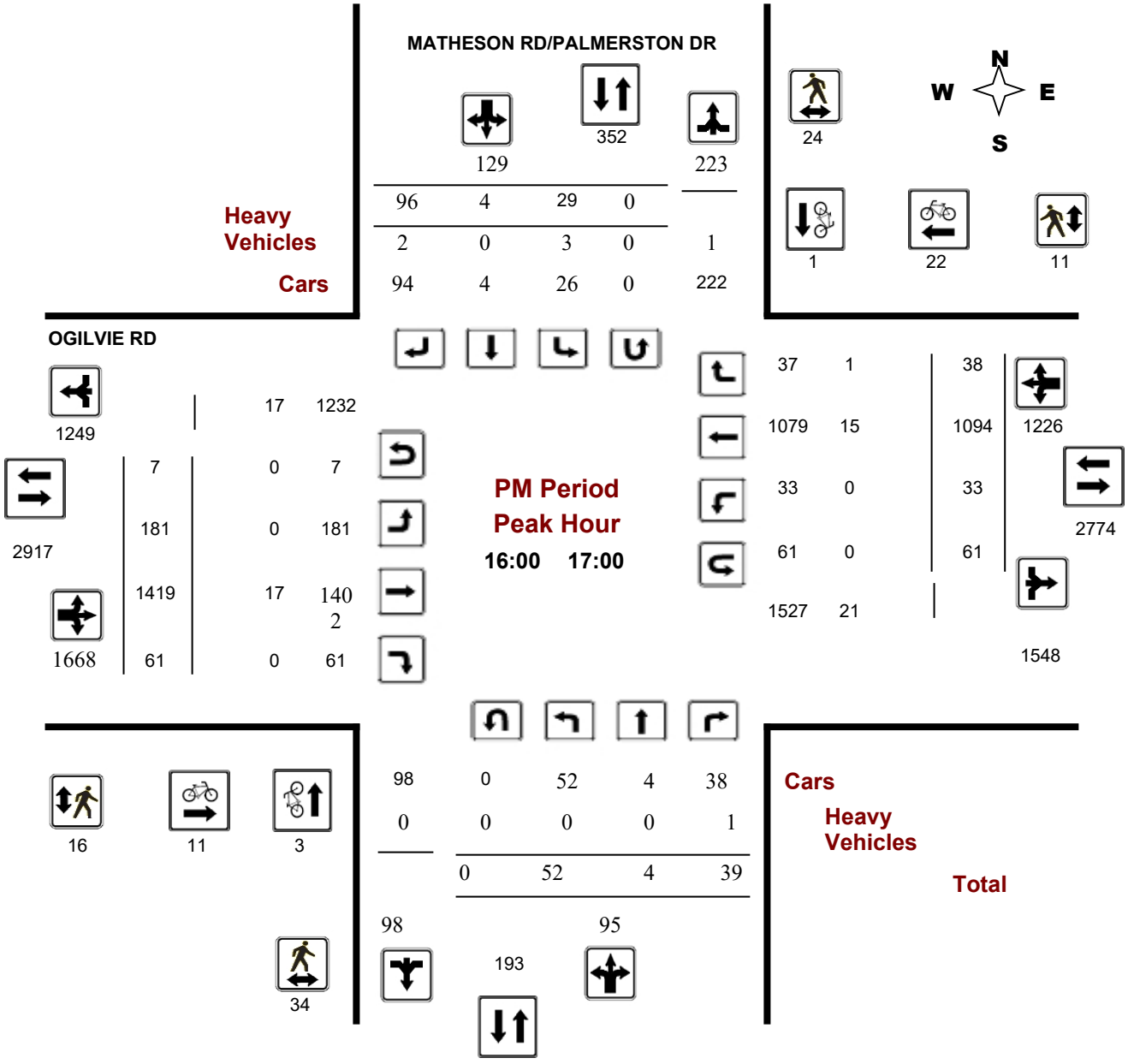
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## OGILVIE RD @ MATHESON RD/PALMERSTON DR

**Survey Date:** Tuesday, May 09, 2017 **WO No:** 37015

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




**Comments**

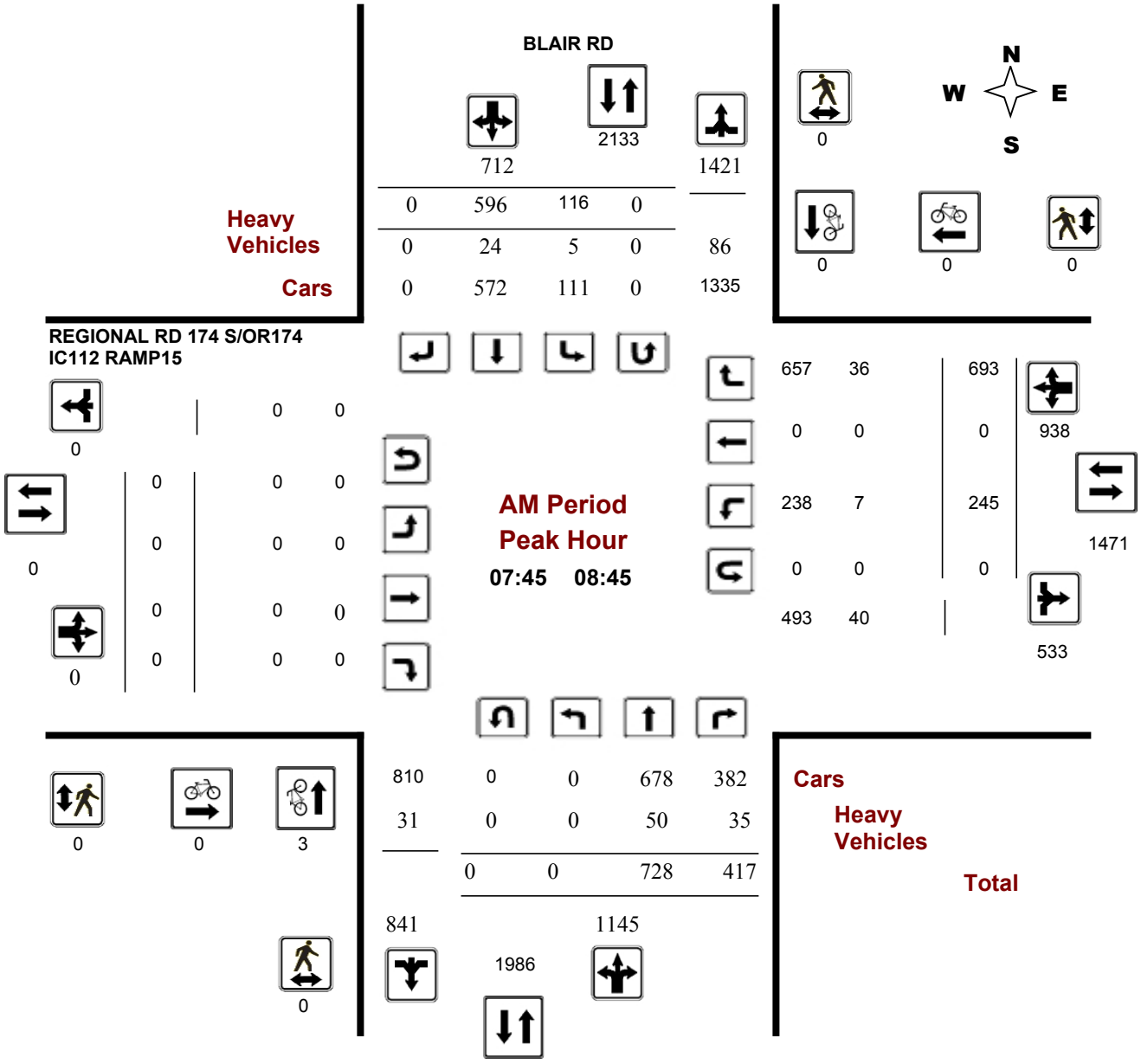
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## BLAIR RD @ REGIONAL RD 174 S/OR174 IC112 RAMP15

**Survey Date:** Tuesday, April 11, 2017 **WO No:** 36893

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




**Comments**

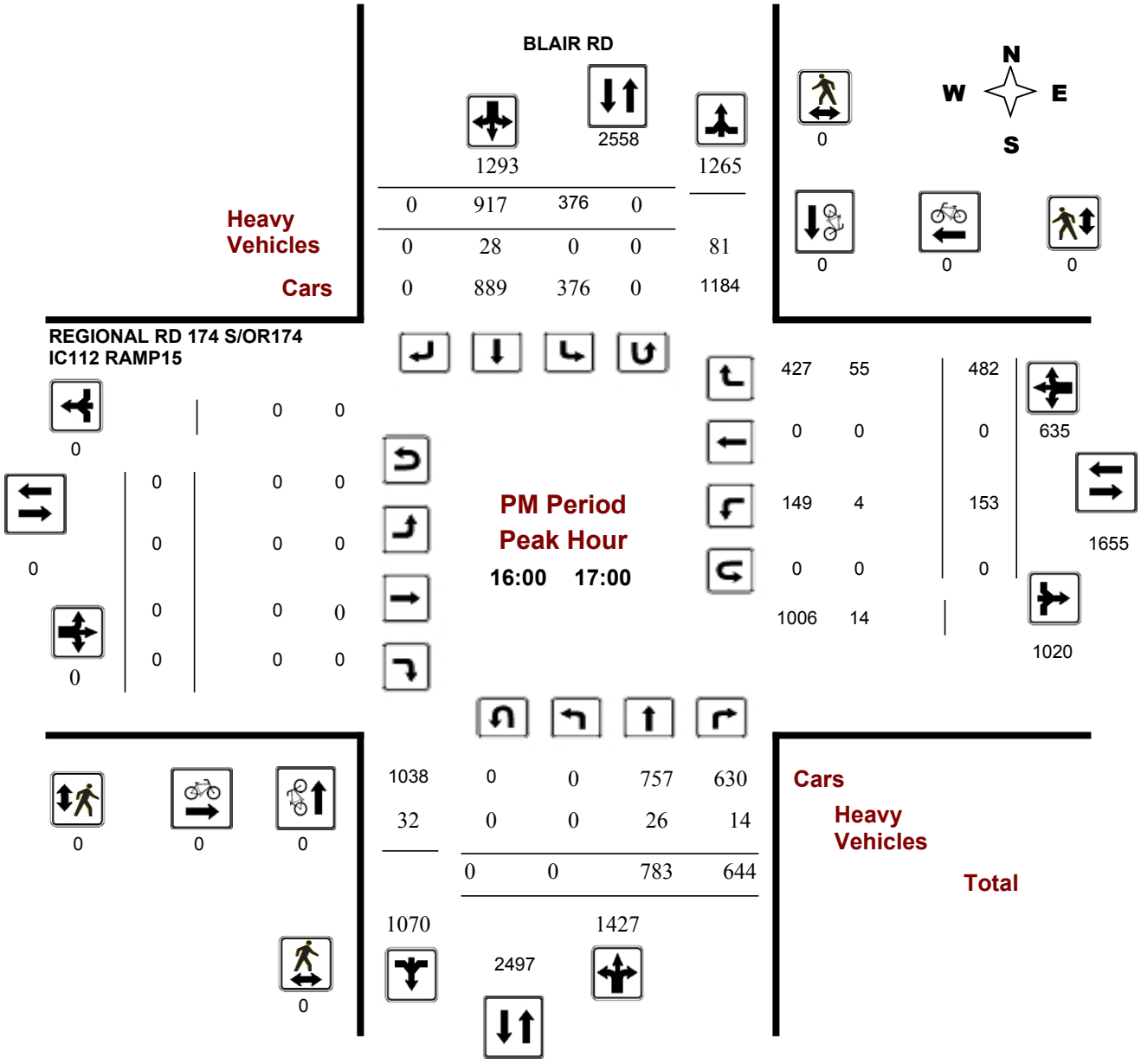
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## BLAIR RD @ REGIONAL RD 174 S/OR174 IC112 RAMP15

**Survey Date:** Tuesday, April 11, 2017 **WO No:** 36893

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




**Comments**

ACCURATE TRUSTED TRAFFIC DATA

# Turning Movement Count
## Summary, AM and PM Peak Hour Flow Diagrams
### All Vehicles Except Bicycles

## Blair Road & Ottawa Road 174 E/B Off Ramps — Gloucester, ON

**All Vehicles**
*(Except Bicycles & Electric Scooters)*

Wednesday, March 22, 2023
0700-1000, 1130-1330 & 1500-1800
8 Hour Survey
City of Ottawa Ward ► 11

Blair Rd.

(A) 6363 | 17075 | 10712

6363
4233 | 2130 | 0

Total vehicle volume, all approaches. (A + C + D)

19259

RIGHT TURN RAMP. Includes 10 vehicles turning from traffic signal.

Ottawa Rd. 174 E/B Off

5719 | 1327 | 2 | 7048

(D) 7048

10032

2984

3 | 4993 | 852 | 5848

5563 | 5848 (C) | 11411

Blair Rd.

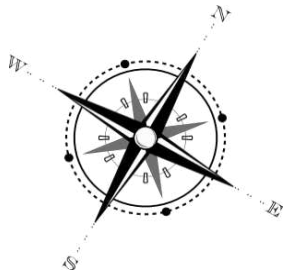
All Pedestrian Crossings

0

No Pedestrian Crossings Observed

0

Total 0 | 0



### AM Peak Hour Flow Diagram

Blair Rd.

(A) 553 | 2233 | 1680

553
396 | 157 | 0

Pedestrian Crossings During **AM** Peak Hr.
0
N/A + 0
0

Total vehicle volume, all approaches. (A + C + D)

(D) 1052

2479 (A+C+D)

878
174 | 1052 | 1280
0

228

1 | 802 | 71 | 874

571 | (C) 874 | 1445

Blair Rd.

Ottawa Rd. 174 E/B Off

| Summary - AM Peak Hr. | |
|---|---|
| Peak Hr. | 0800-0900 |
| Volume | 2479 |
| PHF | 0.97 |

### PM Peak Hour Flow Diagram

Blair Rd.

(A) 1296 | 2829 | 1533

1296
871 | 425 | 0

Pedestrian Crossings During **PM** Peak Hr.
0
N/A + 0
0

Total vehicle volume, all approaches. (A + C + D)

(D) 1035

3204 (A+C+D)

826
208 | 1035 | 1627
1

592

0 | 707 | 166 | 873

1079 | (C) 873 | 1952

Blair Rd.

Ottawa Rd. 174 E/B Off

| Summary - PM Peak Hr. | |
|---|---|
| Peak Hr. | 1600-1700 |
| Volume | 3204 |
| PHF | 0.99 |

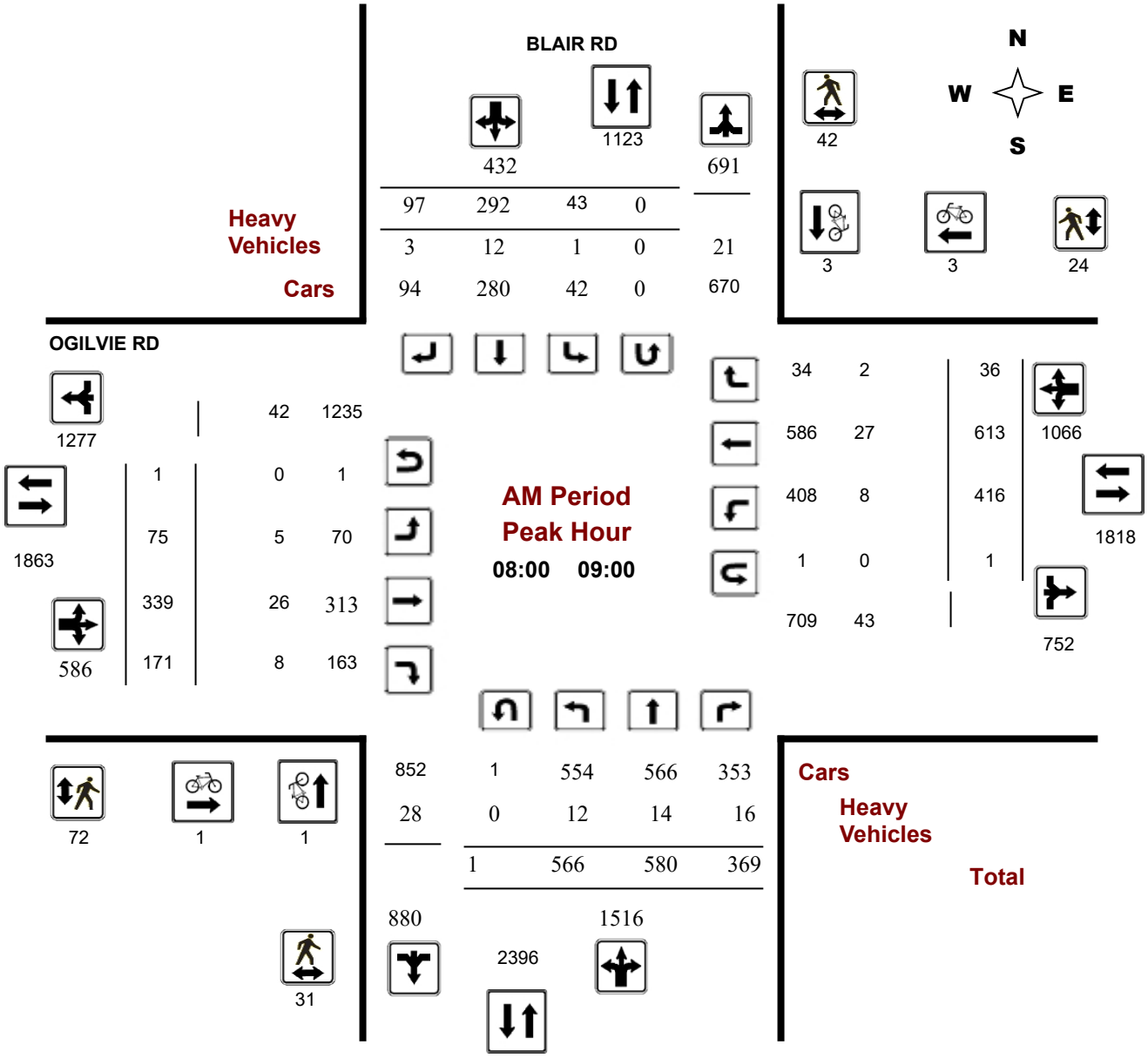
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## BLAIR RD @ OGILVIE RD

**Survey Date:** Wednesday, April 24, 2019 **WO No:** 38576

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




**Comments**

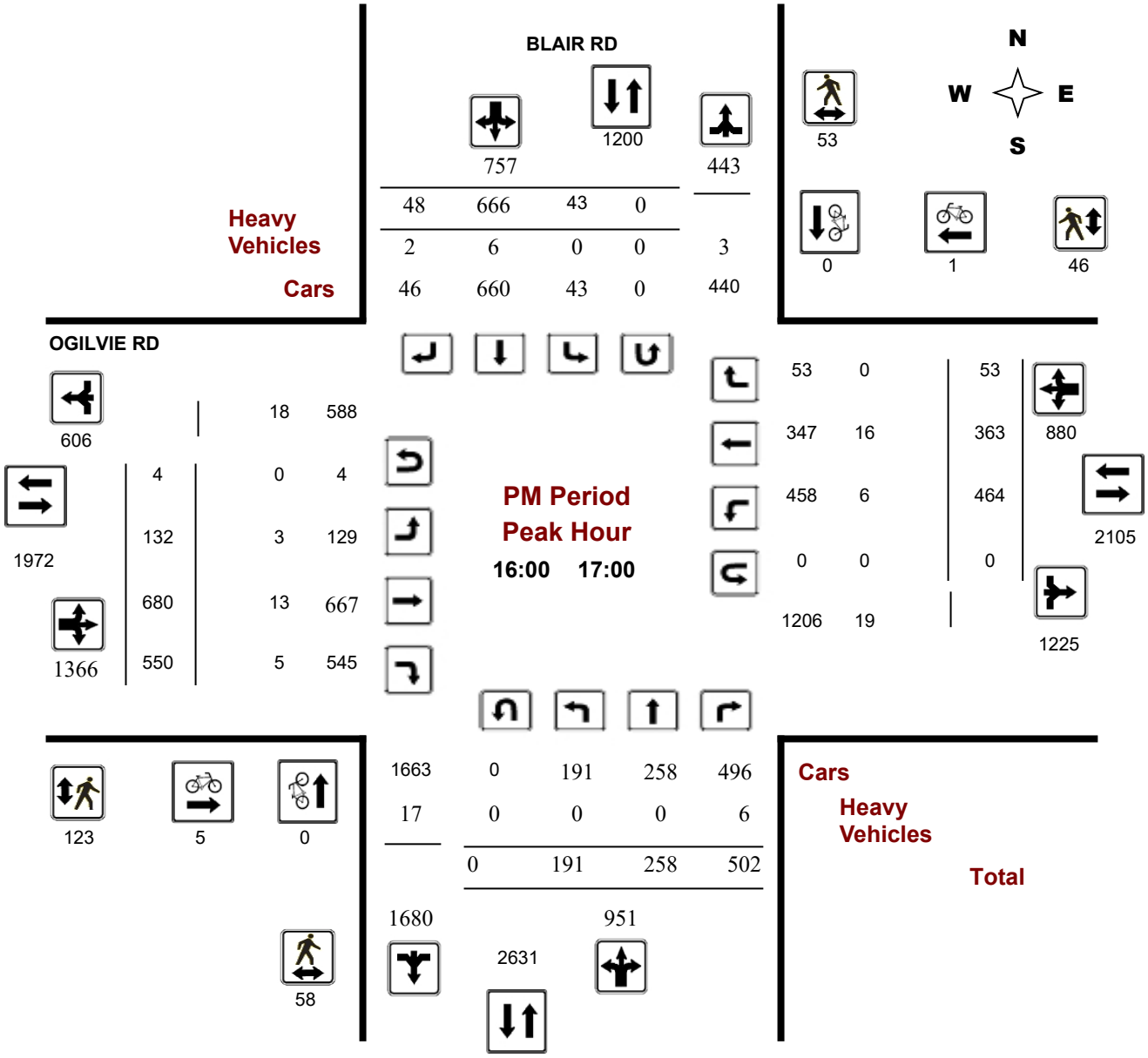
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## BLAIR RD @ OGILVIE RD

**Survey Date:** Wednesday, April 24, 2019 **WO No:** 38576

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




**Comments**

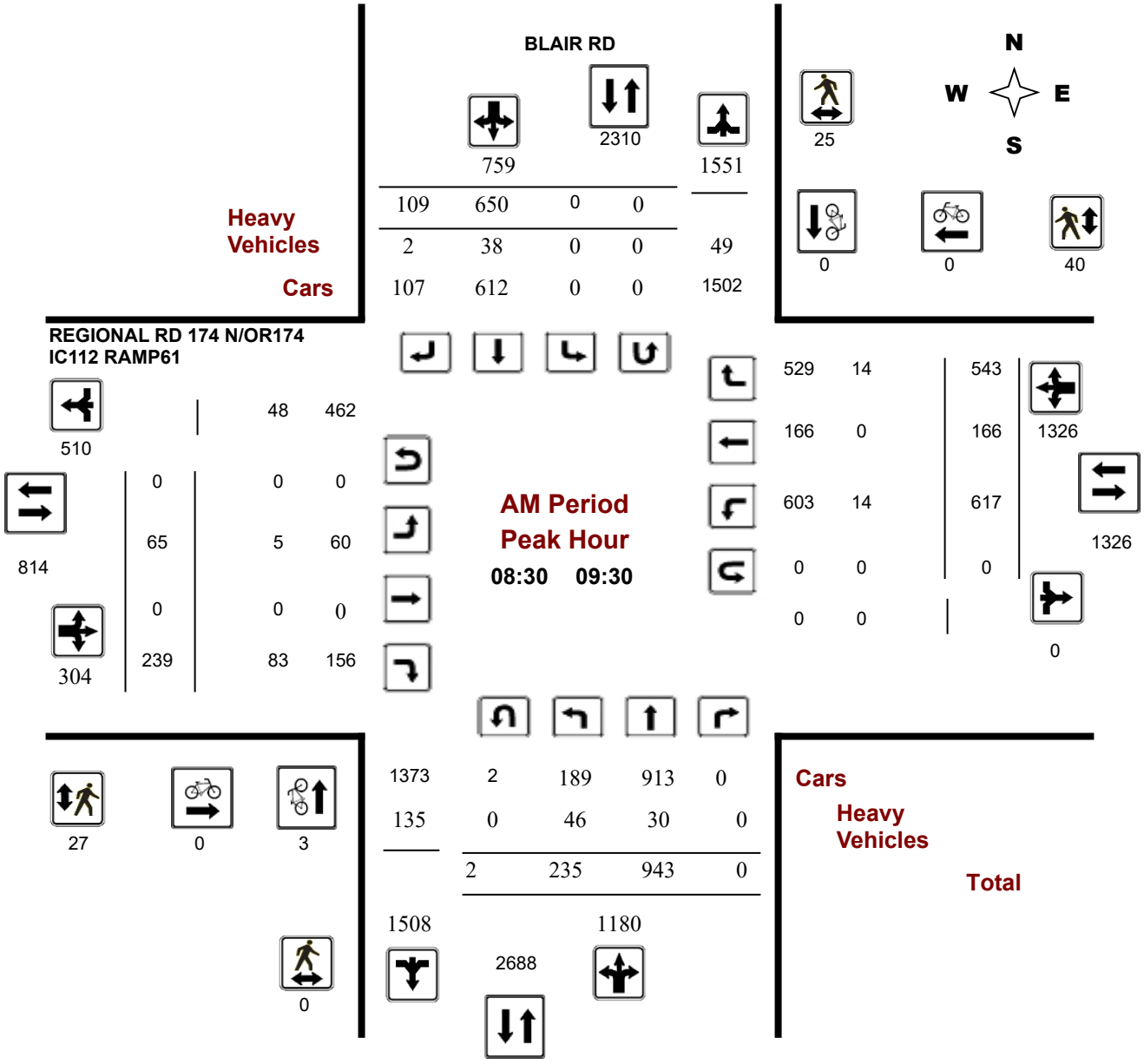
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## BLAIR RD @ REGIONAL RD 174 N/OR174 IC112 RAMP61

**Survey Date:** Wednesday, January 09, 2019 **WO No:** 38232

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




**Comments**

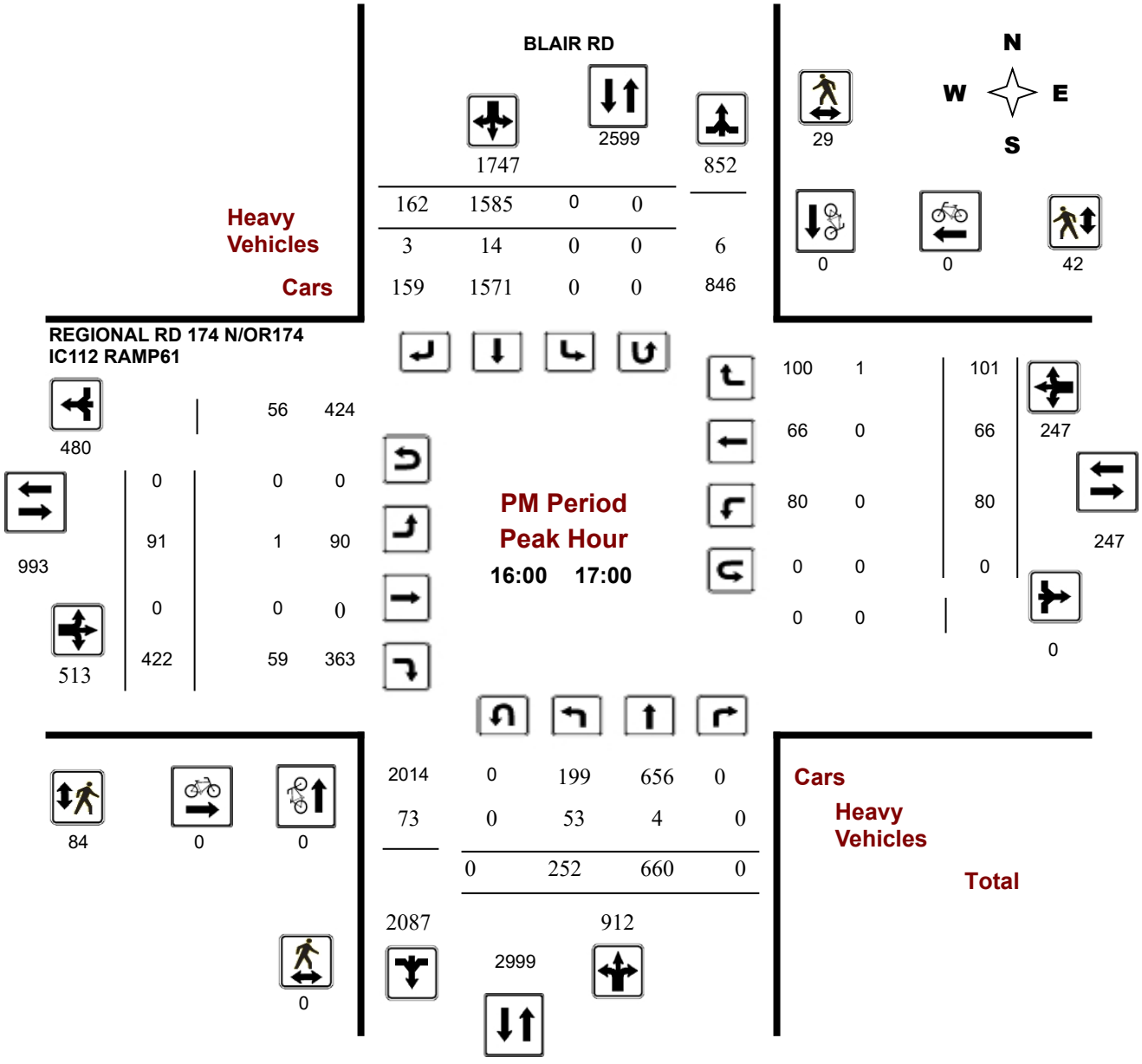
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## BLAIR RD @ REGIONAL RD 174 N/OR174 IC112 RAMP61

**Survey Date:** Wednesday, January 09, 2019 **WO No:** 38232

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




**Comments**

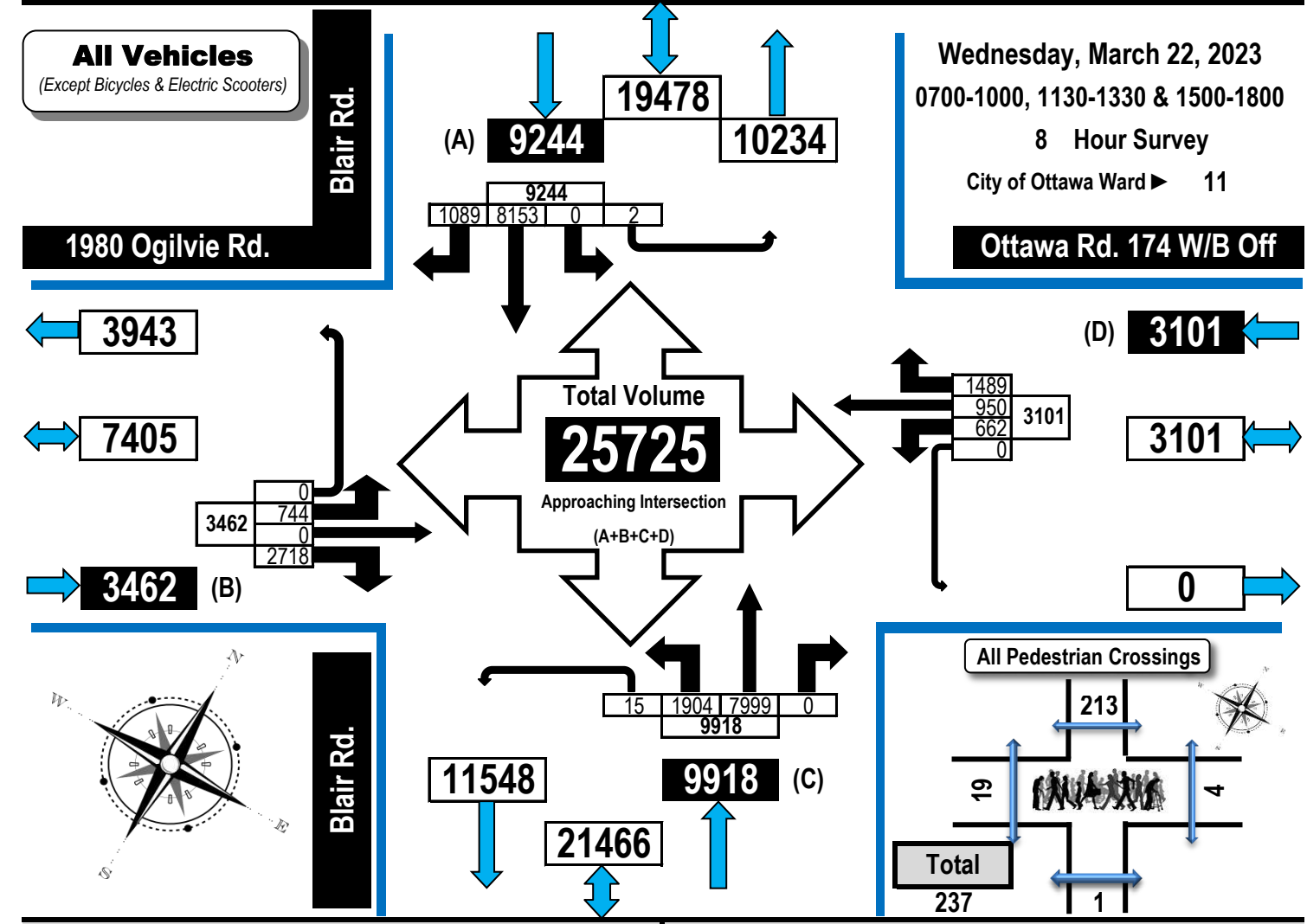
ACCURATE TRUSTED TRAFFIC DATA

# Turning Movement Count
## Summary, AM and PM Peak Hour Flow Diagrams
### All Vehicles Except Bicycles

## Blair Road & Ottawa Road 174 W/B Off Ramp — Gloucester, ON

**All Vehicles**
*(Except Bicycles & Electric Scooters)*

Wednesday, March 22, 2023
0700-1000, 1130-1330 & 1500-1800
8 Hour Survey
City of Ottawa Ward ► 11

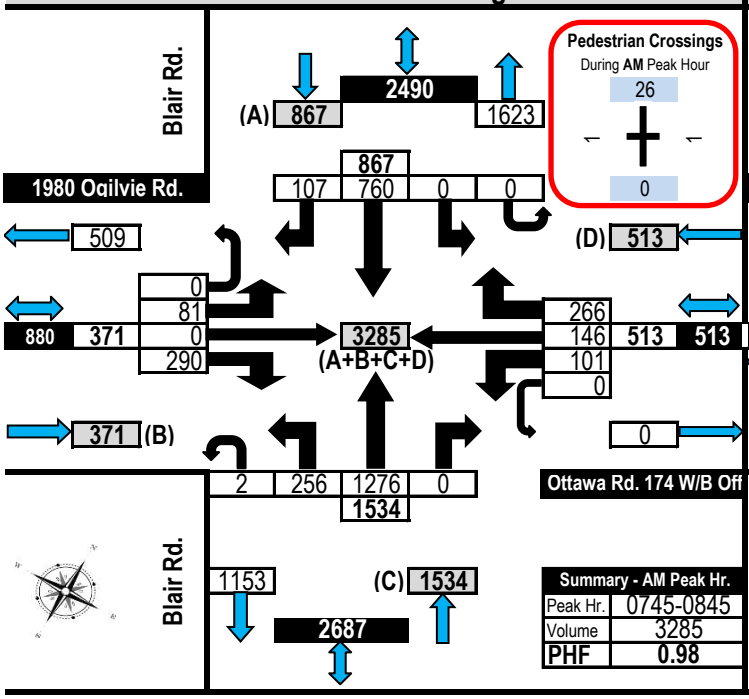






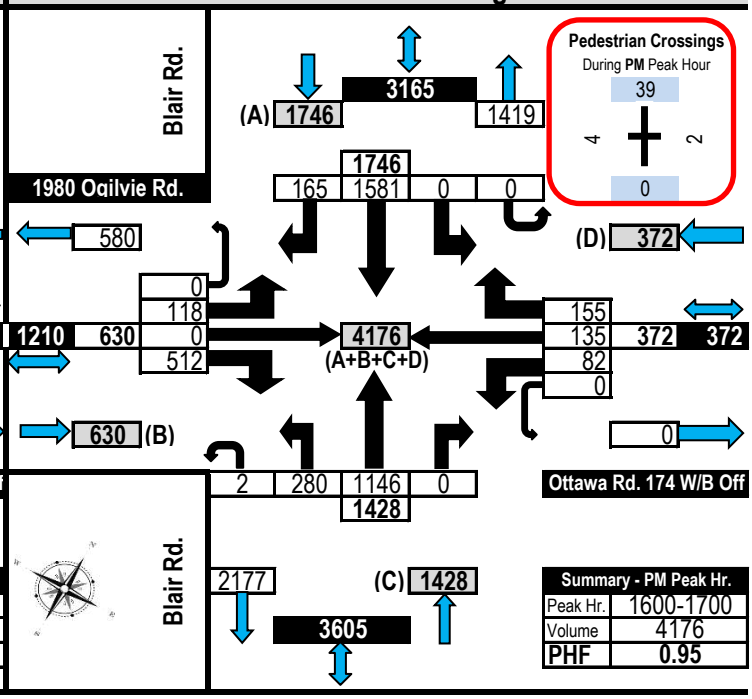


## AM Peak Hour Flow Diagram




| Summary - AM Peak Hr. | |
|---|---|
| Peak Hr. | 0745-0845 |
| Volume | 3285 |
| PHF | 0.98 |

## PM Peak Hour Flow Diagram




| Summary - PM Peak Hr. | |
|---|---|
| Peak Hr. | 1600-1700 |
| Volume | 4176 |
| PHF | 0.95 |

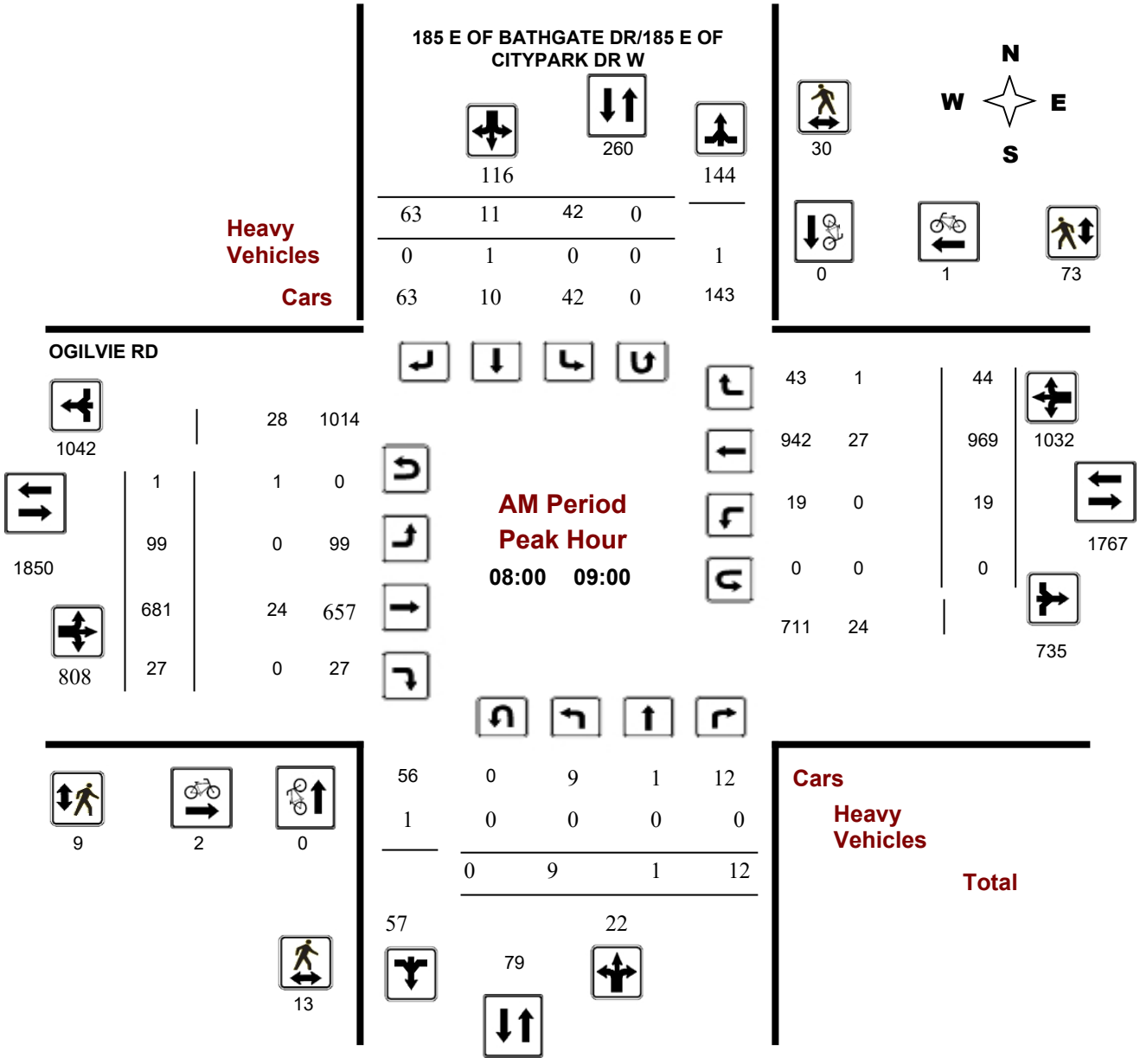
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## OGILVIE RD @ 185 E OF BATHGATE DR/185 E OF CIT

**Survey Date:** Wednesday, January 16, 2019 **WO No:** 38348

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




**Comments**

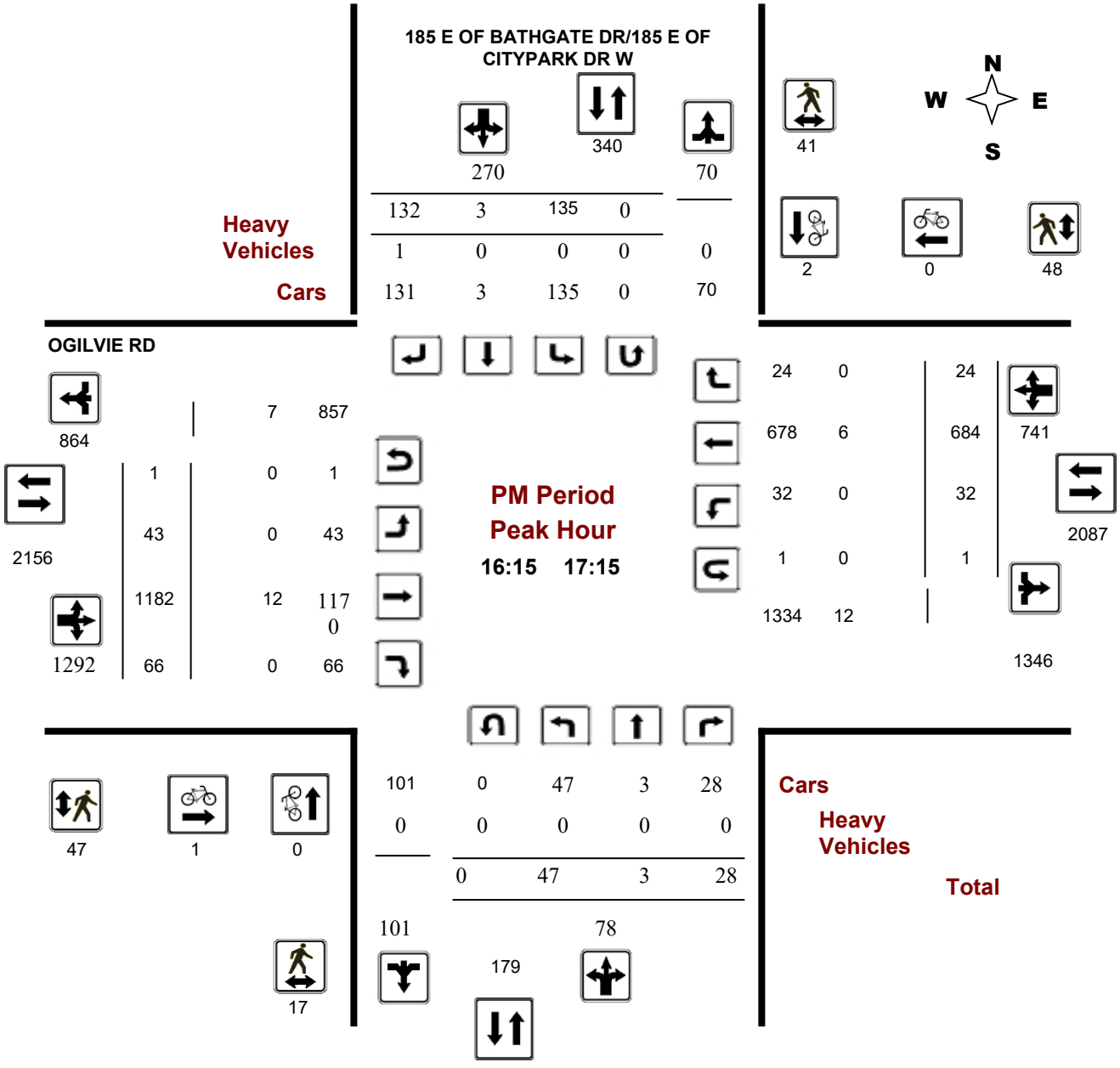
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## OGILVIE RD @ 185 E OF BATHGATE DR/185 E OF CIT

**Survey Date:** Wednesday, January 16, 2019 **WO No:** 38348

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




**Comments**

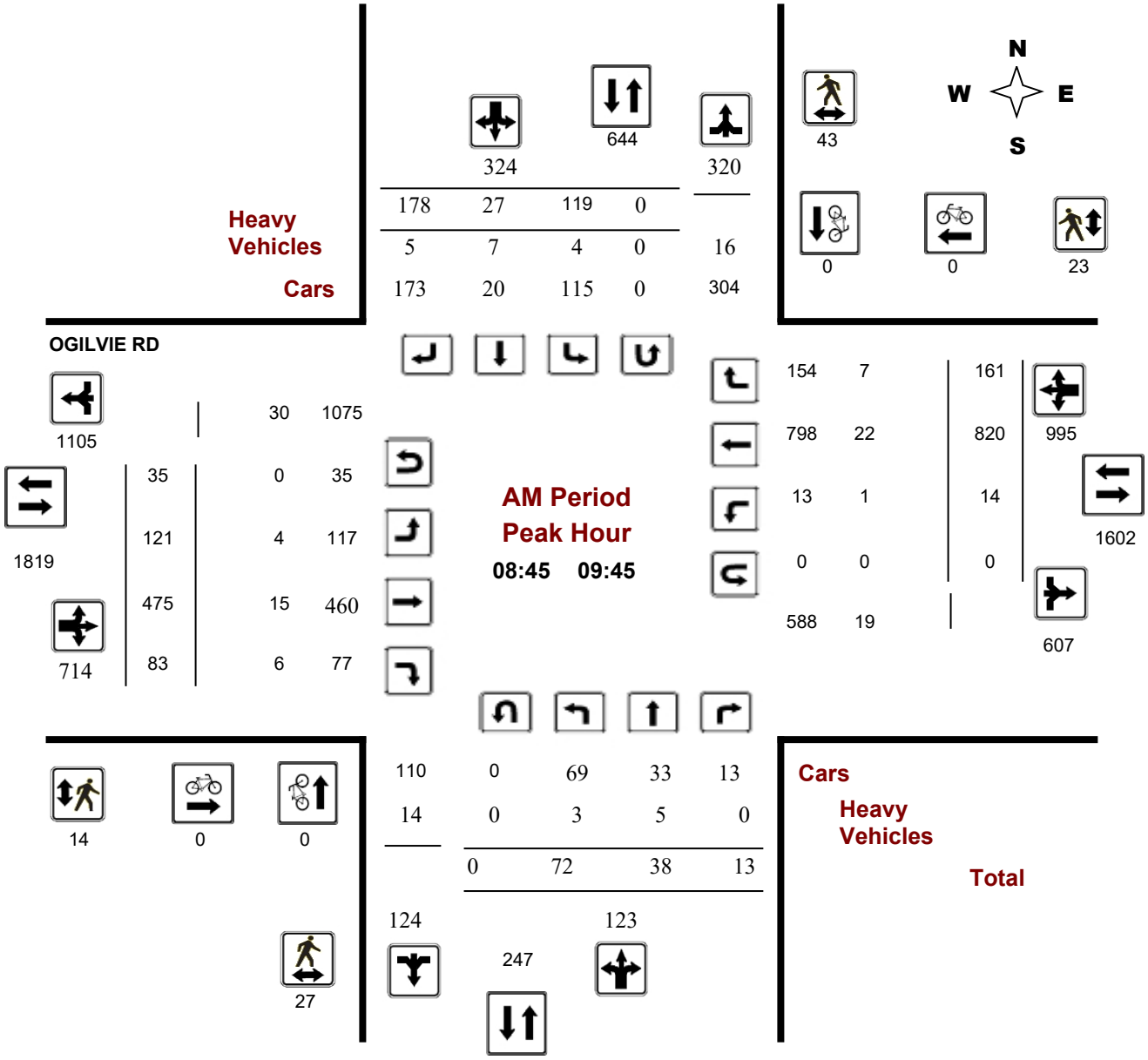
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## OGILVIE RD @ BATHGATE DR/CITYPARK DR W

**Survey Date:** Monday, February 10, 2020 **WO No:** 39454

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




**Comments**

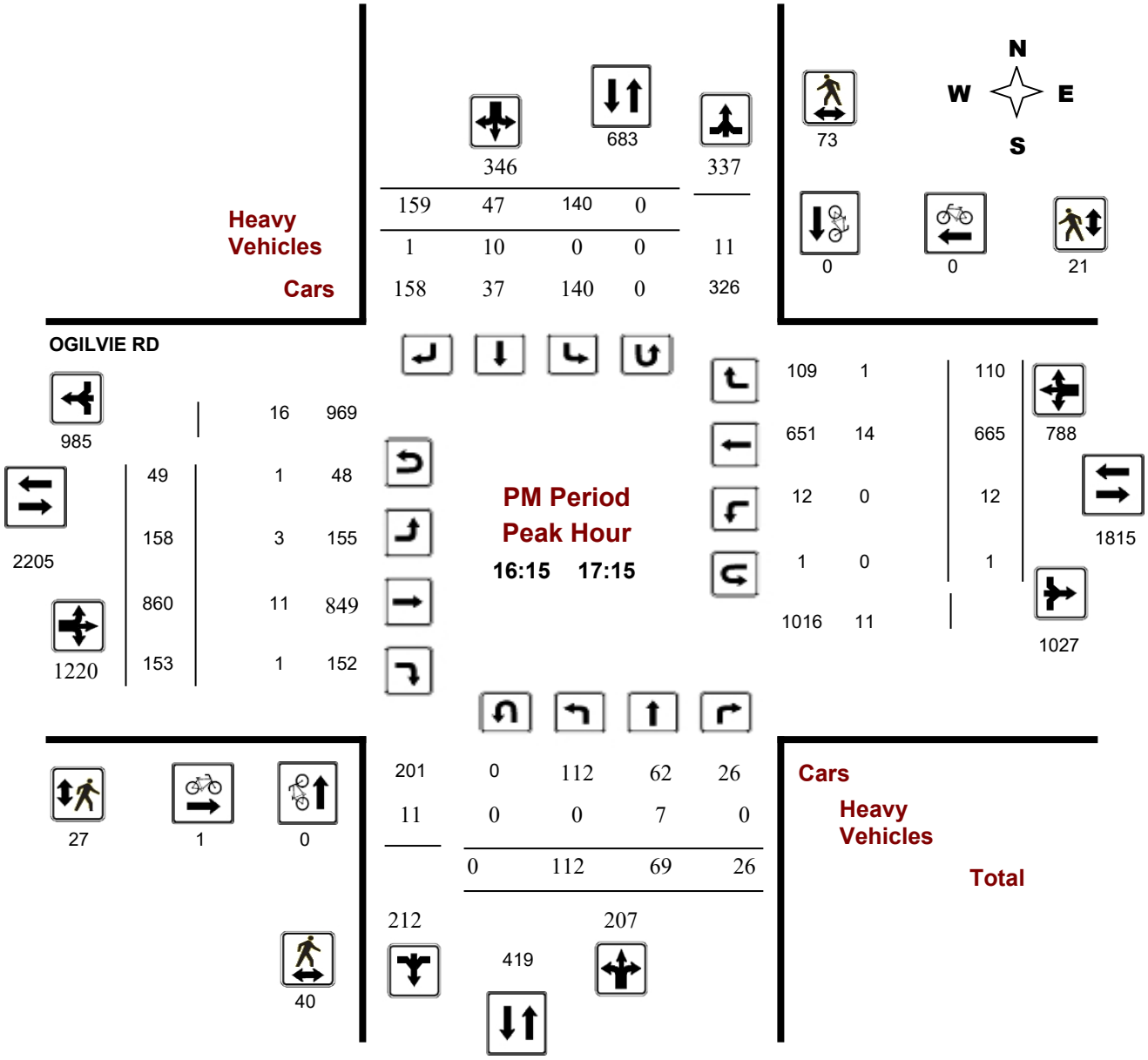
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## OGILVIE RD @ BATHGATE DR/CITYPARK DR W

**Survey Date:** Monday, February 10, 2020 **WO No:** 39454

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




**Comments**

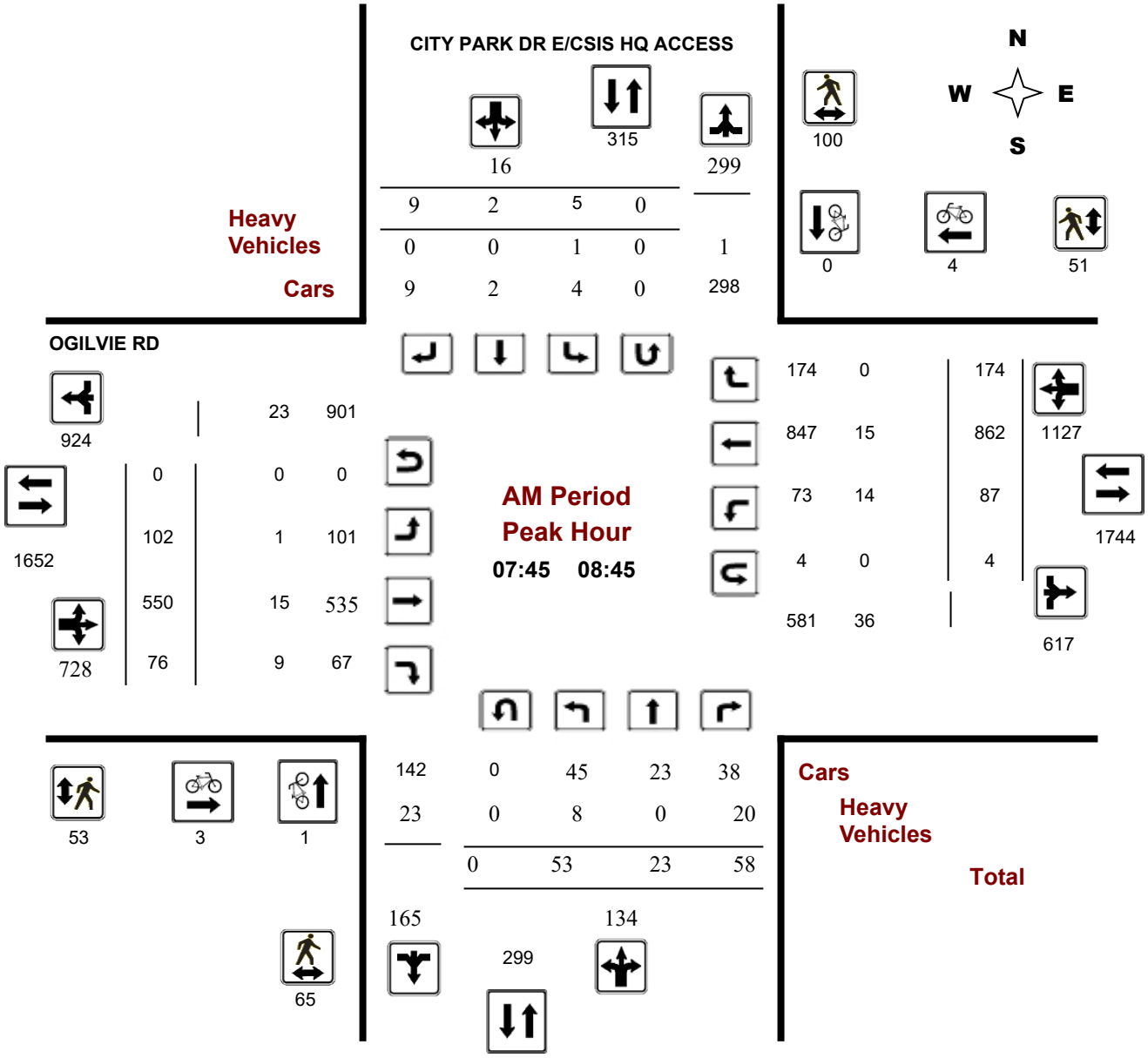
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## OGILVIE RD @ CITY PARK DR E/CSIS HQ ACCESS

**Survey Date:** Wednesday, January 09, 2019 **WO No:** 38237

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




**Comments**

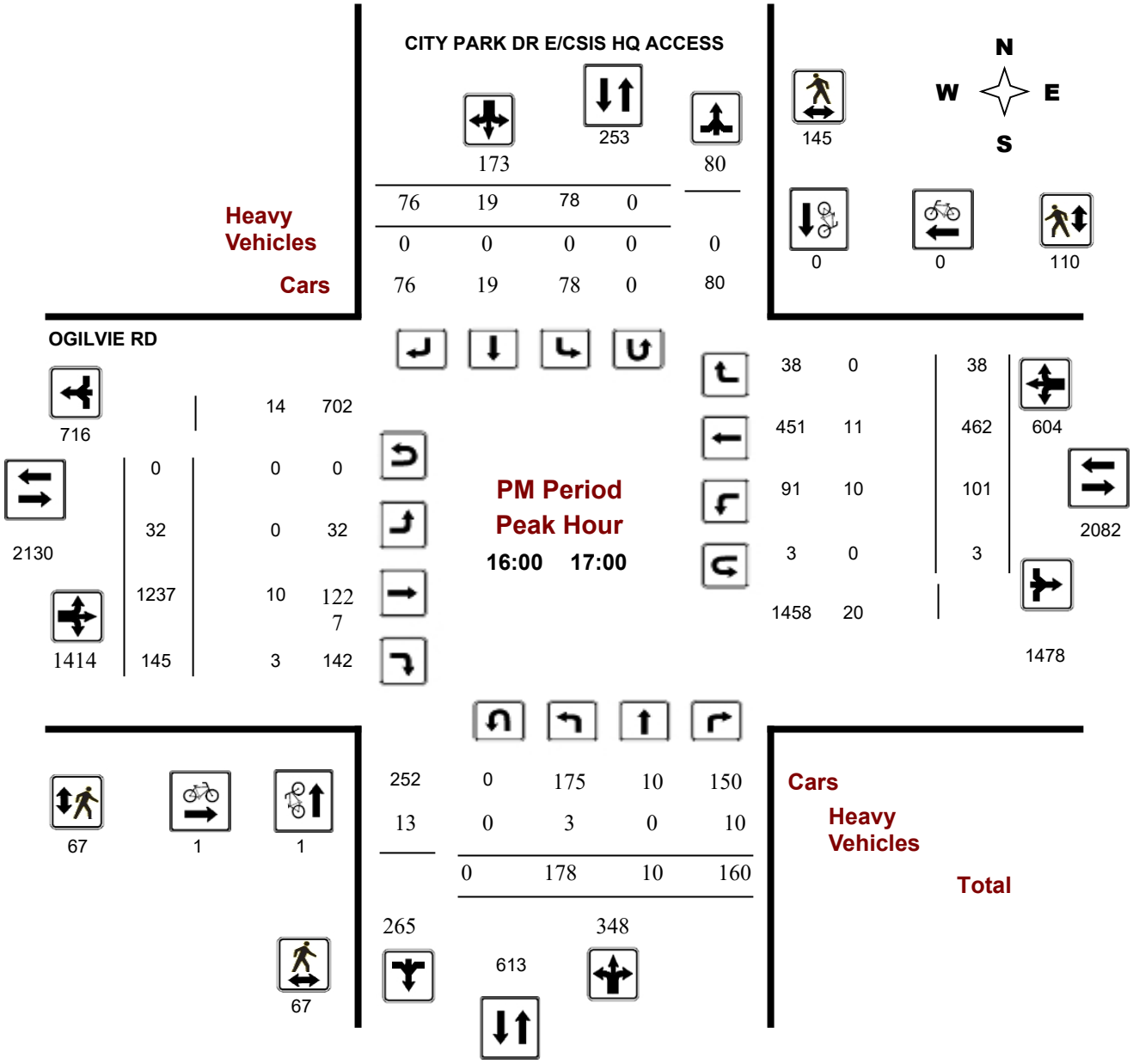
# Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## OGILVIE RD @ CITY PARK DR E/CSIS HQ ACCESS

**Survey Date:** Wednesday, January 09, 2019 **WO No:** 38237

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




**Comments**

# APPENDIX E

Collision Records

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** AMBASSADOR AVE @ CITY PARK 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 |
|---|---|---|---|---|---|---|---|---|---|
| 2017-Nov-02, Thu,18:56 | Rain | Angle | P.D. only | Wet | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2018-Oct-31, Wed,17:11 | Rain | Rear end | Non-fatal injury | Wet | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |

**Location:** BLAIR RD @ OGILVIE RD

**Traffic Control:** Traffic signal **Total Collisions:** 84

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Jan-12, Tue,18:26 | Clear | Rear end | P.D. only | Wet | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Pick-up truck | Other motor vehicle | |
| 2016-Feb-07, Sun,13:34 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Stopped | Passenger van | Other motor vehicle | |
| 2016-Feb-12, Fri,17:15 | Snow | Rear end | P.D. only | Loose snow | South | Unknown | Unknown | Other motor vehicle | 0 |
| | | | | | South | Stopped | Pick-up truck | Other motor vehicle | |
| 2016-May-03, Tue,08:59 | 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 | |
| 2016-May-12, Thu,16:34 | Clear | Sideswipe | P.D. only | Dry | East | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2016-Jun-09, Thu,06:35 | Clear | SMV other | Non-fatal injury | Dry | South | Turning left | Motorcycle | Skidding/sliding | 0 |
| 2016-Jul-22, Fri,14:29 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Stopped | Pick-up truck | Other motor vehicle | |
| 2016-Aug-02, Tue,21:37 | Clear | Rear end | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Pick-up truck | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** BLAIR RD @ OGILVIE RD

**Traffic Control:** Traffic signal **Total Collisions:** 84

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Aug-12, Fri,16:16 | Clear | Rear end | P.D. only | Wet | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Stopped | Pick-up truck | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2016-Sep-10, Sat,17:02 | Clear | Rear end | P.D. only | Dry | South | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2016-Sep-19, Mon,07:32 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Unknown | Other motor vehicle | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2016-Dec-14, Wed,14:25 | Clear | Rear end | P.D. only | Slush | South | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2017-Jan-06, Fri,15:05 | Clear | Sideswipe | P.D. only | Loose snow | South | Overtaking | Delivery van | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Pick-up truck | Other motor vehicle | |
| 2017-Jan-19, Thu,17:36 | Clear | Rear end | P.D. only | Wet | West | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2017-Feb-02, Thu,17:08 | Clear | Rear end | P.D. only | Dry | East | Going ahead | Pick-up truck | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2017-Apr-04, Tue,11:34 | Rain | Sideswipe | P.D. only | Wet | West | Overtaking | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Turning left | Pick-up truck | Other motor vehicle | |
| 2017-May-23, Tue,09:02 | Clear | Rear end | Non-fatal injury | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| | | | | | East | Stopped | Municipal transit bus | Other motor vehicle | |
| 2017-Aug-17, Thu,21:39 | Rain | Rear end | P.D. only | Wet | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** BLAIR RD @ OGILVIE RD

**Traffic Control:** Traffic signal **Total Collisions:** 84

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2017-Sep-04, Mon,15:05 | Clear | Rear end | P.D. only | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2017-Sep-06, Wed,11:09 | 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 | |
| 2017-Sep-17, Sun,11:30 | 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 | |
| 2017-Oct-04, Wed,13:16 | Clear | Other | P.D. only | Dry | West | Reversing | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2017-Oct-27, Fri,11:57 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2017-Oct-30, Mon,09:29 | Rain | Rear end | P.D. only | Wet | North | Going ahead | Pick-up truck | Other motor vehicle | 0 |
| | | | | | North | Stopped | Tow truck | Other motor vehicle | |
| 2017-Nov-21, Tue,15:59 | Clear | Sideswipe | P.D. only | Dry | West | Turning left | Passenger van | Other motor vehicle | 0 |
| | | | | | West | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2017-Nov-29, Wed,08:56 | Clear | Rear end | P.D. only | Wet | West | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Turning right | Automobile, station wagon | Other motor vehicle | |
| | | | | | West | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2017-Dec-05, Tue,20:15 | Rain | Rear end | P.D. only | Wet | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2017-Dec-14, Thu,02:40 | Clear | Sideswipe | P.D. only | Dry | South | Unknown | Unknown | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2017-Dec-23, Sat,14:16 | Snow | Rear end | P.D. only | Loose snow | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** BLAIR RD @ OGILVIE RD

**Traffic Control:** Traffic signal **Total Collisions:** 84

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2017-Dec-31, Sun,12:59 | Clear | Rear end | P.D. only | Dry | West | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2018-Jan-14, Sun,17:28 | Clear | Rear end | P.D. only | Dry | West | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2018-Jan-16, Tue,09:04 | Snow | Rear end | P.D. only | Ice | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2018-Feb-26, Mon,07:41 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2018-Mar-01, Thu,12:34 | 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 | |
| 2018-Mar-08, Thu,18:34 | Snow | Rear end | P.D. only | Wet | West | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2018-Mar-27, Tue,20:10 | Rain | Rear end | P.D. only | Wet | West | Unknown | Passenger van | Other motor vehicle | 0 |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2018-Apr-12, Thu,16:58 | Rain | Rear end | P.D. only | Wet | North | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2018-May-15, Tue,20:45 | Clear | Rear end | Non-fatal injury | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2018-May-18, Fri,15:12 | Clear | Sideswipe | P.D. only | Dry | East | Overtaking | School bus | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2018-May-25, Fri,11:30 | Clear | Rear end | P.D. only | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2018-May-30, Wed,16:23 | Clear | Rear end | Non-fatal injury | Dry | West | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** BLAIR RD @ OGILVIE RD

**Traffic Control:** Traffic signal **Total Collisions:** 84

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2018-Jun-06, Wed,12:06 | Rain | Rear end | P.D. only | Wet | North | Slowing or stopping | Passenger van | Other motor vehicle | 0 |
| | | | | | North | Stopped | Pick-up truck | Other motor vehicle | |
| 2018-Jun-09, Sat,20:44 | Clear | Rear end | P.D. only | Dry | East | Going ahead | Passenger van | Other motor vehicle | 0 |
| | | | | | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2018-Jun-12, Tue,19:08 | Clear | Rear end | P.D. only | Dry | West | Going ahead | Passenger van | Other motor vehicle | 0 |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2018-Jul-30, Mon,14:30 | Clear | Rear end | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Ambulance | Other motor vehicle | |
| 2018-Aug-17, Fri,07:29 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2018-Sep-14, Fri,19:04 | Clear | Other | P.D. only | Dry | North | Reversing | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2018-Sep-23, Sun,12:41 | Clear | Turning movement | P.D. only | Dry | West | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2018-Nov-14, Wed,13:13 | Clear | Sideswipe | P.D. only | Dry | North | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2018-Dec-12, Wed,08:13 | Clear | Rear end | P.D. only | Wet | North | Slowing or stopping | Unknown | Other motor vehicle | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2018-Dec-12, Wed,18:26 | Clear | Rear end | P.D. only | Loose snow | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Unknown | Unknown | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** BLAIR RD @ OGILVIE RD

**Traffic Control:** Traffic signal **Total Collisions:** 84

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2018-Dec-30, Sun,17:20 | Clear | Rear end | P.D. only | Ice | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2019-Apr-09, Tue,15:21 | Freezing Rain | Rear end | Non-fatal injury | Slush | West | Stopped | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Jun-18, Tue,12:18 | Clear | Rear end | P.D. only | Dry | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2019-Sep-30, Mon,15:52 | Clear | Other | P.D. only | Dry | East | Turning right | Passenger van | Ran off road | 0 |
| | | | | | East | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2019-Nov-01, Fri,10:25 | Clear | Angle | Non-fatal injury | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Dec-11, Wed,17:52 | Clear | Rear end | P.D. only | Loose snow | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Dec-12, Thu,15:23 | Clear | Sideswipe | P.D. only | Dry | East | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| | | | | | East | Stopped | Passenger van | Other motor vehicle | |
| 2020-Jan-15, Wed,17:45 | Clear | Sideswipe | P.D. only | Wet | North | Changing lanes | Pick-up truck | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2020-Jan-30, Thu,11:50 | Clear | Rear end | P.D. only | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning right | Pick-up truck | Other motor vehicle | |
| 2020-Feb-12, Wed,14:15 | Clear | Rear end | P.D. only | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2020-Feb-23, Sun,00:15 | Clear | Sideswipe | P.D. only | Dry | West | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Turning left | Pick-up truck | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** BLAIR RD @ OGILVIE RD

**Traffic Control:** Traffic signal **Total Collisions:** 84

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2020-Feb-28, Fri,08:58 | Clear | Rear end | P.D. only | Ice | East | Going ahead | Passenger van | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Tow truck | Other motor vehicle | |
| 2020-Mar-05, Thu,10:18 | Clear | Rear end | P.D. only | Dry | West | Changing lanes | Pick-up truck | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2020-Mar-12, Thu,19:05 | Clear | Rear end | P.D. only | Dry | North | Turning right | Unknown | Other motor vehicle | 0 |
| | | | | | North | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2020-Mar-16, Mon,16:24 | Clear | Rear end | P.D. only | Dry | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2020-May-26, Tue,15:15 | Clear | Rear end | P.D. only | Dry | North | Turning right | Pick-up truck | Other motor vehicle | 0 |
| | | | | | North | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2020-Jun-26, Fri,06:15 | Clear | Rear end | P.D. only | Dry | East | Slowing or stopping | Municipal transit bus | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2020-Sep-13, Sun,20:10 | Clear | Rear end | P.D. only | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning right | Pick-up truck | Other motor vehicle | |
| 2020-Sep-25, Fri,17:00 | Clear | Rear end | P.D. only | Dry | West | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Stopped | Pick-up truck | Other motor vehicle | |
| 2020-Oct-07, Wed,14:10 | Clear | Rear end | P.D. only | Dry | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2020-Oct-29, Thu,11:04 | Clear | Rear end | P.D. only | Dry | East | Unknown | Unknown | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2020-Nov-02, Mon,09:45 | Clear | Rear end | P.D. only | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning right | Pick-up truck | Other motor vehicle | |
| 2020-Nov-03, Tue,14:43 | Clear | Rear end | P.D. only | Dry | West | Turning left | Pick-up truck | Other motor vehicle | 0 |
| | | | | | West | Turning left | Pick-up truck | Other motor vehicle | |

**Location:** BLAIR RD @ OGILVIE RD

**Traffic Control:** Traffic signal **Total Collisions:** 84

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2020-Nov-08, Sun,16:40 | Clear | Rear end | P.D. only | Dry | North | Turning right | Pick-up truck | Other motor vehicle | 0 |
| | | | | | North | Turning right | Pick-up truck | Other motor vehicle | |
| 2020-Nov-17, Tue,13:24 | 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 | |
| 2020-Nov-22, Sun,21:00 | Snow | Rear end | P.D. only | Ice | North | Turning right | Unknown | Other motor vehicle | 0 |
| | | | | | North | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2020-Nov-25, Wed,07:25 | Snow | Rear end | P.D. only | Ice | North | Going ahead | Pick-up truck | Other motor vehicle | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2020-Nov-26, Thu,16:25 | Rain | Rear end | P.D. only | Wet | North | Turning right | Delivery van | Other motor vehicle | 0 |
| | | | | | North | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2020-Nov-30, Mon,12:30 | Clear | Rear end | P.D. only | Dry | South | Unknown | Unknown | Other motor vehicle | 0 |
| | | | | | South | Stopped | Pick-up truck | Other motor vehicle | |
| 2020-Dec-09, Wed,17:45 | Clear | Sideswipe | P.D. only | Dry | West | Changing lanes | Pick-up truck | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Pick-up truck | Other motor vehicle | |
| 2020-Dec-18, Fri,15:50 | Clear | Sideswipe | Non-fatal injury | Dry | West | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2020-Dec-20, Sun,05:24 | Clear | SMV other | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Pole (sign, parking meter) | 0 |
| 2020-Dec-29, Tue,10:36 | Clear | Rear end | Non-fatal injury | Dry | North | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Turning right | Automobile, station wagon | Other motor vehicle | |

**Location:** BLAIR RD @ OR174 IC112 RAMP26

**Traffic Control:** No control **Total Collisions:** 2

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Nov-26, Sat,11:07 | Clear | SMV other | P.D. only | Dry | West | Going ahead | Automobile, station wagon | Steel guide rail | 0 |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** BLAIR RD @ OR174 IC112 RAMP26

**Traffic Control:** No control **Total Collisions:** 2

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2017-Aug-03, Thu,08:15 | Clear | Rear end | P.D. only | Dry | West | Going ahead | Pick-up truck | Other motor vehicle | 0 |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |

**Location:** BLAIR RD @ OR174 IC112 RAMP52

**Traffic Control:** No control **Total Collisions:** 2

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Dec-08, Thu,17:12 | Snow | Rear end | Non-fatal injury | Loose snow | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2019-Jun-07, Fri,12:00 | Clear | Rear end | P.D. only | Dry | North | Merging | Passenger van | Other motor vehicle | 0 |
| | | | | | North | Merging | Passenger van | Other motor vehicle | |

**Location:** BLAIR RD @ REGIONAL RD 174 N/OR174 IC112 RAMP61

**Traffic Control:** Traffic signal **Total Collisions:** 66

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Feb-09, Tue,15:48 | Clear | Turning movement | Non-fatal injury | Dry | East | Turning left | Pick-up truck | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2016-Apr-01, Fri,16:00 | 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 | |
| 2016-May-17, Tue,10:47 | Clear | Rear end | P.D. only | Dry | East | Turning right | Pick-up truck | Other motor vehicle | 0 |
| | | | | | East | Turning right | Pick-up truck | Other motor vehicle | |
| 2016-Jun-29, Wed,08:52 | Clear | Angle | Non-fatal injury | Dry | West | Going ahead | Passenger van | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2016-Sep-10, Sat,23:18 | Rain | Turning movement | P.D. only | Wet | South | Going ahead | Passenger van | Other motor vehicle | 0 |
| | | | | | North | Turning left | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** BLAIR RD @ REGIONAL RD 174 N/OR174 IC112 RAMP61

**Traffic Control:** Traffic signal **Total Collisions:** 66

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Sep-19, Mon,19:42 | Clear | Sideswipe | P.D. only | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning right | Pick-up truck | Other motor vehicle | |
| 2016-Sep-23, Fri,07:30 | Rain | Rear end | P.D. only | Wet | West | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2016-Oct-22, Sat,00:33 | Rain | Rear end | Non-fatal injury | Wet | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2016-Nov-14, Mon,14:08 | Clear | Rear end | P.D. only | Dry | West | Changing lanes | Pick-up truck | Other motor vehicle | 0 |
| | | | | | West | Stopped | Pick-up truck | Other motor vehicle | |
| 2016-Nov-21, Mon,09:10 | Snow | Rear end | P.D. only | Slush | West | Slowing or stopping | Pick-up truck | Other motor vehicle | 0 |
| | | | | | West | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2017-Jan-06, Fri,14:40 | Clear | Turning movement | P.D. only | Wet | East | Turning left | Passenger van | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2017-Jan-19, Thu,14:56 | Clear | Rear end | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Pick-up truck | Other motor vehicle | |
| 2017-Jan-21, Sat,18:24 | Clear | Rear end | P.D. only | Wet | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2017-Feb-04, Sat,18:10 | 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 | |
| 2017-Mar-18, Sat,10:00 | Clear | Rear end | Non-fatal injury | Dry | South | Turning right | Pick-up truck | Other motor vehicle | 0 |
| | | | | | South | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2017-Mar-18, Sat,21:47 | Clear | Turning movement | P.D. only | Dry | West | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning right | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** BLAIR RD @ REGIONAL RD 174 N/OR174 IC112 RAMP61

**Traffic Control:** Traffic signal **Total Collisions:** 66

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2017-Apr-03, Mon,07:46 | Clear | Rear end | P.D. only | Dry | West | Unknown | Unknown | Other motor vehicle | 0 |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2017-Apr-15, Sat,17:08 | Rain | Turning movement | P.D. only | Wet | South | Going ahead | Pick-up truck | Other motor vehicle | 0 |
| | | | | | North | Turning left | Municipal transit bus | Other motor vehicle | |
| 2017-May-04, Thu,21:21 | Rain | Turning movement | P.D. only | Wet | East | Turning left | Unknown | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Pick-up truck | Other motor vehicle | |
| 2017-May-14, Sun,11:00 | Rain | Rear end | Non-fatal injury | Wet | South | Going ahead | Unknown | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2017-May-18, Thu,07:40 | Clear | Rear end | P.D. only | Dry | West | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Turning right | Pick-up truck | Other motor vehicle | |
| 2017-May-24, Wed,10:30 | Clear | Turning movement | Non-fatal injury | Dry | South | Going ahead | Pick-up truck | Other motor vehicle | 0 |
| | | | | | North | Turning left | Passenger van | Other motor vehicle | |
| 2017-May-24, Wed,21:22 | Clear | Angle | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2017-Jun-07, Wed,20:01 | 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 | |
| 2017-Jun-14, Wed,13:58 | 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 | |
| 2017-Jul-18, Tue,08:08 | 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 | |
| 2017-Aug-04, Fri,15:48 | Clear | Rear end | P.D. only | Dry | North | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Slowing or stopping | Pick-up truck | Other motor vehicle | |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** BLAIR RD @ REGIONAL RD 174 N/OR174 IC112 RAMP61

**Traffic Control:** Traffic signal **Total Collisions:** 66

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2017-Aug-11, Fri,00:40 | Clear | Turning movement | P.D. only | Dry | East | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2017-Oct-04, Wed,12:26 | Clear | Rear end | P.D. only | Dry | South | Going ahead | Passenger van | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2017-Oct-16, Mon,08:26 | 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 | |
| 2017-Nov-07, Tue,07:45 | Clear | Rear end | P.D. only | Dry | West | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Slowing or stopping | Passenger van | Other motor vehicle | |
| 2018-Mar-06, Tue,10:13 | Clear | Angle | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2018-Mar-22, Thu,10:57 | Clear | Angle | P.D. only | Dry | West | Turning right | Bus (other) | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2018-Mar-28, Wed,11:24 | Clear | Angle | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2018-Apr-16, Mon,16:09 | Freezing Rain | Turning movement | P.D. only | Ice | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2018-May-29, Tue,18:34 | 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 | |
| 2018-Jul-14, Sat,21:44 | Clear | Angle | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2018-Aug-14, Tue,19:12 | Clear | Sideswipe | P.D. only | Dry | South | Overtaking | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Merging | Automobile, station wagon | Other motor vehicle | |
| 2018-Sep-05, Wed,11:48 | 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 | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** BLAIR RD @ REGIONAL RD 174 N/OR174 IC112 RAMP61

**Traffic Control:** Traffic signal **Total Collisions:** 66

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2018-Sep-21, Fri,07:00 | Rain | Rear end | P.D. only | Wet | West | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Passenger van | Other motor vehicle | |
| 2018-Oct-25, Thu,07:13 | 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 | |
| 2018-Nov-01, Thu,21:38 | Rain | SMV other | Non-fatal injury | Wet | East | Turning left | Automobile, station wagon | Pedestrian | 1 |
| 2018-Nov-20, Tue,08:52 | Snow | Rear end | P.D. only | Loose snow | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | School bus | Other motor vehicle | |
| 2019-Jan-18, Fri,06:25 | Snow | Rear end | Non-fatal injury | Wet | West | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2019-Jan-24, Thu,17:00 | Clear | Rear end | P.D. only | Packed snow | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Jan-29, Tue,09:08 | Snow | Rear end | P.D. only | Loose snow | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Slowing or stopping | Automobile, station wagon | Snowbank/drift | |
| 2019-Mar-21, Thu,07:00 | 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-May-04, Sat,13:25 | 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 | |
| 2019-May-08, Wed,09:30 | 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-Jul-11, Thu,18:00 | Clear | Angle | P.D. only | Dry | North | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** BLAIR RD @ REGIONAL RD 174 N/OR174 IC112 RAMP61

**Traffic Control:** Traffic signal **Total Collisions:** 66

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2019-Aug-06, Tue,09:14 | 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-06, Tue,14:51 | Rain | Rear end | P.D. only | Wet | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2019-Aug-16, Fri,07:53 | Clear | Rear end | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Delivery van | Other motor vehicle | |
| 2019-Aug-25, Sun,12:50 | Clear | Rear end | P.D. only | Dry | South | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2019-Nov-27, Wed,17:38 | Rain | Turning movement | Non-fatal injury | Wet | East | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Dec-03, Tue,10:12 | Clear | Angle | Non-fatal injury | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Passenger van | Other motor vehicle | |
| 2020-Jan-20, Mon,17:57 | Clear | Rear end | P.D. only | Ice | South | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Changing lanes | Pick-up truck | Other motor vehicle | |
| 2020-Jan-21, Tue,13:20 | Clear | Rear end | P.D. only | Wet | South | Slowing or stopping | Delivery van | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2020-Feb-05, Wed,15:05 | Clear | Rear end | P.D. only | Dry | South | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Turning right | Pick-up truck | Other motor vehicle | |
| 2020-Feb-12, Wed,09:30 | Clear | Rear end | Non-fatal injury | Dry | West | Turning right | Pick-up truck | Other motor vehicle | 0 |
| | | | | | West | Turning right | Pick-up truck | Other motor vehicle | |
| 2020-Jun-20, Sat,19:48 | Clear | Angle | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Truck-other | Other motor vehicle | |
| 2020-Jul-08, Wed,19:44 | Clear | Other | P.D. only | Dry | East | Reversing | Pick-up truck | Other motor vehicle | 0 |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** BLAIR RD @ REGIONAL RD 174 N/OR174 IC112 RAMP61

**Traffic Control:** Traffic signal **Total Collisions:** 66

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2020-Sep-30, Wed,10:56 | Rain | Rear end | P.D. only | Wet | West | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2020-Nov-30, Mon,17:01 | Rain | SMV other | Non-fatal injury | Wet | East | Turning left | Pick-up truck | Pedestrian | 1 |
| 2020-Dec-12, Sat,16:00 | Rain | Angle | P.D. only | Wet | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Pick-up truck | Other motor vehicle | |
| 2020-Dec-18, Fri,15:55 | Clear | SMV other | P.D. only | Dry | West | Going ahead | Pick-up truck | Concrete guide rail | 0 |

**Location:** BLAIR RD @ REGIONAL RD 174 S/OR174 IC112 RAMP15

**Traffic Control:** Traffic signal **Total Collisions:** 54

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Jan-15, Fri,18:30 | Clear | Turning movement | P.D. only | Wet | South | Turning left | Pick-up truck | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2016-Jan-17, Sun,11:32 | Clear | Turning movement | Non-fatal injury | Wet | South | Turning left | Pick-up truck | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2016-Feb-06, Sat,13:10 | Clear | Sideswipe | P.D. only | Dry | West | Overtaking | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Stopped | Passenger van | Other motor vehicle | |
| 2016-Feb-21, Sun,10:17 | Clear | Turning movement | Non-fatal injury | Wet | North | Making "U" turn | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Pick-up truck | Other motor vehicle | |
| 2016-Feb-27, Sat,21:55 | Clear | Turning movement | P.D. only | Wet | South | Turning left | Pick-up truck | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Pick-up truck | Other motor vehicle | |
| 2016-Aug-03, Wed,23:01 | Clear | Turning movement | Non-fatal injury | Dry | South | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Motorcycle | Other motor vehicle | |
| | | | | | South | Turning left | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** BLAIR RD @ REGIONAL RD 174 S/OR174 IC112 RAMP15

**Traffic Control:** Traffic signal **Total Collisions:** 54

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Sep-07, Wed,21:59 | Rain | Rear end | P.D. only | Wet | South | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2016-Nov-02, Wed,15:30 | Clear | Rear end | P.D. only | Dry | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2016-Nov-26, Sat,15:25 | Clear | Turning movement | P.D. only | Dry | South | Turning left | Pick-up truck | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2016-Nov-30, Wed,19:50 | Rain | Turning movement | Non-fatal injury | Wet | South | Turning left | Pick-up truck | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Passenger van | Skidding/sliding | |
| | | | | | South | Stopped | Pick-up truck | Other motor vehicle | |
| 2017-Jan-09, Mon,13:30 | Clear | Angle | P.D. only | Dry | East | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2017-Jan-10, Tue,08:30 | Snow | SMV other | P.D. only | Slush | East | Going ahead | Automobile, station wagon | Cable guide rail | 0 |
| 2017-Feb-11, Sat,11:51 | Clear | Other | P.D. only | Wet | East | Going ahead | Automobile, station wagon | Debris falling off vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other | |
| 2017-Feb-12, Sun,02:45 | Snow | Rear end | P.D. only | Loose snow | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2017-Mar-02, Thu,16:09 | 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 | |
| 2017-Mar-08, Wed,15:18 | Clear | Rear end | P.D. only | Dry | South | Slowing or stopping | Pick-up truck | Other motor vehicle | 0 |
| | | | | | South | Turning left | Pick-up truck | Other motor vehicle | |
| 2017-Jun-07, Wed,09:00 | Clear | Turning movement | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2017-Jun-29, Thu,12:08 | Rain | Rear end | P.D. only | Wet | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Turning left | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** BLAIR RD @ REGIONAL RD 174 S/OR174 IC112 RAMP15

**Traffic Control:** Traffic signal **Total Collisions:** 54

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2017-Aug-10, Thu,09:01 | 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 | |
| 2017-Aug-18, Fri,17:56 | Rain | Rear end | P.D. only | Wet | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2017-Sep-12, Tue,17:08 | Clear | Sideswipe | P.D. only | Dry | East | Merging | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2017-Sep-29, Fri,22:20 | Rain | Rear end | P.D. only | Wet | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2017-Oct-12, Thu,07:35 | Clear | Rear end | P.D. only | Dry | East | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Pick-up truck | Other motor vehicle | |
| 2017-Nov-01, Wed,17:09 | Rain | 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 | |
| 2017-Nov-02, Thu,13:43 | Rain | Rear end | P.D. only | Wet | South | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Turning left | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2017-Dec-05, Tue,11:37 | Rain | Rear end | P.D. only | Wet | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2017-Dec-11, Mon,12:23 | Clear | Rear end | P.D. only | Dry | South | Slowing or stopping | Truck - dump | Other motor vehicle | 0 |
| | | | | | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2017-Dec-23, Sat,11:59 | Snow | Turning movement | Non-fatal injury | Loose snow | South | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2017-Dec-27, Wed,13:15 | Clear | Rear end | P.D. only | Dry | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2017-Dec-28, Thu,07:00 | Clear | SMV other | P.D. only | Ice | East | Merging | Automobile, station wagon | Snowbank/drift | 0 |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** BLAIR RD @ REGIONAL RD 174 S/OR174 IC112 RAMP15

**Traffic Control:** Traffic signal **Total Collisions:** 54

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2017-Dec-28, Thu,17:45 | Clear | Rear end | P.D. only | Dry | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2017-Dec-29, Fri,16:16 | Clear | Turning movement | P.D. only | Wet | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2017-Dec-29, Fri,18:14 | Clear | Approaching | Non-fatal injury | Other | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Pick-up truck | Other motor vehicle | |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2018-Jan-23, Tue,17:14 | Rain | Turning movement | Non-fatal injury | Wet | South | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | North | Turning right | Municipal transit bus | Other motor vehicle | |
| 2018-Feb-02, Fri,16:53 | Clear | Approaching | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2018-Jun-13, Wed,14:40 | Rain | SMV other | P.D. only | Wet | East | Turning right | Automobile, station wagon | Skidding/sliding | 0 |
| 2018-Jul-06, Fri,11:28 | Clear | Angle | Non-fatal injury | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2018-Jul-24, Tue,09:42 | Clear | SMV other | P.D. only | Wet | South | Going ahead | Pick-up truck | Pole (utility, power) | 0 |
| 2018-Dec-12, Wed,08:34 | Clear | Sideswipe | P.D. only | Wet | West | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2019-Feb-22, Fri,17:35 | Clear | Rear end | Non-fatal injury | Dry | North | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Jun-01, Sat,21:55 | Clear | Turning movement | P.D. only | Dry | North | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2019-Aug-08, Thu,16:33 | Rain | Turning movement | Non-fatal injury | Wet | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Turning left | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** BLAIR RD @ REGIONAL RD 174 S/OR174 IC112 RAMP15

**Traffic Control:** Traffic signal **Total Collisions:** 54

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2019-Aug-12, Mon,17:29 | Rain | Rear end | P.D. only | Wet | North | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2019-Aug-28, Wed,07:50 | Rain | Rear end | P.D. only | Wet | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2019-Sep-17, Tue,15:28 | 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 | |
| 2019-Sep-26, Thu,18:08 | Clear | Angle | Non-fatal injury | Wet | West | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Oct-14, Mon,22:55 | Clear | Rear end | P.D. only | Dry | South | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2019-Nov-04, Mon,10:26 | Clear | Rear end | P.D. only | Wet | West | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2019-Dec-21, Sat,03:33 | Clear | SMV other | P.D. only | Ice | South | Turning left | Automobile, station wagon | Steel guide rail | 0 |
| 2020-Feb-10, Mon,20:30 | Clear | Rear end | P.D. only | Wet | South | Going ahead | Pick-up truck | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2020-Aug-25, Tue,21:13 | 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 | |
| 2020-Sep-13, Sun,16:00 | Clear | Sideswipe | P.D. only | Dry | South | Changing lanes | Pick-up truck | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Pick-up truck | Other motor vehicle | |
| 2020-Oct-30, Fri,18:30 | Clear | Rear end | P.D. only | Dry | West | Going ahead | Passenger van | Other motor vehicle | 0 |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2020-Dec-22, Tue,09:50 | Clear | Turning movement | P.D. only | Dry | South | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Turning left | Pick-up truck | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** BLAIR RD btwn OGILVIE RD & OR174 IC112 RAMP36

**Traffic Control:** No control **Total Collisions:** 8

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Oct-27, Thu,21:54 | Snow | Rear end | P.D. only | Slush | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2016-Nov-14, Mon,18:02 | 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 | |
| 2017-Aug-10, Thu,20:00 | Clear | Rear end | Non-fatal injury | Dry | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2019-Apr-26, Fri,14:25 | Rain | Sideswipe | P.D. only | Wet | North | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-May-16, Thu,15:57 | 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 | Unknown | Other motor vehicle | |
| 2019-Aug-17, Sat,15:28 | Clear | Sideswipe | P.D. only | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Dec-12, Thu,14:50 | 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 | |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2020-Jun-22, Mon,08:26 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |

**Location:** BLAIR RD btwn OR174 IC112 RAMP26 & OR174 IC112 RAMP36

**Traffic Control:** No control **Total Collisions:** 2

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Oct-31, Mon,14:50 | Clear | Sideswipe | P.D. only | Dry | South | Changing lanes | Pick-up truck | 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, 2016 **To:** December 31, 2020

**Location:** BLAIR RD btwn OR174 IC112 RAMP26 & OR174 IC112 RAMP36

**Traffic Control:** No control **Total Collisions:** 2

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2019-Jun-06, Thu,16:43 | 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 | |

**Location:** BLAIR RD btwn OR174 IC112 RAMP26 & OR174 IC112 RAMP52

**Traffic Control:** No control **Total Collisions:** 2

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Oct-21, Fri,18:27 | Rain | Rear end | Non-fatal injury | Wet | North | Changing lanes | Automobile, station wagon | Cyclist | 0 |
| | | | | | North | Going ahead | Bicycle | Other motor vehicle | |
| 2018-Sep-18, Tue,15:00 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Slowing or stopping | School bus | Other motor vehicle | |

**Location:** BLAIR RD btwn OR174 IC112 RAMP52 & OR174 IC112 RAMP53

**Traffic Control:** No control **Total Collisions:** 2

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2018-Jun-27, Wed,23:33 | Rain | SMV other | P.D. only | Wet | East | Turning left | Automobile, station wagon | Skidding/sliding | 0 |
| 2019-Oct-10, Thu,16:10 | Clear | Rear end | Non-fatal injury | Dry | South | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| | | | | | South | Stopped | Pick-up truck | Other motor vehicle | |

**Location:** CADBORO RD @ OGILVIE RD

**Traffic Control:** Traffic signal **Total Collisions:** 9

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Feb-24, Wed,14:50 | Snow | Rear end | P.D. only | Ice | East | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** CADBORO RD @ OGILVIE RD

**Traffic Control:** Traffic signal **Total Collisions:** 9

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Jul-13, Wed,16:56 | Clear | Rear end | P.D. only | Dry | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2018-Feb-21, Wed,15:55 | Clear | Rear end | P.D. only | Dry | East | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2018-Oct-02, Tue,08:02 | Rain | Rear end | P.D. only | Wet | West | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Feb-05, Tue,16:43 | Clear | Rear end | P.D. only | Wet | West | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-May-25, Sat,16:00 | Clear | Rear end | P.D. only | Dry | West | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2019-Oct-29, Tue,16:14 | Clear | Rear end | Non-fatal injury | Dry | East | Going ahead | Delivery van | Other motor vehicle | 0 |
| | | | | | East | Stopped | Pick-up truck | Other motor vehicle | |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2020-Jan-29, Wed,11:32 | Clear | SMV other | P.D. only | Dry | South | Turning left | Automobile, station wagon | Curb | 0 |
| 2020-Nov-05, Thu,18:05 | Clear | SMV other | Non-fatal injury | Dry | South | Turning right | Pick-up truck | Pedestrian | 1 |

**Location:** CITY PARK DR @ WILBURY RD/HARPER AVE W

**Traffic Control:** Stop sign **Total Collisions:** 1

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2017-Jan-17, Tue,00:00 | Clear | SMV unattended vehicle | P.D. only | Dry | South | Unknown | Unknown | Unattended vehicle | 0 |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** CITY PARK DR btwn AMBASSADOR AVE & OGILVIE RD

**Traffic Control:** No control **Total Collisions:** 6

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2018-Jan-11, Thu,12:23 | Clear | Turning movement | P.D. only | Wet | South | Making "U" turn | Unknown | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Passenger van | Other motor vehicle | |
| 2018-Feb-13, Tue,16:18 | Clear | Angle | Non-fatal injury | Ice | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2018-Oct-01, Mon,14:43 | Clear | SMV other | Non-fatal injury | Dry | West | Turning right | Automobile, station wagon | Pedestrian | 1 |
| 2018-Nov-19, Mon,11:39 | Clear | Sideswipe | P.D. only | Wet | South | Pulling away from shoulder or curb | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Nov-20, Wed,17:04 | Clear | Turning movement | P.D. only | Dry | South | Making "U" turn | Passenger van | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Passenger van | Other motor vehicle | |
| 2019-Dec-20, Fri,15:30 | 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 | |

**Location:** CITY PARK DR btwn OGILVIE RD & WILBURY RD

**Traffic Control:** No control **Total Collisions:** 2

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Dec-16, Fri,09:32 | 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-16, Thu,00:01 | Clear | SMV unattended vehicle | P.D. only | Dry | North | Unknown | Unknown | Unattended vehicle | 0 |

**Location:** OGILVIE RD @ 185 E OF BATHGATE DR/185 E OF CIT

**Traffic Control:** Traffic signal **Total Collisions:** 1

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2019-Aug-23, Fri,20:30 | Clear | Rear end | P.D. only | Dry | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** OGILVIE RD @ 240 W OF BLAIR RD

**Traffic Control:** Traffic signal **Total Collisions:** 6

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Jan-12, Tue,14:33 | Snow | Rear end | P.D. only | Loose snow | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2016-Oct-17, Mon,15:40 | Clear | Rear end | Non-fatal injury | Dry | South | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Turning right | Automobile, station wagon | Other motor vehicle | |
| 2018-Mar-19, Mon,16:24 | Clear | Rear end | P.D. only | Dry | West | Unknown | Unknown | Other motor vehicle | 0 |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Apr-06, Sat,17:31 | Clear | Rear end | P.D. only | Dry | West | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2019-Aug-21, Wed,16:51 | Clear | Rear end | Non-fatal injury | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2019-Oct-11, Fri,09:50 | Clear | Rear end | P.D. only | Dry | West | Going ahead | Passenger van | Other motor vehicle | 0 |
| | | | | | West | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |

**Location:** OGILVIE RD @ BATHGATE DR/CITYPARK DR W

**Traffic Control:** Traffic signal **Total Collisions:** 37

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Jan-05, Tue,08:40 | Clear | Sideswipe | P.D. only | Dry | West | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Turning left | Municipal transit bus | Other motor vehicle | |
| 2016-Jan-05, Tue,08:46 | Clear | Turning movement | P.D. only | Dry | East | Turning left | Pick-up truck | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2016-Jan-09, Sat,18:15 | Clear | Other | P.D. only | Wet | East | Making "U" turn | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Turning right | Pick-up truck | Other motor vehicle | |
| 2016-Mar-12, Sat,13:43 | Clear | Turning movement | P.D. only | Dry | East | Making "U" turn | Pick-up truck | Other motor vehicle | 0 |
| | | | | | West | Changing lanes | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** OGILVIE RD @ BATHGATE DR/CITYPARK DR W

**Traffic Control:** Traffic signal **Total Collisions:** 37

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Jun-01, Wed,10:10 | Clear | Turning movement | Non-fatal injury | Dry | East | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2016-Jun-11, Sat,15:14 | 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 | |
| 2016-Aug-13, Sat,10:27 | Rain | Angle | Non-fatal injury | Wet | West | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Pick-up truck | Other motor vehicle | |
| | | | | | South | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2016-Nov-06, Sun,15:45 | Clear | SMV other | Non-fatal injury | Dry | West | Going ahead | Passenger van | Pedestrian | 1 |
| 2017-Jan-09, Mon,18:30 | Clear | Sideswipe | P.D. only | Slush | North | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2017-Jan-20, Fri,14:48 | Freezing Rain | Rear end | Non-fatal injury | Wet | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Slowing or stopping | Pick-up truck | Other motor vehicle | |
| 2017-Feb-18, Sat,12:10 | Clear | Angle | Non-fatal injury | Wet | West | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2017-Mar-04, Sat,00:30 | Snow | SMV other | P.D. only | Ice | West | Turning left | Automobile, station wagon | Skidding/sliding | 0 |
| 2017-Mar-12, Sun,14:00 | Clear | Rear end | P.D. only | Dry | West | Going ahead | Pick-up truck | Other motor vehicle | 0 |
| | | | | | West | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2017-Apr-09, Sun,22:06 | Clear | Turning movement | P.D. only | Dry | West | Going ahead | Unknown | Other motor vehicle | 0 |
| | | | | | East | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2017-Jun-20, Tue,08:06 | Rain | Sideswipe | P.D. only | Wet | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2017-Jul-21, Fri,16:02 | Clear | Angle | P.D. only | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Municipal transit bus | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** OGILVIE RD @ BATHGATE DR/CITYPARK DR W

**Traffic Control:** Traffic signal **Total Collisions:** 37

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2017-Oct-11, Wed,15:00 | 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 | |
| 2017-Nov-27, Mon,12:14 | Clear | Angle | P.D. only | Ice | South | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2017-Dec-29, Fri,10:41 | Clear | Rear end | Non-fatal injury | Dry | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2018-Jan-22, Mon,16:19 | Snow | Turning movement | P.D. only | Loose snow | South | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2018-Mar-30, Fri,11:31 | Clear | Angle | P.D. only | Dry | West | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2018-May-11, Fri,16:18 | Clear | Turning movement | P.D. only | Dry | East | Making "U" turn | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2018-Jun-02, Sat,14:57 | Clear | Angle | P.D. only | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Turning left | Pick-up truck | Other motor vehicle | |
| 2018-Jul-12, Thu,13:05 | Clear | SMV other | P.D. only | Dry | South | Turning left | Automobile, station wagon | Other | 0 |
| 2018-Jul-14, Sat,15:25 | Clear | Turning movement | Non-fatal injury | Dry | East | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2018-Aug-02, Thu,12:13 | Clear | Rear end | Non-fatal injury | Dry | West | Going ahead | Passenger van | Other motor vehicle | 0 |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2018-Aug-16, Thu,18:06 | 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 | |
| 2018-Aug-30, Thu,17:20 | Clear | Rear end | P.D. only | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Unknown | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** OGILVIE RD @ BATHGATE DR/CITYPARK DR W

**Traffic Control:** Traffic signal **Total Collisions:** 37

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2018-Oct-12, Fri,20:28 | Clear | Turning movement | Non-fatal injury | Dry | East | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Jan-03, Thu,07:37 | Snow | SMV other | P.D. only | Slush | West | Going ahead | Automobile, station wagon | Ran off road | 0 |
| 2019-Jan-21, Mon,15:30 | Clear | Approaching | P.D. only | Ice | West | Going ahead | Automobile, station wagon | Skidding/sliding | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Feb-15, Fri,18:18 | Clear | Sideswipe | P.D. only | Dry | West | Overtaking | Pick-up truck | Other motor vehicle | 0 |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Jul-17, Wed,20:00 | Clear | SMV other | Non-fatal injury | Dry | North | Turning left | Automobile, station wagon | Pedestrian | 2 |
| 2019-Sep-05, Thu,15:45 | Clear | Turning movement | Non-fatal injury | Dry | West | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Dec-10, Tue,13:35 | Clear | Rear end | P.D. only | Dry | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Dec-15, Sun,16:45 | Clear | Rear end | P.D. only | Ice | North | Unknown | Unknown | Other motor vehicle | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2020-Feb-12, Wed,09:04 | Clear | Rear end | Non-fatal injury | Dry | West | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |

**Location:** OGILVIE RD @ CITY PARK DR E/CSIS HQ ACCESS

**Traffic Control:** Traffic signal **Total Collisions:** 24

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Jan-29, Fri,12:48 | Snow | Rear end | P.D. only | Wet | West | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2016-Jun-02, Thu,18:47 | Clear | Turning movement | Non-fatal injury | Dry | East | Making "U" turn | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** OGILVIE RD @ CITY PARK DR E/CSIS HQ ACCESS

**Traffic Control:** Traffic signal **Total Collisions:** 24

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Jun-03, Fri,14:10 | Clear | Rear end | Non-fatal injury | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2016-Jun-21, Tue,05:38 | Clear | Angle | P.D. only | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Turning left | Pick-up truck | Other motor vehicle | |
| 2016-Sep-06, Tue,19:27 | Clear | Turning movement | P.D. only | Dry | West | Making "U" turn | Pick-up truck | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Pick-up truck | Other motor vehicle | |
| 2016-Sep-08, Thu,13:51 | Rain | Turning movement | Non-fatal injury | Wet | West | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2016-Oct-20, Thu,08:38 | Fog, mist, smoke, dust | Turning movement | Non-fatal injury | Dry | West | Turning left | Pick-up truck | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Pick-up truck | Other motor vehicle | |
| 2016-Dec-30, Fri,13:03 | Clear | Rear end | P.D. only | Dry | East | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2017-Feb-17, Fri,18:51 | Clear | Turning movement | P.D. only | Dry | West | Turning left | Pick-up truck | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2017-May-18, Thu,19:13 | Clear | Rear end | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2017-May-23, Tue,12:53 | Clear | Rear end | Non-fatal injury | Dry | East | Going ahead | Pick-up truck | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2017-Sep-03, Sun,17:40 | Rain | SMV other | Non-fatal injury | Wet | East | Turning right | Automobile, station wagon | Curb | 0 |
| 2017-Oct-13, Fri,11:42 | Clear | Turning movement | P.D. only | Dry | South | Going ahead | Pick-up truck | Other motor vehicle | 0 |
| | | | | | South | Making "U" turn | Automobile, station wagon | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** OGILVIE RD @ CITY PARK DR E/CSIS HQ ACCESS

**Traffic Control:** Traffic signal **Total Collisions:** 24

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2018-Jun-13, Wed,10:00 | Rain | Turning movement | P.D. only | Wet | West | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2018-Jun-27, Wed,14:35 | Clear | Turning movement | P.D. only | Dry | West | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Pick-up truck | Other motor vehicle | |
| 2019-Jun-13, Thu,16:40 | Clear | Rear end | P.D. only | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Sep-05, Thu,15:15 | 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 | |
| 2019-Sep-06, Fri,15:55 | Rain | Rear end | P.D. only | Wet | West | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Sep-21, Sat,11:25 | Clear | Turning movement | P.D. only | Dry | West | Making "U" turn | Passenger van | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-Sep-26, Thu,14:56 | Clear | SMV other | Non-fatal injury | Dry | West | Going ahead | Automobile, station wagon | Pedestrian | 1 |
| 2019-Nov-08, Fri,12:15 | Clear | Rear end | P.D. only | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2020-Jan-31, Fri,06:50 | Clear | Turning movement | Non-fatal injury | Dry | West | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2020-Nov-12, Thu,16:11 | Clear | Turning movement | P.D. only | Dry | West | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2020-Dec-21, Mon,17:15 | Clear | 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 | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** OGILVIE RD @ MATHESON RD/PALMERSTON DR

**Traffic Control:** Traffic signal **Total Collisions:** 19

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Feb-18, Thu,10:34 | Clear | Turning movement | P.D. only | Wet | South | Turning left | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Turning right | Passenger van | Other motor vehicle | |
| 2016-Aug-29, Mon,08:55 | Clear | Angle | P.D. only | Dry | West | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2017-Feb-22, Wed,12:24 | Rain | Rear end | Non-fatal injury | Wet | South | Turning right | Passenger van | Other motor vehicle | 0 |
| | | | | | South | Turning right | Passenger van | Other motor vehicle | |
| 2017-Jul-21, Fri,17:40 | 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 | |
| 2017-Oct-05, Thu,16:02 | 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 | |
| 2018-Feb-03, Sat,17:53 | Snow | Rear end | P.D. only | Wet | East | Making "U" turn | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2018-Feb-16, Fri,13:21 | Clear | Rear end | P.D. only | Wet | West | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2018-Jul-09, Mon,09:04 | Clear | Angle | P.D. only | Dry | West | Pulling onto shoulder or toward curb | Municipal transit bus | Other motor vehicle | 0 |
| | | | | | South | Turning right | Pick-up truck | Other motor vehicle | |
| 2018-Nov-29, Thu,20:14 | Clear | Turning movement | P.D. only | Dry | East | Making "U" turn | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2018-Dec-06, Thu,09:21 | Clear | Rear end | P.D. only | Wet | West | Going ahead | Pick-up truck | Other motor vehicle | 0 |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Jan-01, Tue,04:42 | Snow | SMV other | P.D. only | Slush | West | Reversing | Snow plow | Pole (utility, power) | 0 |
| 2019-Mar-10, Sun,13:13 | Snow | SMV other | P.D. only | Packed snow | East | Going ahead | Automobile, station wagon | Skidding/sliding | 0 |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** OGILVIE RD @ MATHESON RD/PALMERSTON DR

**Traffic Control:** Traffic signal **Total Collisions:** 19

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2019-Apr-24, Wed,15:53 | Clear | Turning movement | Non-fatal injury | Dry | West | Making "U" turn | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2019-May-12, Sun,16:45 | 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 | |
| 2019-Sep-15, Sun,19:45 | Clear | Turning movement | P.D. only | Dry | West | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2019-Dec-20, Fri,08:54 | Clear | Angle | P.D. only | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Turning left | Automobile, station wagon | Other motor vehicle | |
| 2020-Sep-09, Wed,17:00 | Rain | Other | P.D. only | Wet | North | Reversing | Passenger van | Other motor vehicle | 0 |
| | | | | | South | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2020-Sep-10, Thu,20:54 | Clear | SMV other | P.D. only | Dry | East | Turning right | Automobile, station wagon | Pole (utility, power) | 0 |
| 2020-Sep-21, Mon,14:24 | Clear | Rear end | P.D. only | Dry | West | Slowing or stopping | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Stopped | Automobile, station wagon | Other motor vehicle | |

**Location:** OGILVIE RD btwn 240 W OF BLAIR RD & CITY PARK DR

**Traffic Control:** No control **Total Collisions:** 5

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2017-May-18, Thu,16:42 | 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 | |
| 2017-Dec-01, Fri,19:44 | Clear | Rear end | P.D. only | Dry | East | Going ahead | Pick-up truck | Other motor vehicle | 0 |
| | | | | | East | Stopped | Pick-up truck | Other motor vehicle | |
| 2017-Dec-08, Fri,10:43 | Clear | SMV other | P.D. only | Dry | South | Reversing | Pick-up truck | Pole (utility, power) | 0 |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** OGILVIE RD btwn 240 W OF BLAIR RD & CITY PARK DR

**Traffic Control:** No control **Total Collisions:** 5

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2018-Aug-17, Fri,07:16 | Clear | Sideswipe | Non-fatal injury | Dry | West | Changing lanes | Automobile, station wagon | Other motor vehicle | 1 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2020-May-10, Sun,22:17 | Clear | SMV other | P.D. only | Dry | West | Going ahead | Pick-up truck | Pole (utility, power) | 0 |

**Location:** OGILVIE RD btwn BATHGATE DR & CADBORO RD

**Traffic Control:** No control **Total Collisions:** 6

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Feb-21, Sun,00:00 | Clear | SMV unattended vehicle | P.D. only | Wet | Unknown | Unknown | Unknown | Unattended vehicle | 0 |
| 2016-May-06, Fri,17:28 | Clear | Rear end | P.D. only | Dry | East | Slowing or stopping | Pick-up truck | Other motor vehicle | 0 |
| | | | | | East | Stopped | Passenger van | Other motor vehicle | |
| 2017-Nov-16, Thu,16:45 | Rain | Rear end | Non-fatal injury | Wet | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2018-Apr-24, Tue,23:41 | Clear | SMV other | P.D. only | Dry | West | Going ahead | Automobile, station wagon | Building or wall | 0 |
| 2019-Dec-21, Sat,13:37 | Clear | Angle | P.D. only | Dry | South | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2020-Aug-09, Sun,23:17 | Clear | Rear end | P.D. only | Dry | West | Changing lanes | Pick-up truck | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |

**Location:** OGILVIE RD btwn BATHGATE DR & CITY PARK DR (1)

**Traffic Control:** No control **Total Collisions:** 6

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Jul-04, Mon,16:27 | Clear | Rear end | Non-fatal injury | Dry | East | Going ahead | Pick-up truck | Other motor vehicle | 0 |
| | | | | | East | Slowing or stopping | Pick-up truck | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** OGILVIE RD btwn BATHGATE DR & CITY PARK DR (1)

**Traffic Control:** No control **Total Collisions:** 6

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Aug-13, Sat,17:08 | Snow | Rear end | Non-fatal injury | Wet | West | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Slowing or stopping | Pick-up truck | Other motor vehicle | |
| 2017-Feb-15, Wed,09:37 | Snow | Rear end | Non-fatal injury | Packed snow | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Municipal transit bus | Other motor vehicle | |
| 2019-May-15, Wed,17:54 | Clear | Sideswipe | P.D. only | Dry | East | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |
| 2019-Oct-17, Thu,18:58 | Rain | Sideswipe | P.D. only | Wet | West | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Pick-up truck | Other motor vehicle | |
| 2020-Jan-17, Fri,18:03 | Clear | Rear end | Non-fatal injury | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Stopped | Automobile, station wagon | Other motor vehicle | |

**Location:** OGILVIE RD btwn BATHGATE DR & CITY PARK DR (2)

**Traffic Control:** No control **Total Collisions:** 2

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Nov-01, Tue,11:14 | Clear | Rear end | P.D. only | Dry | West | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Slowing or stopping | Passenger van | Other motor vehicle | |
| | | | | | West | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2018-Oct-31, Wed,17:50 | Rain | Sideswipe | P.D. only | Wet | East | Changing lanes | Pick-up truck | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Automobile, station wagon | Other motor vehicle | |

**Location:** OGILVIE RD btwn BLAIR RD (1) & CITY PARK DR

**Traffic Control:** No control **Total Collisions:** 2

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Sep-30, Fri,13:01 | Clear | Angle | P.D. only | Dry | East | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | North | Turning right | Pick-up truck | Other motor vehicle | |

# Transportation Services - Traffic Services

## Collision Details Report - Public Version

**From:** January 1, 2016 **To:** December 31, 2020

**Location:** OGILVIE RD btwn BLAIR RD (1) & CITY PARK DR

**Traffic Control:** No control **Total Collisions:** 2

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2020-Dec-12, Sat,15:17 | Freezing Rain | Rear end | Non-fatal injury | Ice | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Slowing or stopping | Pick-up truck | Other motor vehicle | |

**Location:** OGILVIE RD btwn CADBORO RD & MATHESON RD

**Traffic Control:** No control **Total Collisions:** 7

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | Vehicle type | First Event | No. Ped |
|---|---|---|---|---|---|---|---|---|---|
| 2016-Apr-08, Fri,17:28 | Clear | Sideswipe | P.D. only | Wet | East | Changing lanes | Unknown | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Passenger van | Other motor vehicle | |
| 2018-Jan-02, Tue,21:40 | Snow | Angle | Non-fatal injury | Slush | South | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | West | Going ahead | Automobile, station wagon | Other motor vehicle | |
| 2018-May-28, Mon,20:56 | Clear | SMV other | Non-fatal injury | Dry | East | Going ahead | Automobile, station wagon | Ran off road | 0 |
| 2018-Jul-30, Mon,13:13 | Clear | SMV other | P.D. only | Dry | South | Turning right | Automobile, station wagon | Pole (utility, power) | 0 |
| 2019-Apr-04, Thu,08:15 | Clear | Rear end | P.D. only | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Slowing or stopping | Automobile, station wagon | Other motor vehicle | |
| 2020-Jan-11, Sat,21:20 | Clear | Rear end | P.D. only | Wet | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
| | | | | | East | Going ahead | Pick-up truck | Other motor vehicle | |
| 2020-Jan-29, Wed,15:17 | Clear | Rear end | P.D. only | Loose snow | West | Going ahead | Pick-up truck | Other motor vehicle | 0 |
| | | | | | West | Stopped | Passenger van | Other motor vehicle | |

# APPENDIX F

Blair TOD Plan

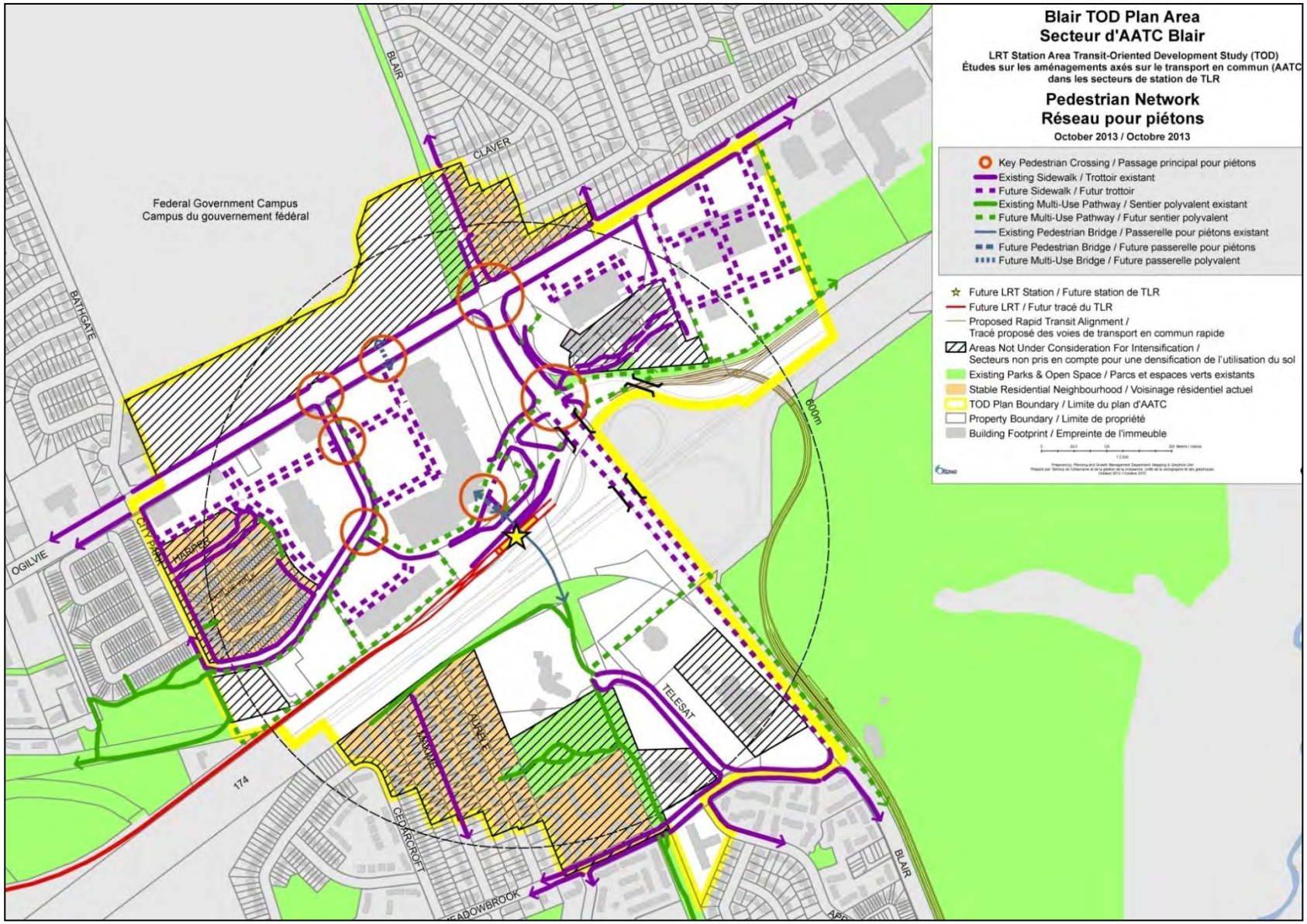



**Figure 72: Blair Pedestrian Network**

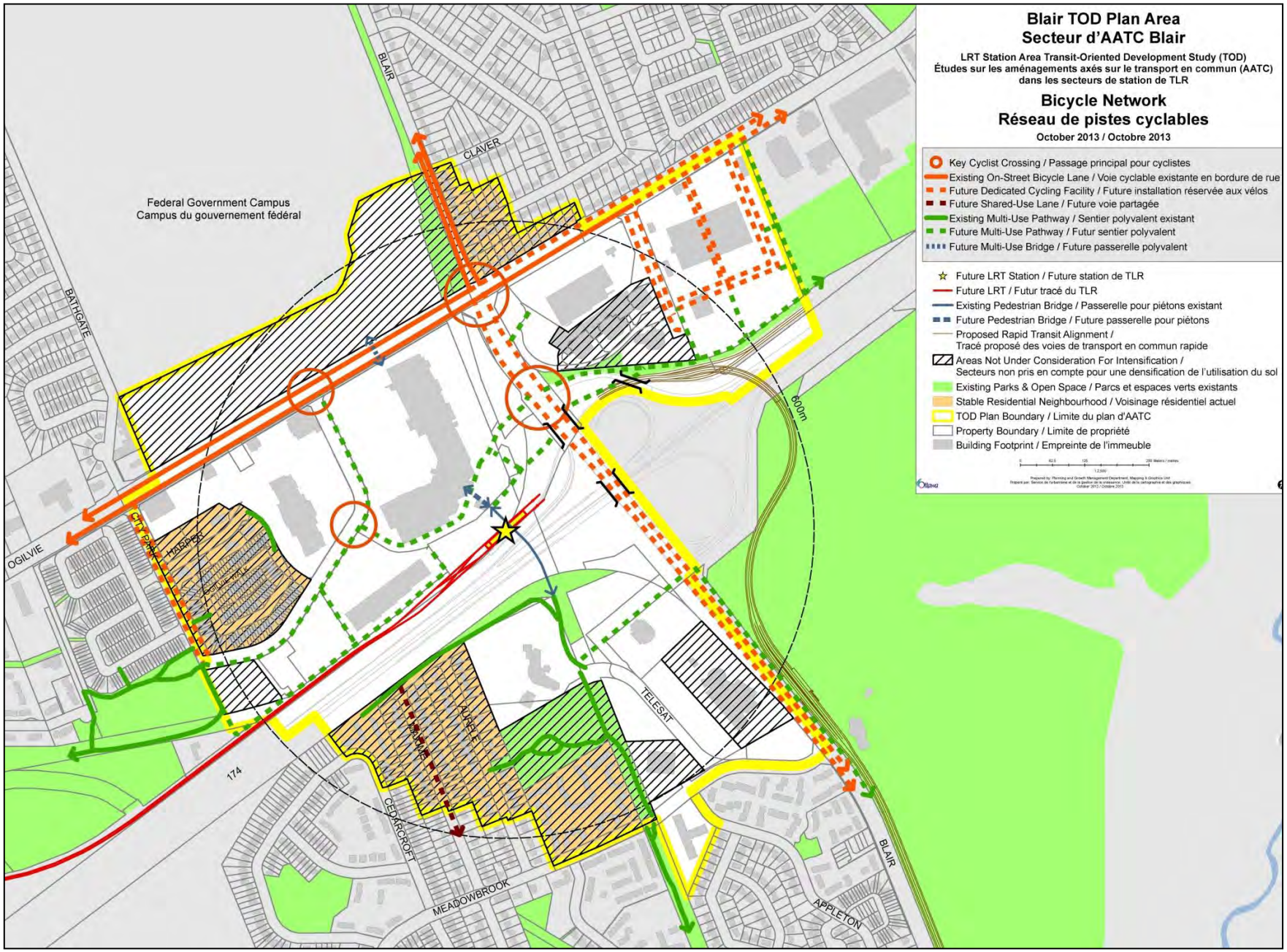
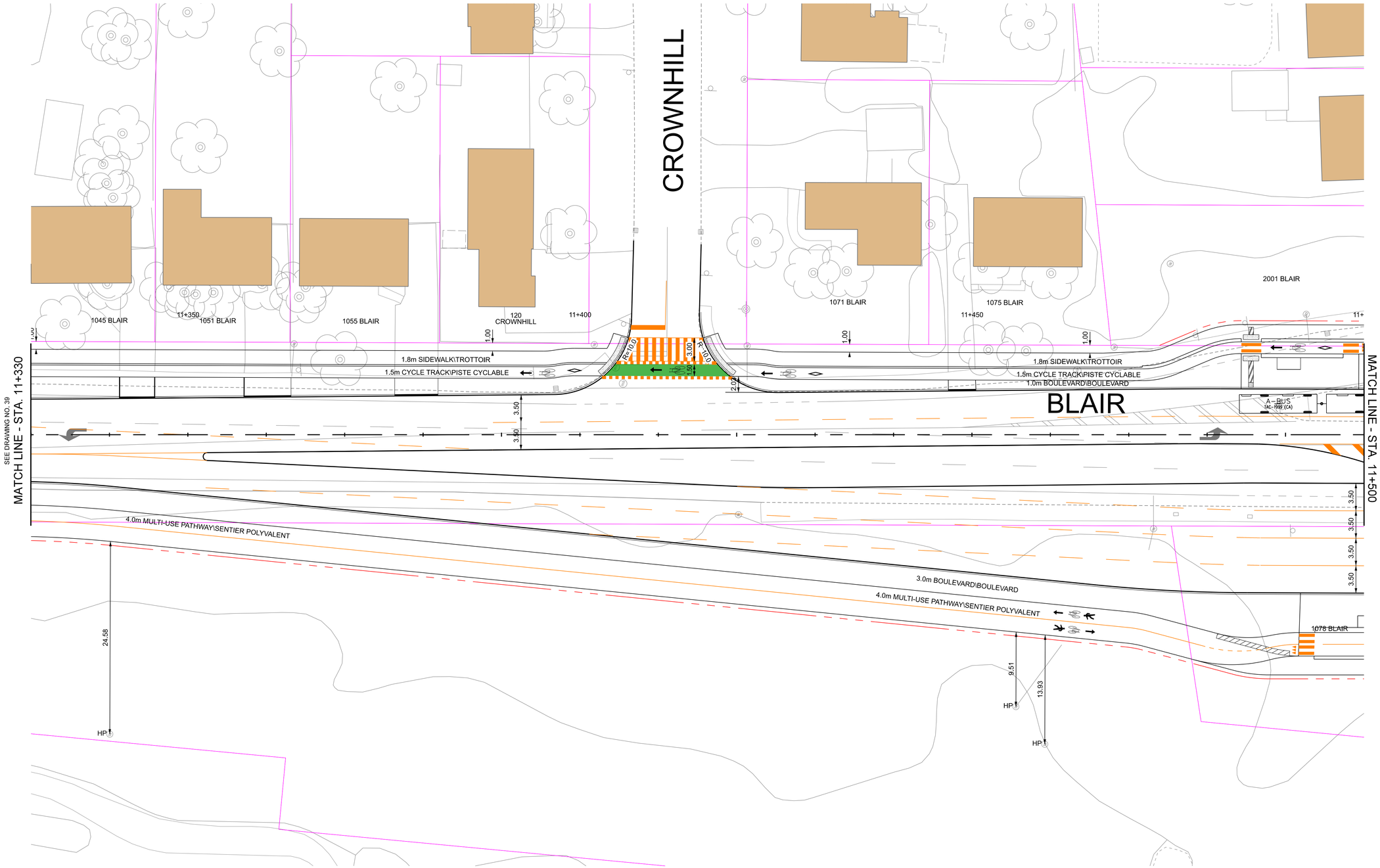


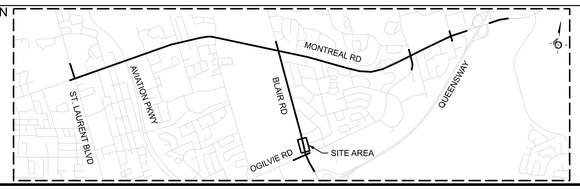

Figure 73: Blair Bicycle Network

# APPENDIX G

Relevant EA Report Excerpts




KEY PLAN




LEGEND

- EXISTING PROPERTY LINE
- EXISTING ROW PROTECTION
- PROPOSED PROPERTY LINE
- EXISTING CONDITIONS
- PROPOSED FUNCTIONAL DESIGN
- PROPOSED FUNCTIONAL DESIGN PAVEMENT MARKINGS

PARSONS

| | | |
|---|---|---|
| Date: 23 August 2021 | Designed By: | Drawn By: |
| Project Manager: | Dicipline Engineer: | Checked By: |
| Scale: HORIZONTAL 0m 2.5 5 10 20 | | |
| CAD File Name: 477003-2000-EA-40.DGN | | Plot Date: |

Ottawa

MONTREAL - BLAIR TRANSIT PRIORITY CORRIDOR
STA. 11+330 to STA 11+500

| Drawings No.: | Revision | Sheet No. |
|---|---|---|
| | 00 | 40 |

Plot Date: 9/7/2005 7:08 PM
Last Saved: 10/22/2021 10:42:21 AM
Consultant's Information: C:\IS\O\477003\2000\DWGS\03-EA (Sheets)\477003-2000-EA-41.Dgn

OGILVIE

BLAIR

OGILVIE

500

R=13.0

4.60

4.01

3.50

3.50

3.00

1.50

3.00

3.00

3.00

3.00

3.00

3.00

3.50

3.50

3.50

3.50

3.25

R=18.0

R=18.0

5.50

5.50

1.8m SIDEWALK\TROTTOIR

2.0m CYCLE TRACK\PISTE CYCLABLE

3.0m BOULEVARD\BOULEVARD

11+550

11+600

R=50.0

1.8m SIDEWALK\TROTTOIR

2.0m CYCLE TRACK\PISTE CYCLABLE

3.0m BOULEVARD\BOULEVARD

11+650

R=356.5

3.0m BOULEVARD\BOULEVARD

4.0m MULTI-USE PATHWAY\SENTIER POLYVALENT

10.94

HP

1990 OGILVIE

R=13.0

5.05

2.00

3.00

3.00

R=50.0

URBAN NODE AND PATHWAY LINK PLACEMAKING OPPORTUNITY
OPPORTUNITÉ DE CRÉATION DE LIEUX POUR LE NOEUD URBAIN ET LE LIEN DE SENTIER

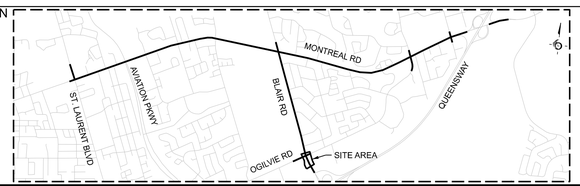
PATHWAY LINK PLACEMAKING OPPORTUNITY
OPPORTUNITÉ DE CRÉATION DE LIEUX POUR LE LIEN DE SENTIER

MATCH LINE - STA. 11+500
SEE DRAWING NO. 40

MATCH LINE - STA. 11+680
SEE DRAWING NO. 42

MATCH LINE
SEE DRAWING NO. 47

KEY PLAN




LEGEND

- EXISTING PROPERTY LINE
- EXISTING ROW PROTECTION
- PROPOSED PROPERTY LINE
- EXISTING CONDITIONS
- PROPOSED FUNCTIONAL DESIGN
- PROPOSED FUNCTIONAL DESIGN PAVEMENT MARKINGS

PARSONS

| | | |
|---|---|---|
| Date: 22 October 2021 | Designed By: | Drawn By: |
| Project Manager: | Dicipline Engineer: | Checked By: |

Scale: HORIZONTAL 0m 2.5 5 10 20

CAD File Name: 477003-2000-EA-41.DGN | Plot Date:

Ottawa

MONTREAL - BLAIR TRANSIT PRIORITY CORRIDOR
STA. 11+500 to STA 11+680

Drawings No.: | Revision 00 | Sheet No. 41

Plot Date: 9/7/2005 7:08 PM
Last Saved: 10/22/2021 1:42:17 PM
Consultant's Information: C:\ISO\477003\2000\DWGS\03-EA (Sheets)\477003-2000-EA-42.Dgn

STUDY LIMIT

PATHWAY LINK PLACEMAKING OPPORTUNITY
OPPORTUNITÉ DE CRÉATION DE LIEUX POUR
LE LIEN DE SENTIER

1.8m SIDEWALK\TROTTOIR

2.0m CYCLE TRACK\PISTE CYCLABLE

3.0m BOULEVARD\BOULEVARD

11+700

11+750

11+800

11+850

4.00

3.50

SEE DRAWING NO. 41
MATCH LINE - STA. 11+680

BLAIR

3.50

3.50

3.50

4.0m MULTI-USE PATHWAY\SENTIER POLYVALENT

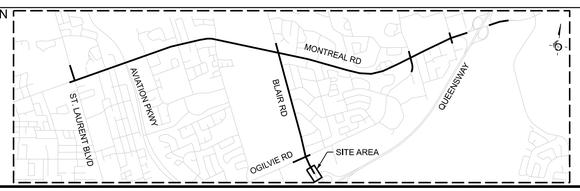
1990 OGILVIE

PATHWAY LINK PLACEMAKING OPPORTUNITY
OPPORTUNITÉ DE CRÉATION DE LIEUX POUR
LE LIEN DE SENTIER

LCBO

HP

KEY PLAN




LEGEND

- EXISTING PROPERTY LINE
- EXISTING ROW PROTECTION
- PROPOSED PROPERTY LINE
- EXISTING CONDITIONS
- PROPOSED FUNCTIONAL DESIGN
- PROPOSED FUNCTIONAL DESIGN PAVEMENT MARKINGS
- BLAIR ROAD TRANSIT PRIORITY EA DESIGN

PARSONS

| | | |
|---|---|---|
| Date: 22 October 2021 | Designed By: | Drawn By: |
| Project Manager: | Diclpline Engineer: | Checked By: |

Scale: HORIZONTAL 0m 2.5 5 10 20

CAD File Name: 477003-2000-EA-42.DGN | Plot Date:

Ottawa

MONTREAL - BLAIR TRANSIT PRIORITY CORRIDOR
STA. 11+680 to STA 11+860

Drawings No.: | Revision 00 | Sheet No. 42

1941 OGILVIE

CANADIAN SECURITY INTELLIGENCE SERVICE

OGILVIE

MATCH LINE
SEE DRAWING NO. 41

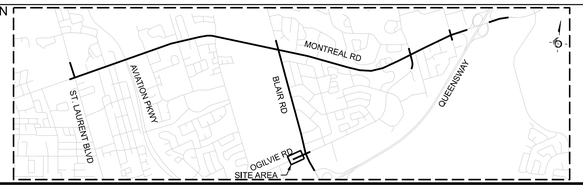
2.45m BOULEVARD\BOULEVARD

1.8m CYCLE TRACK\PISTE CYCLABLE

2.0m SIDEWALK\TROTTOIR

0.60

KEY PLAN




LEGEND

- EXISTING PROPERTY LINE
- EXISTING ROW PROTECTION
- PROPOSED PROPERTY LINE
- EXISTING CONDITIONS
- PROPOSED FUNCTIONAL DESIGN
- PROPOSED FUNCTIONAL DESIGN PAVEMENT MARKINGS

PARSONS

| | | |
|---|---|---|
| Date: 23 August 2021 | Designed By: | Drawn By: |
| Project Manager: | Dicipline Engineer: | Checked By: |

Scale: HORIZONTAL 0m 2.5 5 10 20

CAD File Name: 477003-2000-EA-47.DGN | Plot Date:

Ottawa

MONTREAL - BLAIR TRANSIT PRIORITY CORRIDOR
OGILVIE ROAD

Drawings No.: | Revision 00 | Sheet No. 47

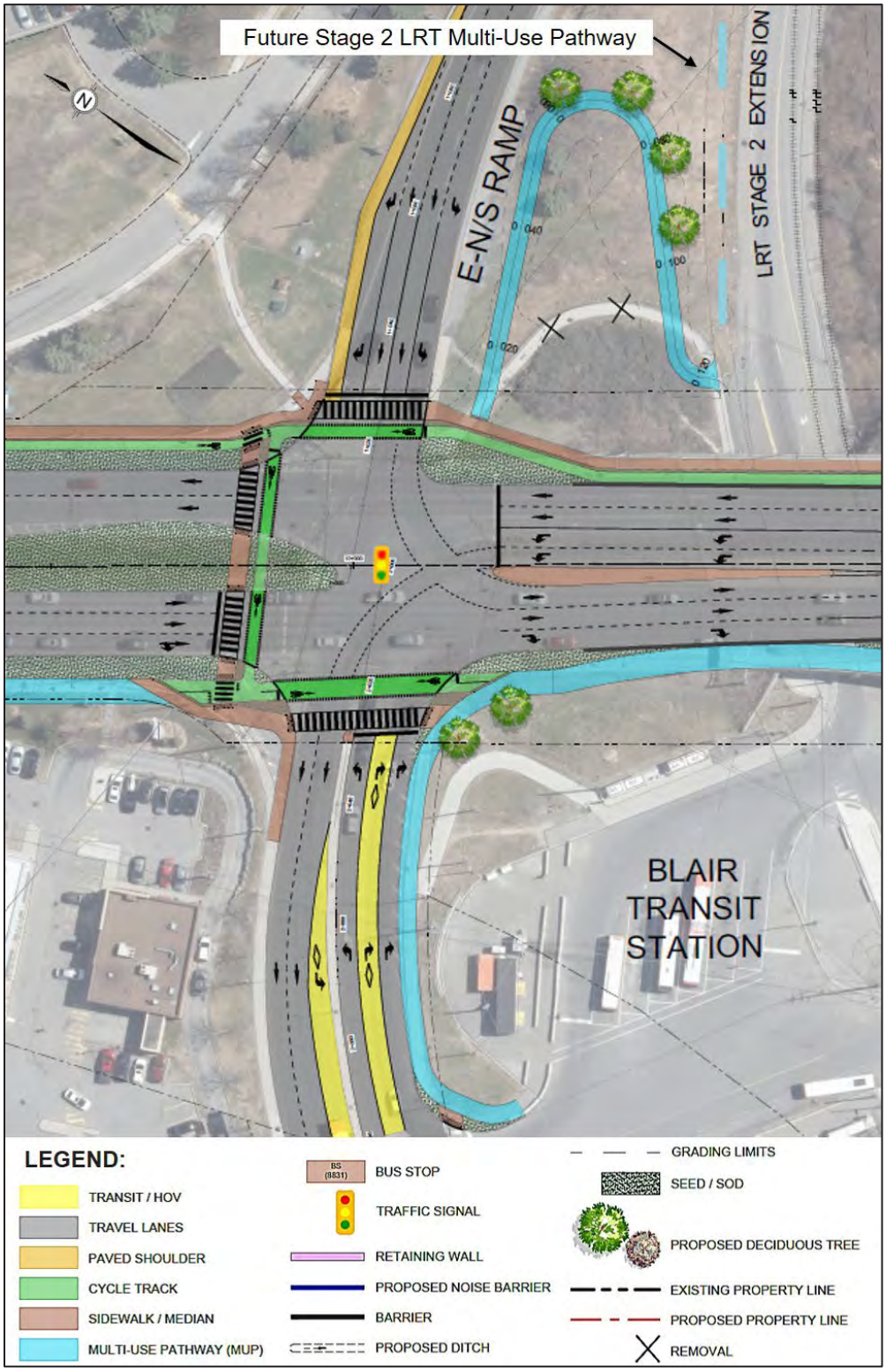



**Figure 9-5: Protected Intersection and Highlights at Blair Station**

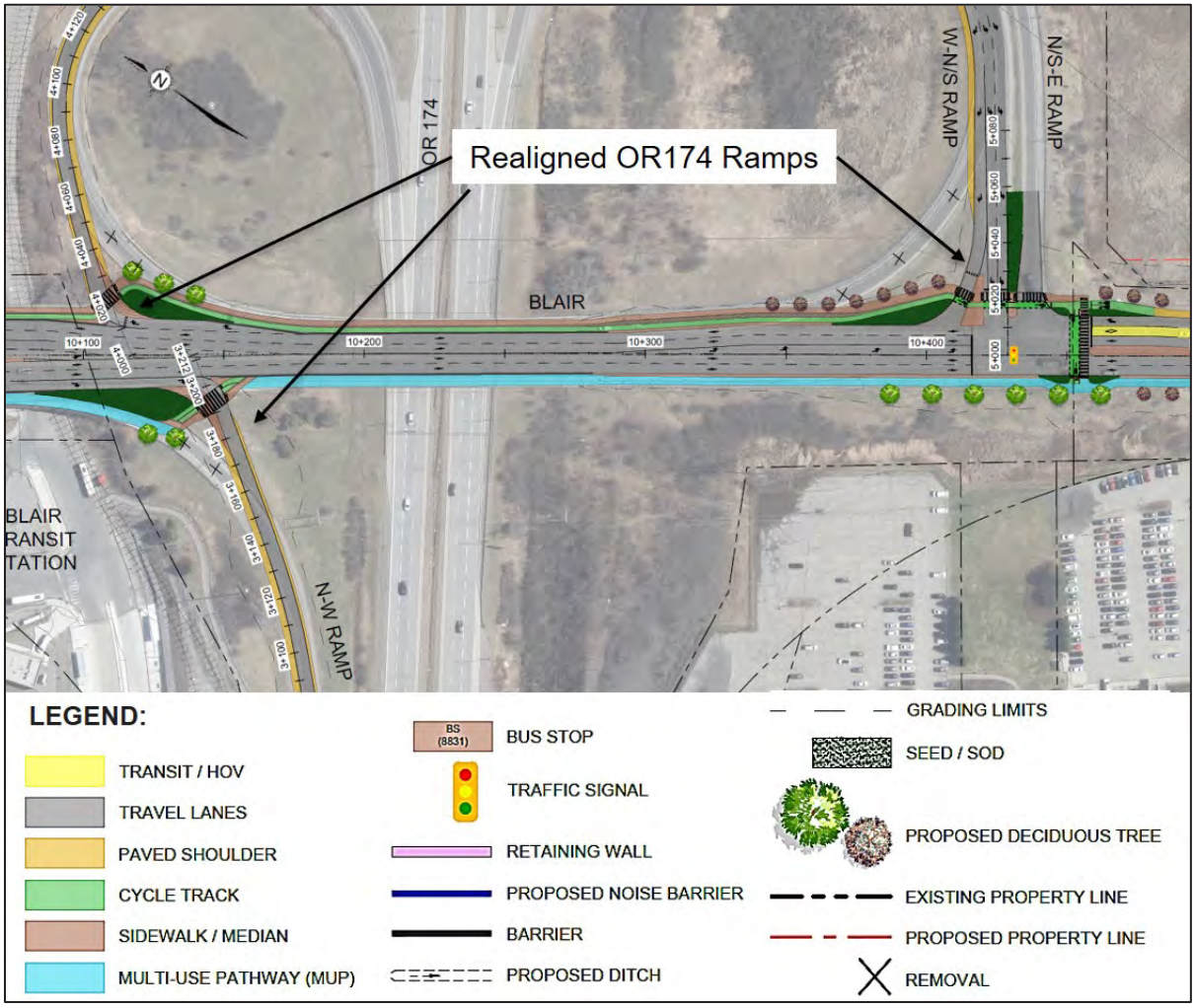



**Figure 9-2: Realigned OR174 Interchange Ramps**

South of OR174, Blair Road currently transitions from four to two lanes just south of Meadowbrook Road. For the existing four lane section between OR174 and Meadowbrook Road, only minor widening is required and a conversion of the two outer general traffic lanes to transit and HOV lanes is proposed. The northbound transit/HOV lane terminates at the intersection south of OR174 to allow buses destinated to Blair Station to weave across to the left lane. Further south between Meadowbrook Road and Innes Road, Blair Road is currently a two-lane road and widening to four lanes is recommended to accommodate dedicated transit and HOV lanes.

Of the cross-section alternatives considered for Blair Road from south of OR174 to Innes Road, Option 1 is recommended. The NCC Greenbelt is on the east side of Blair Road and this project proposes to maintain the existing east rural grading and ditching to preserve the rural character of the Greenbelt. On the west side of Blair Road, a 3.0 m MUP will extend from the OR174 bridge overpass to Innes Road and will provide direct access to the adjacent Pineview Community. A MUP on the west side is preferred as it accommodates bi-directional cycling and reduces the need for northbound cyclists to cross Blair Road. Design refinements to the Recommended Design that arose through

# APPENDIX H

Other Area Developments

January
2019

# 2280 City Park Drive Residential Development

## Plan of Subdivision - TIA Strategy Report

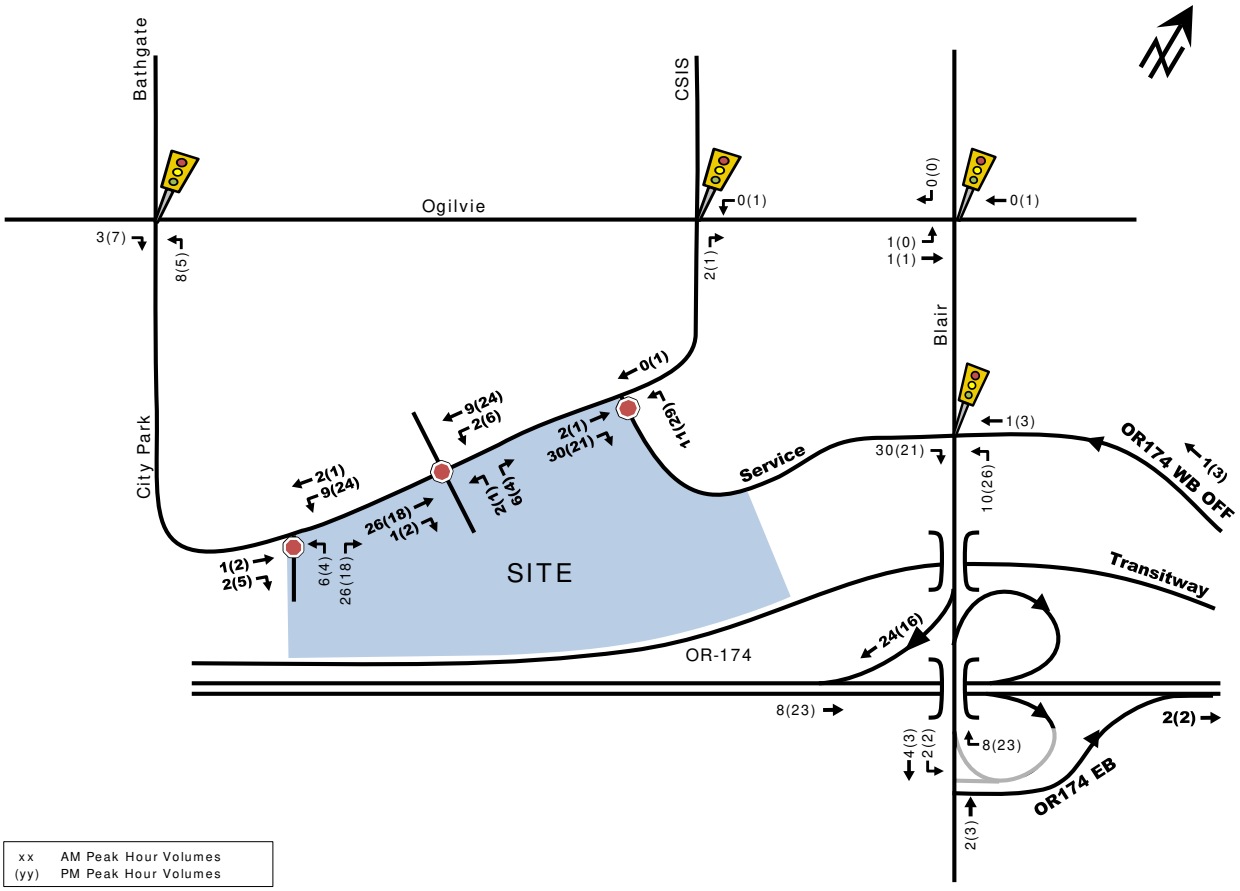
Prepared for:

RIOCAN

Prepared by:

PARSONS

Figure 9 : New Site-Generated Peak Hour Traffic Assignment




# 10. BACKGROUND TRAFFIC NETWORK

## 10.1. TRANSPORTATION NETWORK CHANGES

Several notable transportation network changes are proposed within the study area as per the 2013 TMP - 2031 Affordable Network, they are listed as follows:

### Blair Road network changes

- Widen from two to four lanes between Meadowbrook Road and Innes Road;
- Exclusive bus lanes and transit signal priority between Blair Station and Montreal Road. Bus lanes to be provided through a combination of road widening (north of Ogilvie Road) and conversion of existing traffic lanes (south of Ogilvie Road);
- Transit signal priority and queue jump lanes between Innes Road and Blair Station; and
- Affordable: Eastern extension of LRT service following Ottawa Road 174 between Blair Station and Place d'Orléans Station.

### Ogilvie Road network changes

- Transit signal priority between Blair Road and St. Laurent Boulevard.

# 1980 Ogilvie Road

# Transportation Impact Assessment

Step 1 Screening Report

Step 2 Scoping Report

Step 3 Forecasting Report

Step 4 Strategy Report

Prepared for:

First Capital Asset Management ULC
RDC 113, 7600 Boulevard Viau
Montreal, Quebec, H1S 2P3

Prepared by:

CGH TRANSPORTATION
13 Markham Avenue
Nepean, ON K2G 3Z1

September 2019

PN: 2018-30

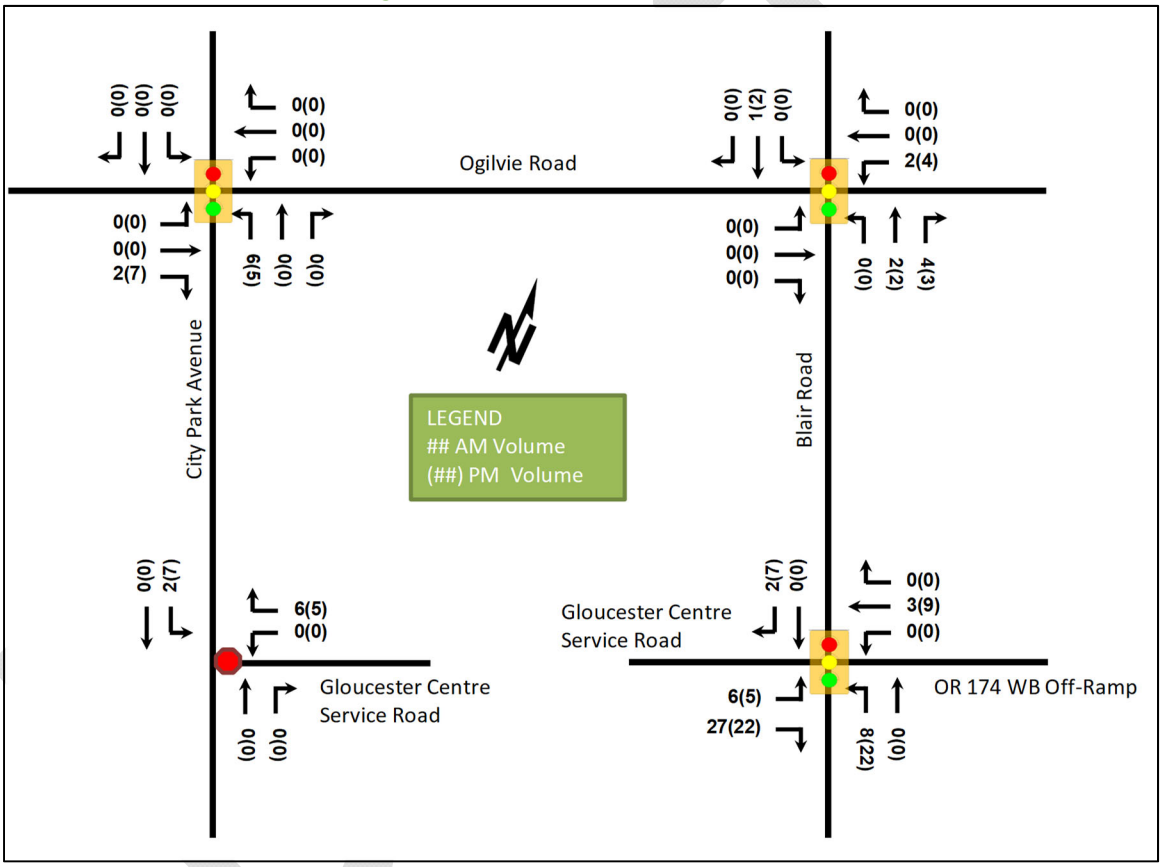
*Table 13: OD Survey Existing Mode Share – Beacon Hill*

| To/From | % of Trips |
|---|---|
| **North** | 5% |
| **South** | 30% |
| **East** | 20% |
| **West** | 45% |
| **Total** | 100% |

## 5.3 Trip Assignment

Using the distribution outlined above, turning movement splits, and access to major transportation infrastructure, the trips generated by the site have been assigned to the Study Area road network. Figure 9 illustrates the new site generated volumes.

*Figure 9: New Site Generation Auto Volumes*




# 6 Background Network Travel Demands

## 6.1 Transportation Network Plans

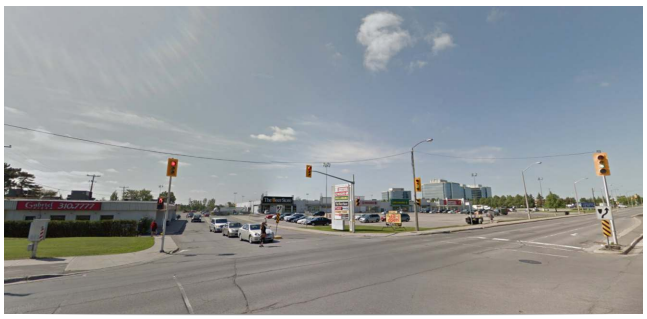
The transportation network plans were discussed in Section 2.3.1. The opening of the Blair LRT station, transit priority along Blair Road, and isolated transit measures to Innes Road have been accounted for within the modal share assumptions and will reinforced by the opening of Phase 2. No road improvements are noted for the area.

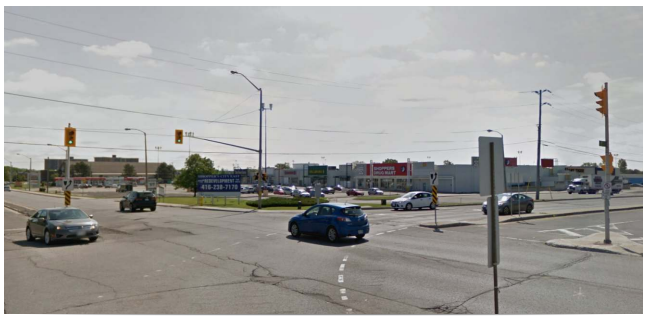
The additional connectivity provided by the multi-use pathway along City Park Drive and the LRT line will improve the active mode network but is not anticipated to significantly impact the modal shares used in the future trip generation.

May 2016


# Shoppers City East Redevelopment - Phase II

## Transportation Impact Study





Prepared for:

TRINITY

Prepared by:

PARSONS

**Figure 6: Projected 2017 Baseline Traffic Volumes**

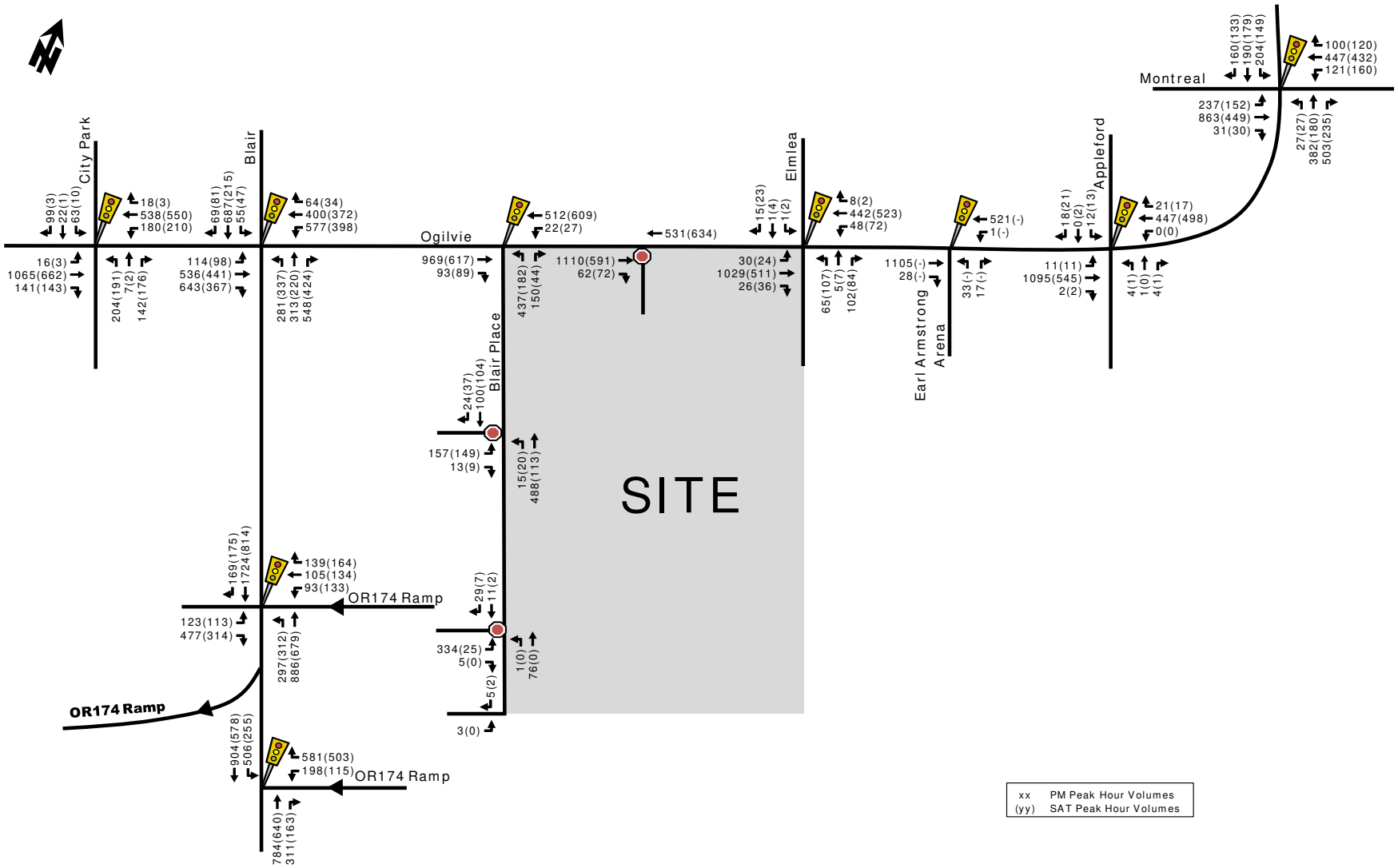
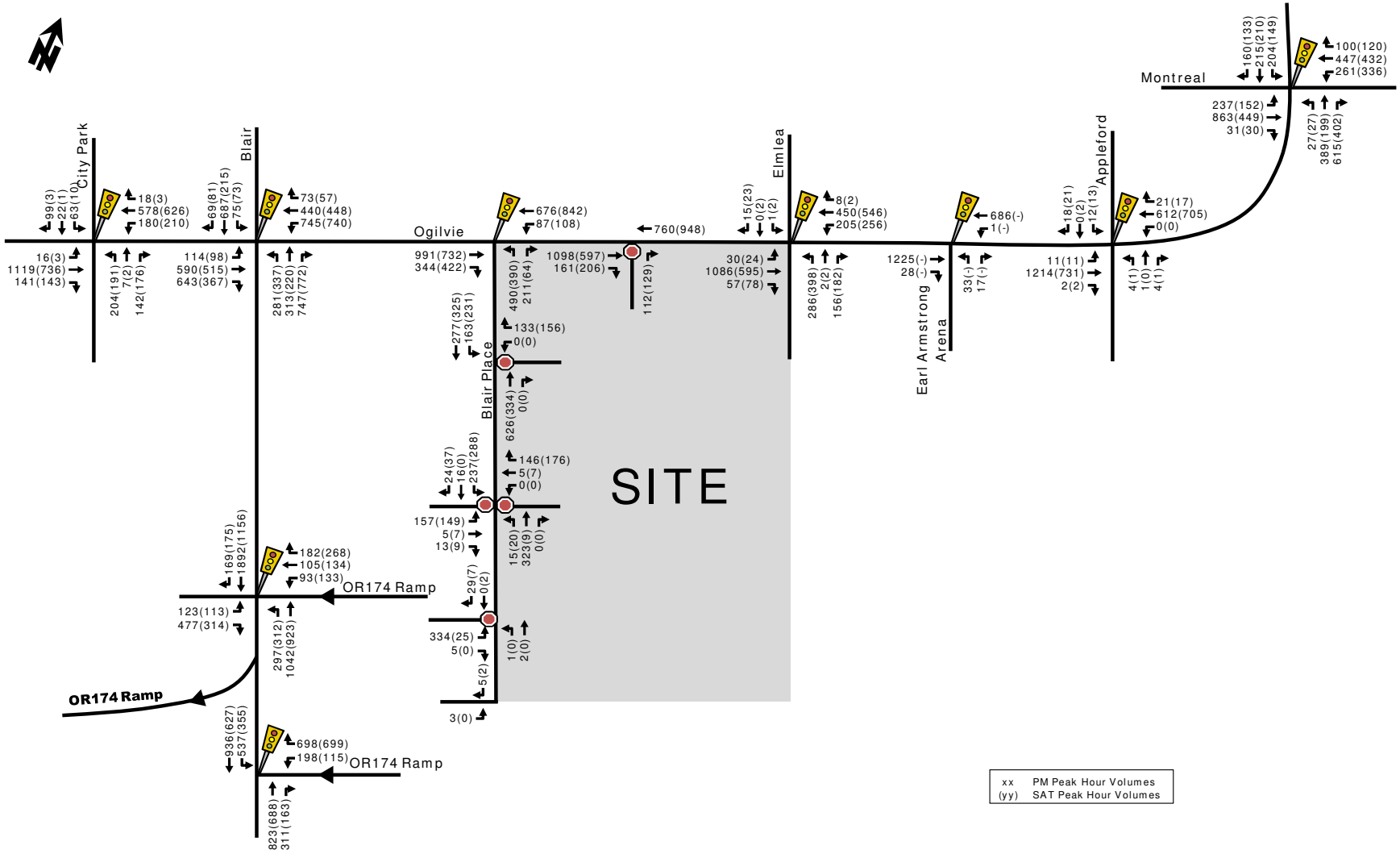


**Figure 10: Total Projected 2017 Peak Hour Traffic Volumes**



# APPENDIX I

---

Strategic Long Range Model Snapshots

# TRANS Regional Model

Version 2.15 - Assigned June 16, 2020

**AM Peak Hour Total Traffic Volume**

**Ogilvie Road/Blair Road Area**

2011 Model - Basecase

*N/A*

User Initials: TIMW
Plot Prepared: Jan 17, 2023
EMME Scenario: 21713

TRANS

## Legend

AM Peak Hour Total Traffic Volume

1000 2000 3000 4000 5000

N

Distance (m)

50 100150200250

# TRANS Regional Model

Version 2.15 - Assigned June 16, 2020

**AM Peak Hour Total Traffic Volume**

**Ogilvie Road/Blair Road Area**

2031 Model - Basecase

*N/A*

User Initials: TIMW
Plot Prepared: Jan 17, 2023
EMME Scenario: 21715

TRANS

## Legend

AM Peak Hour Total Traffic Volume

1000 2000 3000 4000 5000

N

Distance (m)

50 100150200250

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**

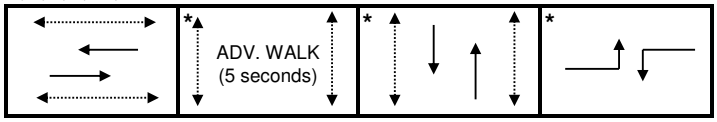
| | | | |
|---|---|---|---|
| **Intersection:** | ***Main:*** Ogilvie | ***Side:*** | Bathgate / City Park (W) |
| **Controller:** | **ATC 3** | **TSD:** | **5219** |
| **Author:** | Othman Benamrane | **Date:** | 18-Jan-2023 |

## Existing Timing Plans†

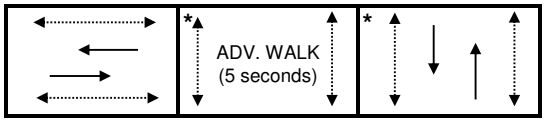
| | **Plan** | | | | | | | **Ped Minimum Time** | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Morning** 1 | **Off Peak** 2 | **PM Peak** 3 | **Night** 4 | **Weekend** 5 | **AM Peak** 11 | **Evening** 12 | ***Walk*** | ***DW*** | ***A+R*** |
| **Cycle** | 90 | 90 | 100 | 80 | 90 | 100 | 90 | | | |
| **Offset** | 27 | 5 | 19 | X | 5 | 29 | 5 | | | |
| EB Thru | 32 | 32 | 37 | 37 | 32 | 42 | 32 | 9 | 15 | 3.7+2.3 |
| WB Thru | 32 | 32 | 37 | 37 | 32 | 42 | 32 | 9 | 15 | 3.7+2.3 |
| NB Thru | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 7 | 28 | 3.0+4.4 |
| SB Thru | 43 | 43 | 43 | 43 | 43 | 43 | 43 | 7 | 28 | 3.0+4.4 |
| *EB Left* | 15 | 15 | 20 | - | 15 | 15 | 15 | - | - | 3.7+1.0 |
| *WB Left* | 15 | 15 | 20 | - | 15 | 15 | 15 | - | - | 3.7+1.0 |

## Phasing Sequence‡

**Plan: 1, 2, 3, 5, 11, 12**




**Plan: 4**




## Schedule

**Weekday**

| Time | Plan |
|---|---|
| 0:15 | 4 |
| 6:30 | 1 |
| 7:30 | 11 |
| 9:00 | 1 |
| 9:30 | 2 |
| 15:00 | 3 |
| 18:30 | 2 |
| 22:30 | 4 |

**Saturday**

| Time | Plan |
|---|---|
| 0:15 | 4 |
| 8:30 | 5 |
| 19:00 | 2 |
| 22:30 | 4 |

**Sunday**

| Time | Plan |
|---|---|
| 0:15 | 4 |
| 8:30 | 2 |
| 22:30 | 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 $61.16 ($54.12 + HST)

# Traffic Signal Timing

*City of Ottawa, Public Works Department*

**Traffic Signal Operations Unit**

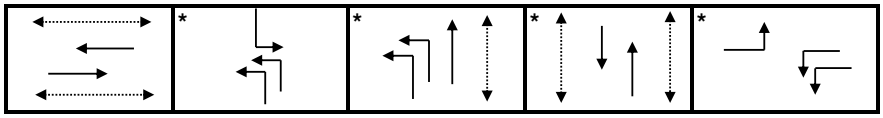
| | | | |
|---|---|---|---|
| **Intersection:** | ***Main:*** Ogilvie | ***Side:*** | Blair |
| **Controller:** | **ATC3** | **TSD:** | **5300** |
| **Author:** | Othman Benamrane | **Date:** | 18-Jan-2023 |

## Existing Timing Plans†

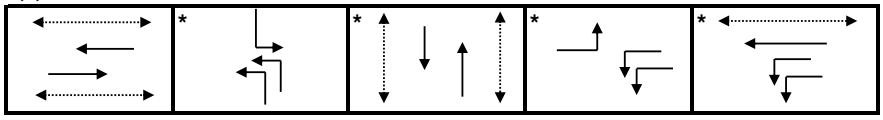
| | **Plan** | | | | | **Ped Minimum Time** | | |
|---|---|---|---|---|---|---|---|---|
| | **Off Peak** 2 | **PM Peak** 3 | **Night** 4 | **Weekend** 5 | **AM Peak** 11 | ***Walk*** | ***DW*** | ***A+R*** |
| **Cycle** | 130 | 140 | 110 | 130 | 140 | | | |
| **Offset** | X | 0 | X | 120 | X | | | |
| EB Thru | 39 | 41 | 40 | 39 | 39 | 7 | 25 | 3.3+3.3 |
| WB Thru | 55 | 53 | 40 | 63 | 39 | 7 | 25 | 3.3+3.3 |
| *NB Left (fp)* | 19 | 21 | 16 | 17 | 36 | - | - | 4.2+2.3 |
| *SB Left (fp)* | 19 | 21 | 16 | 17 | 15 | - | - | 4.2+2.3 |
| NB Thru | 35 | 41 | 38 | 35 | 58 | 7 | 22 | 4.2+2.3 |
| SB Thru | 35 | 41 | 38 | 35 | 37 | 7 | 22 | 4.2+2.3 |
| *EB Left (fp)* | 21 | 25 | 16 | 15 | 28 | - | - | 3.7+3.1 |
| *WB Left (fp)* | 37 | 37 | 16 | 39 | 28 | - | - | 3.7+3.1 |

## Phasing Sequence‡

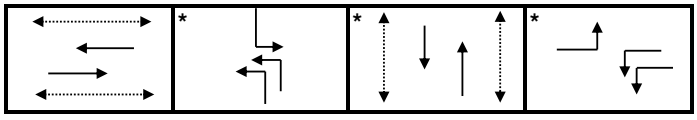
**Plan:** **11**




**Plan:** **2,3,5**




**Plan:** **4**




## Schedule

**Weekday**

| Time | Plan |
|---|---|
| 0:15 | 4 |
| 6:30 | 11 |
| 9:30 | 2 |
| 15:00 | 3 |
| 18:30 | 2 |
| 22:30 | 4 |

**Saturday**

| Time | Plan |
|---|---|
| 0:15 | 4 |
| 7:00 | 5 |
| 22:00 | 4 |

**Sunday**

| Time | Plan |
|---|---|
| 0:15 | 4 |
| 7:00 | 5 |
| 21:00 | 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 $61.16 ($54.12 + HST)

# Traffic Signal Timing

*City of Ottawa, Public Works Department*

**Traffic Signal Operations Unit**

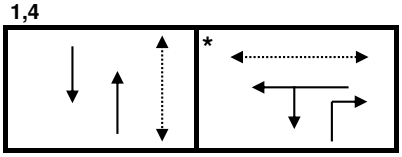
| | | | |
|---|---|---|---|
| **Intersection:** | ***Main:*** Blair | ***Side:*** | 174 EB Off Ramp |
| **Controller:** | **ATC3** | **TSD:** | **5452** |
| **Author:** | Othman Benamrane | **Date:** | 18-Jan-2023 |

## Existing Timing Plans†

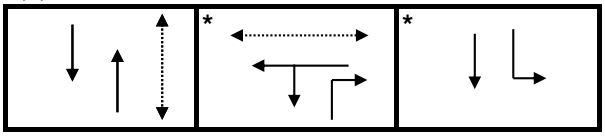
| | Plan | | | | | Ped Minimum Time | | |
|---|---|---|---|---|---|---|---|---|
| | **AM Peak** 1 | **Off Peak** 2 | **PM Peak** 3 | **Night** 4 | **Weekend** 5 | ***Walk*** | ***DW*** | ***A+R*** |
| **Cycle** | 90 | 90 | 110 | 75 | 90 | | | |
| **Offset** | X | X | 32 | X | X | | | |
| NB Thru | 55 | 50 | 52 | 50 | 50 | 7 | 17 | 4.2+2.3 |
| SB Thru | 55 | 50 | 80 | 50 | 50 | - | - | 4.2+2.3 |
| *WB Thru/Left* | 35 | 25 | 30 | 25 | 25 | 7 | 12 | 3.3+3.0 |
| NB Right | 35 | 25 | 30 | 25 | 25 | - | - | 3.3+3.0 |
| *SB Left* | - | 15 | 28 | - | 15 | - | - | 4.2+1.8 |

## Phasing Sequence‡

**Plan: 1,4**




**Plan: 2,3,5**




## Schedule

**Weekday**

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

**Saturday**

| Time | Plan |
|---|---|
| 0:15 | 4 |
| 7:00 | 5 |
| 22:00 | 4 |

**Sunday**

| Time | Plan |
|---|---|
| 0:15 | 4 |
| 7:00 | 5 |
| 21:00 | 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

# Traffic Signal Timing

*City of Ottawa, Public Works Department*

**Traffic Signal Operations Unit**

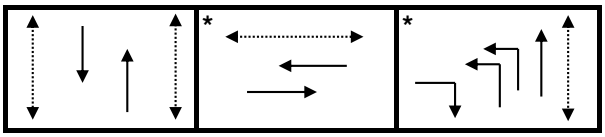
| | | | |
|---|---|---|---|
| **Intersection:** | ***Main:*** Blair | ***Side:*** | 174 WB Off Ramp |
| **Controller:** | ATC3 | **TSD:** | **5867** |
| **Author:** | Othman Benamrane | **Date:** | 18-Jan-2023 |

## Existing Timing Plans†

| | **Plan** | | | | | **Ped Minimum Time** | | |
|---|---|---|---|---|---|---|---|---|
| | **AM Peak** 1 | **Off Peak** 2 | **PM Peak** 3 | **Night** 4 | **Weekend** 5 | ***Walk*** | ***DW*** | ***A+R*** |
| **Cycle** | 100 | 95 | 130 | 85 | 95 | | | |
| **Offset** | X | X | 50 | X | X | | | |
| NB Thru | 32 | 34 | 94 | 34 | 32 | 7 | 17 | 4.2+1.9 |
| SB Thru | 32 | 34 | 63 | 34 | 32 | 7 | 17 | 4.2+1.9 |
| EB Thru | 41 | 36 | 36 | 36 | 36 | - | - | 3.3+3.5 |
| WB Thru | 41 | 36 | 36 | 36 | 36 | 7 | 23 | 3.3+3.5 |
| *NB Left (fp)* | 27 | 25 | 31 | 15 | 27 | - | - | 4.2+2.2 |
| *EB Right* | 27 | 25 | 31 | 15 | 27 | - | - | 4.2+2.2 |

## Phasing Sequence‡

**Plan: All**




**Notes:** 1) For plan 4, if the EW pedestrian phase is not actuated, the WB phase will force off after 10s
2) For all other plans, if EW pedestrian phase is not actuated, the WB phase will force off after 20s

## Schedule

**Weekday**

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

**Saturday**

| Time | Plan |
|---|---|
| 0:15 | 4 |
| 7:00 | 5 |
| 22:00 | 4 |

**Sunday**

| Time | Plan |
|---|---|
| 0:15 | 4 |
| 7:00 | 5 |
| 21:00 | 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 $61.16 ($54.12 + HST)

# Traffic Signal Timing

*City of Ottawa, Public Works Department*

**Traffic Signal Operations Unit**

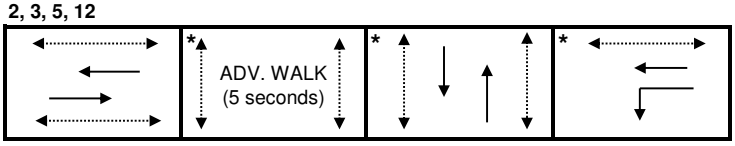
| | | | |
|---|---|---|---|
| **Intersection:** | ***Main:*** Ogilvie | ***Side:*** | City Park (East) |
| **Controller:** | **MS 3200** | **TSD:** | **5883** |
| **Author:** | Othman Benamrane | **Date:** | 18-Jan-2023 |

## Existing Timing Plans†

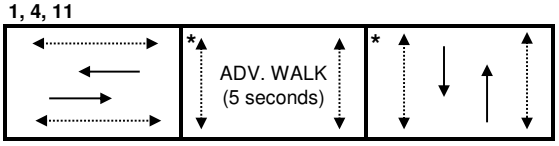
| | **Plan** | | | | | | | **Ped Minimum Time** | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Morning** | **Off Peak** | **PM Peak** | **Night** | **Weekend** | **AM Peak** | **Evening** | ***Walk*** | ***DW*** | ***A+R*** |
| | 1 | 2 | 3 | 4 | 5 | 11 | 12 | | | |
| **Cycle** | 90 | 90 | 100 | 75 | 90 | 100 | 90 | | | |
| **Offset** | 88 | 12 | 30 | X | 12 | 13 | 12 | | | |
| EB Thru | 51 | 36 | 46 | 36 | 36 | 61 | 36 | 7 | 22 | 3.7+2.4 |
| WB Thru | 51 | 51 | 61 | 36 | 51 | 61 | 51 | 7 | 22 | 3.7+2.4 |
| NB Thru | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 7 | 25 | 3.3+3.2 |
| SB Thru | 39 | 39 | 39 | 39 | 39 | 39 | 39 | 7 | 25 | 3.3+3.2 |
| *WB Left* | - | 15 | 15 | - | 15 | - | 15 | - | - | 3.0+1.0 |

## Phasing Sequence‡

**Plan: 2, 3, 5, 12**




**Plan: 1, 4, 11**




## Schedule

**Weekday**

| Time | Plan |
|---|---|
| 0:15 | 4 |
| 6:30 | 1 |
| 7:30 | 11 |
| 9:00 | 1 |
| 9:30 | 2 |
| 15:00 | 3 |
| 18:30 | 12 |
| 22:30 | 4 |

**Saturday**

| Time | Plan |
|---|---|
| 0:15 | 4 |
| 8:30 | 5 |
| 19:00 | 2 |
| 22:30 | 4 |

**Sunday**

| Time | Plan |
|---|---|
| 0:15 | 4 |
| 8:30 | 2 |
| 22:30 | 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 $61.16 ($54.12 + HST)

# Traffic Signal Timing

*City of Ottawa, Public Works Department*

**Traffic Signal Operations Unit**

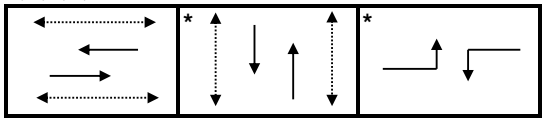
| | | | |
|---|---|---|---|
| **Intersection:** | ***Main:*** Ogilvie | ***Side:*** | Matheson / Palmerston |
| **Controller:** | **MS 3200** | **TSD:** | **6140** |
| **Author:** | Othman Benamrane | **Date:** | 18-Jan-2023 |

## Existing Timing Plans†

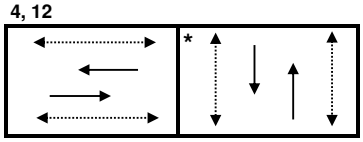
| | **Plan** | | | | | | | **Ped Minimum Time** | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Morning** 1 | **Off Peak** 2 | **PM Peak** 3 | **Night** 4 | **Weekend** 5 | **AM Peak** 11 | **Evening** 12 | ***Walk*** | ***DW*** | ***A+R*** |
| **Cycle** | 90 | 90 | 120 | 80 | 90 | 100 | 90 | | | |
| **Offset** | 48 | 50 | 50 | X | 50 | 54 | 50 | | | |
| EB Thru | 40 | 40 | 65 | 40 | 40 | 47 | 50 | 15 | 13 | 3.7+1.9 |
| WB Thru | 40 | 40 | 65 | 40 | 40 | 47 | 50 | 15 | 13 | 3.7+1.9 |
| NB Thru | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 7 | 26 | 3.0+4.2 |
| SB Thru | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 7 | 26 | 3.0+4.2 |
| *EB Left* | 10 | 10 | 15 | - | 10 | 13 | - | - | - | 3.7+1.0 |
| *WB Left* | 10 | 10 | 15 | - | 10 | 13 | - | - | - | 3.7+1.0 |

## Phasing Sequence‡

**Plan: 1, 2, 3, 5, 11**




**Plan: 4, 12**




## Schedule

**Weekday**

| Time | Plan |
|---|---|
| 0:15 | 4 |
| 6:30 | 1 |
| 7:30 | 11 |
| 9:00 | 1 |
| 9:30 | 2 |
| 15:00 | 3 |
| 18:30 | 12 |
| 22:30 | 4 |

**Saturday**

| Time | Plan |
|---|---|
| 0:15 | 4 |
| 8:30 | 5 |
| 19:00 | 2 |
| 22:30 | 4 |

**Sunday**

| Time | Plan |
|---|---|
| 0:15 | 4 |
| 8:30 | 2 |
| 22:30 | 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 $61.16 ($54.12 + HST)

# Traffic Signal Timing

*City of Ottawa, Public Works Department*

**Traffic Signal Operations Unit**

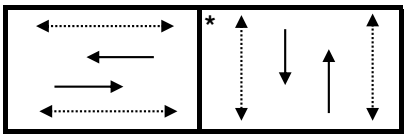
| | | | |
|---|---|---|---|
| **Intersection:** | ***Main:*** Ogilvie | ***Side:*** | Silver City |
| **Controller:** | **MS 3200** | **TSD:** | **6427** |
| **Author:** | Othman Benamrane | **Date:** | 18-Jan-2023 |

## Existing Timing Plans†

| | Plan | | | | | | | Ped Minimum Time | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Morning** 1 | **Off Peak** 2 | **PM Peak** 3 | **Night** 4 | **Weekend** 5 | **AM Peak** 11 | **Evening** 12 | ***Walk*** | ***DW*** | ***A+R*** |
| **Cycle** | 90 | 90 | 100 | 75 | 90 | 100 | 90 | | | |
| **Offset** | 12 | 88 | 8 | X | 88 | 12 | 88 | | | |
| EB Thru | 53 | 53 | 63 | 38 | 53 | 63 | 53 | 11 | 13 | 3.7+2.2 |
| WB Thru | 53 | 53 | 63 | 38 | 53 | 63 | 53 | 11 | 13 | 3.7+2.2 |
| NB Thru | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 7 | 23 | 3.3+3.4 |
| SB Thru | 37 | 37 | 37 | 37 | 37 | 37 | 37 | 7 | 23 | 3.3+3.4 |

## Phasing Sequence‡

**Plan: All**




**Notes:** 1) If the NS pedestrian phase is not actuated, the NS phases will force off after 25s

## Schedule

**Weekday**

| Time | Plan |
|---|---|
| 0:15 | 4 |
| 6:30 | 1 |
| 7:30 | 11 |
| 9:00 | 1 |
| 9:30 | 2 |
| 15:00 | 3 |
| 18:30 | 12 |
| 22:30 | 4 |

**Saturday**

| Time | Plan |
|---|---|
| 0:15 | 4 |
| 8:30 | 5 |
| 19:00 | 2 |
| 22:30 | 4 |

**Sunday**

| Time | Plan |
|---|---|
| 0:15 | 4 |
| 8:30 | 2 |
| 22:30 | 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

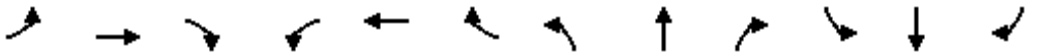
(fp): Fully Protected Left Turn

◄·····► Pedestrian signal

Cost is $61.16 ($54.12 + HST)

# APPENDIX K

Detailed Analysis Reports

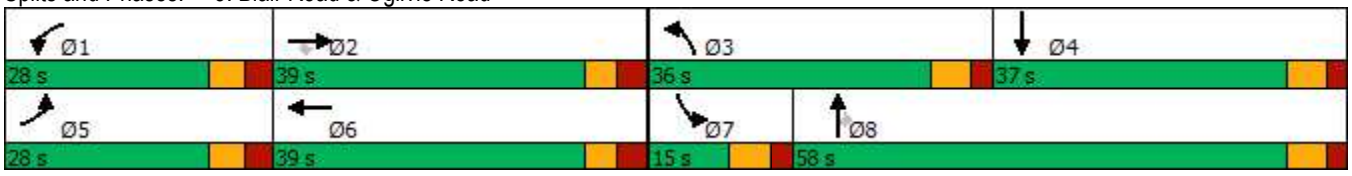


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 75 | 339 | 171 | 416 | 613 | 36 | 566 | 580 | 369 | 43 | 292 | 97 |
| Future Volume (vph) | 75 | 339 | 171 | 416 | 613 | 36 | 566 | 580 | 369 | 43 | 292 | 97 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 0.0 | 110.0 | | 0.0 | 120.0 | | 0.0 | 30.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | 2 | | 1 | 1 | | 0 |
| Taper Length (m) | 40.0 | | | 60.0 | | | 60.0 | | | 45.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 | 0.95 | 0.97 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | 1.00 | | | | | | 0.99 | |
| Frt | | | 0.850 | | 0.992 | | | | 0.850 | | 0.962 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1679 | 3357 | 1502 | 3257 | 3316 | 0 | 3257 | 1767 | 1502 | 1679 | 3187 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1679 | 3357 | 1502 | 3257 | 3316 | 0 | 3257 | 1767 | 1502 | 1679 | 3187 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 190 | | 4 | | | | 285 | | 30 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 372.0 | | | 396.5 | | | 239.9 | | | 411.0 | |
| Travel Time (s) | | 22.3 | | | 23.8 | | | 14.4 | | | 24.7 | |
| Confl. Peds. (#/hr) | | | | | | 25 | | | | | | 27 |
| Confl. Bikes (#/hr) | | | | | | 3 | | | | | | 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% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% |
| Adj. Flow (vph) | 83 | 377 | 190 | 462 | 681 | 40 | 629 | 644 | 410 | 48 | 324 | 108 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 83 | 377 | 190 | 462 | 721 | 0 | 629 | 644 | 410 | 48 | 432 | 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) | | 7.4 | | | 7.4 | | | 7.4 | | | 7.4 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | 1 | 1 | 2 | |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Thru | Right | Left | Thru | |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | |
| Trailing Detector (m) | 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 | |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | |
| Detector 1 Type | 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 | |
| Detector 1 Queue (s) | 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 | |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | |
| Minimum Split (s) | 11.8 | 38.6 | 38.6 | 11.8 | 38.6 | | 11.5 | 35.5 | 35.5 | 11.5 | 35.5 | |
| Total Split (s) | 28.0 | 39.0 | 39.0 | 28.0 | 39.0 | | 36.0 | 58.0 | 58.0 | 15.0 | 37.0 | |
| Total Split (%) | 20.0% | 27.9% | 27.9% | 20.0% | 27.9% | | 25.7% | 41.4% | 41.4% | 10.7% | 26.4% | |
| Maximum Green (s) | 21.2 | 32.4 | 32.4 | 21.2 | 32.4 | | 29.5 | 51.5 | 51.5 | 8.5 | 30.5 | |
| Yellow Time (s) | 3.7 | 3.3 | 3.3 | 3.7 | 3.3 | | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | |
| All-Red Time (s) | 3.1 | 3.3 | 3.3 | 3.1 | 3.3 | | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.8 | 6.6 | 6.6 | 6.8 | 6.6 | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | 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 | |
| Recall Mode | None | Max | Max | None | Max | | None | None | None | None | None | |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 25.0 | 25.0 | | 25.0 | | | 22.0 | 22.0 | | 22.0 | |
| Pedestrian Calls (#/hr) | | 20 | 20 | | 20 | | | 25 | 25 | | 25 | |
| Act Effct Green (s) | 12.1 | 32.5 | 32.5 | 20.9 | 41.3 | | 28.4 | 51.5 | 51.5 | 7.8 | 28.2 | |
| Actuated g/C Ratio | 0.09 | 0.24 | 0.24 | 0.15 | 0.30 | | 0.21 | 0.38 | 0.38 | 0.06 | 0.21 | |
| v/c Ratio | 0.56 | 0.47 | 0.38 | 0.93 | 0.72 | | 0.93 | 0.97 | 0.55 | 0.51 | 0.63 | |
| Control Delay | 74.3 | 47.7 | 8.1 | 83.0 | 48.3 | | 74.1 | 69.8 | 13.2 | 82.3 | 50.5 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 74.3 | 47.7 | 8.1 | 83.0 | 48.3 | | 74.1 | 69.8 | 13.2 | 82.3 | 50.5 | |
| LOS | E | D | A | F | D | | E | E | B | F | D | |
| Approach Delay | | 39.5 | | | 61.8 | | | 57.6 | | | 53.7 | |
| Approach LOS | | D | | | E | | | E | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 140 | | | |
| Actuated Cycle Length: 136.5 | | | |
| Natural Cycle: 130 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.97 | | | |
| Intersection Signal Delay: 55.4 | | Intersection LOS: E | |
| Intersection Capacity Utilization 89.5% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 3: Blair Road & Ogilvie Road



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 81 | 0 | 290 | 101 | 146 | 266 | 256 | 1276 | 0 | 0 | 760 | 107 |
| Future Volume (vph) | 81 | 0 | 290 | 101 | 146 | 266 | 256 | 1276 | 0 | 0 | 760 | 107 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 70.0 | 0.0 | | 70.0 | 60.0 | | 0.0 | 0.0 | | 50.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 2 | | 0 | 0 | | 1 |
| Taper Length (m) | 7.6 | | | 7.6 | | | 100.0 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 0.95 | 1.00 | 1.00 | 0.91 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (prot) | 1340 | 0 | 1199 | 1695 | 1784 | 1517 | 3164 | 3262 | 0 | 0 | 4732 | 1473 |
| Flt Permitted | 0.654 | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (perm) | 923 | 0 | 1199 | 1695 | 1784 | 1517 | 3164 | 3262 | 0 | 0 | 4732 | 1473 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 34 | | | 104 | | | | | | 119 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 518.9 | | | 416.4 | | | 90.2 | | | 239.9 | |
| Travel Time (s) | | 31.1 | | | 25.0 | | | 5.4 | | | 14.4 | |
| 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 (%) | 29% | 29% | 29% | 2% | 2% | 2% | 6% | 6% | 6% | 5% | 5% | 5% |
| Adj. Flow (vph) | 90 | 0 | 322 | 112 | 162 | 296 | 284 | 1418 | 0 | 0 | 844 | 119 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 90 | 0 | 322 | 112 | 162 | 296 | 284 | 1418 | 0 | 0 | 844 | 119 |
| 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) | | 3.7 | | | 3.7 | | | 7.4 | | | 7.4 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | | 1 | 1 | 2 | 1 | 1 | 2 | | | 2 | 1 |
| Detector Template | Left | | Right | Left | Thru | Right | Left | Thru | | | Thru | Right |
| Leading Detector (m) | 6.1 | | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | | pm+ov | Perm | NA | Perm | Prot | NA | | | NA | Perm |
| Protected Phases | | | 5 | | 8 | | 5 | 2 | | | 6 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | | | 6 |
| Detector Phase | 4 | | 5 | 8 | 8 | 8 | 5 | 2 | | | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | | 5.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | | | 10.0 | 10.0 |
| Minimum Split (s) | 16.8 | | 11.4 | 36.8 | 36.8 | 36.8 | 11.4 | 30.1 | | | 30.1 | 30.1 |
| Total Split (s) | 41.0 | | 27.0 | 41.0 | 41.0 | 41.0 | 27.0 | 59.0 | | | 32.0 | 32.0 |
| Total Split (%) | 41.0% | | 27.0% | 41.0% | 41.0% | 41.0% | 27.0% | 59.0% | | | 32.0% | 32.0% |
| Maximum Green (s) | 34.2 | | 20.6 | 34.2 | 34.2 | 34.2 | 20.6 | 52.9 | | | 25.9 | 25.9 |
| Yellow Time (s) | 3.3 | | 4.2 | 3.3 | 3.3 | 3.3 | 4.2 | 4.2 | | | 4.2 | 4.2 |
| All-Red Time (s) | 3.5 | | 2.2 | 3.5 | 3.5 | 3.5 | 2.2 | 1.9 | | | 1.9 | 1.9 |
| 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) | 6.8 | | 6.4 | 6.8 | 6.8 | 6.8 | 6.4 | 6.1 | | | 6.1 | 6.1 |
| 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 | 3.0 | | | 3.0 | 3.0 |
| Recall Mode | None | | None | None | None | None | None | Max | | | Max | Max |
| Walk Time (s) | | | | 7.0 | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | | | 23.0 | 23.0 | 23.0 | | 17.0 | | | 17.0 | 17.0 |
| Pedestrian Calls (#/hr) | | | | 20 | 20 | 20 | | 20 | | | 20 | 20 |
| Act Effct Green (s) | 19.4 | | 39.3 | 19.4 | 19.4 | 19.4 | 13.1 | 53.4 | | | 33.9 | 33.9 |
| Actuated g/C Ratio | 0.23 | | 0.46 | 0.23 | 0.23 | 0.23 | 0.15 | 0.62 | | | 0.40 | 0.40 |
| v/c Ratio | 0.43 | | 0.57 | 0.29 | 0.40 | 0.70 | 0.59 | 0.70 | | | 0.45 | 0.18 |
| Control Delay | 34.1 | | 18.0 | 28.3 | 30.3 | 28.1 | 39.7 | 14.9 | | | 22.4 | 5.7 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 34.1 | | 18.0 | 28.3 | 30.3 | 28.1 | 39.7 | 14.9 | | | 22.4 | 5.7 |
| LOS | C | | B | C | C | C | D | B | | | C | A |
| Approach Delay | | 21.5 | | | 28.7 | | | 19.1 | | | 20.3 | |
| Approach LOS | | C | | | C | | | B | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 85.8 | | | |
| Natural Cycle: 80 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.70 | | | |
| Intersection Signal Delay: 21.2 | | Intersection LOS: C | |
| Intersection Capacity Utilization 73.4% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 6: Blair Road & 1980 Ogilvie Road/Hwy 174 WB off

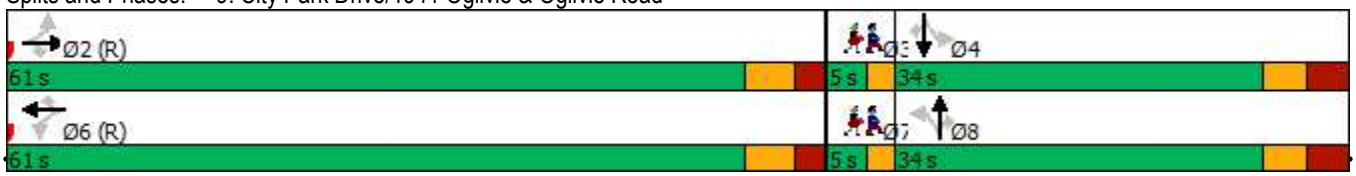
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 102 | 550 | 76 | 87 | 862 | 174 | 53 | 23 | 58 | 5 | 2 | 9 |
| Future Volume (vph) | 102 | 550 | 76 | 87 | 862 | 174 | 53 | 23 | 58 | 5 | 2 | 9 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 40.0 | | 100.0 | 100.0 | | 50.0 | 0.0 | | 60.0 | 20.0 | | 10.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 0 | | 1 | 1 | | 1 |
| Taper Length (m) | 30.0 | | | 25.0 | | | 7.6 | | | 15.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.96 | | 0.87 | 0.96 | | 0.81 | | 0.96 | 0.93 | 0.95 | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.966 | | 0.950 | | |
| Satd. Flow (prot) | 1695 | 3390 | 1517 | 1679 | 3357 | 1502 | 0 | 1628 | 1432 | 1695 | 1784 | 1517 |
| Flt Permitted | 0.265 | | | 0.411 | | | | 0.792 | | 0.702 | | |
| Satd. Flow (perm) | 456 | 3390 | 1320 | 694 | 3357 | 1211 | 0 | 1280 | 1334 | 1190 | 1784 | 1517 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 84 | | | 193 | | | 64 | | | 56 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 224.7 | | | 372.0 | | | 239.4 | | | 142.3 | |
| Travel Time (s) | | 13.5 | | | 22.3 | | | 14.4 | | | 8.5 | |
| Confl. Peds. (#/hr) | 100 | | 65 | 65 | | 100 | 53 | | 51 | 51 | | |
| Confl. Bikes (#/hr) | | | | | | 9 | | | 2 | | | |
| 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 (%) | 2% | 2% | 2% | 3% | 3% | 3% | 8% | 8% | 8% | 2% | 2% | 2% |
| Adj. Flow (vph) | 113 | 611 | 84 | 97 | 958 | 193 | 59 | 26 | 64 | 6 | 2 | 10 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 113 | 611 | 84 | 97 | 958 | 193 | 0 | 85 | 64 | 6 | 2 | 10 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 |
| 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) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 |
| 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) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Storage Length (m) | | |
| Storage Lanes | | |
| Taper Length (m) | | |
| Lane Util. Factor | | |
| Ped Bike Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (k/h) | | |
| Link Distance (m) | | |
| Travel Time (s) | | |
| Confl. Peds. (#/hr) | | |
| Confl. Bikes (#/hr) | | |
| Peak Hour Factor | | |
| Heavy Vehicles (%) | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(m) | | |
| Link Offset(m) | | |
| Crosswalk Width(m) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (k/h) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (m) | | |
| Trailing Detector (m) | | |
| Detector 1 Position(m) | | |
| Detector 1 Size(m) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(m) | | |
| Detector 2 Size(m) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 2 | | | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | 8 | 4 | | 4 |
| Detector Phase | 2 | 2 | 2 | 6 | 6 | 6 | 8 | 8 | 8 | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 |
| Total Split (s) | 61.0 | 61.0 | 61.0 | 61.0 | 61.0 | 61.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 |
| Total Split (%) | 61.0% | 61.0% | 61.0% | 61.0% | 61.0% | 61.0% | 34.0% | 34.0% | 34.0% | 34.0% | 34.0% | 34.0% |
| Maximum Green (s) | 54.9 | 54.9 | 54.9 | 54.9 | 54.9 | 54.9 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |
| Lead/Lag | | | | | | | Lag | Lag | Lag | Lag | Lag | 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 | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max | None | None | None | None | None | None |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Flash Dont Walk (s) | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| Pedestrian Calls (#/hr) | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| Act Effct Green (s) | 68.7 | 68.7 | 68.7 | 68.7 | 68.7 | 68.7 | | 20.2 | 20.2 | 20.2 | 20.2 | 20.2 |
| Actuated g/C Ratio | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 |
| v/c Ratio | 0.36 | 0.26 | 0.09 | 0.20 | 0.42 | 0.22 | | 0.33 | 0.20 | 0.03 | 0.01 | 0.03 |
| Control Delay | 7.8 | 2.7 | 0.3 | 11.6 | 11.0 | 2.3 | | 35.0 | 8.9 | 27.2 | 27.0 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 7.8 | 2.7 | 0.3 | 11.6 | 11.0 | 2.3 | | 35.0 | 8.9 | 27.2 | 27.0 | 0.1 |
| LOS | A | A | A | B | B | A | | C | A | C | C | A |
| Approach Delay | | 3.2 | | | 9.7 | | | 23.8 | | | 12.1 | |
| Approach LOS | | A | | | A | | | C | | | B | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 13 (13%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 80 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.42 | | | |
| Intersection Signal Delay: 8.3 | | Intersection LOS: A | |
| Intersection Capacity Utilization 69.5% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 9: City Park Drive/1941 Ogilvie & Ogilvie Road



| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Detector 2 Extend (s) | | |
| Turn Type | | |
| Protected Phases | 3 | 7 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 1.0 | 1.0 |
| Minimum Split (s) | 5.0 | 5.0 |
| Total Split (s) | 5.0 | 5.0 |
| Total Split (%) | 5% | 5% |
| Maximum Green (s) | 3.0 | 3.0 |
| Yellow Time (s) | 2.0 | 2.0 |
| All-Red Time (s) | 0.0 | 0.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | None | None |
| Walk Time (s) | 0.0 | 0.0 |
| Flash Dont Walk (s) | 0.0 | 0.0 |
| Pedestrian Calls (#/hr) | 35 | 35 |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

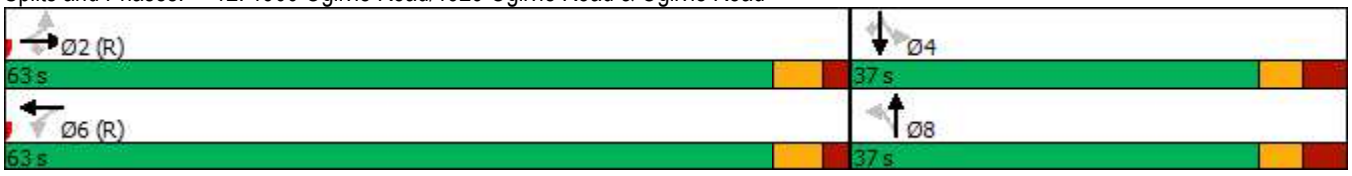
| Intersection Summary |
|---|

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 99 | 681 | 27 | 19 | 969 | 44 | 9 | 1 | 12 | 42 | 11 | 63 |
| Future Volume (vph) | 99 | 681 | 27 | 19 | 969 | 44 | 9 | 1 | 12 | 42 | 11 | 63 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 60.0 | | 80.0 | 90.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 0 | 0 | | 1 |
| Taper Length (m) | 30.0 | | | 20.0 | | | 7.6 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.95 | 0.99 | 1.00 | | 0.96 | 0.95 | | | 0.96 | 0.94 |
| Frt | | | 0.850 | | 0.993 | | | 0.861 | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | 0.962 | |
| Satd. Flow (prot) | 1695 | 3390 | 1517 | 1679 | 3319 | 0 | 1695 | 1452 | 0 | 0 | 1717 | 1517 |
| Flt Permitted | 0.215 | | | 0.346 | | | 0.719 | | | | 0.767 | |
| Satd. Flow (perm) | 379 | 3390 | 1434 | 605 | 3319 | 0 | 1227 | 1452 | 0 | 0 | 1317 | 1429 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 40 | | 8 | | | 13 | | | | 70 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 190.5 | | | 224.7 | | | 86.0 | | | 56.6 | |
| Travel Time (s) | | 11.4 | | | 13.5 | | | 5.2 | | | 3.4 | |
| Confl. Peds. (#/hr) | 41 | | 17 | 17 | | 41 | 47 | | 48 | 48 | | 47 |
| 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 (%) | 2% | 2% | 2% | 3% | 3% | 3% | 2% | 2% | 2% | 2% | 2% | 2% |
| Adj. Flow (vph) | 110 | 757 | 30 | 21 | 1077 | 49 | 10 | 1 | 13 | 47 | 12 | 70 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 110 | 757 | 30 | 21 | 1126 | 0 | 10 | 14 | 0 | 0 | 59 | 70 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Thru | | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turn Type | Perm | NA | Perm | Perm | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | | 2 | | | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | | 8 | | | 4 | | 4 |
| Detector Phase | 2 | 2 | 2 | 6 | 6 | | 8 | 8 | | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | | 36.7 | 36.7 | | 36.7 | 36.7 | 36.7 |
| Total Split (s) | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | | 37.0 | 37.0 | | 37.0 | 37.0 | 37.0 |
| Total Split (%) | 63.0% | 63.0% | 63.0% | 63.0% | 63.0% | | 37.0% | 37.0% | | 37.0% | 37.0% | 37.0% |
| Maximum Green (s) | 57.1 | 57.1 | 57.1 | 57.1 | 57.1 | | 30.3 | 30.3 | | 30.3 | 30.3 | 30.3 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | | 3.3 | 3.3 | | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | | 3.4 | 3.4 | | 3.4 | 3.4 | 3.4 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | 5.9 | 5.9 | 5.9 | 5.9 | 5.9 | | 6.7 | 6.7 | | | 6.7 | 6.7 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max | C-Max | C-Max | C-Max | | None | None | | None | None | None |
| Walk Time (s) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | 23.0 |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 10 | 10 | | 30 | 30 | | 30 | 30 | 30 |
| Act Effct Green (s) | 69.9 | 69.9 | 69.9 | 69.9 | 69.9 | | 22.0 | 22.0 | | | 22.0 | 22.0 |
| Actuated g/C Ratio | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | | 0.22 | 0.22 | | | 0.22 | 0.22 |
| v/c Ratio | 0.42 | 0.32 | 0.03 | 0.05 | 0.48 | | 0.04 | 0.04 | | | 0.20 | 0.19 |
| Control Delay | 16.8 | 8.6 | 2.2 | 5.7 | 5.4 | | 25.2 | 13.2 | | | 29.8 | 7.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 16.8 | 8.6 | 2.2 | 5.7 | 5.4 | | 25.2 | 13.2 | | | 29.8 | 7.7 |
| LOS | B | A | A | A | A | | C | B | | | C | A |
| Approach Delay | | 9.4 | | | 5.4 | | | 18.2 | | | 17.8 | |
| Approach LOS | | A | | | A | | | B | | | B | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 12 (12%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 80 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.48 | | | |
| Intersection Signal Delay: 7.9 | | Intersection LOS: A | |
| Intersection Capacity Utilization 89.1% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 12: 1900 Ogilvie Road/1929 Ogilvie Road & Ogilvie Road



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 156 | 475 | 83 | 14 | 820 | 161 | 72 | 38 | 13 | 119 | 27 | 178 |
| Future Volume (vph) | 156 | 475 | 83 | 14 | 820 | 161 | 72 | 38 | 13 | 119 | 27 | 178 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 40.0 | 45.0 | | 70.0 | 30.0 | | 0.0 | 20.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 30.0 | | | 30.0 | | | 25.0 | | | 25.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.98 | | 0.92 | 0.98 | | 0.89 | 0.99 | 0.99 | | 0.98 | 0.98 | |
| Frt | | | 0.850 | | | 0.850 | | 0.962 | | | 0.870 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1679 | 3357 | 1502 | 1679 | 3357 | 1502 | 1631 | 1637 | 0 | 1647 | 1474 | 0 |
| Flt Permitted | 0.201 | | | 0.456 | | | 0.599 | | | 0.603 | | |
| Satd. Flow (perm) | 349 | 3357 | 1389 | 787 | 3357 | 1340 | 1018 | 1637 | 0 | 1023 | 1474 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 121 | | | 179 | | 14 | | | 198 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 256.0 | | | 190.5 | | | 345.6 | | | 177.6 | |
| Travel Time (s) | | 15.4 | | | 11.4 | | | 20.7 | | | 10.7 | |
| Confl. Peds. (#/hr) | 43 | | 27 | 27 | | 43 | 14 | | 23 | 23 | | 14 |
| 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% | 3% | 3% | 3% | 3% | 3% | 6% | 6% | 6% | 5% | 5% | 5% |
| Adj. Flow (vph) | 173 | 528 | 92 | 16 | 911 | 179 | 80 | 42 | 14 | 132 | 30 | 198 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 173 | 528 | 92 | 16 | 911 | 179 | 80 | 56 | 0 | 132 | 228 | 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | | Left | Thru | |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | |
| Trailing Detector (m) | 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 | |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | |
| Detector 1 Type | 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 | |
| Detector 1 Queue (s) | 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 | |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | |

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Storage Length (m) | | |
| Storage Lanes | | |
| Taper Length (m) | | |
| Lane Util. Factor | | |
| Ped Bike Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (k/h) | | |
| Link Distance (m) | | |
| Travel Time (s) | | |
| Confl. Peds. (#/hr) | | |
| Peak Hour Factor | | |
| Heavy Vehicles (%) | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(m) | | |
| Link Offset(m) | | |
| Crosswalk Width(m) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (k/h) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (m) | | |
| Trailing Detector (m) | | |
| Detector 1 Position(m) | | |
| Detector 1 Size(m) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(m) | | |
| Detector 2 Size(m) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | | |

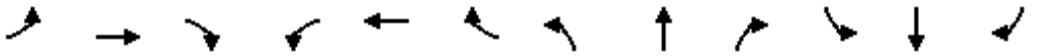
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 9.7 | 30.0 | 30.0 | 9.7 | 30.0 | 30.0 | 37.4 | 37.4 | | 37.4 | 37.4 | |
| Total Split (s) | 15.0 | 42.0 | 42.0 | 15.0 | 42.0 | 42.0 | 38.0 | 38.0 | | 38.0 | 38.0 | |
| Total Split (%) | 15.0% | 42.0% | 42.0% | 15.0% | 42.0% | 42.0% | 38.0% | 38.0% | | 38.0% | 38.0% | |
| Maximum Green (s) | 10.3 | 36.0 | 36.0 | 10.3 | 36.0 | 36.0 | 30.6 | 30.6 | | 30.6 | 30.6 | |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.0 | 2.3 | 2.3 | 1.0 | 2.3 | 2.3 | 4.4 | 4.4 | | 4.4 | 4.4 | |
| 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) | 4.7 | 6.0 | 6.0 | 4.7 | 6.0 | 6.0 | 7.4 | 7.4 | | 7.4 | 7.4 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lag | Lag | | Lag | Lag | |
| Lead-Lag Optimize? | Yes | 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 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | | None | None | |
| Walk Time (s) | | 9.0 | 9.0 | | 9.0 | 9.0 | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Flash Dont Walk (s) | | 15.0 | 15.0 | | 15.0 | 15.0 | 28.0 | 28.0 | | 28.0 | 28.0 | |
| Pedestrian Calls (#/hr) | | 15 | 15 | | 15 | 15 | 15 | 15 | | 15 | 15 | |
| Act Effct Green (s) | 62.9 | 57.2 | 57.2 | 55.1 | 47.9 | 47.9 | 19.9 | 19.9 | | 19.9 | 19.9 | |
| Actuated g/C Ratio | 0.63 | 0.57 | 0.57 | 0.55 | 0.48 | 0.48 | 0.20 | 0.20 | | 0.20 | 0.20 | |
| v/c Ratio | 0.51 | 0.28 | 0.11 | 0.03 | 0.57 | 0.24 | 0.40 | 0.17 | | 0.65 | 0.51 | |
| Control Delay | 26.2 | 22.6 | 10.5 | 6.3 | 12.0 | 1.3 | 37.7 | 24.1 | | 49.9 | 10.3 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 26.2 | 22.6 | 10.5 | 6.3 | 12.0 | 1.3 | 37.7 | 24.1 | | 49.9 | 10.3 | |
| LOS | C | C | B | A | B | A | D | C | | D | B | |
| Approach Delay | | 22.0 | | | 10.2 | | | 32.1 | | | 24.8 | |
| Approach LOS | | C | | | B | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 29 (29%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 85 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.65 | | | |
| Intersection Signal Delay: 17.5 | | Intersection LOS: B | |
| Intersection Capacity Utilization 80.9% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 15: City Park Drive/Bathgate Drive & Ogilvie Road

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Turn Type | | |
| Protected Phases | 3 | 7 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 1.0 | 1.0 |
| Minimum Split (s) | 5.0 | 5.0 |
| Total Split (s) | 5.0 | 5.0 |
| Total Split (%) | 5% | 5% |
| Maximum Green (s) | 3.0 | 3.0 |
| Yellow Time (s) | 2.0 | 2.0 |
| All-Red Time (s) | 0.0 | 0.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | Ped | Ped |
| Walk Time (s) | 0.0 | 0.0 |
| Flash Dont Walk (s) | 0.0 | 0.0 |
| Pedestrian Calls (#/hr) | 15 | 15 |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

| Intersection Summary |
|---|

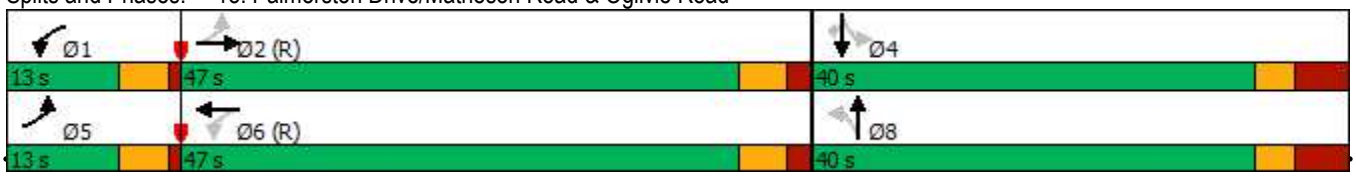


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 83 | 898 | 21 | 33 | 1056 | 14 | 57 | 2 | 26 | 25 | 2 | 171 |
| Future Volume (vph) | 83 | 898 | 21 | 33 | 1056 | 14 | 57 | 2 | 26 | 25 | 2 | 171 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 0.0 | 70.0 | | 0.0 | 15.0 | | 0.0 | 0.0 | | 35.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 0 | | 1 |
| Taper Length (m) | 30.0 | | | 30.0 | | | 7.6 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 | 0.98 | | | 0.99 | 0.99 |
| Frt | | 0.997 | | | 0.998 | | | 0.860 | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | 0.955 | |
| Satd. Flow (prot) | 1695 | 3374 | 0 | 1695 | 3381 | 0 | 1662 | 1469 | 0 | 0 | 1704 | 1517 |
| Flt Permitted | 0.176 | | | 0.243 | | | 0.738 | | | | 0.718 | |
| Satd. Flow (perm) | 313 | 3374 | 0 | 430 | 3381 | 0 | 1287 | 1469 | 0 | 0 | 1267 | 1497 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 3 | | | 2 | | | 29 | | | | 190 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 314.1 | | | 266.1 | | | 176.2 | | | 174.1 | |
| Travel Time (s) | | 18.8 | | | 16.0 | | | 10.6 | | | 10.4 | |
| Confl. Peds. (#/hr) | 11 | | 26 | 26 | | 11 | 4 | | 14 | 14 | | |
| Confl. Bikes (#/hr) | | | 21 | | | 9 | | | 2 | | | 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 (%) | 2% | 2% | 2% | 2% | 2% | 2% | 4% | 4% | 4% | 2% | 2% | 2% |
| Adj. Flow (vph) | 92 | 998 | 23 | 37 | 1173 | 16 | 63 | 2 | 29 | 28 | 2 | 190 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 92 | 1021 | 0 | 37 | 1189 | 0 | 63 | 31 | 0 | 0 | 30 | 190 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | 1 |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | | pm+pt | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | 4 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.7 | 33.6 | | 9.7 | 33.6 | | 40.2 | 40.2 | | 40.2 | 40.2 | 40.2 |
| Total Split (s) | 13.0 | 47.0 | | 13.0 | 47.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | 40.0 |
| Total Split (%) | 13.0% | 47.0% | | 13.0% | 47.0% | | 40.0% | 40.0% | | 40.0% | 40.0% | 40.0% |
| Maximum Green (s) | 8.3 | 41.4 | | 8.3 | 41.4 | | 32.8 | 32.8 | | 32.8 | 32.8 | 32.8 |
| Yellow Time (s) | 3.7 | 3.7 | | 3.7 | 3.7 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 1.0 | 1.9 | | 1.0 | 1.9 | | 4.2 | 4.2 | | 4.2 | 4.2 | 4.2 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | 4.7 | 5.6 | | 4.7 | 5.6 | | 7.2 | 7.2 | | | 7.2 | 7.2 |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | | None | C-Max | | None | None | | None | None | None |
| Walk Time (s) | | 15.0 | | | 15.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 13.0 | | | 13.0 | | 26.0 | 26.0 | | 26.0 | 26.0 | 26.0 |
| Pedestrian Calls (#/hr) | | 10 | | | 10 | | 10 | 10 | | 10 | 10 | 10 |
| Act Effct Green (s) | 70.7 | 65.3 | | 68.7 | 62.7 | | 15.0 | 15.0 | | | 15.0 | 15.0 |
| Actuated g/C Ratio | 0.71 | 0.65 | | 0.69 | 0.63 | | 0.15 | 0.15 | | | 0.15 | 0.15 |
| v/c Ratio | 0.29 | 0.46 | | 0.10 | 0.56 | | 0.33 | 0.13 | | | 0.16 | 0.49 |
| Control Delay | 8.2 | 12.3 | | 3.7 | 6.1 | | 39.6 | 12.5 | | | 34.9 | 9.0 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 8.2 | 12.3 | | 3.7 | 6.1 | | 39.6 | 12.5 | | | 34.9 | 9.0 |
| LOS | A | B | | A | A | | D | B | | | C | A |
| Approach Delay | | 11.9 | | | 6.1 | | | 30.7 | | | 12.5 | |
| Approach LOS | | B | | | A | | | C | | | B | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 54 (54%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 85 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.56 | | | |
| Intersection Signal Delay: 9.9 | | Intersection LOS: A | |
| Intersection Capacity Utilization 74.6% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 18: Palmerston Drive/Matheson Road & Ogilvie Road



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 174 | 878 | 802 | 71 | 157 | 396 |
| Future Volume (vph) | 174 | 878 | 802 | 71 | 157 | 396 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | 0.0 | | 70.0 | 0.0 | |
| Storage Lanes | 1 | 1 | | 1 | 0 | |
| Taper Length (m) | 7.6 | | | | 7.6 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | | 0.986 |
| Satd. Flow (prot) | 1647 | 1473 | 3325 | 1488 | 0 | 3217 |
| Flt Permitted | 0.950 | | | | | 0.581 |
| Satd. Flow (perm) | 1647 | 1473 | 3325 | 1488 | 0 | 1895 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 483 | | | | |
| Link Speed (k/h) | 60 | | 60 | | | 60 |
| Link Distance (m) | 216.4 | | 230.9 | | | 341.9 |
| Travel Time (s) | 13.0 | | 13.9 | | | 20.5 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 5% | 5% | 4% | 4% | 6% | 6% |
| Adj. Flow (vph) | 193 | 976 | 891 | 79 | 174 | 440 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 193 | 976 | 891 | 79 | 0 | 614 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(m) | 3.7 | | 0.0 | | | 0.0 |
| Link Offset(m) | 0.0 | | 0.0 | | | 0.0 |
| Crosswalk Width(m) | 4.9 | | 4.9 | | | 4.9 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | 14 | | 14 | 24 | |
| Number of Detectors | 1 | 1 | 2 | 1 | 1 | 2 |
| Detector Template | Left | Right | Thru | Right | Left | Thru |
| Leading Detector (m) | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | | 28.7 | | | 28.7 |
| Detector 2 Size(m) | | | 1.8 | | | 1.8 |
| Detector 2 Type | | | Cl+Ex | | | Cl+Ex |
| Detector 2 Channel | | | | | | |
| Detector 2 Extend (s) | | | 0.0 | | | 0.0 |
| Turn Type | Prot | Free | NA | pm+ov | Perm | NA |
| Protected Phases | 8 | | 2 | 8 | | 6 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Permitted Phases | | Free | | 2 | 6 | |
| Detector Phase | 8 | | 2 | 8 | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 25.3 | | 30.5 | 25.3 | 16.5 | 16.5 |
| Total Split (s) | 35.0 | | 55.0 | 35.0 | 55.0 | 55.0 |
| Total Split (%) | 38.9% | | 61.1% | 38.9% | 61.1% | 61.1% |
| Maximum Green (s) | 28.7 | | 48.5 | 28.7 | 48.5 | 48.5 |
| Yellow Time (s) | 3.3 | | 4.2 | 3.3 | 4.2 | 4.2 |
| All-Red Time (s) | 3.0 | | 2.3 | 3.0 | 2.3 | 2.3 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 6.3 | | 6.5 | 6.3 | | 6.5 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | | Max | None | Max | Max |
| Walk Time (s) | 7.0 | | 7.0 | 7.0 | | |
| Flash Dont Walk (s) | 12.0 | | 17.0 | 12.0 | | |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | | |
| Act Effct Green (s) | 14.0 | 75.4 | 48.6 | 75.4 | | 48.6 |
| Actuated g/C Ratio | 0.19 | 1.00 | 0.64 | 1.00 | | 0.64 |
| v/c Ratio | 0.63 | 0.66 | 0.42 | 0.05 | | 0.50 |
| Control Delay | 38.0 | 2.4 | 7.8 | 0.1 | | 9.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 38.0 | 2.4 | 7.8 | 0.1 | | 9.5 |
| LOS | D | A | A | A | | A |
| Approach Delay | 8.3 | | 7.1 | | | 9.5 |
| Approach LOS | A | | A | | | A |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 90 | | | |
| Actuated Cycle Length: 75.4 | | | |
| Natural Cycle: 60 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.66 | | | |
| Intersection Signal Delay: 8.1 | | Intersection LOS: A | |
| Intersection Capacity Utilization 66.0% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

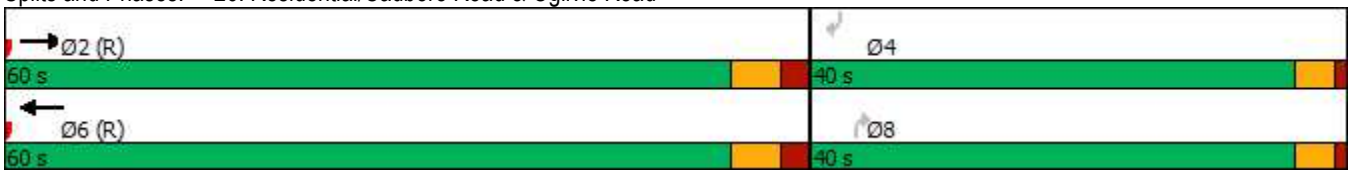
Splits and Phases: 22: Blair Road & Hwy 174 EB off

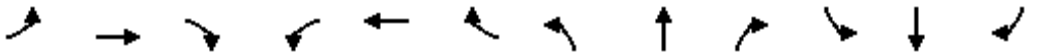
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 1013 | 9 | 0 | 1062 | 57 | 0 | 0 | 6 | 0 | 0 | 21 |
| Future Volume (vph) | 0 | 1013 | 9 | 0 | 1062 | 57 | 0 | 0 | 6 | 0 | 0 | 21 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.999 | | | 0.992 | | | | 0.865 | | | 0.865 |
| Flt Protected | | | | | | | | | | | | |
| Satd. Flow (prot) | 0 | 3387 | 0 | 0 | 3363 | 0 | 0 | 0 | 1543 | 0 | 0 | 1543 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 3387 | 0 | 0 | 3363 | 0 | 0 | 0 | 1543 | 0 | 0 | 1543 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 1 | | | 8 | | | | 67 | | | 59 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 266.1 | | | 256.0 | | | 114.0 | | | 107.3 | |
| Travel Time (s) | | 16.0 | | | 15.4 | | | 6.8 | | | 6.4 | |
| 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 |
| Adj. Flow (vph) | 0 | 1126 | 10 | 0 | 1180 | 63 | 0 | 0 | 7 | 0 | 0 | 23 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1136 | 0 | 0 | 1243 | 0 | 0 | 0 | 7 | 0 | 0 | 23 |
| 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) | | 3.7 | | | 3.7 | | | 0.0 | | | 0.0 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 1.6 | | | 1.6 | | | 1.6 | | | 1.6 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 97 | | 97 | 97 | | 97 | 97 | | 97 | 97 | | 97 |
| Number of Detectors | | 2 | | | 2 | | | | 1 | | | 1 |
| Detector Template | | Thru | | | Thru | | | | Right | | | Right |
| Leading Detector (m) | | 10.0 | | | 10.0 | | | | 2.0 | | | 2.0 |
| Trailing Detector (m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Position(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Size(m) | | 0.6 | | | 0.6 | | | | 2.0 | | | 2.0 |
| Detector 1 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Queue (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Delay (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 2 Position(m) | | 9.4 | | | 9.4 | | | | | | | |
| Detector 2 Size(m) | | 0.6 | | | 0.6 | | | | | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | | | | |
| Turn Type | | NA | | | NA | | | | Perm | | | Perm |
| Protected Phases | | 2 | | | 6 | | | | | | | |
| Permitted Phases | | | | | | | | | 8 | | | 4 |
| Detector Phase | | 2 | | | 6 | | | | 8 | | | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 10.0 | | | 10.0 | | | | 5.0 | | | 5.0 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | 35.0 | | | 35.0 | | | | 40.0 | | | 40.0 |
| Total Split (s) | | 60.0 | | | 60.0 | | | | 40.0 | | | 40.0 |
| Total Split (%) | | 60.0% | | | 60.0% | | | | 40.0% | | | 40.0% |
| Maximum Green (s) | | 54.0 | | | 54.0 | | | | 36.0 | | | 36.0 |
| Yellow Time (s) | | 3.7 | | | 3.7 | | | | 3.0 | | | 3.0 |
| All-Red Time (s) | | 2.3 | | | 2.3 | | | | 1.0 | | | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | | | 4.0 | | | 4.0 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | | 3.0 | | | 3.0 | | | | 3.0 | | | 3.0 |
| Recall Mode | | C-Max | | | C-Max | | | | None | | | None |
| Walk Time (s) | | 15.0 | | | 15.0 | | | | 24.0 | | | 24.0 |
| Flash Dont Walk (s) | | 14.0 | | | 14.0 | | | | 12.0 | | | 12.0 |
| Pedestrian Calls (#/hr) | | 20 | | | 20 | | | | 15 | | | 15 |
| Act Effct Green (s) | | 78.5 | | | 78.5 | | | | 17.7 | | | 17.7 |
| Actuated g/C Ratio | | 0.78 | | | 0.78 | | | | 0.18 | | | 0.18 |
| v/c Ratio | | 0.43 | | | 0.47 | | | | 0.02 | | | 0.07 |
| Control Delay | | 6.3 | | | 4.2 | | | | 0.2 | | | 0.6 |
| Queue Delay | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Total Delay | | 6.3 | | | 4.2 | | | | 0.2 | | | 0.6 |
| LOS | | A | | | A | | | | A | | | A |
| Approach Delay | | 6.3 | | | 4.2 | | | 0.2 | | | 0.6 | |
| Approach LOS | | A | | | A | | | A | | | A | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 42 (42%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 75 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.47 | | | |
| Intersection Signal Delay: 5.2 | | Intersection LOS: A | |
| Intersection Capacity Utilization 45.4% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 26: Residential/Cadboro Road & Ogilvie Road





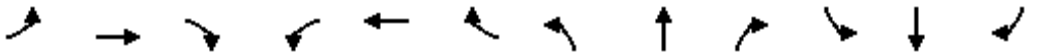
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 132 | 680 | 550 | 464 | 363 | 53 | 191 | 258 | 502 | 43 | 666 | 48 |
| Future Volume (vph) | 132 | 680 | 550 | 464 | 363 | 53 | 191 | 258 | 502 | 43 | 666 | 48 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 0.0 | 110.0 | | 0.0 | 120.0 | | 0.0 | 30.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | 2 | | 1 | 1 | | 0 |
| Taper Length (m) | 40.0 | | | 60.0 | | | 60.0 | | | 45.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 | 0.95 | 0.97 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | 0.99 | | | | | | 0.99 | |
| Frt | | | 0.850 | | 0.981 | | | | 0.850 | | 0.990 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1679 | 3357 | 1502 | 3257 | 3259 | 0 | 3257 | 1767 | 1502 | 1679 | 3295 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1679 | 3357 | 1502 | 3257 | 3259 | 0 | 3257 | 1767 | 1502 | 1679 | 3295 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 236 | | 12 | | | | 481 | | 5 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 372.0 | | | 396.5 | | | 239.9 | | | 411.0 | |
| Travel Time (s) | | 22.3 | | | 23.8 | | | 14.4 | | | 24.7 | |
| Confl. Peds. (#/hr) | | | | | | 29 | | | | | | 84 |
| 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% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% |
| Adj. Flow (vph) | 147 | 756 | 611 | 516 | 403 | 59 | 212 | 287 | 558 | 48 | 740 | 53 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 147 | 756 | 611 | 516 | 462 | 0 | 212 | 287 | 558 | 48 | 793 | 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) | | 7.4 | | | 7.4 | | | 7.4 | | | 7.4 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | 1 | 1 | 2 | |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Thru | Right | Left | Thru | |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | |
| Trailing Detector (m) | 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 | |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | |
| Detector 1 Type | 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 | |
| Detector 1 Queue (s) | 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 | |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | |
| Minimum Split (s) | 11.8 | 38.6 | 38.6 | 11.8 | 38.6 | | 11.5 | 35.5 | 35.5 | 11.5 | 35.5 | |
| Total Split (s) | 25.0 | 41.0 | 41.0 | 37.0 | 53.0 | | 21.0 | 41.0 | 41.0 | 21.0 | 41.0 | |
| Total Split (%) | 17.9% | 29.3% | 29.3% | 26.4% | 37.9% | | 15.0% | 29.3% | 29.3% | 15.0% | 29.3% | |
| Maximum Green (s) | 18.2 | 34.4 | 34.4 | 30.2 | 46.4 | | 14.5 | 34.5 | 34.5 | 14.5 | 34.5 | |
| Yellow Time (s) | 3.7 | 3.3 | 3.3 | 3.7 | 3.3 | | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | |
| All-Red Time (s) | 3.1 | 3.3 | 3.3 | 3.1 | 3.3 | | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.8 | 6.6 | 6.6 | 6.8 | 6.6 | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | 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 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | | None | None | None | None | None | |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 25.0 | 25.0 | | 25.0 | | | 22.0 | 22.0 | | 22.0 | |
| Pedestrian Calls (#/hr) | | 30 | 30 | | 30 | | | 35 | 35 | | 35 | |
| Act Effct Green (s) | 16.0 | 38.6 | 38.6 | 26.6 | 49.2 | | 13.3 | 41.5 | 41.5 | 9.4 | 35.1 | |
| Actuated g/C Ratio | 0.11 | 0.28 | 0.28 | 0.19 | 0.35 | | 0.10 | 0.30 | 0.30 | 0.07 | 0.25 | |
| v/c Ratio | 0.77 | 0.82 | 1.04 | 0.83 | 0.40 | | 0.69 | 0.55 | 0.71 | 0.43 | 0.96 | |
| Control Delay | 84.7 | 56.3 | 79.7 | 66.9 | 35.3 | | 73.0 | 47.6 | 13.0 | 73.6 | 73.6 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 84.7 | 56.3 | 79.7 | 66.9 | 35.3 | | 73.0 | 47.6 | 13.0 | 73.6 | 73.6 | |
| LOS | F | E | E | E | D | | E | D | B | E | E | |
| Approach Delay | | 68.5 | | | 51.9 | | | 34.4 | | | 73.6 | |
| Approach LOS | | E | | | D | | | C | | | E | |

**Intersection Summary**

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.04
Intersection Signal Delay: 57.6 Intersection LOS: E
Intersection Capacity Utilization 90.5% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Blair Road & Ogilvie Road

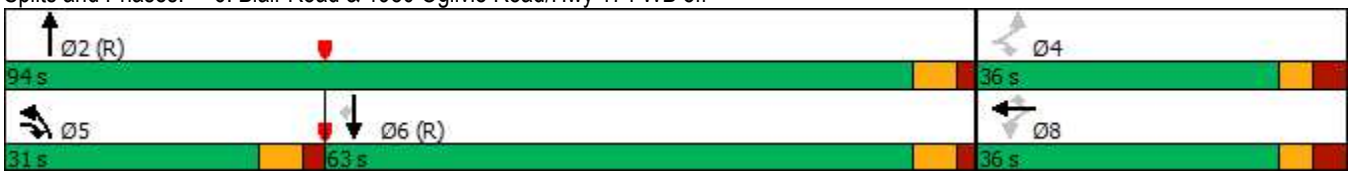


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 118 | 0 | 512 | 82 | 135 | 155 | 280 | 1146 | 0 | 0 | 1581 | 165 |
| Future Volume (vph) | 118 | 0 | 512 | 82 | 135 | 155 | 280 | 1146 | 0 | 0 | 1581 | 165 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 70.0 | 0.0 | | 70.0 | 60.0 | | 0.0 | 0.0 | | 50.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 2 | | 0 | 0 | | 1 |
| Taper Length (m) | 7.6 | | | 7.6 | | | 100.0 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 0.95 | 1.00 | 1.00 | 0.91 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (prot) | 1544 | 0 | 1381 | 1695 | 1784 | 1517 | 3164 | 3262 | 0 | 0 | 4871 | 1517 |
| Flt Permitted | 0.582 | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (perm) | 946 | 0 | 1381 | 1695 | 1784 | 1517 | 3164 | 3262 | 0 | 0 | 4871 | 1517 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 26 | | | 89 | | | | | | 106 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 518.9 | | | 416.4 | | | 90.2 | | | 239.9 | |
| Travel Time (s) | | 31.1 | | | 25.0 | | | 5.4 | | | 14.4 | |
| 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 (%) | 12% | 12% | 12% | 2% | 2% | 2% | 6% | 6% | 6% | 2% | 2% | 2% |
| Adj. Flow (vph) | 131 | 0 | 569 | 91 | 150 | 172 | 311 | 1273 | 0 | 0 | 1757 | 183 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 131 | 0 | 569 | 91 | 150 | 172 | 311 | 1273 | 0 | 0 | 1757 | 183 |
| 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) | | 3.7 | | | 3.7 | | | 7.4 | | | 7.4 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | | 1 | 1 | 2 | 1 | 1 | 2 | | | 2 | 1 |
| Detector Template | Left | | Right | Left | Thru | Right | Left | Thru | | | Thru | Right |
| Leading Detector (m) | 6.1 | | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | | pm+ov | Perm | NA | Perm | Prot | NA | | | NA | Perm |
| Protected Phases | | | 5 | | 8 | | 5 | 2 | | | 6 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | | | 6 |
| Detector Phase | 4 | | 5 | 8 | 8 | 8 | 5 | 2 | | | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | | 5.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | | | 10.0 | 10.0 |
| Minimum Split (s) | 16.8 | | 11.4 | 36.8 | 36.8 | 36.8 | 11.4 | 30.1 | | | 30.1 | 30.1 |
| Total Split (s) | 36.0 | | 31.0 | 36.0 | 36.0 | 36.0 | 31.0 | 94.0 | | | 63.0 | 63.0 |
| Total Split (%) | 27.7% | | 23.8% | 27.7% | 27.7% | 27.7% | 23.8% | 72.3% | | | 48.5% | 48.5% |
| Maximum Green (s) | 29.2 | | 24.6 | 29.2 | 29.2 | 29.2 | 24.6 | 87.9 | | | 56.9 | 56.9 |
| Yellow Time (s) | 3.3 | | 4.2 | 3.3 | 3.3 | 3.3 | 4.2 | 4.2 | | | 4.2 | 4.2 |
| All-Red Time (s) | 3.5 | | 2.2 | 3.5 | 3.5 | 3.5 | 2.2 | 1.9 | | | 1.9 | 1.9 |
| 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) | 6.8 | | 6.4 | 6.8 | 6.8 | 6.8 | 6.4 | 6.1 | | | 6.1 | 6.1 |
| 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 | 3.0 | | | 3.0 | 3.0 |
| Recall Mode | None | | None | None | None | None | None | C-Max | | | C-Max | C-Max |
| Walk Time (s) | | | | 7.0 | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | | | 23.0 | 23.0 | 23.0 | | 17.0 | | | 17.0 | 17.0 |
| Pedestrian Calls (#/hr) | | | | 20 | 20 | 20 | | 30 | | | 30 | 30 |
| Act Effct Green (s) | 23.7 | | 58.8 | 23.7 | 23.7 | 23.7 | 28.3 | 93.4 | | | 58.7 | 58.7 |
| Actuated g/C Ratio | 0.18 | | 0.45 | 0.18 | 0.18 | 0.18 | 0.22 | 0.72 | | | 0.45 | 0.45 |
| v/c Ratio | 0.76 | | 0.89 | 0.30 | 0.46 | 0.49 | 0.45 | 0.54 | | | 0.80 | 0.25 |
| Control Delay | 76.3 | | 48.8 | 46.5 | 50.7 | 26.4 | 47.6 | 10.4 | | | 34.4 | 10.6 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 76.3 | | 48.8 | 46.5 | 50.7 | 26.4 | 47.6 | 10.4 | | | 34.4 | 10.6 |
| LOS | E | | D | D | D | C | D | B | | | C | B |
| Approach Delay | | 53.9 | | | 39.6 | | | 17.7 | | | 32.2 | |
| Approach LOS | | D | | | D | | | B | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 130 | | | |
| Actuated Cycle Length: 130 | | | |
| Offset: 50 (38%), Referenced to phase 2:NBT and 6:SBT, Start of Green | | | |
| Natural Cycle: 90 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.89 | | | |
| Intersection Signal Delay: 31.2 | | Intersection LOS: C | |
| Intersection Capacity Utilization 90.1% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 6: Blair Road & 1980 Ogilvie Road/Hwy 174 WB off



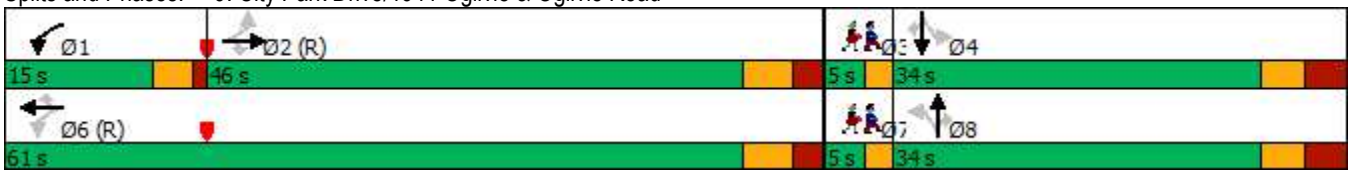
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 32 | 1237 | 145 | 101 | 462 | 38 | 178 | 10 | 160 | 78 | 19 | 76 |
| Future Volume (vph) | 32 | 1237 | 145 | 101 | 462 | 38 | 178 | 10 | 160 | 78 | 19 | 76 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 40.0 | | 100.0 | 100.0 | | 50.0 | 0.0 | | 60.0 | 20.0 | | 10.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 0 | | 1 | 1 | | 1 |
| Taper Length (m) | 30.0 | | | 25.0 | | | 7.6 | | | 15.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.88 | | 0.87 | | | 0.73 | | 0.93 | 0.87 | 0.91 | | 0.92 |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.955 | | 0.950 | | |
| Satd. Flow (prot) | 1695 | 3390 | 1517 | 1679 | 3357 | 1502 | 0 | 1609 | 1432 | 1695 | 1784 | 1517 |
| Flt Permitted | 0.463 | | | 0.077 | | | | 0.722 | | 0.530 | | |
| Satd. Flow (perm) | 725 | 3390 | 1315 | 136 | 3357 | 1104 | 0 | 1133 | 1244 | 864 | 1784 | 1388 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 161 | | | 60 | | | 178 | | | 99 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 224.7 | | | 372.0 | | | 239.4 | | | 142.3 | |
| Travel Time (s) | | 13.5 | | | 22.3 | | | 14.4 | | | 8.5 | |
| Confl. Peds. (#/hr) | 145 | | 67 | 67 | | 145 | 67 | | 110 | 110 | | 67 |
| 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 (%) | 2% | 2% | 2% | 3% | 3% | 3% | 8% | 8% | 8% | 2% | 2% | 2% |
| Adj. Flow (vph) | 36 | 1374 | 161 | 112 | 513 | 42 | 198 | 11 | 178 | 87 | 21 | 84 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 36 | 1374 | 161 | 112 | 513 | 42 | 0 | 209 | 178 | 87 | 21 | 84 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 |
| 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) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 |
| 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) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | |

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Storage Length (m) | | |
| Storage Lanes | | |
| Taper Length (m) | | |
| Lane Util. Factor | | |
| Ped Bike Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (k/h) | | |
| Link Distance (m) | | |
| Travel Time (s) | | |
| Confl. Peds. (#/hr) | | |
| Peak Hour Factor | | |
| Heavy Vehicles (%) | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(m) | | |
| Link Offset(m) | | |
| Crosswalk Width(m) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (k/h) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (m) | | |
| Trailing Detector (m) | | |
| Detector 1 Position(m) | | |
| Detector 1 Size(m) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(m) | | |
| Detector 2 Size(m) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turn Type | Perm | NA | Perm | pm+pt | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | 8 | 4 | | 4 |
| Detector Phase | 2 | 2 | 2 | 1 | 6 | 6 | 8 | 8 | 8 | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 35.1 | 35.1 | 35.1 | 9.0 | 35.1 | 35.1 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 |
| Total Split (s) | 46.0 | 46.0 | 46.0 | 15.0 | 61.0 | 61.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 |
| Total Split (%) | 46.0% | 46.0% | 46.0% | 15.0% | 61.0% | 61.0% | 34.0% | 34.0% | 34.0% | 34.0% | 34.0% | 34.0% |
| Maximum Green (s) | 39.9 | 39.9 | 39.9 | 11.0 | 54.9 | 54.9 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.0 | 3.7 | 3.7 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 2.4 | 2.4 | 2.4 | 1.0 | 2.4 | 2.4 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.1 | 6.1 | 6.1 | 4.0 | 6.1 | 6.1 | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |
| Lead/Lag | Lag | Lag | Lag | Lead | | | Lag | Lag | Lag | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | 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 | 3.0 |
| Recall Mode | C-Max | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None | None |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Flash Dont Walk (s) | 22.0 | 22.0 | 22.0 | | 22.0 | 22.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| Pedestrian Calls (#/hr) | 35 | 35 | 35 | | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| Act Effct Green (s) | 48.8 | 48.8 | 48.8 | 63.3 | 61.2 | 61.2 | | 23.2 | 23.2 | 23.2 | 23.2 | 23.2 |
| Actuated g/C Ratio | 0.49 | 0.49 | 0.49 | 0.63 | 0.61 | 0.61 | | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 |
| v/c Ratio | 0.10 | 0.83 | 0.22 | 0.52 | 0.25 | 0.06 | | 0.80 | 0.42 | 0.43 | 0.05 | 0.21 |
| Control Delay | 9.7 | 21.3 | 1.1 | 21.7 | 10.4 | 1.8 | | 57.5 | 7.7 | 38.4 | 27.5 | 5.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 9.7 | 21.3 | 1.1 | 21.7 | 10.4 | 1.8 | | 57.5 | 7.7 | 38.4 | 27.5 | 5.7 |
| LOS | A | C | A | C | B | A | | E | A | D | C | A |
| Approach Delay | | 19.0 | | | 11.8 | | | 34.6 | | | 22.9 | |
| Approach LOS | | B | | | B | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 30 (30%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 85 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.83 | | | |
| Intersection Signal Delay: 19.7 | | Intersection LOS: B | |
| Intersection Capacity Utilization 95.3% | | ICU Level of Service F | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 9: City Park Drive/1941 Ogilvie & Ogilvie Road



| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Turn Type | | |
| Protected Phases | 3 | 7 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 1.0 | 1.0 |
| Minimum Split (s) | 5.0 | 5.0 |
| Total Split (s) | 5.0 | 5.0 |
| Total Split (%) | 5% | 5% |
| Maximum Green (s) | 3.0 | 3.0 |
| Yellow Time (s) | 2.0 | 2.0 |
| All-Red Time (s) | 0.0 | 0.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | None | None |
| Walk Time (s) | 0.0 | 0.0 |
| Flash Dont Walk (s) | 0.0 | 0.0 |
| Pedestrian Calls (#/hr) | 35 | 35 |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

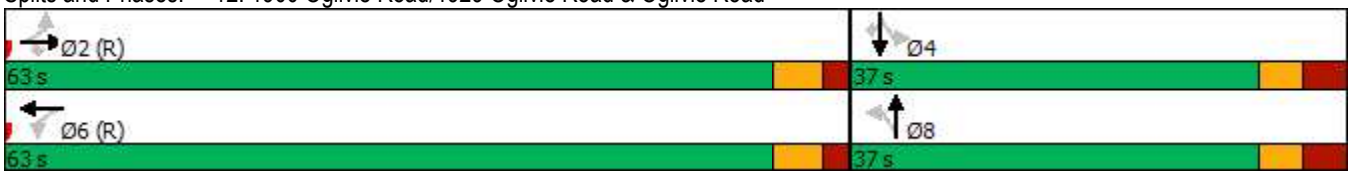
| Intersection Summary |
|---|

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 43 | 1182 | 66 | 32 | 684 | 24 | 47 | 3 | 28 | 135 | 3 | 132 |
| Future Volume (vph) | 43 | 1182 | 66 | 32 | 684 | 24 | 47 | 3 | 28 | 135 | 3 | 132 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 60.0 | | 80.0 | 90.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 0 | 0 | | 1 |
| Taper Length (m) | 30.0 | | | 20.0 | | | 7.6 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.850 | | 0.995 | | | 0.863 | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | 0.953 | |
| Satd. Flow (prot) | 1695 | 3390 | 1517 | 1679 | 3342 | 0 | 1695 | 1540 | 0 | 0 | 1700 | 1517 |
| Flt Permitted | 0.328 | | | 0.157 | | | 0.646 | | | | 0.705 | |
| Satd. Flow (perm) | 585 | 3390 | 1517 | 277 | 3342 | 0 | 1153 | 1540 | 0 | 0 | 1258 | 1517 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 73 | | 6 | | | 31 | | | | 147 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 190.5 | | | 224.7 | | | 86.0 | | | 56.6 | |
| Travel Time (s) | | 11.4 | | | 13.5 | | | 5.2 | | | 3.4 | |
| 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 (%) | 2% | 2% | 2% | 3% | 3% | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Adj. Flow (vph) | 48 | 1313 | 73 | 36 | 760 | 27 | 52 | 3 | 31 | 150 | 3 | 147 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 48 | 1313 | 73 | 36 | 787 | 0 | 52 | 34 | 0 | 0 | 153 | 147 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Thru | | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | NA | | Perm | NA | Perm |
| Protected Phases | | 2 | | | 6 | | | 8 | | | 4 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 2 | | 2 | 6 | | | 8 | | | 4 | | 4 |
| Detector Phase | 2 | 2 | 2 | 6 | 6 | | 8 | 8 | | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | | 36.7 | 36.7 | | 36.7 | 36.7 | 36.7 |
| Total Split (s) | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | | 37.0 | 37.0 | | 37.0 | 37.0 | 37.0 |
| Total Split (%) | 63.0% | 63.0% | 63.0% | 63.0% | 63.0% | | 37.0% | 37.0% | | 37.0% | 37.0% | 37.0% |
| Maximum Green (s) | 57.1 | 57.1 | 57.1 | 57.1 | 57.1 | | 30.3 | 30.3 | | 30.3 | 30.3 | 30.3 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | | 3.3 | 3.3 | | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | | 3.4 | 3.4 | | 3.4 | 3.4 | 3.4 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | 5.9 | 5.9 | 5.9 | 5.9 | 5.9 | | 6.7 | 6.7 | | | 6.7 | 6.7 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max | C-Max | C-Max | C-Max | | None | None | | None | None | None |
| Walk Time (s) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | 23.0 |
| Pedestrian Calls (#/hr) | 20 | 20 | 20 | 20 | 20 | | 30 | 30 | | 30 | 30 | 30 |
| Act Effct Green (s) | 64.5 | 64.5 | 64.5 | 64.5 | 64.5 | | 22.9 | 22.9 | | | 22.9 | 22.9 |
| Actuated g/C Ratio | 0.64 | 0.64 | 0.64 | 0.64 | 0.64 | | 0.23 | 0.23 | | | 0.23 | 0.23 |
| v/c Ratio | 0.13 | 0.60 | 0.07 | 0.20 | 0.36 | | 0.20 | 0.09 | | | 0.53 | 0.32 |
| Control Delay | 6.3 | 8.5 | 0.9 | 9.5 | 6.6 | | 29.3 | 10.5 | | | 38.8 | 6.4 |
| Queue Delay | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 6.3 | 8.6 | 0.9 | 9.5 | 6.6 | | 29.3 | 10.5 | | | 38.8 | 6.4 |
| LOS | A | A | A | A | A | | C | B | | | D | A |
| Approach Delay | | 8.1 | | | 6.7 | | | 21.9 | | | 23.0 | |
| Approach LOS | | A | | | A | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 8 (8%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 75 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.60 | | | |
| Intersection Signal Delay: 9.8 | | Intersection LOS: A | |
| Intersection Capacity Utilization 62.9% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 12: 1900 Ogilvie Road/1929 Ogilvie Road & Ogilvie Road



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 207 | 860 | 153 | 12 | 665 | 110 | 112 | 69 | 26 | 140 | 47 | 159 |
| Future Volume (vph) | 207 | 860 | 153 | 12 | 665 | 110 | 112 | 69 | 26 | 140 | 47 | 159 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 40.0 | 45.0 | | 70.0 | 30.0 | | 0.0 | 20.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 30.0 | | | 30.0 | | | 25.0 | | | 25.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.96 | | 0.90 | 0.99 | | 0.83 | 0.98 | 0.99 | | 0.98 | 0.97 | |
| Frt | | | 0.850 | | | 0.850 | | 0.959 | | | 0.884 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1679 | 3357 | 1502 | 1679 | 3357 | 1502 | 1631 | 1632 | 0 | 1647 | 1487 | 0 |
| Flt Permitted | 0.265 | | | 0.291 | | | 0.494 | | | 0.689 | | |
| Satd. Flow (perm) | 450 | 3357 | 1349 | 508 | 3357 | 1248 | 832 | 1632 | 0 | 1173 | 1487 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 121 | | | 122 | | 20 | | | 177 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 256.0 | | | 190.5 | | | 345.6 | | | 177.6 | |
| Travel Time (s) | | 15.4 | | | 11.4 | | | 20.7 | | | 10.7 | |
| Confl. Peds. (#/hr) | 73 | | 40 | 40 | | 73 | 27 | | 21 | 21 | | 27 |
| 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% | 3% | 3% | 3% | 3% | 3% | 6% | 6% | 6% | 5% | 5% | 5% |
| Adj. Flow (vph) | 230 | 956 | 170 | 13 | 739 | 122 | 124 | 77 | 29 | 156 | 52 | 177 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 230 | 956 | 170 | 13 | 739 | 122 | 124 | 106 | 0 | 156 | 229 | 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | | Left | Thru | |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | |
| Trailing Detector (m) | 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 | |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | |
| Detector 1 Type | 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 | |
| Detector 1 Queue (s) | 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 | |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | |

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Storage Length (m) | | |
| Storage Lanes | | |
| Taper Length (m) | | |
| Lane Util. Factor | | |
| Ped Bike Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (k/h) | | |
| Link Distance (m) | | |
| Travel Time (s) | | |
| Confl. Peds. (#/hr) | | |
| Peak Hour Factor | | |
| Heavy Vehicles (%) | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(m) | | |
| Link Offset(m) | | |
| Crosswalk Width(m) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (k/h) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (m) | | |
| Trailing Detector (m) | | |
| Detector 1 Position(m) | | |
| Detector 1 Size(m) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(m) | | |
| Detector 2 Size(m) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 9.7 | 30.0 | 30.0 | 9.7 | 30.0 | 30.0 | 37.4 | 37.4 | | 37.4 | 37.4 | |
| Total Split (s) | 20.0 | 37.0 | 37.0 | 20.0 | 37.0 | 37.0 | 38.0 | 38.0 | | 38.0 | 38.0 | |
| Total Split (%) | 20.0% | 37.0% | 37.0% | 20.0% | 37.0% | 37.0% | 38.0% | 38.0% | | 38.0% | 38.0% | |
| Maximum Green (s) | 15.3 | 31.0 | 31.0 | 15.3 | 31.0 | 31.0 | 30.6 | 30.6 | | 30.6 | 30.6 | |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.0 | 2.3 | 2.3 | 1.0 | 2.3 | 2.3 | 4.4 | 4.4 | | 4.4 | 4.4 | |
| 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) | 4.7 | 6.0 | 6.0 | 4.7 | 6.0 | 6.0 | 7.4 | 7.4 | | 7.4 | 7.4 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lag | Lag | | Lag | Lag | |
| Lead-Lag Optimize? | Yes | 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 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | | None | None | |
| Walk Time (s) | | 9.0 | 9.0 | | 9.0 | 9.0 | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Flash Dont Walk (s) | | 15.0 | 15.0 | | 15.0 | 15.0 | 28.0 | 28.0 | | 28.0 | 28.0 | |
| Pedestrian Calls (#/hr) | | 30 | 30 | | 30 | 30 | 20 | 20 | | 20 | 20 | |
| Act Effct Green (s) | 62.0 | 58.5 | 58.5 | 51.5 | 44.3 | 44.3 | 20.9 | 20.9 | | 20.9 | 20.9 | |
| Actuated g/C Ratio | 0.62 | 0.58 | 0.58 | 0.52 | 0.44 | 0.44 | 0.21 | 0.21 | | 0.21 | 0.21 | |
| v/c Ratio | 0.54 | 0.49 | 0.20 | 0.04 | 0.50 | 0.20 | 0.72 | 0.30 | | 0.64 | 0.51 | |
| Control Delay | 19.9 | 14.1 | 7.1 | 7.6 | 15.0 | 1.5 | 57.4 | 26.5 | | 46.4 | 12.2 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 19.9 | 14.1 | 7.1 | 7.6 | 15.0 | 1.5 | 57.4 | 26.5 | | 46.4 | 12.2 | |
| LOS | B | B | A | A | B | A | E | C | | D | B | |
| Approach Delay | | 14.2 | | | 13.0 | | | 43.1 | | | 26.1 | |
| Approach LOS | | B | | | B | | | D | | | C | |

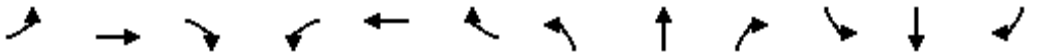
**Intersection Summary**

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 19 (19%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 17.8 Intersection LOS: B
Intersection Capacity Utilization 82.6% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 15: City Park Drive/Bathgate Drive & Ogilvie Road

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Turn Type | | |
| Protected Phases | 3 | 7 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 1.0 | 1.0 |
| Minimum Split (s) | 5.0 | 5.0 |
| Total Split (s) | 5.0 | 5.0 |
| Total Split (%) | 5% | 5% |
| Maximum Green (s) | 3.0 | 3.0 |
| Yellow Time (s) | 2.0 | 2.0 |
| All-Red Time (s) | 0.0 | 0.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | Ped | Ped |
| Walk Time (s) | 0.0 | 0.0 |
| Flash Dont Walk (s) | 0.0 | 0.0 |
| Pedestrian Calls (#/hr) | 20 | 20 |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

| Intersection Summary |
|---|

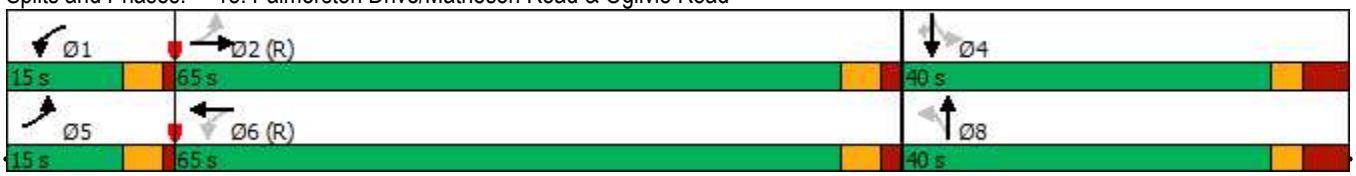


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 188 | 1419 | 61 | 94 | 1094 | 38 | 52 | 4 | 39 | 29 | 4 | 96 |
| Future Volume (vph) | 188 | 1419 | 61 | 94 | 1094 | 38 | 52 | 4 | 39 | 29 | 4 | 96 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 0.0 | 70.0 | | 0.0 | 15.0 | | 0.0 | 0.0 | | 35.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 0 | | 1 |
| Taper Length (m) | 30.0 | | | 30.0 | | | 7.6 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 1.00 | | | 1.00 | | 0.98 | 0.98 | | | 0.99 | 0.99 |
| Frt | | 0.994 | | | 0.995 | | | 0.863 | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | 0.957 | |
| Satd. Flow (prot) | 1695 | 3356 | 0 | 1695 | 3364 | 0 | 1662 | 1474 | 0 | 0 | 1708 | 1517 |
| Flt Permitted | 0.158 | | | 0.091 | | | 0.734 | | | | 0.716 | |
| Satd. Flow (perm) | 282 | 3356 | 0 | 162 | 3364 | 0 | 1263 | 1474 | 0 | 0 | 1265 | 1497 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 5 | | | 4 | | | 43 | | | | 107 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 314.1 | | | 266.1 | | | 176.2 | | | 174.1 | |
| Travel Time (s) | | 18.8 | | | 16.0 | | | 10.6 | | | 10.4 | |
| Confl. Peds. (#/hr) | 24 | | 34 | 34 | | 24 | 16 | | 11 | 11 | | |
| Confl. Bikes (#/hr) | | | 11 | | | 22 | | | 3 | | | 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 (%) | 2% | 2% | 2% | 2% | 2% | 2% | 4% | 4% | 4% | 2% | 2% | 2% |
| Adj. Flow (vph) | 209 | 1577 | 68 | 104 | 1216 | 42 | 58 | 4 | 43 | 32 | 4 | 107 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 209 | 1645 | 0 | 104 | 1258 | 0 | 58 | 47 | 0 | 0 | 36 | 107 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | 1 |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | | pm+pt | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | 4 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.7 | 33.6 | | 9.7 | 33.6 | | 40.2 | 40.2 | | 40.2 | 40.2 | 40.2 |
| Total Split (s) | 15.0 | 65.0 | | 15.0 | 65.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | 40.0 |
| Total Split (%) | 12.5% | 54.2% | | 12.5% | 54.2% | | 33.3% | 33.3% | | 33.3% | 33.3% | 33.3% |
| Maximum Green (s) | 10.3 | 59.4 | | 10.3 | 59.4 | | 32.8 | 32.8 | | 32.8 | 32.8 | 32.8 |
| Yellow Time (s) | 3.7 | 3.7 | | 3.7 | 3.7 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 1.0 | 1.9 | | 1.0 | 1.9 | | 4.2 | 4.2 | | 4.2 | 4.2 | 4.2 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | 4.7 | 5.6 | | 4.7 | 5.6 | | 7.2 | 7.2 | | | 7.2 | 7.2 |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | | None | C-Max | | None | None | | None | None | None |
| Walk Time (s) | | 15.0 | | | 15.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 13.0 | | | 13.0 | | 26.0 | 26.0 | | 26.0 | 26.0 | 26.0 |
| Pedestrian Calls (#/hr) | | 25 | | | 25 | | 10 | 10 | | 10 | 10 | 10 |
| Act Effct Green (s) | 90.6 | 78.9 | | 85.5 | 76.3 | | 15.3 | 15.3 | | | 15.3 | 15.3 |
| Actuated g/C Ratio | 0.76 | 0.66 | | 0.71 | 0.64 | | 0.13 | 0.13 | | | 0.13 | 0.13 |
| v/c Ratio | 0.61 | 0.75 | | 0.47 | 0.59 | | 0.36 | 0.21 | | | 0.22 | 0.38 |
| Control Delay | 15.4 | 18.6 | | 15.0 | 15.7 | | 51.2 | 15.1 | | | 46.6 | 11.1 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 15.4 | 18.6 | | 15.0 | 15.7 | | 51.2 | 15.1 | | | 46.6 | 11.1 |
| LOS | B | B | | B | B | | D | B | | | D | B |
| Approach Delay | | 18.3 | | | 15.7 | | | 35.0 | | | 20.0 | |
| Approach LOS | | B | | | B | | | D | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 120 | | | |
| Actuated Cycle Length: 120 | | | |
| Offset: 50 (42%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 105 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.75 | | | |
| Intersection Signal Delay: 17.8 | | Intersection LOS: B | |
| Intersection Capacity Utilization 78.8% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 18: Palmerston Drive/Matheson Road & Ogilvie Road

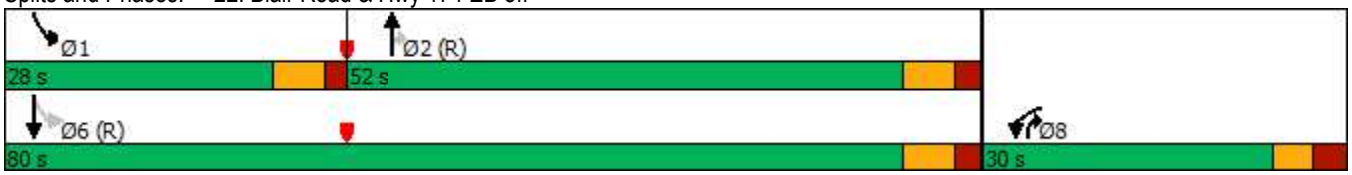


| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 208 | 826 | 707 | 166 | 425 | 871 |
| Future Volume (vph) | 208 | 826 | 707 | 166 | 425 | 871 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | 0.0 | | 70.0 | 0.0 | |
| Storage Lanes | 1 | 1 | | 1 | 0 | |
| Taper Length (m) | 7.6 | | | | 7.6 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | | 0.984 |
| Satd. Flow (prot) | 1647 | 1473 | 3325 | 1488 | 0 | 3210 |
| Flt Permitted | 0.950 | | | | | 0.531 |
| Satd. Flow (perm) | 1647 | 1473 | 3325 | 1488 | 0 | 1732 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 590 | | 184 | | |
| Link Speed (k/h) | 60 | | 60 | | | 60 |
| Link Distance (m) | 216.4 | | 230.9 | | | 341.9 |
| Travel Time (s) | 13.0 | | 13.9 | | | 20.5 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles (%) | 5% | 5% | 4% | 4% | 6% | 6% |
| Adj. Flow (vph) | 231 | 918 | 786 | 184 | 472 | 968 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 231 | 918 | 786 | 184 | 0 | 1440 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(m) | 3.7 | | 0.0 | | | 0.0 |
| Link Offset(m) | 0.0 | | 0.0 | | | 0.0 |
| Crosswalk Width(m) | 4.9 | | 4.9 | | | 4.9 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | 14 | | 14 | 24 | |
| Number of Detectors | 1 | 1 | 2 | 1 | 1 | 2 |
| Detector Template | Left | Right | Thru | Right | Left | Thru |
| Leading Detector (m) | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | | 28.7 | | | 28.7 |
| Detector 2 Size(m) | | | 1.8 | | | 1.8 |
| Detector 2 Type | | | Cl+Ex | | | Cl+Ex |
| Detector 2 Channel | | | | | | |
| Detector 2 Extend (s) | | | 0.0 | | | 0.0 |
| Turn Type | Prot | Free | NA | pm+ov | pm+pt | NA |
| Protected Phases | 8 | | 2 | 8 | 1 | 6 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Permitted Phases | | Free | | 2 | 6 | |
| Detector Phase | 8 | | 2 | 8 | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 10.0 | 5.0 | 5.0 | 1.0 |
| Minimum Split (s) | 25.3 | | 30.5 | 25.3 | 11.0 | 30.5 |
| Total Split (s) | 30.0 | | 52.0 | 30.0 | 28.0 | 80.0 |
| Total Split (%) | 27.3% | | 47.3% | 27.3% | 25.5% | 72.7% |
| Maximum Green (s) | 23.7 | | 45.5 | 23.7 | 22.0 | 73.5 |
| Yellow Time (s) | 3.3 | | 4.2 | 3.3 | 4.2 | 4.2 |
| All-Red Time (s) | 3.0 | | 2.3 | 3.0 | 1.8 | 2.3 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 6.3 | | 6.5 | 6.3 | | 6.5 |
| Lead/Lag | | | Lag | | Lead | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Vehicle Extension (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | | C-Max | None | Max | C-Max |
| Walk Time (s) | 7.0 | | 7.0 | 7.0 | | 7.0 |
| Flash Dont Walk (s) | 12.0 | | 17.0 | 12.0 | | 17.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | | 0 |
| Act Effct Green (s) | 19.7 | 110.0 | 45.5 | 71.7 | | 77.5 |
| Actuated g/C Ratio | 0.18 | 1.00 | 0.41 | 0.65 | | 0.70 |
| v/c Ratio | 0.78 | 0.62 | 0.57 | 0.18 | | 0.92 |
| Control Delay | 61.2 | 2.0 | 26.8 | 1.2 | | 22.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 61.2 | 2.0 | 26.8 | 1.2 | | 22.8 |
| LOS | E | A | C | A | | C |
| Approach Delay | 13.9 | | 22.0 | | | 22.8 |
| Approach LOS | B | | C | | | C |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 110 | | | |
| Actuated Cycle Length: 110 | | | |
| Offset: 32 (29%), Referenced to phase 2:NBT and 6:SBTL, Start of Green | | | |
| Natural Cycle: 130 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.92 | | | |
| Intersection Signal Delay: 19.7 | | Intersection LOS: B | |
| Intersection Capacity Utilization 87.3% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 22: Blair Road & Hwy 174 EB off

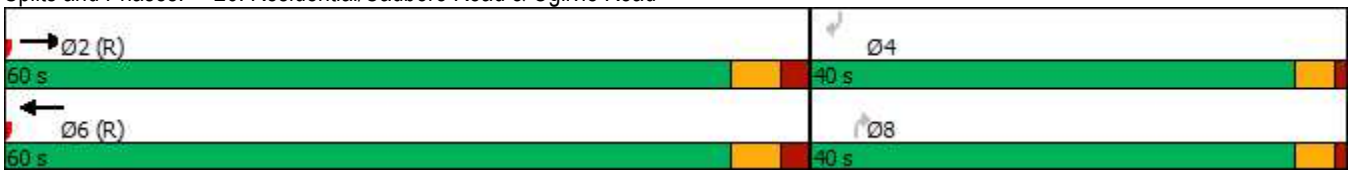


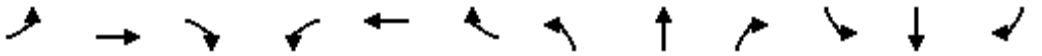
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 1526 | 14 | 0 | 994 | 70 | 0 | 0 | 1 | 0 | 0 | 97 |
| Future Volume (vph) | 0 | 1526 | 14 | 0 | 994 | 70 | 0 | 0 | 1 | 0 | 0 | 97 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.999 | | | 0.990 | | | | 0.865 | | | 0.865 |
| Flt Protected | | | | | | | | | | | | |
| Satd. Flow (prot) | 0 | 3387 | 0 | 0 | 3356 | 0 | 0 | 0 | 1543 | 0 | 0 | 1543 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 3387 | 0 | 0 | 3356 | 0 | 0 | 0 | 1543 | 0 | 0 | 1543 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 1 | | | 11 | | | | 33 | | | 71 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 266.1 | | | 256.0 | | | 114.0 | | | 107.3 | |
| Travel Time (s) | | 16.0 | | | 15.4 | | | 6.8 | | | 6.4 | |
| 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 |
| Adj. Flow (vph) | 0 | 1696 | 16 | 0 | 1104 | 78 | 0 | 0 | 1 | 0 | 0 | 108 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1712 | 0 | 0 | 1182 | 0 | 0 | 0 | 1 | 0 | 0 | 108 |
| 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) | | 3.7 | | | 3.7 | | | 0.0 | | | 0.0 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 1.6 | | | 1.6 | | | 1.6 | | | 1.6 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | | 2 | | | 2 | | | | 1 | | | 1 |
| Detector Template | | Thru | | | Thru | | | | Right | | | Right |
| Leading Detector (m) | | 10.0 | | | 10.0 | | | | 2.0 | | | 2.0 |
| Trailing Detector (m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Position(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Size(m) | | 0.6 | | | 0.6 | | | | 2.0 | | | 2.0 |
| Detector 1 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Queue (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Delay (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 2 Position(m) | | 9.4 | | | 9.4 | | | | | | | |
| Detector 2 Size(m) | | 0.6 | | | 0.6 | | | | | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | | | | |
| Turn Type | | NA | | | NA | | | | Perm | | | Perm |
| Protected Phases | | 2 | | | 6 | | | | | | | |
| Permitted Phases | | | | | | | | | 8 | | | 4 |
| Detector Phase | | 2 | | | 6 | | | | 8 | | | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 10.0 | | | 10.0 | | | | 5.0 | | | 5.0 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | 35.0 | | | 35.0 | | | | 40.0 | | | 40.0 |
| Total Split (s) | | 60.0 | | | 60.0 | | | | 40.0 | | | 40.0 |
| Total Split (%) | | 60.0% | | | 60.0% | | | | 40.0% | | | 40.0% |
| Maximum Green (s) | | 54.0 | | | 54.0 | | | | 36.0 | | | 36.0 |
| Yellow Time (s) | | 3.7 | | | 3.7 | | | | 3.0 | | | 3.0 |
| All-Red Time (s) | | 2.3 | | | 2.3 | | | | 1.0 | | | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | | | 4.0 | | | 4.0 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | | 3.0 | | | 3.0 | | | | 3.0 | | | 3.0 |
| Recall Mode | | C-Max | | | C-Max | | | | None | | | None |
| Walk Time (s) | | 15.0 | | | 15.0 | | | | 24.0 | | | 24.0 |
| Flash Dont Walk (s) | | 14.0 | | | 14.0 | | | | 12.0 | | | 12.0 |
| Pedestrian Calls (#/hr) | | 30 | | | 30 | | | | 20 | | | 20 |
| Act Effct Green (s) | | 71.8 | | | 71.8 | | | | 18.2 | | | 18.2 |
| Actuated g/C Ratio | | 0.72 | | | 0.72 | | | | 0.18 | | | 0.18 |
| v/c Ratio | | 0.70 | | | 0.49 | | | | 0.00 | | | 0.32 |
| Control Delay | | 14.5 | | | 8.1 | | | | 0.0 | | | 13.4 |
| Queue Delay | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Total Delay | | 14.5 | | | 8.1 | | | | 0.0 | | | 13.4 |
| LOS | | B | | | A | | | | A | | | B |
| Approach Delay | | 14.5 | | | 8.1 | | | | | | 13.4 | |
| Approach LOS | | B | | | A | | | | | | B | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 4 (4%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 90 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.70 | | | |
| Intersection Signal Delay: 11.9 | | Intersection LOS: B | |
| Intersection Capacity Utilization 57.5% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 26: Residential/Cadboro Road & Ogilvie Road



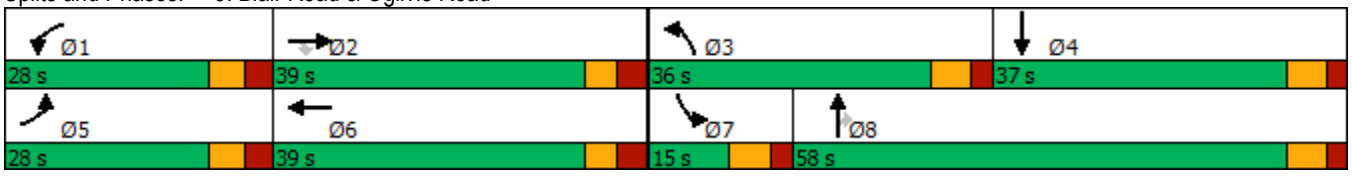


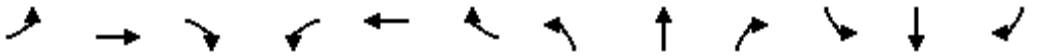
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 87 | 442 | 195 | 644 | 739 | 50 | 645 | 663 | 624 | 69 | 334 | 111 |
| Future Volume (vph) | 87 | 442 | 195 | 644 | 739 | 50 | 645 | 663 | 624 | 69 | 334 | 111 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 0.0 | 110.0 | | 0.0 | 120.0 | | 0.0 | 30.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | 2 | | 1 | 1 | | 0 |
| Taper Length (m) | 40.0 | | | 60.0 | | | 60.0 | | | 45.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 | 0.95 | 0.97 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | 1.00 | | | | | | 0.99 | |
| Frt | | | 0.850 | | 0.990 | | | | 0.850 | | 0.963 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1679 | 3357 | 1502 | 3257 | 3307 | 0 | 3257 | 1767 | 1502 | 1679 | 3190 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1679 | 3357 | 1502 | 3257 | 3307 | 0 | 3257 | 1767 | 1502 | 1679 | 3190 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 195 | | 5 | | | | 421 | | 30 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 372.0 | | | 396.5 | | | 239.9 | | | 411.0 | |
| Travel Time (s) | | 22.3 | | | 23.8 | | | 14.4 | | | 24.7 | |
| Confl. Peds. (#/hr) | | | | | | 25 | | | | | | 27 |
| Confl. Bikes (#/hr) | | | | | | 3 | | | | | | 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% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% |
| Adj. Flow (vph) | 87 | 442 | 195 | 644 | 739 | 50 | 645 | 663 | 624 | 69 | 334 | 111 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 87 | 442 | 195 | 644 | 789 | 0 | 645 | 663 | 624 | 69 | 445 | 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) | | 7.4 | | | 7.4 | | | 7.4 | | | 7.4 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | 1 | 1 | 2 | |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Thru | Right | Left | Thru | |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | |
| Trailing Detector (m) | 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 | |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | |
| Detector 1 Type | 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 | |
| Detector 1 Queue (s) | 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 | |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | |
| Minimum Split (s) | 11.8 | 38.6 | 38.6 | 11.8 | 38.6 | | 11.5 | 35.5 | 35.5 | 11.5 | 35.5 | |
| Total Split (s) | 28.0 | 39.0 | 39.0 | 28.0 | 39.0 | | 36.0 | 58.0 | 58.0 | 15.0 | 37.0 | |
| Total Split (%) | 20.0% | 27.9% | 27.9% | 20.0% | 27.9% | | 25.7% | 41.4% | 41.4% | 10.7% | 26.4% | |
| Maximum Green (s) | 21.2 | 32.4 | 32.4 | 21.2 | 32.4 | | 29.5 | 51.5 | 51.5 | 8.5 | 30.5 | |
| Yellow Time (s) | 3.7 | 3.3 | 3.3 | 3.7 | 3.3 | | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | |
| All-Red Time (s) | 3.1 | 3.3 | 3.3 | 3.1 | 3.3 | | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.8 | 6.6 | 6.6 | 6.8 | 6.6 | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | 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 | |
| Recall Mode | None | Max | Max | None | Max | | None | None | None | None | None | |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 25.0 | 25.0 | | 25.0 | | | 22.0 | 22.0 | | 22.0 | |
| Pedestrian Calls (#/hr) | | 20 | 20 | | 20 | | | 25 | 25 | | 25 | |
| Act Effct Green (s) | 12.6 | 32.4 | 32.4 | 21.2 | 41.0 | | 29.2 | 51.5 | 51.5 | 8.2 | 30.6 | |
| Actuated g/C Ratio | 0.09 | 0.23 | 0.23 | 0.15 | 0.29 | | 0.21 | 0.37 | 0.37 | 0.06 | 0.22 | |
| v/c Ratio | 0.58 | 0.57 | 0.39 | 1.30 | 0.81 | | 0.95 | 1.02 | 0.76 | 0.70 | 0.62 | |
| Control Delay | 75.4 | 50.9 | 8.1 | 196.3 | 53.5 | | 78.5 | 83.3 | 18.8 | 99.2 | 50.2 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 75.4 | 50.9 | 8.1 | 196.3 | 53.5 | | 78.5 | 83.3 | 18.8 | 99.2 | 50.2 | |
| LOS | E | D | A | F | D | | E | F | B | F | D | |
| Approach Delay | | 42.3 | | | 117.7 | | | 60.9 | | | 56.8 | |
| Approach LOS | | D | | | F | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 140 | | | |
| Actuated Cycle Length: 139.7 | | | |
| Natural Cycle: 150 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 1.30 | | | |
| Intersection Signal Delay: 75.2 | | Intersection LOS: E | |
| Intersection Capacity Utilization 95.3% | | ICU Level of Service F | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 3: Blair Road & Ogilvie Road



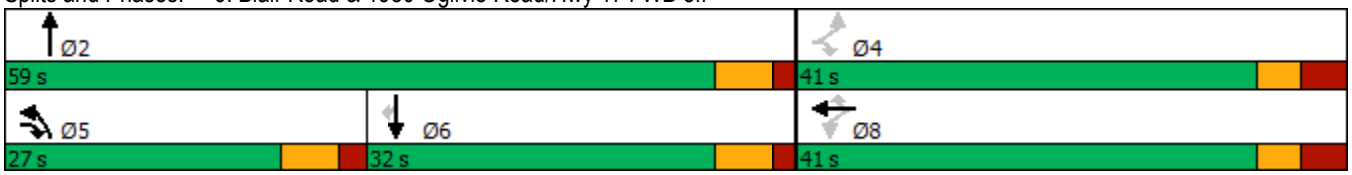


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 87 | 0 | 371 | 115 | 150 | 303 | 281 | 1455 | 0 | 0 | 866 | 109 |
| Future Volume (vph) | 87 | 0 | 371 | 115 | 150 | 303 | 281 | 1455 | 0 | 0 | 866 | 109 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 70.0 | 0.0 | | 70.0 | 60.0 | | 0.0 | 0.0 | | 50.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 2 | | 0 | 0 | | 1 |
| Taper Length (m) | 7.6 | | | 7.6 | | | 100.0 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 0.95 | 1.00 | 1.00 | 0.91 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (prot) | 1340 | 0 | 1199 | 1695 | 1784 | 1517 | 3164 | 3262 | 0 | 0 | 4732 | 1473 |
| Flt Permitted | 0.662 | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (perm) | 934 | 0 | 1199 | 1695 | 1784 | 1517 | 3164 | 3262 | 0 | 0 | 4732 | 1473 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 34 | | | 104 | | | | | | 111 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 518.9 | | | 416.4 | | | 90.2 | | | 239.9 | |
| Travel Time (s) | | 31.1 | | | 25.0 | | | 5.4 | | | 14.4 | |
| 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 (%) | 29% | 29% | 29% | 2% | 2% | 2% | 6% | 6% | 6% | 5% | 5% | 5% |
| Adj. Flow (vph) | 87 | 0 | 371 | 115 | 150 | 303 | 281 | 1455 | 0 | 0 | 866 | 109 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 87 | 0 | 371 | 115 | 150 | 303 | 281 | 1455 | 0 | 0 | 866 | 109 |
| 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) | | 3.7 | | | 3.7 | | | 7.4 | | | 7.4 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | | 1 | 1 | 2 | 1 | 1 | 2 | | | 2 | 1 |
| Detector Template | Left | | Right | Left | Thru | Right | Left | Thru | | | Thru | Right |
| Leading Detector (m) | 6.1 | | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | | pm+ov | Perm | NA | Perm | Prot | NA | | | NA | Perm |
| Protected Phases | | | 5 | | 8 | | 5 | 2 | | | 6 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | | | 6 |
| Detector Phase | 4 | | 5 | 8 | 8 | 8 | 5 | 2 | | | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | | 5.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | | | 10.0 | 10.0 |
| Minimum Split (s) | 16.8 | | 11.4 | 36.8 | 36.8 | 36.8 | 11.4 | 30.1 | | | 30.1 | 30.1 |
| Total Split (s) | 41.0 | | 27.0 | 41.0 | 41.0 | 41.0 | 27.0 | 59.0 | | | 32.0 | 32.0 |
| Total Split (%) | 41.0% | | 27.0% | 41.0% | 41.0% | 41.0% | 27.0% | 59.0% | | | 32.0% | 32.0% |
| Maximum Green (s) | 34.2 | | 20.6 | 34.2 | 34.2 | 34.2 | 20.6 | 52.9 | | | 25.9 | 25.9 |
| Yellow Time (s) | 3.3 | | 4.2 | 3.3 | 3.3 | 3.3 | 4.2 | 4.2 | | | 4.2 | 4.2 |
| All-Red Time (s) | 3.5 | | 2.2 | 3.5 | 3.5 | 3.5 | 2.2 | 1.9 | | | 1.9 | 1.9 |
| 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) | 6.8 | | 6.4 | 6.8 | 6.8 | 6.8 | 6.4 | 6.1 | | | 6.1 | 6.1 |
| 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 | 3.0 | | | 3.0 | 3.0 |
| Recall Mode | None | | None | None | None | None | None | Max | | | Max | Max |
| Walk Time (s) | | | | 7.0 | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | | | 23.0 | 23.0 | 23.0 | | 17.0 | | | 17.0 | 17.0 |
| Pedestrian Calls (#/hr) | | | | 20 | 20 | 20 | | 20 | | | 20 | 20 |
| Act Effct Green (s) | 19.5 | | 39.6 | 19.5 | 19.5 | 19.5 | 13.2 | 53.4 | | | 33.8 | 33.8 |
| Actuated g/C Ratio | 0.23 | | 0.46 | 0.23 | 0.23 | 0.23 | 0.15 | 0.62 | | | 0.39 | 0.39 |
| v/c Ratio | 0.41 | | 0.65 | 0.30 | 0.37 | 0.71 | 0.58 | 0.72 | | | 0.47 | 0.17 |
| Control Delay | 33.2 | | 20.7 | 28.3 | 29.6 | 28.9 | 39.5 | 15.5 | | | 22.7 | 5.8 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 33.2 | | 20.7 | 28.3 | 29.6 | 28.9 | 39.5 | 15.5 | | | 22.7 | 5.8 |
| LOS | C | | C | C | C | C | D | B | | | C | A |
| Approach Delay | | 23.1 | | | 29.0 | | | 19.4 | | | 20.8 | |
| Approach LOS | | C | | | C | | | B | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 86 | | | |
| Natural Cycle: 80 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.72 | | | |
| Intersection Signal Delay: 21.7 | | Intersection LOS: C | |
| Intersection Capacity Utilization 81.4% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 6: Blair Road & 1980 Ogilvie Road/Hwy 174 WB off



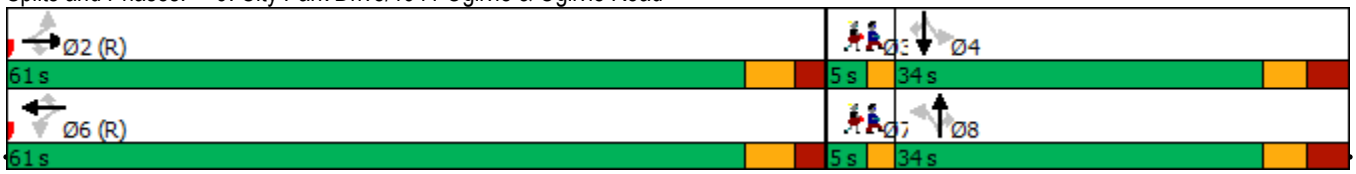
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 102 | 681 | 78 | 87 | 1023 | 174 | 59 | 23 | 61 | 5 | 2 | 9 |
| Future Volume (vph) | 102 | 681 | 78 | 87 | 1023 | 174 | 59 | 23 | 61 | 5 | 2 | 9 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 40.0 | | 100.0 | 100.0 | | 50.0 | 0.0 | | 60.0 | 20.0 | | 10.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 0 | | 1 | 1 | | 1 |
| Taper Length (m) | 30.0 | | | 25.0 | | | 7.6 | | | 15.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.97 | | 0.87 | 0.96 | | 0.81 | | 0.96 | 0.93 | 0.95 | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.965 | | 0.950 | | |
| Satd. Flow (prot) | 1695 | 3390 | 1517 | 1679 | 3357 | 1502 | 0 | 1626 | 1432 | 1695 | 1784 | 1517 |
| Flt Permitted | 0.243 | | | 0.378 | | | | 0.786 | | 0.704 | | |
| Satd. Flow (perm) | 420 | 3390 | 1320 | 641 | 3357 | 1211 | 0 | 1269 | 1334 | 1193 | 1784 | 1517 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 78 | | | 174 | | | 61 | | | 56 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 224.7 | | | 372.0 | | | 239.4 | | | 142.3 | |
| Travel Time (s) | | 13.5 | | | 22.3 | | | 14.4 | | | 8.5 | |
| Confl. Peds. (#/hr) | 100 | | 65 | 65 | | 100 | 53 | | 51 | 51 | | |
| Confl. Bikes (#/hr) | | | | | | 9 | | | 2 | | | |
| 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 (%) | 2% | 2% | 2% | 3% | 3% | 3% | 8% | 8% | 8% | 2% | 2% | 2% |
| Adj. Flow (vph) | 102 | 681 | 78 | 87 | 1023 | 174 | 59 | 23 | 61 | 5 | 2 | 9 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 102 | 681 | 78 | 87 | 1023 | 174 | 0 | 82 | 61 | 5 | 2 | 9 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 |
| 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) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 |
| 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) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Storage Length (m) | | |
| Storage Lanes | | |
| Taper Length (m) | | |
| Lane Util. Factor | | |
| Ped Bike Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (k/h) | | |
| Link Distance (m) | | |
| Travel Time (s) | | |
| Confl. Peds. (#/hr) | | |
| Confl. Bikes (#/hr) | | |
| Peak Hour Factor | | |
| Heavy Vehicles (%) | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(m) | | |
| Link Offset(m) | | |
| Crosswalk Width(m) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (k/h) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (m) | | |
| Trailing Detector (m) | | |
| Detector 1 Position(m) | | |
| Detector 1 Size(m) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(m) | | |
| Detector 2 Size(m) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 2 | | | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | 8 | 4 | | 4 |
| Detector Phase | 2 | 2 | 2 | 6 | 6 | 6 | 8 | 8 | 8 | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 |
| Total Split (s) | 61.0 | 61.0 | 61.0 | 61.0 | 61.0 | 61.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 |
| Total Split (%) | 61.0% | 61.0% | 61.0% | 61.0% | 61.0% | 61.0% | 34.0% | 34.0% | 34.0% | 34.0% | 34.0% | 34.0% |
| Maximum Green (s) | 54.9 | 54.9 | 54.9 | 54.9 | 54.9 | 54.9 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |
| Lead/Lag | | | | | | | Lag | Lag | Lag | Lag | Lag | 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 | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max | None | None | None | None | None | None |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Flash Dont Walk (s) | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| Pedestrian Calls (#/hr) | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| Act Effct Green (s) | 68.7 | 68.7 | 68.7 | 68.7 | 68.7 | 68.7 | | 20.2 | 20.2 | 20.2 | 20.2 | 20.2 |
| Actuated g/C Ratio | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 |
| v/c Ratio | 0.35 | 0.29 | 0.08 | 0.20 | 0.44 | 0.20 | | 0.32 | 0.19 | 0.02 | 0.01 | 0.03 |
| Control Delay | 8.1 | 2.9 | 0.3 | 11.7 | 11.4 | 2.3 | | 34.8 | 9.1 | 27.2 | 27.0 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 8.1 | 2.9 | 0.3 | 11.7 | 11.4 | 2.3 | | 34.8 | 9.1 | 27.2 | 27.0 | 0.1 |
| LOS | A | A | A | B | B | A | | C | A | C | C | A |
| Approach Delay | | 3.3 | | | 10.2 | | | 23.8 | | | 11.9 | |
| Approach LOS | | A | | | B | | | C | | | B | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 13 (13%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 80 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.44 | | | |
| Intersection Signal Delay: 8.5 | | Intersection LOS: A | |
| Intersection Capacity Utilization 74.2% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 9: City Park Drive/1941 Ogilvie & Ogilvie Road



| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Detector 2 Extend (s) | | |
| Turn Type | | |
| Protected Phases | 3 | 7 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 1.0 | 1.0 |
| Minimum Split (s) | 5.0 | 5.0 |
| Total Split (s) | 5.0 | 5.0 |
| Total Split (%) | 5% | 5% |
| Maximum Green (s) | 3.0 | 3.0 |
| Yellow Time (s) | 2.0 | 2.0 |
| All-Red Time (s) | 0.0 | 0.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | None | None |
| Walk Time (s) | 0.0 | 0.0 |
| Flash Dont Walk (s) | 0.0 | 0.0 |
| Pedestrian Calls (#/hr) | 35 | 35 |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

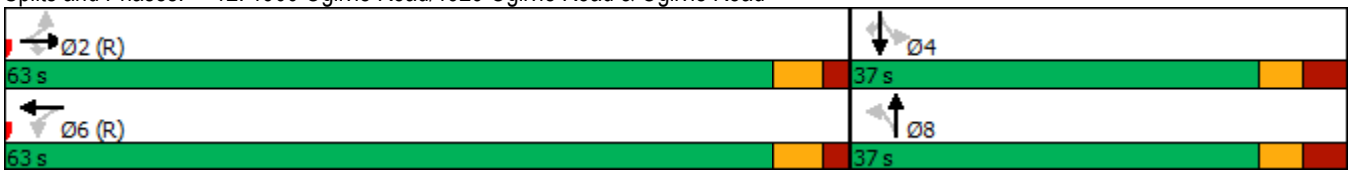
| Intersection Summary |
|---|

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 99 | 832 | 27 | 19 | 1151 | 44 | 9 | 1 | 12 | 42 | 11 | 63 |
| Future Volume (vph) | 99 | 832 | 27 | 19 | 1151 | 44 | 9 | 1 | 12 | 42 | 11 | 63 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 60.0 | | 80.0 | 90.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 0 | 0 | | 1 |
| Taper Length (m) | 30.0 | | | 20.0 | | | 7.6 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.95 | 0.99 | 1.00 | | 0.96 | 0.95 | | | 0.96 | 0.94 |
| Frt | | | 0.850 | | 0.994 | | | 0.862 | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | 0.962 | |
| Satd. Flow (prot) | 1695 | 3390 | 1517 | 1679 | 3324 | 0 | 1695 | 1454 | 0 | 0 | 1717 | 1517 |
| Flt Permitted | 0.195 | | | 0.316 | | | 0.722 | | | | 0.774 | |
| Satd. Flow (perm) | 344 | 3390 | 1434 | 553 | 3324 | 0 | 1232 | 1454 | 0 | 0 | 1329 | 1429 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 40 | | 6 | | | 12 | | | | 61 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 190.5 | | | 224.7 | | | 86.0 | | | 56.6 | |
| Travel Time (s) | | 11.4 | | | 13.5 | | | 5.2 | | | 3.4 | |
| Confl. Peds. (#/hr) | 41 | | 17 | 17 | | 41 | 47 | | 48 | 48 | | 47 |
| 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 (%) | 2% | 2% | 2% | 3% | 3% | 3% | 2% | 2% | 2% | 2% | 2% | 2% |
| Adj. Flow (vph) | 99 | 832 | 27 | 19 | 1151 | 44 | 9 | 1 | 12 | 42 | 11 | 63 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 99 | 832 | 27 | 19 | 1195 | 0 | 9 | 13 | 0 | 0 | 53 | 63 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Thru | | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turn Type | Perm | NA | Perm | Perm | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | | 2 | | | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | | 8 | | | 4 | | 4 |
| Detector Phase | 2 | 2 | 2 | 6 | 6 | | 8 | 8 | | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | | 36.7 | 36.7 | | 36.7 | 36.7 | 36.7 |
| Total Split (s) | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | | 37.0 | 37.0 | | 37.0 | 37.0 | 37.0 |
| Total Split (%) | 63.0% | 63.0% | 63.0% | 63.0% | 63.0% | | 37.0% | 37.0% | | 37.0% | 37.0% | 37.0% |
| Maximum Green (s) | 57.1 | 57.1 | 57.1 | 57.1 | 57.1 | | 30.3 | 30.3 | | 30.3 | 30.3 | 30.3 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | | 3.3 | 3.3 | | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | | 3.4 | 3.4 | | 3.4 | 3.4 | 3.4 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | 5.9 | 5.9 | 5.9 | 5.9 | 5.9 | | 6.7 | 6.7 | | | 6.7 | 6.7 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max | C-Max | C-Max | C-Max | | None | None | | None | None | None |
| Walk Time (s) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | 23.0 |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 10 | 10 | | 30 | 30 | | 30 | 30 | 30 |
| Act Effct Green (s) | 69.9 | 69.9 | 69.9 | 69.9 | 69.9 | | 22.0 | 22.0 | | | 22.0 | 22.0 |
| Actuated g/C Ratio | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | | 0.22 | 0.22 | | | 0.22 | 0.22 |
| v/c Ratio | 0.41 | 0.35 | 0.03 | 0.05 | 0.51 | | 0.03 | 0.04 | | | 0.18 | 0.17 |
| Control Delay | 17.1 | 8.5 | 1.6 | 5.7 | 5.5 | | 25.2 | 13.3 | | | 29.3 | 8.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 17.1 | 8.5 | 1.6 | 5.7 | 5.5 | | 25.2 | 13.3 | | | 29.3 | 8.5 |
| LOS | B | A | A | A | A | | C | B | | | C | A |
| Approach Delay | | 9.2 | | | 5.5 | | | 18.2 | | | 18.0 | |
| Approach LOS | | A | | | A | | | B | | | B | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 12 (12%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 80 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.51 | | | |
| Intersection Signal Delay: 7.8 | | Intersection LOS: A | |
| Intersection Capacity Utilization 94.4% | | ICU Level of Service F | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 12: 1900 Ogilvie Road/1929 Ogilvie Road & Ogilvie Road



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 156 | 598 | 88 | 14 | 981 | 161 | 86 | 38 | 13 | 119 | 27 | 178 |
| Future Volume (vph) | 156 | 598 | 88 | 14 | 981 | 161 | 86 | 38 | 13 | 119 | 27 | 178 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 40.0 | 45.0 | | 70.0 | 30.0 | | 0.0 | 20.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 30.0 | | | 30.0 | | | 25.0 | | | 25.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.92 | 0.98 | | 0.89 | 0.99 | 0.99 | | 0.98 | 0.98 | |
| Frt | | | 0.850 | | | 0.850 | | 0.962 | | | 0.870 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1679 | 3357 | 1502 | 1679 | 3357 | 1502 | 1631 | 1637 | 0 | 1647 | 1474 | 0 |
| Flt Permitted | 0.179 | | | 0.426 | | | 0.629 | | | 0.603 | | |
| Satd. Flow (perm) | 312 | 3357 | 1389 | 737 | 3357 | 1340 | 1069 | 1637 | 0 | 1023 | 1474 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 121 | | | 161 | | 13 | | | 178 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 257.6 | | | 190.5 | | | 345.6 | | | 177.6 | |
| Travel Time (s) | | 15.5 | | | 11.4 | | | 20.7 | | | 10.7 | |
| Confl. Peds. (#/hr) | 43 | | 27 | 27 | | 43 | 14 | | 23 | 23 | | 14 |
| 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% | 3% | 3% | 3% | 3% | 3% | 6% | 6% | 6% | 5% | 5% | 5% |
| Adj. Flow (vph) | 156 | 598 | 88 | 14 | 981 | 161 | 86 | 38 | 13 | 119 | 27 | 178 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 156 | 598 | 88 | 14 | 981 | 161 | 86 | 51 | 0 | 119 | 205 | 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | | Left | Thru | |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | |
| Trailing Detector (m) | 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 | |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | |
| Detector 1 Type | 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 | |
| Detector 1 Queue (s) | 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 | |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | |

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Storage Length (m) | | |
| Storage Lanes | | |
| Taper Length (m) | | |
| Lane Util. Factor | | |
| Ped Bike Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (k/h) | | |
| Link Distance (m) | | |
| Travel Time (s) | | |
| Confl. Peds. (#/hr) | | |
| Peak Hour Factor | | |
| Heavy Vehicles (%) | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(m) | | |
| Link Offset(m) | | |
| Crosswalk Width(m) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (k/h) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (m) | | |
| Trailing Detector (m) | | |
| Detector 1 Position(m) | | |
| Detector 1 Size(m) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(m) | | |
| Detector 2 Size(m) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | | |

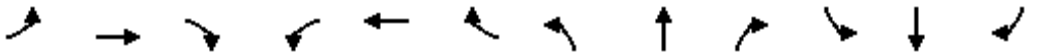
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 9.7 | 30.0 | 30.0 | 9.7 | 30.0 | 30.0 | 37.4 | 37.4 | | 37.4 | 37.4 | |
| Total Split (s) | 15.0 | 42.0 | 42.0 | 15.0 | 42.0 | 42.0 | 38.0 | 38.0 | | 38.0 | 38.0 | |
| Total Split (%) | 15.0% | 42.0% | 42.0% | 15.0% | 42.0% | 42.0% | 38.0% | 38.0% | | 38.0% | 38.0% | |
| Maximum Green (s) | 10.3 | 36.0 | 36.0 | 10.3 | 36.0 | 36.0 | 30.6 | 30.6 | | 30.6 | 30.6 | |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.0 | 2.3 | 2.3 | 1.0 | 2.3 | 2.3 | 4.4 | 4.4 | | 4.4 | 4.4 | |
| 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) | 4.7 | 6.0 | 6.0 | 4.7 | 6.0 | 6.0 | 7.4 | 7.4 | | 7.4 | 7.4 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lag | Lag | | Lag | Lag | |
| Lead-Lag Optimize? | Yes | 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 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | | None | None | |
| Walk Time (s) | | 9.0 | 9.0 | | 9.0 | 9.0 | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Flash Dont Walk (s) | | 15.0 | 15.0 | | 15.0 | 15.0 | 28.0 | 28.0 | | 28.0 | 28.0 | |
| Pedestrian Calls (#/hr) | | 15 | 15 | | 15 | 15 | 15 | 15 | | 15 | 15 | |
| Act Effct Green (s) | 63.3 | 59.9 | 59.9 | 55.7 | 48.5 | 48.5 | 19.5 | 19.5 | | 19.5 | 19.5 | |
| Actuated g/C Ratio | 0.63 | 0.60 | 0.60 | 0.56 | 0.48 | 0.48 | 0.20 | 0.20 | | 0.20 | 0.20 | |
| v/c Ratio | 0.49 | 0.30 | 0.10 | 0.03 | 0.60 | 0.22 | 0.42 | 0.16 | | 0.60 | 0.48 | |
| Control Delay | 25.7 | 21.4 | 10.1 | 6.1 | 12.4 | 1.2 | 38.5 | 24.0 | | 47.2 | 10.2 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 25.7 | 21.4 | 10.1 | 6.1 | 12.4 | 1.2 | 38.5 | 24.0 | | 47.2 | 10.2 | |
| LOS | C | C | B | A | B | A | D | C | | D | B | |
| Approach Delay | | 21.0 | | | 10.8 | | | 33.1 | | | 23.8 | |
| Approach LOS | | C | | | B | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 29 (29%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 85 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.60 | | | |
| Intersection Signal Delay: 17.2 | | Intersection LOS: B | |
| Intersection Capacity Utilization 85.6% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 15: City Park Drive/Bathgate Drive & Ogilvie Road

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Turn Type | | |
| Protected Phases | 3 | 7 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 1.0 | 1.0 |
| Minimum Split (s) | 5.0 | 5.0 |
| Total Split (s) | 5.0 | 5.0 |
| Total Split (%) | 5% | 5% |
| Maximum Green (s) | 3.0 | 3.0 |
| Yellow Time (s) | 2.0 | 2.0 |
| All-Red Time (s) | 0.0 | 0.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | Ped | Ped |
| Walk Time (s) | 0.0 | 0.0 |
| Flash Dont Walk (s) | 0.0 | 0.0 |
| Pedestrian Calls (#/hr) | 15 | 15 |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

| Intersection Summary |
|---|

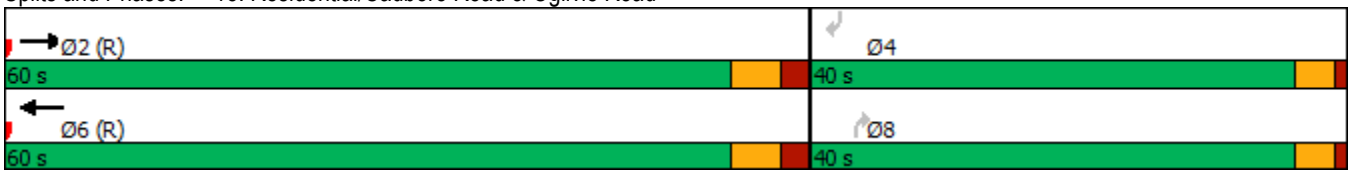


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 1216 | 9 | 0 | 1271 | 57 | 0 | 0 | 6 | 0 | 0 | 21 |
| Future Volume (vph) | 0 | 1216 | 9 | 0 | 1271 | 57 | 0 | 0 | 6 | 0 | 0 | 21 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.999 | | | 0.994 | | | | 0.865 | | | 0.865 |
| Flt Protected | | | | | | | | | | | | |
| Satd. Flow (prot) | 0 | 3387 | 0 | 0 | 3370 | 0 | 0 | 0 | 1543 | 0 | 0 | 1543 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 3387 | 0 | 0 | 3370 | 0 | 0 | 0 | 1543 | 0 | 0 | 1543 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 1 | | | 7 | | | | 53 | | | 46 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 264.5 | | | 257.6 | | | 90.1 | | | 116.1 | |
| Travel Time (s) | | 15.9 | | | 15.5 | | | 5.4 | | | 7.0 | |
| 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 |
| Adj. Flow (vph) | 0 | 1216 | 9 | 0 | 1271 | 57 | 0 | 0 | 6 | 0 | 0 | 21 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1225 | 0 | 0 | 1328 | 0 | 0 | 0 | 6 | 0 | 0 | 21 |
| 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) | | 3.7 | | | 3.7 | | | 0.0 | | | 0.0 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 1.6 | | | 1.6 | | | 1.6 | | | 1.6 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | | 2 | | | 2 | | | | 1 | | | 1 |
| Detector Template | | Thru | | | Thru | | | | Right | | | Right |
| Leading Detector (m) | | 10.0 | | | 10.0 | | | | 2.0 | | | 2.0 |
| Trailing Detector (m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Position(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Size(m) | | 0.6 | | | 0.6 | | | | 2.0 | | | 2.0 |
| Detector 1 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Queue (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Delay (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 2 Position(m) | | 9.4 | | | 9.4 | | | | | | | |
| Detector 2 Size(m) | | 0.6 | | | 0.6 | | | | | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | | | | |
| Turn Type | | NA | | | NA | | | | Perm | | | Perm |
| Protected Phases | | 2 | | | 6 | | | | | | | |
| Permitted Phases | | | | | | | | | 8 | | | 4 |
| Detector Phase | | 2 | | | 6 | | | | 8 | | | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 10.0 | | | 10.0 | | | | 5.0 | | | 5.0 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | 35.0 | | | 35.0 | | | | 40.0 | | | 40.0 |
| Total Split (s) | | 60.0 | | | 60.0 | | | | 40.0 | | | 40.0 |
| Total Split (%) | | 60.0% | | | 60.0% | | | | 40.0% | | | 40.0% |
| Maximum Green (s) | | 54.0 | | | 54.0 | | | | 36.0 | | | 36.0 |
| Yellow Time (s) | | 3.7 | | | 3.7 | | | | 3.0 | | | 3.0 |
| All-Red Time (s) | | 2.3 | | | 2.3 | | | | 1.0 | | | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | | | 4.0 | | | 4.0 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | | 3.0 | | | 3.0 | | | | 3.0 | | | 3.0 |
| Recall Mode | | C-Max | | | C-Max | | | | None | | | None |
| Walk Time (s) | | 15.0 | | | 15.0 | | | | 24.0 | | | 24.0 |
| Flash Dont Walk (s) | | 14.0 | | | 14.0 | | | | 12.0 | | | 12.0 |
| Pedestrian Calls (#/hr) | | 20 | | | 20 | | | | 15 | | | 15 |
| Act Effct Green (s) | | 78.5 | | | 78.5 | | | | 17.7 | | | 17.7 |
| Actuated g/C Ratio | | 0.78 | | | 0.78 | | | | 0.18 | | | 0.18 |
| v/c Ratio | | 0.46 | | | 0.50 | | | | 0.02 | | | 0.07 |
| Control Delay | | 7.0 | | | 4.4 | | | | 0.2 | | | 2.1 |
| Queue Delay | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Total Delay | | 7.0 | | | 4.4 | | | | 0.2 | | | 2.1 |
| LOS | | A | | | A | | | | A | | | A |
| Approach Delay | | 7.0 | | | 4.4 | | | 0.2 | | | 2.1 | |
| Approach LOS | | A | | | A | | | A | | | A | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 42 (42%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 80 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.50 | | | |
| Intersection Signal Delay: 5.6 | | Intersection LOS: A | |
| Intersection Capacity Utilization 51.5% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 18: Residential/Cadboro Road & Ogilvie Road

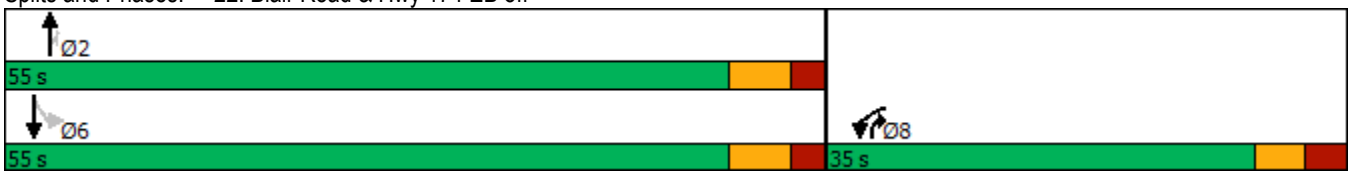


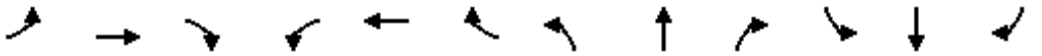
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 198 | 1015 | 925 | 81 | 183 | 485 |
| Future Volume (vph) | 198 | 1015 | 925 | 81 | 183 | 485 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | 0.0 | | 70.0 | 0.0 | |
| Storage Lanes | 1 | 1 | | 1 | 0 | |
| Taper Length (m) | 7.6 | | | | 7.6 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | | 0.986 |
| Satd. Flow (prot) | 1647 | 1473 | 3325 | 1488 | 0 | 3217 |
| Flt Permitted | 0.950 | | | | | 0.576 |
| Satd. Flow (perm) | 1647 | 1473 | 3325 | 1488 | 0 | 1879 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 476 | | | | |
| Link Speed (k/h) | 60 | | 60 | | | 60 |
| Link Distance (m) | 216.4 | | 230.9 | | | 341.9 |
| Travel Time (s) | 13.0 | | 13.9 | | | 20.5 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Heavy Vehicles (%) | 5% | 5% | 4% | 4% | 6% | 6% |
| Adj. Flow (vph) | 198 | 1015 | 925 | 81 | 183 | 485 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 198 | 1015 | 925 | 81 | 0 | 668 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(m) | 3.7 | | 0.0 | | | 0.0 |
| Link Offset(m) | 0.0 | | 0.0 | | | 0.0 |
| Crosswalk Width(m) | 4.9 | | 4.9 | | | 4.9 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | 14 | | 14 | 24 | |
| Number of Detectors | 1 | 1 | 2 | 1 | 1 | 2 |
| Detector Template | Left | Right | Thru | Right | Left | Thru |
| Leading Detector (m) | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | | 28.7 | | | 28.7 |
| Detector 2 Size(m) | | | 1.8 | | | 1.8 |
| Detector 2 Type | | | Cl+Ex | | | Cl+Ex |
| Detector 2 Channel | | | | | | |
| Detector 2 Extend (s) | | | 0.0 | | | 0.0 |
| Turn Type | Prot | Free | NA | pm+ov | Perm | NA |
| Protected Phases | 8 | | 2 | 8 | | 6 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Permitted Phases | | Free | | 2 | 6 | |
| Detector Phase | 8 | | 2 | 8 | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 25.3 | | 30.5 | 25.3 | 16.5 | 16.5 |
| Total Split (s) | 35.0 | | 55.0 | 35.0 | 55.0 | 55.0 |
| Total Split (%) | 38.9% | | 61.1% | 38.9% | 61.1% | 61.1% |
| Maximum Green (s) | 28.7 | | 48.5 | 28.7 | 48.5 | 48.5 |
| Yellow Time (s) | 3.3 | | 4.2 | 3.3 | 4.2 | 4.2 |
| All-Red Time (s) | 3.0 | | 2.3 | 3.0 | 2.3 | 2.3 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 6.3 | | 6.5 | 6.3 | | 6.5 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | | Max | None | Max | Max |
| Walk Time (s) | 7.0 | | 7.0 | 7.0 | | |
| Flash Dont Walk (s) | 12.0 | | 17.0 | 12.0 | | |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | | |
| Act Effct Green (s) | 14.2 | 75.7 | 48.6 | 75.7 | | 48.6 |
| Actuated g/C Ratio | 0.19 | 1.00 | 0.64 | 1.00 | | 0.64 |
| v/c Ratio | 0.64 | 0.69 | 0.43 | 0.05 | | 0.55 |
| Control Delay | 38.1 | 2.7 | 8.0 | 0.1 | | 10.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 38.1 | 2.7 | 8.0 | 0.1 | | 10.5 |
| LOS | D | A | A | A | | B |
| Approach Delay | 8.4 | | 7.4 | | | 10.5 |
| Approach LOS | A | | A | | | B |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 90 | | | |
| Actuated Cycle Length: 75.7 | | | |
| Natural Cycle: 60 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.69 | | | |
| Intersection Signal Delay: 8.6 | | Intersection LOS: A | |
| Intersection Capacity Utilization 74.4% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 22: Blair Road & Hwy 174 EB off



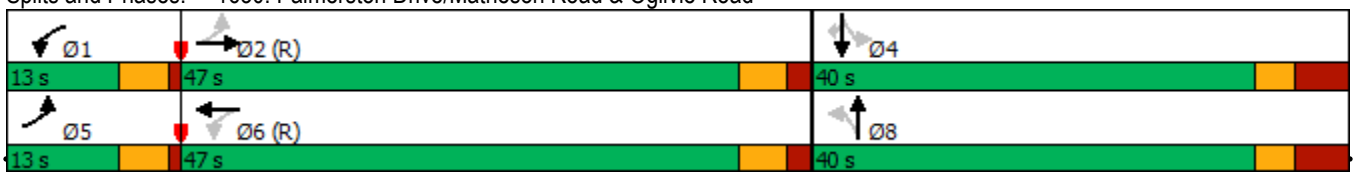


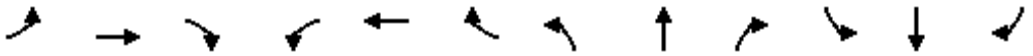
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 83 | 1085 | 21 | 33 | 1264 | 14 | 57 | 2 | 26 | 25 | 2 | 171 |
| Future Volume (vph) | 83 | 1085 | 21 | 33 | 1264 | 14 | 57 | 2 | 26 | 25 | 2 | 171 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 0.0 | 70.0 | | 0.0 | 15.0 | | 0.0 | 0.0 | | 35.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 0 | | 1 |
| Taper Length (m) | 30.0 | | | 30.0 | | | 7.6 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 1.00 | | 0.99 | 1.00 | | 1.00 | 0.98 | | | 0.99 | 0.99 |
| Frt | | 0.997 | | | 0.998 | | | 0.861 | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | 0.956 | |
| Satd. Flow (prot) | 1695 | 3375 | 0 | 1695 | 3382 | 0 | 1662 | 1471 | 0 | 0 | 1706 | 1517 |
| Flt Permitted | 0.153 | | | 0.216 | | | 0.740 | | | | 0.727 | |
| Satd. Flow (perm) | 273 | 3375 | 0 | 383 | 3382 | 0 | 1290 | 1471 | 0 | 0 | 1282 | 1497 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 2 | | | 1 | | | 26 | | | | 171 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 314.1 | | | 264.5 | | | 176.2 | | | 174.1 | |
| Travel Time (s) | | 18.8 | | | 15.9 | | | 10.6 | | | 10.4 | |
| Confl. Peds. (#/hr) | 11 | | 26 | 26 | | 11 | 4 | | 14 | 14 | | |
| Confl. Bikes (#/hr) | | | 21 | | | 9 | | | 2 | | | 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 (%) | 2% | 2% | 2% | 2% | 2% | 2% | 4% | 4% | 4% | 2% | 2% | 2% |
| Adj. Flow (vph) | 83 | 1085 | 21 | 33 | 1264 | 14 | 57 | 2 | 26 | 25 | 2 | 171 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 83 | 1106 | 0 | 33 | 1278 | 0 | 57 | 28 | 0 | 0 | 27 | 171 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | 1 |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | | pm+pt | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | 4 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.7 | 33.6 | | 9.7 | 33.6 | | 40.2 | 40.2 | | 40.2 | 40.2 | 40.2 |
| Total Split (s) | 13.0 | 47.0 | | 13.0 | 47.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | 40.0 |
| Total Split (%) | 13.0% | 47.0% | | 13.0% | 47.0% | | 40.0% | 40.0% | | 40.0% | 40.0% | 40.0% |
| Maximum Green (s) | 8.3 | 41.4 | | 8.3 | 41.4 | | 32.8 | 32.8 | | 32.8 | 32.8 | 32.8 |
| Yellow Time (s) | 3.7 | 3.7 | | 3.7 | 3.7 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 1.0 | 1.9 | | 1.0 | 1.9 | | 4.2 | 4.2 | | 4.2 | 4.2 | 4.2 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | 4.7 | 5.6 | | 4.7 | 5.6 | | 7.2 | 7.2 | | | 7.2 | 7.2 |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | | None | C-Max | | None | None | | None | None | None |
| Walk Time (s) | | 15.0 | | | 15.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 13.0 | | | 13.0 | | 26.0 | 26.0 | | 26.0 | 26.0 | 26.0 |
| Pedestrian Calls (#/hr) | | 10 | | | 10 | | 10 | 10 | | 10 | 10 | 10 |
| Act Effct Green (s) | 70.9 | 65.6 | | 68.9 | 62.9 | | 14.9 | 14.9 | | | 14.9 | 14.9 |
| Actuated g/C Ratio | 0.71 | 0.66 | | 0.69 | 0.63 | | 0.15 | 0.15 | | | 0.15 | 0.15 |
| v/c Ratio | 0.29 | 0.50 | | 0.10 | 0.60 | | 0.30 | 0.12 | | | 0.14 | 0.46 |
| Control Delay | 8.3 | 12.7 | | 4.6 | 7.9 | | 38.9 | 13.0 | | | 34.7 | 9.0 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 8.3 | 12.7 | | 4.6 | 7.9 | | 38.9 | 13.0 | | | 34.7 | 9.0 |
| LOS | A | B | | A | A | | D | B | | | C | A |
| Approach Delay | | 12.4 | | | 7.8 | | | 30.4 | | | 12.5 | |
| Approach LOS | | B | | | A | | | C | | | B | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 54 (54%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 85 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.60 | | | |
| Intersection Signal Delay: 10.8 | | Intersection LOS: B | |
| Intersection Capacity Utilization 80.7% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 1630: Palmerston Drive/Matheson Road & Ogilvie Road



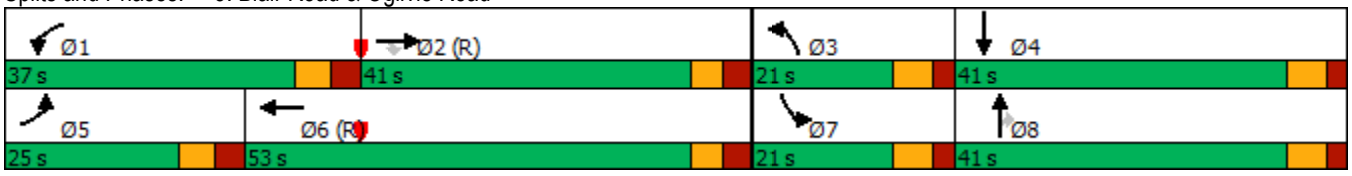


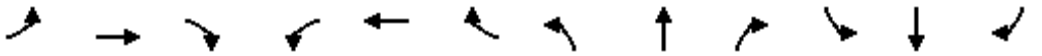
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 150 | 850 | 627 | 875 | 492 | 83 | 218 | 296 | 923 | 75 | 761 | 55 |
| Future Volume (vph) | 150 | 850 | 627 | 875 | 492 | 83 | 218 | 296 | 923 | 75 | 761 | 55 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 0.0 | 110.0 | | 0.0 | 120.0 | | 0.0 | 30.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | 2 | | 1 | 1 | | 0 |
| Taper Length (m) | 40.0 | | | 60.0 | | | 60.0 | | | 45.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 | 0.95 | 0.97 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | 0.99 | | | | | | 0.99 | |
| Frt | | | 0.850 | | 0.978 | | | | 0.850 | | 0.990 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1679 | 3357 | 1502 | 3257 | 3244 | 0 | 3257 | 1767 | 1502 | 1679 | 3294 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1679 | 3357 | 1502 | 3257 | 3244 | 0 | 3257 | 1767 | 1502 | 1679 | 3294 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 223 | | 15 | | | | 443 | | 5 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 372.0 | | | 396.5 | | | 239.9 | | | 411.0 | |
| Travel Time (s) | | 22.3 | | | 23.8 | | | 14.4 | | | 24.7 | |
| Confl. Peds. (#/hr) | | | | | | 29 | | | | | | 84 |
| 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% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% |
| Adj. Flow (vph) | 150 | 850 | 627 | 875 | 492 | 83 | 218 | 296 | 923 | 75 | 761 | 55 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 150 | 850 | 627 | 875 | 575 | 0 | 218 | 296 | 923 | 75 | 816 | 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) | | 7.4 | | | 7.4 | | | 7.4 | | | 7.4 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | 1 | 1 | 2 | |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Thru | Right | Left | Thru | |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | |
| Trailing Detector (m) | 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 | |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | |
| Detector 1 Type | 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 | |
| Detector 1 Queue (s) | 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 | |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | |
| Minimum Split (s) | 11.8 | 38.6 | 38.6 | 11.8 | 38.6 | | 11.5 | 35.5 | 35.5 | 11.5 | 35.5 | |
| Total Split (s) | 25.0 | 41.0 | 41.0 | 37.0 | 53.0 | | 21.0 | 41.0 | 41.0 | 21.0 | 41.0 | |
| Total Split (%) | 17.9% | 29.3% | 29.3% | 26.4% | 37.9% | | 15.0% | 29.3% | 29.3% | 15.0% | 29.3% | |
| Maximum Green (s) | 18.2 | 34.4 | 34.4 | 30.2 | 46.4 | | 14.5 | 34.5 | 34.5 | 14.5 | 34.5 | |
| Yellow Time (s) | 3.7 | 3.3 | 3.3 | 3.7 | 3.3 | | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | |
| All-Red Time (s) | 3.1 | 3.3 | 3.3 | 3.1 | 3.3 | | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.8 | 6.6 | 6.6 | 6.8 | 6.6 | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | 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 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | | None | None | None | None | None | |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 25.0 | 25.0 | | 25.0 | | | 22.0 | 22.0 | | 22.0 | |
| Pedestrian Calls (#/hr) | | 30 | 30 | | 30 | | | 35 | 35 | | 35 | |
| Act Effct Green (s) | 16.2 | 34.4 | 34.4 | 30.2 | 48.4 | | 13.4 | 37.7 | 37.7 | 11.3 | 35.6 | |
| Actuated g/C Ratio | 0.12 | 0.25 | 0.25 | 0.22 | 0.35 | | 0.10 | 0.27 | 0.27 | 0.08 | 0.25 | |
| v/c Ratio | 0.77 | 1.03 | 1.17 | 1.25 | 0.51 | | 0.70 | 0.62 | 1.27 | 0.56 | 0.97 | |
| Control Delay | 85.3 | 90.8 | 124.0 | 167.4 | 37.7 | | 73.6 | 52.3 | 153.8 | 77.1 | 76.0 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 85.3 | 90.8 | 124.0 | 167.4 | 37.7 | | 73.6 | 52.3 | 153.8 | 77.1 | 76.0 | |
| LOS | F | F | F | F | D | | E | D | F | E | E | |
| Approach Delay | | 103.1 | | | 116.0 | | | 120.7 | | | 76.1 | |
| Approach LOS | | F | | | F | | | F | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 140 | | | |
| Actuated Cycle Length: 140 | | | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 150 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 1.27 | | | |
| Intersection Signal Delay: 106.8 | | Intersection LOS: F | |
| Intersection Capacity Utilization 108.3% | | ICU Level of Service G | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 3: Blair Road & Ogilvie Road



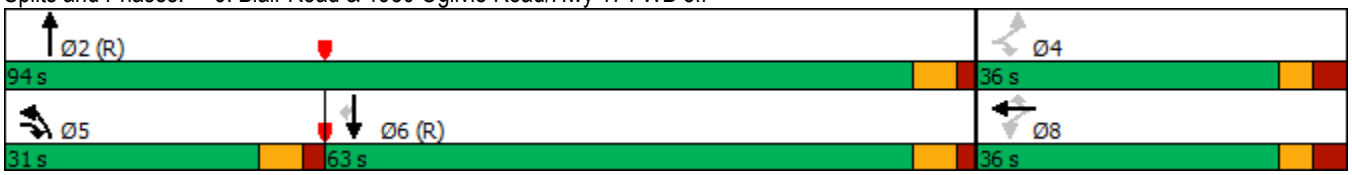


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 123 | 0 | 568 | 93 | 149 | 177 | 346 | 1306 | 0 | 0 | 1802 | 172 |
| Future Volume (vph) | 123 | 0 | 568 | 93 | 149 | 177 | 346 | 1306 | 0 | 0 | 1802 | 172 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 70.0 | 0.0 | | 70.0 | 60.0 | | 0.0 | 0.0 | | 50.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 2 | | 0 | 0 | | 1 |
| Taper Length (m) | 7.6 | | | 7.6 | | | 100.0 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 0.95 | 1.00 | 1.00 | 0.91 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (prot) | 1544 | 0 | 1381 | 1695 | 1784 | 1517 | 3164 | 3262 | 0 | 0 | 4871 | 1517 |
| Flt Permitted | 0.582 | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (perm) | 946 | 0 | 1381 | 1695 | 1784 | 1517 | 3164 | 3262 | 0 | 0 | 4871 | 1517 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 26 | | | 84 | | | | | | 97 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 518.9 | | | 416.4 | | | 90.2 | | | 239.9 | |
| Travel Time (s) | | 31.1 | | | 25.0 | | | 5.4 | | | 14.4 | |
| 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 (%) | 12% | 12% | 12% | 2% | 2% | 2% | 6% | 6% | 6% | 2% | 2% | 2% |
| Adj. Flow (vph) | 123 | 0 | 568 | 93 | 149 | 177 | 346 | 1306 | 0 | 0 | 1802 | 172 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 123 | 0 | 568 | 93 | 149 | 177 | 346 | 1306 | 0 | 0 | 1802 | 172 |
| 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) | | 3.7 | | | 3.7 | | | 7.4 | | | 7.4 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | | 1 | 1 | 2 | 1 | 1 | 2 | | | 2 | 1 |
| Detector Template | Left | | Right | Left | Thru | Right | Left | Thru | | | Thru | Right |
| Leading Detector (m) | 6.1 | | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | | pm+ov | Perm | NA | Perm | Prot | NA | | | NA | Perm |
| Protected Phases | | | 5 | | 8 | | 5 | 2 | | | 6 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | | | 6 |
| Detector Phase | 4 | | 5 | 8 | 8 | 8 | 5 | 2 | | | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | | 5.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | | | 10.0 | 10.0 |
| Minimum Split (s) | 16.8 | | 11.4 | 36.8 | 36.8 | 36.8 | 11.4 | 30.1 | | | 30.1 | 30.1 |
| Total Split (s) | 36.0 | | 31.0 | 36.0 | 36.0 | 36.0 | 31.0 | 94.0 | | | 63.0 | 63.0 |
| Total Split (%) | 27.7% | | 23.8% | 27.7% | 27.7% | 27.7% | 23.8% | 72.3% | | | 48.5% | 48.5% |
| Maximum Green (s) | 29.2 | | 24.6 | 29.2 | 29.2 | 29.2 | 24.6 | 87.9 | | | 56.9 | 56.9 |
| Yellow Time (s) | 3.3 | | 4.2 | 3.3 | 3.3 | 3.3 | 4.2 | 4.2 | | | 4.2 | 4.2 |
| All-Red Time (s) | 3.5 | | 2.2 | 3.5 | 3.5 | 3.5 | 2.2 | 1.9 | | | 1.9 | 1.9 |
| 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) | 6.8 | | 6.4 | 6.8 | 6.8 | 6.8 | 6.4 | 6.1 | | | 6.1 | 6.1 |
| 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 | 3.0 | | | 3.0 | 3.0 |
| Recall Mode | None | | None | None | None | None | None | C-Max | | | C-Max | C-Max |
| Walk Time (s) | | | | 7.0 | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | | | 23.0 | 23.0 | 23.0 | | 17.0 | | | 17.0 | 17.0 |
| Pedestrian Calls (#/hr) | | | | 20 | 20 | 20 | | 30 | | | 30 | 30 |
| Act Effct Green (s) | 23.3 | | 58.6 | 23.3 | 23.3 | 23.3 | 28.5 | 93.8 | | | 58.9 | 58.9 |
| Actuated g/C Ratio | 0.18 | | 0.45 | 0.18 | 0.18 | 0.18 | 0.22 | 0.72 | | | 0.45 | 0.45 |
| v/c Ratio | 0.73 | | 0.89 | 0.31 | 0.47 | 0.52 | 0.50 | 0.56 | | | 0.82 | 0.23 |
| Control Delay | 72.8 | | 48.9 | 46.8 | 51.0 | 28.9 | 48.4 | 10.5 | | | 35.2 | 10.8 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 72.8 | | 48.9 | 46.8 | 51.0 | 28.9 | 48.4 | 10.5 | | | 35.2 | 10.8 |
| LOS | E | | D | D | D | C | D | B | | | D | B |
| Approach Delay | | 53.1 | | | 40.8 | | | 18.4 | | | 33.1 | |
| Approach LOS | | D | | | D | | | B | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 130 | | | |
| Actuated Cycle Length: 130 | | | |
| Offset: 50 (38%), Referenced to phase 2:NBT and 6:SBT, Start of Green | | | |
| Natural Cycle: 90 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.89 | | | |
| Intersection Signal Delay: 31.6 | | Intersection LOS: C | |
| Intersection Capacity Utilization 98.3% | | ICU Level of Service F | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 6: Blair Road & 1980 Ogilvie Road/Hwy 174 WB off



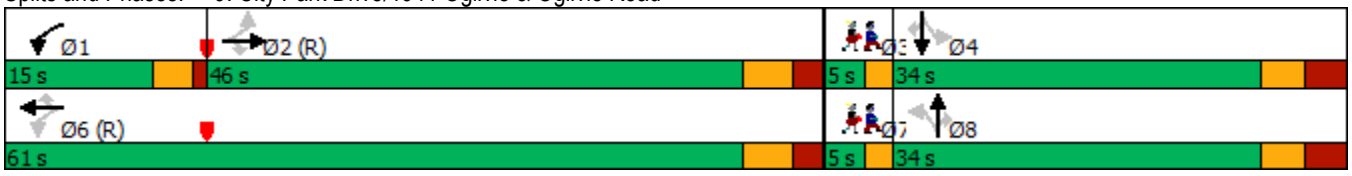
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 32 | 1484 | 152 | 103 | 603 | 38 | 183 | 10 | 161 | 78 | 19 | 76 |
| Future Volume (vph) | 32 | 1484 | 152 | 103 | 603 | 38 | 183 | 10 | 161 | 78 | 19 | 76 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 40.0 | | 100.0 | 100.0 | | 50.0 | 0.0 | | 60.0 | 20.0 | | 10.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 0 | | 1 | 1 | | 1 |
| Taper Length (m) | 30.0 | | | 25.0 | | | 7.6 | | | 15.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.89 | | 0.87 | | | 0.73 | | 0.93 | 0.87 | 0.91 | | 0.92 |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.955 | | 0.950 | | |
| Satd. Flow (prot) | 1695 | 3390 | 1517 | 1679 | 3357 | 1502 | 0 | 1609 | 1432 | 1695 | 1784 | 1517 |
| Flt Permitted | 0.424 | | | 0.074 | | | | 0.723 | | 0.558 | | |
| Satd. Flow (perm) | 675 | 3390 | 1315 | 131 | 3357 | 1104 | 0 | 1135 | 1244 | 906 | 1784 | 1388 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 152 | | | 60 | | | 161 | | | 99 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 224.7 | | | 372.0 | | | 239.4 | | | 142.3 | |
| Travel Time (s) | | 13.5 | | | 22.3 | | | 14.4 | | | 8.5 | |
| Confl. Peds. (#/hr) | 145 | | 67 | 67 | | 145 | 67 | | 110 | 110 | | 67 |
| 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 (%) | 2% | 2% | 2% | 3% | 3% | 3% | 8% | 8% | 8% | 2% | 2% | 2% |
| Adj. Flow (vph) | 32 | 1484 | 152 | 103 | 603 | 38 | 183 | 10 | 161 | 78 | 19 | 76 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 32 | 1484 | 152 | 103 | 603 | 38 | 0 | 193 | 161 | 78 | 19 | 76 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 |
| 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) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 |
| 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) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | |

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Storage Length (m) | | |
| Storage Lanes | | |
| Taper Length (m) | | |
| Lane Util. Factor | | |
| Ped Bike Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (k/h) | | |
| Link Distance (m) | | |
| Travel Time (s) | | |
| Confl. Peds. (#/hr) | | |
| Peak Hour Factor | | |
| Heavy Vehicles (%) | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(m) | | |
| Link Offset(m) | | |
| Crosswalk Width(m) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (k/h) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (m) | | |
| Trailing Detector (m) | | |
| Detector 1 Position(m) | | |
| Detector 1 Size(m) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(m) | | |
| Detector 2 Size(m) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turn Type | Perm | NA | Perm | pm+pt | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | 8 | 4 | | 4 |
| Detector Phase | 2 | 2 | 2 | 1 | 6 | 6 | 8 | 8 | 8 | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 35.1 | 35.1 | 35.1 | 9.0 | 35.1 | 35.1 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 |
| Total Split (s) | 46.0 | 46.0 | 46.0 | 15.0 | 61.0 | 61.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 |
| Total Split (%) | 46.0% | 46.0% | 46.0% | 15.0% | 61.0% | 61.0% | 34.0% | 34.0% | 34.0% | 34.0% | 34.0% | 34.0% |
| Maximum Green (s) | 39.9 | 39.9 | 39.9 | 11.0 | 54.9 | 54.9 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.0 | 3.7 | 3.7 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 2.4 | 2.4 | 2.4 | 1.0 | 2.4 | 2.4 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.1 | 6.1 | 6.1 | 4.0 | 6.1 | 6.1 | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |
| Lead/Lag | Lag | Lag | Lag | Lead | | | Lag | Lag | Lag | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | 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 | 3.0 |
| Recall Mode | C-Max | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None | None |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Flash Dont Walk (s) | 22.0 | 22.0 | 22.0 | | 22.0 | 22.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| Pedestrian Calls (#/hr) | 35 | 35 | 35 | | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| Act Effct Green (s) | 51.6 | 51.6 | 51.6 | 63.9 | 61.8 | 61.8 | | 22.6 | 22.6 | 22.6 | 22.6 | 22.6 |
| Actuated g/C Ratio | 0.52 | 0.52 | 0.52 | 0.64 | 0.62 | 0.62 | | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 |
| v/c Ratio | 0.09 | 0.85 | 0.20 | 0.49 | 0.29 | 0.05 | | 0.75 | 0.40 | 0.38 | 0.05 | 0.19 |
| Control Delay | 9.1 | 20.7 | 1.0 | 20.3 | 10.6 | 1.4 | | 53.9 | 7.8 | 36.6 | 27.6 | 4.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 9.1 | 20.7 | 1.0 | 20.3 | 10.6 | 1.4 | | 53.9 | 7.8 | 36.6 | 27.6 | 4.5 |
| LOS | A | C | A | C | B | A | | D | A | D | C | A |
| Approach Delay | | 18.7 | | | 11.5 | | | 32.9 | | | 21.5 | |
| Approach LOS | | B | | | B | | | C | | | C | |

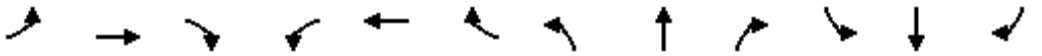
| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 30 (30%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 95 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.85 | | | |
| Intersection Signal Delay: 18.8 | | Intersection LOS: B | |
| Intersection Capacity Utilization 102.6% | | ICU Level of Service G | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 9: City Park Drive/1941 Ogilvie & Ogilvie Road



| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Turn Type | | |
| Protected Phases | 3 | 7 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 1.0 | 1.0 |
| Minimum Split (s) | 5.0 | 5.0 |
| Total Split (s) | 5.0 | 5.0 |
| Total Split (%) | 5% | 5% |
| Maximum Green (s) | 3.0 | 3.0 |
| Yellow Time (s) | 2.0 | 2.0 |
| All-Red Time (s) | 0.0 | 0.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | None | None |
| Walk Time (s) | 0.0 | 0.0 |
| Flash Dont Walk (s) | 0.0 | 0.0 |
| Pedestrian Calls (#/hr) | 35 | 35 |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

| Intersection Summary |
|---|

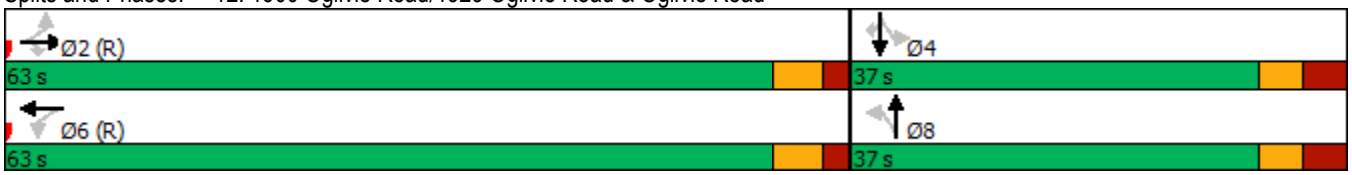


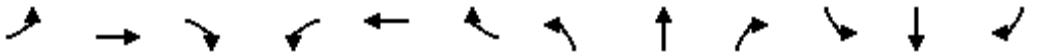
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 43 | 1428 | 66 | 32 | 861 | 24 | 47 | 3 | 28 | 135 | 3 | 132 |
| Future Volume (vph) | 43 | 1428 | 66 | 32 | 861 | 24 | 47 | 3 | 28 | 135 | 3 | 132 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 60.0 | | 80.0 | 90.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 0 | 0 | | 1 |
| Taper Length (m) | 30.0 | | | 20.0 | | | 7.6 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.850 | | 0.996 | | | 0.865 | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | 0.953 | |
| Satd. Flow (prot) | 1695 | 3390 | 1517 | 1679 | 3345 | 0 | 1695 | 1543 | 0 | 0 | 1700 | 1517 |
| Flt Permitted | 0.289 | | | 0.131 | | | 0.669 | | | | 0.708 | |
| Satd. Flow (perm) | 516 | 3390 | 1517 | 231 | 3345 | 0 | 1194 | 1543 | 0 | 0 | 1263 | 1517 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 66 | | 5 | | | 28 | | | | 132 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 190.5 | | | 224.7 | | | 86.0 | | | 56.6 | |
| Travel Time (s) | | 11.4 | | | 13.5 | | | 5.2 | | | 3.4 | |
| 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 (%) | 2% | 2% | 2% | 3% | 3% | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Adj. Flow (vph) | 43 | 1428 | 66 | 32 | 861 | 24 | 47 | 3 | 28 | 135 | 3 | 132 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 43 | 1428 | 66 | 32 | 885 | 0 | 47 | 31 | 0 | 0 | 138 | 132 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Thru | | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | NA | | Perm | NA | Perm |
| Protected Phases | | 2 | | | 6 | | | 8 | | | 4 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 2 | | 2 | 6 | | | 8 | | | 4 | | 4 |
| Detector Phase | 2 | 2 | 2 | 6 | 6 | | 8 | 8 | | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | | 36.7 | 36.7 | | 36.7 | 36.7 | 36.7 |
| Total Split (s) | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | | 37.0 | 37.0 | | 37.0 | 37.0 | 37.0 |
| Total Split (%) | 63.0% | 63.0% | 63.0% | 63.0% | 63.0% | | 37.0% | 37.0% | | 37.0% | 37.0% | 37.0% |
| Maximum Green (s) | 57.1 | 57.1 | 57.1 | 57.1 | 57.1 | | 30.3 | 30.3 | | 30.3 | 30.3 | 30.3 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | | 3.3 | 3.3 | | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | | 3.4 | 3.4 | | 3.4 | 3.4 | 3.4 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | 5.9 | 5.9 | 5.9 | 5.9 | 5.9 | | 6.7 | 6.7 | | | 6.7 | 6.7 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max | C-Max | C-Max | C-Max | | None | None | | None | None | None |
| Walk Time (s) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | 23.0 |
| Pedestrian Calls (#/hr) | 20 | 20 | 20 | 20 | 20 | | 30 | 30 | | 30 | 30 | 30 |
| Act Effct Green (s) | 64.7 | 64.7 | 64.7 | 64.7 | 64.7 | | 22.7 | 22.7 | | | 22.7 | 22.7 |
| Actuated g/C Ratio | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | | 0.23 | 0.23 | | | 0.23 | 0.23 |
| v/c Ratio | 0.13 | 0.65 | 0.07 | 0.21 | 0.41 | | 0.17 | 0.08 | | | 0.48 | 0.30 |
| Control Delay | 5.9 | 8.4 | 0.7 | 10.5 | 6.8 | | 28.9 | 11.0 | | | 37.2 | 6.6 |
| Queue Delay | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 5.9 | 8.5 | 0.7 | 10.5 | 6.8 | | 28.9 | 11.0 | | | 37.2 | 6.6 |
| LOS | A | A | A | B | A | | C | B | | | D | A |
| Approach Delay | | 8.1 | | | 7.0 | | | 21.8 | | | 22.2 | |
| Approach LOS | | A | | | A | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 8 (8%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 80 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.65 | | | |
| Intersection Signal Delay: 9.5 | | Intersection LOS: A | |
| Intersection Capacity Utilization 66.9% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 12: 1900 Ogilvie Road/1929 Ogilvie Road & Ogilvie Road





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 207 | 1061 | 165 | 12 | 839 | 110 | 120 | 69 | 26 | 140 | 47 | 159 |
| Future Volume (vph) | 207 | 1061 | 165 | 12 | 839 | 110 | 120 | 69 | 26 | 140 | 47 | 159 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 40.0 | 45.0 | | 70.0 | 30.0 | | 0.0 | 20.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 30.0 | | | 30.0 | | | 25.0 | | | 25.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.97 | | 0.90 | | | 0.83 | 0.98 | 0.99 | | 0.98 | 0.97 | |
| Frt | | | 0.850 | | | 0.850 | | 0.959 | | | 0.884 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1679 | 3357 | 1502 | 1679 | 3357 | 1502 | 1631 | 1632 | 0 | 1647 | 1487 | 0 |
| Flt Permitted | 0.226 | | | 0.245 | | | 0.539 | | | 0.695 | | |
| Satd. Flow (perm) | 387 | 3357 | 1349 | 433 | 3357 | 1248 | 907 | 1632 | 0 | 1182 | 1487 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 121 | | | 121 | | 20 | | | 159 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 257.6 | | | 190.5 | | | 345.6 | | | 177.6 | |
| Travel Time (s) | | 15.5 | | | 11.4 | | | 20.7 | | | 10.7 | |
| Confl. Peds. (#/hr) | 73 | | 40 | 40 | | 73 | 27 | | 21 | 21 | | 27 |
| 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% | 3% | 3% | 3% | 3% | 3% | 6% | 6% | 6% | 5% | 5% | 5% |
| Adj. Flow (vph) | 207 | 1061 | 165 | 12 | 839 | 110 | 120 | 69 | 26 | 140 | 47 | 159 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 207 | 1061 | 165 | 12 | 839 | 110 | 120 | 95 | 0 | 140 | 206 | 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | | Left | Thru | |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | |
| Trailing Detector (m) | 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 | |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | |
| Detector 1 Type | 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 | |
| Detector 1 Queue (s) | 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 | |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | |

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Storage Length (m) | | |
| Storage Lanes | | |
| Taper Length (m) | | |
| Lane Util. Factor | | |
| Ped Bike Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (k/h) | | |
| Link Distance (m) | | |
| Travel Time (s) | | |
| Confl. Peds. (#/hr) | | |
| Peak Hour Factor | | |
| Heavy Vehicles (%) | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(m) | | |
| Link Offset(m) | | |
| Crosswalk Width(m) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (k/h) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (m) | | |
| Trailing Detector (m) | | |
| Detector 1 Position(m) | | |
| Detector 1 Size(m) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(m) | | |
| Detector 2 Size(m) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | | |

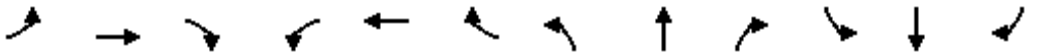
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 9.7 | 30.0 | 30.0 | 9.7 | 30.0 | 30.0 | 37.4 | 37.4 | | 37.4 | 37.4 | |
| Total Split (s) | 20.0 | 37.0 | 37.0 | 20.0 | 37.0 | 37.0 | 38.0 | 38.0 | | 38.0 | 38.0 | |
| Total Split (%) | 20.0% | 37.0% | 37.0% | 20.0% | 37.0% | 37.0% | 38.0% | 38.0% | | 38.0% | 38.0% | |
| Maximum Green (s) | 15.3 | 31.0 | 31.0 | 15.3 | 31.0 | 31.0 | 30.6 | 30.6 | | 30.6 | 30.6 | |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.0 | 2.3 | 2.3 | 1.0 | 2.3 | 2.3 | 4.4 | 4.4 | | 4.4 | 4.4 | |
| 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) | 4.7 | 6.0 | 6.0 | 4.7 | 6.0 | 6.0 | 7.4 | 7.4 | | 7.4 | 7.4 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lag | Lag | | Lag | Lag | |
| Lead-Lag Optimize? | Yes | 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 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | | None | None | |
| Walk Time (s) | | 9.0 | 9.0 | | 9.0 | 9.0 | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Flash Dont Walk (s) | | 15.0 | 15.0 | | 15.0 | 15.0 | 28.0 | 28.0 | | 28.0 | 28.0 | |
| Pedestrian Calls (#/hr) | | 30 | 30 | | 30 | 30 | 20 | 20 | | 20 | 20 | |
| Act Effct Green (s) | 62.6 | 59.1 | 59.1 | 52.6 | 45.4 | 45.4 | 20.3 | 20.3 | | 20.3 | 20.3 | |
| Actuated g/C Ratio | 0.63 | 0.59 | 0.59 | 0.53 | 0.45 | 0.45 | 0.20 | 0.20 | | 0.20 | 0.20 | |
| v/c Ratio | 0.54 | 0.54 | 0.20 | 0.04 | 0.55 | 0.17 | 0.66 | 0.27 | | 0.59 | 0.48 | |
| Control Delay | 20.9 | 14.6 | 7.0 | 8.7 | 16.5 | 2.0 | 51.3 | 25.5 | | 44.1 | 12.1 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 20.9 | 14.6 | 7.0 | 8.7 | 16.5 | 2.0 | 51.3 | 25.5 | | 44.1 | 12.1 | |
| LOS | C | B | A | A | B | A | D | C | | D | B | |
| Approach Delay | | 14.6 | | | 14.7 | | | 39.9 | | | 25.0 | |
| Approach LOS | | B | | | B | | | D | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 19 (19%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 85 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.66 | | | |
| Intersection Signal Delay: 17.7 | | Intersection LOS: B | |
| Intersection Capacity Utilization 87.0% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 15: City Park Drive/Bathgate Drive & Ogilvie Road

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Turn Type | | |
| Protected Phases | 3 | 7 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 1.0 | 1.0 |
| Minimum Split (s) | 5.0 | 5.0 |
| Total Split (s) | 5.0 | 5.0 |
| Total Split (%) | 5% | 5% |
| Maximum Green (s) | 3.0 | 3.0 |
| Yellow Time (s) | 2.0 | 2.0 |
| All-Red Time (s) | 0.0 | 0.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | Ped | Ped |
| Walk Time (s) | 0.0 | 0.0 |
| Flash Dont Walk (s) | 0.0 | 0.0 |
| Pedestrian Calls (#/hr) | 20 | 20 |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

| Intersection Summary |
|---|

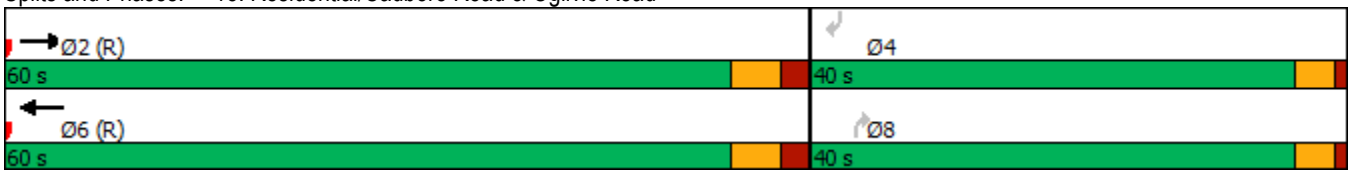


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 1833 | 14 | 0 | 1222 | 70 | 0 | 0 | 1 | 0 | 0 | 97 |
| Future Volume (vph) | 0 | 1833 | 14 | 0 | 1222 | 70 | 0 | 0 | 1 | 0 | 0 | 97 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.999 | | | 0.992 | | | | 0.865 | | | 0.865 |
| Flt Protected | | | | | | | | | | | | |
| Satd. Flow (prot) | 0 | 3387 | 0 | 0 | 3363 | 0 | 0 | 0 | 1543 | 0 | 0 | 1543 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 3387 | 0 | 0 | 3363 | 0 | 0 | 0 | 1543 | 0 | 0 | 1543 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 1 | | | 9 | | | | 33 | | | 53 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 264.5 | | | 257.6 | | | 90.1 | | | 116.1 | |
| Travel Time (s) | | 15.9 | | | 15.5 | | | 5.4 | | | 7.0 | |
| 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 |
| Adj. Flow (vph) | 0 | 1833 | 14 | 0 | 1222 | 70 | 0 | 0 | 1 | 0 | 0 | 97 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1847 | 0 | 0 | 1292 | 0 | 0 | 0 | 1 | 0 | 0 | 97 |
| 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) | | 3.7 | | | 3.7 | | | 0.0 | | | 0.0 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 1.6 | | | 1.6 | | | 1.6 | | | 1.6 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 97 | | 97 | 97 | | 97 | 97 | | 97 | 97 | | 97 |
| Number of Detectors | | 2 | | | 2 | | | | 1 | | | 1 |
| Detector Template | | Thru | | | Thru | | | | Right | | | Right |
| Leading Detector (m) | | 10.0 | | | 10.0 | | | | 2.0 | | | 2.0 |
| Trailing Detector (m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Position(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Size(m) | | 0.6 | | | 0.6 | | | | 2.0 | | | 2.0 |
| Detector 1 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Queue (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Delay (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 2 Position(m) | | 9.4 | | | 9.4 | | | | | | | |
| Detector 2 Size(m) | | 0.6 | | | 0.6 | | | | | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | | | | |
| Turn Type | | NA | | | NA | | | | Perm | | | Perm |
| Protected Phases | | 2 | | | 6 | | | | | | | |
| Permitted Phases | | | | | | | | | 8 | | | 4 |
| Detector Phase | | 2 | | | 6 | | | | 8 | | | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 10.0 | | | 10.0 | | | | 5.0 | | | 5.0 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | 35.0 | | | 35.0 | | | | 40.0 | | | 40.0 |
| Total Split (s) | | 60.0 | | | 60.0 | | | | 40.0 | | | 40.0 |
| Total Split (%) | | 60.0% | | | 60.0% | | | | 40.0% | | | 40.0% |
| Maximum Green (s) | | 54.0 | | | 54.0 | | | | 36.0 | | | 36.0 |
| Yellow Time (s) | | 3.7 | | | 3.7 | | | | 3.0 | | | 3.0 |
| All-Red Time (s) | | 2.3 | | | 2.3 | | | | 1.0 | | | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | | | 4.0 | | | 4.0 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | | 3.0 | | | 3.0 | | | | 3.0 | | | 3.0 |
| Recall Mode | | C-Max | | | C-Max | | | | None | | | None |
| Walk Time (s) | | 15.0 | | | 15.0 | | | | 24.0 | | | 24.0 |
| Flash Dont Walk (s) | | 14.0 | | | 14.0 | | | | 12.0 | | | 12.0 |
| Pedestrian Calls (#/hr) | | 30 | | | 30 | | | | 20 | | | 20 |
| Act Effct Green (s) | | 74.7 | | | 74.7 | | | | 18.4 | | | 18.4 |
| Actuated g/C Ratio | | 0.75 | | | 0.75 | | | | 0.18 | | | 0.18 |
| v/c Ratio | | 0.73 | | | 0.51 | | | | 0.00 | | | 0.30 |
| Control Delay | | 15.5 | | | 9.2 | | | | 0.0 | | | 16.3 |
| Queue Delay | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Total Delay | | 15.5 | | | 9.2 | | | | 0.0 | | | 16.3 |
| LOS | | B | | | A | | | | A | | | B |
| Approach Delay | | 15.5 | | | 9.2 | | | | | | 16.3 | |
| Approach LOS | | B | | | A | | | | | | B | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 4 (4%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 90 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.73 | | | |
| Intersection Signal Delay: 13.0 | | Intersection LOS: B | |
| Intersection Capacity Utilization 66.5% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 18: Residential/Cadboro Road & Ogilvie Road

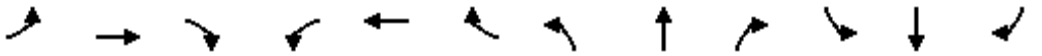


| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 237 | 981 | 834 | 189 | 488 | 1019 |
| Future Volume (vph) | 237 | 981 | 834 | 189 | 488 | 1019 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | 0.0 | | 70.0 | 0.0 | |
| Storage Lanes | 1 | 1 | | 1 | 0 | |
| Taper Length (m) | 7.6 | | | | 7.6 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | | 0.984 |
| Satd. Flow (prot) | 1647 | 1473 | 3325 | 1488 | 0 | 3210 |
| Flt Permitted | 0.950 | | | | | 0.521 |
| Satd. Flow (perm) | 1647 | 1473 | 3325 | 1488 | 0 | 1700 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 584 | | 189 | | |
| Link Speed (k/h) | 60 | | 60 | | | 60 |
| Link Distance (m) | 216.4 | | 230.9 | | | 341.9 |
| Travel Time (s) | 13.0 | | 13.9 | | | 20.5 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Heavy Vehicles (%) | 5% | 5% | 4% | 4% | 6% | 6% |
| Adj. Flow (vph) | 237 | 981 | 834 | 189 | 488 | 1019 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 237 | 981 | 834 | 189 | 0 | 1507 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(m) | 3.7 | | 0.0 | | | 0.0 |
| Link Offset(m) | 0.0 | | 0.0 | | | 0.0 |
| Crosswalk Width(m) | 4.9 | | 4.9 | | | 4.9 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | 14 | | 14 | 24 | |
| Number of Detectors | 1 | 1 | 2 | 1 | 1 | 2 |
| Detector Template | Left | Right | Thru | Right | Left | Thru |
| Leading Detector (m) | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | | 28.7 | | | 28.7 |
| Detector 2 Size(m) | | | 1.8 | | | 1.8 |
| Detector 2 Type | | | Cl+Ex | | | Cl+Ex |
| Detector 2 Channel | | | | | | |
| Detector 2 Extend (s) | | | 0.0 | | | 0.0 |
| Turn Type | Prot | Free | NA | pm+ov | pm+pt | NA |
| Protected Phases | 8 | | 2 | 8 | 1 | 6 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Permitted Phases | | Free | | 2 | 6 | |
| Detector Phase | 8 | | 2 | 8 | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 10.0 | 5.0 | 5.0 | 1.0 |
| Minimum Split (s) | 25.3 | | 30.5 | 25.3 | 11.0 | 30.5 |
| Total Split (s) | 30.0 | | 52.0 | 30.0 | 28.0 | 80.0 |
| Total Split (%) | 27.3% | | 47.3% | 27.3% | 25.5% | 72.7% |
| Maximum Green (s) | 23.7 | | 45.5 | 23.7 | 22.0 | 73.5 |
| Yellow Time (s) | 3.3 | | 4.2 | 3.3 | 4.2 | 4.2 |
| All-Red Time (s) | 3.0 | | 2.3 | 3.0 | 1.8 | 2.3 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 6.3 | | 6.5 | 6.3 | | 6.5 |
| Lead/Lag | | | Lag | | Lead | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Vehicle Extension (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | | C-Max | None | Max | C-Max |
| Walk Time (s) | 7.0 | | 7.0 | 7.0 | | 7.0 |
| Flash Dont Walk (s) | 12.0 | | 17.0 | 12.0 | | 17.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | | 0 |
| Act Effct Green (s) | 20.0 | 110.0 | 45.5 | 72.0 | | 77.2 |
| Actuated g/C Ratio | 0.18 | 1.00 | 0.41 | 0.65 | | 0.70 |
| v/c Ratio | 0.80 | 0.67 | 0.61 | 0.18 | | 0.98 |
| Control Delay | 61.9 | 2.4 | 27.6 | 1.2 | | 32.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 61.9 | 2.4 | 27.6 | 1.2 | | 32.2 |
| LOS | E | A | C | A | | C |
| Approach Delay | 14.0 | | 22.7 | | | 32.2 |
| Approach LOS | B | | C | | | C |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 110 | | | |
| Actuated Cycle Length: 110 | | | |
| Offset: 32 (29%), Referenced to phase 2:NBT and 6:SBTL, Start of Green | | | |
| Natural Cycle: 150 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.98 | | | |
| Intersection Signal Delay: 23.7 | | Intersection LOS: C | |
| Intersection Capacity Utilization 99.0% | | ICU Level of Service F | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 22: Blair Road & Hwy 174 EB off

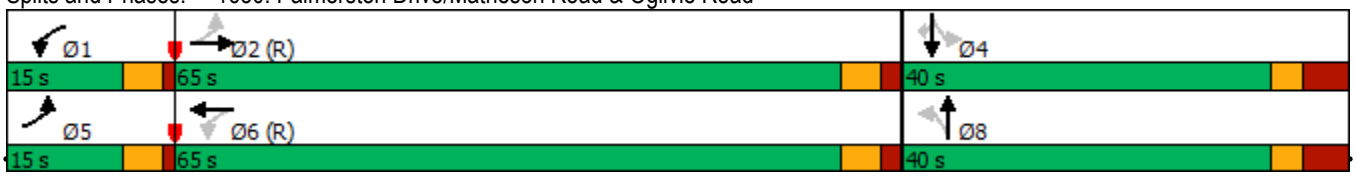


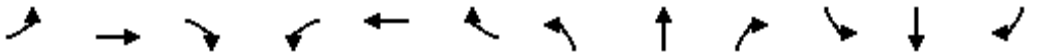
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 188 | 1711 | 61 | 94 | 1336 | 38 | 52 | 4 | 39 | 29 | 4 | 96 |
| Future Volume (vph) | 188 | 1711 | 61 | 94 | 1336 | 38 | 52 | 4 | 39 | 29 | 4 | 96 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 0.0 | 70.0 | | 0.0 | 15.0 | | 0.0 | 0.0 | | 35.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 0 | | 1 |
| Taper Length (m) | 30.0 | | | 30.0 | | | 7.6 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 1.00 | | | 1.00 | | 0.98 | 0.98 | | | 0.99 | 0.99 |
| Frt | | 0.995 | | | 0.996 | | | 0.864 | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | 0.958 | |
| Satd. Flow (prot) | 1695 | 3362 | 0 | 1695 | 3369 | 0 | 1662 | 1476 | 0 | 0 | 1709 | 1517 |
| Flt Permitted | 0.129 | | | 0.072 | | | 0.736 | | | | 0.721 | |
| Satd. Flow (perm) | 230 | 3362 | 0 | 128 | 3369 | 0 | 1267 | 1476 | 0 | 0 | 1274 | 1497 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 4 | | | 3 | | | 39 | | | | 96 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 314.1 | | | 264.5 | | | 176.2 | | | 174.1 | |
| Travel Time (s) | | 18.8 | | | 15.9 | | | 10.6 | | | 10.4 | |
| Confl. Peds. (#/hr) | 24 | | 34 | 34 | | 24 | 16 | | 11 | 11 | | |
| Confl. Bikes (#/hr) | | | 11 | | | 22 | | | 3 | | | 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 (%) | 2% | 2% | 2% | 2% | 2% | 2% | 4% | 4% | 4% | 2% | 2% | 2% |
| Adj. Flow (vph) | 188 | 1711 | 61 | 94 | 1336 | 38 | 52 | 4 | 39 | 29 | 4 | 96 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 188 | 1772 | 0 | 94 | 1374 | 0 | 52 | 43 | 0 | 0 | 33 | 96 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | 1 |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | | pm+pt | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | 4 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.7 | 33.6 | | 9.7 | 33.6 | | 40.2 | 40.2 | | 40.2 | 40.2 | 40.2 |
| Total Split (s) | 15.0 | 65.0 | | 15.0 | 65.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | 40.0 |
| Total Split (%) | 12.5% | 54.2% | | 12.5% | 54.2% | | 33.3% | 33.3% | | 33.3% | 33.3% | 33.3% |
| Maximum Green (s) | 10.3 | 59.4 | | 10.3 | 59.4 | | 32.8 | 32.8 | | 32.8 | 32.8 | 32.8 |
| Yellow Time (s) | 3.7 | 3.7 | | 3.7 | 3.7 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 1.0 | 1.9 | | 1.0 | 1.9 | | 4.2 | 4.2 | | 4.2 | 4.2 | 4.2 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | 4.7 | 5.6 | | 4.7 | 5.6 | | 7.2 | 7.2 | | | 7.2 | 7.2 |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | | None | C-Max | | None | None | | None | None | None |
| Walk Time (s) | | 15.0 | | | 15.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 13.0 | | | 13.0 | | 26.0 | 26.0 | | 26.0 | 26.0 | 26.0 |
| Pedestrian Calls (#/hr) | | 25 | | | 25 | | 10 | 10 | | 10 | 10 | 10 |
| Act Effct Green (s) | 91.5 | 79.5 | | 85.0 | 76.2 | | 15.1 | 15.1 | | | 15.1 | 15.1 |
| Actuated g/C Ratio | 0.76 | 0.66 | | 0.71 | 0.64 | | 0.13 | 0.13 | | | 0.13 | 0.13 |
| v/c Ratio | 0.60 | 0.80 | | 0.48 | 0.64 | | 0.33 | 0.20 | | | 0.21 | 0.35 |
| Control Delay | 16.9 | 19.9 | | 19.8 | 17.0 | | 50.3 | 15.6 | | | 46.4 | 11.2 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 16.9 | 19.9 | | 19.8 | 17.0 | | 50.3 | 15.6 | | | 46.4 | 11.2 |
| LOS | B | B | | B | B | | D | B | | | D | B |
| Approach Delay | | 19.6 | | | 17.2 | | | 34.6 | | | 20.2 | |
| Approach LOS | | B | | | B | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 120 | | | |
| Actuated Cycle Length: 120 | | | |
| Offset: 50 (42%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 115 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.80 | | | |
| Intersection Signal Delay: 19.1 | | Intersection LOS: B | |
| Intersection Capacity Utilization 87.3% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 1630: Palmerston Drive/Matheson Road & Ogilvie Road



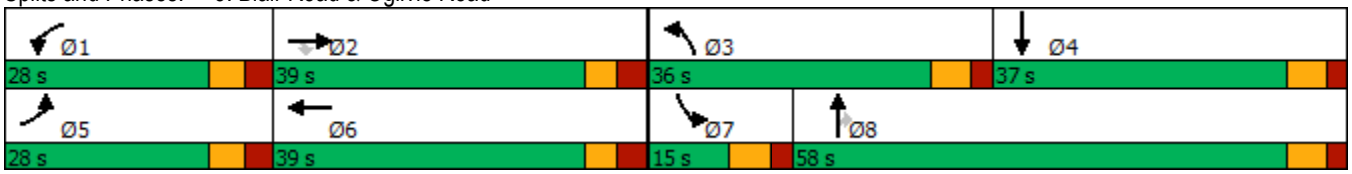


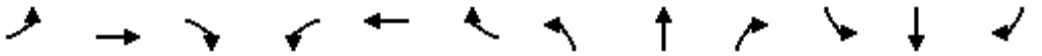
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 87 | 442 | 195 | 496 | 739 | 50 | 645 | 654 | 624 | 69 | 334 | 111 |
| Future Volume (vph) | 87 | 442 | 195 | 496 | 739 | 50 | 645 | 654 | 624 | 69 | 334 | 111 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 0.0 | 110.0 | | 0.0 | 120.0 | | 0.0 | 30.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | 2 | | 1 | 1 | | 0 |
| Taper Length (m) | 40.0 | | | 60.0 | | | 60.0 | | | 45.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 | 0.95 | 0.97 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | 1.00 | | | | | | 0.99 | |
| Frt | | | 0.850 | | 0.990 | | | | 0.850 | | 0.963 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1679 | 3357 | 1502 | 3257 | 3307 | 0 | 3257 | 1767 | 1502 | 1679 | 3190 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1679 | 3357 | 1502 | 3257 | 3307 | 0 | 3257 | 1767 | 1502 | 1679 | 3190 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 195 | | 5 | | | | 427 | | 30 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 372.0 | | | 396.5 | | | 239.9 | | | 411.0 | |
| Travel Time (s) | | 22.3 | | | 23.8 | | | 14.4 | | | 24.7 | |
| Confl. Peds. (#/hr) | | | | | | 25 | | | | | | 27 |
| Confl. Bikes (#/hr) | | | | | | 3 | | | | | | 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% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% |
| Adj. Flow (vph) | 87 | 442 | 195 | 496 | 739 | 50 | 645 | 654 | 624 | 69 | 334 | 111 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 87 | 442 | 195 | 496 | 789 | 0 | 645 | 654 | 624 | 69 | 445 | 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) | | 7.4 | | | 7.4 | | | 7.4 | | | 7.4 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | 1 | 1 | 2 | |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Thru | Right | Left | Thru | |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | |
| Trailing Detector (m) | 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 | |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | |
| Detector 1 Type | 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 | |
| Detector 1 Queue (s) | 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 | |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | |
| Minimum Split (s) | 11.8 | 38.6 | 38.6 | 11.8 | 38.6 | | 11.5 | 35.5 | 35.5 | 11.5 | 35.5 | |
| Total Split (s) | 28.0 | 39.0 | 39.0 | 28.0 | 39.0 | | 36.0 | 58.0 | 58.0 | 15.0 | 37.0 | |
| Total Split (%) | 20.0% | 27.9% | 27.9% | 20.0% | 27.9% | | 25.7% | 41.4% | 41.4% | 10.7% | 26.4% | |
| Maximum Green (s) | 21.2 | 32.4 | 32.4 | 21.2 | 32.4 | | 29.5 | 51.5 | 51.5 | 8.5 | 30.5 | |
| Yellow Time (s) | 3.7 | 3.3 | 3.3 | 3.7 | 3.3 | | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | |
| All-Red Time (s) | 3.1 | 3.3 | 3.3 | 3.1 | 3.3 | | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.8 | 6.6 | 6.6 | 6.8 | 6.6 | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | 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 | |
| Recall Mode | None | Max | Max | None | Max | | None | None | None | None | None | |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 25.0 | 25.0 | | 25.0 | | | 22.0 | 22.0 | | 22.0 | |
| Pedestrian Calls (#/hr) | | 20 | 20 | | 20 | | | 25 | 25 | | 25 | |
| Act Effct Green (s) | 12.6 | 32.4 | 32.4 | 21.2 | 41.0 | | 29.2 | 51.5 | 51.5 | 8.2 | 30.6 | |
| Actuated g/C Ratio | 0.09 | 0.23 | 0.23 | 0.15 | 0.29 | | 0.21 | 0.37 | 0.37 | 0.06 | 0.22 | |
| v/c Ratio | 0.58 | 0.57 | 0.39 | 1.00 | 0.81 | | 0.95 | 1.00 | 0.76 | 0.70 | 0.62 | |
| Control Delay | 75.4 | 50.9 | 8.1 | 100.0 | 53.5 | | 78.5 | 80.2 | 18.2 | 99.2 | 50.2 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 75.4 | 50.9 | 8.1 | 100.0 | 53.5 | | 78.5 | 80.2 | 18.2 | 99.2 | 50.2 | |
| LOS | E | D | A | F | D | | E | F | B | F | D | |
| Approach Delay | | 42.3 | | | 71.4 | | | 59.5 | | | 56.8 | |
| Approach LOS | | D | | | E | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 140 | | | |
| Actuated Cycle Length: 139.7 | | | |
| Natural Cycle: 140 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 1.00 | | | |
| Intersection Signal Delay: 59.8 | | Intersection LOS: E | |
| Intersection Capacity Utilization 94.3% | | ICU Level of Service F | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 3: Blair Road & Ogilvie Road



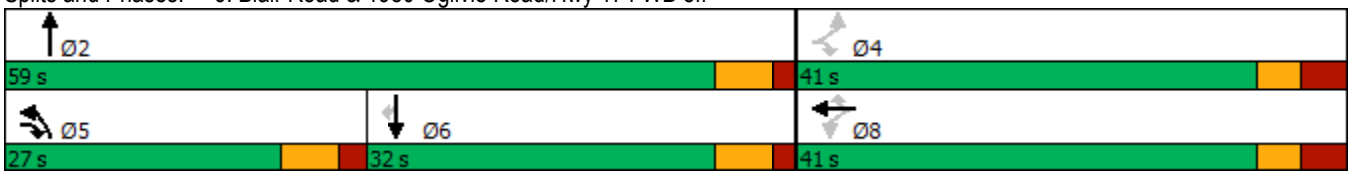


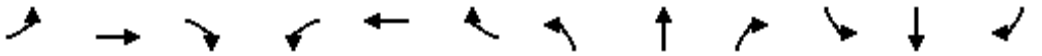
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 87 | 0 | 371 | 115 | 150 | 303 | 281 | 1455 | 0 | 0 | 866 | 109 |
| Future Volume (vph) | 87 | 0 | 371 | 115 | 150 | 303 | 281 | 1455 | 0 | 0 | 866 | 109 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 70.0 | 0.0 | | 70.0 | 60.0 | | 0.0 | 0.0 | | 50.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 2 | | 0 | 0 | | 1 |
| Taper Length (m) | 7.6 | | | 7.6 | | | 100.0 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 0.95 | 1.00 | 1.00 | 0.91 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (prot) | 1340 | 0 | 1199 | 1695 | 1784 | 1517 | 3164 | 3262 | 0 | 0 | 4732 | 1473 |
| Flt Permitted | 0.662 | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (perm) | 934 | 0 | 1199 | 1695 | 1784 | 1517 | 3164 | 3262 | 0 | 0 | 4732 | 1473 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 34 | | | 104 | | | | | | 111 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 518.9 | | | 416.4 | | | 90.2 | | | 239.9 | |
| Travel Time (s) | | 31.1 | | | 25.0 | | | 5.4 | | | 14.4 | |
| 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 (%) | 29% | 29% | 29% | 2% | 2% | 2% | 6% | 6% | 6% | 5% | 5% | 5% |
| Adj. Flow (vph) | 87 | 0 | 371 | 115 | 150 | 303 | 281 | 1455 | 0 | 0 | 866 | 109 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 87 | 0 | 371 | 115 | 150 | 303 | 281 | 1455 | 0 | 0 | 866 | 109 |
| 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) | | 3.7 | | | 3.7 | | | 7.4 | | | 7.4 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | | 1 | 1 | 2 | 1 | 1 | 2 | | | 2 | 1 |
| Detector Template | Left | | Right | Left | Thru | Right | Left | Thru | | | Thru | Right |
| Leading Detector (m) | 6.1 | | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | | pm+ov | Perm | NA | Perm | Prot | NA | | | NA | Perm |
| Protected Phases | | | 5 | | 8 | | 5 | 2 | | | 6 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | | | 6 |
| Detector Phase | 4 | | 5 | 8 | 8 | 8 | 5 | 2 | | | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | | 5.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | | | 10.0 | 10.0 |
| Minimum Split (s) | 16.8 | | 11.4 | 36.8 | 36.8 | 36.8 | 11.4 | 30.1 | | | 30.1 | 30.1 |
| Total Split (s) | 41.0 | | 27.0 | 41.0 | 41.0 | 41.0 | 27.0 | 59.0 | | | 32.0 | 32.0 |
| Total Split (%) | 41.0% | | 27.0% | 41.0% | 41.0% | 41.0% | 27.0% | 59.0% | | | 32.0% | 32.0% |
| Maximum Green (s) | 34.2 | | 20.6 | 34.2 | 34.2 | 34.2 | 20.6 | 52.9 | | | 25.9 | 25.9 |
| Yellow Time (s) | 3.3 | | 4.2 | 3.3 | 3.3 | 3.3 | 4.2 | 4.2 | | | 4.2 | 4.2 |
| All-Red Time (s) | 3.5 | | 2.2 | 3.5 | 3.5 | 3.5 | 2.2 | 1.9 | | | 1.9 | 1.9 |
| 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) | 6.8 | | 6.4 | 6.8 | 6.8 | 6.8 | 6.4 | 6.1 | | | 6.1 | 6.1 |
| 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 | 3.0 | | | 3.0 | 3.0 |
| Recall Mode | None | | None | None | None | None | None | Max | | | Max | Max |
| Walk Time (s) | | | | 7.0 | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | | | 23.0 | 23.0 | 23.0 | | 17.0 | | | 17.0 | 17.0 |
| Pedestrian Calls (#/hr) | | | | 20 | 20 | 20 | | 20 | | | 20 | 20 |
| Act Effct Green (s) | 19.5 | | 39.6 | 19.5 | 19.5 | 19.5 | 13.2 | 53.4 | | | 33.8 | 33.8 |
| Actuated g/C Ratio | 0.23 | | 0.46 | 0.23 | 0.23 | 0.23 | 0.15 | 0.62 | | | 0.39 | 0.39 |
| v/c Ratio | 0.41 | | 0.65 | 0.30 | 0.37 | 0.71 | 0.58 | 0.72 | | | 0.47 | 0.17 |
| Control Delay | 33.2 | | 20.7 | 28.3 | 29.6 | 28.9 | 39.5 | 15.5 | | | 22.7 | 5.8 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 33.2 | | 20.7 | 28.3 | 29.6 | 28.9 | 39.5 | 15.5 | | | 22.7 | 5.8 |
| LOS | C | | C | C | C | C | D | B | | | C | A |
| Approach Delay | | 23.1 | | | 29.0 | | | 19.4 | | | 20.8 | |
| Approach LOS | | C | | | C | | | B | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 86 | | | |
| Natural Cycle: 80 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.72 | | | |
| Intersection Signal Delay: 21.7 | | Intersection LOS: C | |
| Intersection Capacity Utilization 81.4% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 6: Blair Road & 1980 Ogilvie Road/Hwy 174 WB off





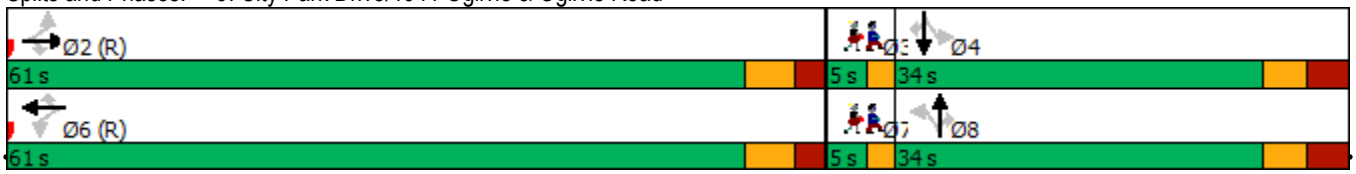
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 102 | 681 | 78 | 87 | 1023 | 174 | 59 | 23 | 61 | 5 | 2 | 9 |
| Future Volume (vph) | 102 | 681 | 78 | 87 | 1023 | 174 | 59 | 23 | 61 | 5 | 2 | 9 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 40.0 | | 100.0 | 100.0 | | 50.0 | 0.0 | | 60.0 | 20.0 | | 10.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 0 | | 1 | 1 | | 1 |
| Taper Length (m) | 30.0 | | | 25.0 | | | 7.6 | | | 15.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.97 | | 0.87 | 0.96 | | 0.81 | | 0.96 | 0.93 | 0.95 | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.965 | | 0.950 | | |
| Satd. Flow (prot) | 1695 | 3390 | 1517 | 1679 | 3357 | 1502 | 0 | 1626 | 1432 | 1695 | 1784 | 1517 |
| Flt Permitted | 0.243 | | | 0.378 | | | | 0.786 | | 0.704 | | |
| Satd. Flow (perm) | 420 | 3390 | 1320 | 641 | 3357 | 1211 | 0 | 1269 | 1334 | 1193 | 1784 | 1517 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 78 | | | 174 | | | 61 | | | 56 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 224.7 | | | 372.0 | | | 239.4 | | | 142.3 | |
| Travel Time (s) | | 13.5 | | | 22.3 | | | 14.4 | | | 8.5 | |
| Confl. Peds. (#/hr) | 100 | | 65 | 65 | | 100 | 53 | | 51 | 51 | | |
| Confl. Bikes (#/hr) | | | | | | 9 | | | 2 | | | |
| 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 (%) | 2% | 2% | 2% | 3% | 3% | 3% | 8% | 8% | 8% | 2% | 2% | 2% |
| Adj. Flow (vph) | 102 | 681 | 78 | 87 | 1023 | 174 | 59 | 23 | 61 | 5 | 2 | 9 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 102 | 681 | 78 | 87 | 1023 | 174 | 0 | 82 | 61 | 5 | 2 | 9 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 |
| 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) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 |
| 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) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Storage Length (m) | | |
| Storage Lanes | | |
| Taper Length (m) | | |
| Lane Util. Factor | | |
| Ped Bike Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (k/h) | | |
| Link Distance (m) | | |
| Travel Time (s) | | |
| Confl. Peds. (#/hr) | | |
| Confl. Bikes (#/hr) | | |
| Peak Hour Factor | | |
| Heavy Vehicles (%) | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(m) | | |
| Link Offset(m) | | |
| Crosswalk Width(m) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (k/h) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (m) | | |
| Trailing Detector (m) | | |
| Detector 1 Position(m) | | |
| Detector 1 Size(m) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(m) | | |
| Detector 2 Size(m) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 2 | | | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | 8 | 4 | | 4 |
| Detector Phase | 2 | 2 | 2 | 6 | 6 | 6 | 8 | 8 | 8 | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 |
| Total Split (s) | 61.0 | 61.0 | 61.0 | 61.0 | 61.0 | 61.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 |
| Total Split (%) | 61.0% | 61.0% | 61.0% | 61.0% | 61.0% | 61.0% | 34.0% | 34.0% | 34.0% | 34.0% | 34.0% | 34.0% |
| Maximum Green (s) | 54.9 | 54.9 | 54.9 | 54.9 | 54.9 | 54.9 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |
| Lead/Lag | | | | | | | Lag | Lag | Lag | Lag | Lag | 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 | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max | None | None | None | None | None | None |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Flash Dont Walk (s) | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| Pedestrian Calls (#/hr) | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| Act Effct Green (s) | 68.7 | 68.7 | 68.7 | 68.7 | 68.7 | 68.7 | | 20.2 | 20.2 | 20.2 | 20.2 | 20.2 |
| Actuated g/C Ratio | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 |
| v/c Ratio | 0.35 | 0.29 | 0.08 | 0.20 | 0.44 | 0.20 | | 0.32 | 0.19 | 0.02 | 0.01 | 0.03 |
| Control Delay | 8.1 | 2.9 | 0.3 | 11.7 | 11.4 | 2.3 | | 34.8 | 9.1 | 27.2 | 27.0 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 8.1 | 2.9 | 0.3 | 11.7 | 11.4 | 2.3 | | 34.8 | 9.1 | 27.2 | 27.0 | 0.1 |
| LOS | A | A | A | B | B | A | | C | A | C | C | A |
| Approach Delay | | 3.3 | | | 10.2 | | | 23.8 | | | 11.9 | |
| Approach LOS | | A | | | B | | | C | | | B | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 13 (13%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 80 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.44 | | | |
| Intersection Signal Delay: 8.5 | | Intersection LOS: A | |
| Intersection Capacity Utilization 74.2% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 9: City Park Drive/1941 Ogilvie & Ogilvie Road



| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Detector 2 Extend (s) | | |
| Turn Type | | |
| Protected Phases | 3 | 7 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 1.0 | 1.0 |
| Minimum Split (s) | 5.0 | 5.0 |
| Total Split (s) | 5.0 | 5.0 |
| Total Split (%) | 5% | 5% |
| Maximum Green (s) | 3.0 | 3.0 |
| Yellow Time (s) | 2.0 | 2.0 |
| All-Red Time (s) | 0.0 | 0.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | None | None |
| Walk Time (s) | 0.0 | 0.0 |
| Flash Dont Walk (s) | 0.0 | 0.0 |
| Pedestrian Calls (#/hr) | 35 | 35 |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

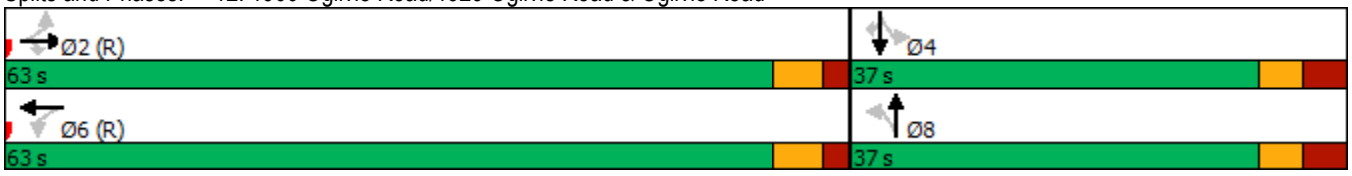
| Intersection Summary |
|---|

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 99 | 832 | 27 | 19 | 1151 | 44 | 9 | 1 | 12 | 42 | 11 | 63 |
| Future Volume (vph) | 99 | 832 | 27 | 19 | 1151 | 44 | 9 | 1 | 12 | 42 | 11 | 63 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 60.0 | | 80.0 | 90.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 0 | 0 | | 1 |
| Taper Length (m) | 30.0 | | | 20.0 | | | 7.6 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.95 | 0.99 | 1.00 | | 0.96 | 0.95 | | | 0.96 | 0.94 |
| Frt | | | 0.850 | | 0.994 | | | 0.862 | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | 0.962 | |
| Satd. Flow (prot) | 1695 | 3390 | 1517 | 1679 | 3324 | 0 | 1695 | 1454 | 0 | 0 | 1717 | 1517 |
| Flt Permitted | 0.195 | | | 0.316 | | | 0.722 | | | | 0.774 | |
| Satd. Flow (perm) | 344 | 3390 | 1434 | 553 | 3324 | 0 | 1232 | 1454 | 0 | 0 | 1329 | 1429 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 40 | | 6 | | | 12 | | | | 61 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 190.5 | | | 224.7 | | | 86.0 | | | 56.6 | |
| Travel Time (s) | | 11.4 | | | 13.5 | | | 5.2 | | | 3.4 | |
| Confl. Peds. (#/hr) | 41 | | 17 | 17 | | 41 | 47 | | 48 | 48 | | 47 |
| 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 (%) | 2% | 2% | 2% | 3% | 3% | 3% | 2% | 2% | 2% | 2% | 2% | 2% |
| Adj. Flow (vph) | 99 | 832 | 27 | 19 | 1151 | 44 | 9 | 1 | 12 | 42 | 11 | 63 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 99 | 832 | 27 | 19 | 1195 | 0 | 9 | 13 | 0 | 0 | 53 | 63 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Thru | | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turn Type | Perm | NA | Perm | Perm | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | | 2 | | | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | | 8 | | | 4 | | 4 |
| Detector Phase | 2 | 2 | 2 | 6 | 6 | | 8 | 8 | | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | | 36.7 | 36.7 | | 36.7 | 36.7 | 36.7 |
| Total Split (s) | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | | 37.0 | 37.0 | | 37.0 | 37.0 | 37.0 |
| Total Split (%) | 63.0% | 63.0% | 63.0% | 63.0% | 63.0% | | 37.0% | 37.0% | | 37.0% | 37.0% | 37.0% |
| Maximum Green (s) | 57.1 | 57.1 | 57.1 | 57.1 | 57.1 | | 30.3 | 30.3 | | 30.3 | 30.3 | 30.3 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | | 3.3 | 3.3 | | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | | 3.4 | 3.4 | | 3.4 | 3.4 | 3.4 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | 5.9 | 5.9 | 5.9 | 5.9 | 5.9 | | 6.7 | 6.7 | | | 6.7 | 6.7 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max | C-Max | C-Max | C-Max | | None | None | | None | None | None |
| Walk Time (s) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | 23.0 |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 10 | 10 | | 30 | 30 | | 30 | 30 | 30 |
| Act Effct Green (s) | 69.9 | 69.9 | 69.9 | 69.9 | 69.9 | | 22.0 | 22.0 | | | 22.0 | 22.0 |
| Actuated g/C Ratio | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | | 0.22 | 0.22 | | | 0.22 | 0.22 |
| v/c Ratio | 0.41 | 0.35 | 0.03 | 0.05 | 0.51 | | 0.03 | 0.04 | | | 0.18 | 0.17 |
| Control Delay | 17.1 | 8.5 | 1.6 | 5.7 | 5.5 | | 25.2 | 13.3 | | | 29.3 | 8.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 17.1 | 8.5 | 1.6 | 5.7 | 5.5 | | 25.2 | 13.3 | | | 29.3 | 8.5 |
| LOS | B | A | A | A | A | | C | B | | | C | A |
| Approach Delay | | 9.2 | | | 5.5 | | | 18.2 | | | 18.0 | |
| Approach LOS | | A | | | A | | | B | | | B | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 12 (12%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 80 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.51 | | | |
| Intersection Signal Delay: 7.8 | | Intersection LOS: A | |
| Intersection Capacity Utilization 94.4% | | ICU Level of Service F | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 12: 1900 Ogilvie Road/1929 Ogilvie Road & Ogilvie Road



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 156 | 598 | 88 | 14 | 981 | 161 | 86 | 38 | 13 | 119 | 27 | 178 |
| Future Volume (vph) | 156 | 598 | 88 | 14 | 981 | 161 | 86 | 38 | 13 | 119 | 27 | 178 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 40.0 | 45.0 | | 70.0 | 30.0 | | 0.0 | 20.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 30.0 | | | 30.0 | | | 25.0 | | | 25.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.92 | 0.98 | | 0.89 | 0.99 | 0.99 | | 0.98 | 0.98 | |
| Frt | | | 0.850 | | | 0.850 | | 0.962 | | | 0.870 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1679 | 3357 | 1502 | 1679 | 3357 | 1502 | 1631 | 1637 | 0 | 1647 | 1474 | 0 |
| Flt Permitted | 0.179 | | | 0.426 | | | 0.629 | | | 0.603 | | |
| Satd. Flow (perm) | 312 | 3357 | 1389 | 737 | 3357 | 1340 | 1069 | 1637 | 0 | 1023 | 1474 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 121 | | | 161 | | 13 | | | 178 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 257.6 | | | 190.5 | | | 345.6 | | | 177.6 | |
| Travel Time (s) | | 15.5 | | | 11.4 | | | 20.7 | | | 10.7 | |
| Confl. Peds. (#/hr) | 43 | | 27 | 27 | | 43 | 14 | | 23 | 23 | | 14 |
| 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% | 3% | 3% | 3% | 3% | 3% | 6% | 6% | 6% | 5% | 5% | 5% |
| Adj. Flow (vph) | 156 | 598 | 88 | 14 | 981 | 161 | 86 | 38 | 13 | 119 | 27 | 178 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 156 | 598 | 88 | 14 | 981 | 161 | 86 | 51 | 0 | 119 | 205 | 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | | Left | Thru | |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | |
| Trailing Detector (m) | 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 | |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | |
| Detector 1 Type | 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 | |
| Detector 1 Queue (s) | 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 | |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | |

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Storage Length (m) | | |
| Storage Lanes | | |
| Taper Length (m) | | |
| Lane Util. Factor | | |
| Ped Bike Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (k/h) | | |
| Link Distance (m) | | |
| Travel Time (s) | | |
| Confl. Peds. (#/hr) | | |
| Peak Hour Factor | | |
| Heavy Vehicles (%) | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(m) | | |
| Link Offset(m) | | |
| Crosswalk Width(m) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (k/h) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (m) | | |
| Trailing Detector (m) | | |
| Detector 1 Position(m) | | |
| Detector 1 Size(m) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(m) | | |
| Detector 2 Size(m) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 9.7 | 30.0 | 30.0 | 9.7 | 30.0 | 30.0 | 37.4 | 37.4 | | 37.4 | 37.4 | |
| Total Split (s) | 15.0 | 42.0 | 42.0 | 15.0 | 42.0 | 42.0 | 38.0 | 38.0 | | 38.0 | 38.0 | |
| Total Split (%) | 15.0% | 42.0% | 42.0% | 15.0% | 42.0% | 42.0% | 38.0% | 38.0% | | 38.0% | 38.0% | |
| Maximum Green (s) | 10.3 | 36.0 | 36.0 | 10.3 | 36.0 | 36.0 | 30.6 | 30.6 | | 30.6 | 30.6 | |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.0 | 2.3 | 2.3 | 1.0 | 2.3 | 2.3 | 4.4 | 4.4 | | 4.4 | 4.4 | |
| 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) | 4.7 | 6.0 | 6.0 | 4.7 | 6.0 | 6.0 | 7.4 | 7.4 | | 7.4 | 7.4 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lag | Lag | | Lag | Lag | |
| Lead-Lag Optimize? | Yes | 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 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | | None | None | |
| Walk Time (s) | | 9.0 | 9.0 | | 9.0 | 9.0 | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Flash Dont Walk (s) | | 15.0 | 15.0 | | 15.0 | 15.0 | 28.0 | 28.0 | | 28.0 | 28.0 | |
| Pedestrian Calls (#/hr) | | 15 | 15 | | 15 | 15 | 15 | 15 | | 15 | 15 | |
| Act Effct Green (s) | 63.3 | 59.9 | 59.9 | 55.7 | 48.5 | 48.5 | 19.5 | 19.5 | | 19.5 | 19.5 | |
| Actuated g/C Ratio | 0.63 | 0.60 | 0.60 | 0.56 | 0.48 | 0.48 | 0.20 | 0.20 | | 0.20 | 0.20 | |
| v/c Ratio | 0.49 | 0.30 | 0.10 | 0.03 | 0.60 | 0.22 | 0.42 | 0.16 | | 0.60 | 0.48 | |
| Control Delay | 25.7 | 21.4 | 10.1 | 6.1 | 12.4 | 1.2 | 38.5 | 24.0 | | 47.2 | 10.2 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 25.7 | 21.4 | 10.1 | 6.1 | 12.4 | 1.2 | 38.5 | 24.0 | | 47.2 | 10.2 | |
| LOS | C | C | B | A | B | A | D | C | | D | B | |
| Approach Delay | | 21.0 | | | 10.8 | | | 33.1 | | | 23.8 | |
| Approach LOS | | C | | | B | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 29 (29%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 85 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.60 | | | |
| Intersection Signal Delay: 17.2 | | Intersection LOS: B | |
| Intersection Capacity Utilization 85.6% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 15: City Park Drive/Bathgate Drive & Ogilvie Road

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Turn Type | | |
| Protected Phases | 3 | 7 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 1.0 | 1.0 |
| Minimum Split (s) | 5.0 | 5.0 |
| Total Split (s) | 5.0 | 5.0 |
| Total Split (%) | 5% | 5% |
| Maximum Green (s) | 3.0 | 3.0 |
| Yellow Time (s) | 2.0 | 2.0 |
| All-Red Time (s) | 0.0 | 0.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | Ped | Ped |
| Walk Time (s) | 0.0 | 0.0 |
| Flash Dont Walk (s) | 0.0 | 0.0 |
| Pedestrian Calls (#/hr) | 15 | 15 |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

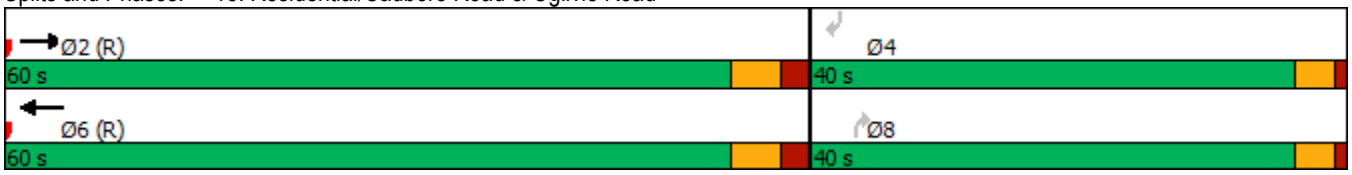
| Intersection Summary |
|---|

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 1216 | 9 | 0 | 1271 | 57 | 0 | 0 | 6 | 0 | 0 | 21 |
| Future Volume (vph) | 0 | 1216 | 9 | 0 | 1271 | 57 | 0 | 0 | 6 | 0 | 0 | 21 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.999 | | | 0.994 | | | | 0.865 | | | 0.865 |
| Flt Protected | | | | | | | | | | | | |
| Satd. Flow (prot) | 0 | 3387 | 0 | 0 | 3370 | 0 | 0 | 0 | 1543 | 0 | 0 | 1543 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 3387 | 0 | 0 | 3370 | 0 | 0 | 0 | 1543 | 0 | 0 | 1543 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 1 | | | 7 | | | | 53 | | | 46 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 264.5 | | | 257.6 | | | 90.1 | | | 116.1 | |
| Travel Time (s) | | 15.9 | | | 15.5 | | | 5.4 | | | 7.0 | |
| 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 |
| Adj. Flow (vph) | 0 | 1216 | 9 | 0 | 1271 | 57 | 0 | 0 | 6 | 0 | 0 | 21 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1225 | 0 | 0 | 1328 | 0 | 0 | 0 | 6 | 0 | 0 | 21 |
| 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) | | 3.7 | | | 3.7 | | | 0.0 | | | 0.0 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 1.6 | | | 1.6 | | | 1.6 | | | 1.6 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | | 2 | | | 2 | | | | 1 | | | 1 |
| Detector Template | | Thru | | | Thru | | | | Right | | | Right |
| Leading Detector (m) | | 10.0 | | | 10.0 | | | | 2.0 | | | 2.0 |
| Trailing Detector (m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Position(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Size(m) | | 0.6 | | | 0.6 | | | | 2.0 | | | 2.0 |
| Detector 1 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Queue (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Delay (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 2 Position(m) | | 9.4 | | | 9.4 | | | | | | | |
| Detector 2 Size(m) | | 0.6 | | | 0.6 | | | | | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | | | | |
| Turn Type | | NA | | | NA | | | | Perm | | | Perm |
| Protected Phases | | 2 | | | 6 | | | | | | | |
| Permitted Phases | | | | | | | | | 8 | | | 4 |
| Detector Phase | | 2 | | | 6 | | | | 8 | | | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 10.0 | | | 10.0 | | | | 5.0 | | | 5.0 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | 35.0 | | | 35.0 | | | | 40.0 | | | 40.0 |
| Total Split (s) | | 60.0 | | | 60.0 | | | | 40.0 | | | 40.0 |
| Total Split (%) | | 60.0% | | | 60.0% | | | | 40.0% | | | 40.0% |
| Maximum Green (s) | | 54.0 | | | 54.0 | | | | 36.0 | | | 36.0 |
| Yellow Time (s) | | 3.7 | | | 3.7 | | | | 3.0 | | | 3.0 |
| All-Red Time (s) | | 2.3 | | | 2.3 | | | | 1.0 | | | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | | | 4.0 | | | 4.0 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | | 3.0 | | | 3.0 | | | | 3.0 | | | 3.0 |
| Recall Mode | | C-Max | | | C-Max | | | | None | | | None |
| Walk Time (s) | | 15.0 | | | 15.0 | | | | 24.0 | | | 24.0 |
| Flash Dont Walk (s) | | 14.0 | | | 14.0 | | | | 12.0 | | | 12.0 |
| Pedestrian Calls (#/hr) | | 20 | | | 20 | | | | 15 | | | 15 |
| Act Effct Green (s) | | 78.5 | | | 78.5 | | | | 17.7 | | | 17.7 |
| Actuated g/C Ratio | | 0.78 | | | 0.78 | | | | 0.18 | | | 0.18 |
| v/c Ratio | | 0.46 | | | 0.50 | | | | 0.02 | | | 0.07 |
| Control Delay | | 7.0 | | | 4.4 | | | | 0.2 | | | 2.1 |
| Queue Delay | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Total Delay | | 7.0 | | | 4.4 | | | | 0.2 | | | 2.1 |
| LOS | | A | | | A | | | | A | | | A |
| Approach Delay | | 7.0 | | | 4.4 | | | 0.2 | | | 2.1 | |
| Approach LOS | | A | | | A | | | A | | | A | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 42 (42%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 80 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.50 | | | |
| Intersection Signal Delay: 5.6 | | Intersection LOS: A | |
| Intersection Capacity Utilization 51.5% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 18: Residential/Cadboro Road & Ogilvie Road

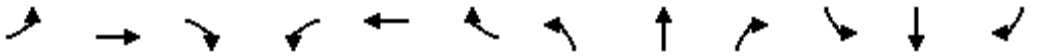


| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 198 | 1015 | 925 | 81 | 183 | 485 |
| Future Volume (vph) | 198 | 1015 | 925 | 81 | 183 | 485 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | 0.0 | | 70.0 | 0.0 | |
| Storage Lanes | 1 | 1 | | 1 | 0 | |
| Taper Length (m) | 7.6 | | | | 7.6 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | | 0.986 |
| Satd. Flow (prot) | 1647 | 1473 | 3325 | 1488 | 0 | 3217 |
| Flt Permitted | 0.950 | | | | | 0.576 |
| Satd. Flow (perm) | 1647 | 1473 | 3325 | 1488 | 0 | 1879 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 476 | | | | |
| Link Speed (k/h) | 60 | | 60 | | | 60 |
| Link Distance (m) | 216.4 | | 230.9 | | | 341.9 |
| Travel Time (s) | 13.0 | | 13.9 | | | 20.5 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Heavy Vehicles (%) | 5% | 5% | 4% | 4% | 6% | 6% |
| Adj. Flow (vph) | 198 | 1015 | 925 | 81 | 183 | 485 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 198 | 1015 | 925 | 81 | 0 | 668 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(m) | 3.7 | | 0.0 | | | 0.0 |
| Link Offset(m) | 0.0 | | 0.0 | | | 0.0 |
| Crosswalk Width(m) | 4.9 | | 4.9 | | | 4.9 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | 14 | | 14 | 24 | |
| Number of Detectors | 1 | 1 | 2 | 1 | 1 | 2 |
| Detector Template | Left | Right | Thru | Right | Left | Thru |
| Leading Detector (m) | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | | 28.7 | | | 28.7 |
| Detector 2 Size(m) | | | 1.8 | | | 1.8 |
| Detector 2 Type | | | Cl+Ex | | | Cl+Ex |
| Detector 2 Channel | | | | | | |
| Detector 2 Extend (s) | | | 0.0 | | | 0.0 |
| Turn Type | Prot | Free | NA | pm+ov | Perm | NA |
| Protected Phases | 8 | | 2 | 8 | | 6 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Permitted Phases | | Free | | 2 | 6 | |
| Detector Phase | 8 | | 2 | 8 | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 25.3 | | 30.5 | 25.3 | 16.5 | 16.5 |
| Total Split (s) | 35.0 | | 55.0 | 35.0 | 55.0 | 55.0 |
| Total Split (%) | 38.9% | | 61.1% | 38.9% | 61.1% | 61.1% |
| Maximum Green (s) | 28.7 | | 48.5 | 28.7 | 48.5 | 48.5 |
| Yellow Time (s) | 3.3 | | 4.2 | 3.3 | 4.2 | 4.2 |
| All-Red Time (s) | 3.0 | | 2.3 | 3.0 | 2.3 | 2.3 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 6.3 | | 6.5 | 6.3 | | 6.5 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | | Max | None | Max | Max |
| Walk Time (s) | 7.0 | | 7.0 | 7.0 | | |
| Flash Dont Walk (s) | 12.0 | | 17.0 | 12.0 | | |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | | |
| Act Effct Green (s) | 14.2 | 75.7 | 48.6 | 75.7 | | 48.6 |
| Actuated g/C Ratio | 0.19 | 1.00 | 0.64 | 1.00 | | 0.64 |
| v/c Ratio | 0.64 | 0.69 | 0.43 | 0.05 | | 0.55 |
| Control Delay | 38.1 | 2.7 | 8.0 | 0.1 | | 10.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 38.1 | 2.7 | 8.0 | 0.1 | | 10.5 |
| LOS | D | A | A | A | | B |
| Approach Delay | 8.4 | | 7.4 | | | 10.5 |
| Approach LOS | A | | A | | | B |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 90 | | | |
| Actuated Cycle Length: 75.7 | | | |
| Natural Cycle: 60 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.69 | | | |
| Intersection Signal Delay: 8.6 | | Intersection LOS: A | |
| Intersection Capacity Utilization 74.4% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 22: Blair Road & Hwy 174 EB off

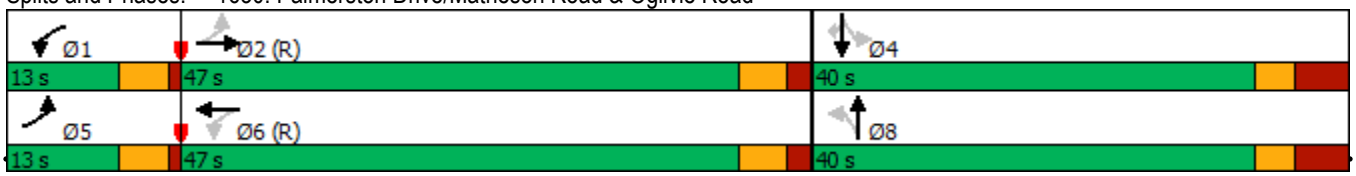


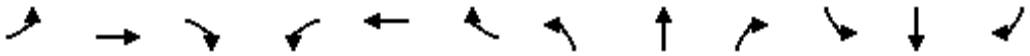
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 83 | 1085 | 21 | 33 | 1264 | 14 | 57 | 2 | 26 | 25 | 2 | 171 |
| Future Volume (vph) | 83 | 1085 | 21 | 33 | 1264 | 14 | 57 | 2 | 26 | 25 | 2 | 171 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 0.0 | 70.0 | | 0.0 | 15.0 | | 0.0 | 0.0 | | 35.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 0 | | 1 |
| Taper Length (m) | 30.0 | | | 30.0 | | | 7.6 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 1.00 | | 0.99 | 1.00 | | 1.00 | 0.98 | | | 0.99 | 0.99 |
| Frt | | 0.997 | | | 0.998 | | | 0.861 | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | 0.956 | |
| Satd. Flow (prot) | 1695 | 3375 | 0 | 1695 | 3382 | 0 | 1662 | 1471 | 0 | 0 | 1706 | 1517 |
| Flt Permitted | 0.153 | | | 0.216 | | | 0.740 | | | | 0.727 | |
| Satd. Flow (perm) | 273 | 3375 | 0 | 383 | 3382 | 0 | 1290 | 1471 | 0 | 0 | 1282 | 1497 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 2 | | | 1 | | | 26 | | | | 171 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 314.1 | | | 264.5 | | | 176.2 | | | 174.1 | |
| Travel Time (s) | | 18.8 | | | 15.9 | | | 10.6 | | | 10.4 | |
| Confl. Peds. (#/hr) | 11 | | 26 | 26 | | 11 | 4 | | 14 | 14 | | |
| Confl. Bikes (#/hr) | | | 21 | | | 9 | | | 2 | | | 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 (%) | 2% | 2% | 2% | 2% | 2% | 2% | 4% | 4% | 4% | 2% | 2% | 2% |
| Adj. Flow (vph) | 83 | 1085 | 21 | 33 | 1264 | 14 | 57 | 2 | 26 | 25 | 2 | 171 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 83 | 1106 | 0 | 33 | 1278 | 0 | 57 | 28 | 0 | 0 | 27 | 171 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | 1 |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | | pm+pt | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | 4 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.7 | 33.6 | | 9.7 | 33.6 | | 40.2 | 40.2 | | 40.2 | 40.2 | 40.2 |
| Total Split (s) | 13.0 | 47.0 | | 13.0 | 47.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | 40.0 |
| Total Split (%) | 13.0% | 47.0% | | 13.0% | 47.0% | | 40.0% | 40.0% | | 40.0% | 40.0% | 40.0% |
| Maximum Green (s) | 8.3 | 41.4 | | 8.3 | 41.4 | | 32.8 | 32.8 | | 32.8 | 32.8 | 32.8 |
| Yellow Time (s) | 3.7 | 3.7 | | 3.7 | 3.7 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 1.0 | 1.9 | | 1.0 | 1.9 | | 4.2 | 4.2 | | 4.2 | 4.2 | 4.2 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | 4.7 | 5.6 | | 4.7 | 5.6 | | 7.2 | 7.2 | | | 7.2 | 7.2 |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | | None | C-Max | | None | None | | None | None | None |
| Walk Time (s) | | 15.0 | | | 15.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 13.0 | | | 13.0 | | 26.0 | 26.0 | | 26.0 | 26.0 | 26.0 |
| Pedestrian Calls (#/hr) | | 10 | | | 10 | | 10 | 10 | | 10 | 10 | 10 |
| Act Effct Green (s) | 70.9 | 65.6 | | 68.9 | 62.9 | | 14.9 | 14.9 | | | 14.9 | 14.9 |
| Actuated g/C Ratio | 0.71 | 0.66 | | 0.69 | 0.63 | | 0.15 | 0.15 | | | 0.15 | 0.15 |
| v/c Ratio | 0.29 | 0.50 | | 0.10 | 0.60 | | 0.30 | 0.12 | | | 0.14 | 0.46 |
| Control Delay | 8.3 | 12.7 | | 4.6 | 7.9 | | 38.9 | 13.0 | | | 34.7 | 9.0 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 8.3 | 12.7 | | 4.6 | 7.9 | | 38.9 | 13.0 | | | 34.7 | 9.0 |
| LOS | A | B | | A | A | | D | B | | | C | A |
| Approach Delay | | 12.4 | | | 7.8 | | | 30.4 | | | 12.5 | |
| Approach LOS | | B | | | A | | | C | | | B | |

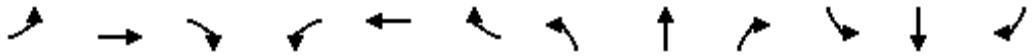
| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 54 (54%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 85 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.60 | | | |
| Intersection Signal Delay: 10.8 | | Intersection LOS: B | |
| Intersection Capacity Utilization 80.7% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 1630: Palmerston Drive/Matheson Road & Ogilvie Road





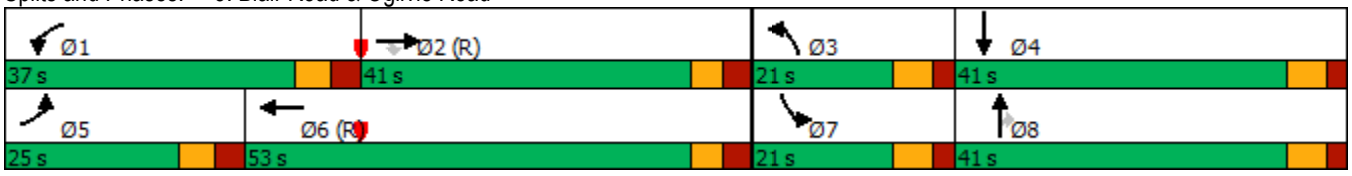
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 150 | 828 | 539 | 705 | 492 | 83 | 218 | 296 | 731 | 75 | 761 | 55 |
| Future Volume (vph) | 150 | 828 | 539 | 705 | 492 | 83 | 218 | 296 | 731 | 75 | 761 | 55 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 0.0 | 110.0 | | 0.0 | 120.0 | | 0.0 | 30.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | 2 | | 1 | 1 | | 0 |
| Taper Length (m) | 40.0 | | | 60.0 | | | 60.0 | | | 45.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 | 0.95 | 0.97 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | 0.99 | | | | | | 0.99 | |
| Frt | | | 0.850 | | 0.978 | | | | 0.850 | | 0.990 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1679 | 3357 | 1502 | 3257 | 3244 | 0 | 3257 | 1767 | 1502 | 1679 | 3294 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1679 | 3357 | 1502 | 3257 | 3244 | 0 | 3257 | 1767 | 1502 | 1679 | 3294 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 225 | | 15 | | | | 444 | | 5 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 372.0 | | | 396.5 | | | 239.9 | | | 411.0 | |
| Travel Time (s) | | 22.3 | | | 23.8 | | | 14.4 | | | 24.7 | |
| Confl. Peds. (#/hr) | | | | | | 29 | | | | | | 84 |
| 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% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% |
| Adj. Flow (vph) | 150 | 828 | 539 | 705 | 492 | 83 | 218 | 296 | 731 | 75 | 761 | 55 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 150 | 828 | 539 | 705 | 575 | 0 | 218 | 296 | 731 | 75 | 816 | 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) | | 7.4 | | | 7.4 | | | 7.4 | | | 7.4 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | 1 | 1 | 2 | |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Thru | Right | Left | Thru | |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | |
| Trailing Detector (m) | 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 | |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | |
| Detector 1 Type | 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 | |
| Detector 1 Queue (s) | 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 | |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | |

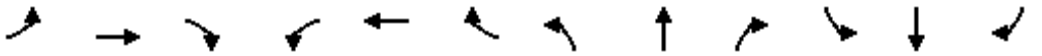


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | |
| Minimum Split (s) | 11.8 | 38.6 | 38.6 | 11.8 | 38.6 | | 11.5 | 35.5 | 35.5 | 11.5 | 35.5 | |
| Total Split (s) | 25.0 | 41.0 | 41.0 | 37.0 | 53.0 | | 21.0 | 41.0 | 41.0 | 21.0 | 41.0 | |
| Total Split (%) | 17.9% | 29.3% | 29.3% | 26.4% | 37.9% | | 15.0% | 29.3% | 29.3% | 15.0% | 29.3% | |
| Maximum Green (s) | 18.2 | 34.4 | 34.4 | 30.2 | 46.4 | | 14.5 | 34.5 | 34.5 | 14.5 | 34.5 | |
| Yellow Time (s) | 3.7 | 3.3 | 3.3 | 3.7 | 3.3 | | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | |
| All-Red Time (s) | 3.1 | 3.3 | 3.3 | 3.1 | 3.3 | | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.8 | 6.6 | 6.6 | 6.8 | 6.6 | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | 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 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | | None | None | None | None | None | |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 25.0 | 25.0 | | 25.0 | | | 22.0 | 22.0 | | 22.0 | |
| Pedestrian Calls (#/hr) | | 30 | 30 | | 30 | | | 35 | 35 | | 35 | |
| Act Effct Green (s) | 16.2 | 34.4 | 34.4 | 30.2 | 48.4 | | 13.4 | 37.7 | 37.7 | 11.3 | 35.6 | |
| Actuated g/C Ratio | 0.12 | 0.25 | 0.25 | 0.22 | 0.35 | | 0.10 | 0.27 | 0.27 | 0.08 | 0.25 | |
| v/c Ratio | 0.77 | 1.00 | 1.00 | 1.00 | 0.51 | | 0.70 | 0.62 | 1.00 | 0.56 | 0.97 | |
| Control Delay | 85.3 | 84.7 | 69.8 | 89.2 | 37.7 | | 73.6 | 52.3 | 54.4 | 77.1 | 76.0 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 85.3 | 84.7 | 69.8 | 89.2 | 37.7 | | 73.6 | 52.3 | 54.4 | 77.1 | 76.0 | |
| LOS | F | F | E | F | D | | E | D | D | E | E | |
| Approach Delay | | 79.5 | | | 66.1 | | | 57.2 | | | 76.1 | |
| Approach LOS | | E | | | E | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 140 | | | |
| Actuated Cycle Length: 140 | | | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 140 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 1.00 | | | |
| Intersection Signal Delay: 69.8 | | Intersection LOS: E | |
| Intersection Capacity Utilization 98.4% | | ICU Level of Service F | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 3: Blair Road & Ogilvie Road





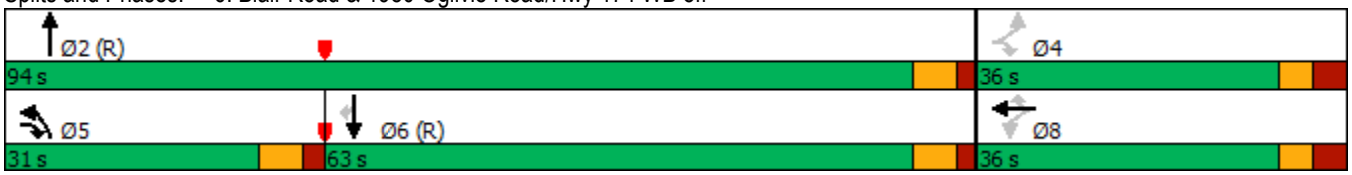
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 123 | 0 | 568 | 93 | 149 | 177 | 346 | 1306 | 0 | 0 | 1802 | 172 |
| Future Volume (vph) | 123 | 0 | 568 | 93 | 149 | 177 | 346 | 1306 | 0 | 0 | 1802 | 172 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 70.0 | 0.0 | | 70.0 | 60.0 | | 0.0 | 0.0 | | 50.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 2 | | 0 | 0 | | 1 |
| Taper Length (m) | 7.6 | | | 7.6 | | | 100.0 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 0.95 | 1.00 | 1.00 | 0.91 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (prot) | 1544 | 0 | 1381 | 1695 | 1784 | 1517 | 3164 | 3262 | 0 | 0 | 4871 | 1517 |
| Flt Permitted | 0.582 | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (perm) | 946 | 0 | 1381 | 1695 | 1784 | 1517 | 3164 | 3262 | 0 | 0 | 4871 | 1517 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 26 | | | 84 | | | | | | 97 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 518.9 | | | 416.4 | | | 90.2 | | | 239.9 | |
| Travel Time (s) | | 31.1 | | | 25.0 | | | 5.4 | | | 14.4 | |
| 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 (%) | 12% | 12% | 12% | 2% | 2% | 2% | 6% | 6% | 6% | 2% | 2% | 2% |
| Adj. Flow (vph) | 123 | 0 | 568 | 93 | 149 | 177 | 346 | 1306 | 0 | 0 | 1802 | 172 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 123 | 0 | 568 | 93 | 149 | 177 | 346 | 1306 | 0 | 0 | 1802 | 172 |
| 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) | | 3.7 | | | 3.7 | | | 7.4 | | | 7.4 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | | 1 | 1 | 2 | 1 | 1 | 2 | | | 2 | 1 |
| Detector Template | Left | | Right | Left | Thru | Right | Left | Thru | | | Thru | Right |
| Leading Detector (m) | 6.1 | | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | | pm+ov | Perm | NA | Perm | Prot | NA | | | NA | Perm |
| Protected Phases | | | 5 | | 8 | | 5 | 2 | | | 6 | |

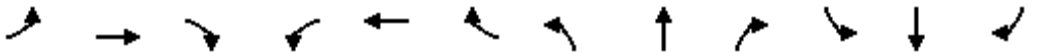
# 6: Blair Road & 1980 Ogilvie Road/Hwy 174 WB off

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | | | 6 |
| Detector Phase | 4 | | 5 | 8 | 8 | 8 | 5 | 2 | | | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | | 5.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | | | 10.0 | 10.0 |
| Minimum Split (s) | 16.8 | | 11.4 | 36.8 | 36.8 | 36.8 | 11.4 | 30.1 | | | 30.1 | 30.1 |
| Total Split (s) | 36.0 | | 31.0 | 36.0 | 36.0 | 36.0 | 31.0 | 94.0 | | | 63.0 | 63.0 |
| Total Split (%) | 27.7% | | 23.8% | 27.7% | 27.7% | 27.7% | 23.8% | 72.3% | | | 48.5% | 48.5% |
| Maximum Green (s) | 29.2 | | 24.6 | 29.2 | 29.2 | 29.2 | 24.6 | 87.9 | | | 56.9 | 56.9 |
| Yellow Time (s) | 3.3 | | 4.2 | 3.3 | 3.3 | 3.3 | 4.2 | 4.2 | | | 4.2 | 4.2 |
| All-Red Time (s) | 3.5 | | 2.2 | 3.5 | 3.5 | 3.5 | 2.2 | 1.9 | | | 1.9 | 1.9 |
| 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) | 6.8 | | 6.4 | 6.8 | 6.8 | 6.8 | 6.4 | 6.1 | | | 6.1 | 6.1 |
| 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 | 3.0 | | | 3.0 | 3.0 |
| Recall Mode | None | | None | None | None | None | None | C-Max | | | C-Max | C-Max |
| Walk Time (s) | | | | 7.0 | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | | | 23.0 | 23.0 | 23.0 | | 17.0 | | | 17.0 | 17.0 |
| Pedestrian Calls (#/hr) | | | | 20 | 20 | 20 | | 30 | | | 30 | 30 |
| Act Effct Green (s) | 23.3 | | 58.6 | 23.3 | 23.3 | 23.3 | 28.5 | 93.8 | | | 58.9 | 58.9 |
| Actuated g/C Ratio | 0.18 | | 0.45 | 0.18 | 0.18 | 0.18 | 0.22 | 0.72 | | | 0.45 | 0.45 |
| v/c Ratio | 0.73 | | 0.89 | 0.31 | 0.47 | 0.52 | 0.50 | 0.56 | | | 0.82 | 0.23 |
| Control Delay | 72.8 | | 48.9 | 46.8 | 51.0 | 28.9 | 48.4 | 10.5 | | | 35.2 | 10.8 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 72.8 | | 48.9 | 46.8 | 51.0 | 28.9 | 48.4 | 10.5 | | | 35.2 | 10.8 |
| LOS | E | | D | D | D | C | D | B | | | D | B |
| Approach Delay | | 53.1 | | | 40.8 | | | 18.4 | | | 33.1 | |
| Approach LOS | | D | | | D | | | B | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 130 | | | |
| Actuated Cycle Length: 130 | | | |
| Offset: 50 (38%), Referenced to phase 2:NBT and 6:SBT, Start of Green | | | |
| Natural Cycle: 90 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.89 | | | |
| Intersection Signal Delay: 31.6 | | Intersection LOS: C | |
| Intersection Capacity Utilization 98.3% | | ICU Level of Service F | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 6: Blair Road & 1980 Ogilvie Road/Hwy 174 WB off





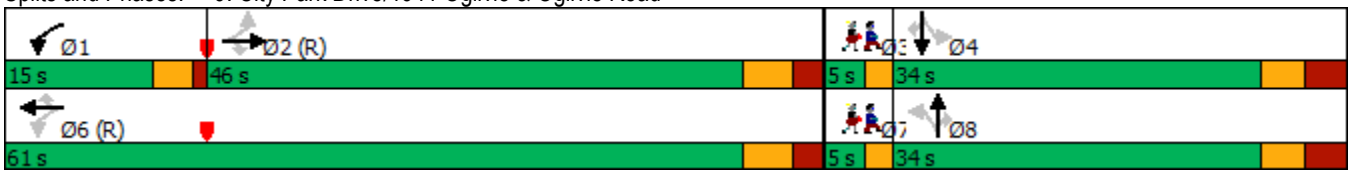
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 32 | 1484 | 152 | 103 | 603 | 38 | 183 | 10 | 161 | 78 | 19 | 76 |
| Future Volume (vph) | 32 | 1484 | 152 | 103 | 603 | 38 | 183 | 10 | 161 | 78 | 19 | 76 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 40.0 | | 100.0 | 100.0 | | 50.0 | 0.0 | | 60.0 | 20.0 | | 10.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 0 | | 1 | 1 | | 1 |
| Taper Length (m) | 30.0 | | | 25.0 | | | 7.6 | | | 15.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.89 | | 0.87 | | | 0.73 | | 0.93 | 0.87 | 0.91 | | 0.92 |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.955 | | 0.950 | | |
| Satd. Flow (prot) | 1695 | 3390 | 1517 | 1679 | 3357 | 1502 | 0 | 1609 | 1432 | 1695 | 1784 | 1517 |
| Flt Permitted | 0.424 | | | 0.074 | | | | 0.723 | | 0.558 | | |
| Satd. Flow (perm) | 675 | 3390 | 1315 | 131 | 3357 | 1104 | 0 | 1135 | 1244 | 906 | 1784 | 1388 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 152 | | | 60 | | | 161 | | | 99 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 224.7 | | | 372.0 | | | 239.4 | | | 142.3 | |
| Travel Time (s) | | 13.5 | | | 22.3 | | | 14.4 | | | 8.5 | |
| Confl. Peds. (#/hr) | 145 | | 67 | 67 | | 145 | 67 | | 110 | 110 | | 67 |
| 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 (%) | 2% | 2% | 2% | 3% | 3% | 3% | 8% | 8% | 8% | 2% | 2% | 2% |
| Adj. Flow (vph) | 32 | 1484 | 152 | 103 | 603 | 38 | 183 | 10 | 161 | 78 | 19 | 76 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 32 | 1484 | 152 | 103 | 603 | 38 | 0 | 193 | 161 | 78 | 19 | 76 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 |
| 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) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 |
| 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) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | |

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Storage Length (m) | | |
| Storage Lanes | | |
| Taper Length (m) | | |
| Lane Util. Factor | | |
| Ped Bike Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (k/h) | | |
| Link Distance (m) | | |
| Travel Time (s) | | |
| Confl. Peds. (#/hr) | | |
| Peak Hour Factor | | |
| Heavy Vehicles (%) | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(m) | | |
| Link Offset(m) | | |
| Crosswalk Width(m) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (k/h) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (m) | | |
| Trailing Detector (m) | | |
| Detector 1 Position(m) | | |
| Detector 1 Size(m) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(m) | | |
| Detector 2 Size(m) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turn Type | Perm | NA | Perm | pm+pt | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | 8 | 4 | | 4 |
| Detector Phase | 2 | 2 | 2 | 1 | 6 | 6 | 8 | 8 | 8 | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 35.1 | 35.1 | 35.1 | 9.0 | 35.1 | 35.1 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 |
| Total Split (s) | 46.0 | 46.0 | 46.0 | 15.0 | 61.0 | 61.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 |
| Total Split (%) | 46.0% | 46.0% | 46.0% | 15.0% | 61.0% | 61.0% | 34.0% | 34.0% | 34.0% | 34.0% | 34.0% | 34.0% |
| Maximum Green (s) | 39.9 | 39.9 | 39.9 | 11.0 | 54.9 | 54.9 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.0 | 3.7 | 3.7 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 2.4 | 2.4 | 2.4 | 1.0 | 2.4 | 2.4 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.1 | 6.1 | 6.1 | 4.0 | 6.1 | 6.1 | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |
| Lead/Lag | Lag | Lag | Lag | Lead | | | Lag | Lag | Lag | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | 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 | 3.0 |
| Recall Mode | C-Max | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None | None |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Flash Dont Walk (s) | 22.0 | 22.0 | 22.0 | | 22.0 | 22.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| Pedestrian Calls (#/hr) | 35 | 35 | 35 | | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| Act Effct Green (s) | 51.6 | 51.6 | 51.6 | 63.9 | 61.8 | 61.8 | | 22.6 | 22.6 | 22.6 | 22.6 | 22.6 |
| Actuated g/C Ratio | 0.52 | 0.52 | 0.52 | 0.64 | 0.62 | 0.62 | | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 |
| v/c Ratio | 0.09 | 0.85 | 0.20 | 0.49 | 0.29 | 0.05 | | 0.75 | 0.40 | 0.38 | 0.05 | 0.19 |
| Control Delay | 9.1 | 20.7 | 1.0 | 20.3 | 10.6 | 1.4 | | 53.9 | 7.8 | 36.6 | 27.6 | 4.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 9.1 | 20.7 | 1.0 | 20.3 | 10.6 | 1.4 | | 53.9 | 7.8 | 36.6 | 27.6 | 4.5 |
| LOS | A | C | A | C | B | A | | D | A | D | C | A |
| Approach Delay | | 18.7 | | | 11.5 | | | 32.9 | | | 21.5 | |
| Approach LOS | | B | | | B | | | C | | | C | |

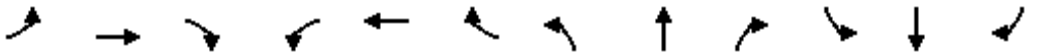
| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 30 (30%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 95 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.85 | | | |
| Intersection Signal Delay: 18.8 | | Intersection LOS: B | |
| Intersection Capacity Utilization 102.6% | | ICU Level of Service G | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 9: City Park Drive/1941 Ogilvie & Ogilvie Road



| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Turn Type | | |
| Protected Phases | 3 | 7 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 1.0 | 1.0 |
| Minimum Split (s) | 5.0 | 5.0 |
| Total Split (s) | 5.0 | 5.0 |
| Total Split (%) | 5% | 5% |
| Maximum Green (s) | 3.0 | 3.0 |
| Yellow Time (s) | 2.0 | 2.0 |
| All-Red Time (s) | 0.0 | 0.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | None | None |
| Walk Time (s) | 0.0 | 0.0 |
| Flash Dont Walk (s) | 0.0 | 0.0 |
| Pedestrian Calls (#/hr) | 35 | 35 |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

| Intersection Summary |
|---|

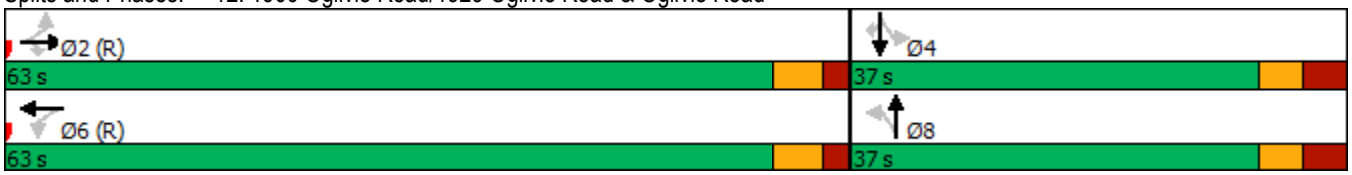


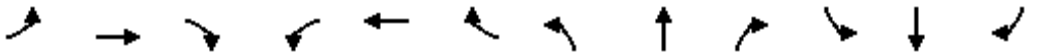
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 43 | 1428 | 66 | 32 | 861 | 24 | 47 | 3 | 28 | 135 | 3 | 132 |
| Future Volume (vph) | 43 | 1428 | 66 | 32 | 861 | 24 | 47 | 3 | 28 | 135 | 3 | 132 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 60.0 | | 80.0 | 90.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 0 | 0 | | 1 |
| Taper Length (m) | 30.0 | | | 20.0 | | | 7.6 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.850 | | 0.996 | | | 0.865 | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | 0.953 | |
| Satd. Flow (prot) | 1695 | 3390 | 1517 | 1679 | 3345 | 0 | 1695 | 1543 | 0 | 0 | 1700 | 1517 |
| Flt Permitted | 0.289 | | | 0.131 | | | 0.669 | | | | 0.708 | |
| Satd. Flow (perm) | 516 | 3390 | 1517 | 231 | 3345 | 0 | 1194 | 1543 | 0 | 0 | 1263 | 1517 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 66 | | 5 | | | 28 | | | | 132 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 190.5 | | | 224.7 | | | 86.0 | | | 56.6 | |
| Travel Time (s) | | 11.4 | | | 13.5 | | | 5.2 | | | 3.4 | |
| 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 (%) | 2% | 2% | 2% | 3% | 3% | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Adj. Flow (vph) | 43 | 1428 | 66 | 32 | 861 | 24 | 47 | 3 | 28 | 135 | 3 | 132 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 43 | 1428 | 66 | 32 | 885 | 0 | 47 | 31 | 0 | 0 | 138 | 132 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Thru | | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | NA | | Perm | NA | Perm |
| Protected Phases | | 2 | | | 6 | | | 8 | | | 4 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 2 | | 2 | 6 | | | 8 | | | 4 | | 4 |
| Detector Phase | 2 | 2 | 2 | 6 | 6 | | 8 | 8 | | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | | 36.7 | 36.7 | | 36.7 | 36.7 | 36.7 |
| Total Split (s) | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | | 37.0 | 37.0 | | 37.0 | 37.0 | 37.0 |
| Total Split (%) | 63.0% | 63.0% | 63.0% | 63.0% | 63.0% | | 37.0% | 37.0% | | 37.0% | 37.0% | 37.0% |
| Maximum Green (s) | 57.1 | 57.1 | 57.1 | 57.1 | 57.1 | | 30.3 | 30.3 | | 30.3 | 30.3 | 30.3 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | | 3.3 | 3.3 | | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | | 3.4 | 3.4 | | 3.4 | 3.4 | 3.4 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | 5.9 | 5.9 | 5.9 | 5.9 | 5.9 | | 6.7 | 6.7 | | | 6.7 | 6.7 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max | C-Max | C-Max | C-Max | | None | None | | None | None | None |
| Walk Time (s) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | 23.0 |
| Pedestrian Calls (#/hr) | 20 | 20 | 20 | 20 | 20 | | 30 | 30 | | 30 | 30 | 30 |
| Act Effct Green (s) | 64.7 | 64.7 | 64.7 | 64.7 | 64.7 | | 22.7 | 22.7 | | | 22.7 | 22.7 |
| Actuated g/C Ratio | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | | 0.23 | 0.23 | | | 0.23 | 0.23 |
| v/c Ratio | 0.13 | 0.65 | 0.07 | 0.21 | 0.41 | | 0.17 | 0.08 | | | 0.48 | 0.30 |
| Control Delay | 5.9 | 8.4 | 0.7 | 10.5 | 6.8 | | 28.9 | 11.0 | | | 37.2 | 6.6 |
| Queue Delay | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 5.9 | 8.5 | 0.7 | 10.5 | 6.8 | | 28.9 | 11.0 | | | 37.2 | 6.6 |
| LOS | A | A | A | B | A | | C | B | | | D | A |
| Approach Delay | | 8.1 | | | 7.0 | | | 21.8 | | | 22.2 | |
| Approach LOS | | A | | | A | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 8 (8%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 80 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.65 | | | |
| Intersection Signal Delay: 9.5 | | Intersection LOS: A | |
| Intersection Capacity Utilization 66.9% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 12: 1900 Ogilvie Road/1929 Ogilvie Road & Ogilvie Road





| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 207 | 1061 | 165 | 12 | 839 | 110 | 120 | 69 | 26 | 140 | 47 | 159 |
| Future Volume (vph) | 207 | 1061 | 165 | 12 | 839 | 110 | 120 | 69 | 26 | 140 | 47 | 159 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 40.0 | 45.0 | | 70.0 | 30.0 | | 0.0 | 20.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 30.0 | | | 30.0 | | | 25.0 | | | 25.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.97 | | 0.90 | | | 0.83 | 0.98 | 0.99 | | 0.98 | 0.97 | |
| Frt | | | 0.850 | | | 0.850 | | 0.959 | | | 0.884 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1679 | 3357 | 1502 | 1679 | 3357 | 1502 | 1631 | 1632 | 0 | 1647 | 1487 | 0 |
| Flt Permitted | 0.226 | | | 0.245 | | | 0.539 | | | 0.695 | | |
| Satd. Flow (perm) | 387 | 3357 | 1349 | 433 | 3357 | 1248 | 907 | 1632 | 0 | 1182 | 1487 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 121 | | | 121 | | 20 | | | 159 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 257.6 | | | 190.5 | | | 345.6 | | | 177.6 | |
| Travel Time (s) | | 15.5 | | | 11.4 | | | 20.7 | | | 10.7 | |
| Confl. Peds. (#/hr) | 73 | | 40 | 40 | | 73 | 27 | | 21 | 21 | | 27 |
| 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% | 3% | 3% | 3% | 3% | 3% | 6% | 6% | 6% | 5% | 5% | 5% |
| Adj. Flow (vph) | 207 | 1061 | 165 | 12 | 839 | 110 | 120 | 69 | 26 | 140 | 47 | 159 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 207 | 1061 | 165 | 12 | 839 | 110 | 120 | 95 | 0 | 140 | 206 | 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | | Left | Thru | |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | |
| Trailing Detector (m) | 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 | |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | |
| Detector 1 Type | 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 | |
| Detector 1 Queue (s) | 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 | |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | |

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Storage Length (m) | | |
| Storage Lanes | | |
| Taper Length (m) | | |
| Lane Util. Factor | | |
| Ped Bike Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (k/h) | | |
| Link Distance (m) | | |
| Travel Time (s) | | |
| Confl. Peds. (#/hr) | | |
| Peak Hour Factor | | |
| Heavy Vehicles (%) | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(m) | | |
| Link Offset(m) | | |
| Crosswalk Width(m) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (k/h) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (m) | | |
| Trailing Detector (m) | | |
| Detector 1 Position(m) | | |
| Detector 1 Size(m) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(m) | | |
| Detector 2 Size(m) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | | |

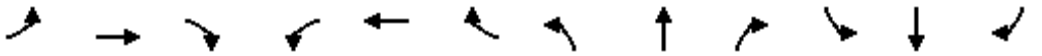
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 9.7 | 30.0 | 30.0 | 9.7 | 30.0 | 30.0 | 37.4 | 37.4 | | 37.4 | 37.4 | |
| Total Split (s) | 20.0 | 37.0 | 37.0 | 20.0 | 37.0 | 37.0 | 38.0 | 38.0 | | 38.0 | 38.0 | |
| Total Split (%) | 20.0% | 37.0% | 37.0% | 20.0% | 37.0% | 37.0% | 38.0% | 38.0% | | 38.0% | 38.0% | |
| Maximum Green (s) | 15.3 | 31.0 | 31.0 | 15.3 | 31.0 | 31.0 | 30.6 | 30.6 | | 30.6 | 30.6 | |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.0 | 2.3 | 2.3 | 1.0 | 2.3 | 2.3 | 4.4 | 4.4 | | 4.4 | 4.4 | |
| 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) | 4.7 | 6.0 | 6.0 | 4.7 | 6.0 | 6.0 | 7.4 | 7.4 | | 7.4 | 7.4 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lag | Lag | | Lag | Lag | |
| Lead-Lag Optimize? | Yes | 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 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | | None | None | |
| Walk Time (s) | | 9.0 | 9.0 | | 9.0 | 9.0 | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Flash Dont Walk (s) | | 15.0 | 15.0 | | 15.0 | 15.0 | 28.0 | 28.0 | | 28.0 | 28.0 | |
| Pedestrian Calls (#/hr) | | 30 | 30 | | 30 | 30 | 20 | 20 | | 20 | 20 | |
| Act Effct Green (s) | 62.6 | 59.1 | 59.1 | 52.6 | 45.4 | 45.4 | 20.3 | 20.3 | | 20.3 | 20.3 | |
| Actuated g/C Ratio | 0.63 | 0.59 | 0.59 | 0.53 | 0.45 | 0.45 | 0.20 | 0.20 | | 0.20 | 0.20 | |
| v/c Ratio | 0.54 | 0.54 | 0.20 | 0.04 | 0.55 | 0.17 | 0.66 | 0.27 | | 0.59 | 0.48 | |
| Control Delay | 20.9 | 14.6 | 7.0 | 8.7 | 16.5 | 2.0 | 51.3 | 25.5 | | 44.1 | 12.1 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 20.9 | 14.6 | 7.0 | 8.7 | 16.5 | 2.0 | 51.3 | 25.5 | | 44.1 | 12.1 | |
| LOS | C | B | A | A | B | A | D | C | | D | B | |
| Approach Delay | | 14.6 | | | 14.7 | | | 39.9 | | | 25.0 | |
| Approach LOS | | B | | | B | | | D | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 19 (19%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 85 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.66 | | | |
| Intersection Signal Delay: 17.7 | | Intersection LOS: B | |
| Intersection Capacity Utilization 87.0% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 15: City Park Drive/Bathgate Drive & Ogilvie Road

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Turn Type | | |
| Protected Phases | 3 | 7 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 1.0 | 1.0 |
| Minimum Split (s) | 5.0 | 5.0 |
| Total Split (s) | 5.0 | 5.0 |
| Total Split (%) | 5% | 5% |
| Maximum Green (s) | 3.0 | 3.0 |
| Yellow Time (s) | 2.0 | 2.0 |
| All-Red Time (s) | 0.0 | 0.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | Ped | Ped |
| Walk Time (s) | 0.0 | 0.0 |
| Flash Dont Walk (s) | 0.0 | 0.0 |
| Pedestrian Calls (#/hr) | 20 | 20 |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

| Intersection Summary |
|---|

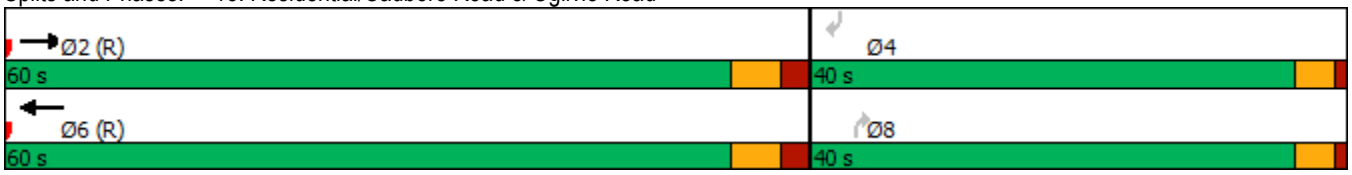


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 1833 | 14 | 0 | 1222 | 70 | 0 | 0 | 1 | 0 | 0 | 97 |
| Future Volume (vph) | 0 | 1833 | 14 | 0 | 1222 | 70 | 0 | 0 | 1 | 0 | 0 | 97 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.999 | | | 0.992 | | | | 0.865 | | | 0.865 |
| Flt Protected | | | | | | | | | | | | |
| Satd. Flow (prot) | 0 | 3387 | 0 | 0 | 3363 | 0 | 0 | 0 | 1543 | 0 | 0 | 1543 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 3387 | 0 | 0 | 3363 | 0 | 0 | 0 | 1543 | 0 | 0 | 1543 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 1 | | | 9 | | | | 33 | | | 53 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 264.5 | | | 257.6 | | | 90.1 | | | 116.1 | |
| Travel Time (s) | | 15.9 | | | 15.5 | | | 5.4 | | | 7.0 | |
| 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 |
| Adj. Flow (vph) | 0 | 1833 | 14 | 0 | 1222 | 70 | 0 | 0 | 1 | 0 | 0 | 97 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1847 | 0 | 0 | 1292 | 0 | 0 | 0 | 1 | 0 | 0 | 97 |
| 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) | | 3.7 | | | 3.7 | | | 0.0 | | | 0.0 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 1.6 | | | 1.6 | | | 1.6 | | | 1.6 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 97 | | 97 | 97 | | 97 | 97 | | 97 | 97 | | 97 |
| Number of Detectors | | 2 | | | 2 | | | | 1 | | | 1 |
| Detector Template | | Thru | | | Thru | | | | Right | | | Right |
| Leading Detector (m) | | 10.0 | | | 10.0 | | | | 2.0 | | | 2.0 |
| Trailing Detector (m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Position(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Size(m) | | 0.6 | | | 0.6 | | | | 2.0 | | | 2.0 |
| Detector 1 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Queue (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Delay (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 2 Position(m) | | 9.4 | | | 9.4 | | | | | | | |
| Detector 2 Size(m) | | 0.6 | | | 0.6 | | | | | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | | | | |
| Turn Type | | NA | | | NA | | | | Perm | | | Perm |
| Protected Phases | | 2 | | | 6 | | | | | | | |
| Permitted Phases | | | | | | | | | 8 | | | 4 |
| Detector Phase | | 2 | | | 6 | | | | 8 | | | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 10.0 | | | 10.0 | | | | 5.0 | | | 5.0 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | 35.0 | | | 35.0 | | | | 40.0 | | | 40.0 |
| Total Split (s) | | 60.0 | | | 60.0 | | | | 40.0 | | | 40.0 |
| Total Split (%) | | 60.0% | | | 60.0% | | | | 40.0% | | | 40.0% |
| Maximum Green (s) | | 54.0 | | | 54.0 | | | | 36.0 | | | 36.0 |
| Yellow Time (s) | | 3.7 | | | 3.7 | | | | 3.0 | | | 3.0 |
| All-Red Time (s) | | 2.3 | | | 2.3 | | | | 1.0 | | | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | | | 4.0 | | | 4.0 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | | 3.0 | | | 3.0 | | | | 3.0 | | | 3.0 |
| Recall Mode | | C-Max | | | C-Max | | | | None | | | None |
| Walk Time (s) | | 15.0 | | | 15.0 | | | | 24.0 | | | 24.0 |
| Flash Dont Walk (s) | | 14.0 | | | 14.0 | | | | 12.0 | | | 12.0 |
| Pedestrian Calls (#/hr) | | 30 | | | 30 | | | | 20 | | | 20 |
| Act Effct Green (s) | | 74.7 | | | 74.7 | | | | 18.4 | | | 18.4 |
| Actuated g/C Ratio | | 0.75 | | | 0.75 | | | | 0.18 | | | 0.18 |
| v/c Ratio | | 0.73 | | | 0.51 | | | | 0.00 | | | 0.30 |
| Control Delay | | 15.5 | | | 9.2 | | | | 0.0 | | | 16.3 |
| Queue Delay | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Total Delay | | 15.5 | | | 9.2 | | | | 0.0 | | | 16.3 |
| LOS | | B | | | A | | | | A | | | B |
| Approach Delay | | 15.5 | | | 9.2 | | | | | | 16.3 | |
| Approach LOS | | B | | | A | | | | | | B | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 4 (4%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 90 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.73 | | | |
| Intersection Signal Delay: 13.0 | | Intersection LOS: B | |
| Intersection Capacity Utilization 66.5% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 18: Residential/Cadboro Road & Ogilvie Road

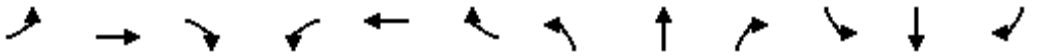


| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 237 | 981 | 834 | 189 | 488 | 1019 |
| Future Volume (vph) | 237 | 981 | 834 | 189 | 488 | 1019 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | 0.0 | | 70.0 | 0.0 | |
| Storage Lanes | 1 | 1 | | 1 | 0 | |
| Taper Length (m) | 7.6 | | | | 7.6 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | | 0.984 |
| Satd. Flow (prot) | 1647 | 1473 | 3325 | 1488 | 0 | 3210 |
| Flt Permitted | 0.950 | | | | | 0.521 |
| Satd. Flow (perm) | 1647 | 1473 | 3325 | 1488 | 0 | 1700 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 584 | | 189 | | |
| Link Speed (k/h) | 60 | | 60 | | | 60 |
| Link Distance (m) | 216.4 | | 230.9 | | | 341.9 |
| Travel Time (s) | 13.0 | | 13.9 | | | 20.5 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Heavy Vehicles (%) | 5% | 5% | 4% | 4% | 6% | 6% |
| Adj. Flow (vph) | 237 | 981 | 834 | 189 | 488 | 1019 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 237 | 981 | 834 | 189 | 0 | 1507 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(m) | 3.7 | | 0.0 | | | 0.0 |
| Link Offset(m) | 0.0 | | 0.0 | | | 0.0 |
| Crosswalk Width(m) | 4.9 | | 4.9 | | | 4.9 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | 14 | | 14 | 24 | |
| Number of Detectors | 1 | 1 | 2 | 1 | 1 | 2 |
| Detector Template | Left | Right | Thru | Right | Left | Thru |
| Leading Detector (m) | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | | 28.7 | | | 28.7 |
| Detector 2 Size(m) | | | 1.8 | | | 1.8 |
| Detector 2 Type | | | Cl+Ex | | | Cl+Ex |
| Detector 2 Channel | | | | | | |
| Detector 2 Extend (s) | | | 0.0 | | | 0.0 |
| Turn Type | Prot | Free | NA | pm+ov | pm+pt | NA |
| Protected Phases | 8 | | 2 | 8 | 1 | 6 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Permitted Phases | | Free | | 2 | 6 | |
| Detector Phase | 8 | | 2 | 8 | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 10.0 | 5.0 | 5.0 | 1.0 |
| Minimum Split (s) | 25.3 | | 30.5 | 25.3 | 11.0 | 30.5 |
| Total Split (s) | 30.0 | | 52.0 | 30.0 | 28.0 | 80.0 |
| Total Split (%) | 27.3% | | 47.3% | 27.3% | 25.5% | 72.7% |
| Maximum Green (s) | 23.7 | | 45.5 | 23.7 | 22.0 | 73.5 |
| Yellow Time (s) | 3.3 | | 4.2 | 3.3 | 4.2 | 4.2 |
| All-Red Time (s) | 3.0 | | 2.3 | 3.0 | 1.8 | 2.3 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 6.3 | | 6.5 | 6.3 | | 6.5 |
| Lead/Lag | | | Lag | | Lead | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Vehicle Extension (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | | C-Max | None | Max | C-Max |
| Walk Time (s) | 7.0 | | 7.0 | 7.0 | | 7.0 |
| Flash Dont Walk (s) | 12.0 | | 17.0 | 12.0 | | 17.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | | 0 |
| Act Effct Green (s) | 20.0 | 110.0 | 45.5 | 72.0 | | 77.2 |
| Actuated g/C Ratio | 0.18 | 1.00 | 0.41 | 0.65 | | 0.70 |
| v/c Ratio | 0.80 | 0.67 | 0.61 | 0.18 | | 0.98 |
| Control Delay | 61.9 | 2.4 | 27.6 | 1.2 | | 32.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 61.9 | 2.4 | 27.6 | 1.2 | | 32.2 |
| LOS | E | A | C | A | | C |
| Approach Delay | 14.0 | | 22.7 | | | 32.2 |
| Approach LOS | B | | C | | | C |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 110 | | | |
| Actuated Cycle Length: 110 | | | |
| Offset: 32 (29%), Referenced to phase 2:NBT and 6:SBTL, Start of Green | | | |
| Natural Cycle: 150 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.98 | | | |
| Intersection Signal Delay: 23.7 | | Intersection LOS: C | |
| Intersection Capacity Utilization 99.0% | | ICU Level of Service F | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 22: Blair Road & Hwy 174 EB off

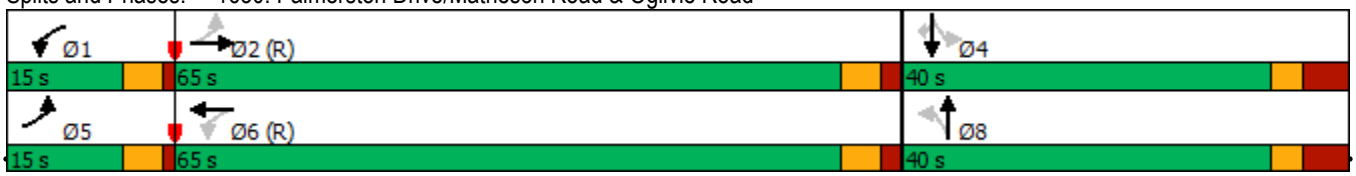


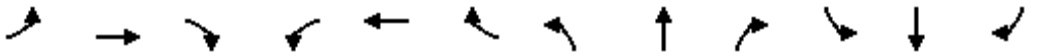
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 188 | 1711 | 61 | 94 | 1336 | 38 | 52 | 4 | 39 | 29 | 4 | 96 |
| Future Volume (vph) | 188 | 1711 | 61 | 94 | 1336 | 38 | 52 | 4 | 39 | 29 | 4 | 96 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 0.0 | 70.0 | | 0.0 | 15.0 | | 0.0 | 0.0 | | 35.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 0 | | 1 |
| Taper Length (m) | 30.0 | | | 30.0 | | | 7.6 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 1.00 | | | 1.00 | | 0.98 | 0.98 | | | 0.99 | 0.99 |
| Frt | | 0.995 | | | 0.996 | | | 0.864 | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | 0.958 | |
| Satd. Flow (prot) | 1695 | 3362 | 0 | 1695 | 3369 | 0 | 1662 | 1476 | 0 | 0 | 1709 | 1517 |
| Flt Permitted | 0.129 | | | 0.072 | | | 0.736 | | | | 0.721 | |
| Satd. Flow (perm) | 230 | 3362 | 0 | 128 | 3369 | 0 | 1267 | 1476 | 0 | 0 | 1274 | 1497 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 4 | | | 3 | | | 39 | | | | 96 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 314.1 | | | 264.5 | | | 176.2 | | | 174.1 | |
| Travel Time (s) | | 18.8 | | | 15.9 | | | 10.6 | | | 10.4 | |
| Confl. Peds. (#/hr) | 24 | | 34 | 34 | | 24 | 16 | | 11 | 11 | | |
| Confl. Bikes (#/hr) | | | 11 | | | 22 | | | 3 | | | 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 (%) | 2% | 2% | 2% | 2% | 2% | 2% | 4% | 4% | 4% | 2% | 2% | 2% |
| Adj. Flow (vph) | 188 | 1711 | 61 | 94 | 1336 | 38 | 52 | 4 | 39 | 29 | 4 | 96 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 188 | 1772 | 0 | 94 | 1374 | 0 | 52 | 43 | 0 | 0 | 33 | 96 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | 1 |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | | pm+pt | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | 4 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.7 | 33.6 | | 9.7 | 33.6 | | 40.2 | 40.2 | | 40.2 | 40.2 | 40.2 |
| Total Split (s) | 15.0 | 65.0 | | 15.0 | 65.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | 40.0 |
| Total Split (%) | 12.5% | 54.2% | | 12.5% | 54.2% | | 33.3% | 33.3% | | 33.3% | 33.3% | 33.3% |
| Maximum Green (s) | 10.3 | 59.4 | | 10.3 | 59.4 | | 32.8 | 32.8 | | 32.8 | 32.8 | 32.8 |
| Yellow Time (s) | 3.7 | 3.7 | | 3.7 | 3.7 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 1.0 | 1.9 | | 1.0 | 1.9 | | 4.2 | 4.2 | | 4.2 | 4.2 | 4.2 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | 4.7 | 5.6 | | 4.7 | 5.6 | | 7.2 | 7.2 | | | 7.2 | 7.2 |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | | None | C-Max | | None | None | | None | None | None |
| Walk Time (s) | | 15.0 | | | 15.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 13.0 | | | 13.0 | | 26.0 | 26.0 | | 26.0 | 26.0 | 26.0 |
| Pedestrian Calls (#/hr) | | 25 | | | 25 | | 10 | 10 | | 10 | 10 | 10 |
| Act Effct Green (s) | 91.5 | 79.5 | | 85.0 | 76.2 | | 15.1 | 15.1 | | | 15.1 | 15.1 |
| Actuated g/C Ratio | 0.76 | 0.66 | | 0.71 | 0.64 | | 0.13 | 0.13 | | | 0.13 | 0.13 |
| v/c Ratio | 0.60 | 0.80 | | 0.48 | 0.64 | | 0.33 | 0.20 | | | 0.21 | 0.35 |
| Control Delay | 16.9 | 19.9 | | 19.8 | 17.0 | | 50.3 | 15.6 | | | 46.4 | 11.2 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 16.9 | 19.9 | | 19.8 | 17.0 | | 50.3 | 15.6 | | | 46.4 | 11.2 |
| LOS | B | B | | B | B | | D | B | | | D | B |
| Approach Delay | | 19.6 | | | 17.2 | | | 34.6 | | | 20.2 | |
| Approach LOS | | B | | | B | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 120 | | | |
| Actuated Cycle Length: 120 | | | |
| Offset: 50 (42%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 115 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.80 | | | |
| Intersection Signal Delay: 19.1 | | Intersection LOS: B | |
| Intersection Capacity Utilization 87.3% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 1630: Palmerston Drive/Matheson Road & Ogilvie Road



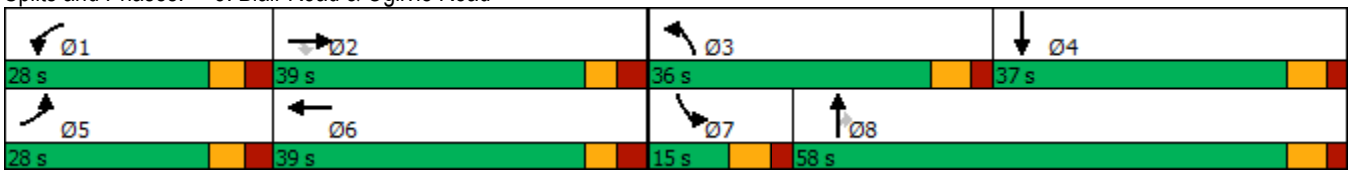


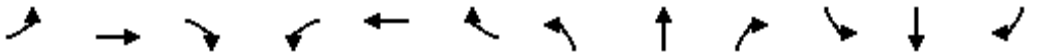
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 108 | 456 | 265 | 644 | 739 | 50 | 643 | 663 | 624 | 69 | 334 | 114 |
| Future Volume (vph) | 108 | 456 | 265 | 644 | 739 | 50 | 643 | 663 | 624 | 69 | 334 | 114 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 0.0 | 110.0 | | 0.0 | 120.0 | | 0.0 | 30.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | 2 | | 1 | 1 | | 0 |
| Taper Length (m) | 40.0 | | | 60.0 | | | 60.0 | | | 45.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 | 0.95 | 0.97 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | 1.00 | | | | | | 0.99 | |
| Frt | | | 0.850 | | 0.990 | | | | 0.850 | | 0.962 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1679 | 3357 | 1502 | 3257 | 3307 | 0 | 3257 | 1767 | 1502 | 1679 | 3186 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1679 | 3357 | 1502 | 3257 | 3307 | 0 | 3257 | 1767 | 1502 | 1679 | 3186 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 265 | | 5 | | | | 421 | | 31 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 372.0 | | | 396.5 | | | 239.9 | | | 411.0 | |
| Travel Time (s) | | 22.3 | | | 23.8 | | | 14.4 | | | 24.7 | |
| Confl. Peds. (#/hr) | | | | | | 25 | | | | | | 27 |
| Confl. Bikes (#/hr) | | | | | | 3 | | | | | | 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% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% |
| Adj. Flow (vph) | 108 | 456 | 265 | 644 | 739 | 50 | 643 | 663 | 624 | 69 | 334 | 114 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 108 | 456 | 265 | 644 | 789 | 0 | 643 | 663 | 624 | 69 | 448 | 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) | | 7.4 | | | 7.4 | | | 7.4 | | | 7.4 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | 1 | 1 | 2 | |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Thru | Right | Left | Thru | |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | |
| Trailing Detector (m) | 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 | |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | |
| Detector 1 Type | 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 | |
| Detector 1 Queue (s) | 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 | |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | |
| Minimum Split (s) | 11.8 | 38.6 | 38.6 | 11.8 | 38.6 | | 11.5 | 35.5 | 35.5 | 11.5 | 35.5 | |
| Total Split (s) | 28.0 | 39.0 | 39.0 | 28.0 | 39.0 | | 36.0 | 58.0 | 58.0 | 15.0 | 37.0 | |
| Total Split (%) | 20.0% | 27.9% | 27.9% | 20.0% | 27.9% | | 25.7% | 41.4% | 41.4% | 10.7% | 26.4% | |
| Maximum Green (s) | 21.2 | 32.4 | 32.4 | 21.2 | 32.4 | | 29.5 | 51.5 | 51.5 | 8.5 | 30.5 | |
| Yellow Time (s) | 3.7 | 3.3 | 3.3 | 3.7 | 3.3 | | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | |
| All-Red Time (s) | 3.1 | 3.3 | 3.3 | 3.1 | 3.3 | | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.8 | 6.6 | 6.6 | 6.8 | 6.6 | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | 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 | |
| Recall Mode | None | Max | Max | None | Max | | None | None | None | None | None | |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 25.0 | 25.0 | | 25.0 | | | 22.0 | 22.0 | | 22.0 | |
| Pedestrian Calls (#/hr) | | 20 | 20 | | 20 | | | 25 | 25 | | 25 | |
| Act Effct Green (s) | 14.3 | 32.4 | 32.4 | 21.2 | 39.3 | | 29.1 | 51.5 | 51.5 | 8.2 | 30.6 | |
| Actuated g/C Ratio | 0.10 | 0.23 | 0.23 | 0.15 | 0.28 | | 0.21 | 0.37 | 0.37 | 0.06 | 0.22 | |
| v/c Ratio | 0.63 | 0.59 | 0.48 | 1.30 | 0.84 | | 0.95 | 1.02 | 0.76 | 0.70 | 0.62 | |
| Control Delay | 75.9 | 51.3 | 8.0 | 196.3 | 57.0 | | 78.3 | 83.3 | 18.8 | 99.2 | 50.2 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 75.9 | 51.3 | 8.0 | 196.3 | 57.0 | | 78.3 | 83.3 | 18.8 | 99.2 | 50.2 | |
| LOS | E | D | A | F | E | | E | F | B | F | D | |
| Approach Delay | | 40.7 | | | 119.6 | | | 60.8 | | | 56.7 | |
| Approach LOS | | D | | | F | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 140 | | | |
| Actuated Cycle Length: 139.7 | | | |
| Natural Cycle: 150 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 1.30 | | | |
| Intersection Signal Delay: 74.7 | | Intersection LOS: E | |
| Intersection Capacity Utilization 96.0% | | ICU Level of Service F | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 3: Blair Road & Ogilvie Road



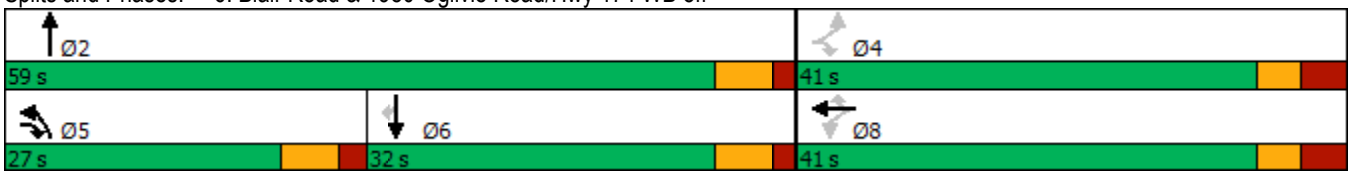


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 87 | 0 | 371 | 115 | 150 | 303 | 281 | 1454 | 0 | 0 | 936 | 109 |
| Future Volume (vph) | 87 | 0 | 371 | 115 | 150 | 303 | 281 | 1454 | 0 | 0 | 936 | 109 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 70.0 | 0.0 | | 70.0 | 60.0 | | 0.0 | 0.0 | | 50.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 2 | | 0 | 0 | | 1 |
| Taper Length (m) | 7.6 | | | 7.6 | | | 100.0 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 0.95 | 1.00 | 1.00 | 0.91 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (prot) | 1340 | 0 | 1199 | 1695 | 1784 | 1517 | 3164 | 3262 | 0 | 0 | 4732 | 1473 |
| Flt Permitted | 0.662 | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (perm) | 934 | 0 | 1199 | 1695 | 1784 | 1517 | 3164 | 3262 | 0 | 0 | 4732 | 1473 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 34 | | | 104 | | | | | | 111 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 518.9 | | | 416.4 | | | 90.2 | | | 239.9 | |
| Travel Time (s) | | 31.1 | | | 25.0 | | | 5.4 | | | 14.4 | |
| 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 (%) | 29% | 29% | 29% | 2% | 2% | 2% | 6% | 6% | 6% | 5% | 5% | 5% |
| Adj. Flow (vph) | 87 | 0 | 371 | 115 | 150 | 303 | 281 | 1454 | 0 | 0 | 936 | 109 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 87 | 0 | 371 | 115 | 150 | 303 | 281 | 1454 | 0 | 0 | 936 | 109 |
| 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) | | 3.7 | | | 3.7 | | | 7.4 | | | 7.4 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | | 1 | 1 | 2 | 1 | 1 | 2 | | | 2 | 1 |
| Detector Template | Left | | Right | Left | Thru | Right | Left | Thru | | | Thru | Right |
| Leading Detector (m) | 6.1 | | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | | pm+ov | Perm | NA | Perm | Prot | NA | | | NA | Perm |
| Protected Phases | | | 5 | | 8 | | 5 | 2 | | | 6 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | | | 6 |
| Detector Phase | 4 | | 5 | 8 | 8 | 8 | 5 | 2 | | | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | | 5.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | | | 10.0 | 10.0 |
| Minimum Split (s) | 16.8 | | 11.4 | 36.8 | 36.8 | 36.8 | 11.4 | 30.1 | | | 30.1 | 30.1 |
| Total Split (s) | 41.0 | | 27.0 | 41.0 | 41.0 | 41.0 | 27.0 | 59.0 | | | 32.0 | 32.0 |
| Total Split (%) | 41.0% | | 27.0% | 41.0% | 41.0% | 41.0% | 27.0% | 59.0% | | | 32.0% | 32.0% |
| Maximum Green (s) | 34.2 | | 20.6 | 34.2 | 34.2 | 34.2 | 20.6 | 52.9 | | | 25.9 | 25.9 |
| Yellow Time (s) | 3.3 | | 4.2 | 3.3 | 3.3 | 3.3 | 4.2 | 4.2 | | | 4.2 | 4.2 |
| All-Red Time (s) | 3.5 | | 2.2 | 3.5 | 3.5 | 3.5 | 2.2 | 1.9 | | | 1.9 | 1.9 |
| 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) | 6.8 | | 6.4 | 6.8 | 6.8 | 6.8 | 6.4 | 6.1 | | | 6.1 | 6.1 |
| 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 | 3.0 | | | 3.0 | 3.0 |
| Recall Mode | None | | None | None | None | None | None | Max | | | Max | Max |
| Walk Time (s) | | | | 7.0 | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | | | 23.0 | 23.0 | 23.0 | | 17.0 | | | 17.0 | 17.0 |
| Pedestrian Calls (#/hr) | | | | 20 | 20 | 20 | | 20 | | | 20 | 20 |
| Act Effct Green (s) | 19.5 | | 39.6 | 19.5 | 19.5 | 19.5 | 13.2 | 53.4 | | | 33.8 | 33.8 |
| Actuated g/C Ratio | 0.23 | | 0.46 | 0.23 | 0.23 | 0.23 | 0.15 | 0.62 | | | 0.39 | 0.39 |
| v/c Ratio | 0.41 | | 0.65 | 0.30 | 0.37 | 0.71 | 0.58 | 0.72 | | | 0.50 | 0.17 |
| Control Delay | 33.2 | | 20.7 | 28.3 | 29.6 | 28.9 | 39.5 | 15.5 | | | 23.3 | 5.8 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 33.2 | | 20.7 | 28.3 | 29.6 | 28.9 | 39.5 | 15.5 | | | 23.3 | 5.8 |
| LOS | C | | C | C | C | C | D | B | | | C | A |
| Approach Delay | | 23.1 | | | 29.0 | | | 19.4 | | | 21.4 | |
| Approach LOS | | C | | | C | | | B | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 86 | | | |
| Natural Cycle: 80 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.72 | | | |
| Intersection Signal Delay: 21.8 | | Intersection LOS: C | |
| Intersection Capacity Utilization 81.4% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 6: Blair Road & 1980 Ogilvie Road/Hwy 174 WB off



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 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 | | | | | | |
| Satd. Flow (prot) | 1784 | 0 | 1784 | 0 | 0 | 1784 |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | 1784 | 0 | 1784 | 0 | 0 | 1784 |
| Link Speed (k/h) | 60 | | 60 | | | 60 |
| Link Distance (m) | 518.9 | | 235.1 | | | 57.3 |
| Travel Time (s) | 31.1 | | 14.1 | | | 3.4 |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(m) | 3.7 | | 0.0 | | | 0.0 |
| Link Offset(m) | 0.0 | | 0.0 | | | 0.0 |
| Crosswalk Width(m) | 4.9 | | 4.9 | | | 4.9 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | 14 | | 14 | 24 | |
| Sign Control | Stop | | Free | | | Free |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 0.0% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

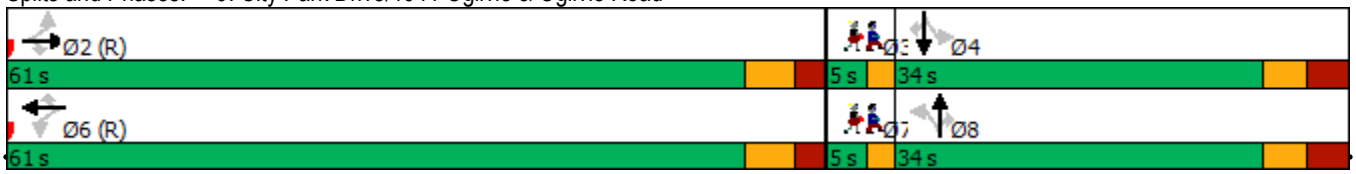
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 102 | 681 | 78 | 87 | 1023 | 174 | 59 | 23 | 166 | 5 | 2 | 9 |
| Future Volume (vph) | 102 | 681 | 78 | 87 | 1023 | 174 | 59 | 23 | 166 | 5 | 2 | 9 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 40.0 | | 100.0 | 100.0 | | 50.0 | 0.0 | | 60.0 | 20.0 | | 10.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 0 | | 1 | 1 | | 1 |
| Taper Length (m) | 30.0 | | | 25.0 | | | 7.6 | | | 15.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.97 | | 0.87 | 0.96 | | 0.81 | | 0.96 | 0.93 | 0.95 | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.965 | | 0.950 | | |
| Satd. Flow (prot) | 1695 | 3390 | 1517 | 1679 | 3357 | 1502 | 0 | 1626 | 1432 | 1695 | 1784 | 1517 |
| Flt Permitted | 0.238 | | | 0.374 | | | | 0.786 | | 0.704 | | |
| Satd. Flow (perm) | 411 | 3390 | 1320 | 635 | 3357 | 1211 | 0 | 1269 | 1334 | 1193 | 1784 | 1517 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 78 | | | 174 | | | 166 | | | 56 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 224.7 | | | 372.0 | | | 239.4 | | | 142.3 | |
| Travel Time (s) | | 13.5 | | | 22.3 | | | 14.4 | | | 8.5 | |
| Confl. Peds. (#/hr) | 100 | | 65 | 65 | | 100 | 53 | | 51 | 51 | | |
| Confl. Bikes (#/hr) | | | | | | 9 | | | 2 | | | |
| 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 (%) | 2% | 2% | 2% | 3% | 3% | 3% | 8% | 8% | 8% | 2% | 2% | 2% |
| Adj. Flow (vph) | 102 | 681 | 78 | 87 | 1023 | 174 | 59 | 23 | 166 | 5 | 2 | 9 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 102 | 681 | 78 | 87 | 1023 | 174 | 0 | 82 | 166 | 5 | 2 | 9 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 |
| 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) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 |
| 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) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Storage Length (m) | | |
| Storage Lanes | | |
| Taper Length (m) | | |
| Lane Util. Factor | | |
| Ped Bike Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (k/h) | | |
| Link Distance (m) | | |
| Travel Time (s) | | |
| Confl. Peds. (#/hr) | | |
| Confl. Bikes (#/hr) | | |
| Peak Hour Factor | | |
| Heavy Vehicles (%) | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(m) | | |
| Link Offset(m) | | |
| Crosswalk Width(m) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (k/h) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (m) | | |
| Trailing Detector (m) | | |
| Detector 1 Position(m) | | |
| Detector 1 Size(m) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(m) | | |
| Detector 2 Size(m) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 2 | | | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | 8 | 4 | | 4 |
| Detector Phase | 2 | 2 | 2 | 6 | 6 | 6 | 8 | 8 | 8 | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 35.1 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 |
| Total Split (s) | 61.0 | 61.0 | 61.0 | 61.0 | 61.0 | 61.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 |
| Total Split (%) | 61.0% | 61.0% | 61.0% | 61.0% | 61.0% | 61.0% | 34.0% | 34.0% | 34.0% | 34.0% | 34.0% | 34.0% |
| Maximum Green (s) | 54.9 | 54.9 | 54.9 | 54.9 | 54.9 | 54.9 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |
| Lead/Lag | | | | | | | Lag | Lag | Lag | Lag | Lag | 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 | C-Max | C-Max | C-Max | C-Max | C-Max | C-Max | None | None | None | None | None | None |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Flash Dont Walk (s) | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| Pedestrian Calls (#/hr) | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| Act Effct Green (s) | 64.2 | 64.2 | 64.2 | 64.2 | 64.2 | 64.2 | | 20.2 | 20.2 | 20.2 | 20.2 | 20.2 |
| Actuated g/C Ratio | 0.64 | 0.64 | 0.64 | 0.64 | 0.64 | 0.64 | | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 |
| v/c Ratio | 0.39 | 0.31 | 0.09 | 0.21 | 0.47 | 0.21 | | 0.32 | 0.41 | 0.02 | 0.01 | 0.03 |
| Control Delay | 9.4 | 3.5 | 0.3 | 12.0 | 12.0 | 2.3 | | 34.8 | 8.0 | 27.2 | 27.0 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 9.4 | 3.5 | 0.3 | 12.0 | 12.0 | 2.3 | | 34.8 | 8.0 | 27.2 | 27.0 | 0.1 |
| LOS | A | A | A | B | B | A | | C | A | C | C | A |
| Approach Delay | | 3.9 | | | 10.7 | | | 16.8 | | | 11.9 | |
| Approach LOS | | A | | | B | | | B | | | B | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 13 (13%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 80 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.47 | | | |
| Intersection Signal Delay: 8.9 | | Intersection LOS: A | |
| Intersection Capacity Utilization 74.2% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 9: City Park Drive/1941 Ogilvie & Ogilvie Road



| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Detector 2 Extend (s) | | |
| Turn Type | | |
| Protected Phases | 3 | 7 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 1.0 | 1.0 |
| Minimum Split (s) | 5.0 | 5.0 |
| Total Split (s) | 5.0 | 5.0 |
| Total Split (%) | 5% | 5% |
| Maximum Green (s) | 3.0 | 3.0 |
| Yellow Time (s) | 2.0 | 2.0 |
| All-Red Time (s) | 0.0 | 0.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | None | None |
| Walk Time (s) | 0.0 | 0.0 |
| Flash Dont Walk (s) | 0.0 | 0.0 |
| Pedestrian Calls (#/hr) | 35 | 35 |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

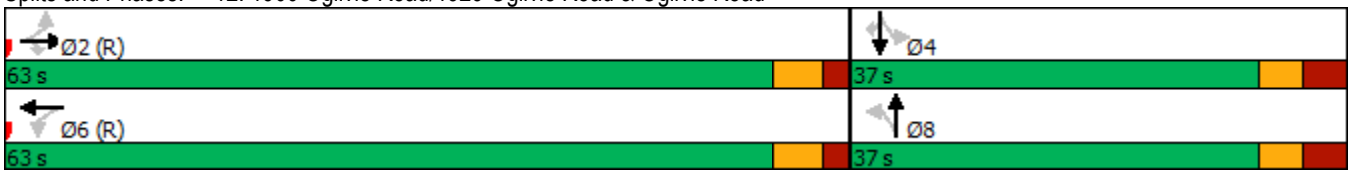
| Intersection Summary |
|---|

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 99 | 832 | 27 | 19 | 1151 | 44 | 9 | 1 | 12 | 42 | 11 | 63 |
| Future Volume (vph) | 99 | 832 | 27 | 19 | 1151 | 44 | 9 | 1 | 12 | 42 | 11 | 63 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 60.0 | | 80.0 | 90.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 0 | 0 | | 1 |
| Taper Length (m) | 30.0 | | | 20.0 | | | 7.6 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.95 | 0.99 | 1.00 | | 0.96 | 0.95 | | | 0.96 | 0.94 |
| Frt | | | 0.850 | | 0.994 | | | 0.862 | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | 0.962 | |
| Satd. Flow (prot) | 1695 | 3390 | 1517 | 1679 | 3324 | 0 | 1695 | 1454 | 0 | 0 | 1717 | 1517 |
| Flt Permitted | 0.195 | | | 0.316 | | | 0.722 | | | | 0.774 | |
| Satd. Flow (perm) | 344 | 3390 | 1434 | 553 | 3324 | 0 | 1232 | 1454 | 0 | 0 | 1329 | 1429 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 40 | | 6 | | | 12 | | | | 61 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 190.5 | | | 224.7 | | | 86.0 | | | 56.6 | |
| Travel Time (s) | | 11.4 | | | 13.5 | | | 5.2 | | | 3.4 | |
| Confl. Peds. (#/hr) | 41 | | 17 | 17 | | 41 | 47 | | 48 | 48 | | 47 |
| 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 (%) | 2% | 2% | 2% | 3% | 3% | 3% | 2% | 2% | 2% | 2% | 2% | 2% |
| Adj. Flow (vph) | 99 | 832 | 27 | 19 | 1151 | 44 | 9 | 1 | 12 | 42 | 11 | 63 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 99 | 832 | 27 | 19 | 1195 | 0 | 9 | 13 | 0 | 0 | 53 | 63 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Thru | | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turn Type | Perm | NA | Perm | Perm | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | | 2 | | | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | | 8 | | | 4 | | 4 |
| Detector Phase | 2 | 2 | 2 | 6 | 6 | | 8 | 8 | | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | | 36.7 | 36.7 | | 36.7 | 36.7 | 36.7 |
| Total Split (s) | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | | 37.0 | 37.0 | | 37.0 | 37.0 | 37.0 |
| Total Split (%) | 63.0% | 63.0% | 63.0% | 63.0% | 63.0% | | 37.0% | 37.0% | | 37.0% | 37.0% | 37.0% |
| Maximum Green (s) | 57.1 | 57.1 | 57.1 | 57.1 | 57.1 | | 30.3 | 30.3 | | 30.3 | 30.3 | 30.3 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | | 3.3 | 3.3 | | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | | 3.4 | 3.4 | | 3.4 | 3.4 | 3.4 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | 5.9 | 5.9 | 5.9 | 5.9 | 5.9 | | 6.7 | 6.7 | | | 6.7 | 6.7 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max | C-Max | C-Max | C-Max | | None | None | | None | None | None |
| Walk Time (s) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | 23.0 |
| Pedestrian Calls (#/hr) | 10 | 10 | 10 | 10 | 10 | | 30 | 30 | | 30 | 30 | 30 |
| Act Effct Green (s) | 69.9 | 69.9 | 69.9 | 69.9 | 69.9 | | 22.0 | 22.0 | | | 22.0 | 22.0 |
| Actuated g/C Ratio | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | | 0.22 | 0.22 | | | 0.22 | 0.22 |
| v/c Ratio | 0.41 | 0.35 | 0.03 | 0.05 | 0.51 | | 0.03 | 0.04 | | | 0.18 | 0.17 |
| Control Delay | 17.0 | 8.4 | 1.7 | 5.7 | 5.5 | | 25.2 | 13.3 | | | 29.3 | 8.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 17.0 | 8.4 | 1.7 | 5.7 | 5.5 | | 25.2 | 13.3 | | | 29.3 | 8.5 |
| LOS | B | A | A | A | A | | C | B | | | C | A |
| Approach Delay | | 9.1 | | | 5.5 | | | 18.2 | | | 18.0 | |
| Approach LOS | | A | | | A | | | B | | | B | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 12 (12%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 80 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.51 | | | |
| Intersection Signal Delay: 7.7 | | Intersection LOS: A | |
| Intersection Capacity Utilization 94.4% | | ICU Level of Service F | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 12: 1900 Ogilvie Road/1929 Ogilvie Road & Ogilvie Road



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 156 | 598 | 87 | 14 | 981 | 161 | 120 | 37 | 13 | 119 | 24 | 178 |
| Future Volume (vph) | 156 | 598 | 87 | 14 | 981 | 161 | 120 | 37 | 13 | 119 | 24 | 178 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 40.0 | 45.0 | | 70.0 | 30.0 | | 0.0 | 20.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 30.0 | | | 30.0 | | | 25.0 | | | 25.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.99 | | 0.92 | 0.98 | | 0.89 | 0.99 | 0.99 | | 0.98 | 0.98 | |
| Frt | | | 0.850 | | | 0.850 | | 0.961 | | | 0.868 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1679 | 3357 | 1502 | 1679 | 3357 | 1502 | 1631 | 1635 | 0 | 1647 | 1470 | 0 |
| Flt Permitted | 0.182 | | | 0.426 | | | 0.546 | | | 0.724 | | |
| Satd. Flow (perm) | 317 | 3357 | 1389 | 737 | 3357 | 1340 | 928 | 1635 | 0 | 1228 | 1470 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 121 | | | 161 | | 13 | | | 178 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 257.6 | | | 190.5 | | | 345.6 | | | 177.6 | |
| Travel Time (s) | | 15.5 | | | 11.4 | | | 20.7 | | | 10.7 | |
| Confl. Peds. (#/hr) | 43 | | 27 | 27 | | 43 | 14 | | 23 | 23 | | 14 |
| 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% | 3% | 3% | 3% | 3% | 3% | 6% | 6% | 6% | 5% | 5% | 5% |
| Adj. Flow (vph) | 156 | 598 | 87 | 14 | 981 | 161 | 120 | 37 | 13 | 119 | 24 | 178 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 156 | 598 | 87 | 14 | 981 | 161 | 120 | 50 | 0 | 119 | 202 | 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | | Left | Thru | |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | |
| Trailing Detector (m) | 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 | |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | |
| Detector 1 Type | 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 | |
| Detector 1 Queue (s) | 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 | |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | |

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Storage Length (m) | | |
| Storage Lanes | | |
| Taper Length (m) | | |
| Lane Util. Factor | | |
| Ped Bike Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (k/h) | | |
| Link Distance (m) | | |
| Travel Time (s) | | |
| Confl. Peds. (#/hr) | | |
| Peak Hour Factor | | |
| Heavy Vehicles (%) | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(m) | | |
| Link Offset(m) | | |
| Crosswalk Width(m) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (k/h) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (m) | | |
| Trailing Detector (m) | | |
| Detector 1 Position(m) | | |
| Detector 1 Size(m) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(m) | | |
| Detector 2 Size(m) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | | |

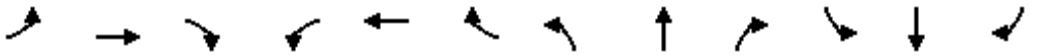
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 9.7 | 30.0 | 30.0 | 9.7 | 30.0 | 30.0 | 37.4 | 37.4 | | 37.4 | 37.4 | |
| Total Split (s) | 15.0 | 42.0 | 42.0 | 15.0 | 42.0 | 42.0 | 38.0 | 38.0 | | 38.0 | 38.0 | |
| Total Split (%) | 15.0% | 42.0% | 42.0% | 15.0% | 42.0% | 42.0% | 38.0% | 38.0% | | 38.0% | 38.0% | |
| Maximum Green (s) | 10.3 | 36.0 | 36.0 | 10.3 | 36.0 | 36.0 | 30.6 | 30.6 | | 30.6 | 30.6 | |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.0 | 2.3 | 2.3 | 1.0 | 2.3 | 2.3 | 4.4 | 4.4 | | 4.4 | 4.4 | |
| 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) | 4.7 | 6.0 | 6.0 | 4.7 | 6.0 | 6.0 | 7.4 | 7.4 | | 7.4 | 7.4 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lag | Lag | | Lag | Lag | |
| Lead-Lag Optimize? | Yes | 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 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | | None | None | |
| Walk Time (s) | | 9.0 | 9.0 | | 9.0 | 9.0 | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Flash Dont Walk (s) | | 15.0 | 15.0 | | 15.0 | 15.0 | 28.0 | 28.0 | | 28.0 | 28.0 | |
| Pedestrian Calls (#/hr) | | 15 | 15 | | 15 | 15 | 15 | 15 | | 15 | 15 | |
| Act Effct Green (s) | 62.7 | 59.2 | 59.2 | 55.0 | 47.8 | 47.8 | 20.1 | 20.1 | | 20.1 | 20.1 | |
| Actuated g/C Ratio | 0.63 | 0.59 | 0.59 | 0.55 | 0.48 | 0.48 | 0.20 | 0.20 | | 0.20 | 0.20 | |
| v/c Ratio | 0.49 | 0.30 | 0.10 | 0.03 | 0.61 | 0.22 | 0.65 | 0.15 | | 0.48 | 0.46 | |
| Control Delay | 25.9 | 21.7 | 10.0 | 6.1 | 12.5 | 1.3 | 50.4 | 23.5 | | 39.6 | 9.7 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 25.9 | 21.7 | 10.0 | 6.1 | 12.5 | 1.3 | 50.4 | 23.5 | | 39.6 | 9.7 | |
| LOS | C | C | A | A | B | A | D | C | | D | A | |
| Approach Delay | | 21.3 | | | 10.8 | | | 42.5 | | | 20.8 | |
| Approach LOS | | C | | | B | | | D | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 29 (29%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 85 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.65 | | | |
| Intersection Signal Delay: 17.8 | | Intersection LOS: B | |
| Intersection Capacity Utilization 85.5% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 15: City Park Drive/Bathgate Drive & Ogilvie Road

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Turn Type | | |
| Protected Phases | 3 | 7 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 1.0 | 1.0 |
| Minimum Split (s) | 5.0 | 5.0 |
| Total Split (s) | 5.0 | 5.0 |
| Total Split (%) | 5% | 5% |
| Maximum Green (s) | 3.0 | 3.0 |
| Yellow Time (s) | 2.0 | 2.0 |
| All-Red Time (s) | 0.0 | 0.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | Ped | Ped |
| Walk Time (s) | 0.0 | 0.0 |
| Flash Dont Walk (s) | 0.0 | 0.0 |
| Pedestrian Calls (#/hr) | 15 | 15 |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

| Intersection Summary |
|---|

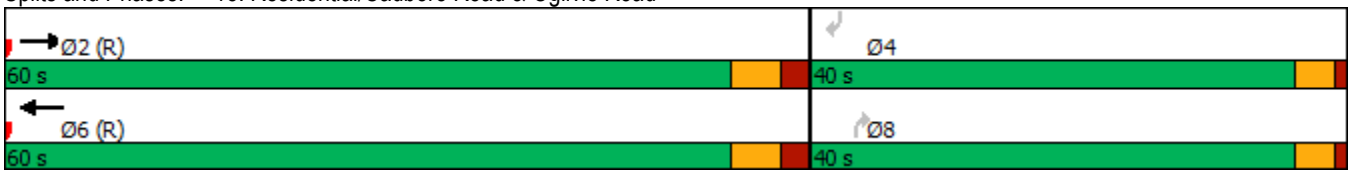


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 1215 | 9 | 0 | 1305 | 57 | 0 | 0 | 6 | 0 | 0 | 21 |
| Future Volume (vph) | 0 | 1215 | 9 | 0 | 1305 | 57 | 0 | 0 | 6 | 0 | 0 | 21 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.999 | | | 0.994 | | | | 0.865 | | | 0.865 |
| Flt Protected | | | | | | | | | | | | |
| Satd. Flow (prot) | 0 | 3387 | 0 | 0 | 3370 | 0 | 0 | 0 | 1543 | 0 | 0 | 1543 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 3387 | 0 | 0 | 3370 | 0 | 0 | 0 | 1543 | 0 | 0 | 1543 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 1 | | | 7 | | | | 53 | | | 42 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 264.5 | | | 257.6 | | | 90.1 | | | 116.1 | |
| Travel Time (s) | | 15.9 | | | 15.5 | | | 5.4 | | | 7.0 | |
| 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 |
| Adj. Flow (vph) | 0 | 1215 | 9 | 0 | 1305 | 57 | 0 | 0 | 6 | 0 | 0 | 21 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1224 | 0 | 0 | 1362 | 0 | 0 | 0 | 6 | 0 | 0 | 21 |
| 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) | | 3.7 | | | 3.7 | | | 0.0 | | | 0.0 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 1.6 | | | 1.6 | | | 1.6 | | | 1.6 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | | 2 | | | 2 | | | | 1 | | | 1 |
| Detector Template | | Thru | | | Thru | | | | Right | | | Right |
| Leading Detector (m) | | 10.0 | | | 10.0 | | | | 2.0 | | | 2.0 |
| Trailing Detector (m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Position(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Size(m) | | 0.6 | | | 0.6 | | | | 2.0 | | | 2.0 |
| Detector 1 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Queue (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Delay (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 2 Position(m) | | 9.4 | | | 9.4 | | | | | | | |
| Detector 2 Size(m) | | 0.6 | | | 0.6 | | | | | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | | | | |
| Turn Type | | NA | | | NA | | | | Perm | | | Perm |
| Protected Phases | | 2 | | | 6 | | | | | | | |
| Permitted Phases | | | | | | | | | 8 | | | 4 |
| Detector Phase | | 2 | | | 6 | | | | 8 | | | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 10.0 | | | 10.0 | | | | 5.0 | | | 5.0 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | 35.0 | | | 35.0 | | | | 40.0 | | | 40.0 |
| Total Split (s) | | 60.0 | | | 60.0 | | | | 40.0 | | | 40.0 |
| Total Split (%) | | 60.0% | | | 60.0% | | | | 40.0% | | | 40.0% |
| Maximum Green (s) | | 54.0 | | | 54.0 | | | | 36.0 | | | 36.0 |
| Yellow Time (s) | | 3.7 | | | 3.7 | | | | 3.0 | | | 3.0 |
| All-Red Time (s) | | 2.3 | | | 2.3 | | | | 1.0 | | | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | | | 4.0 | | | 4.0 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | | 3.0 | | | 3.0 | | | | 3.0 | | | 3.0 |
| Recall Mode | | C-Max | | | C-Max | | | | None | | | None |
| Walk Time (s) | | 15.0 | | | 15.0 | | | | 24.0 | | | 24.0 |
| Flash Dont Walk (s) | | 14.0 | | | 14.0 | | | | 12.0 | | | 12.0 |
| Pedestrian Calls (#/hr) | | 20 | | | 20 | | | | 15 | | | 15 |
| Act Effct Green (s) | | 78.5 | | | 78.5 | | | | 17.7 | | | 17.7 |
| Actuated g/C Ratio | | 0.78 | | | 0.78 | | | | 0.18 | | | 0.18 |
| v/c Ratio | | 0.46 | | | 0.51 | | | | 0.02 | | | 0.07 |
| Control Delay | | 7.0 | | | 5.4 | | | | 0.2 | | | 2.9 |
| Queue Delay | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Total Delay | | 7.0 | | | 5.4 | | | | 0.2 | | | 2.9 |
| LOS | | A | | | A | | | | A | | | A |
| Approach Delay | | 7.0 | | | 5.4 | | | 0.2 | | | 2.9 | |
| Approach LOS | | A | | | A | | | A | | | A | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 42 (42%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 80 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.51 | | | |
| Intersection Signal Delay: 6.1 | | Intersection LOS: A | |
| Intersection Capacity Utilization 52.5% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 18: Residential/Cadboro Road & Ogilvie Road

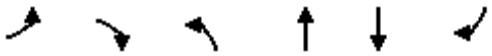


| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 198 | 1021 | 918 | 81 | 197 | 498 |
| Future Volume (vph) | 198 | 1021 | 918 | 81 | 197 | 498 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | 0.0 | | 70.0 | 0.0 | |
| Storage Lanes | 1 | 1 | | 1 | 0 | |
| Taper Length (m) | 7.6 | | | | 7.6 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | | 0.986 |
| Satd. Flow (prot) | 1647 | 1473 | 3325 | 1488 | 0 | 3217 |
| Flt Permitted | 0.950 | | | | | 0.574 |
| Satd. Flow (perm) | 1647 | 1473 | 3325 | 1488 | 0 | 1873 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 478 | | | | |
| Link Speed (k/h) | 60 | | 60 | | | 60 |
| Link Distance (m) | 216.4 | | 230.9 | | | 341.9 |
| Travel Time (s) | 13.0 | | 13.9 | | | 20.5 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Heavy Vehicles (%) | 5% | 5% | 4% | 4% | 6% | 6% |
| Adj. Flow (vph) | 198 | 1021 | 918 | 81 | 197 | 498 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 198 | 1021 | 918 | 81 | 0 | 695 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(m) | 3.7 | | 0.0 | | | 0.0 |
| Link Offset(m) | 0.0 | | 0.0 | | | 0.0 |
| Crosswalk Width(m) | 4.9 | | 4.9 | | | 4.9 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | 14 | | 14 | 24 | |
| Number of Detectors | 1 | 1 | 2 | 1 | 1 | 2 |
| Detector Template | Left | Right | Thru | Right | Left | Thru |
| Leading Detector (m) | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | | 28.7 | | | 28.7 |
| Detector 2 Size(m) | | | 1.8 | | | 1.8 |
| Detector 2 Type | | | Cl+Ex | | | Cl+Ex |
| Detector 2 Channel | | | | | | |
| Detector 2 Extend (s) | | | 0.0 | | | 0.0 |
| Turn Type | Prot | Free | NA | pm+ov | Perm | NA |
| Protected Phases | 8 | | 2 | 8 | | 6 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Permitted Phases | | Free | | 2 | 6 | |
| Detector Phase | 8 | | 2 | 8 | 6 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 25.3 | | 30.5 | 25.3 | 16.5 | 16.5 |
| Total Split (s) | 35.0 | | 55.0 | 35.0 | 55.0 | 55.0 |
| Total Split (%) | 38.9% | | 61.1% | 38.9% | 61.1% | 61.1% |
| Maximum Green (s) | 28.7 | | 48.5 | 28.7 | 48.5 | 48.5 |
| Yellow Time (s) | 3.3 | | 4.2 | 3.3 | 4.2 | 4.2 |
| All-Red Time (s) | 3.0 | | 2.3 | 3.0 | 2.3 | 2.3 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 6.3 | | 6.5 | 6.3 | | 6.5 |
| Lead/Lag | | | | | | |
| Lead-Lag Optimize? | | | | | | |
| Vehicle Extension (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | | Max | None | Max | Max |
| Walk Time (s) | 7.0 | | 7.0 | 7.0 | | |
| Flash Dont Walk (s) | 12.0 | | 17.0 | 12.0 | | |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | | |
| Act Effct Green (s) | 14.2 | 75.7 | 48.6 | 75.7 | | 48.6 |
| Actuated g/C Ratio | 0.19 | 1.00 | 0.64 | 1.00 | | 0.64 |
| v/c Ratio | 0.64 | 0.69 | 0.43 | 0.05 | | 0.58 |
| Control Delay | 38.1 | 2.7 | 8.0 | 0.1 | | 10.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 38.1 | 2.7 | 8.0 | 0.1 | | 10.9 |
| LOS | D | A | A | A | | B |
| Approach Delay | 8.5 | | 7.4 | | | 10.9 |
| Approach LOS | A | | A | | | B |

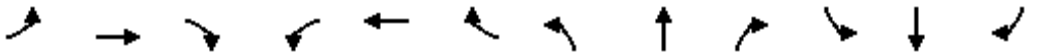
| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 90 | | | |
| Actuated Cycle Length: 75.7 | | | |
| Natural Cycle: 60 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.69 | | | |
| Intersection Signal Delay: 8.7 | | Intersection LOS: A | |
| Intersection Capacity Utilization 75.0% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 22: Blair Road & Hwy 174 EB off



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 |
| Frt | | | | | | |
| Flt Protected | | | | | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 3390 | 3390 | 1784 |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 3390 | 3390 | 1784 |
| Link Speed (k/h) | 60 | | | 60 | 60 | |
| Link Distance (m) | 105.8 | | | 341.9 | 90.2 | |
| Travel Time (s) | 6.3 | | | 20.5 | 5.4 | |
| Peak Hour Factor | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 |
| Adj. Flow (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(m) | 0.0 | | | 7.4 | 7.4 | |
| Link Offset(m) | 0.0 | | | 0.0 | 0.0 | |
| Crosswalk Width(m) | 1.6 | | | 1.6 | 1.6 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | 14 | 24 | | | 14 |
| Sign Control | Yield | | | Free | Free | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 0.0% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

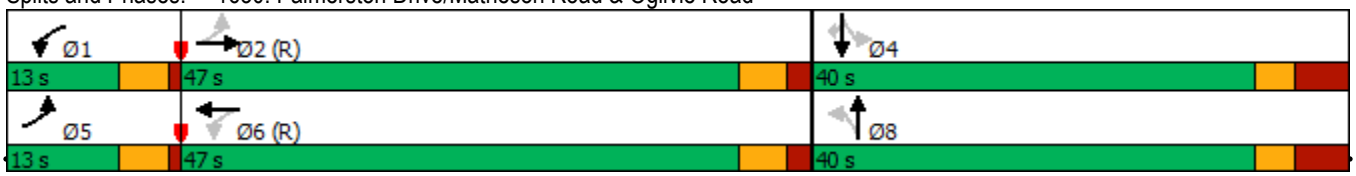


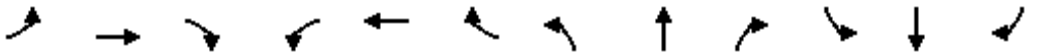
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 83 | 1084 | 21 | 33 | 1298 | 14 | 57 | 2 | 26 | 25 | 2 | 171 |
| Future Volume (vph) | 83 | 1084 | 21 | 33 | 1298 | 14 | 57 | 2 | 26 | 25 | 2 | 171 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 0.0 | 70.0 | | 0.0 | 15.0 | | 0.0 | 0.0 | | 35.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 0 | | 1 |
| Taper Length (m) | 30.0 | | | 30.0 | | | 7.6 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 1.00 | | 0.99 | 1.00 | | 1.00 | 0.98 | | | 0.99 | 0.99 |
| Frt | | 0.997 | | | 0.998 | | | 0.861 | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | 0.956 | |
| Satd. Flow (prot) | 1695 | 3375 | 0 | 1695 | 3382 | 0 | 1662 | 1471 | 0 | 0 | 1706 | 1517 |
| Flt Permitted | 0.145 | | | 0.216 | | | 0.740 | | | | 0.727 | |
| Satd. Flow (perm) | 259 | 3375 | 0 | 383 | 3382 | 0 | 1290 | 1471 | 0 | 0 | 1282 | 1497 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 2 | | | 1 | | | 26 | | | | 171 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 314.1 | | | 264.5 | | | 176.2 | | | 174.1 | |
| Travel Time (s) | | 18.8 | | | 15.9 | | | 10.6 | | | 10.4 | |
| Confl. Peds. (#/hr) | 11 | | 26 | 26 | | 11 | 4 | | 14 | 14 | | |
| Confl. Bikes (#/hr) | | | 21 | | | 9 | | | 2 | | | 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 (%) | 2% | 2% | 2% | 2% | 2% | 2% | 4% | 4% | 4% | 2% | 2% | 2% |
| Adj. Flow (vph) | 83 | 1084 | 21 | 33 | 1298 | 14 | 57 | 2 | 26 | 25 | 2 | 171 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 83 | 1105 | 0 | 33 | 1312 | 0 | 57 | 28 | 0 | 0 | 27 | 171 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | 1 |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | | pm+pt | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | 4 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.7 | 33.6 | | 9.7 | 33.6 | | 40.2 | 40.2 | | 40.2 | 40.2 | 40.2 |
| Total Split (s) | 13.0 | 47.0 | | 13.0 | 47.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | 40.0 |
| Total Split (%) | 13.0% | 47.0% | | 13.0% | 47.0% | | 40.0% | 40.0% | | 40.0% | 40.0% | 40.0% |
| Maximum Green (s) | 8.3 | 41.4 | | 8.3 | 41.4 | | 32.8 | 32.8 | | 32.8 | 32.8 | 32.8 |
| Yellow Time (s) | 3.7 | 3.7 | | 3.7 | 3.7 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 1.0 | 1.9 | | 1.0 | 1.9 | | 4.2 | 4.2 | | 4.2 | 4.2 | 4.2 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | 4.7 | 5.6 | | 4.7 | 5.6 | | 7.2 | 7.2 | | | 7.2 | 7.2 |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | | None | C-Max | | None | None | | None | None | None |
| Walk Time (s) | | 15.0 | | | 15.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 13.0 | | | 13.0 | | 26.0 | 26.0 | | 26.0 | 26.0 | 26.0 |
| Pedestrian Calls (#/hr) | | 10 | | | 10 | | 10 | 10 | | 10 | 10 | 10 |
| Act Effct Green (s) | 70.9 | 65.6 | | 68.9 | 62.9 | | 14.9 | 14.9 | | | 14.9 | 14.9 |
| Actuated g/C Ratio | 0.71 | 0.66 | | 0.69 | 0.63 | | 0.15 | 0.15 | | | 0.15 | 0.15 |
| v/c Ratio | 0.30 | 0.50 | | 0.10 | 0.62 | | 0.30 | 0.12 | | | 0.14 | 0.46 |
| Control Delay | 8.6 | 12.7 | | 5.1 | 8.8 | | 38.9 | 13.0 | | | 34.7 | 9.0 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 8.6 | 12.7 | | 5.1 | 8.8 | | 38.9 | 13.0 | | | 34.7 | 9.0 |
| LOS | A | B | | A | A | | D | B | | | C | A |
| Approach Delay | | 12.4 | | | 8.7 | | | 30.4 | | | 12.5 | |
| Approach LOS | | B | | | A | | | C | | | B | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 54 (54%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 85 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.62 | | | |
| Intersection Signal Delay: 11.2 | | Intersection LOS: B | |
| Intersection Capacity Utilization 81.7% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 1630: Palmerston Drive/Matheson Road & Ogilvie Road





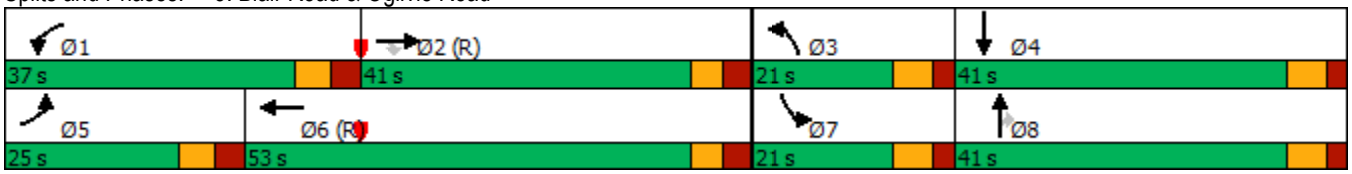
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 157 | 852 | 640 | 875 | 504 | 83 | 276 | 296 | 923 | 75 | 761 | 73 |
| Future Volume (vph) | 157 | 852 | 640 | 875 | 504 | 83 | 276 | 296 | 923 | 75 | 761 | 73 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 0.0 | 110.0 | | 0.0 | 120.0 | | 0.0 | 30.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 2 | | 0 | 2 | | 1 | 1 | | 0 |
| Taper Length (m) | 40.0 | | | 60.0 | | | 60.0 | | | 45.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 0.97 | 0.95 | 0.95 | 0.97 | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | 0.99 | | | | | | 0.99 | |
| Frt | | | 0.850 | | 0.979 | | | | 0.850 | | 0.987 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1679 | 3357 | 1502 | 3257 | 3249 | 0 | 3257 | 1767 | 1502 | 1679 | 3276 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (perm) | 1679 | 3357 | 1502 | 3257 | 3249 | 0 | 3257 | 1767 | 1502 | 1679 | 3276 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 223 | | 14 | | | | 443 | | 7 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 372.0 | | | 396.5 | | | 239.9 | | | 411.0 | |
| Travel Time (s) | | 22.3 | | | 23.8 | | | 14.4 | | | 24.7 | |
| Confl. Peds. (#/hr) | | | | | | 29 | | | | | | 84 |
| 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% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% | 3% |
| Adj. Flow (vph) | 157 | 852 | 640 | 875 | 504 | 83 | 276 | 296 | 923 | 75 | 761 | 73 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 157 | 852 | 640 | 875 | 587 | 0 | 276 | 296 | 923 | 75 | 834 | 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) | | 7.4 | | | 7.4 | | | 7.4 | | | 7.4 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | 1 | 1 | 2 | |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Thru | Right | Left | Thru | |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | |
| Trailing Detector (m) | 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 | |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | |
| Detector 1 Type | 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 | |
| Detector 1 Queue (s) | 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 | |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | |

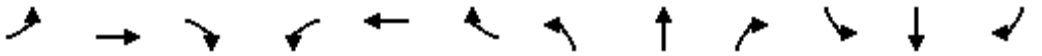
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turn Type | Prot | NA | Perm | Prot | NA | | Prot | NA | Perm | Prot | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | 3 | 8 | | 7 | 4 | |
| Permitted Phases | | | 2 | | | | | | 8 | | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | | 3 | 8 | 8 | 7 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | |
| Minimum Split (s) | 11.8 | 38.6 | 38.6 | 11.8 | 38.6 | | 11.5 | 35.5 | 35.5 | 11.5 | 35.5 | |
| Total Split (s) | 25.0 | 41.0 | 41.0 | 37.0 | 53.0 | | 21.0 | 41.0 | 41.0 | 21.0 | 41.0 | |
| Total Split (%) | 17.9% | 29.3% | 29.3% | 26.4% | 37.9% | | 15.0% | 29.3% | 29.3% | 15.0% | 29.3% | |
| Maximum Green (s) | 18.2 | 34.4 | 34.4 | 30.2 | 46.4 | | 14.5 | 34.5 | 34.5 | 14.5 | 34.5 | |
| Yellow Time (s) | 3.7 | 3.3 | 3.3 | 3.7 | 3.3 | | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | |
| All-Red Time (s) | 3.1 | 3.3 | 3.3 | 3.1 | 3.3 | | 2.3 | 2.3 | 2.3 | 2.3 | 2.3 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 6.8 | 6.6 | 6.6 | 6.8 | 6.6 | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | Lead | Lag | Lag | Lead | Lag | |
| Lead-Lag Optimize? | Yes | 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 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | | None | None | None | None | None | |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 | | 7.0 | |
| Flash Dont Walk (s) | | 25.0 | 25.0 | | 25.0 | | | 22.0 | 22.0 | | 22.0 | |
| Pedestrian Calls (#/hr) | | 30 | 30 | | 30 | | | 35 | 35 | | 35 | |
| Act Effct Green (s) | 16.5 | 34.4 | 34.4 | 30.2 | 48.1 | | 14.2 | 37.7 | 37.7 | 11.3 | 34.8 | |
| Actuated g/C Ratio | 0.12 | 0.25 | 0.25 | 0.22 | 0.34 | | 0.10 | 0.27 | 0.27 | 0.08 | 0.25 | |
| v/c Ratio | 0.79 | 1.03 | 1.19 | 1.25 | 0.52 | | 0.84 | 0.62 | 1.27 | 0.56 | 1.02 | |
| Control Delay | 86.8 | 91.4 | 133.4 | 167.4 | 38.2 | | 83.2 | 52.3 | 153.8 | 77.1 | 87.1 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 86.8 | 91.4 | 133.4 | 167.4 | 38.2 | | 83.2 | 52.3 | 153.8 | 77.1 | 87.1 | |
| LOS | F | F | F | F | D | | F | D | F | E | F | |
| Approach Delay | | 107.3 | | | 115.6 | | | 120.7 | | | 86.3 | |
| Approach LOS | | F | | | F | | | F | | | F | |

**Intersection Summary**

Area Type: Other
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.27
Intersection Signal Delay: 109.6 Intersection LOS: F
Intersection Capacity Utilization 109.9% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 3: Blair Road & Ogilvie Road



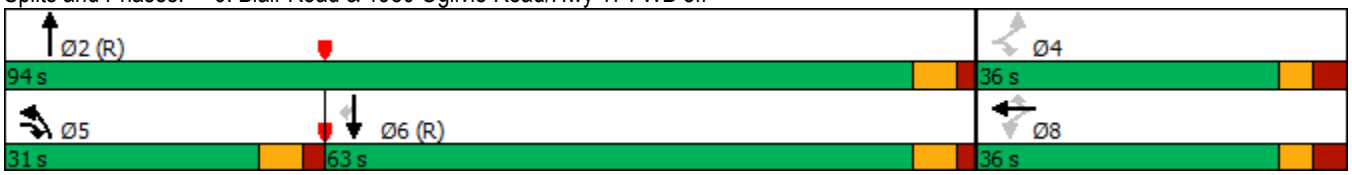


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 123 | 0 | 568 | 93 | 149 | 189 | 346 | 1353 | 0 | 0 | 1815 | 172 |
| Future Volume (vph) | 123 | 0 | 568 | 93 | 149 | 189 | 346 | 1353 | 0 | 0 | 1815 | 172 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | | 70.0 | 0.0 | | 70.0 | 60.0 | | 0.0 | 0.0 | | 50.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 2 | | 0 | 0 | | 1 |
| Taper Length (m) | 7.6 | | | 7.6 | | | 100.0 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 0.95 | 1.00 | 1.00 | 0.91 | 1.00 |
| Frt | | | 0.850 | | | 0.850 | | | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (prot) | 1544 | 0 | 1381 | 1695 | 1784 | 1517 | 3164 | 3262 | 0 | 0 | 4871 | 1517 |
| Flt Permitted | 0.582 | | | 0.950 | | | 0.950 | | | | | |
| Satd. Flow (perm) | 946 | 0 | 1381 | 1695 | 1784 | 1517 | 3164 | 3262 | 0 | 0 | 4871 | 1517 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 26 | | | 80 | | | | | | 97 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 518.9 | | | 416.4 | | | 90.2 | | | 239.9 | |
| Travel Time (s) | | 31.1 | | | 25.0 | | | 5.4 | | | 14.4 | |
| 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 (%) | 12% | 12% | 12% | 2% | 2% | 2% | 6% | 6% | 6% | 2% | 2% | 2% |
| Adj. Flow (vph) | 123 | 0 | 568 | 93 | 149 | 189 | 346 | 1353 | 0 | 0 | 1815 | 172 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 123 | 0 | 568 | 93 | 149 | 189 | 346 | 1353 | 0 | 0 | 1815 | 172 |
| 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) | | 3.7 | | | 3.7 | | | 7.4 | | | 7.4 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | | 1 | 1 | 2 | 1 | 1 | 2 | | | 2 | 1 |
| Detector Template | Left | | Right | Left | Thru | Right | Left | Thru | | | Thru | Right |
| Leading Detector (m) | 6.1 | | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | | pm+ov | Perm | NA | Perm | Prot | NA | | | NA | Perm |
| Protected Phases | | | 5 | | 8 | | 5 | 2 | | | 6 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 4 | | 4 | 8 | | 8 | | | | | | 6 |
| Detector Phase | 4 | | 5 | 8 | 8 | 8 | 5 | 2 | | | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | | 5.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | | | 10.0 | 10.0 |
| Minimum Split (s) | 16.8 | | 11.4 | 36.8 | 36.8 | 36.8 | 11.4 | 30.1 | | | 30.1 | 30.1 |
| Total Split (s) | 36.0 | | 31.0 | 36.0 | 36.0 | 36.0 | 31.0 | 94.0 | | | 63.0 | 63.0 |
| Total Split (%) | 27.7% | | 23.8% | 27.7% | 27.7% | 27.7% | 23.8% | 72.3% | | | 48.5% | 48.5% |
| Maximum Green (s) | 29.2 | | 24.6 | 29.2 | 29.2 | 29.2 | 24.6 | 87.9 | | | 56.9 | 56.9 |
| Yellow Time (s) | 3.3 | | 4.2 | 3.3 | 3.3 | 3.3 | 4.2 | 4.2 | | | 4.2 | 4.2 |
| All-Red Time (s) | 3.5 | | 2.2 | 3.5 | 3.5 | 3.5 | 2.2 | 1.9 | | | 1.9 | 1.9 |
| 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) | 6.8 | | 6.4 | 6.8 | 6.8 | 6.8 | 6.4 | 6.1 | | | 6.1 | 6.1 |
| 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 | 3.0 | | | 3.0 | 3.0 |
| Recall Mode | None | | None | None | None | None | None | C-Max | | | C-Max | C-Max |
| Walk Time (s) | | | | 7.0 | 7.0 | 7.0 | | 7.0 | | | 7.0 | 7.0 |
| Flash Dont Walk (s) | | | | 23.0 | 23.0 | 23.0 | | 17.0 | | | 17.0 | 17.0 |
| Pedestrian Calls (#/hr) | | | | 20 | 20 | 20 | | 30 | | | 30 | 30 |
| Act Effct Green (s) | 23.3 | | 58.6 | 23.3 | 23.3 | 23.3 | 28.5 | 93.8 | | | 58.9 | 58.9 |
| Actuated g/C Ratio | 0.18 | | 0.45 | 0.18 | 0.18 | 0.18 | 0.22 | 0.72 | | | 0.45 | 0.45 |
| v/c Ratio | 0.73 | | 0.89 | 0.31 | 0.47 | 0.56 | 0.50 | 0.58 | | | 0.82 | 0.23 |
| Control Delay | 72.8 | | 48.9 | 46.8 | 51.0 | 32.7 | 48.4 | 10.8 | | | 35.5 | 10.8 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 72.8 | | 48.9 | 46.8 | 51.0 | 32.7 | 48.4 | 10.8 | | | 35.5 | 10.8 |
| LOS | E | | D | D | D | C | D | B | | | D | B |
| Approach Delay | | 53.1 | | | 42.1 | | | 18.5 | | | 33.3 | |
| Approach LOS | | D | | | D | | | B | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 130 | | | |
| Actuated Cycle Length: 130 | | | |
| Offset: 50 (38%), Referenced to phase 2:NBT and 6:SBT, Start of Green | | | |
| Natural Cycle: 90 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.89 | | | |
| Intersection Signal Delay: 31.7 | | Intersection LOS: C | |
| Intersection Capacity Utilization 98.6% | | ICU Level of Service F | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 6: Blair Road & 1980 Ogilvie Road/Hwy 174 WB off



| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 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 | | | | | | |
| Satd. Flow (prot) | 1784 | 0 | 1784 | 0 | 0 | 1784 |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | 1784 | 0 | 1784 | 0 | 0 | 1784 |
| Link Speed (k/h) | 60 | | 60 | | | 60 |
| Link Distance (m) | 518.9 | | 235.1 | | | 57.3 |
| Travel Time (s) | 31.1 | | 14.1 | | | 3.4 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(m) | 3.7 | | 0.0 | | | 0.0 |
| Link Offset(m) | 0.0 | | 0.0 | | | 0.0 |
| Crosswalk Width(m) | 4.9 | | 4.9 | | | 4.9 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | 14 | | 14 | 24 | |
| Sign Control | Stop | | Free | | | Free |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 0.0% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

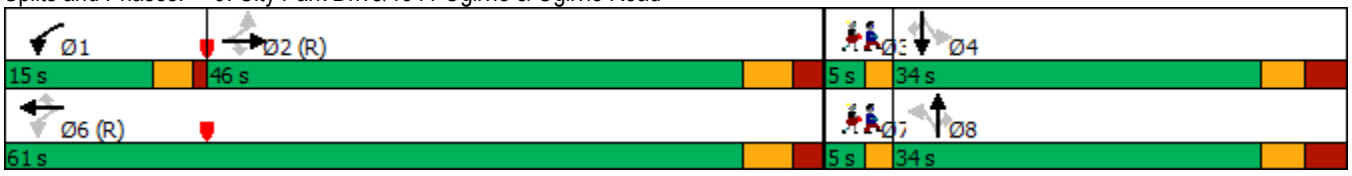
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 32 | 1484 | 152 | 191 | 603 | 38 | 183 | 10 | 185 | 78 | 19 | 76 |
| Future Volume (vph) | 32 | 1484 | 152 | 191 | 603 | 38 | 183 | 10 | 185 | 78 | 19 | 76 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 40.0 | | 100.0 | 100.0 | | 50.0 | 0.0 | | 60.0 | 20.0 | | 10.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 0 | | 1 | 1 | | 1 |
| Taper Length (m) | 30.0 | | | 25.0 | | | 7.6 | | | 15.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.89 | | 0.87 | | | 0.73 | | 0.93 | 0.87 | 0.91 | | 0.92 |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.955 | | 0.950 | | |
| Satd. Flow (prot) | 1695 | 3390 | 1517 | 1679 | 3357 | 1502 | 0 | 1609 | 1432 | 1695 | 1784 | 1517 |
| Flt Permitted | 0.424 | | | 0.079 | | | | 0.723 | | 0.558 | | |
| Satd. Flow (perm) | 675 | 3390 | 1315 | 140 | 3357 | 1104 | 0 | 1135 | 1244 | 906 | 1784 | 1388 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 152 | | | 60 | | | 185 | | | 99 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 224.7 | | | 372.0 | | | 239.4 | | | 142.3 | |
| Travel Time (s) | | 13.5 | | | 22.3 | | | 14.4 | | | 8.5 | |
| Confl. Peds. (#/hr) | 145 | | 67 | 67 | | 145 | 67 | | 110 | 110 | | 67 |
| 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 (%) | 2% | 2% | 2% | 3% | 3% | 3% | 8% | 8% | 8% | 2% | 2% | 2% |
| Adj. Flow (vph) | 32 | 1484 | 152 | 191 | 603 | 38 | 183 | 10 | 185 | 78 | 19 | 76 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 32 | 1484 | 152 | 191 | 603 | 38 | 0 | 193 | 185 | 78 | 19 | 76 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 |
| 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) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 |
| 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) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | |

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Storage Length (m) | | |
| Storage Lanes | | |
| Taper Length (m) | | |
| Lane Util. Factor | | |
| Ped Bike Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (k/h) | | |
| Link Distance (m) | | |
| Travel Time (s) | | |
| Confl. Peds. (#/hr) | | |
| Peak Hour Factor | | |
| Heavy Vehicles (%) | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(m) | | |
| Link Offset(m) | | |
| Crosswalk Width(m) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (k/h) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (m) | | |
| Trailing Detector (m) | | |
| Detector 1 Position(m) | | |
| Detector 1 Size(m) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(m) | | |
| Detector 2 Size(m) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turn Type | Perm | NA | Perm | pm+pt | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | 8 | 4 | | 4 |
| Detector Phase | 2 | 2 | 2 | 1 | 6 | 6 | 8 | 8 | 8 | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 35.1 | 35.1 | 35.1 | 9.0 | 35.1 | 35.1 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 |
| Total Split (s) | 46.0 | 46.0 | 46.0 | 15.0 | 61.0 | 61.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 | 34.0 |
| Total Split (%) | 46.0% | 46.0% | 46.0% | 15.0% | 61.0% | 61.0% | 34.0% | 34.0% | 34.0% | 34.0% | 34.0% | 34.0% |
| Maximum Green (s) | 39.9 | 39.9 | 39.9 | 11.0 | 54.9 | 54.9 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.0 | 3.7 | 3.7 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 2.4 | 2.4 | 2.4 | 1.0 | 2.4 | 2.4 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 6.1 | 6.1 | 6.1 | 4.0 | 6.1 | 6.1 | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |
| Lead/Lag | Lag | Lag | Lag | Lead | | | Lag | Lag | Lag | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | 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 | 3.0 |
| Recall Mode | C-Max | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None | None |
| Walk Time (s) | 7.0 | 7.0 | 7.0 | | 7.0 | 7.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Flash Dont Walk (s) | 22.0 | 22.0 | 22.0 | | 22.0 | 22.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| Pedestrian Calls (#/hr) | 35 | 35 | 35 | | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| Act Effct Green (s) | 47.8 | 47.8 | 47.8 | 63.9 | 61.8 | 61.8 | | 22.6 | 22.6 | 22.6 | 22.6 | 22.6 |
| Actuated g/C Ratio | 0.48 | 0.48 | 0.48 | 0.64 | 0.62 | 0.62 | | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 |
| v/c Ratio | 0.10 | 0.92 | 0.21 | 0.78 | 0.29 | 0.05 | | 0.75 | 0.44 | 0.38 | 0.05 | 0.19 |
| Control Delay | 9.7 | 27.5 | 1.2 | 42.5 | 10.6 | 1.4 | | 53.9 | 7.9 | 36.6 | 27.6 | 4.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 9.7 | 27.5 | 1.2 | 42.5 | 10.6 | 1.4 | | 53.9 | 7.9 | 36.6 | 27.6 | 4.5 |
| LOS | A | C | A | D | B | A | | D | A | D | C | A |
| Approach Delay | | 24.8 | | | 17.5 | | | 31.4 | | | 21.5 | |
| Approach LOS | | C | | | B | | | C | | | C | |

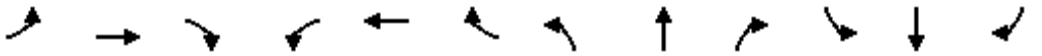
| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 30 (30%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 95 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.92 | | | |
| Intersection Signal Delay: 23.4 | | Intersection LOS: C | |
| Intersection Capacity Utilization 102.6% | | ICU Level of Service G | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 9: City Park Drive/1941 Ogilvie & Ogilvie Road



| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Turn Type | | |
| Protected Phases | 3 | 7 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 1.0 | 1.0 |
| Minimum Split (s) | 5.0 | 5.0 |
| Total Split (s) | 5.0 | 5.0 |
| Total Split (%) | 5% | 5% |
| Maximum Green (s) | 3.0 | 3.0 |
| Yellow Time (s) | 2.0 | 2.0 |
| All-Red Time (s) | 0.0 | 0.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | None | None |
| Walk Time (s) | 0.0 | 0.0 |
| Flash Dont Walk (s) | 0.0 | 0.0 |
| Pedestrian Calls (#/hr) | 35 | 35 |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

| Intersection Summary |
|---|

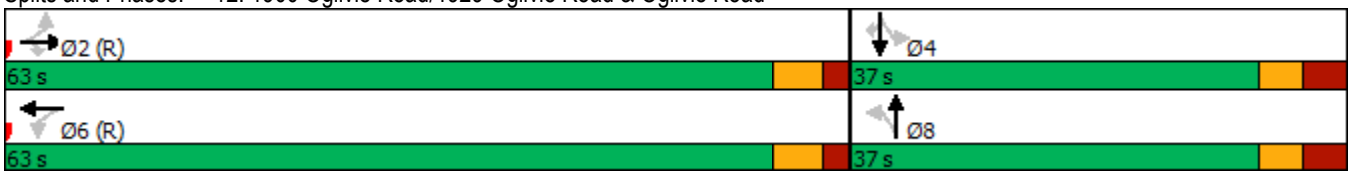


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 43 | 1428 | 66 | 32 | 861 | 24 | 47 | 3 | 28 | 135 | 3 | 132 |
| Future Volume (vph) | 43 | 1428 | 66 | 32 | 861 | 24 | 47 | 3 | 28 | 135 | 3 | 132 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 60.0 | | 80.0 | 90.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 1 | | 0 | 1 | | 0 | 0 | | 1 |
| Taper Length (m) | 30.0 | | | 20.0 | | | 7.6 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.850 | | 0.996 | | | 0.865 | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | 0.953 | |
| Satd. Flow (prot) | 1695 | 3390 | 1517 | 1679 | 3345 | 0 | 1695 | 1543 | 0 | 0 | 1700 | 1517 |
| Flt Permitted | 0.289 | | | 0.131 | | | 0.669 | | | | 0.708 | |
| Satd. Flow (perm) | 516 | 3390 | 1517 | 231 | 3345 | 0 | 1194 | 1543 | 0 | 0 | 1263 | 1517 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 66 | | 5 | | | 28 | | | | 132 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 190.5 | | | 224.7 | | | 86.0 | | | 56.6 | |
| Travel Time (s) | | 11.4 | | | 13.5 | | | 5.2 | | | 3.4 | |
| 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 (%) | 2% | 2% | 2% | 3% | 3% | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Adj. Flow (vph) | 43 | 1428 | 66 | 32 | 861 | 24 | 47 | 3 | 28 | 135 | 3 | 132 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 43 | 1428 | 66 | 32 | 885 | 0 | 47 | 31 | 0 | 0 | 138 | 132 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | | Left | Thru | | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | NA | | Perm | NA | Perm |
| Protected Phases | | 2 | | | 6 | | | 8 | | | 4 | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Permitted Phases | 2 | | 2 | 6 | | | 8 | | | 4 | | 4 |
| Detector Phase | 2 | 2 | 2 | 6 | 6 | | 8 | 8 | | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 29.9 | 29.9 | 29.9 | 29.9 | 29.9 | | 36.7 | 36.7 | | 36.7 | 36.7 | 36.7 |
| Total Split (s) | 63.0 | 63.0 | 63.0 | 63.0 | 63.0 | | 37.0 | 37.0 | | 37.0 | 37.0 | 37.0 |
| Total Split (%) | 63.0% | 63.0% | 63.0% | 63.0% | 63.0% | | 37.0% | 37.0% | | 37.0% | 37.0% | 37.0% |
| Maximum Green (s) | 57.1 | 57.1 | 57.1 | 57.1 | 57.1 | | 30.3 | 30.3 | | 30.3 | 30.3 | 30.3 |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | | 3.3 | 3.3 | | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | | 3.4 | 3.4 | | 3.4 | 3.4 | 3.4 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | 5.9 | 5.9 | 5.9 | 5.9 | 5.9 | | 6.7 | 6.7 | | | 6.7 | 6.7 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | C-Max | C-Max | C-Max | C-Max | C-Max | | None | None | | None | None | None |
| Walk Time (s) | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | | 23.0 | 23.0 | | 23.0 | 23.0 | 23.0 |
| Pedestrian Calls (#/hr) | 20 | 20 | 20 | 20 | 20 | | 30 | 30 | | 30 | 30 | 30 |
| Act Effct Green (s) | 64.7 | 64.7 | 64.7 | 64.7 | 64.7 | | 22.7 | 22.7 | | | 22.7 | 22.7 |
| Actuated g/C Ratio | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | | 0.23 | 0.23 | | | 0.23 | 0.23 |
| v/c Ratio | 0.13 | 0.65 | 0.07 | 0.21 | 0.41 | | 0.17 | 0.08 | | | 0.48 | 0.30 |
| Control Delay | 5.8 | 8.4 | 0.7 | 10.5 | 6.8 | | 28.9 | 11.0 | | | 37.2 | 6.6 |
| Queue Delay | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 5.8 | 8.5 | 0.7 | 10.5 | 6.8 | | 28.9 | 11.0 | | | 37.2 | 6.6 |
| LOS | A | A | A | B | A | | C | B | | | D | A |
| Approach Delay | | 8.1 | | | 7.0 | | | 21.8 | | | 22.2 | |
| Approach LOS | | A | | | A | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 8 (8%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 80 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.65 | | | |
| Intersection Signal Delay: 9.4 | | Intersection LOS: A | |
| Intersection Capacity Utilization 66.9% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 12: 1900 Ogilvie Road/1929 Ogilvie Road & Ogilvie Road



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 207 | 1061 | 194 | 12 | 839 | 110 | 127 | 66 | 26 | 140 | 46 | 159 |
| Future Volume (vph) | 207 | 1061 | 194 | 12 | 839 | 110 | 127 | 66 | 26 | 140 | 46 | 159 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 40.0 | 45.0 | | 70.0 | 30.0 | | 0.0 | 20.0 | | 0.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 1 | | 0 | 1 | | 0 |
| Taper Length (m) | 30.0 | | | 30.0 | | | 25.0 | | | 25.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.97 | | 0.90 | | | 0.83 | 0.98 | 0.99 | | 0.98 | 0.97 | |
| Frt | | | 0.850 | | | 0.850 | | 0.958 | | | 0.884 | |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | 0.950 | | |
| Satd. Flow (prot) | 1679 | 3357 | 1502 | 1679 | 3357 | 1502 | 1631 | 1630 | 0 | 1647 | 1487 | 0 |
| Flt Permitted | 0.225 | | | 0.244 | | | 0.543 | | | 0.697 | | |
| Satd. Flow (perm) | 385 | 3357 | 1349 | 431 | 3357 | 1248 | 914 | 1630 | 0 | 1186 | 1487 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 121 | | | 121 | | 20 | | | 159 | |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 257.6 | | | 190.5 | | | 345.6 | | | 177.6 | |
| Travel Time (s) | | 15.5 | | | 11.4 | | | 20.7 | | | 10.7 | |
| Confl. Peds. (#/hr) | 73 | | 40 | 40 | | 73 | 27 | | 21 | 21 | | 27 |
| 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% | 3% | 3% | 3% | 3% | 3% | 6% | 6% | 6% | 5% | 5% | 5% |
| Adj. Flow (vph) | 207 | 1061 | 194 | 12 | 839 | 110 | 127 | 66 | 26 | 140 | 46 | 159 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 207 | 1061 | 194 | 12 | 839 | 110 | 127 | 92 | 0 | 140 | 205 | 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | | Left | Thru | |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | | 6.1 | 30.5 | |
| Trailing Detector (m) | 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 | |
| Detector 1 Size(m) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | | 6.1 | 1.8 | |
| Detector 1 Type | 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 | |
| Detector 1 Queue (s) | 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 | |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | |

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Storage Length (m) | | |
| Storage Lanes | | |
| Taper Length (m) | | |
| Lane Util. Factor | | |
| Ped Bike Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (k/h) | | |
| Link Distance (m) | | |
| Travel Time (s) | | |
| Confl. Peds. (#/hr) | | |
| Peak Hour Factor | | |
| Heavy Vehicles (%) | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(m) | | |
| Link Offset(m) | | |
| Crosswalk Width(m) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (k/h) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (m) | | |
| Trailing Detector (m) | | |
| Detector 1 Position(m) | | |
| Detector 1 Size(m) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(m) | | |
| Detector 2 Size(m) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | | |

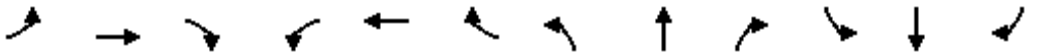
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turn Type | pm+pt | NA | Perm | pm+pt | NA | Perm | Perm | NA | | Perm | NA | |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | 2 | 6 | | 6 | 8 | | | 4 | | |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 8 | 8 | | 4 | 4 | |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | | 10.0 | 10.0 | |
| Minimum Split (s) | 9.7 | 30.0 | 30.0 | 9.7 | 30.0 | 30.0 | 37.4 | 37.4 | | 37.4 | 37.4 | |
| Total Split (s) | 20.0 | 37.0 | 37.0 | 20.0 | 37.0 | 37.0 | 38.0 | 38.0 | | 38.0 | 38.0 | |
| Total Split (%) | 20.0% | 37.0% | 37.0% | 20.0% | 37.0% | 37.0% | 38.0% | 38.0% | | 38.0% | 38.0% | |
| Maximum Green (s) | 15.3 | 31.0 | 31.0 | 15.3 | 31.0 | 31.0 | 30.6 | 30.6 | | 30.6 | 30.6 | |
| Yellow Time (s) | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.0 | 2.3 | 2.3 | 1.0 | 2.3 | 2.3 | 4.4 | 4.4 | | 4.4 | 4.4 | |
| 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) | 4.7 | 6.0 | 6.0 | 4.7 | 6.0 | 6.0 | 7.4 | 7.4 | | 7.4 | 7.4 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lag | Lag | | Lag | Lag | |
| Lead-Lag Optimize? | Yes | 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 | |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | | None | None | |
| Walk Time (s) | | 9.0 | 9.0 | | 9.0 | 9.0 | 2.0 | 2.0 | | 2.0 | 2.0 | |
| Flash Dont Walk (s) | | 15.0 | 15.0 | | 15.0 | 15.0 | 28.0 | 28.0 | | 28.0 | 28.0 | |
| Pedestrian Calls (#/hr) | | 30 | 30 | | 30 | 30 | 20 | 20 | | 20 | 20 | |
| Act Effct Green (s) | 62.4 | 58.8 | 58.8 | 52.4 | 45.2 | 45.2 | 20.5 | 20.5 | | 20.5 | 20.5 | |
| Actuated g/C Ratio | 0.62 | 0.59 | 0.59 | 0.52 | 0.45 | 0.45 | 0.20 | 0.20 | | 0.20 | 0.20 | |
| v/c Ratio | 0.54 | 0.54 | 0.23 | 0.04 | 0.55 | 0.17 | 0.68 | 0.26 | | 0.58 | 0.48 | |
| Control Delay | 21.0 | 14.6 | 7.8 | 8.8 | 16.6 | 2.0 | 52.8 | 25.1 | | 43.4 | 11.9 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Total Delay | 21.0 | 14.6 | 7.8 | 8.8 | 16.6 | 2.0 | 52.8 | 25.1 | | 43.4 | 11.9 | |
| LOS | C | B | A | A | B | A | D | C | | D | B | |
| Approach Delay | | 14.6 | | | 14.8 | | | 41.2 | | | 24.7 | |
| Approach LOS | | B | | | B | | | D | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 19 (19%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 85 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.68 | | | |
| Intersection Signal Delay: 17.8 | | Intersection LOS: B | |
| Intersection Capacity Utilization 87.0% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 15: City Park Drive/Bathgate Drive & Ogilvie Road

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Turn Type | | |
| Protected Phases | 3 | 7 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 1.0 | 1.0 |
| Minimum Split (s) | 5.0 | 5.0 |
| Total Split (s) | 5.0 | 5.0 |
| Total Split (%) | 5% | 5% |
| Maximum Green (s) | 3.0 | 3.0 |
| Yellow Time (s) | 2.0 | 2.0 |
| All-Red Time (s) | 0.0 | 0.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | Ped | Ped |
| Walk Time (s) | 0.0 | 0.0 |
| Flash Dont Walk (s) | 0.0 | 0.0 |
| Pedestrian Calls (#/hr) | 20 | 20 |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

| Intersection Summary |
|---|

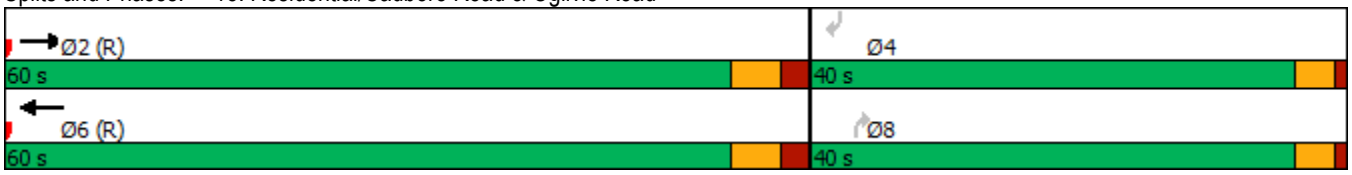


| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 0 | 1862 | 14 | 0 | 1229 | 70 | 0 | 0 | 1 | 0 | 0 | 97 |
| Future Volume (vph) | 0 | 1862 | 14 | 0 | 1229 | 70 | 0 | 0 | 1 | 0 | 0 | 97 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.999 | | | 0.992 | | | | 0.865 | | | 0.865 |
| Flt Protected | | | | | | | | | | | | |
| Satd. Flow (prot) | 0 | 3387 | 0 | 0 | 3363 | 0 | 0 | 0 | 1543 | 0 | 0 | 1543 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 3387 | 0 | 0 | 3363 | 0 | 0 | 0 | 1543 | 0 | 0 | 1543 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 1 | | | 9 | | | | 33 | | | 52 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 264.5 | | | 257.6 | | | 90.1 | | | 116.1 | |
| Travel Time (s) | | 15.9 | | | 15.5 | | | 5.4 | | | 7.0 | |
| 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 |
| Adj. Flow (vph) | 0 | 1862 | 14 | 0 | 1229 | 70 | 0 | 0 | 1 | 0 | 0 | 97 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1876 | 0 | 0 | 1299 | 0 | 0 | 0 | 1 | 0 | 0 | 97 |
| 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) | | 3.7 | | | 3.7 | | | 0.0 | | | 0.0 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 1.6 | | | 1.6 | | | 1.6 | | | 1.6 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 97 | | 97 | 97 | | 97 | 97 | | 97 | 97 | | 97 |
| Number of Detectors | | 2 | | | 2 | | | | 1 | | | 1 |
| Detector Template | | Thru | | | Thru | | | | Right | | | Right |
| Leading Detector (m) | | 10.0 | | | 10.0 | | | | 2.0 | | | 2.0 |
| Trailing Detector (m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Position(m) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Size(m) | | 0.6 | | | 0.6 | | | | 2.0 | | | 2.0 |
| Detector 1 Type | | Cl+Ex | | | Cl+Ex | | | | Cl+Ex | | | Cl+Ex |
| Detector 1 Channel | | | | | | | | | | | | |
| Detector 1 Extend (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Queue (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 1 Delay (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Detector 2 Position(m) | | 9.4 | | | 9.4 | | | | | | | |
| Detector 2 Size(m) | | 0.6 | | | 0.6 | | | | | | | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | | | | | |
| Detector 2 Channel | | | | | | | | | | | | |
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | | | | | |
| Turn Type | | NA | | | NA | | | | Perm | | | Perm |
| Protected Phases | | 2 | | | 6 | | | | | | | |
| Permitted Phases | | | | | | | | | 8 | | | 4 |
| Detector Phase | | 2 | | | 6 | | | | 8 | | | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | | 10.0 | | | 10.0 | | | | 5.0 | | | 5.0 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Minimum Split (s) | | 35.0 | | | 35.0 | | | | 40.0 | | | 40.0 |
| Total Split (s) | | 60.0 | | | 60.0 | | | | 40.0 | | | 40.0 |
| Total Split (%) | | 60.0% | | | 60.0% | | | | 40.0% | | | 40.0% |
| Maximum Green (s) | | 54.0 | | | 54.0 | | | | 36.0 | | | 36.0 |
| Yellow Time (s) | | 3.7 | | | 3.7 | | | | 3.0 | | | 3.0 |
| All-Red Time (s) | | 2.3 | | | 2.3 | | | | 1.0 | | | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Total Lost Time (s) | | 6.0 | | | 6.0 | | | | 4.0 | | | 4.0 |
| Lead/Lag | | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | | |
| Vehicle Extension (s) | | 3.0 | | | 3.0 | | | | 3.0 | | | 3.0 |
| Recall Mode | | C-Max | | | C-Max | | | | None | | | None |
| Walk Time (s) | | 15.0 | | | 15.0 | | | | 24.0 | | | 24.0 |
| Flash Dont Walk (s) | | 14.0 | | | 14.0 | | | | 12.0 | | | 12.0 |
| Pedestrian Calls (#/hr) | | 30 | | | 30 | | | | 20 | | | 20 |
| Act Effct Green (s) | | 74.6 | | | 74.6 | | | | 18.5 | | | 18.5 |
| Actuated g/C Ratio | | 0.75 | | | 0.75 | | | | 0.18 | | | 0.18 |
| v/c Ratio | | 0.74 | | | 0.52 | | | | 0.00 | | | 0.30 |
| Control Delay | | 15.8 | | | 9.3 | | | | 0.0 | | | 16.5 |
| Queue Delay | | 0.0 | | | 0.0 | | | | 0.0 | | | 0.0 |
| Total Delay | | 15.8 | | | 9.3 | | | | 0.0 | | | 16.5 |
| LOS | | B | | | A | | | | A | | | B |
| Approach Delay | | 15.8 | | | 9.3 | | | | | | 16.5 | |
| Approach LOS | | B | | | A | | | | | | B | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 4 (4%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 100 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.74 | | | |
| Intersection Signal Delay: 13.2 | | Intersection LOS: B | |
| Intersection Capacity Utilization 67.3% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 18: Residential/Cadboro Road & Ogilvie Road

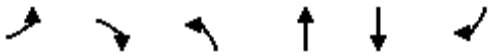


| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 237 | 1017 | 844 | 189 | 490 | 1015 |
| Future Volume (vph) | 237 | 1017 | 844 | 189 | 490 | 1015 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 0.0 | 0.0 | | 70.0 | 0.0 | |
| Storage Lanes | 1 | 1 | | 1 | 0 | |
| Taper Length (m) | 7.6 | | | | 7.6 | |
| Lane Util. Factor | 1.00 | 1.00 | 0.95 | 1.00 | 0.95 | 0.95 |
| Frt | | 0.850 | | 0.850 | | |
| Flt Protected | 0.950 | | | | | 0.984 |
| Satd. Flow (prot) | 1647 | 1473 | 3325 | 1488 | 0 | 3210 |
| Flt Permitted | 0.950 | | | | | 0.519 |
| Satd. Flow (perm) | 1647 | 1473 | 3325 | 1488 | 0 | 1693 |
| Right Turn on Red | | Yes | | Yes | | |
| Satd. Flow (RTOR) | | 582 | | 189 | | |
| Link Speed (k/h) | 60 | | 60 | | | 60 |
| Link Distance (m) | 216.4 | | 230.9 | | | 341.9 |
| Travel Time (s) | 13.0 | | 13.9 | | | 20.5 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Heavy Vehicles (%) | 5% | 5% | 4% | 4% | 6% | 6% |
| Adj. Flow (vph) | 237 | 1017 | 844 | 189 | 490 | 1015 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 237 | 1017 | 844 | 189 | 0 | 1505 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(m) | 3.7 | | 0.0 | | | 0.0 |
| Link Offset(m) | 0.0 | | 0.0 | | | 0.0 |
| Crosswalk Width(m) | 4.9 | | 4.9 | | | 4.9 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | 14 | | 14 | 24 | |
| Number of Detectors | 1 | 1 | 2 | 1 | 1 | 2 |
| Detector Template | Left | Right | Thru | Right | Left | Thru |
| Leading Detector (m) | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | | 28.7 | | | 28.7 |
| Detector 2 Size(m) | | | 1.8 | | | 1.8 |
| Detector 2 Type | | | Cl+Ex | | | Cl+Ex |
| Detector 2 Channel | | | | | | |
| Detector 2 Extend (s) | | | 0.0 | | | 0.0 |
| Turn Type | Prot | Free | NA | pm+ov | pm+pt | NA |
| Protected Phases | 8 | | 2 | 8 | 1 | 6 |

| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Permitted Phases | | Free | | 2 | 6 | |
| Detector Phase | 8 | | 2 | 8 | 1 | 6 |
| Switch Phase | | | | | | |
| Minimum Initial (s) | 5.0 | | 10.0 | 5.0 | 5.0 | 1.0 |
| Minimum Split (s) | 25.3 | | 30.5 | 25.3 | 11.0 | 30.5 |
| Total Split (s) | 30.0 | | 52.0 | 30.0 | 28.0 | 80.0 |
| Total Split (%) | 27.3% | | 47.3% | 27.3% | 25.5% | 72.7% |
| Maximum Green (s) | 23.7 | | 45.5 | 23.7 | 22.0 | 73.5 |
| Yellow Time (s) | 3.3 | | 4.2 | 3.3 | 4.2 | 4.2 |
| All-Red Time (s) | 3.0 | | 2.3 | 3.0 | 1.8 | 2.3 |
| Lost Time Adjust (s) | 0.0 | | 0.0 | 0.0 | | 0.0 |
| Total Lost Time (s) | 6.3 | | 6.5 | 6.3 | | 6.5 |
| Lead/Lag | | | Lag | | Lead | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Vehicle Extension (s) | 3.0 | | 3.0 | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | | C-Max | None | Max | C-Max |
| Walk Time (s) | 7.0 | | 7.0 | 7.0 | | 7.0 |
| Flash Dont Walk (s) | 12.0 | | 17.0 | 12.0 | | 17.0 |
| Pedestrian Calls (#/hr) | 0 | | 0 | 0 | | 0 |
| Act Effct Green (s) | 20.0 | 110.0 | 45.5 | 72.0 | | 77.2 |
| Actuated g/C Ratio | 0.18 | 1.00 | 0.41 | 0.65 | | 0.70 |
| v/c Ratio | 0.80 | 0.69 | 0.61 | 0.18 | | 0.98 |
| Control Delay | 61.9 | 2.7 | 27.7 | 1.2 | | 32.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 |
| Total Delay | 61.9 | 2.7 | 27.7 | 1.2 | | 32.4 |
| LOS | E | A | C | A | | C |
| Approach Delay | 13.9 | | 22.9 | | | 32.4 |
| Approach LOS | B | | C | | | C |

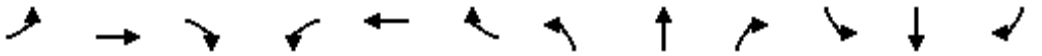
| Intersection Summary | |
|---|---|
| Area Type: | Other |
| Cycle Length: 110 | |
| Actuated Cycle Length: 110 | |
| Offset: 32 (29%), Referenced to phase 2:NBT and 6:SBTL, Start of Green | |
| Natural Cycle: 150 | |
| Control Type: Actuated-Coordinated | |
| Maximum v/c Ratio: 0.98 | |
| Intersection Signal Delay: 23.7 | Intersection LOS: C |
| Intersection Capacity Utilization 99.2% | ICU Level of Service F |
| Analysis Period (min) 15 | |

Splits and Phases: 22: Blair Road & Hwy 174 EB off



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Volume (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 |
| Frt | | | | | | |
| Flt Protected | | | | | | |
| Satd. Flow (prot) | 0 | 0 | 0 | 3390 | 3390 | 1784 |
| Flt Permitted | | | | | | |
| Satd. Flow (perm) | 0 | 0 | 0 | 3390 | 3390 | 1784 |
| Link Speed (k/h) | 60 | | | 60 | 60 | |
| Link Distance (m) | 105.8 | | | 341.9 | 90.2 | |
| Travel Time (s) | 6.3 | | | 20.5 | 5.4 | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Left | Left | Right |
| Median Width(m) | 0.0 | | | 7.4 | 7.4 | |
| Link Offset(m) | 0.0 | | | 0.0 | 0.0 | |
| Crosswalk Width(m) | 1.6 | | | 1.6 | 1.6 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | 14 | 24 | | | 14 |
| Sign Control | Yield | | | Free | Free | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Control Type: Unsignalized | | | |
| Intersection Capacity Utilization 0.0% | | ICU Level of Service A | |
| Analysis Period (min) 15 | | | |

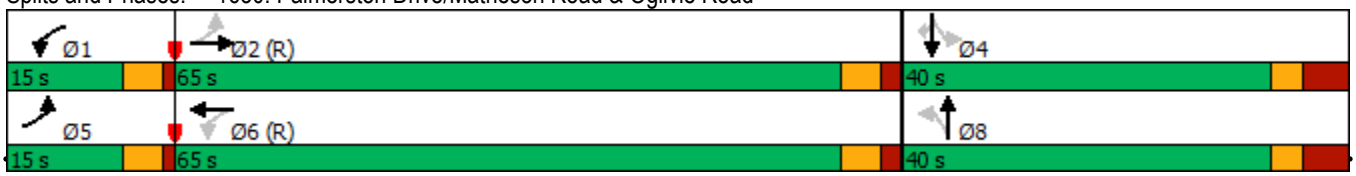


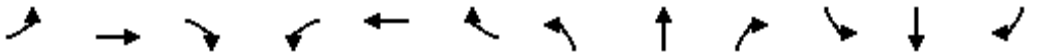
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 188 | 1740 | 61 | 94 | 1343 | 38 | 52 | 4 | 39 | 29 | 4 | 96 |
| Future Volume (vph) | 188 | 1740 | 61 | 94 | 1343 | 38 | 52 | 4 | 39 | 29 | 4 | 96 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 70.0 | | 0.0 | 70.0 | | 0.0 | 15.0 | | 0.0 | 0.0 | | 35.0 |
| Storage Lanes | 1 | | 0 | 1 | | 0 | 1 | | 0 | 0 | | 1 |
| Taper Length (m) | 30.0 | | | 30.0 | | | 7.6 | | | 7.6 | | |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | | 1.00 | | | 1.00 | | 0.98 | 0.98 | | | 0.99 | 0.99 |
| Frt | | 0.995 | | | 0.996 | | | 0.864 | | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | 0.950 | | | | 0.958 | |
| Satd. Flow (prot) | 1695 | 3362 | 0 | 1695 | 3369 | 0 | 1662 | 1476 | 0 | 0 | 1709 | 1517 |
| Flt Permitted | 0.127 | | | 0.067 | | | 0.736 | | | | 0.721 | |
| Satd. Flow (perm) | 227 | 3362 | 0 | 120 | 3369 | 0 | 1267 | 1476 | 0 | 0 | 1274 | 1497 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 4 | | | 3 | | | 39 | | | | 96 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 314.1 | | | 264.5 | | | 176.2 | | | 174.1 | |
| Travel Time (s) | | 18.8 | | | 15.9 | | | 10.6 | | | 10.4 | |
| Confl. Peds. (#/hr) | 24 | | 34 | 34 | | 24 | 16 | | 11 | 11 | | |
| Confl. Bikes (#/hr) | | | 11 | | | 22 | | | 3 | | | 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 (%) | 2% | 2% | 2% | 2% | 2% | 2% | 4% | 4% | 4% | 2% | 2% | 2% |
| Adj. Flow (vph) | 188 | 1740 | 61 | 94 | 1343 | 38 | 52 | 4 | 39 | 29 | 4 | 96 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 188 | 1801 | 0 | 94 | 1381 | 0 | 52 | 43 | 0 | 0 | 33 | 96 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | | 1 | 2 | | 1 | 2 | | 1 | 2 | 1 |
| Detector Template | Left | Thru | | Left | Thru | | Left | Thru | | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | | 6.1 | 30.5 | 6.1 |
| Trailing Detector (m) | 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 |
| Detector 1 Size(m) | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | | 6.1 | 1.8 | 6.1 |
| Detector 1 Type | 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 |
| Detector 1 Queue (s) | 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 |
| Detector 2 Position(m) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | pm+pt | NA | | pm+pt | NA | | Perm | NA | | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | 2 | | | 6 | | | 8 | | | 4 | | 4 |
| Detector Phase | 5 | 2 | | 1 | 6 | | 8 | 8 | | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | | 5.0 | 10.0 | | 10.0 | 10.0 | | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.7 | 33.6 | | 9.7 | 33.6 | | 40.2 | 40.2 | | 40.2 | 40.2 | 40.2 |
| Total Split (s) | 15.0 | 65.0 | | 15.0 | 65.0 | | 40.0 | 40.0 | | 40.0 | 40.0 | 40.0 |
| Total Split (%) | 12.5% | 54.2% | | 12.5% | 54.2% | | 33.3% | 33.3% | | 33.3% | 33.3% | 33.3% |
| Maximum Green (s) | 10.3 | 59.4 | | 10.3 | 59.4 | | 32.8 | 32.8 | | 32.8 | 32.8 | 32.8 |
| Yellow Time (s) | 3.7 | 3.7 | | 3.7 | 3.7 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 1.0 | 1.9 | | 1.0 | 1.9 | | 4.2 | 4.2 | | 4.2 | 4.2 | 4.2 |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Lost Time (s) | 4.7 | 5.6 | | 4.7 | 5.6 | | 7.2 | 7.2 | | | 7.2 | 7.2 |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Vehicle Extension (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| Recall Mode | None | C-Max | | None | C-Max | | None | None | | None | None | None |
| Walk Time (s) | | 15.0 | | | 15.0 | | 7.0 | 7.0 | | 7.0 | 7.0 | 7.0 |
| Flash Dont Walk (s) | | 13.0 | | | 13.0 | | 26.0 | 26.0 | | 26.0 | 26.0 | 26.0 |
| Pedestrian Calls (#/hr) | | 25 | | | 25 | | 10 | 10 | | 10 | 10 | 10 |
| Act Effct Green (s) | 91.5 | 79.5 | | 84.8 | 76.0 | | 15.1 | 15.1 | | | 15.1 | 15.1 |
| Actuated g/C Ratio | 0.76 | 0.66 | | 0.71 | 0.63 | | 0.13 | 0.13 | | | 0.13 | 0.13 |
| v/c Ratio | 0.60 | 0.81 | | 0.50 | 0.65 | | 0.33 | 0.20 | | | 0.21 | 0.35 |
| Control Delay | 17.0 | 20.4 | | 22.1 | 17.3 | | 50.3 | 15.6 | | | 46.4 | 11.2 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Total Delay | 17.0 | 20.4 | | 22.1 | 17.3 | | 50.3 | 15.6 | | | 46.4 | 11.2 |
| LOS | B | C | | C | B | | D | B | | | D | B |
| Approach Delay | | 20.1 | | | 17.6 | | | 34.6 | | | 20.2 | |
| Approach LOS | | C | | | B | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 120 | | | |
| Actuated Cycle Length: 120 | | | |
| Offset: 50 (42%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green | | | |
| Natural Cycle: 115 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.81 | | | |
| Intersection Signal Delay: 19.4 | | Intersection LOS: B | |
| Intersection Capacity Utilization 88.2% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 1630: Palmerston Drive/Matheson Road & Ogilvie Road





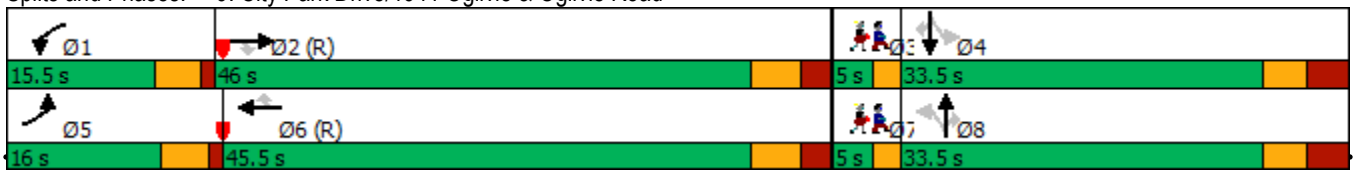
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 102 | 681 | 78 | 87 | 1023 | 174 | 59 | 23 | 166 | 5 | 2 | 9 |
| Future Volume (vph) | 102 | 681 | 78 | 87 | 1023 | 174 | 59 | 23 | 166 | 5 | 2 | 9 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 40.0 | | 100.0 | 100.0 | | 50.0 | 0.0 | | 60.0 | 20.0 | | 10.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 0 | | 1 | 1 | | 1 |
| Taper Length (m) | 30.0 | | | 25.0 | | | 7.6 | | | 15.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.96 | | 0.87 | 0.96 | | 0.80 | | 0.96 | 0.93 | 0.95 | | |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.965 | | 0.950 | | |
| Satd. Flow (prot) | 1695 | 3390 | 1517 | 1679 | 3357 | 1502 | 0 | 1626 | 1432 | 1695 | 1784 | 1517 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.786 | | 0.704 | | |
| Satd. Flow (perm) | 1625 | 3390 | 1320 | 1606 | 3357 | 1208 | 0 | 1269 | 1334 | 1193 | 1784 | 1517 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 109 | | | 146 | | | 166 | | | 105 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 224.7 | | | 372.0 | | | 239.4 | | | 142.3 | |
| Travel Time (s) | | 13.5 | | | 22.3 | | | 14.4 | | | 8.5 | |
| Confl. Peds. (#/hr) | 100 | | 65 | 65 | | 100 | 53 | | 51 | 51 | | |
| Confl. Bikes (#/hr) | | | | | | 9 | | | 2 | | | |
| 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 (%) | 2% | 2% | 2% | 3% | 3% | 3% | 8% | 8% | 8% | 2% | 2% | 2% |
| Adj. Flow (vph) | 102 | 681 | 78 | 87 | 1023 | 174 | 59 | 23 | 166 | 5 | 2 | 9 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 102 | 681 | 78 | 87 | 1023 | 174 | 0 | 82 | 166 | 5 | 2 | 9 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 |
| 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) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 |
| 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) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| Detector 2 Type | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | | | Cl+Ex | |
| Detector 2 Channel | | | | | | | | | | | | |

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Storage Length (m) | | |
| Storage Lanes | | |
| Taper Length (m) | | |
| Lane Util. Factor | | |
| Ped Bike Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (k/h) | | |
| Link Distance (m) | | |
| Travel Time (s) | | |
| Confl. Peds. (#/hr) | | |
| Confl. Bikes (#/hr) | | |
| Peak Hour Factor | | |
| Heavy Vehicles (%) | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(m) | | |
| Link Offset(m) | | |
| Crosswalk Width(m) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (k/h) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (m) | | |
| Trailing Detector (m) | | |
| Detector 1 Position(m) | | |
| Detector 1 Size(m) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(m) | | |
| Detector 2 Size(m) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detector 2 Extend (s) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | | | 2 | | | 6 | 8 | | 8 | 4 | | 4 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 8 | 8 | 8 | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.5 | 35.1 | 35.1 | 9.5 | 35.1 | 35.1 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 |
| Total Split (s) | 16.0 | 46.0 | 46.0 | 15.5 | 45.5 | 45.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 |
| Total Split (%) | 16.0% | 46.0% | 46.0% | 15.5% | 45.5% | 45.5% | 33.5% | 33.5% | 33.5% | 33.5% | 33.5% | 33.5% |
| Maximum Green (s) | 11.5 | 39.9 | 39.9 | 11.0 | 39.4 | 39.4 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 |
| Yellow Time (s) | 3.5 | 3.7 | 3.7 | 3.5 | 3.7 | 3.7 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 1.0 | 2.4 | 2.4 | 1.0 | 2.4 | 2.4 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.5 | 6.1 | 6.1 | 4.5 | 6.1 | 6.1 | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lag | Lag | Lag | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | 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 | 3.0 |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None | None |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Flash Dont Walk (s) | | 22.0 | 22.0 | | 22.0 | 22.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| Pedestrian Calls (#/hr) | | 35 | 35 | | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| Act Effct Green (s) | 10.1 | 52.3 | 52.3 | 9.5 | 51.8 | 51.8 | | 20.2 | 20.2 | 20.2 | 20.2 | 20.2 |
| Actuated g/C Ratio | 0.10 | 0.52 | 0.52 | 0.10 | 0.52 | 0.52 | | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 |
| v/c Ratio | 0.60 | 0.38 | 0.10 | 0.55 | 0.59 | 0.25 | | 0.32 | 0.41 | 0.02 | 0.01 | 0.02 |
| Control Delay | 57.5 | 20.6 | 8.1 | 55.9 | 22.3 | 6.1 | | 34.8 | 8.0 | 27.2 | 27.0 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 57.5 | 20.6 | 8.1 | 55.9 | 22.3 | 6.1 | | 34.8 | 8.0 | 27.2 | 27.0 | 0.1 |
| LOS | E | C | A | E | C | A | | C | A | C | C | A |
| Approach Delay | | 23.9 | | | 22.4 | | | 16.8 | | | 11.9 | |
| Approach LOS | | C | | | C | | | B | | | B | |

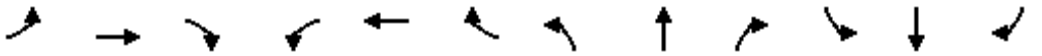
| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 85 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 0.60 | | | |
| Intersection Signal Delay: 22.3 | | Intersection LOS: C | |
| Intersection Capacity Utilization 74.0% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 9: City Park Drive/1941 Ogilvie & Ogilvie Road



| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Detector 2 Extend (s) | | |
| Turn Type | | |
| Protected Phases | 3 | 7 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 1.0 | 1.0 |
| Minimum Split (s) | 5.0 | 5.0 |
| Total Split (s) | 5.0 | 5.0 |
| Total Split (%) | 5% | 5% |
| Maximum Green (s) | 3.0 | 3.0 |
| Yellow Time (s) | 2.0 | 2.0 |
| All-Red Time (s) | 0.0 | 0.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | None | None |
| Walk Time (s) | 0.0 | 0.0 |
| Flash Dont Walk (s) | 0.0 | 0.0 |
| Pedestrian Calls (#/hr) | 35 | 35 |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

| Intersection Summary |
|---|



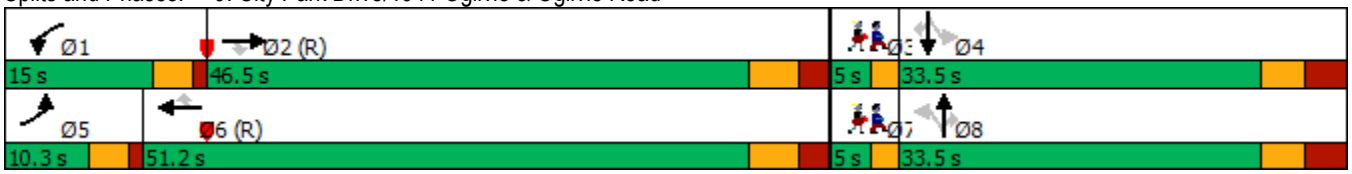
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 32 | 1484 | 152 | 191 | 603 | 38 | 183 | 10 | 185 | 78 | 19 | 76 |
| Future Volume (vph) | 32 | 1484 | 152 | 191 | 603 | 38 | 183 | 10 | 185 | 78 | 19 | 76 |
| Ideal Flow (vphpl) | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Storage Length (m) | 40.0 | | 100.0 | 100.0 | | 50.0 | 0.0 | | 60.0 | 20.0 | | 10.0 |
| Storage Lanes | 1 | | 1 | 1 | | 1 | 0 | | 1 | 1 | | 1 |
| Taper Length (m) | 30.0 | | | 25.0 | | | 7.6 | | | 15.0 | | |
| Lane Util. Factor | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Ped Bike Factor | 0.89 | | 0.87 | 0.99 | | 0.73 | | 0.93 | 0.87 | 0.91 | | 0.92 |
| Frt | | | 0.850 | | | 0.850 | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.955 | | 0.950 | | |
| Satd. Flow (prot) | 1695 | 3390 | 1517 | 1679 | 3357 | 1502 | 0 | 1609 | 1432 | 1695 | 1784 | 1517 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.723 | | 0.557 | | |
| Satd. Flow (perm) | 1512 | 3390 | 1315 | 1654 | 3357 | 1104 | 0 | 1135 | 1244 | 905 | 1784 | 1388 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | | 152 | | | 104 | | | 185 | | | 143 |
| Link Speed (k/h) | | 60 | | | 60 | | | 60 | | | 60 | |
| Link Distance (m) | | 224.7 | | | 372.0 | | | 239.4 | | | 142.3 | |
| Travel Time (s) | | 13.5 | | | 22.3 | | | 14.4 | | | 8.5 | |
| Confl. Peds. (#/hr) | 145 | | 67 | 67 | | 145 | 67 | | 110 | 110 | | 67 |
| 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 (%) | 2% | 2% | 2% | 3% | 3% | 3% | 8% | 8% | 8% | 2% | 2% | 2% |
| Adj. Flow (vph) | 32 | 1484 | 152 | 191 | 603 | 38 | 183 | 10 | 185 | 78 | 19 | 76 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 32 | 1484 | 152 | 191 | 603 | 38 | 0 | 193 | 185 | 78 | 19 | 76 |
| 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) | | 3.7 | | | 3.7 | | | 3.7 | | | 3.7 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.9 | | | 4.9 | | | 4.9 | | | 4.9 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 | 1.06 |
| Turning Speed (k/h) | 24 | | 14 | 24 | | 14 | 24 | | 14 | 24 | | 14 |
| Number of Detectors | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 |
| Detector Template | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right |
| Leading Detector (m) | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 | 6.1 | 30.5 | 6.1 |
| 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) | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 | 6.1 | 1.8 | 6.1 |
| 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) | | 28.7 | | | 28.7 | | | 28.7 | | | 28.7 | |
| Detector 2 Size(m) | | 1.8 | | | 1.8 | | | 1.8 | | | 1.8 | |
| 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 | |

| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Lane Configurations | | |
| Traffic Volume (vph) | | |
| Future Volume (vph) | | |
| Ideal Flow (vphpl) | | |
| Storage Length (m) | | |
| Storage Lanes | | |
| Taper Length (m) | | |
| Lane Util. Factor | | |
| Ped Bike Factor | | |
| Frt | | |
| Flt Protected | | |
| Satd. Flow (prot) | | |
| Flt Permitted | | |
| Satd. Flow (perm) | | |
| Right Turn on Red | | |
| Satd. Flow (RTOR) | | |
| Link Speed (k/h) | | |
| Link Distance (m) | | |
| Travel Time (s) | | |
| Confl. Peds. (#/hr) | | |
| Peak Hour Factor | | |
| Heavy Vehicles (%) | | |
| Adj. Flow (vph) | | |
| Shared Lane Traffic (%) | | |
| Lane Group Flow (vph) | | |
| Enter Blocked Intersection | | |
| Lane Alignment | | |
| Median Width(m) | | |
| Link Offset(m) | | |
| Crosswalk Width(m) | | |
| Two way Left Turn Lane | | |
| Headway Factor | | |
| Turning Speed (k/h) | | |
| Number of Detectors | | |
| Detector Template | | |
| Leading Detector (m) | | |
| Trailing Detector (m) | | |
| Detector 1 Position(m) | | |
| Detector 1 Size(m) | | |
| Detector 1 Type | | |
| Detector 1 Channel | | |
| Detector 1 Extend (s) | | |
| Detector 1 Queue (s) | | |
| Detector 1 Delay (s) | | |
| Detector 2 Position(m) | | |
| Detector 2 Size(m) | | |
| Detector 2 Type | | |
| Detector 2 Channel | | |
| Detector 2 Extend (s) | | |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Perm | NA | Perm | Perm | NA | Perm |
| Protected Phases | 5 | 2 | | 1 | 6 | | | 8 | | | 4 | |
| Permitted Phases | | | 2 | | | 6 | 8 | | 8 | 4 | | 4 |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 8 | 8 | 8 | 4 | 4 | 4 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.5 | 35.1 | 35.1 | 9.0 | 35.1 | 35.1 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 |
| Total Split (s) | 10.3 | 46.5 | 46.5 | 15.0 | 51.2 | 51.2 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 | 33.5 |
| Total Split (%) | 10.3% | 46.5% | 46.5% | 15.0% | 51.2% | 51.2% | 33.5% | 33.5% | 33.5% | 33.5% | 33.5% | 33.5% |
| Maximum Green (s) | 6.3 | 40.4 | 40.4 | 11.0 | 45.1 | 45.1 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 | 27.0 |
| Yellow Time (s) | 3.0 | 3.7 | 3.7 | 3.0 | 3.7 | 3.7 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 |
| All-Red Time (s) | 1.0 | 2.4 | 2.4 | 1.0 | 2.4 | 2.4 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.0 | 6.1 | 6.1 | 4.0 | 6.1 | 6.1 | | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lag | Lag | Lag | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | 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 | 3.0 |
| Recall Mode | None | C-Max | C-Max | None | C-Max | C-Max | None | None | None | None | None | None |
| Walk Time (s) | | 7.0 | 7.0 | | 7.0 | 7.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| Flash Dont Walk (s) | | 22.0 | 22.0 | | 22.0 | 22.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 |
| Pedestrian Calls (#/hr) | | 35 | 35 | | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 |
| Act Effct Green (s) | 6.1 | 43.9 | 43.9 | 14.1 | 55.8 | 55.8 | | 22.5 | 22.5 | 22.5 | 22.5 | 22.5 |
| Actuated g/C Ratio | 0.06 | 0.44 | 0.44 | 0.14 | 0.56 | 0.56 | | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| v/c Ratio | 0.31 | 1.00 | 0.23 | 0.81 | 0.32 | 0.06 | | 0.76 | 0.44 | 0.38 | 0.05 | 0.18 |
| Control Delay | 47.8 | 50.1 | 9.3 | 70.3 | 15.1 | 0.2 | | 54.4 | 7.9 | 36.8 | 27.7 | 0.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.8 | 50.1 | 9.3 | 70.3 | 15.1 | 0.2 | | 54.4 | 7.9 | 36.8 | 27.7 | 0.9 |
| LOS | D | D | A | E | B | A | | D | A | D | C | A |
| Approach Delay | | 46.3 | | | 27.1 | | | 31.7 | | | 20.1 | |
| Approach LOS | | D | | | C | | | C | | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 100 | | | |
| Actuated Cycle Length: 100 | | | |
| Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green | | | |
| Natural Cycle: 105 | | | |
| Control Type: Actuated-Coordinated | | | |
| Maximum v/c Ratio: 1.00 | | | |
| Intersection Signal Delay: 37.8 | | Intersection LOS: D | |
| Intersection Capacity Utilization 102.6% | | ICU Level of Service G | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 9: City Park Drive/1941 Ogilvie & Ogilvie Road



| Lane Group | Ø3 | Ø7 |
|---|---|---|
| Turn Type | | |
| Protected Phases | 3 | 7 |
| Permitted Phases | | |
| Detector Phase | | |
| Switch Phase | | |
| Minimum Initial (s) | 1.0 | 1.0 |
| Minimum Split (s) | 5.0 | 5.0 |
| Total Split (s) | 5.0 | 5.0 |
| Total Split (%) | 5% | 5% |
| Maximum Green (s) | 3.0 | 3.0 |
| Yellow Time (s) | 2.0 | 2.0 |
| All-Red Time (s) | 0.0 | 0.0 |
| Lost Time Adjust (s) | | |
| Total Lost Time (s) | | |
| Lead/Lag | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes |
| Vehicle Extension (s) | 3.0 | 3.0 |
| Recall Mode | None | None |
| Walk Time (s) | 0.0 | 0.0 |
| Flash Dont Walk (s) | 0.0 | 0.0 |
| Pedestrian Calls (#/hr) | 35 | 35 |
| Act Effct Green (s) | | |
| Actuated g/C Ratio | | |
| v/c Ratio | | |
| Control Delay | | |
| Queue Delay | | |
| Total Delay | | |
| LOS | | |
| Approach Delay | | |
| Approach LOS | | |

| Intersection Summary |
|---|

# APPENDIX L

MMLOS Review

## Intersection MMLOS Analysis

The following is a review of the MMLOS of the signalized intersections within the study area, using complete streets principles. Ogilvie Road/Blair Road, Ogilvie Road/1900 Ogilvie Road, Ogilvie Road/City Park Drive, Ogilvie Road/Blair Road, HWY 174 Westbound off-ramp/Blair Road, and HWY 174 Eastbound off-ramp/Blair Road have been evaluated using the MMLOS targets for intersections within 600m of a rapid transit station. Ogilvie Road/Matheson Road/Palmerston Drive and Ogilvie Road/City Park Drive/Bathgate Drive have been evaluated using the worst case MMLOS targets for intersections within a Mixed-Use Centre or Employment Area.

Exhibit 5 of the Addendum to the MMLOS Guidelines has been used to evaluate the existing PLOS at the intersections listed above. Exhibit 22 of the MMLOS Guidelines suggests a target PLOS A for all roadways within 600m of a rapid transit station and a target PLOS C within a Mixed-Use Centre or Employment Area. The results of the intersection PLOS analysis are summarized in **Table 5**.

Exhibit 12 of the MMLOS Guidelines has been used to evaluate the existing BLOS at the intersection listed above. As per Exhibit 22 of the MMLOS Guidelines suggest a target BLOS C for arterial spine routes within 600m of rapid transit, in a Mixed-Use Centre, or in the Employment Area. It also suggests a target BLOS B for local routes along collector roads. The results of the intersection BLOS analysis are summarized in **Table 6**.

Exhibit 16 of the MMLOS Guidelines has been used to evaluate the existing TLOS at the intersection listed above. Exhibit 22 of the MMLOS Guidelines identifies a target TLOS D for all roads with isolated transit priority measures within 600m of rapid transit, in a Mixed Use Centre, or in the Employment Area. The TLOS has been evaluated for every approach that is currently used by transit. The results of the intersection TLOS analysis are summarized in **Table 7**.

Exhibit 21 of the MMLOS Guidelines has been used to evaluate the existing TkLOS at the intersection listed above. Exhibit 22 of the MMLOS Guidelines identifies a target TkLOS B for truck arterial truck routes in the Employment Area and a TkLOS D for arterial truck routes in within 600m of rapid transit or in a Mixed Use Centre. The results of the intersection TkLOS analysis are summarized in **Table 8**.

## Table 1: PLOS Intersection Analysis – Ogilvie Road/Matheson Road/Palmerston Road

| Criteria | North Approach | | South Approach | | East Approach | | West Approach | |
|---|---|---|---|---|---|---|---|---|
| **Campeau Road/Matheson Road/Palmerston Drive** | | | | | | | | |
| **PETSI SCORE** | | | | | | | | |
| *CROSSING DISTANCE CONDITIONS* | | | | | | | | |
| Median > 2.4m in Width | No | 72 | No | 72 | No | 6 | No | 23 |
| Lanes Crossed (3.5m Lane Width) | 5 | | 5 | | 9 | | 8 | |
| *SIGNAL PHASING AND TIMING* | | | | | | | | |
| Left Turn Conflict | Perm + Prot | -8 | Perm + Prot | -8 | Permissive | -8 | Permissive | -8 |
| Right Turn Conflict | Permissive or Yield | -5 | Permissive or Yield | -5 | Permissive or Yield | -5 | Permissive or Yield | -5 |
| Right Turn on Red | N/A | 0 | RTOR Allowed | -3 | RTOR Allowed | -3 | RTOR Allowed | -3 |
| Leading Pedestrian Interval | No | -2 | No | -2 | No | -2 | No | -2 |
| *CORNER RADIUS* | | | | | | | | |
| Parallel Radius | > 15m to 25m | -8 | > 10m to 15m | -6 | > 10m to 15m | -6 | > 15m to 25m | -8 |
| Parallel Right Turn Channel | No Right Turn Channel | -4 | No Right Turn Channel | -4 | No Right Turn Channel | -4 | onventional without Receivir | 0 |
| Perpendicular Radius | > 15m to 25m | -8 | N/A | 0 | N/A | 0 | N/A | 0 |
| Perpendicular Right Turn Channel | Conventional without Receiving | 0 | N/A | 0 | N/A | 0 | N/A | 0 |
| *CROSSING TREATMENT* | | | | | | | | |
| Treatment | Standard | -7 | Standard | -7 | Standard | -7 | Standard | -7 |
| **PETSI SCORE** | | **30** | | **37** | | **-29** | | **-10** |
| **LOS** | | **E** | | **E** | | **F** | | **F** |
| **DELAY SCORE** | | | | | | | | |
| Cycle Length | | 120 | | 120 | | 120 | | 120 |
| Pedestrian Walk Time | | 28.4 | | 28.4 | | 6.8 | | 6.8 |
| **DELAY SCORE** | | **35** | | **35** | | **53.4** | | **53.4** |
| **LOS** | | **D** | | **D** | | **E** | | **E** |
| **OVERALL** | | **E** | | **E** | | **F** | | **F** |

**Table 2: PLOS Intersection Analysis – Ogilvie Road/Cadboro Road**

| Criteria | North Approach | | East Approach | | West Approach | |
|---|---|---|---|---|---|---|
| **Ogilvie Road/Cadboro Road** | | | | | | |
| **PETSI SCORE** | | | | | | |
| *CROSSING DISTANCE CONDITIONS* | | | | | | |
| Median > 2.4m in Width | No | 72 | Yes | 30 | Yes | 30 |
| Lanes Crossed (3.5m Lane Width) | 5 | | 8 | | 8 | |
| *SIGNAL PHASING AND TIMING* | | | | | | |
| Left Turn Conflict | No Left Turn/Prohibited | 0 | No Left Turn/Prohibited | 0 | No Left Turn/Prohibited | 0 |
| Right Turn Conflict | Permissive or Yield | -5 | Permissive or Yield | -5 | No Right Turn/Prohibited | 0 |
| Right Turn on Red | RTOR Allowed | -3 | RTOR Allowed | -3 | RTOR Allowed | -3 |
| Leading Pedestrian Interval | No | -2 | No | -2 | No | -2 |
| *CORNER RADIUS* | | | | | | |
| Parallel Radius | > 15m to 25m | -8 | > 10m to 15m | -6 | > 3m to 5m | -4 |
| Parallel Right Turn Channel | No Right Turn Channel | -4 | No Right Turn Channel | -4 | No Right Turn Channel | -4 |
| Perpendicular Radius | N/A | 0 | N/A | 0 | N/A | 0 |
| Perpendicular Right Turn Channel | N/A | 0 | N/A | 0 | N/A | 0 |
| *CROSSING TREATMENT* | | | | | | |
| Treatment | Standard | -7 | Standard | -7 | Standard | -7 |
| | **PETSI SCORE** | **43** | | **3** | | **10** |
| | **LOS** | **E** | | **F** | | **F** |
| **DELAY SCORE** | | | | | | |
| Cycle Length | | 100 | | 100 | | 100 |
| Pedestrian Walk Time | | 40 | | 24 | | 24 |
| | **DELAY SCORE** | **18** | | **28.9** | | **28.9** |
| | **LOS** | **B** | | **C** | | **C** |
| | **OVERALL** | **E** | | **F** | | **F** |

## Table 3: PLOS Intersection Analysis – Ogilvie Road/City Park Drive/Bathgate Drive

| Criteria | North Approach | | South Approach | | East Approach | | West Approach | |
|---|---|---|---|---|---|---|---|---|
| **Ogilvie Road/City Park Drive/Bathgate Drive** | | | | | | | | |
| **PETSI SCORE** | | | | | | | | |
| *CROSSING DISTANCE CONDITIONS* | | | | | | | | |
| Median > 2.4m in Width | No | 55 | No | 55 | No | 23 | No | 6 |
| Lanes Crossed (3.5m Lane Width) | 6 | | 6 | | 8 | | 9 | |
| *SIGNAL PHASING AND TIMING* | | | | | | | | |
| Left Turn Conflict | Perm + Prot | -8 | Perm + Prot | -8 | Permissive | -8 | Permissive | -8 |
| Right Turn Conflict | Permissive or Yield | -5 | Permissive or Yield | -5 | Permissive or Yield | -5 | Permissive or Yield | -5 |
| Right Turn on Red | RTOR Allowed | -3 | RTOR Allowed | -3 | RTOR Allowed | -3 | RTOR Allowed | -3 |
| Leading Pedestrian Interval | No | -2 | No | -2 | Yes | 0 | Yes | 0 |
| *CORNER RADIUS* | | | | | | | | |
| Parallel Radius | > 15m to 25m | -8 | > 10m to 15m | -6 | > 10m to 15m | -6 | > 10m to 15m | -6 |
| Parallel Right Turn Channel | No Right Turn Channel | -4 | No Right Turn Channel | -4 | No Right Turn Channel | -4 | No Right Turn Channel | -4 |
| Perpendicular Radius | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 0 |
| Perpendicular Right Turn Channel | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 0 |
| *CROSSING TREATMENT* | | | | | | | | |
| Treatment | Standard | -7 | Standard | -7 | Standard | -7 | Standard | -7 |
| **PETSI SCORE** | | **18** | | **20** | | **-10** | | **-27** |
| **LOS** | | **F** | | **F** | | **F** | | **F** |
| **DELAY SCORE** | | | | | | | | |
| Cycle Length | | 100 | | 100 | | 100 | | 100 |
| Pedestrian Walk Time | | 16 | | 16 | | 7.6 | | 7.6 |
| **DELAY SCORE** | | **35.3** | | **35.3** | | **42.7** | | **42.7** |
| **LOS** | | **D** | | **D** | | **E** | | **E** |
| **OVERALL** | | **F** | | **F** | | **F** | | **F** |

## Table 4: PLOS Intersection Analysis – Ogilvie Road/1900 Ogilvie Road

| Criteria | North Approach | | South Approach | | East Approach | | West Approach | |
|---|---|---|---|---|---|---|---|---|
| **Ogilvie Road/1900 Ogilvie Road** | | | | | | | | |
| **PETSI SCORE** | | | | | | | | |
| *CROSSING DISTANCE CONDITIONS* | | | | | | | | |
| Median > 2.4m in Width | No | 88 | No | 72 | No | 39 | No | 23 |
| Lanes Crossed (3.5m Lane Width) | 4 | | 5 | | 7 | | 8 | |
| *SIGNAL PHASING AND TIMING* | | | | | | | | |
| Left Turn Conflict | Permissive | -8 | Permissive | -8 | Permissive | -8 | Permissive | -8 |
| Right Turn Conflict | Permissive or Yield | -5 | Permissive or Yield | -5 | Permissive or Yield | -5 | Permissive or Yield | -5 |
| Right Turn on Red | RTOR Allowed | -3 | RTOR Allowed | -3 | RTOR Allowed | -3 | RTOR Allowed | -3 |
| Leading Pedestrian Interval | No | -2 | No | -2 | No | -2 | No | -2 |
| *CORNER RADIUS* | | | | | | | | |
| Parallel Radius | > 10m to 15m | -6 | > 10m to 15m | -6 | > 10m to 15m | -6 | > 10m to 15m | -6 |
| Parallel Right Turn Channel | No Right Turn Channel | -4 | No Right Turn Channel | -4 | No Right Turn Channel | -4 | No Right Turn Channel | -4 |
| Perpendicular Radius | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 0 |
| Perpendicular Right Turn Channel | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 0 |
| *CROSSING TREATMENT* | | | | | | | | |
| Treatment | Standard | -7 | Standard | -7 | Standard | -7 | Standard | -7 |
| **PETSI SCORE** | | **53** | | **37** | | **4** | | **-12** |
| **LOS** | | **D** | | **E** | | **F** | | **F** |
| **DELAY SCORE** | | | | | | | | |
| Cycle Length | | 100 | | 100 | | 100 | | 100 |
| Pedestrian Walk Time | | 44.1 | | 44.1 | | 7.3 | | 7.3 |
| **DELAY SCORE** | | **15.6** | | **15.6** | | **43** | | **43** |
| **LOS** | | **B** | | **B** | | **E** | | **E** |
| **OVERALL** | | **D** | | **E** | | **F** | | **F** |

## Table 5: PLOS Intersection Analysis – Ogilvie Road/City Park Drive East

| Criteria | North Approach | | South Approach | | East Approach | | West Approach | |
|---|---|---|---|---|---|---|---|---|
| **Ogilvie Road/City Park Drive East** | | | | | | | | |
| **PETSI SCORE** | | | | | | | | |
| *CROSSING DISTANCE CONDITIONS* | | | | | | | | |
| Median > 2.4m in Width | No | 105 | No | 23 | No | 23 | No | 6 |
| Lanes Crossed (3.5m Lane Width) | 3 | | 8 | | 8 | | 9 | |
| *SIGNAL PHASING AND TIMING* | | | | | | | | |
| Left Turn Conflict | Permissive | -8 | Permissive | -8 | Permissive | -8 | Permissive | -8 |
| Right Turn Conflict | Permissive or Yield | -5 | Permissive or Yield | -5 | Permissive or Yield | -5 | Permissive or Yield | -5 |
| Right Turn on Red | N/A | 0 | RTOR Allowed | -3 | N/A | 0 | RTOR Allowed | -3 |
| Leading Pedestrian Interval | No | -2 | No | -2 | Yes | 0 | Yes | 0 |
| *CORNER RADIUS* | | | | | | | | |
| Parallel Radius | > 15m to 25m | -8 | > 10m to 15m | -6 | > 15m to 25m | -8 | > 15m to 25m | -8 |
| Parallel Right Turn Channel | Conventional without Receiving | 0 | No Right Turn Channel | -4 | No Right Turn Channel | -4 | Conventional with Receiving | -3 |
| Perpendicular Radius | > 15m to 25m | -8 | N/A | 0 | > 15m to 25m | -8 | N/A | 0 |
| Perpendicular Right Turn Channel | Conventional without Receiving | 0 | N/A | 0 | onventional without Receivir | 0 | N/A | 0 |
| *CROSSING TREATMENT* | | | | | | | | |
| Treatment | Zebra Stripe | -4 | Zebra Stripe | -4 | Zebra Stripe | -4 | Zebra Stripe | -4 |
| **PETSI SCORE** | | **70** | | **-9** | | **-14** | | **-25** |
| **LOS** | | **C** | | **F** | | **F** | | **F** |
| **DELAY SCORE** | | | | | | | | |
| Cycle Length | | 100 | | 100 | | 100 | | 100 |
| Pedestrian Walk Time | | 17.9 | | 32.9 | | 2.5 | | 2.5 |
| **DELAY SCORE** | | **33.7** | | **22.5** | | **47.5** | | **47.5** |
| **LOS** | | **D** | | **C** | | **E** | | **E** |
| **OVERALL** | | **D** | | **F** | | **F** | | **F** |

## Table 6: PLOS Intersection Analysis – Ogilvie Road/Blair Road

| Criteria | North Approach | | South Approach | | East Approach | | West Approach | |
|---|---|---|---|---|---|---|---|---|
| **Ogilvie Road/Blair Road** | | | | | | | | |
| **PETSI SCORE** | | | | | | | | |
| *CROSSING DISTANCE CONDITIONS* | | | | | | | | |
| Median > 2.4m in Width | No | 6 | No | 39 | No | 23 | No | 39 |
| Lanes Crossed (3.5m Lane Width) | 9 | | 7 | | 8 | | 7 | |
| *SIGNAL PHASING AND TIMING* | | | | | | | | |
| Left Turn Conflict | Protected | 0 | Protected | 0 | Protected | 0 | Protected | 0 |
| Right Turn Conflict | Permissive or Yield | -5 | Permissive or Yield | -5 | Permissive or Yield | -5 | Permissive or Yield | -5 |
| Right Turn on Red | RTOR Allowed | -3 | N/A | 0 | RTOR Allowed | -3 | N/A | 0 |
| Leading Pedestrian Interval | No | -2 | No | -2 | No | -2 | No | -2 |
| *CORNER RADIUS* | | | | | | | | |
| Parallel Radius | > 10m to 15m | -6 | > 25m | -9 | > 25m | -9 | > 10m to 15m | -6 |
| Parallel Right Turn Channel | No Right Turn Channel | -4 | Conventional with Receiving | -3 | onventional without Receivir | 0 | No Right Turn Channel | -4 |
| Perpendicular Radius | N/A | 0 | > 25m | -9 | N/A | 0 | > 25m | -9 |
| Perpendicular Right Turn Channel | N/A | 0 | onventional without Receivir | 0 | N/A | 0 | Conventional with Receiving | -3 |
| *CROSSING TREATMENT* | | | | | | | | |
| Treatment | Standard | -7 | Standard | -7 | Standard | -7 | Standard | -7 |
| **PETSI SCORE** | | **-21** | | **4** | | **-3** | | **0** |
| **LOS** | | **F** | | **F** | | **F** | | **F** |
| **DELAY SCORE** | | | | | | | | |
| Cycle Length | | 140 | | 140 | | 140 | | 140 |
| Pedestrian Walk Time | | 7.4 | | 7.4 | | 12.5 | | 8.5 |
| **DELAY SCORE** | | **62.8** | | **62.8** | | **58.1** | | **61.8** |
| **LOS** | | **F** | | **F** | | **E** | | **F** |
| **OVERALL** | | **F** | | **F** | | **F** | | **F** |

**Table 7: PLOS Intersection Analysis – Blair Road/HWY 174 WB off-ramp**

| Criteria | North Approach | | East Approach | | West Approach | |
|---|---|---|---|---|---|---|
| **Blair Road/HWY 174 WB** | | | | | | |
| **PETSI SCORE** | | | | | | |
| *CROSSING DISTANCE CONDITIONS* | | | | | | |
| Median > 2.4m in Width | Yes | 0 | No | 105 | No | 39 |
| Lanes Crossed (3.5m Lane Width) | 10 + | | 3 | | 7 | |
| *SIGNAL PHASING AND TIMING* | | | | | | |
| Left Turn Conflict | Permissive | -8 | No Left Turn/Prohibited | 0 | Protected | 0 |
| Right Turn Conflict | Permissive or Yield | -5 | No Right Turn/Prohibited | 0 | Permissive or Yield | -5 |
| Right Turn on Red | RTOR Allowed | -3 | RTOR Allowed | -3 | RTOR Allowed | -3 |
| Leading Pedestrian Interval | No | -2 | No | -2 | No | -2 |
| *CORNER RADIUS* | | | | | | |
| Parallel Radius | > 25m | -9 | No Right Turn | 0 | > 25m | -9 |
| Parallel Right Turn Channel | Conventional with Receiving | -3 | No Right Turn | 0 | onventional without Receivir | 0 |
| Perpendicular Radius | > 25m | -9 | > 25m | -9 | N/A | 0 |
| Perpendicular Right Turn Channel | Conventional without Receiving | 0 | Conventional with Receiving | -3 | N/A | 0 |
| *CROSSING TREATMENT* | | | | | | |
| Treatment | Standard | -7 | Standard | -7 | Standard | -7 |
| **PETSI SCORE** | | **-46** | | **81** | | **13** |
| **LOS** | | **F** | | **B** | | **F** |
| **DELAY SCORE** | | | | | | |
| Cycle Length | | 130 | | 130 | | 130 |
| Pedestrian Walk Time | | 6.2 | | 35.9 | | 8.9 |
| **DELAY SCORE** | | **58.9** | | **34.1** | | **56.4** |
| **LOS** | | **E** | | **D** | | **E** |
| **OVERALL** | | **F** | | **D** | | **F** |

**Table 8: PLOS Intersection Analysis – Blair Road/HWY 174 EB**

| Criteria | North Approach | | South Approach | | East Approach | |
|---|---|---|---|---|---|---|
| **Blair Road/HWY 174 EB** | | | | | | |
| **PETSI SCORE** | | | | | | |
| *CROSSING DISTANCE CONDITIONS* | | | | | | |
| Median > 2.4m in Width | No | 72 | No | 55 | No | 23 |
| Lanes Crossed (3.5m Lane Width) | 5 | | 6 | | 8 | |
| *SIGNAL PHASING AND TIMING* | | | | | | |
| Left Turn Conflict | No Left Turn/Prohibited | 0 | Permissive | -8 | Permissive | -8 |
| Right Turn Conflict | No Right Turn/Prohibited | 0 | No Right Turn/Prohibited | 0 | Permissive or Yield | -5 |
| Right Turn on Red | N/A | 0 | RTOR Allowed | -3 | N/A | 0 |
| Leading Pedestrian Interval | No | -2 | No | -2 | No | -2 |
| *CORNER RADIUS* | | | | | | |
| Parallel Radius | No Right Turn | 0 | No Right Turn | 0 | > 15m to 25m | -8 |
| Parallel Right Turn Channel | No Right Turn | 0 | No Right Turn | 0 | No Right Turn Channel | -4 |
| Perpendicular Radius | N/A | 0 | N/A | 0 | N/A | 0 |
| Perpendicular Right Turn Channel | N/A | 0 | N/A | 0 | N/A | 0 |
| *CROSSING TREATMENT* | | | | | | |
| Treatment | Standard | -7 | Standard | -7 | Standard | -7 |
| **PETSI SCORE** | | **63** | | **35** | | **-11** |
| **LOS** | | **C** | | **E** | | **F** |
| **DELAY SCORE** | | | | | | |
| Cycle Length | | 90 | | 90 | | 90 |
| Pedestrian Walk Time | | 16.7 | | 31.5 | | 31.5 |
| **DELAY SCORE** | | **29.8** | | **19** | | **19** |
| **LOS** | | **C** | | **B** | | **B** |
| **OVERALL** | | **C** | | **E** | | **F** |

**Table 9: BLOS Intersection Analysis**

| Approach | Facility Type | Criteria | Travel Lanes and/or Speed | BLOS |
|---|---|---|---|---|
| **Ogilvie Road/Matheson Road/Palmerston Drive** | | | | |
| North Approach | Mixed Traffic | Right Turn Lane Characteristics | Right-turn lane longer than 50m | **F** |
| | | Left Turn Accommodation | No lane crossed ≤ 50km/h | B |
| South Approach | Mixed Traffic | Right Turn Lane Characteristics | Shared through/right turn lane | A |
| | | Left Turn Accommodation | One lane crossed ≤ 50km/h | **D** |
| East Approach | Bike Lane | Right Turn Lane Characteristics | No impact on LTS | A |
| | | Left Turn Accommodation | Two lanes crossed ≥ 60km/h | **F** |
| West Approach | Bike Lane | Right Turn Lane Characteristics | No impact on LTS | A |
| | | Left Turn Accommodation | Two lanes crossed ≥ 60km/h | **F** |
| **Ogilvie Road/Cadboro Road** | | | | |
| North Approach | Mixed Traffic | Right Turn Lane Characteristics | Shared through/right turn lane | A |
| East Approach | Bike Lane | Right Turn Lane Characteristics | No impact on LTS | A |
| West Approach | Bike Lane | Right Turn Lane Characteristics | No impact on LTS | A |
| **Ogilvie Road/Bathgate Drive/City Park Drive** | | | | |
| North Approach | Mixed Traffic | Right Turn Lane Characteristics | Shared through/right turn lane | A |
| | | Left Turn Accommodation | One lane crossed ≤ 50km/h | **D** |
| South Approach | Mixed Traffic | Right Turn Lane Characteristics | Shared through/right turn lane | A |
| | | Left Turn Accommodation | One lane crossed ≥ 60km/h | **F** |
| East Approach | Bike Lane | Right Turn Lane Characteristics | No impact on LTS | A |
| | | Left Turn Accommodation | Two lanes crossed ≥ 60km/h | **F** |
| West Approach | Bike Lane | Right Turn Lane Characteristics | No impact on LTS | A |
| | | Left Turn Accommodation | Two lanes crossed ≥ 60km/h | **F** |
| **Ogilvie Road/1929 Ogilvie Road/1900 Ogilvie Road** | | | | |
| North Approach | Mixed Traffic | Right Turn Lane Characteristics | Right-turn lane longer than 50m | **F** |
| | | Left Turn Accommodation | One lane crossed ≤ 50km/h | B |
| South Approach | Mixed Traffic | Right Turn Lane Characteristics | Shared through/right turn lane | A |
| | | Left Turn Accommodation | One lane crossed ≤ 50km/h | B |
| East Approach | Bike Lane | Right Turn Lane Characteristics | No impact on LTS | A |
| | | Left Turn Accommodation | Two lanes crossed ≥ 60km/h | **D** |

| Approach | Facility Type | Criteria | Travel Lanes and/or Speed | BLOS |
|---|---|---|---|---|
| West Approach | Pocket Bike Lane | Right Turn Lane Characteristics | Right-turn lane longer than 50m | **D** |
| | | Left Turn Accommodation | One lane crossed ≥ 60km/h | **F** |
| **Ogilvie Road/City Park Drive/1941 Ogilvie Road** | | | | |
| North Approach | Mixed Traffic | Right Turn Lane Characteristics | Right-turn lane 25-50m long turning speed > 25km/h | **E** |
| | | Left Turn Accommodation | No lane crossed ≤ 50km/h | B |
| South Approach | Mixed Traffic | Right Turn Lane Characteristics | No impact on LTS | A |
| | | Left Turn Accommodation | One lane crossed ≥ 60km/h | **F** |
| East Approach | Pocket Bike Lane | Right Turn Lane Characteristics | Right-turn lane longer than 50m | **D** |
| | | Left Turn Accommodation | Two lanes crossed ≥ 60km/h | **F** |
| West Approach | Pocket Bike Lane | Right Turn Lane Characteristics | Right-turn lane longer than 50m | **D** |
| | | Left Turn Accommodation | One lane crossed ≥ 60km/h | **F** |
| **Ogilvie Road/Blair Road** | | | | |
| North Approach | Bike Lane | Right Turn Lane Characteristics | No impact on LTS | A |
| | | Left Turn Accommodation | One lane crossed ≥ 60km/h | **F** |
| South Approach | Mixed Traffic | Right Turn Lane Characteristics | Right-turn lane longer than 50m | **F** |
| | | Left Turn Accommodation | One lane crossed ≥ 60km/h | **F** |
| East Approach | Mixed Traffic | Right Turn Lane Characteristics | No impact on LTS | A |
| | | Left Turn Accommodation | Dual left turn lanes | **F** |
| West Approach | Pocket Bike Lane | Right Turn Lane Characteristics | Right-turn lane longer than 50m | **F** |
| | | Left Turn Accommodation | Two lanes crossed ≥ 60km/h | **F** |
| **Blair Road/Highway 174 WB off-ramp/1980 Ogilvie Road** | | | | |
| North Approach | Mixed Traffic | Right Turn Lane Characteristics | Right-turn lane longer than 50m | **F** |
| South Approach | Mixed Traffic | Left Turn Accommodation | Dual left turn lanes | **F** |
| West Approach | Mixed Traffic | Right Turn Lane Characteristics | Right-turn lane longer than 50m | **F** |
| | | Left Turn Accommodation | One lane crossed ≥ 60km/h | **F** |
| **Blair Road/Highway 174 EB** | | | | |
| North Approach | Mixed Traffic | Left Turn Accommodation | No left turn | A |
| South Approach | Mixed Traffic | Right Turn Lane Characteristics | No right turn | A |

**Table 10: TLOS Intersection Analysis**

| Approach | Delay[1] | | TLOS |
|---|---|---|---|
| | AM Peak | PM Peak | |
| **Ogilvie Road/Matheson Road/Palmerston Drive** | | | |
| East Approach | 9 sec | 14 sec | C |
| West Approach | 12 sec | 15 sec | C |
| **Ogilvie Road/Cadboro Road** | | | |
| East Approach | 1 sec | 2 sec | B |
| West Approach | 4 sec | 5 sec | B |
| **Ogilvie Road/Bathgate Drive/City Park Drive** | | | |
| North Approach | 35 sec | 30 sec | **E** |
| South Approach | 39 sec | 56 sec | **F** |
| East Approach | 13 sec | 13 sec | C |
| West Approach | 11 sec | 15 sec | C |
| **Ogilvie Road/1929 Ogilvie Road/1900 Ogilvie Road** | | | |
| East Approach | 3 sec | 4 sec | B |
| West Approach | 2 sec | 6 sec | B |
| **Ogilvie Road/City Park Drive/1941 Ogilvie Road** | | | |
| South Approach | 52 sec | 37 sec | **F** |
| East Approach | 6 sec | 12 sec | C |
| West Approach | 2 sec | 21 sec | D |
| **Ogilvie Road/Blair Road** | | | |
| North Approach | 54 sec | 72 sec | **F** |
| South Approach | 58 sec | 34 sec | **F** |
| East Approach | 62 sec | 51 sec | **F** |
| West Approach | 40 sec | 72 sec | **F** |
| **Blair Road/Highway 174 WB off-ramp/1980 Ogilvie Road** | | | |
| North Approach | 25 sec | 28 sec | D |
| South Approach | 24 sec | 16 sec | C |
| West Approach | 16 sec | 48 sec | **F** |
| **Blair Road/Highway 174 EB** | | | |
| North Approach | 14 sec | 18 sec | C |
| South Approach | 10 sec | 28 sec | D |

1. Delay based on outputs from Synchro analysis of existing conditions

**Table 11: TkLOS Intersection Analysis**

| Approach | Effective Corner Radius | Number of Receiving Lanes Departing Intersection | TkLOS |
|---|---|---|---|
| **Ogilvie Road/Matheson Road/Palmerston Drive** | | | |
| North Approach | > 15m | 2 | A |
| South Approach | < 10m | 2 | **D** |
| East Approach | 10m to 15m | 2 | B |
| West Approach | 10m to 15m | 1 | **E** |
| **Ogilvie Road/Cadboro Road** | | | |
| North Approach | 10m to 15m | 2 | B |
| East Approach | 10m to 15m | 1 | **E** |
| West Approach | N/A | N/A | N/A |
| **Ogilvie Road/Bathgate Drive/City Park Drive** | | | |
| North Approach | 10m to 15m | 2 | B |

| Approach | Effective Corner Radius | Number of Receiving Lanes Departing Intersection | TkLOS |
|---|---|---|---|
| South Approach | 10m to 15m | 2 | B |
| East Approach | 10m to 15m | 1 | **E** |
| West Approach | 10m to 15m | 1 | **E** |
| **Ogilvie Road/1929 Ogilvie Road/1900 Ogilvie Road** | | | |
| North Approach | 10m to 15m | 2 | B |
| South Approach | 10m to 15m | 2 | B |
| East Approach | 10m to 15m | 1 | **E** |
| West Approach | 10m to 15m | 1 | **E** |
| **Ogilvie Road/City Park Drive/1941 Ogilvie Road** | | | |
| North Approach | > 15m | 2 | A |
| South Approach | 10m to 15m | 2 | B |
| East Approach | > 15m | 1 | C |
| West Approach | 10m to 15m | 1 | **E** |
| **Ogilvie Road/Blair Road** | | | |
| North Approach | 10m to 15m | 2 | B |
| South Approach | > 15m | 2 | A |
| East Approach | 10m to 15m | 1 | **E** |
| West Approach | > 15m | 3 | A |
| **Blair Road/Highway 174 WB off-ramp/1980 Ogilvie Road** | | | |
| North Approach | > 15m | 2 | A |
| South Approach | N/A | N/A | N/A |
| East Approach | > 15m | 2 | A |
| West Approach | 10m to 15m | 2 | B |
| **Blair Road/Highway 174 EB** | | | |
| North Approach | N/A | 2 | N/A |
| South Approach | > 15m | 1 | C |
| East Approach | > 15m | 2 | A |