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Bridlewood 3

866, 898 Eagleson Road and

1335, 1365 Terry Fox Drive

Transportation Impact Assessment

Engineering excellence. Planning precision. Inspired landscapes.

BRIDLEWOOD 3

**866, 898 EAGLESON ROAD AND
1335, 1365 TERRY FOX DRIVE**

TRANSPORTATION IMPACT ASSESSMENT

Prepared For:
Claridge Homes (Bridlewood Trails Phase 3) Inc.

Prepared By:

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

January 11th, 2019
Revised May 24th, 2019

Novatech File: 117153
Ref: R-2018-056

May 24th, 2019

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

Attention: Rosanna Baggs
Project Manager, Infrastructure Approvals

Dear Ms. Baggs:

Reference: Bridlewood 3 – 866, 898 Eagleson Road and 1335, 1365 Terry Fox Drive
Transportation Impact Assessment
Novatech File No.117153

Novatech has prepared this Transportation Impact Assessment (TIA) on behalf of Claridge Homes (Bridlewood Trails Phase 3) Inc. to support a Draft Plan of Subdivision application and Zoning By-law Amendment for lands municipally known as 866, 898 Eagleson Road and 1335, 1365 Terry Fox Drive, Ottawa, Ontario.

Claridge Homes is proposing to develop a residential subdivision with 409 units: 47 single-detached houses, 227 townhouses and 120 back-to-back townhouses. Two parks are proposed; a 1.02 ha park at the northwest corner, which will expand on the existing park and a 0.53 ha parkette further south within the proposed development.

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 the undersigned.

Yours truly,

NOVATECH



Brad Byvelds, P. Eng.
Project Coordinator | Transportation/Traffic



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 licensed¹ or registered² 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 this 24th day of May, 201 9.
(City)

Name: Brad Byvelds
(Please Print)

Professional Title: P. Eng. - Project Coordinator



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

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EXECUTIVE SUMMARY

Novatech has been retained by Claridge Homes (Bridlewood Trails Phase 3) Inc. to prepare a Transportation Impact Assessment (TIA) in support of Draft Plan of Subdivision and Zoning By-law Amendment applications for the development of the lands known as 866, 898 Eagleson Road and 1335, 1365 Terry Fox Drive, henceforth referred to as the "Subject Site".

The Subject Site is undeveloped and consists of former farmland that has recently been overgrown by trees and grasses. The Subject Site has an area of approximately 13.8 ha and has approximately 450 metres of frontage along Eagleson Road and approximately 500 metres of frontage along Terry Fox Drive. The following describes the land uses adjacent to the Subject Site.

North: Residential lands known as Bridlewood Trails Phase 1 developed by Claridge containing a mix of low to medium-density developments abut the Subject Site.

East: The City of Ottawa owns and operates the Monahan Drain Stormwater Facility on the east side of Eagleson Road. These lands are also used as open space for the enjoyment of residents. Residential development has been constructed by Glenview Homes and Minto Communities immediately opposite of the Subject Site.

South and West: Across Terry Fox Drive, all lands are designated Agriculture Resource Area in the *Official Plan* and are used for such.

The western portion of the Subject Site (east of Terry Fox Drive and south of Overberg Way) was formerly known as Phase 2C of the Bridlewood Trails Subdivision Registered Block 15 on 4M-1508. A Transportation Impact Study was prepared in August 2009, and subsequent addendums in July 2011 and January 2012 for Phase 2 of the Bridlewood Trails Subdivision. These reports assumed approximately 118,000 ft² gross floor area of office space for the Phase 2C lands.

The proposed development will consist of 227 traditional townhouse units, 120 back-to-back townhouse units and 47 single-detached housing units. The Subject Site is currently zoned five ways under the current City of Ottawa Zoning By-law: AM H(30), AM[1055] H(30), AM[1199] H(30), AM[992] H(3) and IP9[1946]. To permit the proposed development as described, the Residential Third Density, Subzone Z (R3Z) and the Parks and Open Space Zone (O1) zones are proposed.

Internal subdivision roads will connect to Romina Street, west of Eagleson Road and to Overberg Way, east of Terry Fox Drive. The roadway connections to Romina Street and Overberg Way will be full movement intersections.

The proposed subdivision is anticipated to be developed in one phase with a build-out year of 2025. Our review of the development and the screening form indicate that all three triggers are met, therefore, a TIA is required.

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

- All roadways within the proposed subdivision will be classified as local roadways, and will have an 8.5 metre road platform. All roadways, excluding portions that are adjacent to either Eagleson Road or Terry Fox Drive (window streets), will have an 18 metre right-of-way. The

window streets along Eagleson Road will have a 14.5 metre right-of-way, while the window street along Terry Fox Drive will have a 16.5 metre right-of-way.

- A 1.8m concrete sidewalk will be provided on the west side of Street 1 between Romina Street and where Street 1 turns into a window street, and the north side of Street 6. The proposed sidewalks will provide pedestrian connectivity between the proposed development and the existing pedestrian facilities along Overberg Way and Romina Street.
- Based on the Desirable Cycling Facility Pre-Selection Nomograph in OTM Book 18, shared traffic lanes are proposed along all roadways within the subdivision.
- The vehicular volumes at all internal intersections are not anticipated to meet the OTM criteria for all-way stop control. As such, side street stop control is recommended at all intersections within the proposed subdivision.
- Curb bulb-outs are recommended in the northwest corner of the internal Street 1/Street 6 and Street 1/Street 8 intersections. These curb bulb-outs will reduce the pedestrian crossings along Street 1, as well as assist in traffic calming along the internal roadways.
- It is proposed that the existing unit paver crosswalks at the previously planned connections be removed and consolidated into one PXO along this stretch of Romina Street. As the majority of pedestrians crossing Romina Street are anticipated to be between the proposed development and the existing bus stop on the north side of Romina Street, the PXO is proposed at the Romina Street/Street 1 intersection. Based on the projected traffic along Romina Street, a posted speed limit of 50km/hr and a total of two lanes crossed, the Pedestrian Crossover Selection Matrix provided in OTM Book 15 suggests a PXO D should be implemented at this location.
- The nearest driveway along Overberg Way, downstream from the unsignalized intersection with Terry Fox Drive meets the minimum corner clearance identified in TAC.
- Eagleson Road currently meets the target TkLOS and Auto LOS; however, it does not meet the target PLOS and BLOS. The City of Ottawa's TMP identifies the widening of Eagleson Road from two to four lanes between 2020 and 2025. The Eagleson Road widening project will improve the PLOS and BLOS to the targets for an Arterial Mainstreet.
- Terry Fox Drive currently meets the target TkLOS and Auto LOS; however, it does not meet the target PLOS and BLOS for the General Urban Area. Opportunities to improve the PLOS and BLOS should be explored by the City through the future widening of Terry Fox Drive, as identified in the City's 2013 TMP network concept.
- Romina Street currently meets the target PLOS and Auto LOS; however, it does not meet the target BLOS for the General Urban Area. A reduced operating speed of 50 km/hr will improve the BLOS to meet the targets.
- Overberg Way will meet the target PLOS, BLOS and Auto LOS once it is fully constructed.
- The vehicular volumes at the Overberg Way/Street 6/Street 7 access intersection are not anticipated to meet the OTM criteria for all-way stop control. As the east-west roadway is

anticipated to be the main route, side street stop control is recommended on the north and south legs of this intersection.

- The proposed Romina Street access is located 60m west of the existing Brigitta Street/Romina Street intersection, measured centreline to centreline, meeting the requirements of TAC. Side street stop control is recommended on Street 1 at Romina Street. A review of MTO left turn lane warrants suggests a westbound left turn lane is not recommended at the Romina Access.
- The stopping sight distance and intersection sight distance at the Terry Fox Drive/Overberg Way intersection meet TAC requirements.
- To encourage travel by sustainable modes, a multi-modal travel option information package will be provided to new residents of the subdivision. In addition, the site conforms to the City's TDM initiatives by providing easy access to area pedestrian, cycling and transit facilities.
- The proposed development is anticipated to generate 80 transit trips (29 alighting, 51 boarding) during the weekday AM peak hour and 94 transit trips (51 alighting, 43 boarding) during the weekday PM peak hour. The existing transit services in the area are anticipated to be sufficient to accommodate the demand from the proposed development.
- The Eagleson Road/Terry Fox Drive/Hope Side Road intersection meets the target TkLOS and Auto LOS; however, it does not meet the target PLOS and BLOS for an arterial mainstreet. A reduction in the pedestrian crossing distances, and a reduction in the operating speed along both Eagleson Road and Terry Fox Drive/Hope Side Road would provide the greatest improvement to the PLOS and BLOS at this intersection. Improved pedestrian and cycling facilities at this intersection should be considered by the City as part of the Eagleson Road widening project.
- The Eagleson Road/Fernbank Road intersection meets the target TkLOS and Auto LOS; however, it does not meet the target PLOS and BLOS for intersections within 300m of a school. A reduction in the pedestrian crossing distances, and a reduction in the operating speed along both Eagleson Road and Fernbank Road would provide the greatest improvement to the PLOS and BLOS at this intersection. Improved pedestrian and cycling facilities at this intersection should be considered by the City as part of the Eagleson Road widening project.
- The Terry Fox Drive/Fernbank Road intersection meets the target Auto LOS; however, it does not meet the target PLOS, BLOS and TkLOS in the General Urban Area. A reduction in the pedestrian crossing distances, and a reduction in the operating speed along both Terry Fox Drive and Fernbank Road would provide the greatest improvement to the PLOS and BLOS at this intersection. A larger curb radii is required on all legs to achieve the target TkLOS, however a larger curb radii would result in a lower PLOS. Opportunities to improve the PLOS and BLOS should be explored by the City through the future widening of Terry Fox Drive, as identified in the City's 2013 TMP network concept.
- The Eagleson Road/Romina Street/Emerald Meadows Drive intersection is currently operating with a LOS E during the weekday PM peak hour. Based on MTO Traffic Signal Justification 1 and 2, traffic signals are only 68% warranted at this intersection. City staff have

advised that this intersection will be monitored for signalization warrants following full build-out.

- The Fernbank Road/Romina Street intersection is currently operating with a LOS D during the weekday PM peak hour. City staff have identified that signalization of this intersection is anticipated in 2019.
- The Terry Fox Drive/Overberg Way intersection is currently operating with a LOS C during the weekday AM and PM peak hours.
- The northbound left turn movement at the Terry Fox Drive/Fernbank Road intersection is anticipated to operate with a LOS E or F during the PM peak hour under background and total traffic conditions. An increased cycle length of 110 seconds is anticipated to yield a LOS D at this intersection under all scenarios, achieving the area target.
- With the Eagleson Road widening in place, the intersections along Eagleson Road are anticipated to operate with a LOS D or better for background and build-out conditions.
- The recommended plan presented in the Eagleson Road and Fernbank Road ESR suggests a storage length of approximately 90m for the northbound left turn movement at the Eagleson Road/Terry Fox Drive/Hope Side Road intersection. The City should give consideration to providing a storage length of 115m for this movement during the detailed design of the road widening.
- The Terry Fox Drive/Overberg Way intersection is anticipated to operate with a LOS E under the 2025 build-out condition. Based on the MTO traffic signalization warrants, traffic signals will only be 23% warranted at this intersection by the 2030 horizon year. As such side street stop control is recommended at the Terry Fox Drive/Overberg Way intersection. Based on the MTO left turn lane storage graphs, the storage length for the planned southbound left turn lane should be lengthened to 30 metres.

1.0 INTRODUCTION

Novatech has been retained by Claridge Homes (Bridlewood Trails Phase 3) Inc. to prepare a Transportation Impact Assessment (TIA) in support of Draft Plan of Subdivision and Zoning By-law Amendment applications for the development of the lands known as 866, 898 Eagleson Road and 1335, 1365 Terry Fox Drive, henceforth referred to as the “Subject Site”.

1.1 Background

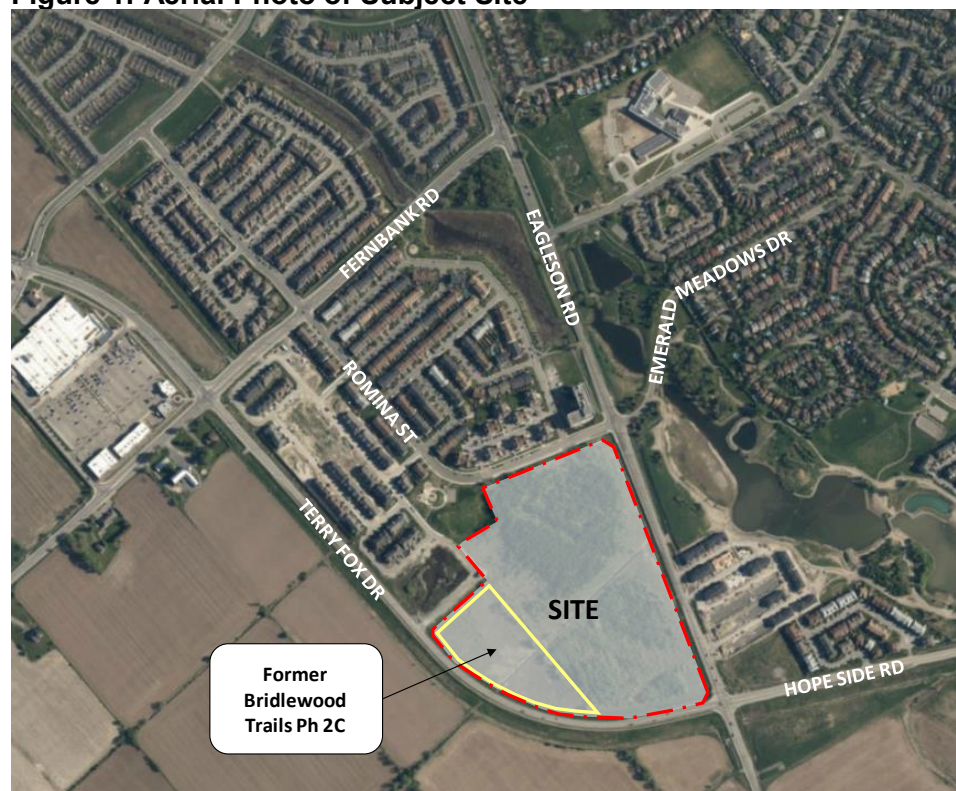
The Subject Site is undeveloped and consists of former farmland that has recently been overgrown by trees and grasses. The Subject Site has an area of approximately 13.8 ha and has approximately 450 metres of frontage along Eagleson Road and approximately 500 metres of frontage along Terry Fox Drive. The following describes the land uses adjacent to the Subject Site shown in **Figure 1**.

North: Residential lands known as Bridlewood Trails Phase 1 developed by Claridge containing a mix of low to medium-density developments about the Subject Site.

East: The City of Ottawa owns and operates the Monahan Drain Stormwater Facility on the east side of Eagleson Road. These lands are also used as open space for the enjoyment of residents. Residential development has been constructed by Glenview Homes and Minto Communities immediately opposite of the Subject Site.

South and West: Across Terry Fox Drive, all lands are designated Agriculture Resource Area in the *Official Plan* and are used for such.

Figure 1: Aerial Photo of Subject Site



The western portion of the Subject Site (east of Terry Fox Drive and south of Overberg Way) was formerly known as Phase 2C of the Bridlewood Trails Subdivision Registered Block 15 on 4M-1508. A Transportation Impact Study was prepared in August 2009, and subsequent addendums in July 2011 and January 2012 for Phase 2 of the Bridlewood Trails Subdivision. These reports assumed approximately 118,000 ft² gross floor area of office space for the Phase 2C lands.

2.0 PROPOSED DEVELOPMENT

The proposed development will consist of 227 traditional townhouse units, 120 back-to-back townhouse units and 47 single-detached housing units. The Subject Site is currently zoned five ways under the current City of Ottawa Zoning By-law: AM H(30), AM[1055] H(30), AM[1199] H(30), AM[992] H(3) and IP9[1946]. To permit the proposed development as described, the Residential Third Density, Subzone Z (R3Z) and the Parks and Open Space Zone (O1) zones are proposed.

Internal subdivision roads will connect to Romina Street, west of Eagleson Road and to Overberg Way, east of Terry Fox Drive. The roadway connections to Romina Street and Overberg Way will be full movement intersections.

The proposed subdivision is anticipated to be developed in one phase with a build-out year of 2025.

A copy of the Concept Plan is included in **Appendix A**.

3.0 SCREENING AND SCOPING

3.1 Screening Form

The City of Ottawa Transportation Impact Assessment Guidelines (TIA) 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.

Trip Generation Trigger: A review of the proposed development and number of residential (townhome/condominium apartment) units, greater than 90 units, indicates that further assessment is required based on this trigger.

Location Triggers: A review of the proposed boundary street conditions indicates that the segment of the east side of Eagleson Road that bounds the site is designated Arterial Mainstreet. Therefore, based on Section 2.5.1 of the Official Plan this development is in a Design Priority Area and assessment is required based on this trigger.

Safety Triggers: A review of the proposed boundary street conditions indicates that the segment of Terry Fox that bounds the site has a posted speed limit of 80km/hr. Therefore, assessment is required based on this trigger.

Our review of the development and the screening form indicate that all three triggers are met, therefore, a TIA is required.

A copy of the TIA Screening Form is included in **Appendix B**.

3.2 Existing Conditions

3.2.1 Roadways

All roadways in the vicinity of the Subject Site are under the jurisdiction of the City of Ottawa.

Eagleson Road is a north-south arterial roadway extending between Highway 417 in the north and Brophy Drive in the south. In the vicinity of the Subject Site, Eagleson Road has a two-lane rural cross section with a posted speed is 60 km/hr north of Romina Street, and 80km/hr south of Romina Street. Eagleson Road is classified as truck route, permitting full loads north of Terry Fox Drive and restricted loads south of Terry Fox Drive.

Terry Fox Drive is an arterial roadway extending between Herzberg Road in the north and Hope Side Road/Eagleson Road in the south. In the vicinity of the Subject Site, Terry Fox Drive generally runs on a north-south alignment and has a two-lane mixed cross section with a posted speed of 80 km/hr. A barrier curb and asphalt sidewalk are provided on the west side of Terry Fox Drive between Eagleson Road and Fernbank Road; a paved shoulder is provided on the east side.

Fernbank Road is an east-west arterial roadway extending between Dwyer Hill Road in the west and Eagleson Road in the east. In the vicinity of the Subject Site, Fernbank Road has a two-lane undivided urban cross section and a posted speed of 60 km/hr.

Hope Side Road is an east-west arterial roadway, extending between Eagleson Road in the west and Old Richmond Road in the east. Hope Side Road has a two-lane rural cross-section and a posted speed of 80 km/hr.

Romina Street is a collector roadway, extending between Fernbank Road and Eagleson Road. Romina Street has a two-lane undivided urban cross section with a regulatory speed limit of 50km/hr.

Emerald Meadows Drive is a collector roadway, extending between Eagleson Road and Grassy Plains Drive east of the Subject Site. Emerald Meadows Drive has a two-lane undivided urban cross section with a posted speed limit of 40km/hr.

Templeford Avenue is a local roadway that generally runs on a north-south alignment between Cope Drive and Fernbank Road north of the Subject Site. Templeford Avenue has a two-lane undivided urban cross section and a regulatory speed limit of 50km/hr.

Overberg Way is a local roadway with a two-lane undivided urban cross section and a posted speed limit of 40km/hr.

3.2.2 Intersections

Terry Fox Dr/Hope Side Rd/Eagleson Rd

- Signalized intersection
- All legs consist of one left turn lane and one shared through/right turn lane



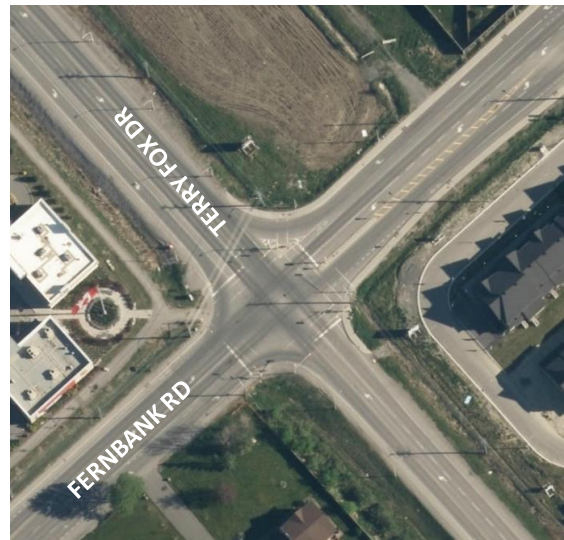
Terry Fox Dr/Overberg Way

- Unsignalized intersection (stop control on Overberg Way)
- All legs consist of one approach lane



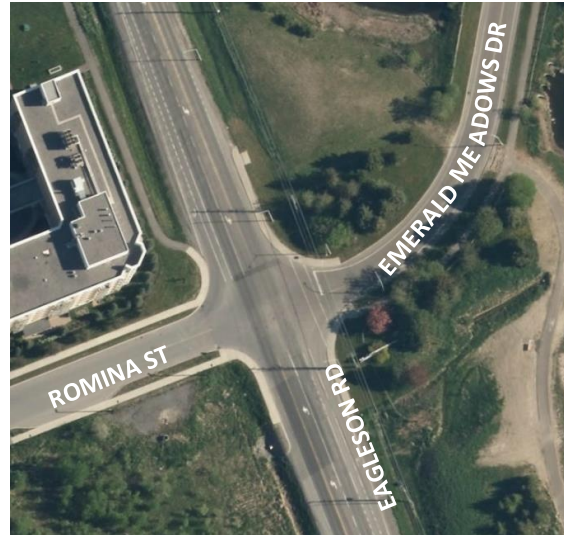
Terry Fox Drive/Fernbank Road

- Signalized intersection
- North, east and west legs consist of one left turn lane, one through lane and one right turn lane
- South leg consists of one left turn lane and one shared through/right turn lane
- A right turn channel is provided on the east leg
- Pocket bike lanes are provided on the north, east and west legs



Eagleson Rd/Romina St

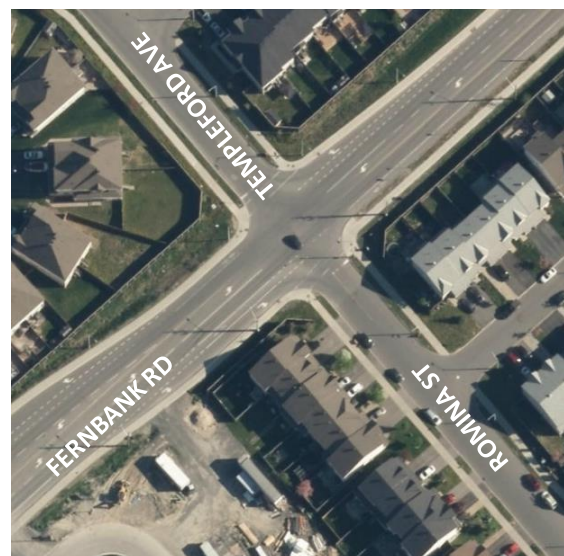
- Unsignalized intersection (stop control on Romina Street and Emerald Meadows Drive)
- North and south legs consist of one left turn lane, one through lane and one right turn lane
- East and west legs consist of one approach lane
- Pocket bike lanes are provided on the north and south legs

Eagleson Road/Fernbank Road

- Signalized intersection
- North leg consists of one right turn lane and one through lane
- South leg consists of one left turn lane and one through lane
- West leg consists of one left turn lane and one right turn lane
- Pocket bike lanes are provided on the north and west legs

Fernbank Rd/Romina St/Templateford Ave

- Unsignalized intersection (stop control on Romina Street and Templateford Avenue)
- East and west legs consist of one left turn lane, one through lane and one right turn lane
- North and south legs consist of one lane approaches
- Pocket bike lanes are provided on the east and west legs



3.2.3 Driveways

Terry Fox Drive

- No accesses in proximity to site

Romina Street

- Artesa Private – All movement driveway to medium density residential development, located on the north side of Romina Street, approximately 225m west of Eagleson Road

Eagleson Road

- Radiant Private – All movement driveway to traditional and back-to-back townhouses, located on the east side of Eagleson Road, approximately 215m north of Terry Fox Drive
- Don Brown Private – Right-in right-out driveway to traditional and back-to-back townhouses, located on the east side of Eagleson Road, approximately 80m north of Terry Fox Drive

3.2.4 Pedestrian Facilities

Existing pedestrian facilities along the study area roadways are described as follows:

- An asphalt sidewalk on the south side of Emerald Meadows Drive
- Paved shoulder on the east side and an asphalt sidewalk on the west side of Terry Fox Drive
- Paved shoulders on Hope Side Road and Eagleson Road between Romina Street and Terry Fox Drive
- Concrete sidewalks on both sides of Fernbank Road, Romina Street and Templeford Avenue

3.2.5 Cycling Facilities

Eagleson Road, Terry Fox Drive, Fernbank Road and Hope Side Road are classified as spine cycling routes in the City's Ultimate Cycling Network. Romina Street, Templeford Avenue and Emerald Meadows Drive are classified as local cycling routes in the City's Ultimate Cycling Network. Cycling facilities along the study area roadways are described as follows:

- Paved shoulders along Terry Fox Drive and Hope Side Road
- Bike lanes along Fernbank Road
- Pocket bike lanes along Eagleson Road at the Romina Street intersection

The City's Ottawa Cycling Plan (OCP) does not identify any cycling projects in the vicinity of the Subject Site.

3.2.6 Transit

OC Transpo bus stops #0736 and #0737 are located along Romina Street west of Brigitta Street. These bus stops are located within a walking distance of 600m all units within the proposed subdivision. The location of the bus stops is shown in **Figure 2**.

Figure 2: OC Transpo Bus Stop Locations

The aforementioned bus stops serve OC Transpo routes 161, 164, and 252. Descriptions of the foregoing transit routes are provided in the following table. Route maps are included in **Appendix C**.

Table 1: OC Transpo Route Information

Route	Description	Schedule		
		Days	Service	Headways
161	Travels between Terry Fox Transit Station and Bridlewood	Weekdays	All Day	Morning/Evening: 30 min Mid-Day/Night: 60 min
164	Travels between Terry Fox Transit Station and Hope Side Road	Weekdays	Peak Periods	Morning/Evening: 30 min
252	Travels between Mackenzie King Transit Station and Cope Drive	Weekdays	Peak Periods	Morning/Evening: 15-20 min

3.2.7 Area Traffic Management Measures

There are currently no area traffic management measures in place along any of the study area roadways.

3.2.8 Existing Traffic Volumes

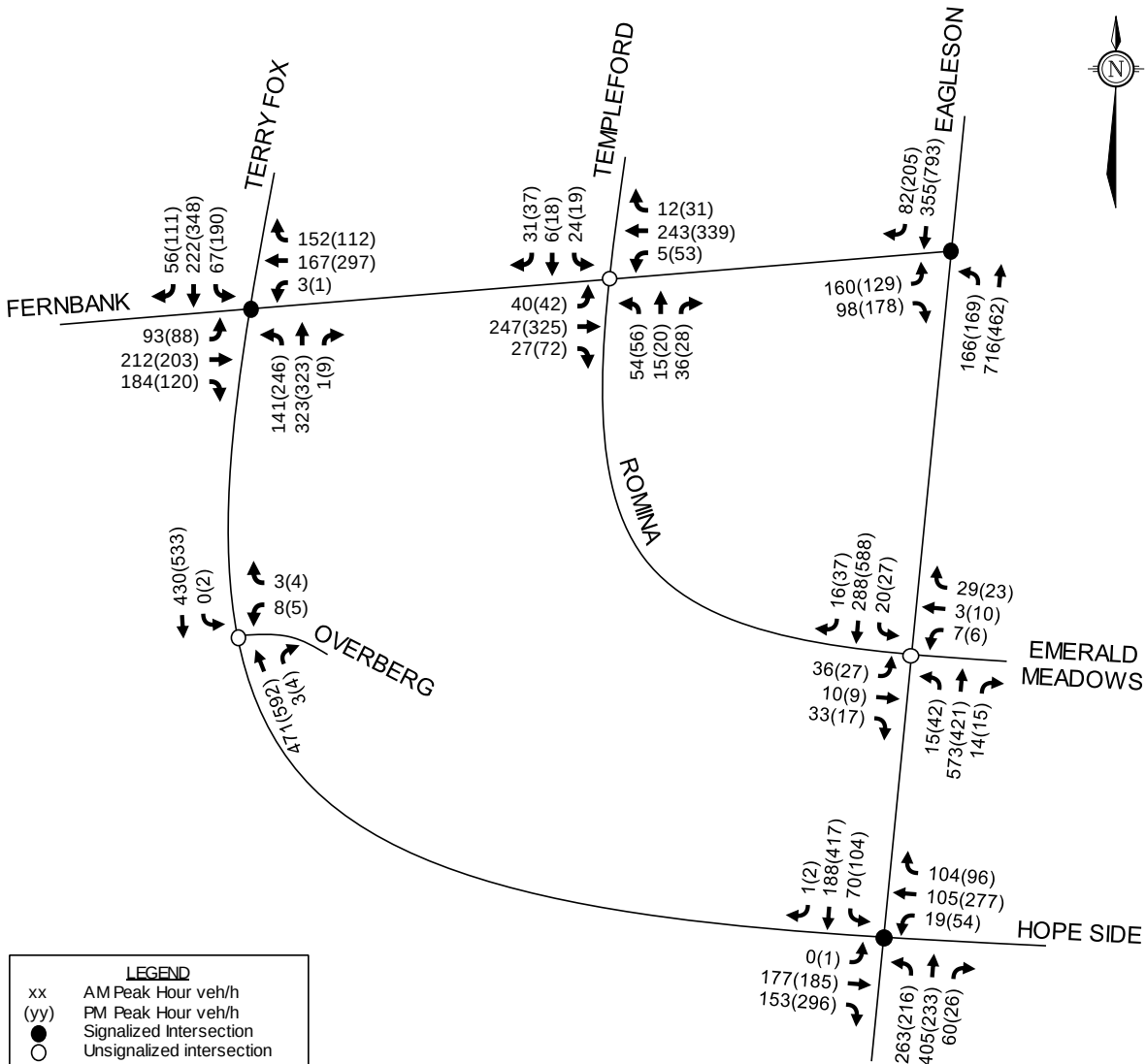
Weekday traffic counts completed by the City of Ottawa were used to determine the existing vehicular traffic volumes at the study area intersections. The traffic counts were completed on the following dates:

- Eagleson Road/Terry Fox Drive/Hope Side Road March 30, 2016
- Eagleson Road/Romina Street/Emerald Meadows Drive June 20, 2018
- Eagleson Road/Fernbank Road April 11, 2017
- Fernbank Road/Romina Street/Templeford Avenue June 20, 2018
- Terry Fox Drive/Fernbank Road February 6, 2018

Phase 2A of the Bridlewood Trails subdivision is generally built-out, except the medium density block located at 25 Overberg Way (D07-12-14-0154). A weekday traffic count was completed by Novatech at the Terry Fox Drive/Overberg Way intersection on Wednesday September 5th, 2018.

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

Figure 3: Existing Traffic Volumes



3.2.9 Collision Records

Historical collision data from the last five years was obtained from the City's Traffic Services Branch and Traffic Management Unit Public Works and Environmental Services Department for the study area intersections. Copies of the collision summary reports are included in **Appendix E**.

The collision data has been evaluated to determine if there are any identifiable collision patterns. The following table summarizes the number of collisions between January 1, 2012 and January 1, 2017.

Table 2: Reported Collisions

Intersection	Number of Reported Collisions
Eagleson Road/Terry Fox Drive/ Hope Side Road	12
Eagleson Road/Romina Street/ Emerald Meadows Drive	4
Eagleson Road/ Fernbank Road	22
Fernbank Road/Romina Street/ Templeford Avenue	4
Terry Fox Drive/ Fernbank Road	26

Eagleson Road/Terry Fox Drive/Hope Side Road

A total of twelve collisions occurred at the Eagleson Road/Terry Fox Drive/Hope Side Road intersection over the last five years. Five of the collisions were turning movement impacts, four were angle impacts, two were rear-end impacts and one was a single vehicle impact. Personal injuries incurred from five of the collisions. None of the collisions involved pedestrians or cyclists.

Eagleson Road/Romina Street/Emerald Meadows Drive

A total of four collisions occurred at the Eagleson Road/Romina Street/Emerald Meadows Drive intersection over the last five years. Two of the collisions were turning movement impacts and two were angle impacts. No personal injuries incurred from any of the collisions. None of the collisions involved pedestrians or cyclists.

Eagleson Road/Fernbank Road

A total of 22 collisions occurred at the Eagleson Road/Fernbank Road intersection over the last five years. Nine of the collisions were rear-end impacts, seven were turning movement impacts, four were sideswipe impacts and two were single vehicle/other impacts. Personal injuries incurred from five of the collisions, and one collision resulted in a fatality.

Three of the rear-end impacts involved northbound vehicles, three involved eastbound vehicles, two involved southbound vehicles and one involved westbound vehicles. Five of the rear-end impacts occurred under wet, icy or slushy surface conditions, suggesting environmental factors may have played a role in the rear-end impact history at this intersection.

Six of the turning movement impacts involved northbound left turning vehicles, three of which occurred under wet surface conditions. Four of the six turning movement impacts involving

northbound left turning vehicles occurred on weekends. One of the turning movement impacts involved a northbound left turning vehicle and a southbound through motorcycle that resulted in a fatality. This fatal collision occurred on a Sunday evening under clear conditions. Consideration could be given by the City to implementing the permitted and protected phasing for the northbound left turn movement on weekends, consistent with the weekday AM and PM peak hours.

Fernbank Road/Romina Street/Templeford Avenue

A total of four collisions occurred at the Fernbank Road/Romina Street/Templeford Avenue intersection over the last five years. Three of the collisions were angle impacts and one was a rear-end impact. No personal injuries incurred from any of the collisions. None of the collisions involved pedestrians or cyclists.

Terry Fox Drive/Fernbank Road

A total of 26 collisions occurred at the Terry Fox Drive/Fernbank Road intersection over the last five years. Eight of the collisions were rear-end impacts, eight were angle impacts, four were turning movement impacts, three were single vehicle/other impacts, and three were sideswipe impacts. No personal injuries incurred from seven of the collisions.

Three of the rear-end impacts involved westbound vehicles, two involved northbound vehicles, two involved southbound vehicles and one involved eastbound vehicles. Two of the rear-end impacts occurred under wet/snowy surface conditions.

Five of the angle impacts involved southbound and eastbound vehicles, one involved northbound and westbound vehicles, one involved northbound and eastbound vehicles, and one involved southbound and westbound vehicles. One of the angle impacts occurred under wet surface conditions.

3.3 Planned Conditions

3.3.1 Planned Transportation Network Changes

The City of Ottawa's 2013 Transportation Master Plan (TMP) identifies a widening from two to four lanes along Eagleson Road between Cadence Gate and Hope Side Road. This widening will provide capacity for additional travel demands from new development areas and provide continuity from the four-lane Eagleson Road to the north. The widening of Eagleson Road is identified as a Phase 2 project with implementation between 2020 and 2025.

The Eagleson Road and Fernbank Road Environmental Study Report (ESR) was prepared by Dillon Consultants in December 2008. Relevant excerpts from the ESR are included in **Appendix F**. Previously, the Subject Site was planned to include several buildings with single and mixed-uses such as retail, office, and residential – ranging from one to five-storeys in height. As such, the proposed layout in the ESR recommends on-street parallel parking along the west side of Eagleson Road between Romina Street and Terry Fox Drive. The Subject Site is now proposed to be developed as low-density residential, and this section of Eagleson Road will not fulfil the Arterial Mainstreet designation. As such, the requirement for on-street parking along the west side of Eagleson Road should be revisited during the detailed design of the road widening.

The City of Ottawa's 2013 TMP also identifies a widening from two to four lanes along Hope Side Road between Eagleson Road and Richmond Road. This widening will provide capacity and network continuity for growth areas in Kanata. The widening of Hope Side Road is identified as a Phase 3 project in the affordable plan with implementation between 2026 and 2031. It is

noteworthy that a roundabout is anticipated to be constructed at the Eagleson Road/Hope Side Road intersection as part of the Hope Side Road widening project.

Roadway modifications at the Terry Fox Drive/Overberg Way intersection as part of Phase 2 of the Bridlewood Trails subdivision are currently approved and are anticipated to be constructed in 2019. The roadway modifications at this intersection include the development of a southbound left turn lane.

City staff have identified that the Fernbank Road/Romina Street intersection is anticipated to be signalized in 2019.

3.3.2 Other Area Developments

A TIA, prepared by WSP in August 2018, was submitted to the City of Ottawa in support of a Site Plan Control application for 800 Eagleson Road. The development consists of a six storey 143 unit apartment building, and is anticipated to be constructed in 2019.

A TIA, prepared by Parsons in April 2018, was submitted to the City of Ottawa in support of a Site Plan Control application for 10 Cope Drive. The development consists of a 3,620m² grocery store and 1,982m² of commercial, and is anticipated to be constructed in 2020.

A Site Plan Control application was submitted to the City of Ottawa in November 2014, in support of a 72 unit apartment development at 25 Overberg Way (D07-12-14-0154). No TIA has been submitted as part of this application; however, this site was considered as part of the Bridlewood Trails Subdivision TIS and addendums (D07-16-11-0022 and D07-16-07-0025).

A TIA, prepared by Stantec in September 2018, was submitted to the City of Ottawa in support of a Zoning By-law Amendment application for a commercial development at 5331 Fernbank Road in the northeast corner of the Terry Fox Drive/Fernbank Road intersection. The development consists of various land uses including a discount supermarket, restaurants, specialty retail, a bank, a coffee shop and a gas/service station. This development is anticipated to be constructed in 2020. A Site Plan Control application has not been filed for this development.

3.4 Study Area and Time Periods

The study area for this report will include the boundary streets of Terry Fox Drive, Eagleson Road, Romina Street and Overberg Way. The proposed study area for this report includes all accesses to the proposed development and the following intersections:

- Eagleson Road/Terry Fox Drive/Hope Side Road
- Eagleson Road/Romina Street/Emerald Meadows Drive
- Eagleson Road/Fernbank Road
- Fernbank Road/Romina Street/Templeford Avenue
- Terry Fox Drive/Fernbank Road
- Terry Fox Drive/Overberg Way

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. The proposed subdivision is anticipated to be constructed with full build-out in 2025. Analysis will be completed for the 2025 buildout year and 2030 horizon year. For the purposes of this analysis, it

has been assumed that the Eagleson Road widening from two to four lanes will be constructed prior to the 2025 build-out year. Lane configurations at the intersections along Eagleson Road are based on the proposed layout presented in the Eagleson Road and Fernbank Road ESR dated December 2008.

3.5 Exemptions Review

This module reviews the possible exemptions from the final TIA, as outlined in the TIA Guidelines. The applicable exemptions for the Subject Site are shown in **Table 3**.

Table 3: TIA Exemptions

Module	Element	Exemption Criteria	Exemption Applies
Design Review Component			
4.1 Development Design	4.1.2 Circulation and Access	• Only required for site plans	Yes
	4.1.3 New Street Networks	• Only required for plans of subdivision	No
4.2 Parking	4.2.1 Parking Supply	• Only required for site plans	Yes
	4.2.2 Spillover Parking	• Only required for site plans where parking supply is 15% below unconstrained demand	Yes
Network Impact Component			
4.5 Transportation Demand Management	<i>All elements</i>	• Not required for non-residential site plans expected to have fewer than 60 employees and/or students on location at any given time	No
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	Yes
4.8 Network Concept	<i>All elements</i>	• 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	Yes

Based on the 2030 total traffic projections presented in Section 4.0, the peak directional traffic volumes along Overberg Way and Romina Street are summarized as follows:

- Overberg Way: 81vph eastbound (PM) and 90vph westbound (AM)
- Romina Street: 149vph eastbound (AM) and 156vph westbound (PM)

The lane capacities along Overberg Way and Romina Street are estimated at 400 vehicles per hour per lane (vphpl) and 600vphpl respectively, based on the City's Long Range Transportation Model. Based on the foregoing, the peak directional traffic volumes along Overberg Way are anticipated to operate with a volume to capacity (v/c) ratio of 0.22 (westbound) and 0.20

(eastbound) during the weekday AM and PM peak hours respectively. The peak directional traffic volumes along Romina Street are anticipated to operate with at a v/c ratio of 0.25 (eastbound) and 0.26 (westbound) during the weekday AM and PM peak hours respectfully. As both Overberg Way and Romina Street are not anticipated to exceed the existing lane capacity, Module 4.6 – Neighbourhood Traffic Management is exempt from the TIA.

4.0 FORECASTING

4.1 Development Generated Traffic

4.1.1 Trip Generation

Trips generated by the proposed development have been estimated using the TRANS Trip Generation Study Report prepared in 2009. Trips generated by the proposed development were calculated using the recommended trip generation rates presented in Table 3.18 of the TRANS report. The trip generation is based on the Suburban (outside the greenbelt) rates for townhouses and semi-detached dwellings. The directional splits are based on the blended splits presented in Table 3.17 of the report. The following table summarizes the trip generation based on the TRANS report.

Table 4: TRANS Trip Generation

Land Use	TRANS Rate	Units	AM Peak			PM Peak		
			IN	OUT	TOT	IN	OUT	TOT
Townhouses	AM: 0.54	347	69	118	187	130	116	246
	PM: 0.71							
Single-Detached Dwellings	AM: 0.70	47	10	23	33	26	16	42
	PM: 0.90							
TOTAL			79	141	220	156	132	288

The above trip generation was converted to person trips using the modal shares presented in Table 3.13 of the TRANS report. The person trip generation is summarized in the following table.

Table 5: TRANS Person Trip Generation

Land Use	TRANS Auto Share	AM Peak			PM Peak		
		IN	OUT	TOT	IN	OUT	TOT
Townhouses	AM: 55%	126	214	340	214	189	403
	PM: 61%						
Semi-Detached Dwellings	AM: 55%	17	43	60	41	25	66
	PM: 64%						
TOTAL		143	257	400	255	214	469

The modal shares for the proposed development are anticipated to be consistent with the modal shares outlined in the 2011 TRANS O-D Survey Report, specific to the Kanata/Stittsville area. The modal shares applied to the proposed development have been derived based on all observed trips within the Kanata/Stittsville area, as well as trips departing during the AM peak and arriving during the PM peak. The proposed modal shares are generally consistent with the assumed modal shares for other residential developments in the area. A full breakdown of the projected person trips by modal share are shown in the below table.

Table 6: Person Trips by Modal Share

Land Use	TRANS Auto Share	AM Peak			PM Peak		
		IN	OUT	TOT	IN	OUT	TOT
Total Person Trips		143	257	400	255	214	469
Auto Driver	55%	79	141	220	140	118	258
Auto Passenger	15%	21	39	60	38	32	70
Transit	20%	29	51	80	51	43	94
Non-Auto	10%	14	26	40	26	21	47

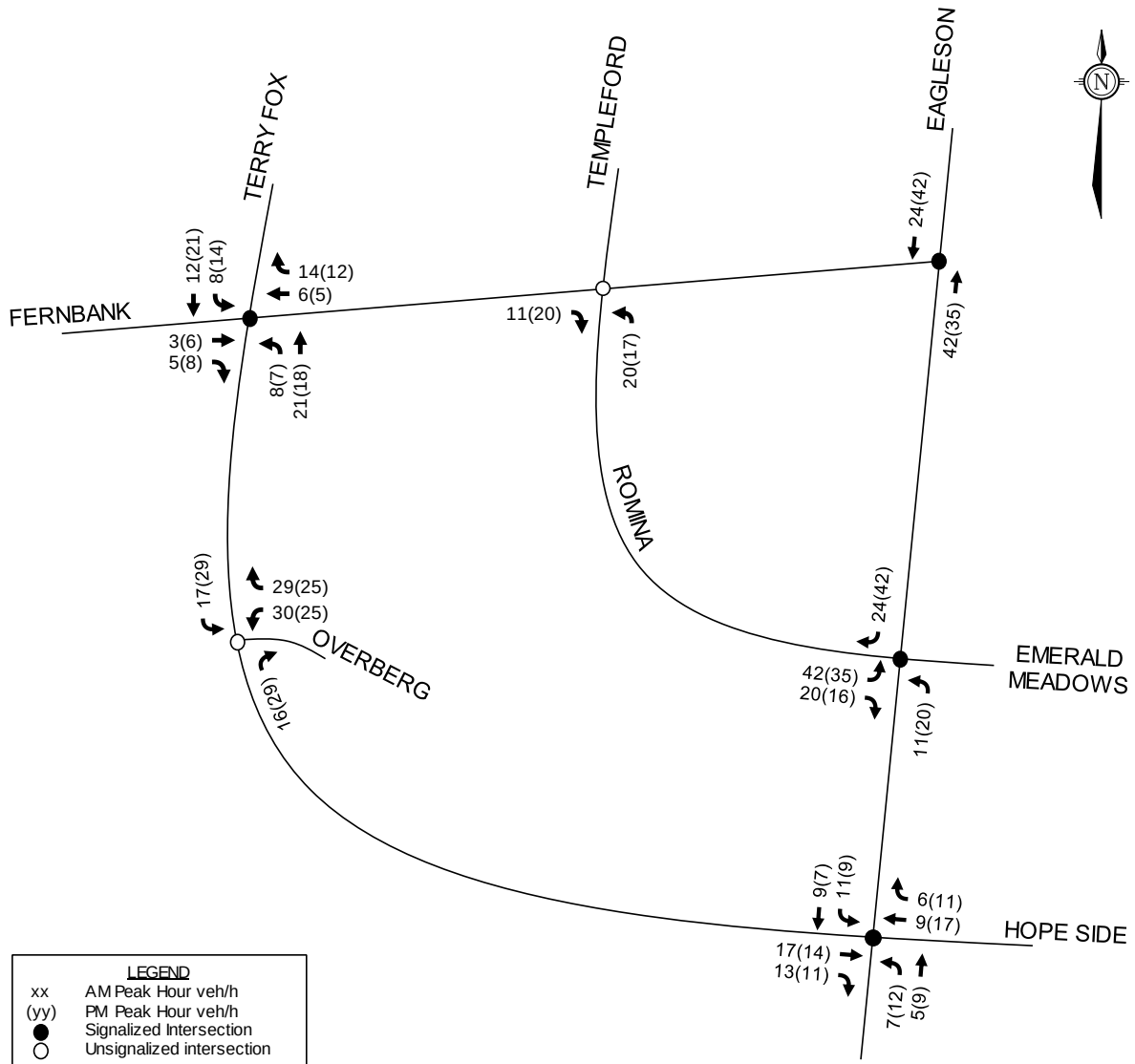
4.1.2 Trip Distribution

The distribution of trips generated by the proposed development has been derived from existing traffic patterns along the roadways within the study area. The distribution of trips generated by the proposed development is summarized as follows:

- 30% to/from the north via Eagleson Road
- 25% to/from the north via Terry Fox Drive
- 10% to/from the west via Fernbank Road
- 20% to/from the east via Hope Side Road
- 15% to/from the south via Eagleson Road

The above trip distribution is generally consistent with the distribution used for the Bridlewood Trails subdivision in the southwest corner of the Terry Fox Drive/Fernbank Road intersection (D07-16-11-0022 and D07-16-07-0025). All trips to/from the north via Eagleson Road are anticipated to use the Romina Street access. All other trips were split 60% using the Overberg Way/Terry Fox Drive access and 40% using the Romina Street access. Trips generated by the proposed development are shown in **Figure 4**.

Figure 4: Site Generated Traffic Volumes



4.2 Background Traffic

4.2.1 General Background Growth Rate

A rate of background growth has been established through a review of the City of Ottawa's Strategic Long Range Model, comparing snapshots of the 2011 and 2031 AM peak volumes. The snapshots suggest a growth rate of approximately 2% per annum along Eagleson Road and Terry Fox Drive, and approximately -1% along per annum along Fernbank Road.

For the purposes of this analysis, a 2% per annum growth rate has been applied to Terry Fox Drive and Eagleson Road, and no growth has been assumed for Fernbank Road.

4.2.2 Other Area Development Traffic

As identified above, Site Plan Control applications have been filed for the following lands in the vicinity of the Subject Site:

- 800 Eagleson Road
- 10 Cope Drive
- 5331 Fernbank Road
- 25 Overberg Way (D07-12-14-0154)

Traffic volumes generated by the 10 Cope Drive, 800 Eagleson Road and 5331 Fernbank Road sites have been added to the background traffic based on the projections provided in the TIA. Relevant excerpts from the 10 Cope Drive, 800 Eagleson Road and 5331 Fernbank Road TIA's are included in **Appendix G**.

Traffic generated by the 25 Overberg Way site has been developed using the methodology presented in Section 4.1 and added to the background traffic along the study area roadways.

Background traffic at the study area intersections for the 2025 build-out and 2030 horizon years are shown in **Figures 5** and **6**, respectively. Total traffic volumes for the 2025 build-out and 2030 horizon years are shown in **Figures 7** and **8**.

5.0 ANALYSIS

5.1 Development Design

All roadways within the proposed subdivision will be classified as local roadways, and will have an 8.5 metre road platform. All roadways, excluding portions that are adjacent to either Eagleson Road or Terry Fox Drive (window streets), will have an 18 metre right-of-way. The window streets along Eagleson Road will have a 14.5 metre right-of-way, while the window street along Terry Fox Drive will have a 16.5 metre right-of-way. Proposed cross-sections for the 18 metre, 14.5 metre and 16.5 metre right-of-way are included in **Appendix H**.

A 1.8m concrete sidewalk will be provided on the west side of Street 1 between Romina Street and where Street 1 turns into a window street, as well as the north side of Street 6. The proposed sidewalks will provide pedestrian connectivity between the proposed development and the existing pedestrian facilities along Overberg Way and Romina Street.

Figure 5: 2025 Background Traffic Volumes

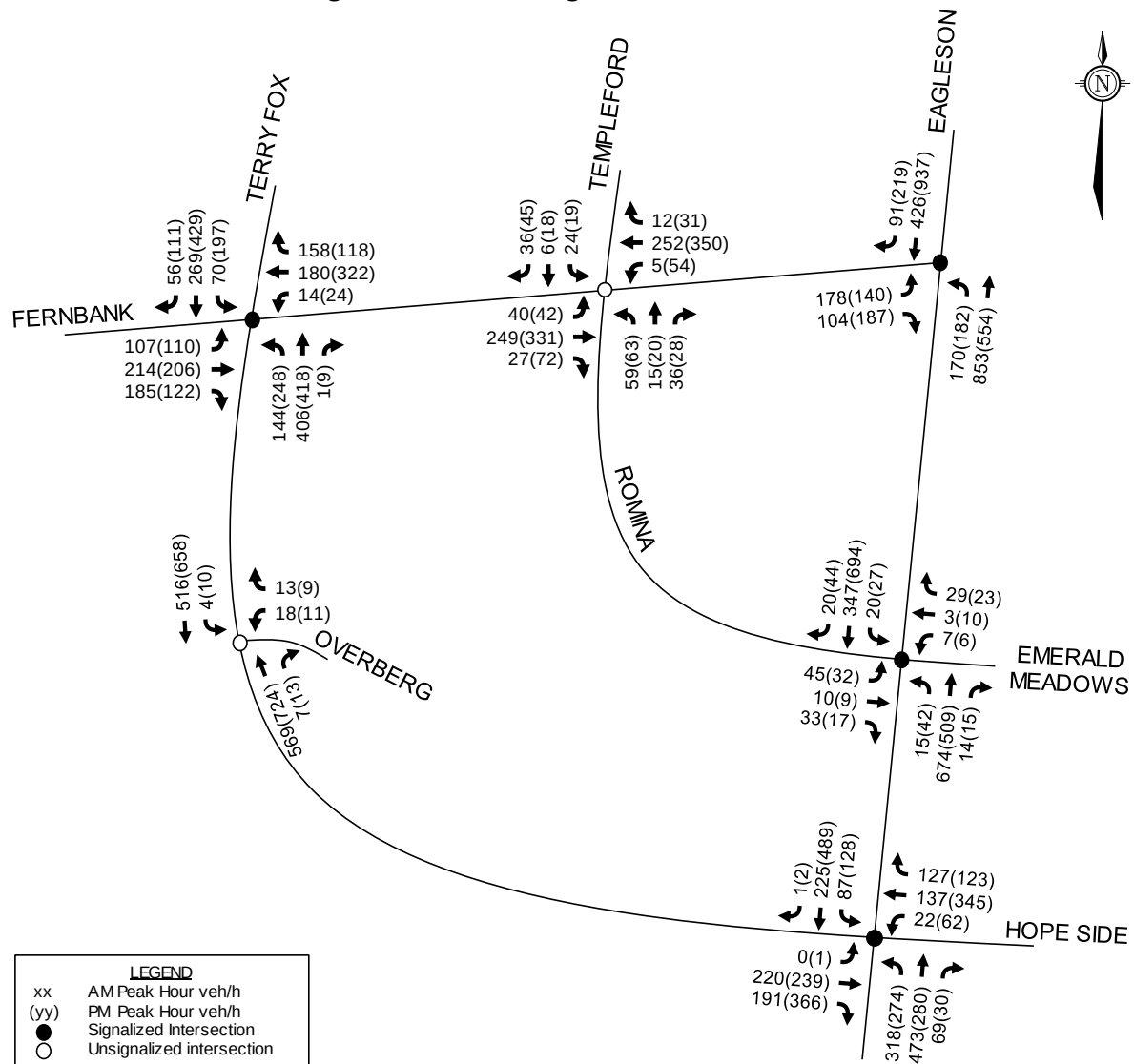


Figure 6: 2030 Background Traffic

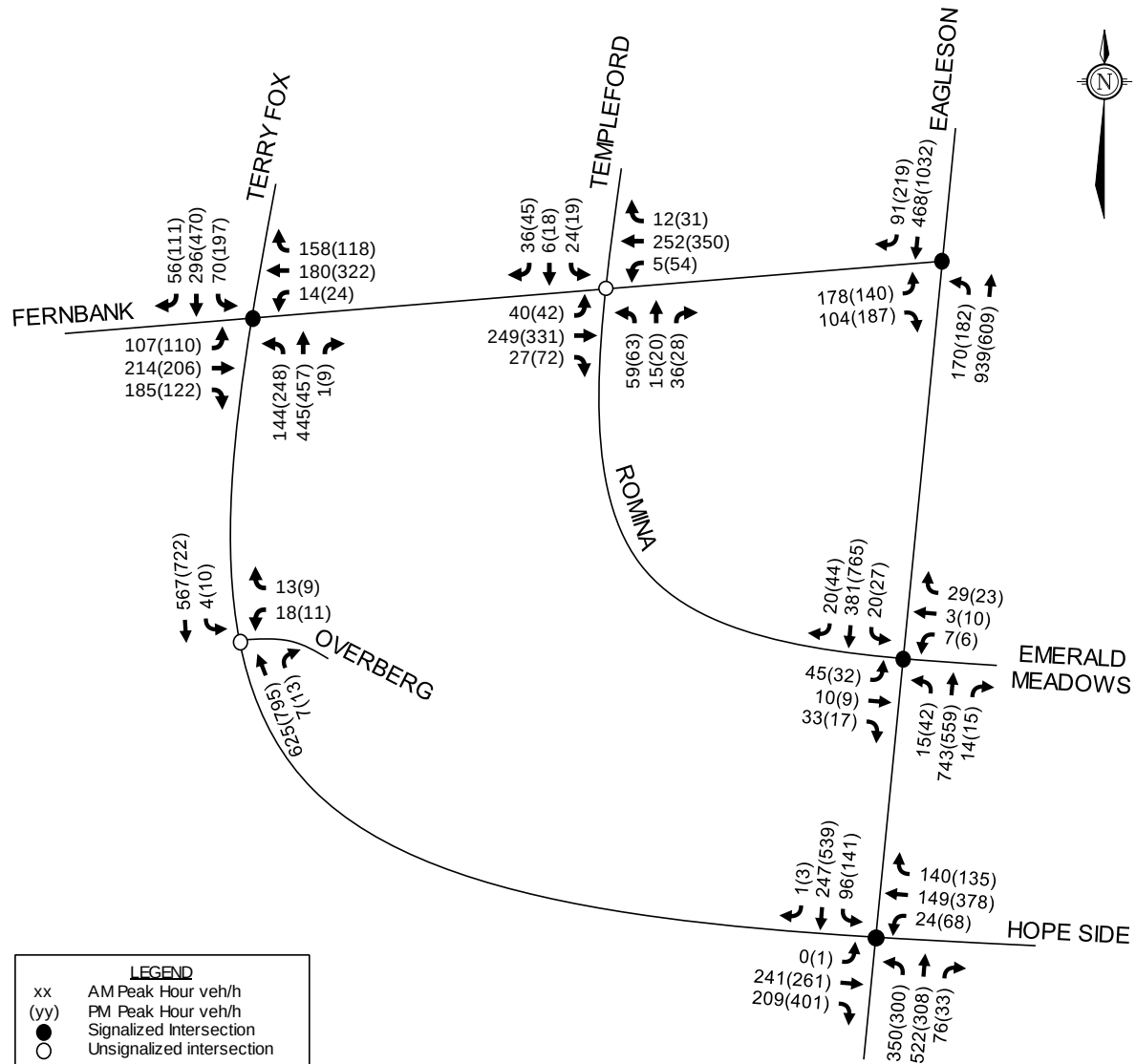


Figure 7: 2025 Total Traffic

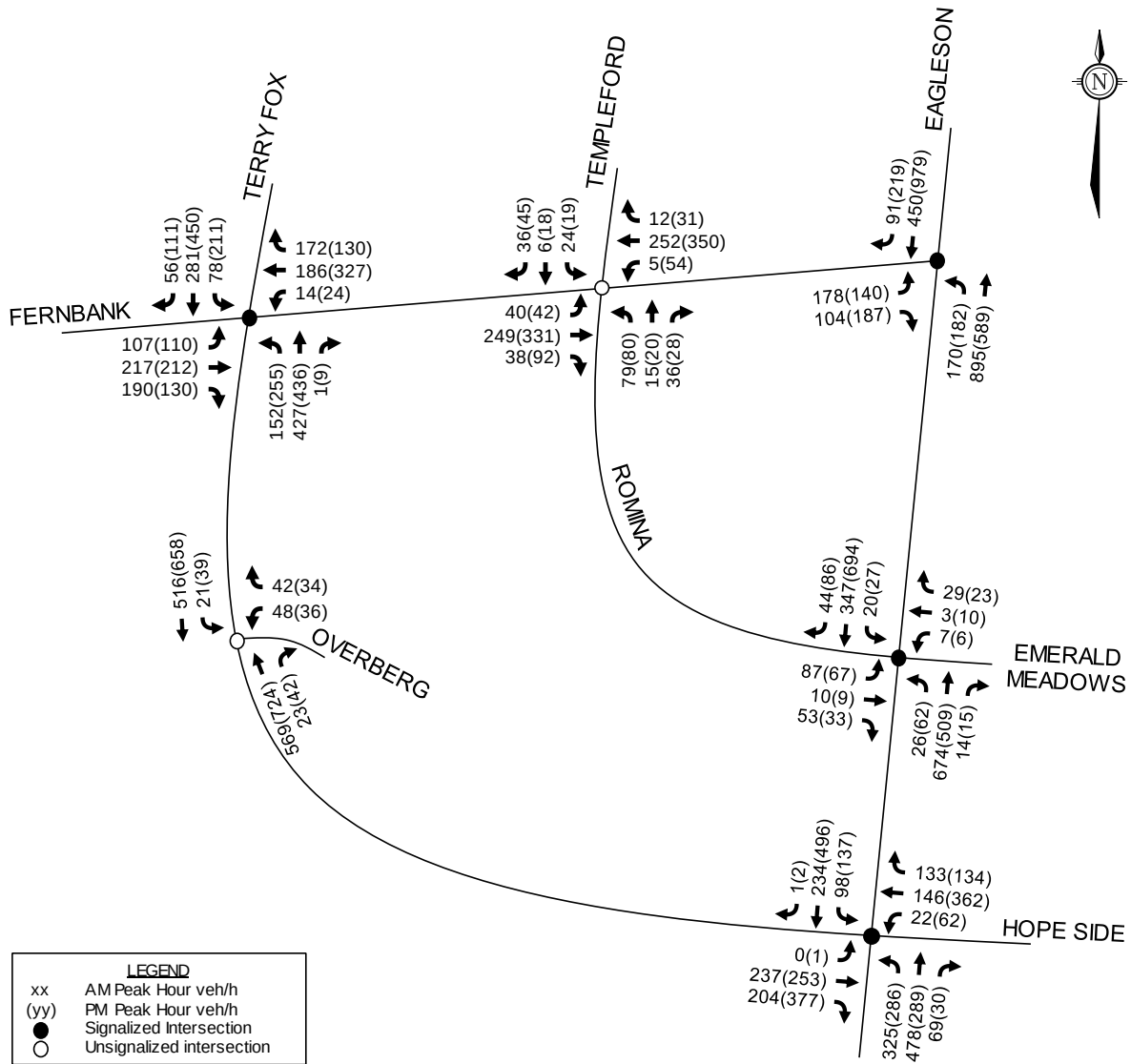
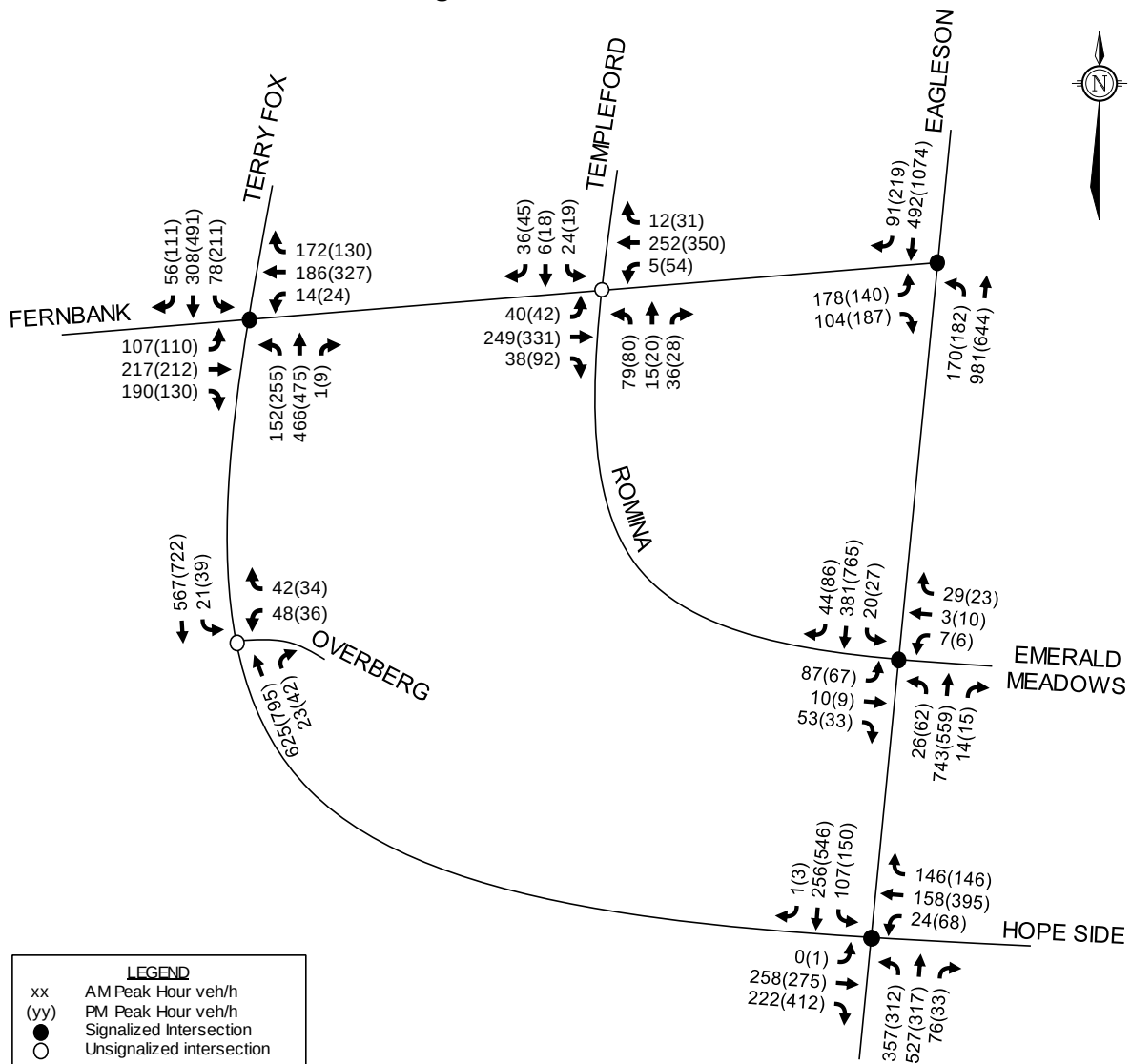


Figure 8: 2030 Total Traffic



Based on the Desirable Cycling Facility Pre-Selection Nomograph in Ontario Traffic Manual (OTM) Book 18, shared traffic lanes are proposed along all roadways within the subdivision.

OTM Book 5 identifies the following criteria for consideration of all-way stop control along minor roadways:

- the total vehicle volumes on all intersection approaches exceeds 350 for the highest hour recorded; and
- the vehicular volume split does not exceed 75/25 for three-way control or 65/35 for four-way control

The vehicular volumes at all internal intersections are not anticipated to meet the OTM criteria for all-way stop control. As such, side street stop control is recommended at all intersections within the proposed subdivision. Curb bulb-outs are recommended in the northwest corner of the internal Street 1/Street 6 and Street 1/Street 8 intersections. These curb bulb-outs will reduce the pedestrian crossings along Street 1, as well as assist in traffic calming along the internal roadways. The recommended internal intersection control and curb bulb-outs are shown on the concept plan in **Appendix A**.

Previous access connections along Romina Street were planned and constructed opposite Brigitta Street and Artesa Private. North-south unit paver crosswalks were constructed along Romina Street at these previously planned access locations, and remain uncontrolled. As part of the proposed development the previously planned connections to Romina Street will be removed and a sidewalk will be constructed.

As development progresses within the Subject Site, north-south crossing of pedestrians to/from the transit stop on the north side of Romina Street are anticipated to increase. Based on the projected vehicle and pedestrian crossing volumes along Romina Street, this site is a candidate for a pedestrian crossover (PXO).

It is proposed that the existing unit paver crosswalks at the previously planned connections be removed and consolidated into one PXO along this stretch of Romina Street. As the majority of pedestrians crossing Romina Street are anticipated to be between the proposed development and the existing bus stop on the north side of Romina Street, the PXO is proposed at the Romina Street/Street 1 intersection. Based on the projected traffic along Romina Street, a posted speed limit of 50km/hr and a total of two lanes crossed, the Pedestrian Crossover Selection Matrix provided in OTM Book 15 suggests a PXO D should be implemented at this location. As part of the proposed modifications, the existing bus stop on the north side of Romina Street will be relocated to 20m east of the proposed PXO D. The proposed modifications along Romina Street are shown in **Figure 9**, and do not require Road Modification Approval (RMA).

Transportation Association of Canada (TAC) Geometric Design Guidelines suggest a corner clearance of 15m, measured from curb to curb, for a driveway along a local roadway downstream of a major unsignalized intersection. The nearest driveway along Overberg Way, downstream from the unsignalized intersection with Terry Fox Drive meets the minimum corner clearance identified in TAC.

5.2 Parking

As identified in Section 3.4, this module is exempt.

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BRIDLEWOOD 3

**PROPOSED ROMINA ST
MODIFICATIONS**

SCALE 1 : 500 0 5 10 15 20

DATE MAY 2019 JOB 117153 FIGURE 9

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5.3 Boundary Streets

This section provides a review of the boundary streets using complete streets principles. The Multi-Modal Level of Service (MMLOS) guidelines produced by IBI Group in 2015 were used to evaluate the LOS of the boundary roadways for each mode of transportation. Schedule B of the City of Ottawa's Official Plan indicates Terry Fox Drive, Romina Street and Overberg Way are in the General Urban Area, while Eagleson Road is an Arterial Mainstreet. Photos of the boundary streets (provided by Google Streetview) are provided below.

Figure 10: Eagleson Road Looking South



Figure 11: Terry Fox Drive Looking South



Figure 12: Romina Street Looking West



Overberg Way is open to traffic, however it is not fully constructed. For the purposes of this analysis, it is assumed that Overberg Way is constructed per the approved cross section with a 1.8m sidewalk on the north side and shared traffic lanes.

The following table summarizes the findings of the MMLOS segment analysis. Detailed segment MMLOS calculations are included in **Appendix I**.

Table 7: Segment MMLOS Summary

Segment	PLOS	BLOS	TLOS	TkLOS	Auto LOS
Eagleson Road	F	F	D	D	A
Target	C	C	-	D	D
Terry Fox Drive	F	E	-	B	A
Target	C	C	-	D	D
Romina Street	C	F	D	B	A
Target	C	B	-	-	D
Overberg Way	C	B	-	B	A
Target	C	D	-	-	D

Eagleson Road

Eagleson Road currently meets the target TkLOS and Auto LOS; however, it does not meet the target PLOS and BLOS. The City of Ottawa's TMP identifies the widening of Eagleson Road from two to four lanes between 2020 and 2025. The proposed layout presented in the Eagleson Road and Fernbank Road ESR includes bike lanes and a sidewalk on both sides of the roadway. It is anticipated that the posted speed limit along this stretch of Eagleson Road will be reduced to 60 km/hr following the widening, consistent with Eagleson Road to the north. However, along roadways with a posted speed limit of 60km/hr (operating speed of 70km/hr), and an Annual Average Daily Traffic (AADT) greater than 3000, the target PLOS is unachievable. A review of the OTM Book 18 Cycling Nomograph suggests consideration should be given to implementing a separated cycling facility along Eagleson Road as part of the widening project. The cycling nomograph for Eagleson Road is included in **Appendix I**.

Terry Fox Drive

Terry Fox Drive currently meets the target TkLOS and Auto LOS; however, it does not meet the target PLOS and BLOS for the General Urban Area. Terry Fox Drive currently has a two-lane undivided rural cross-section adjacent to the Subject Site. The City of Ottawa's 2013 TMP does not identify any roadway projects along this stretch of Terry Fox Drive in its affordable plan, however it does identify a widening from two to four lanes between Winchester Drive and Eagleson Road in its network concept.

Opportunities to improve the PLOS and BLOS should be explored by the City through the future widening of Terry Fox Drive, as identified in the City's 2013 TMP network concept. At that time, consideration should be given by the City to reducing the posted speed limit and providing a 2m sidewalk to improve the PLOS. A review of the OTM Book 18 Cycling Nomograph suggests consideration should be given to implementing a separated cycling facility along Terry Fox Drive as part of the future widening project. The cycling nomograph for Terry Fox Drive is included in **Appendix I**.

Romina Street

Romina Street currently meets the target PLOS and Auto LOS; however, it does not meet the target BLOS for the General Urban Area. A reduced operating speed of 50 km/hr will improve the BLOS to meet the targets.

Overberg Way

Overberg Way will meet the target PLOS, BLOS and Auto LOS once it is fully constructed.

5.4 Access Intersections Design

The proposed development will be served by two all movement accesses; Street 6 and Street 7 connecting to Overberg Way at the 90 degree bend approximately 125m east of Terry Fox Drive; and Street 1 connecting to Romina Street approximately 125m west of Eagleson Road.

The vehicular volumes at the Overberg Way/Street 6/Street 7 access intersection are not anticipated to meet the OTM criteria for all-way stop control. As the east-west roadway is anticipated to be the main route, side street stop control is recommended on the north and south legs of this intersection.

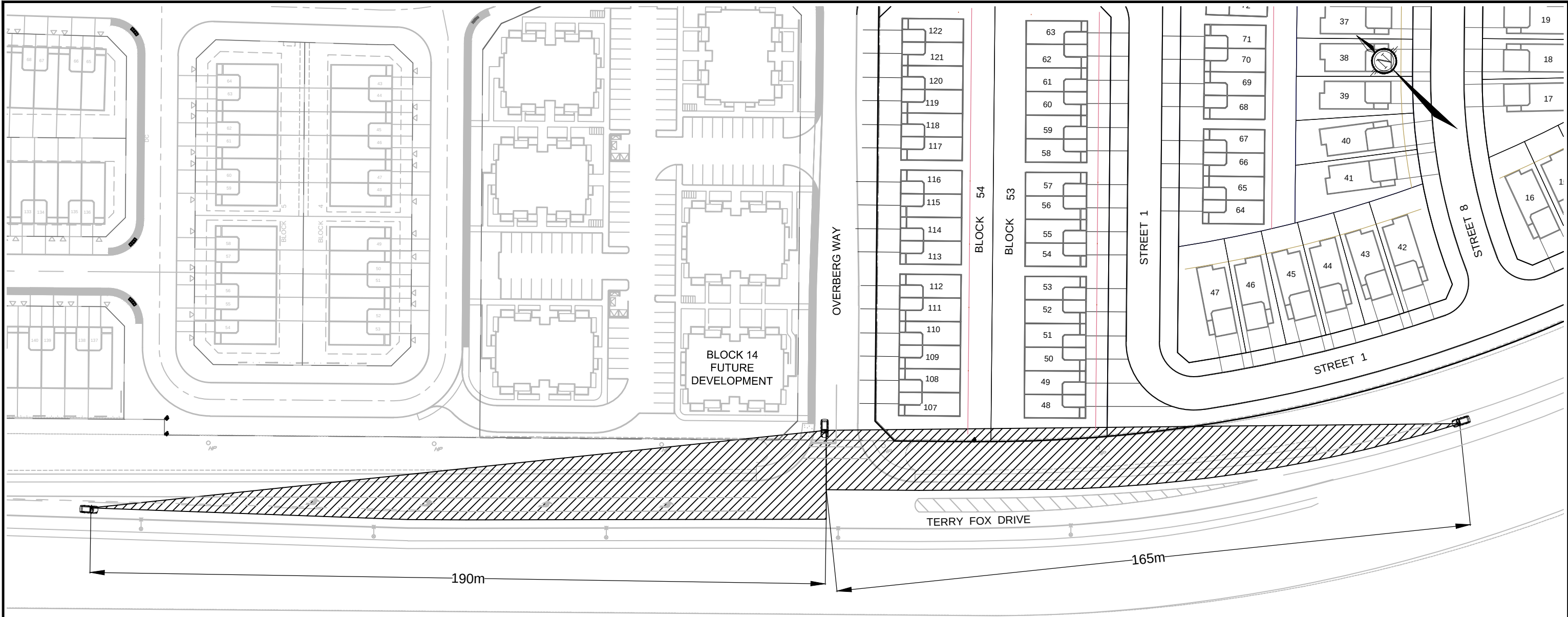
Transportation Association of Canada (TAC) Geometric Design Guidelines suggest a minimum spacing of 60m between adjacent intersections along a collector roadway. The proposed Romina Street access is located 60m west of the existing Brigitta Street/Romina Street intersection, measured centreline to centreline, meeting the requirements of TAC. The vehicular traffic volumes at the Romina Street access intersection are not anticipated to meet the OTM criteria for all-way stop control, and side street stop control is recommended on Street 1 at Romina Street. A review of Ministry of Transportation of Ontario (MTO) left turn lane warrants suggests a westbound left turn lane is not recommended at the Romina Access. A copy of the MTO left turn lane warrant graph is included in **Appendix J**.

A review of stopping sight distance (SSD) and Intersection Sight Distance (ISD) at the Terry Fox Drive/Overberg Way intersection has been conducted in accordance with Transportation Association of Canada (TAC) Geometric Design Guidelines. TAC identifies the following SSD and ISD requirements, based on a design speed of 90km/hr:

- SSD: 160m
- ISD: 190m looking right, to turn left and 165m looking left, to turn right

The SSD and ISD at the Terry Fox Drive/Overberg Way intersection meet TAC requirements and is depicted in **Figures 13 and 14**.

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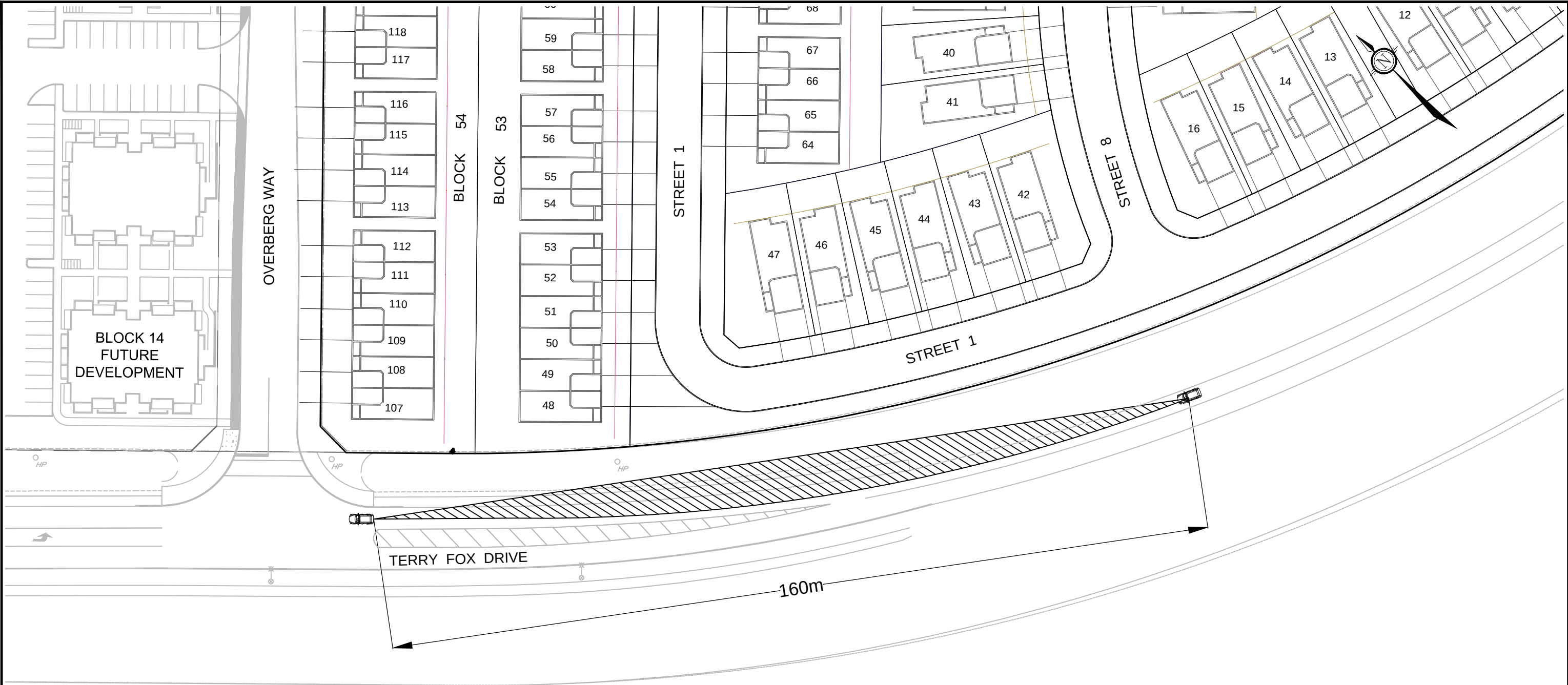
BRIDLEWOOD 3

INTERSECTION
SIGHT DISTANCE

SCALE 1 : 1000

DATE	MAY 2019	JOB	117153	FIGURE	FIG. 13
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	STOPPING SIGHT DISTANCE		
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5.5 Transportation Demand Management

A review of the Transportation Demand Management (TDM) Measures checklist was conducted and can be found in **Appendix K**. To encourage travel by sustainable modes, a multi-modal travel option information package will be provided to new residents of the subdivision.

In addition to the above, the site conforms to the City's TDM initiatives by providing easy access to area pedestrian, cycling and transit facilities.

5.6 Neighbourhood Traffic Management

As identified in Section 3.4, this module is exempt.

5.7 Transit

Recent boarding/alighting information and bus occupancy information from the winter 2018 service period for OC Transpo bus stops #0736 and #0737 were received from OC Transpo, and are included in **Appendix C**. OC Transpo has also advised that the routes that serve these bus stops operate with 40-foot buses during the weekday AM and PM peak periods. The following table summarizes the transit information received from OC Transpo.

Table 8: Existing OC Transpo Utilization

OC Transpo Stop	OC Transpo Route	AM Period			PM Period		
		Total Boarding	Total Alighting	Average Load	Total Boarding	Total Alighting	Average Load
#0736	161	0	0	6	0	3	2
	164	1	0	1	-	-	-
	252	-	-	-	0	3	5
	681	1	0	20	-	-	-
#0737	161	0	1	2	0	0	4
	164	-	-	-	0	1	2
	252	2	0	6	-	-	-

Based on the trip generation presented in Section 4.1, the proposed development is anticipated to generate 80 transit trips (29 alighting, 51 boarding) during the weekday AM peak hour and 94 transit trips (51 alighting, 43 boarding) during the weekday PM peak hour. As described in Section 3.2.6 above, OC Transpo route 161 and 164 travel on 30-minute headways, and OC Transpo route 252 travels on 15-20 minute headways during the weekday AM and PM peak hours. This equates to two 40 foot buses for routes 161 and 164, and three 40 foot buses for route 252. As such, the existing transit services in the area are anticipated to be sufficient to accommodate the demand from the proposed development.

5.8 Review of Network Concept

As identified in Section 3.4, this module is exempt.

5.9 Intersection Design

5.9.1 Existing Intersection MMLOS Analysis

This section provides a review of the signalized study area intersections using complete streets principles. The MMLOS guidelines produced by IBI Group in October 2015 were used to evaluate the LOS of the signalized study area intersections for each mode of transportation. The policy areas for the study area intersections are described as follows:

- Eagleson Road/Terry Fox Drive/Hope Side Road: General Urban Area or Arterial Mainstreet;
- Eagleson Road/Fernbank Road: Arterial Mainstreet or within 300m of a school; and
- Terry Fox Drive/Fernbank Road: General Urban Area

When the signalized intersection falls within two different policy areas, the higher target was utilized.

Aerial photos of the study area intersections are provided in Section 3.2.2.

The following table summarizes the findings of the MMLOS intersection analysis. Detailed intersection MMLOS calculations are included in **Appendix L**.

Table 9: Intersection MMLOS Summary

Intersection	PLOS	BLOS	TLOS	TkLOS	Auto LOS
Eagleson Road/ Terry Fox Drive/ Hope Side Road	F	F	E	C	D
Target	C	C	-	D	D
Eagleson Road/ Fernbank Road	E	E	F	C	C
Target	A	C	-	D	E
Terry Fox Drive/ Fernbank Road	F	E	F	E	C
Target	C	C	-	D	D

Eagleson Road/Terry Fox Drive/Hope Side Road

The Eagleson Road/Terry Fox Drive/Hope Side Road intersection meets the target TkLOS and Auto LOS; however, it does not meet the target PLOS and BLOS for an arterial mainstreet. A reduction in the pedestrian crossing distance on all legs of the intersection, if feasible, would provide the greatest improvement to the PLOS at this intersection. A reduction in the operating speed along both Eagleson Road and Terry Fox Drive/Hope Side Road is required to improve the BLOS at this intersection.

As identified above, the City of Ottawa's TMP identifies the widening of Eagleson Road between Cadence Gate and Hope Side Road from two to four lanes by 2025. Improved pedestrian and cycling facilities at this intersection should be considered by the City as part of this project.

Eagleson Road/Fernbank Road

The Eagleson Road/Fernbank Road intersection meets the target TkLOS and Auto LOS; however, it does not meet the target PLOS and BLOS for intersections within 300m of a school. A reduction in the pedestrian crossing distance on all legs of the intersection, if feasible, would provide the greatest improvement to the PLOS at this intersection. A reduction in the length of the southbound and eastbound right turn lanes, and a reduction in the operating speed along both Eagleson Road and Fernbank Road are required to meet the target BLOS at this intersection.

As identified above, the City of Ottawa's TMP identifies the widening of Eagleson Road between Cadence Gate and Hope Side Road from two to four lanes by 2025. Improved pedestrian and cycling facilities at this intersection should be considered by the City as part of this project.

Terry Fox Drive/Fernbank Road

The Terry Fox Drive/Fernbank Road intersection meets the target Auto LOS; however, it does not meet the target PLOS, BLOS and TkLOS in the General Urban Area. A reduction in the pedestrian crossing distance on all legs of the intersection, if feasible, would provide the greatest improvement to the PLOS at this intersection. A reduction in the length of the southbound, eastbound and westbound right turn lanes, and a reduction in the operating speed along both Terry Fox Drive and Fernbank Road are required to meet the target BLOS at this intersection. A larger curb radii is required on all legs to achieve the target TkLOS, however a larger curb radii would result in a lower PLOS. Opportunities to improve the PLOS and BLOS should be explored by the City through the future widening of Terry Fox Drive, as identified in the City's 2013 TMP network concept.

Unsignalized Intersections

A review of the intersection operations (Auto LOS) at the Eagleson Road/Romina Street, Fernbank Road/Romina Street and Terry Fox Drive/Overberg Way unsignalized intersections was also conducted.

The Eagleson Road/Romina Street/Emerald Meadows Drive intersection is currently operating with a LOS E during the weekday PM peak hour. A review of MTO traffic signalization warrants was conducted at this intersection and included in **Appendix M**. Based on MTO Traffic Signal Justification 1 and 2, traffic signals are only 68% warranted at this intersection. City staff have advised that this intersection will be monitored for signalization warrants following full build-out.

The Fernbank Road/Romina Street intersection is currently operating with a LOS D during the weekday PM peak hour. City staff have identified that signalization of this intersection is anticipated in 2019.

The Terry Fox Drive/Overberg Way intersection is currently operating with a LOS C during the weekday AM and PM peak hours.

5.9.2 2025 Background Intersection Operations

Intersection capacity analysis has been completed for the 2025 background traffic conditions. The intersection parameters used in the analysis are consistent with the TIA guidelines (saturation flow rate: 1800 vphpl, PHF: 1.0).

For the purposes of this analysis, it has been assumed that the Eagleson Road widening from two to four lanes will be constructed prior to the 2025 build-out year. The lane configurations at the intersections along Eagleson Road are based on the recommended plan in the Eagleson

Road and Fernbank Road ESR prepared by Dillon Consultants in December 2008. It has been assumed that traffic signals are implemented at the Eagleson Road/Romina Street/Emerald Meadows Drive, and Fernbank Road/Romina Street intersections. Traffic signal timing plans for the signalized intersections along Eagleson Road and the Fernbank Road/Romina Street intersection have been developed based on criteria in OTM Book 12.

The results of the intersection capacity analysis are summarized in the following table. Detailed summary sheets are provided in **Appendix N**.

Table 10: 2025 Background Intersection Operations

Intersection	AM Peak			PM Peak		
	V/C Ratio	LOS	Mvmt	V/C Ratio	LOS	Mvmt
Eagleson Rd/ Terry Fox Dr/ Hope Side Rd	0.80	C	EBT/R	0.85	D	EBT/R
Eagleson Rd/ Romina St/ Emerald Meadows Dr	0.47	A	EB	0.31	A	EB
Eagleson Rd/ Fernbank Rd	0.52	A	EBL	0.54	A	EBL
Fernbank Rd/ Romina St	0.52	A	NB	0.57	A	NB
Terry Fox Dr/ Fernbank Rd	0.82	D	NBT/R	0.96	E	NBL
Terry Fox Dr/ Overberg Way	18 sec	C	WB	24 sec	C	WB

Based on the 2025 background traffic conditions, the northbound left turn movement at the Terry Fox Drive/Fernbank Road intersection is anticipated to operate with a LOS E during the PM peak hour. An increased cycle length of 110 seconds is anticipated to yield a LOS D, achieving the area target. All other intersections are anticipated to operate with a LOS D or better during the weekday AM and PM peak hours.

5.9.3 2030 Background Intersection Operations

Intersection capacity analysis has been completed for the 2030 background traffic conditions. The intersection parameters used in the analysis are consistent with the TIA guidelines (saturation flow rate: 1800 vphpl, PHF: 1.0). Traffic signal timing plans are consistent with the 2025 background traffic condition.

The results of the intersection capacity analysis are summarized in the following table. Detailed summary sheets are provided in **Appendix N**.

Table 11: 2030 Background Intersection Operations

Intersection	AM Peak			PM Peak		
	V/C Ratio	LOS	Mvmt	V/C Ratio	LOS	Mvmt
Eagleson Rd/ Terry Fox Dr/ Hope Side Rd	0.82	D	EBT/R	0.87	D	EBT/R
Eagleson Rd/ Romina St/ Emerald Meadows Dr	0.47	A	EB	0.31	A	EB
Eagleson Rd/ Fernbank Rd	0.52	A	EBL	0.54	A	EBL
Fernbank Rd/ Romina St	0.52	A	NB	0.57	A	NB
Terry Fox Dr/ Fernbank Rd	0.85	D	NBT/R	1.01	F	NBL
Terry Fox Dr/ Overberg Way	20 sec	C	WB	28 sec	D	WB

Based on the 2025 background traffic conditions, the northbound left turn movement at the Terry Fox Drive/Fernbank Road intersection is anticipated to operate with a LOS F during the PM peak hour. Consistent with the 2025 Background traffic condition, an increased cycle length of 110 seconds is anticipated to yield a LOS D, achieving the area target. All other intersections are anticipated to operate with a LOS D or better during the weekday AM and PM peak hours.

5.9.4 2025 Total Intersection Operations

Intersection capacity analysis has been completed for the 2025 total traffic conditions. The intersection parameters used in the analysis are consistent with the TIA guidelines (saturation flow rate: 1800 vphpl, PHF: 1.0). Traffic signal timing plans are consistent with the 2025 background traffic condition.

The results of the intersection capacity analysis are summarized in the following table. Detailed summary sheets are provided in **Appendix N**.

Table 12: 2025 Total Intersection Operations

Intersection	AM Peak			PM Peak		
	V/C Ratio	LOS	Mvmt	V/C Ratio	LOS	Mvmt
Eagleson Rd/ Terry Fox Dr/ Hope Side Rd	0.81	D	EBT/R	0.86	D	EBT/R
Eagleson Rd/ Romina St/ Emerald Meadows Dr	0.64	B	EB	0.54	A	EB
Eagleson Rd/ Fernbank Rd	0.52	A	EBL	0.54	A	EBL
Fernbank Rd/ Romina St	0.60	A	NB	0.61	B	NB
Terry Fox Dr/ Fernbank Rd	0.83	D	NBT/R	1.01	F	NBL
Terry Fox Dr/ Overberg Way	22 sec	C	WB	33 sec	D	WB

With the addition of site generated traffic, the northbound left turn movement at the Terry Fox Drive/Fernbank Road intersection is anticipated to operate with a LOS F during the PM peak hour. Consistent with the 2025 background traffic condition, an increased cycle length of 110 seconds is anticipated to yield a LOS D, achieving the area target. All other intersections are anticipated to operate with a LOS D or better during the weekday AM and PM peak hours.

5.9.5 2030 Total Intersection Operations

Intersection capacity analysis has been completed for the 2030 total traffic conditions. The intersection parameters used in the analysis are consistent with the TIA guidelines (saturation flow rate: 1800 vphpl, PHF: 1.0). Traffic signal timing plans are consistent with the 2030 background traffic condition.

The results of the intersection capacity analysis are summarized in the following table. Detailed summary sheets are provided in **Appendix N**.

Table 13: 2030 Total Intersection Operations

Intersection	AM Peak			PM Peak		
	V/C Ratio	LOS	Mvmt	V/C Ratio	LOS	Mvmt
Eagleson Rd/ Terry Fox Dr/ Hope Side Rd	0.83	D	EBT/R	0.88	D	EBT/R
Eagleson Rd/ Romina St/ Emerald Meadows Dr	0.64	B	EB	0.54	A	EB
Eagleson Rd/ Fernbank Rd	0.52	A	EBL	0.54	A	EBL
Fernbank Rd/ Romina St	0.60	A	NB	0.61	B	NB
Terry Fox Dr/ Fernbank Rd	0.86	D	NBT/R	1.08	F	NBL
Terry Fox Dr/ Overberg Way	26 sec	D	WB	42 sec	E	WB

With the addition of site generated traffic, the northbound left turn movement at the Terry Fox Drive/Fernbank Road intersection is anticipated to operate with a LOS F during the PM peak hour. Consistent with the 2030 background traffic condition, an increased cycle length of 110 seconds is anticipated to yield a LOS D, achieving the area target.

The recommended plan presented in the Eagleson Road and Fernbank Road ESR suggests a storage length of approximately 90m for the northbound left turn movement at the Eagleson Road/Terry Fox Drive/Hope Side Road intersection. Based on the foregoing analysis, the 95th percentile queue length for this movement is anticipated to be approximately 115m. The City should give consideration to providing a storage length of 115m for this movement during the detailed design of the road widening.

The Terry Fox Drive/Overberg Way intersection is anticipated to operate with a LOS E under side street stop control. A review of MTO traffic signalization warrants was conducted at this intersection and included in **Appendix M**. Based on the MTO traffic signalization warrants, traffic signals will only be 23% warranted at this intersection by the 2030 horizon year. As such side street stop control is recommended at the Terry Fox Drive/Overberg Way intersection. A review

of MTO left turn lane storage graphs was conducted to determine if the storage length for the planned southbound left turn lane is sufficient to accommodate the proposed development. Based on the MTO left turn lane storage graphs, the storage length for the planned southbound left turn lane should be lengthened to 30 metres. The MTO left turn lane storage graph are included in **Appendix J**.

6.0 CONCLUSIONS AND RECOMMENDATIONS

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

- All roadways within the proposed subdivision will be classified as local roadways, and will have an 8.5 metre road platform. All roadways, excluding portions that are adjacent to either Eagleson Road or Terry Fox Drive (window streets), will have an 18 metre right-of-way. The window streets along Eagleson Road will have a 14.5 metre right-of-way, while the window street along Terry Fox Drive will have a 16.5 metre right-of-way.
- A 1.8m concrete sidewalk will be provided on the west side of Street 1 between Romina Street and where Street 1 turns into a window street, and the north side of Street 6. The proposed sidewalks will provide pedestrian connectivity between the proposed development and the existing pedestrian facilities along Overberg Way and Romina Street.
- Based on the Desirable Cycling Facility Pre-Selection Nomograph in OTM Book 18, shared traffic lanes are proposed along all roadways within the subdivision.
- The vehicular volumes at all internal intersections are not anticipated to meet the OTM criteria for all-way stop control. As such, side street stop control is recommended at all intersections within the proposed subdivision.
- Curb bulb-outs are recommended in the northwest corner of the internal Street 1/Street 6 and Street 1/Street 8 intersections. These curb bulb-outs will reduce the pedestrian crossings along Street 1, as well as assist in traffic calming along the internal roadways.
- It is proposed that the existing unit paver crosswalks at the previously planned connections be removed and consolidated into one PXO along this stretch of Romina Street. As the majority of pedestrians crossing Romina Street are anticipated to be between the proposed development and the existing bus stop on the north side of Romina Street, the PXO is proposed at the Romina Street/Street 1 intersection. Based on the projected traffic along Romina Street, a posted speed limit of 50km/hr and a total of two lanes crossed, the Pedestrian Crossover Selection Matrix provided in OTM Book 15 suggests a PXO D should be implemented at this location.
- The nearest driveway along Overberg Way, downstream from the unsignalized intersection with Terry Fox Drive meets the minimum corner clearance identified in TAC.
- Eagleson Road currently meets the target TkLOS and Auto LOS; however, it does not meet the target PLOS and BLOS. The City of Ottawa's TMP identifies the widening of Eagleson Road from two to four lanes between 2020 and 2025. The Eagleson Road widening project will improve the PLOS and BLOS to the targets for an Arterial Mainstreet.

- Terry Fox Drive currently meets the target TkLOS and Auto LOS; however, it does not meet the target PLOS and BLOS for the General Urban Area. Opportunities to improve the PLOS and BLOS should be explored by the City through the future widening of Terry Fox Drive, as identified in the City's 2013 TMP network concept.
- Romina Street currently meets the target PLOS and Auto LOS; however, it does not meet the target BLOS for the General Urban Area. A reduced operating speed of 50 km/hr will improve the BLOS to meet the targets.
- Overberg Way will meet the target PLOS, BLOS and Auto LOS once it is fully constructed.
- The vehicular volumes at the Overberg Way/Street 6/Street 7 access intersection are not anticipated to meet the OTM criteria for all-way stop control. As the east-west roadway is anticipated to be the main route, side street stop control is recommended on the north and south legs of this intersection.
- The proposed Romina Street access is located 60m west of the existing Brigitta Street/Romina Street intersection, measured centreline to centreline, meeting the requirements of TAC. Side street stop control is recommended on Street 1 at Romina Street. A review of MTO left turn lane warrants suggests a westbound left turn lane is not recommended at the Romina Access.
- The stopping sight distance and intersection sight distance at the Terry Fox Drive/Overberg Way intersection meet TAC requirements.
- To encourage travel by sustainable modes, a multi-modal travel option information package will be provided to new residents of the subdivision. In addition, the site conforms to the City's TDM initiatives by providing easy access to area pedestrian, cycling and transit facilities.
- The proposed development is anticipated to generate 80 transit trips (29 alighting, 51 boarding) during the weekday AM peak hour and 94 transit trips (51 alighting, 43 boarding) during the weekday PM peak hour. The existing transit services in the area are anticipated to be sufficient to accommodate the demand from the proposed development.
- The Eagleson Road/Terry Fox Drive/Hope Side Road intersection meets the target TkLOS and Auto LOS; however, it does not meet the target PLOS and BLOS for an arterial mainstreet. A reduction in the pedestrian crossing distances, and a reduction in the operating speed along both Eagleson Road and Terry Fox Drive/Hope Side Road would provide the greatest improvement to the PLOS and BLOS at this intersection. Improved pedestrian and cycling facilities at this intersection should be considered by the City as part of the Eagleson Road widening project.
- The Eagleson Road/Fernbank Road intersection meets the target TkLOS and Auto LOS; however, it does not meet the target PLOS and BLOS for intersections within 300m of a school. A reduction in the pedestrian crossing distances, and a reduction in the operating speed along both Eagleson Road and Fernbank Road would provide the greatest improvement to the PLOS and BLOS at this intersection. Improved pedestrian and cycling

facilities at this intersection should be considered by the City as part of the Eagleson Road widening project.

- The Terry Fox Drive/Fernbank Road intersection meets the target Auto LOS; however, it does not meet the target PLOS, BLOS and TkLOS in the General Urban Area. A reduction in the pedestrian crossing distances, and a reduction in the operating speed along both Terry Fox Drive and Fernbank Road would provide the greatest improvement to the PLOS and BLOS at this intersection. A larger curb radii is required on all legs to achieve the target TkLOS, however a larger curb radii would result in a lower PLOS. Opportunities to improve the PLOS and BLOS should be explored by the City through the future widening of Terry Fox Drive, as identified in the City's 2013 TMP network concept.
- The Eagleson Road/Romina Street/Emerald Meadows Drive intersection is currently operating with a LOS E during the weekday PM peak hour. Based on MTO Traffic Signal Justification 1 and 2, traffic signals are only 68% warranted at this intersection. City staff have advised that this intersection will be monitored for signalization warrants following full build-out.
- The Fernbank Road/Romina Street intersection is currently operating with a LOS D during the weekday PM peak hour. City staff have identified that signalization of this intersection is anticipated in 2019.
- The Terry Fox Drive/Overberg Way intersection is currently operating with a LOS C during the weekday AM and PM peak hours.
- The northbound left turn movement at the Terry Fox Drive/Fernbank Road intersection is anticipated to operate with a LOS E or F during the PM peak hour under background and total traffic conditions. An increased cycle length of 110 seconds is anticipated to yield a LOS D at this intersection under all scenarios, achieving the area target.
- With the Eagleson Road widening in place, the intersections along Eagleson Road are anticipated to operate with a LOS D or better for background and build-out conditions.
- The recommended plan presented in the Eagleson Road and Fernbank Road ESR suggests a storage length of approximately 90m for the northbound left turn movement at the Eagleson Road/Terry Fox Drive/Hope Side Road intersection. The City should give consideration to providing a storage length of 115m for this movement during the detailed design of the road widening.
- The Terry Fox Drive/Overberg Way intersection is anticipated to operate with a LOS E under the 2025 build-out condition. Based on the MTO traffic signalization warrants, traffic signals will only be 23% warranted at this intersection by the 2030 horizon year. As such side street stop control is recommended at the Terry Fox Drive/Overberg Way intersection. Based on the MTO left turn lane storage graphs, the storage length for the planned southbound left turn lane should be lengthened to 30 metres.

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Prepared by:

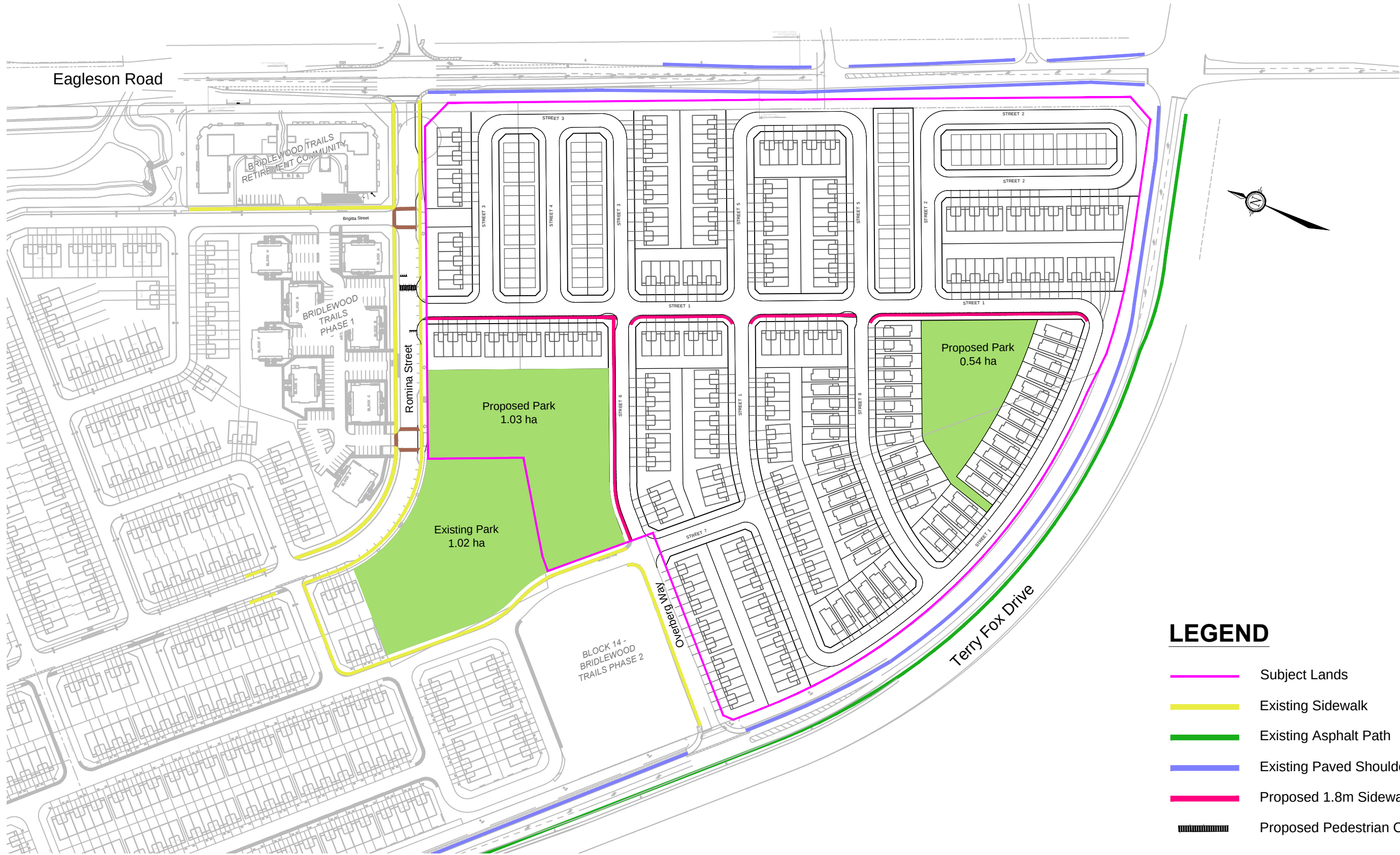


Brad Byvelds, P. Eng.
Project Coordinator | Transportation/Traffic

APPENDIX A

Concept Plan

M:\2011\117153\CAD\Design\Figures\Traffic\117153-Figure-PN-CP21.dwg, Concept Plan - Dual Scale, May 23, 2019 - 2:39pm, revision



NOTE:
THE POSITION OF ALL POLE LINES, CONDUITS,
WATERMAINS, SEWERS AND OTHER
UNDERGROUND AND OVERGROUND UTILITIES AND
STRUCTURES IS NOT NECESSARILY SHOWN ON
THE CONTRACT DRAWINGS, AND WHERE SHOWN,
THE ACCURACY OF THE POSITION OF SUCH
UTILITIES AND STRUCTURES IS NOT GUARANTEED.
BEFORE STARTING WORK, DETERMINE THE EXACT
LOCATION OF ALL SUCH UTILITIES AND
STRUCTURES AND ASSUME ALL LIABILITY FOR
DAMAGE TO THEM.

2.	ISSUED FOR PUBLIC MEETING	MAR 28/19	BB		
1.	ISSUED WITH REPORT FOR DRAFT PLAN APPROVAL	14/19	BB		
No.	REVISION	DATE	BY		

SCALE
1:1250 (A1) / 1:2500 (11x17)
1:1250 0 10 20 30 40 50

DESIGN	XXX
CHECKED	XXX
DRAWN	wls
CHECKED	XXX
APPROVED	XXX

FOR REVIEW ONLY	

NOVATECH

Engineers, Planners & Landscape Architects
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario, Canada K2M 1P6
Telephone (613) 254-9643
Facsimile (613) 254-5867
Website www.novatech-eng.com

BRIDLEWOOD 3		PROJECT No.
DRAWING NAME		117153-00
CONCEPT PLAN		REV
		REV #1
		DRAWING No.
		117153-PN

APPENDIX B

TIA Screening Form

City of Ottawa 2017 TIA Guidelines Screening Form

1. Description of Proposed Development

Municipal Address	866 Eagleson Road
Description of Location	Lands bound by Eagleson Road/Terry Fox Drive
Land Use Classification	Residential
Development Size (units)	375 Towns, 34 Semis
Development Size (m ²)	N/A
Number of Accesses and Locations	2; Romina and Terry Fox/Overberg
Phase of Development	1
Buildout Year	2025

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?	✓	
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?	✓	

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 System Information

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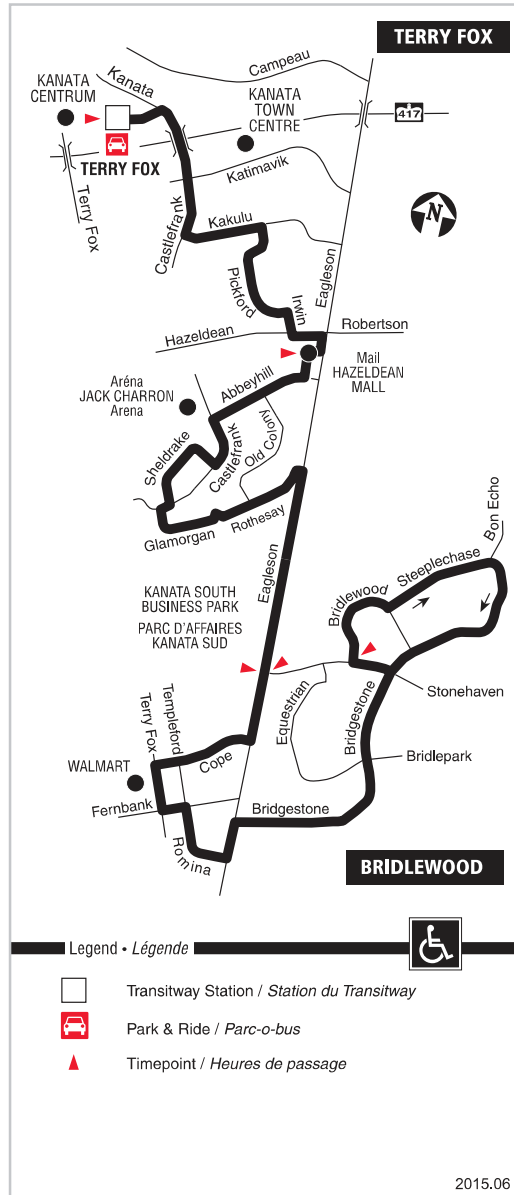
TERRY FOX BRIDLEWOOD

Monday to Friday / Lundi au vendredi

All day service. No weekend service

Service toute la journée.

Aucun service les fins de semaine



Information / Renseignement.....**613-741-4390**

Customer Relations
Service à la clientèle**613-842-3600**

Lost and Found / Objets perdus**613-563-4011**

Schedule / Horaire.....**613-560-1000**

Text / Texto**560560**

plus your four digit bus stop number / plus votre numéro d'arrêt à quatre chiffres

Effective / En vigueur June 29 juin 2015

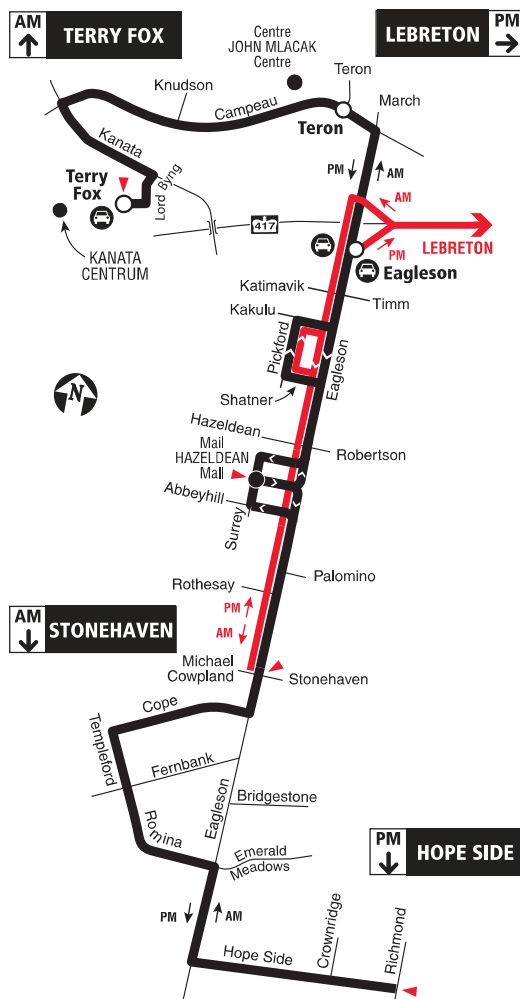


TERRY FOX
HOPE SIDE

Local

Monday to Friday/ Lundi au vendredi

Peak periods only
Périodes de pointe seulement



-  Transitway Station / Station du Transitway
-  Peak Periods Only / Périodes de pointe seulement
-  Some trips to / from LeBreton Station
Quelques trajets de / vers la station LeBreton
-  Park & Ride / Parc-o-bus
-  Timepoint / Heures de passage

2017.12



Schedule / Horaire.....613-560-1000

Text / Texto560560

plus your four digit bus stop number / plus votre numéro d'arrêt à quatre chiffres

Customer Relations
Service à la clientèle **613-842-3600**

Lost and Found / Objets perdus..... **613-563-4011**

Security / Sécurité **613-741-2478**

Effective December 24, 2017

En vigueur 24 décembre 2017



INFO 613-741-4390
octranspo.com

252

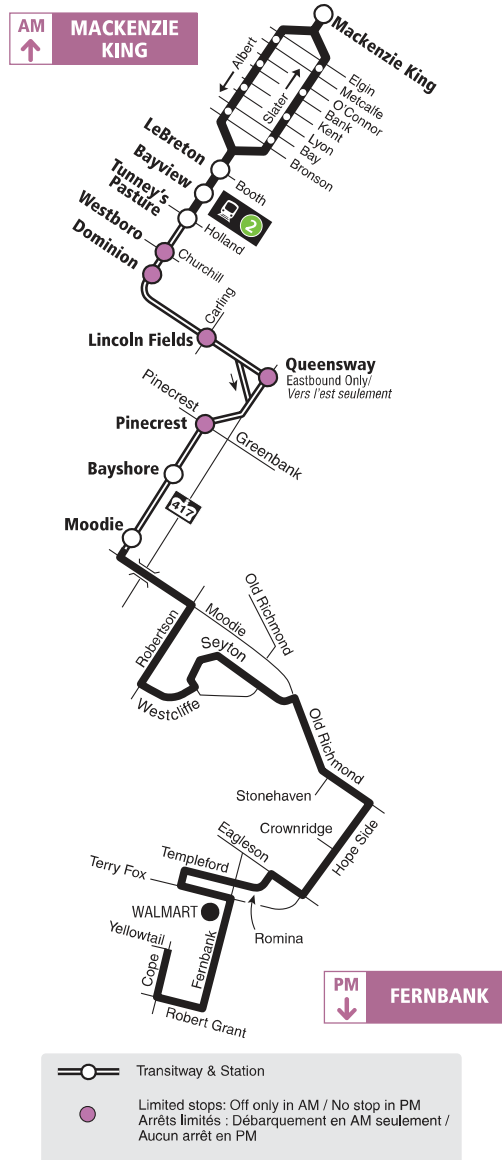
MACKENZIE KING FERNBANK

Connexion

Monday to Friday / Lundi au vendredi

Peak periods only

Périodes de pointe seulement



2017.12



Schedule / Horaire.....613-560-1000

Text / Texto560560

plus your four digit bus stop number / plus votre numéro d'arrêt à quatre chiffres

Customer Relations

Service à la clientèle **613-842-3600**

Lost and Found / Objets perdus..... **613-563-4011**

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

Effective December 24, 2017

En vigueur 24 décembre 2017



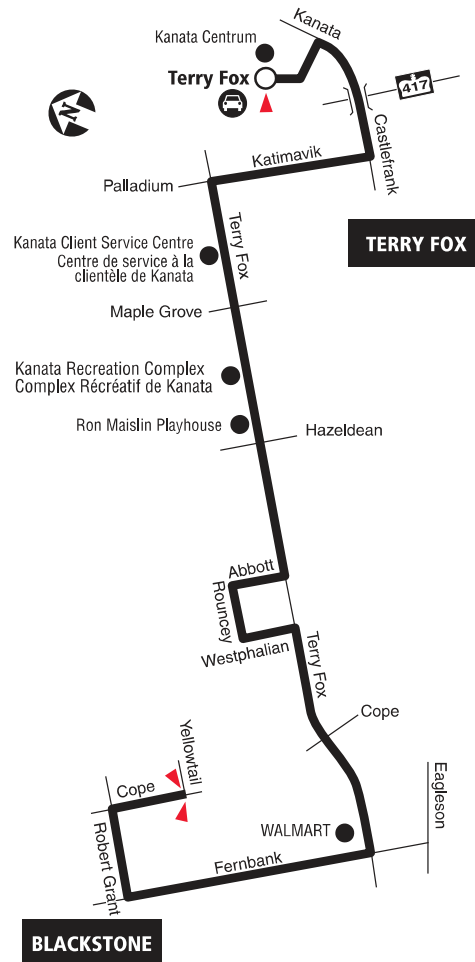
INFO 613-741-4390
octranspo.com

167

TERRY FOX BLACKSTONE

Local

Monday to Friday/ Lundi au vendredi



2017.12



Schedule / Horaire.....613-560-1000

Text / Texto560560

plus your four digit bus stop number / plus votre numéro d'arrêt à quatre chiffres

Customer Relations

Service à la clientèle **613-842-3600**

Lost and Found / Objets perdus..... **613-563-4011**

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

Effective December 24, 2017

En vigueur 24 décembre 2017



INFO 613-741-4390
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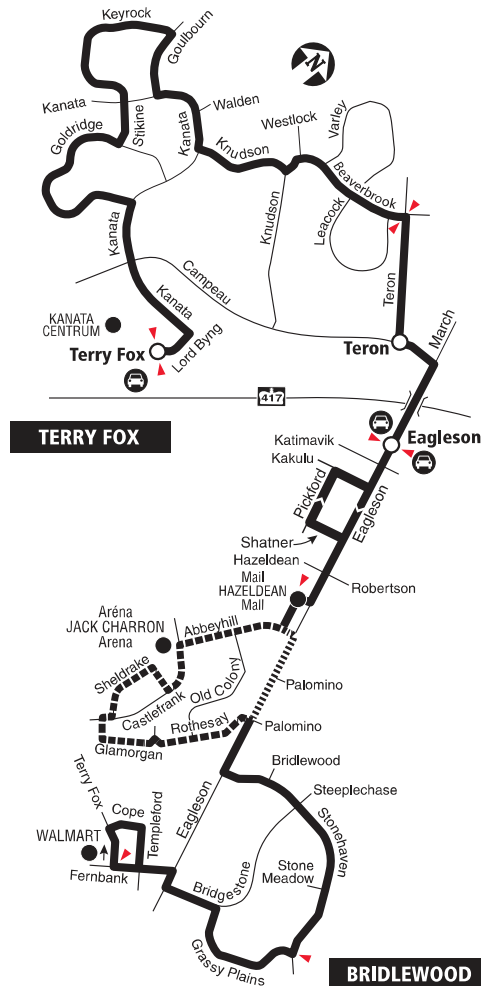
TERRY FOX BRIDLEWOOD

Local

7 days a week / 7 jours par semaine

All day service

Service toute la journée



-  Transitway Station / Station du Transitway
-  Saturday and Sunday only
Samedi et dimanche seulement
-  No weekend service
Aucun service la fin de semaine
-  Park & Ride / Parc-o-bus
-  Timepoint / Heures de passage

2017.12



Schedule / Horaire.....613-560-1000

Text / Texto560560

plus your four digit bus stop number / plus votre numéro d'arrêt à quatre chiffres

Customer Relations

Service à la clientèle 613-842-3600

Lost and Found / Objets perdus..... 613-563-4011

Security / Sécurité..... 613-741-2478

Effective December 24, 2017

En vigueur 24 décembre 2017



INFO 613-741-4390
octranspo.com

Hi Brad,

My apologies for the delay in providing the requested data. All data is from the Winter 2018 service period for an average weekday, and gathered during the AM and PM peak periods (6-9am and 3-6pm, respectively). Note Route 252 is a Connexion service and only operates inbound during the AM peak period and outbound during the PM peak period.

The typical bus type planned to operate on Routes 161, 164, and 252 during the AM and PM peak periods is a 40-foot bus.

Stop	Route	Direction	AM Peak Period			PM Peak Period		
			Total Boardings	Total Alightings	Average Load at Departure	Total Boardings	Total Alightings	Average Load at Departure
0736	161	Northbound	0	0	6	0	0	2
	164	Northbound	1	0	1			
	252	Outbound				0	3	5
	681	Eastbound	1	0	20			
0737	161	Southbound	0	1	2	0	0	4
	164	Southbound				0	1	2
	252	Inbound	2	0	6			

If you have any questions regarding the above information, please don't hesitate to contact me.

Best regards,
Genya

Genya Stefanoff, MCIP, RPP
Senior Transit Planner, Service Strategy

City of Ottawa | OC Transpo | Transportation Services Department
1500 St. Laurent Blvd., Ottawa, ON K1G 0Z8

tel: 613-580-2424 ext. 52294
genya.stefanoff@ottawa.ca

APPENDIX D

Traffic Count Data



Turning Movement Count Summary, AM and PM Peak Hour Flow Diagrams

Automobiles, Taxis, Light
Trucks, Vans, SUV's,
Motorcycles, Heavy Trucks,
Buses, and School Buses

Overberg Way & Terry Fox Drive

Kanata, ON

All Vehicles

(Except Bicycles & Electric Scooters)

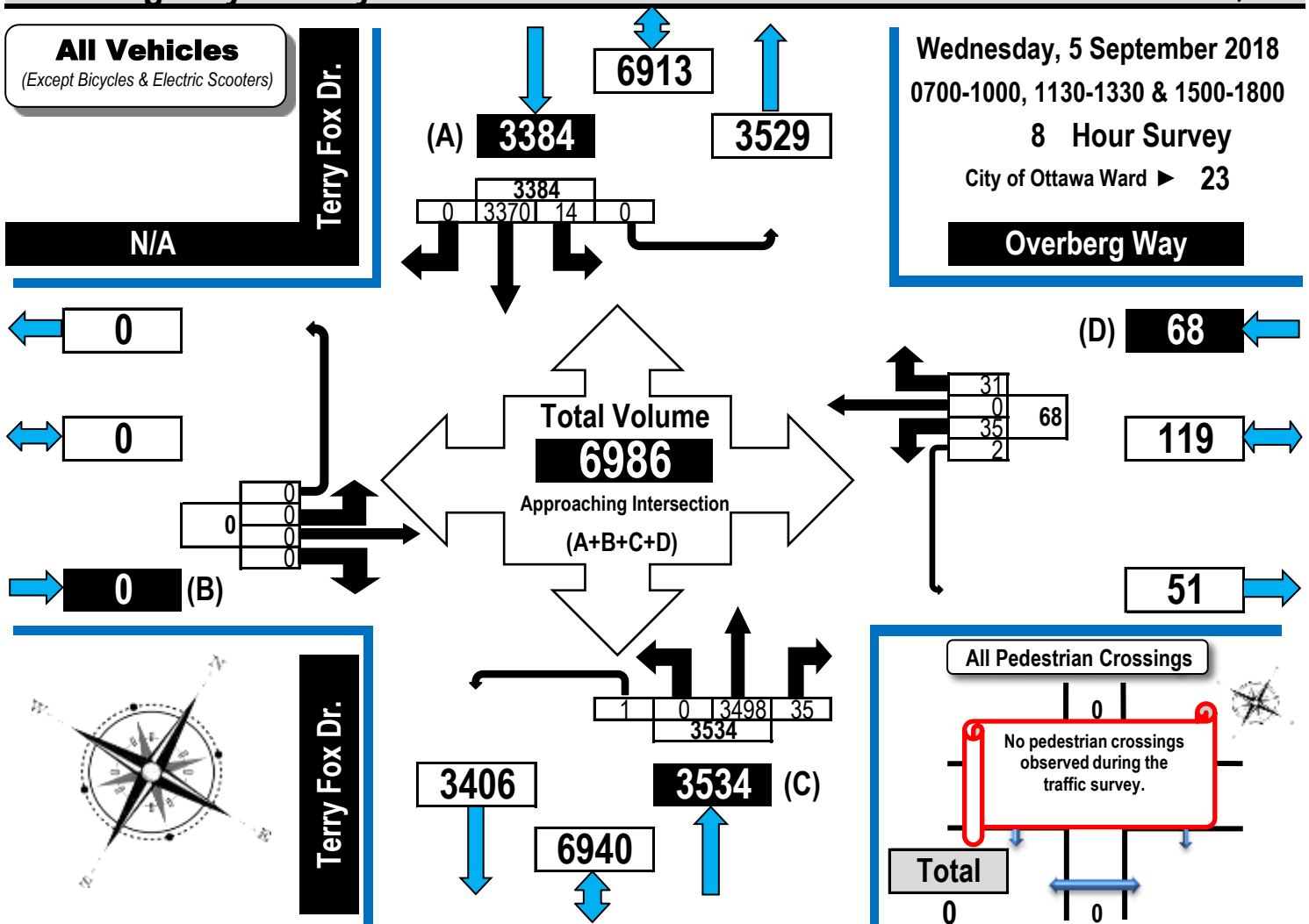
Wednesday, 5 September 2018

0700-1000, 1130-1330 & 1500-1800

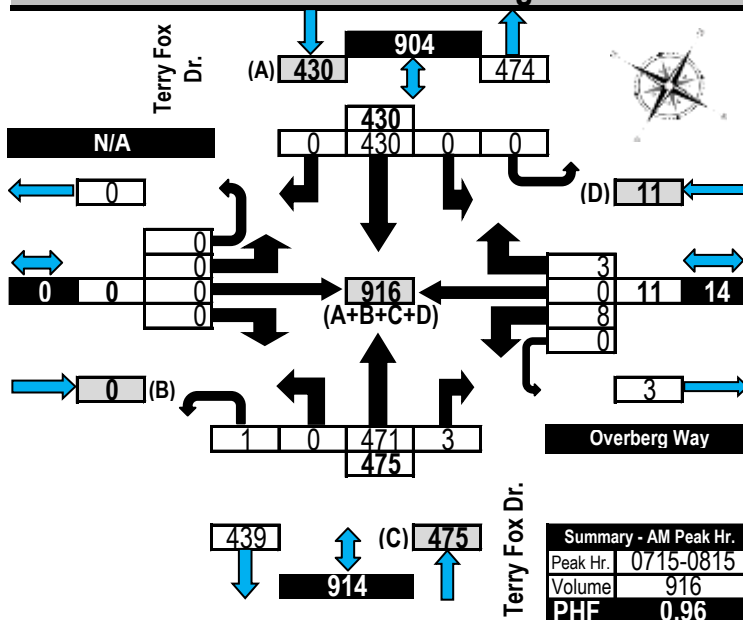
8 Hour Survey

City of Ottawa Ward 23

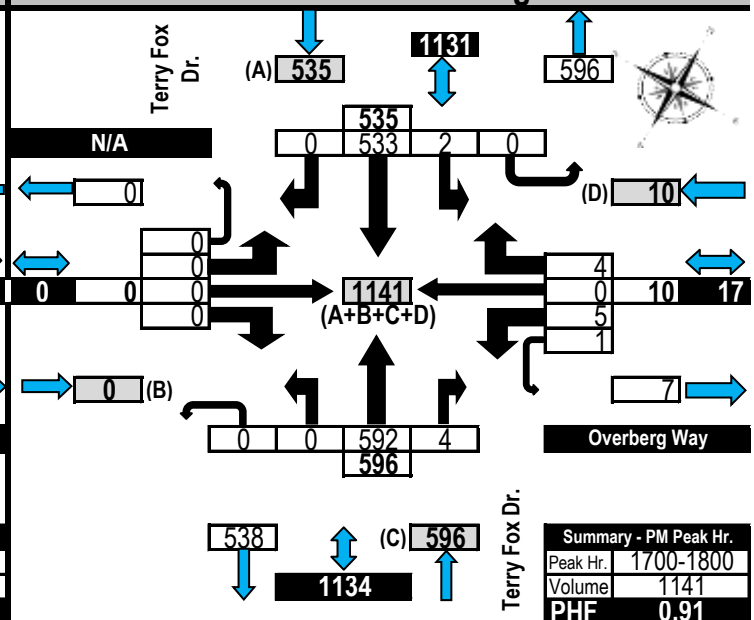
Overberg Way



AM Peak Hour Flow Diagram



PM Peak Hour Flow Diagram



Turning Movement Count - Peak Hour Diagram

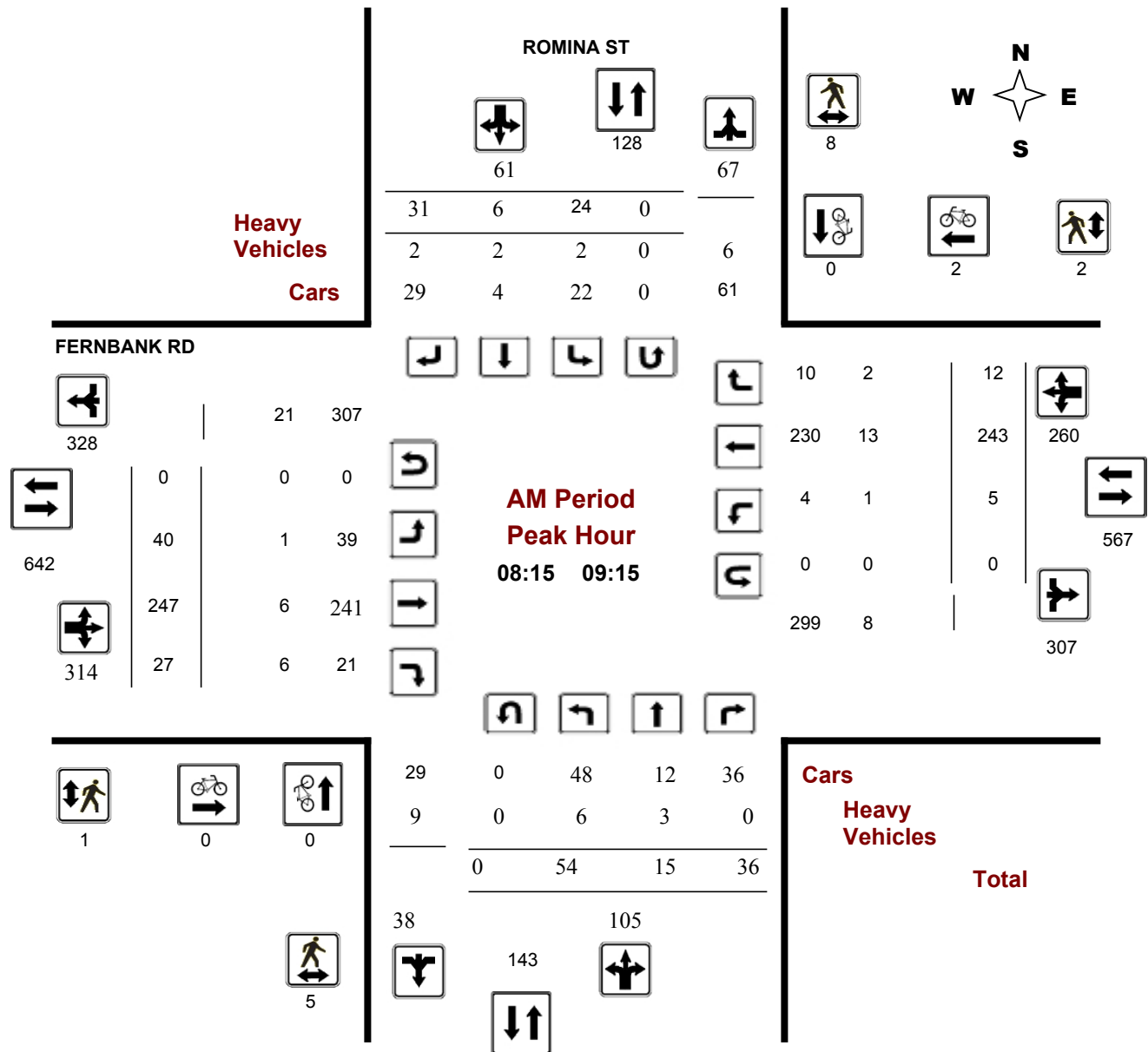
FERNBANK RD @ ROMINA ST

Survey Date: Wednesday, June 20, 2018

Start Time: 07:00

WO No: 37895

Device: Miovision



Comments

Turning Movement Count - Peak Hour Diagram

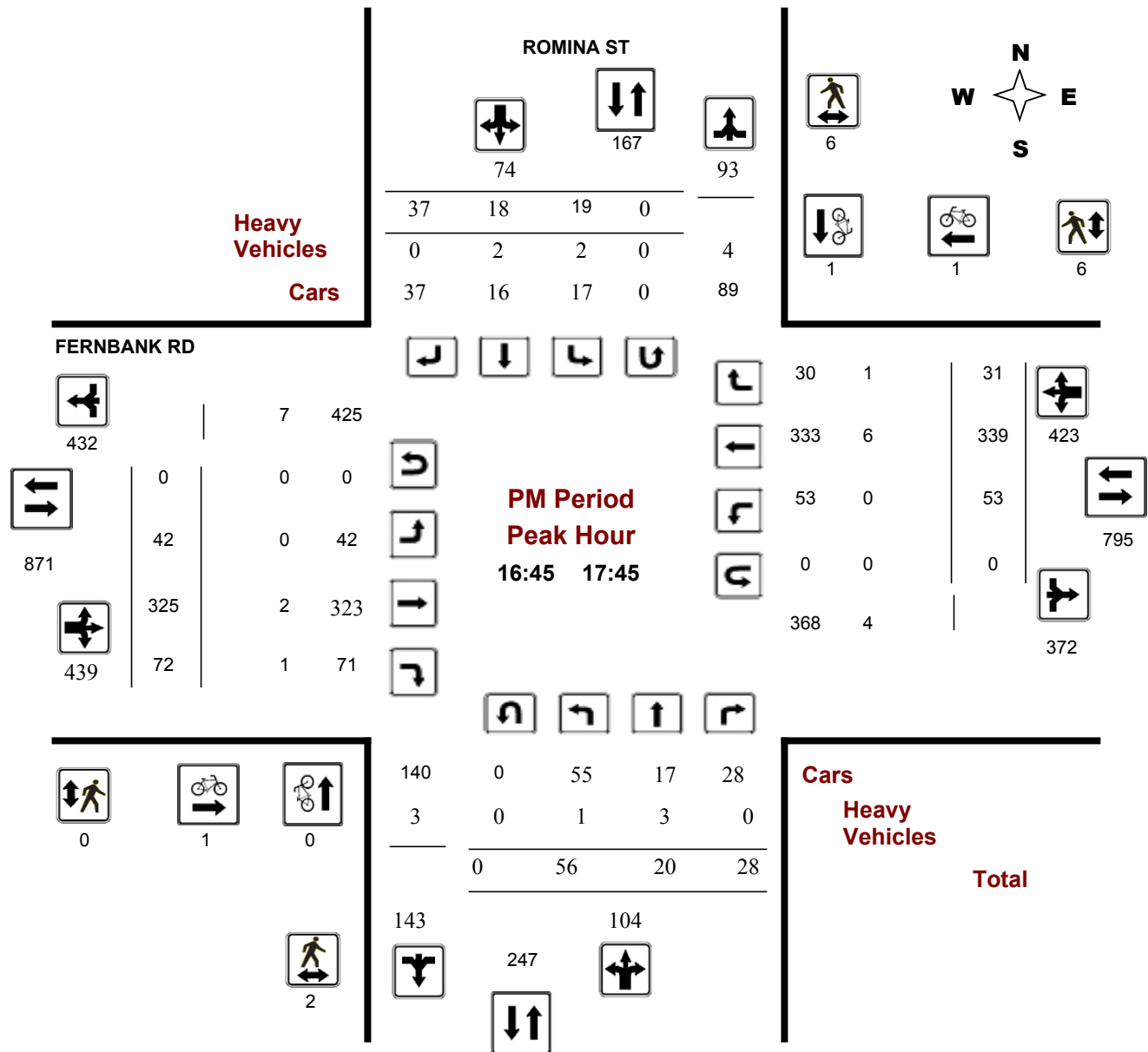
FERNBANK RD @ ROMINA ST

Survey Date: Wednesday, June 20, 2018

Start Time: 07:00

WO No: 37895

Device: Miovision



Comments

Turning Movement Count - Peak Hour Diagram

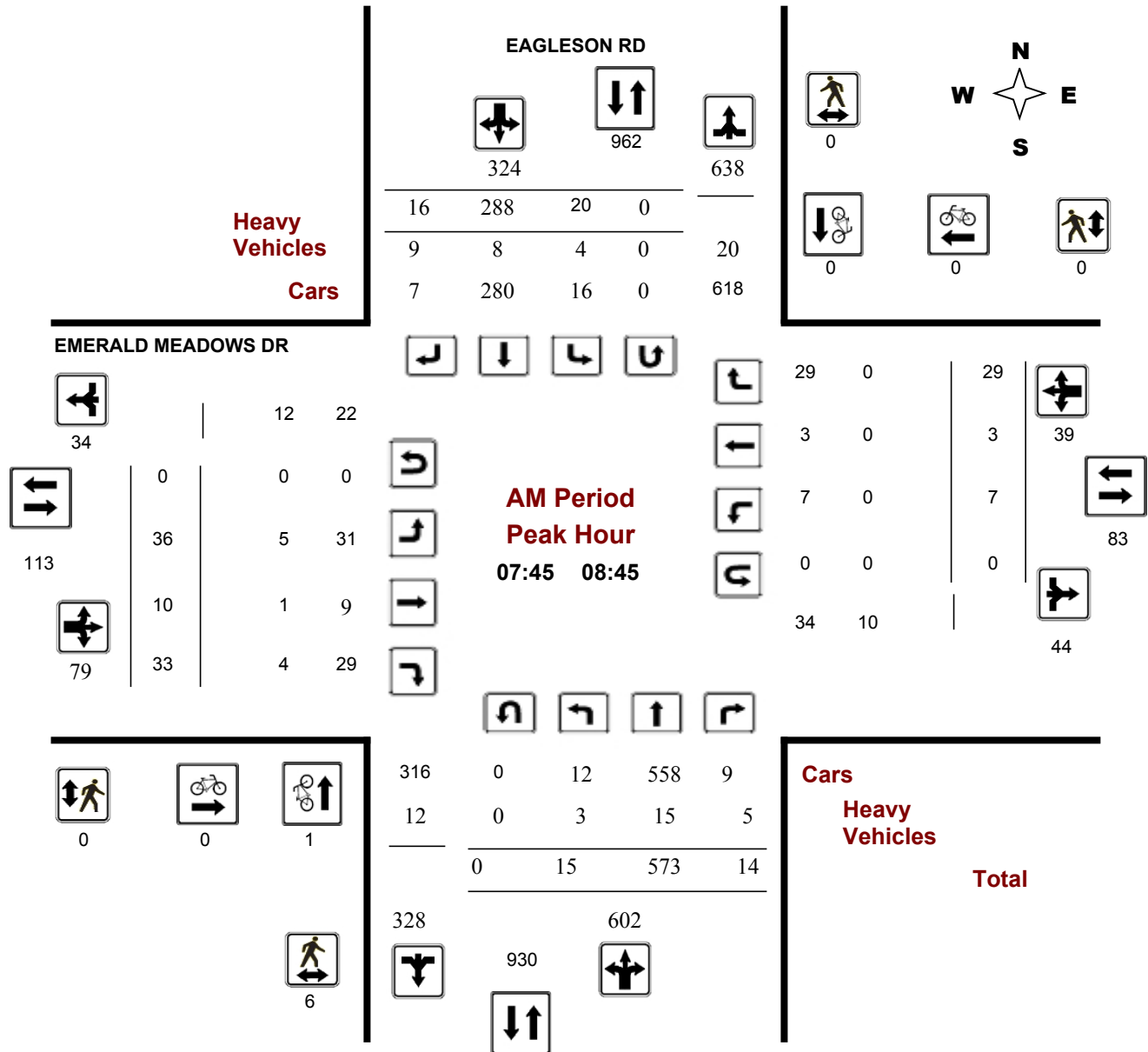
EAGLESON RD @ EMERALD MEADOWS DR

Survey Date: Wednesday, June 20, 2018

Start Time: 07:00

WO No: 37893

Device: Miovision



Turning Movement Count - Peak Hour Diagram

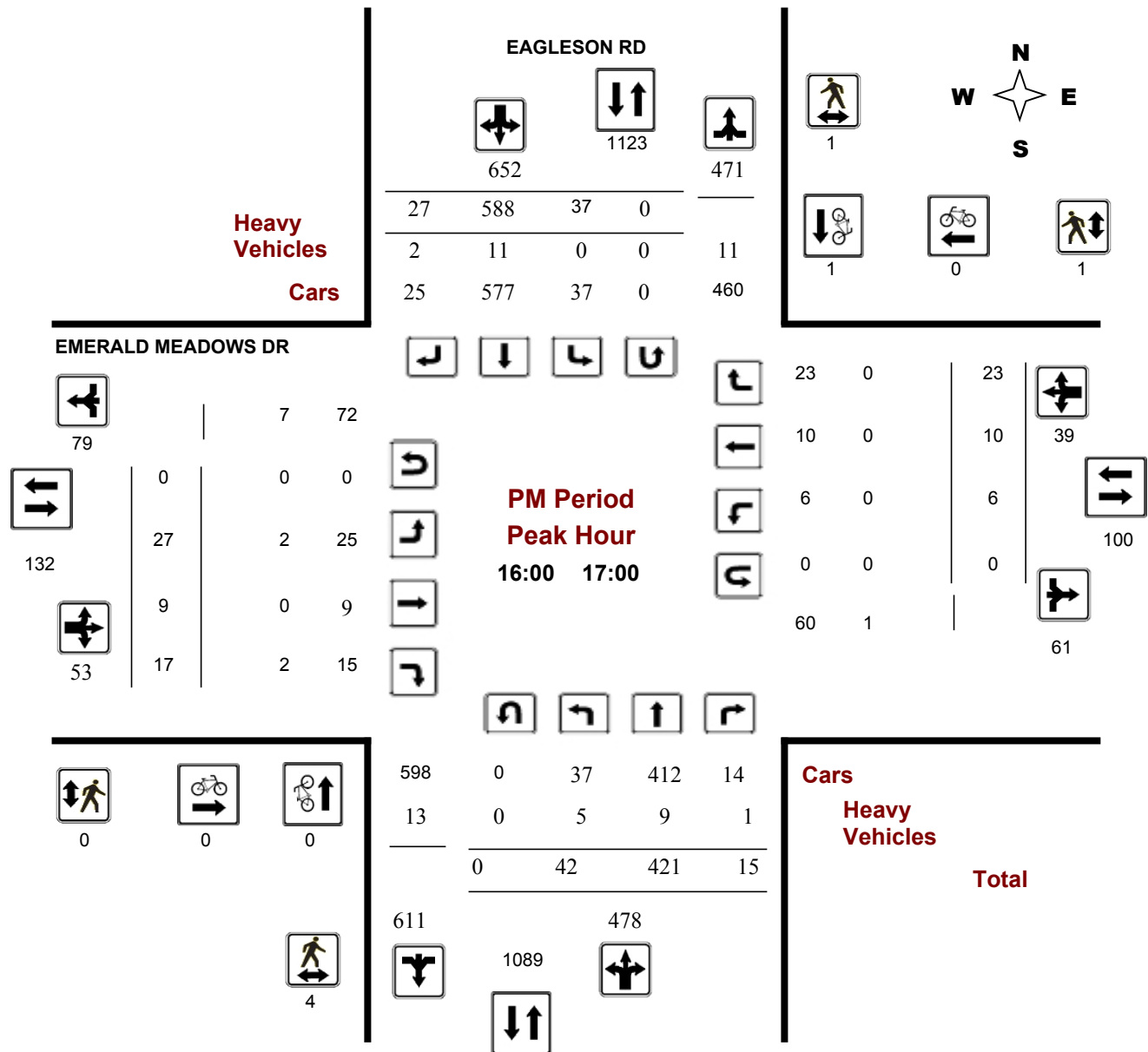
EAGLESON RD @ EMERALD MEADOWS DR

Survey Date: Wednesday, June 20, 2018

Start Time: 07:00

WO No: 37893

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Full Study Peak Hour Diagram

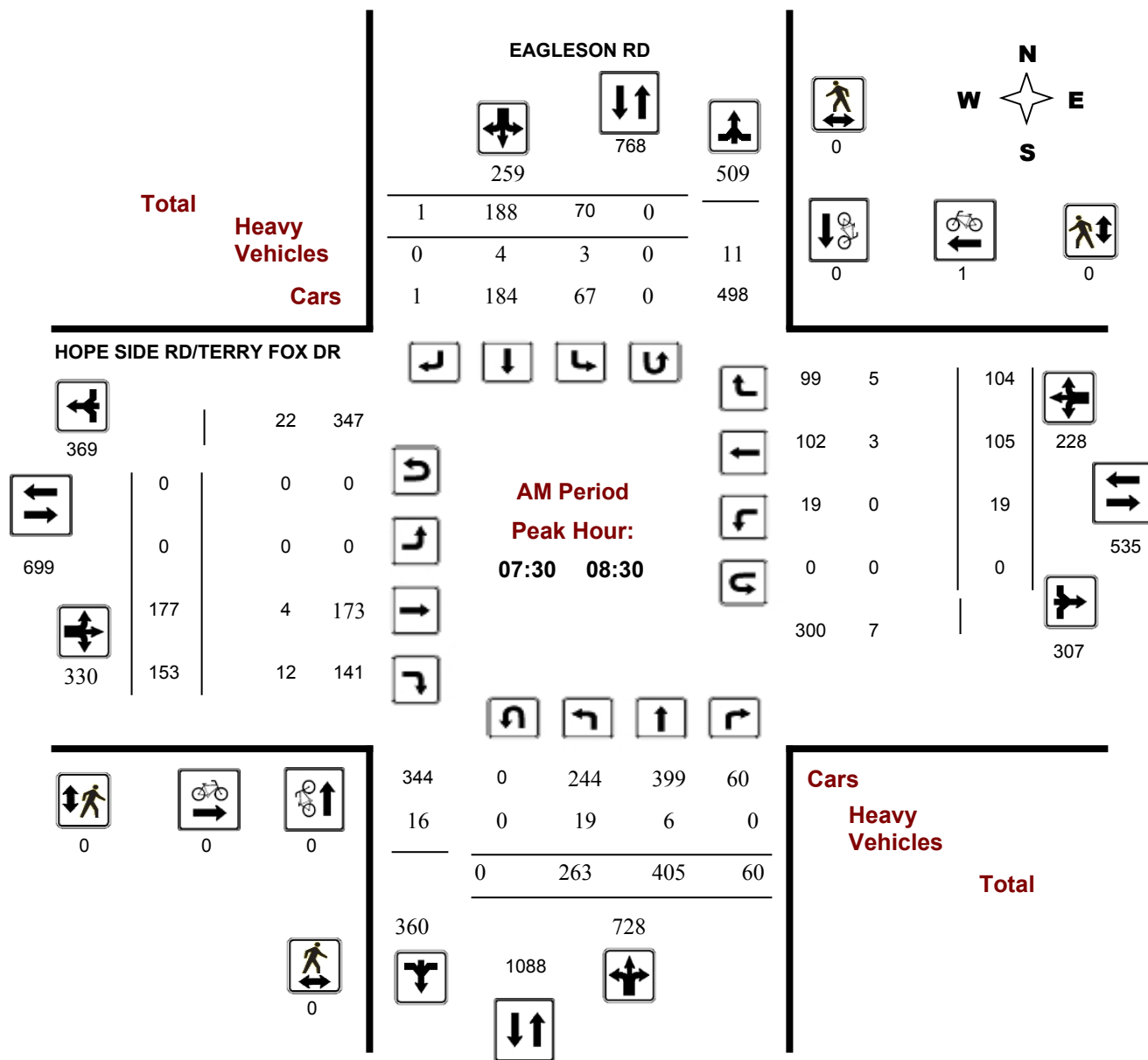
EAGLESON RD @ HOPE SIDE RD/TERRY FOX DR

Survey Date: Wednesday, March 30, 2016

Start Time: 07:00

WO No: 35826

Device: Miovision



Turning Movement Count - Full Study Peak Hour Diagram

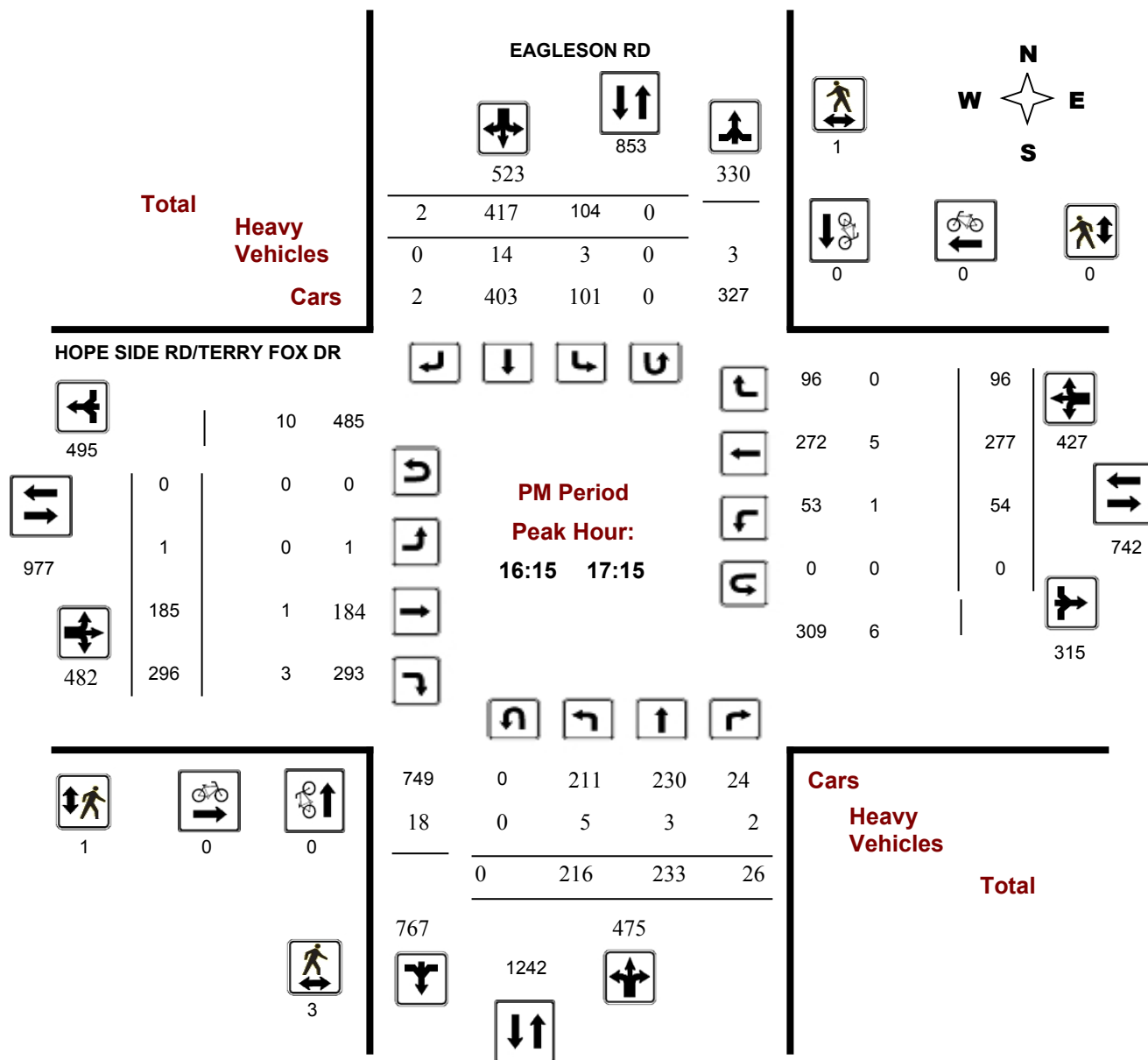
EAGLESON RD @ HOPE SIDE RD/TERRY FOX DR

Survey Date: Wednesday, March 30, 2016

Start Time: 07:00

WO No: 35826

Device: Miovision





Transportation Services - Traffic Services

Turning Movement Count - Peak Hour Diagram

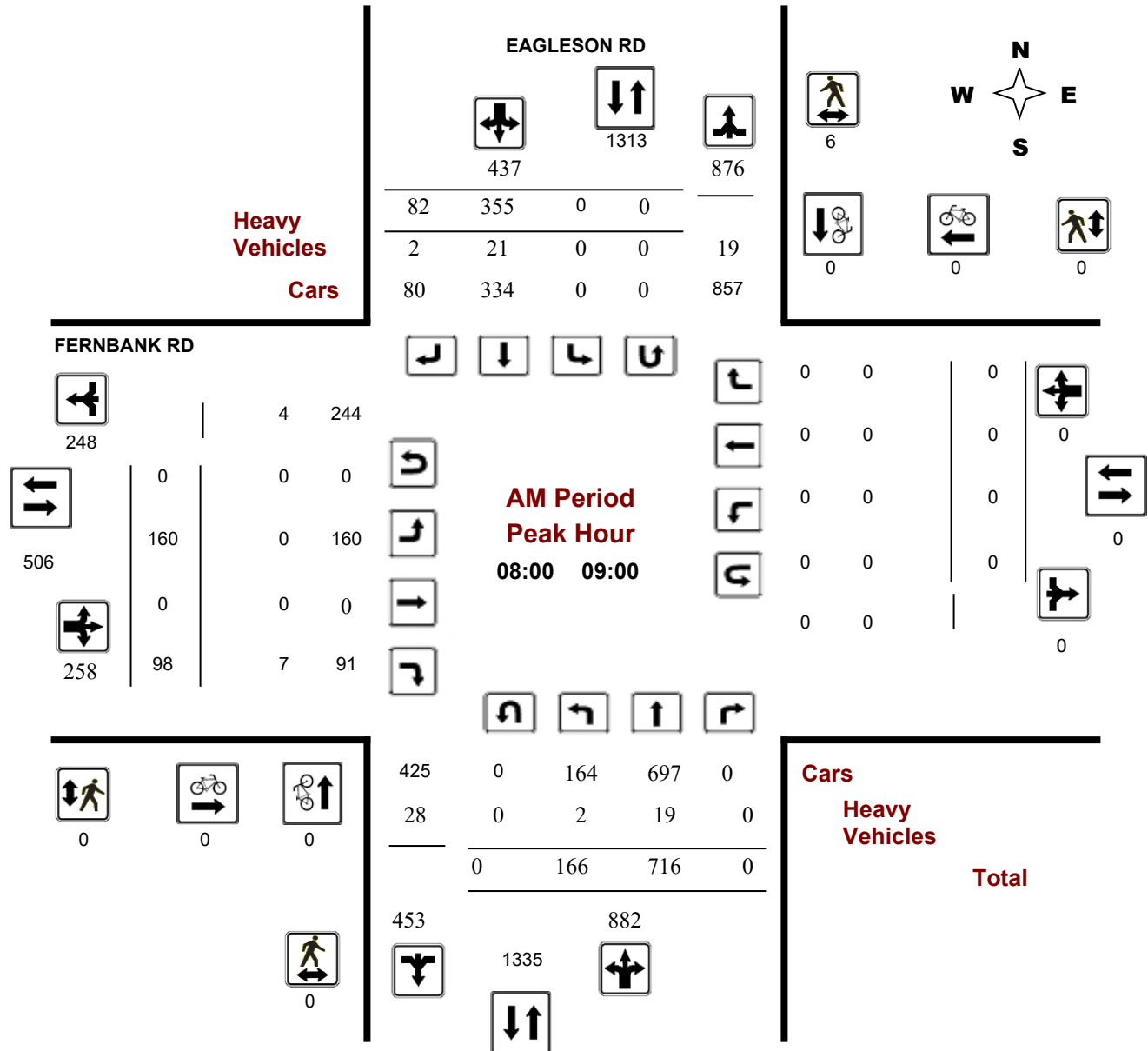
EAGLESON RD @ FERNBANK RD

Survey Date: Tuesday, April 11, 2017

Start Time: 07:00

WO No: 36906

Device: Miovision



Turning Movement Count - Peak Hour Diagram

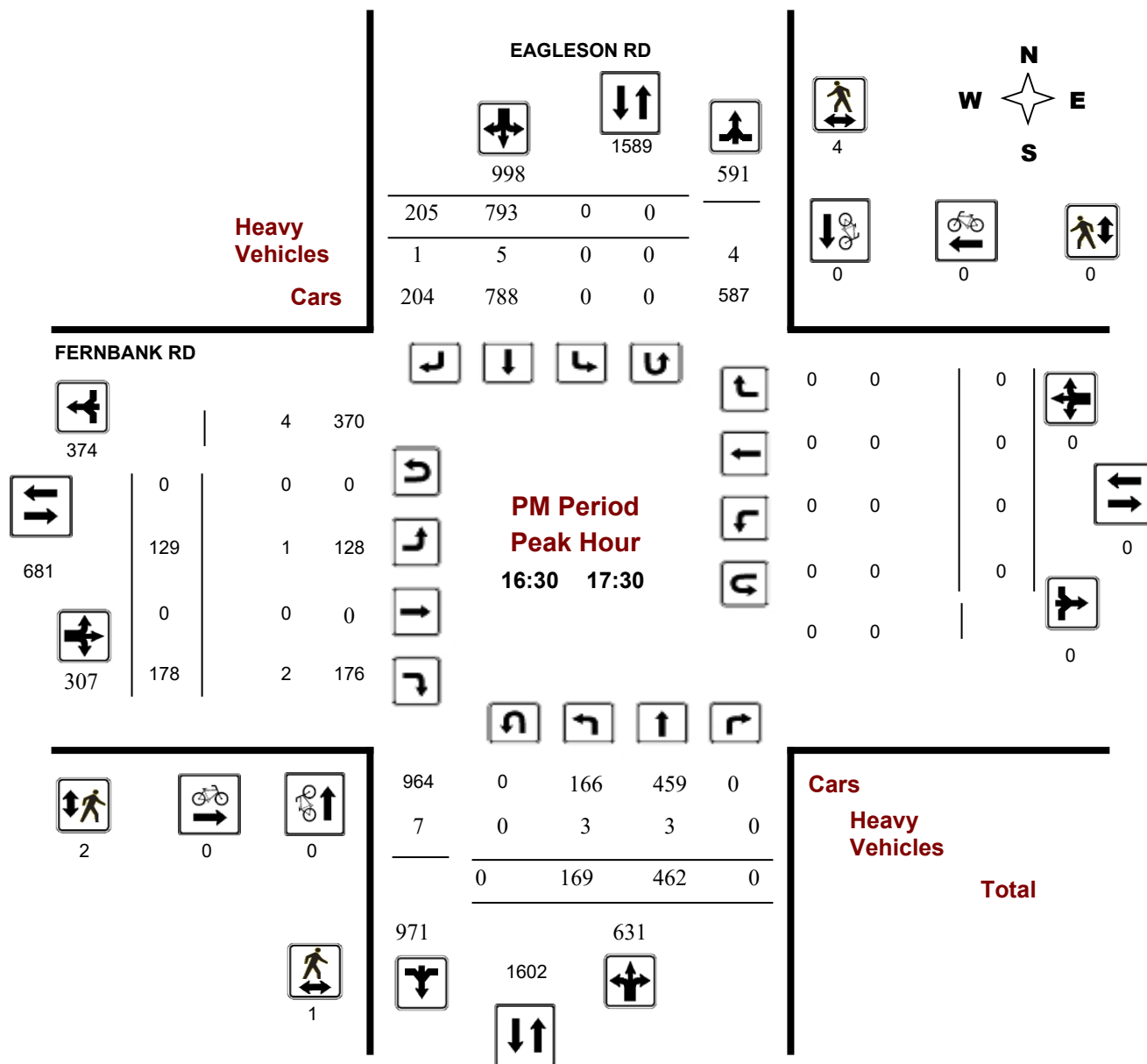
EAGLESON RD @ FERNBANK RD

Survey Date: Tuesday, April 11, 2017

Start Time: 07:00

WO No: 36906

Device: Miovision



Comments

Turning Movement Count - Peak Hour Diagram

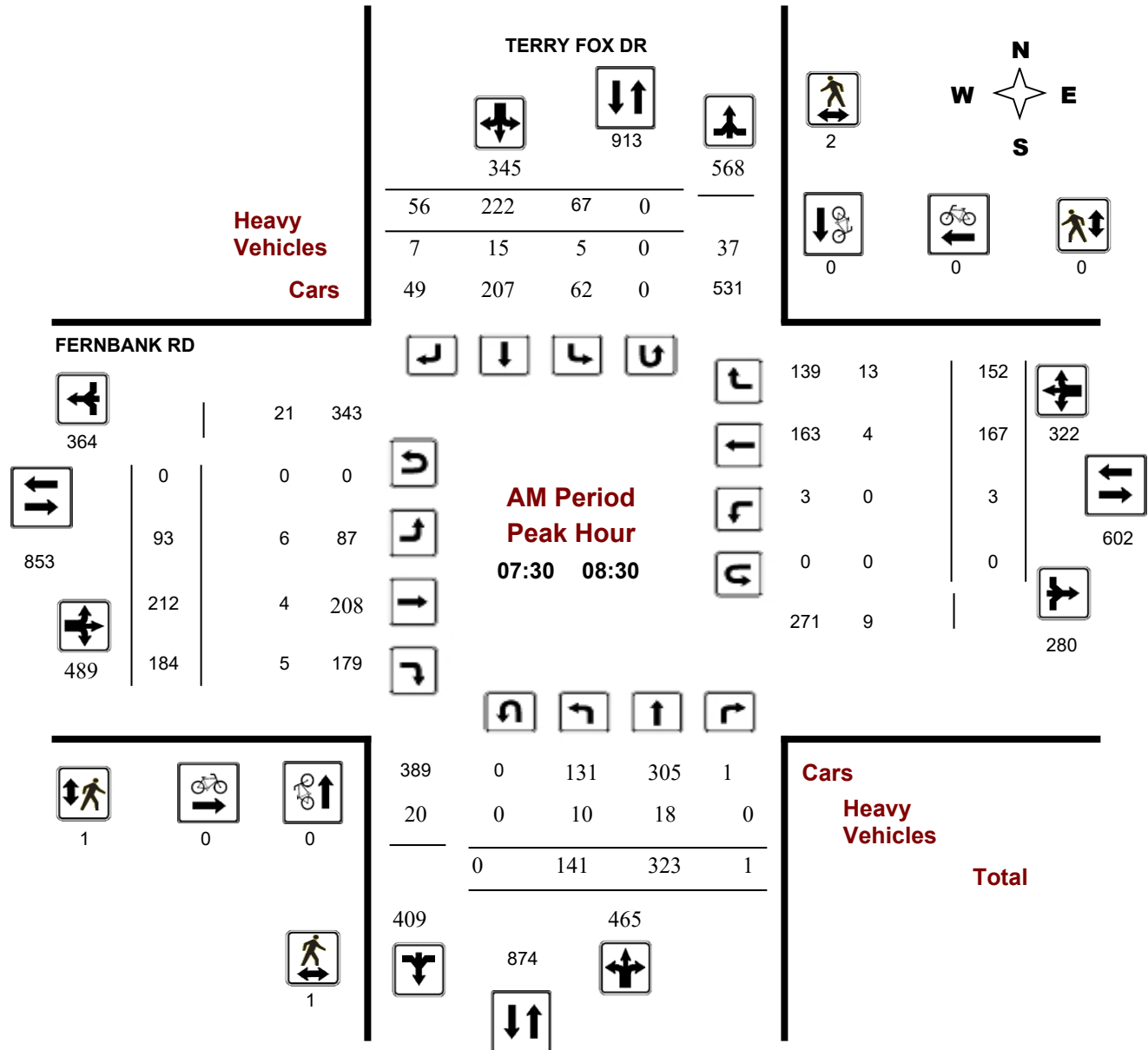
TERRY FOX DR @ FERNBANK RD

Survey Date: Tuesday, February 06, 2018

Start Time: 07:00

WO No: 37455

Device: Miovision



Turning Movement Count - Peak Hour Diagram

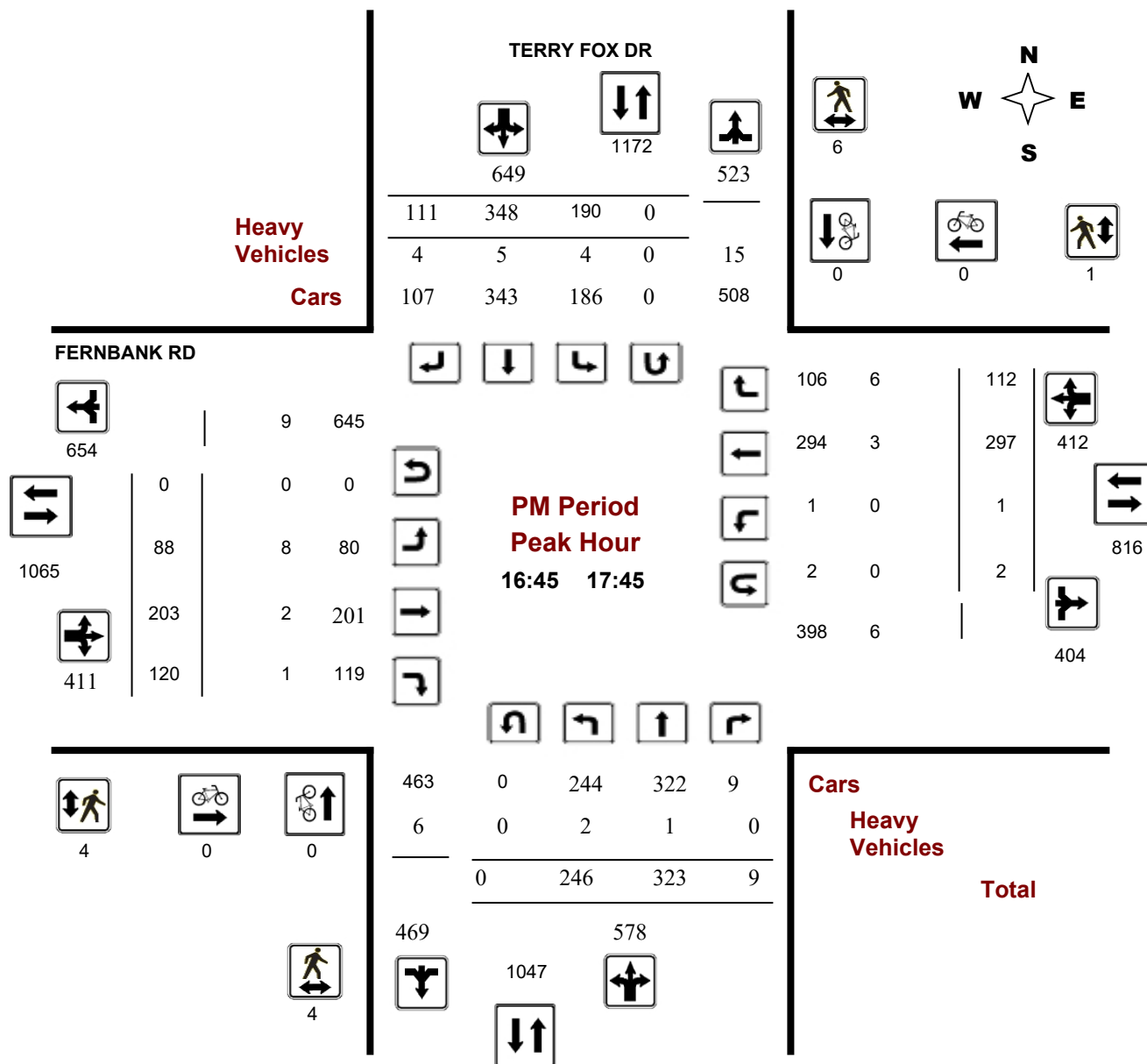
TERRY FOX DR @ FERNBANK RD

Survey Date: Tuesday, February 06, 2018

Start Time: 07:00

WO No: 37455

Device: Miovision



Traffic Signal Timing

City of Ottawa, Transportation Services Department

Traffic Signal Operations Unit

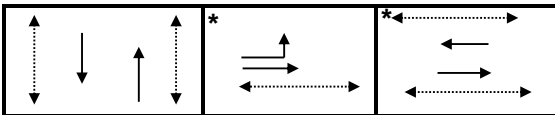
Intersection:	Main: Fernbank	Side: Terry Fox
Controller:	MC-3200	TSD: 6577
Author:	Yassine Bennani	Date: 03-Dec-2018

Existing Timing Plans[†]

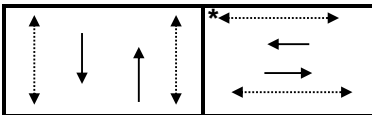
	Plan					Ped Minimum Time		
	AM Peak	Off Peak	PM Peak	Night	Saturday	Walk	DW	A+R
	1	2	3	4	5			
Cycle	90	80	100	65	120			
Offset	9	0	91	X	X			
NB Thru	38	40	54	30	45	7	16	4.6+1.6
SB Thru	38	40	39	30	45	7	16	4.6+1.6
EB Left	17	-	12	-	20	-	-	3.7+2.4
EB Thru	52	40	46	35	35	7	20	3.7+2.5
WB Thru	35	40	34	35	35	7	20	3.7+2.5
NB Left	-	-	15	-	20	-	-	4.6+1.9

Phasing Sequence[‡]

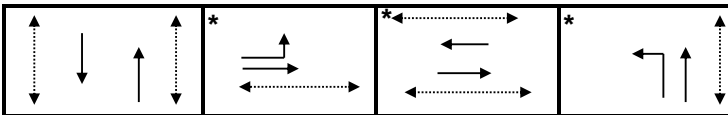
Plan: 1



Plan: 2 and 4



Plan: 3 and 5



Schedule

Weekday		Saturday		Sunday	
Time	Plan	Time	Plan	Time	Plan
0:10	4	0:10	4	0:10	4
6:20	1	9:00	2	8:00	2
9:30	2	11:30	5	11:00	3
15:00	3	21:30	2	21:30	2
19:00	2	22:30	4	22:30	4
23:00	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 \$56.50 (\$50 + HST)

Traffic Signal Timing

City of Ottawa, Transportation Services Department

Traffic Signal Operations Unit

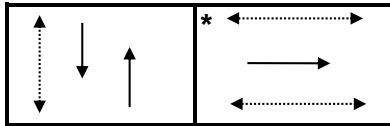
Intersection:	Main: Eagleson	Side: Fernbank
Controller:	MS-3200	TSD: 6657
Author:	Yassine Bennani	Date: 03-Dec-2018

Existing Timing Plans†

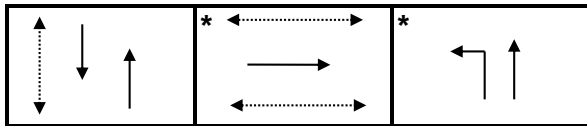
	Plan					Ped Minimum Time		
	AM Peak 1	Off Peak 2	PM Peak 3	Night 4	Saturday 5	Walk	DW	A+R
Cycle	110	110	120	60	80			
Offset	0	14	29	X	X			
NB Thru	78	80	93	33	53	-	-	3.7+2.3
SB Thru	50	80	78	33	53	7	14	3.7+2.3
EB Thru	32	30	27	27	27	7	14	3.7+2.3
NB Left	28	-	15	-	-	-	-	3.7+2.3

Phasing Sequence‡

Plan: 2, 4, 5



Plan: 1, 3



Schedule

Weekday		Saturday		Sunday	
Time	Plan	Time	Plan	Time	Plan
0:10	4	0:10	4	0:10	4
6:20	1	9:00	2	8:00	2
9:30	2	11:30	5	11:00	3
15:00	3	21:30	2	21:30	2
19:00	2	22:30	4	22:30	4
23:00	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 \$56.50 (\$50 + HST)

Traffic Signal Timing

City of Ottawa, Transportation Services Department

Traffic Signal Operations Unit

Intersection:	Main: Eagleson	Side: Terry Fox/Hope Side
Controller:	MS-3200	TSD: 6640
Author:	Sarah Saade	Date: 09-Aug-2018

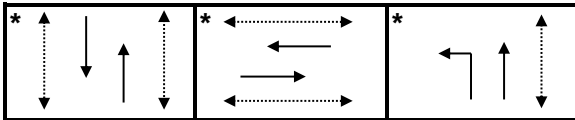
Existing Timing Plans†

	Plan					Ped Minimum Time		
	AM Peak 1	Off Peak 2	PM Peak 3	Weekend 5	Night 9	Walk	DW	A+R
Cycle	110	FREE	110	FREE	FREE			
Offset	0	X	0	X	X			
NB Thru	65	max= 41.2	55	max= 41.2	max= 41.2	7	20	3.7+2.5
SB Thru	50	max= 41.2	43	max= 41.2	max= 41.2	7	20	3.7+2.5
EB Thru	45	max= 51.4	55	max= 51.4	max= 51.4	7	17	4.6+1.8
WB Thru	45	max= 51.4	55	max= 51.4	max= 51.4	7	17	4.6+1.8
NB Left	15	-	12	max= 16.2	-	-	-	3.7+2.5

Phasing Sequence‡

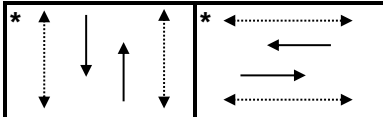
Plan:

1,3,5



Plan:

2,9



Notes: Plans, 2, 4, and 5 have minimum recalls for north-south of 27 seconds green.

Schedule

Weekday

Time	Plan
0:10	9
7:00	1
9:30	2
15:30	3
19:00	9

Weekend

Time	Plan
0:10	9
9:00	5
18:00	9

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 \$56.50 (\$50 + HST)

APPENDIX E

Collision Records



City Operations - Transportation Services

Collision Details Report - Public Version

From: January 1, 2014 **To:** December 31, 2016

Location: EAGLESON RD @ EMERALD MEADOWS DR

Traffic Control: Stop sign

Total Collisions: 1

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Oct-14, Fri,08:04	Clear	Angle	P.D. only	Dry	North	Turning left	Municipal transit bus	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	



City Operations - Transportation Services

Collision Details Report - Public Version

From: January 1, 2014 **To:** December 31, 2016

Location: EAGLESON RD @ HOPE SIDE RD/TERRY FOX DR

Traffic Control: Traffic signal

Total Collisions: 12

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Dec-17, Sat,10:30	Snow	Rear end	P.D. only	Ice	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Dec-10, Sat,14:52	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2016-Oct-31, Mon,15:57	Clear	Turning movement	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Oct-27, Thu,18:20	Snow	Angle	P.D. only	Slush	North	Turning left	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Jul-15, Fri,09:17	Clear	Angle	Non-fatal injury	Dry	South	Going ahead	Passenger van	Other motor vehicle	
					East	Going ahead	Pick-up truck	Other motor vehicle	
2016-Apr-25, Mon,06:33	Clear	Turning movement	Non-fatal injury	Dry	North	Turning left	Pick-up truck	Other motor vehicle	

					South	Going ahead	Pick-up truck	Other motor vehicle
2016-Feb-15, Mon,10:33	Clear	Turning movement	P.D. only	Dry	West	Turning left	Delivery van	Other motor vehicle
					East	Going ahead	Passenger van	Other motor vehicle
2015-Aug-27, Thu,18:11	Clear	Turning movement	Non-fatal injury	Dry	South	Turning left	Pick-up truck	Other motor vehicle
					North	Going ahead	Pick-up truck	Other motor vehicle
					West	Stopped	Automobile, station wagon	Other motor vehicle
2015-Jul-15, Wed,17:39	Clear	Turning movement	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle
					South	Going ahead	Automobile, station wagon	Other motor vehicle
2014-Oct-17, Fri,13:49	Rain	Angle	P.D. only	Wet	South	Turning left	Automobile, station wagon	Other motor vehicle
					West	Stopped	Pick-up truck	Other motor vehicle
2014-Mar-26, Wed,20:28	Clear	SMV other	P.D. only	Ice	North	Going ahead	Automobile, station wagon	Skidding/sliding
2014-Mar-04, Tue,13:56	Clear	Angle	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle
					East	Going ahead	Automobile, station wagon	Other motor vehicle



City Operations - Transportation Services

Collision Details Report - Public Version

From: January 1, 2014 **To:** December 31, 2016

Location: FERNBANK RD @ ROMINA ST

Traffic Control: Stop sign

Total Collisions: 4

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Feb-16, Tue,13:00	Snow	Angle	P.D. only	Packed snow	South	Stopped	Automobile, station wagon	Other motor vehicle	
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2015-Jun-30, Tue,15:02	Clear	Angle	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2014-Jan-23, Thu,10:51	Clear	Angle	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	
					East	Going ahead	Passenger van	Other motor vehicle	
2014-Jan-11, Sat,13:54	Freezing Rain	Rear end	P.D. only	Ice	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	

Collision Main Detail Summary

OnTRAC Reporting System

FROM: 2012-01-01 TO: 2014-01-01

EAGLESON RD & EMERALD MEADOWS DR

Former Municipality: Kanata

Traffic Control: Stop sign

Number of Collisions: 3

	DATE	DAY	TIME	ENV	LIGHT	IMPACT TYPE	CLASS	DIR	SURFACE COND'N	VEHICLE MANOEUVRE	VEHICLE TYPE	FIRST EVENT	No. PED
1	2013-02-08	Fri	08:02	Snow	Daylight	Turning	P.D. only	V1 N V2 S	Loose snow Loose snow	Turning left Going ahead	Automobile, station Automobile, station	Other motor vehicle Other motor vehicle	0
2	2013-10-28	Mo	07:58	Rain	Dawn	Turning	P.D. only	V1 S V2 S	Wet Wet	Turning right Stopped	Ambulance Automobile, station	Other motor vehicle Other motor vehicle	0
3	2013-10-29	Tue	23:40	Clear	Dark	Angle	P.D. only	V1 S V2 E	Dry Dry	Going ahead Turning left	Automobile, station Automobile, station	Other motor vehicle Other motor vehicle	0

EAGLESON RD & FERNBANK RD

Former Municipality: Kanata

Traffic Control: Traffic signal

Number of Collisions: 10

	DATE	DAY	TIME	ENV	LIGHT	IMPACT TYPE	CLASS	DIR	SURFACE COND'N	VEHICLE MANOEUVRE	VEHICLE TYPE	FIRST EVENT	No. PED
4	2012-02-25	Sat	14:11	Drifting	Daylight	Rear end	P.D. only	V1 S V2 S	Wet Wet	Slowing or Slowing or	Passenger van Passenger van	Other motor vehicle Other motor vehicle	0
5	2012-06-25	Mo	15:35	Rain	Daylight	Rear end	P.D. only	V1 S V2 S V3 S	Wet Wet Wet	Going ahead Slowing or Stopped	Automobile, station Automobile, station Pick-up truck	Other motor vehicle Other motor vehicle Other motor vehicle	0
6	2012-07-13	Fri	12:51	Clear	Daylight	Single vehicle	P.D. only	V1 N	Dry	Going ahead	Truck - closed	Pole (utility, tower)	0
7	2012-10-23	Tue	16:53	Clear	Daylight	Turning	Non-fatal	V1 N V2 S	Dry Dry	Turning left Going ahead	Pick-up truck Automobile, station	Other motor vehicle Other motor vehicle	0
8	2013-01-05	Sat	18:28	Clear	Dark	Single vehicle	P.D. only	V1 E	Dry	Going ahead	Passenger van	Ran off road	0
9	2013-03-13	We	15:48	Clear	Daylight	Angle	P.D. only	V1 E V2 S V3 N	Dry Dry Dry	Turning right Going ahead Turning left	Pick-up truck Automobile, station Pick-up truck	Other motor vehicle Other motor vehicle Other motor vehicle	0
10	2013-06-16	Sun	14:30	Rain	Daylight	Rear end	P.D. only	V1 E V2 E	Wet Wet	Slowing or Turning right	Pick-up truck Passenger van	Other motor vehicle Other motor vehicle	0

(Note: Time of Day = "00:00" represents unknown collision time)

Monday, April 16, 2018

Collision Main Detail Summary

OnTRAC Reporting System

FROM: 2012-01-01

TO: 2014-01-01

11	2013-07-06	Sat	12:33	Clear	Daylight	Turning	Non-fatal	V1 N V2 S	Dry Dry	Turning left Going ahead	Pick-up truck Automobile, station	Other motor vehicle Other motor vehicle	0
12	2013-08-26	Mo	19:39	Clear	Dusk	Rear end	P.D. only	V1 S V2 S	Wet Wet	Going ahead Stopped	Automobile, station Automobile, station	Other motor vehicle Other motor vehicle	0
13	2013-12-18	We	17:18	Clear	Dark	Rear end	P.D. only	V1 S V2 S	Wet Wet	Going ahead Slowing or	Automobile, station Automobile, station	Other motor vehicle Other motor vehicle	0

FERNBANK RD & TERRY FOX DR

Former Municipality: Goulbourn

Traffic Control: Traffic signal

Number of Collisions: 19

	DATE	DAY	TIME	ENV	LIGHT	IMPACT TYPE	CLASS	DIR	SURFACE COND'N	VEHICLE MANOEUVRE	VEHICLE TYPE	FIRST EVENT	No. PED
14	2012-05-01	Tue	17:10	Clear	Daylight	Rear end	Non-fatal	V1 W V2 W	Dry Dry	Slowing or Stopped	Automobile, station Automobile, station	Other motor vehicle Other motor vehicle	0
15	2012-09-19	We	18:30	Clear	Daylight	Rear end	P.D. only	V1 N V2 N	Dry Dry	Going ahead Stopped	Automobile, station Automobile, station	Other motor vehicle Other motor vehicle	0
16	2012-09-29	Sat	17:42	Clear	Daylight	Turning	P.D. only	V1 S V2 N	Dry Dry	Turning left Going ahead	Automobile, station Automobile, station	Other motor vehicle Other motor vehicle	0
17	2012-10-06	Sat	10:22	Clear	Daylight	Rear end	P.D. only	V1 S V2 S V3 S	Dry Dry Dry	Going ahead Stopped Stopped	Pick-up truck Automobile, station Automobile, station	Other motor vehicle Other motor vehicle Other motor vehicle	0
18	2012-10-18	Thu	07:45	Clear	Daylight	Rear end	P.D. only	V1 E V2 E	Dry Dry	Going ahead Turning right	Automobile, station Automobile, station	Other motor vehicle Other motor vehicle	0
19	2012-11-11	Sun	08:50	Rain	Daylight	Turning	P.D. only	V1 E V2 W	Wet Wet	Turning left Going ahead	Automobile, station Automobile, station	Other motor vehicle Other motor vehicle	0
20	2012-11-18	Sun	12:13	Clear	Daylight	Angle	Non-fatal	V1 E V2 N	Dry Dry	Going ahead Going ahead	Pick-up truck Pick-up truck	Other motor vehicle Other motor vehicle	0
21	2012-11-26	Mo	18:45	Clear	Dark	Rear end	Non-fatal	V1 S V2 S	Ice Ice	Slowing or Slowing or	Passenger van Automobile, station	Other motor vehicle Other motor vehicle	0

(Note: Time of Day = "00:00" represents unknown collision time)

Monday, April 16, 2018

Page 2 of 3

Collision Main Detail Summary

OnTRAC Reporting System

FROM: 2012-01-01

TO: 2014-01-01

22	2012-12-02	Sun	23:45	Rain	Dark	Single vehicle	P.D. only	V1 S	Wet	Turning left	Automobile, station	Curb	0
23	2012-12-06	Thu	07:42	Clear	Dawn	Rear end	P.D. only	V1 W V2 W	Dry Dry	Slowing or Stopped	Automobile, station Pick-up truck	Other motor vehicle Other motor vehicle	0
24	2013-01-23	We	08:15	Clear	Daylight	Rear end	P.D. only	V1 E V2 E	Dry Dry	Turning right Turning right	Automobile, station Automobile, station	Other motor vehicle Other motor vehicle	0
25	2013-05-30	Thu	17:15	Clear	Daylight	Rear end	P.D. only	V1 N V2 N	Dry Dry	Slowing or Stopped	Automobile, station Automobile, station	Other motor vehicle Other motor vehicle	0
26	2013-06-02	Sun	12:45	Clear	Daylight	Turning	P.D. only	V1 S V2 N	Dry Dry	Turning left Going ahead	Passenger van Passenger van	Other motor vehicle Other motor vehicle	0
27	2013-07-21	Sun	16:40	Clear	Daylight	Angle	Non-fatal	V1 S V2 E	Dry Dry	Going ahead Going ahead	Automobile, station Pick-up truck	Other motor vehicle Other motor vehicle	0
28	2013-09-14	Sat	18:04	Clear	Daylight	Rear end	P.D. only	V1 N V2 N	Dry Dry	Going ahead Stopped	Pick-up truck Automobile, station	Other motor vehicle Other motor vehicle	0
29	2013-09-16	Mo	10:23	Clear	Daylight	Angle	Non-fatal	V1 S V2 E	Dry Dry	Going ahead Going ahead	Pick-up truck Automobile, station	Other motor vehicle Other motor vehicle	0
30	2013-10-25	Fri	18:10	Clear	Dark	Turning	P.D. only	V1 E V2 W	Dry Dry	Turning left Going ahead	Automobile, station Pick-up truck	Other motor vehicle Other motor vehicle	0
31	2013-11-29	Fri	15:26	Clear	Daylight	Angle	P.D. only	V1 N V2 E	Dry Dry	Going ahead Going ahead	Pick-up truck Automobile, station	Other motor vehicle Other motor vehicle	0
32	2013-12-05	Thu	13:16	Clear	Daylight	Sideswipe	P.D. only	V1 S V2 S	Wet Wet	Overtaking Going ahead	Unknown Pick-up truck	Other motor vehicle Other motor vehicle	0

(Note: Time of Day = "00:00" represents unknown collision time)

Monday, April 16, 2018

Page 3 of 3



City Operations - Transportation Services

Collision Details Report - Public Version

From: January 1, 2013 **To:** December 31, 2017

Location: EAGLESON RD @ FERNBANK RD

Traffic Control: Traffic signal

Total Collisions: 22

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2013-Jan-05, Sat,18:28	Clear	SMV other	P.D. only	Dry	East	Going ahead	Passenger van	Ran off road	
2013-Mar-13, Wed,15:48	Clear	Angle	P.D. only	Dry	East	Turning right	Pick-up truck	Other motor vehicle	
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
					North	Turning left	Pick-up truck	Other motor vehicle	
2013-Jun-16, Sun,14:30	Rain	Rear end	P.D. only	Wet	East	Slowing or stopping	Pick-up truck	Other motor vehicle	
					East	Turning right	Passenger van	Other motor vehicle	
2013-Jul-06, Sat,12:33	Clear	Turning movement	Non-fatal injury	Dry	North	Turning left	Pick-up truck	Other motor vehicle	
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2013-Dec-18, Wed,17:18	Clear	Rear end	P.D. only	Wet	South	Going ahead	Automobile, station wagon	Other motor vehicle	
					South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2014-Jan-24, Fri,17:15	Clear	Rear end	P.D. only	Ice	South	Slowing or stopping	Pick-up truck	Other motor vehicle	

					South	Stopped	Passenger van	Other motor vehicle
					South	Stopped	Automobile, station wagon	Other motor vehicle
2014-Jan-25, Sat,09:43	Drifting Snow	Angle	Non-fatal injury	Loose snow	South	Going ahead	Automobile, station wagon	Other motor vehicle
					East	Turning left	Automobile, station wagon	Other motor vehicle
2014-Apr-01, Tue,07:44	Clear	Rear end	P.D. only	Wet	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle
					North	Stopped	Truck - open	Other motor vehicle
2014-Jul-07, Mon,07:24	Rain	Turning movement	P.D. only	Wet	North	Turning left	Automobile, station wagon	Other motor vehicle
					South	Going ahead	Automobile, station wagon	Other motor vehicle
2014-Jul-16, Wed,02:25	Clear	SMV other	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Ran off road
2014-Jul-21, Mon,15:15	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle
					North	Stopped	Automobile, station wagon	Other motor vehicle
					North	Stopped	Automobile, station wagon	Other motor vehicle
					North	Stopped	Pick-up truck	Other motor vehicle
2015-Jan-14, Wed,17:24	Clear	Turning movement	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle
					South	Going ahead	Automobile, station wagon	Other motor vehicle

2015-Feb-14, Sat,11:04	Snow	Rear end	P.D. only	Slush	East	Turning left	Automobile, station wagon	Other motor vehicle
					East	Turning left	Passenger van	Other motor vehicle
2015-Feb-14, Sat,13:40	Clear	Angle	P.D. only	Wet	South	Turning right	Snow plow	Other motor vehicle
					East	Stopped	Automobile, station wagon	Other motor vehicle
2015-Jun-24, Wed,11:32	Clear	Rear end	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle
					North	Stopped	Pick-up truck	Other motor vehicle
2015-Nov-20, Fri,16:53	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle
					East	Stopped	Pick-up truck	Other motor vehicle
2016-Feb-19, Fri,10:21	Snow	Angle	P.D. only	Loose snow	East	Turning right	Automobile, station wagon	Other motor vehicle
					South	Going ahead	Automobile, station wagon	Other motor vehicle
2016-Jul-30, Sat,14:41	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle
					West	Stopped	Pick-up truck	Other motor vehicle
2016-Oct-30, Sun,17:35	Clear	Turning movement	Fatal injury	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle
					South	Going ahead	Motorcycle	Other motor vehicle

2017-Jun-22, Thu,22:13	Clear	Turning movement	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle
					South	Turning right	Ambulance	Other motor vehicle
2017-Oct-28, Sat,15:38	Rain	Turning movement	P.D. only	Wet	North	Turning left	Automobile, station wagon	Other motor vehicle
					South	Going ahead	Automobile, station wagon	Other motor vehicle
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle
2017-Nov-26, Sun,15:28	Clear	Turning movement	Non-fatal injury	Wet	North	Turning left	Pick-up truck	Other motor vehicle
					South	Going ahead	Automobile, station wagon	Other motor vehicle

Location: TERRY FOX DR @ FERNBANK RD

Traffic Control: Traffic signal

Total Collisions: 26

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2013-Jan-23, Wed,08:15	Clear	Rear end	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle	
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2013-May-30, Thu,17:15	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2013-Jun-02, Sun,12:45	Clear	Turning movement	P.D. only	Dry	South	Turning left	Passenger van	Other motor vehicle	
					North	Going ahead	Passenger van	Other motor vehicle	

2013-Jul-21, Sun,16:40	Clear	Angle	Non-fatal injury	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle
					East	Going ahead	Pick-up truck	Other motor vehicle
2013-Sep-16, Mon,10:23	Clear	Angle	Non-fatal injury	Dry	South	Going ahead	Pick-up truck	Other motor vehicle
					East	Going ahead	Automobile, station wagon	Other motor vehicle
2013-Oct-25, Fri,18:10	Clear	Turning movement	P.D. only	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle
					West	Going ahead	Pick-up truck	Other motor vehicle
2014-Jan-04, Sat,10:16	Clear	Angle	Non-fatal injury	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle
					West	Going ahead	Automobile, station wagon	Other motor vehicle
2014-Jun-18, Wed,07:09	Clear	Rear end	P.D. only	Dry	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle
					South	Stopped	Truck - dump	Other motor vehicle
2014-Oct-28, Tue,10:45	Clear	Angle	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle
					South	Going ahead	Automobile, station wagon	Other motor vehicle
2014-Nov-13, Thu,10:30	Clear	Other	P.D. only	Dry	North	Reversing	Truck - closed	Other motor vehicle
					South	Turning left	Automobile, station wagon	Other motor vehicle

2014-Dec-18, Thu,13:46	Clear	Rear end	Non-fatal injury	Dry	West	Turning right	Pick-up truck	Other motor vehicle
					West	Turning right	Pick-up truck	Other motor vehicle
2015-Mar-03, Tue,18:31	Snow	Rear end	P.D. only	Loose snow	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle
					North	Slowing or stopping	Pick-up truck	Other motor vehicle
2015-May-06, Wed,19:38	Clear	Angle	Non-fatal injury	Dry	East	Going ahead	Bicycle	Other motor vehicle
					North	Going ahead	Automobile, station wagon	Cyclist
2015-Aug-26, Wed,17:32	Rain	Rear end	P.D. only	Wet	West	Going ahead	Automobile, station wagon	Other motor vehicle
					West	Stopped	Automobile, station wagon	Other motor vehicle
2015-Sep-13, Sun,16:48	Clear	Angle	Non-fatal injury	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle
					East	Going ahead	Pick-up truck	Other motor vehicle
2015-Nov-19, Thu,19:52	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle
					South	Overtaking	Automobile, station wagon	Other motor vehicle
2015-Nov-25, Wed,13:51	Clear	Sideswipe	P.D. only	Dry	East	Turning right	Automobile, station wagon	Other motor vehicle
					East	Turning right	Truck and trailer	Other motor vehicle

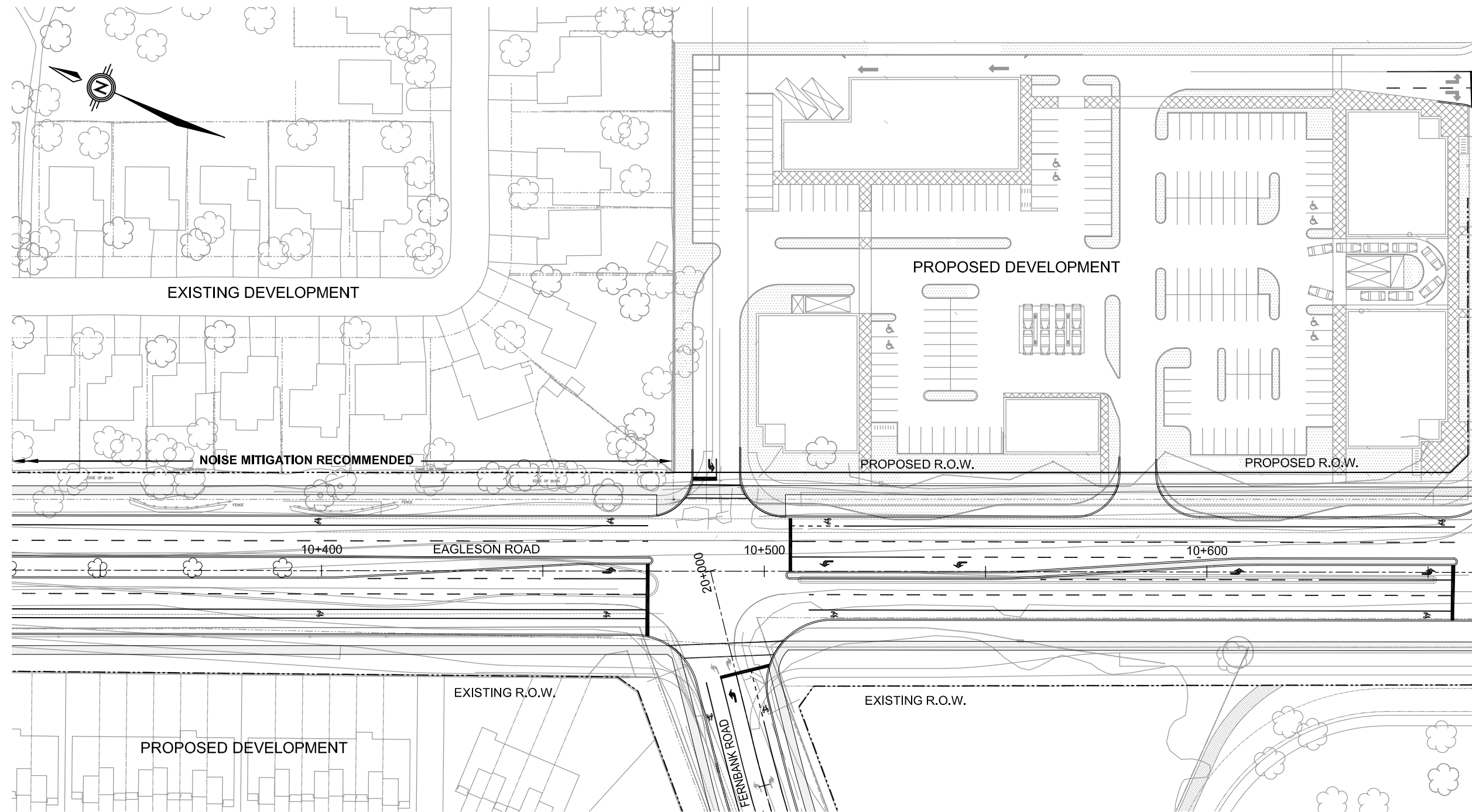
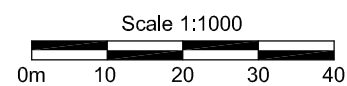
2016-May-23, Mon,18:34	Clear	SMV other	Non-fatal injury	Dry	North	Pulling onto shoulder or toward curb	Automobile, station wagon	Curb	1
2016-Jul-14, Thu,11:00	Rain	Angle	P.D. only	Wet	South	Turning right	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Pick-up truck	Other motor vehicle	
2016-Jul-28, Thu,19:10	Clear	Turning movement	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	
					South	Going ahead	Pick-up truck	Other motor vehicle	
2016-Aug-07, Sun,20:15	Clear	Rear end	P.D. only	Dry	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Passenger van	Other motor vehicle	
2017-Jan-13, Fri,18:16	Clear	Turning movement	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Jun-17, Sat,07:59	Clear	Angle	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	
					South	Going ahead	Pick-up truck	Other motor vehicle	
2017-Jun-30, Fri,11:34	Rain	Sideswipe	P.D. only	Wet	North	Changing lanes	Automobile, station wagon	Other motor vehicle	
					North	Turning left	Pick-up truck	Other motor vehicle	
2017-Sep-08, Fri,12:53	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	

					West	Turning right	Automobile, station wagon	Other motor vehicle
2017-Nov-18, Sat, 10:15	Clear	Other	P.D. only	Dry	South	Going ahead	Pick-up truck	Debris falling off vehicle
					South	Going ahead	Unknown	Other

APPENDIX F

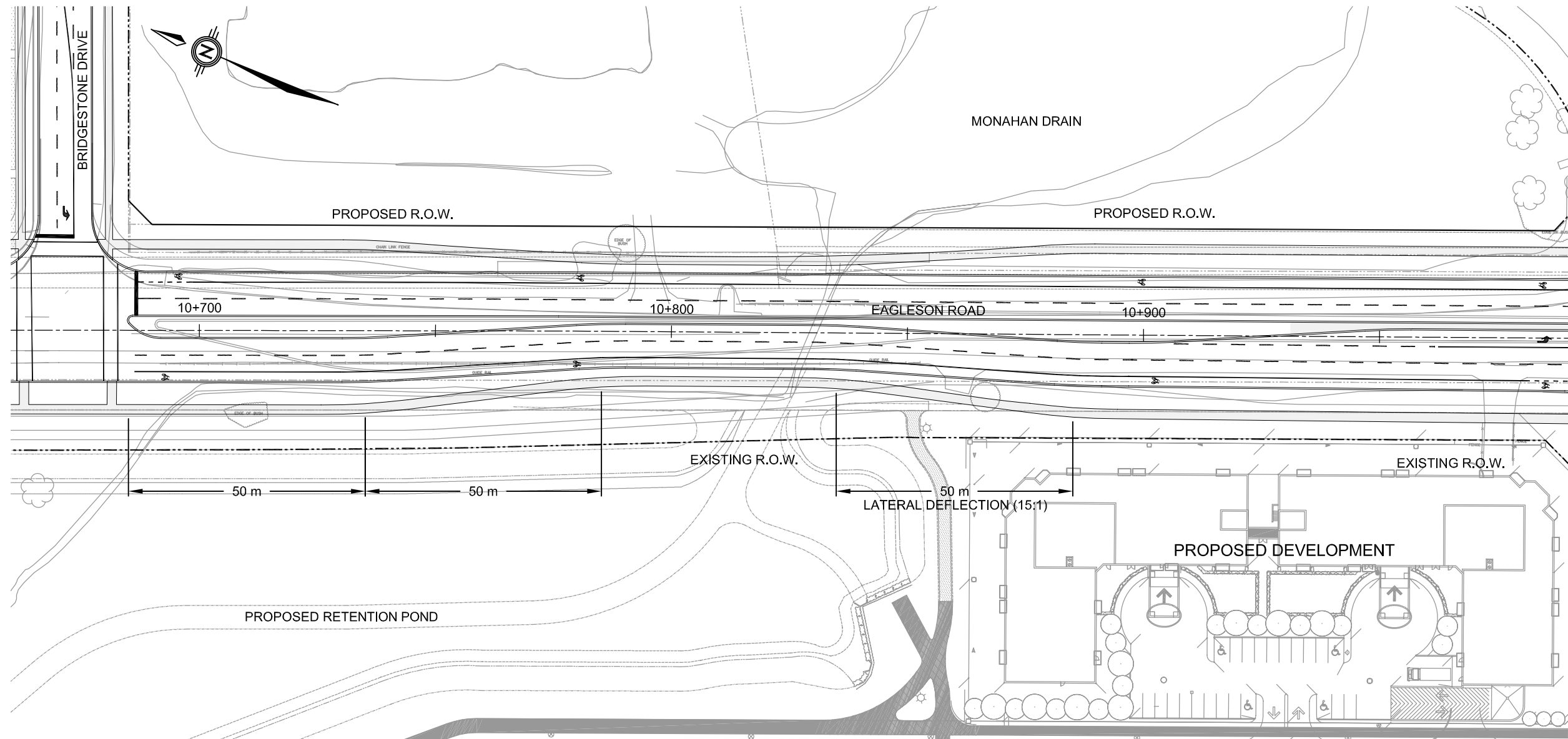
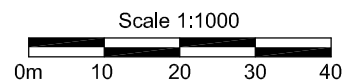
Relevant Excerpts from
Eagleson Road and Fernbank Road ESR

Plotted: Dec 10, 2008 - 1:44pm File: G: cad 05-5612 Eagleson EA Reports: 10-DEC-08 (Final EA) 05-5612 FIG 18 EAGLESON PLAN.dwg Layout: Layout1



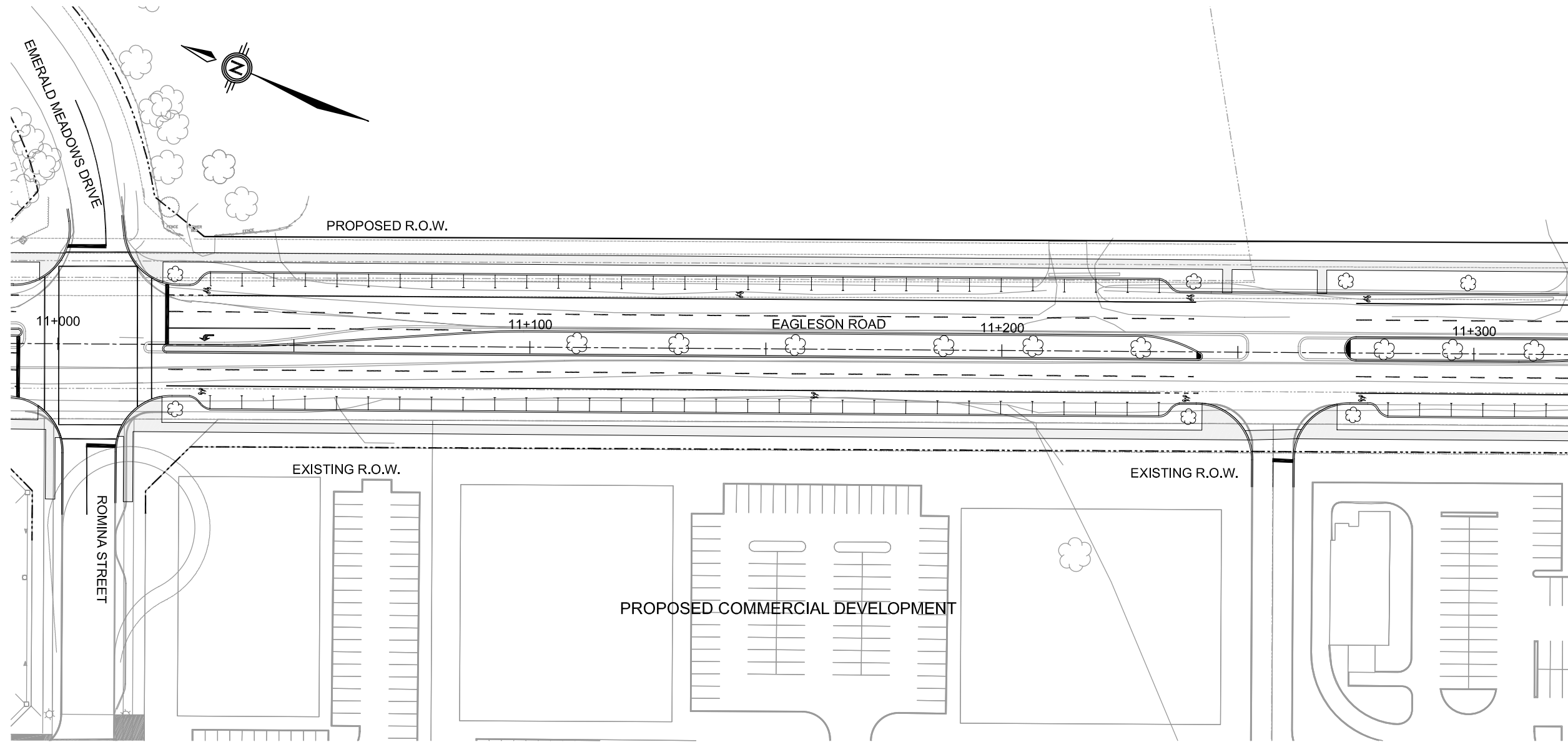
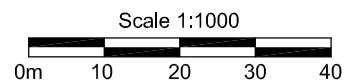
 DILLON CONSULTING	EAGLESON ROAD ENVIRONMENTAL ASSESSMENT STUDY	PROJECT NO. 05-5612
	PROPOSED LAYOUT STA. 10+330 TO STA. 10+660	FIGURE NO. 18
DATE December, 2008		

Plotted: Dec 10, 2008 - 1:50pm File: G: cad 05-5612 Eagleson EA Reports: 10-DEC-08 (Final EA) 05-5612 FIG 20 EAGLESON PLAN.dwg Layout: Layout1



 DILLON CONSULTING	EAGLESON ROAD ENVIRONMENTAL ASSESSMENT STUDY		PROJECT NO. 05-5612
	PROPOSED LAYOUT STA. 10+660 TO STA. 10+990		FIGURE NO. 20
DATE December, 2008			

Plotted: Dec 10, 2008 - 1:52pm File: G: cad 05-5612 Eagleson EA Reports: 10-DEC-08 (Final EA) 05-5612 FIG 22 EAGLESON PLAN.dwg Layout: Layout1





DILLON
CONSULTING

DATE **December, 2008**

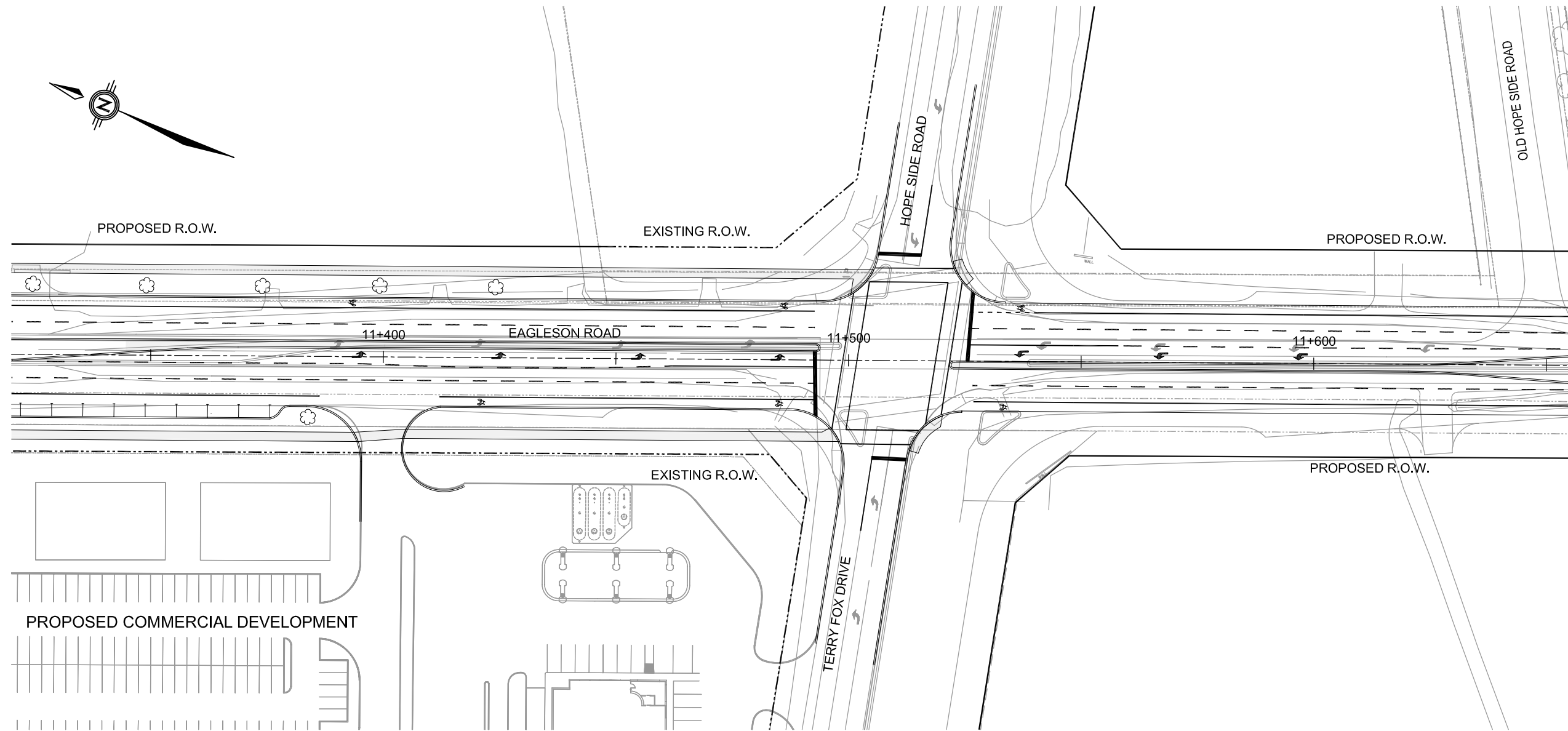
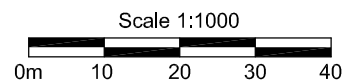
EAGLESON ROAD
ENVIRONMENTAL ASSESSMENT STUDY

PROPOSED LAYOUT
STA. 10+990 TO STA. 11+320

PROJECT NO.
05-5612

FIGURE NO.
22

Plotted: Dec 10, 2008 - 1:54pm File: G: cad 05-5612 Eagleson EA Reports: 10-DEC-08 (Final EA) 05-5612 FIG 24 EAGLESON PLAN.dwg Layout: Layout1





DILLON
CONSULTING

DATE **December, 2008**

EAGLESON ROAD
ENVIRONMENTAL ASSESSMENT STUDY

PROPOSED LAYOUT
STA. 11+320 TO STA. 11+655

PROJECT NO.
05-5612

FIGURE NO.
24

APPENDIX G

Relevant Excerpts from Other Reports

Figure 6: 'New' Site-Generated Traffic

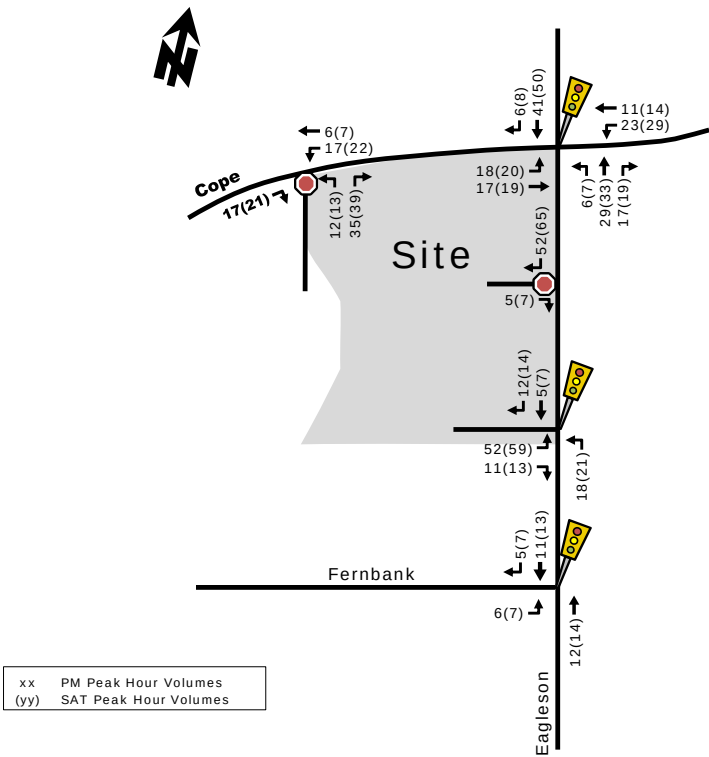
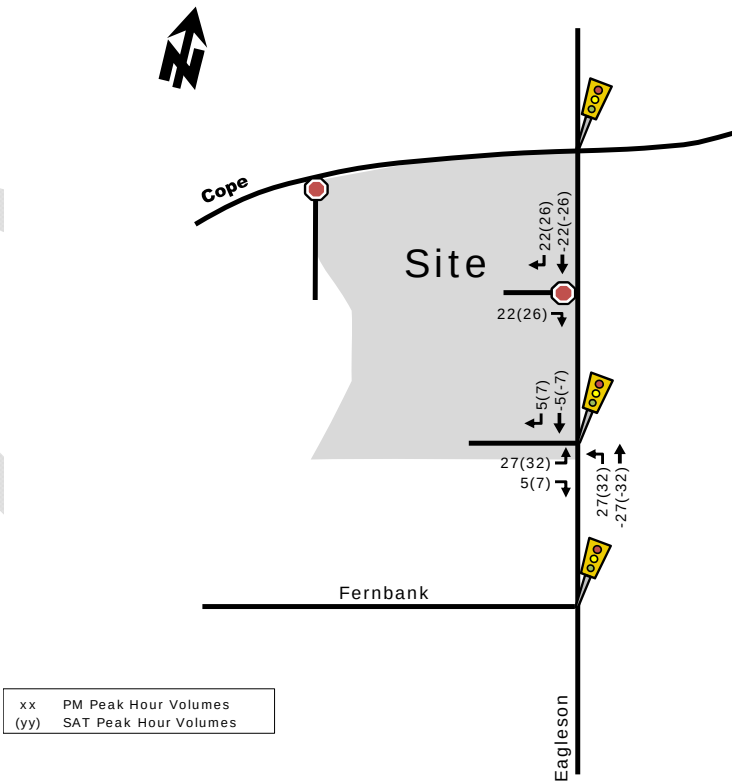


Figure 7: 'Pass-by' Site-Generated Traffic



The vehicle trip assignment for the peak hour vehicle trips are shown in the following figure.

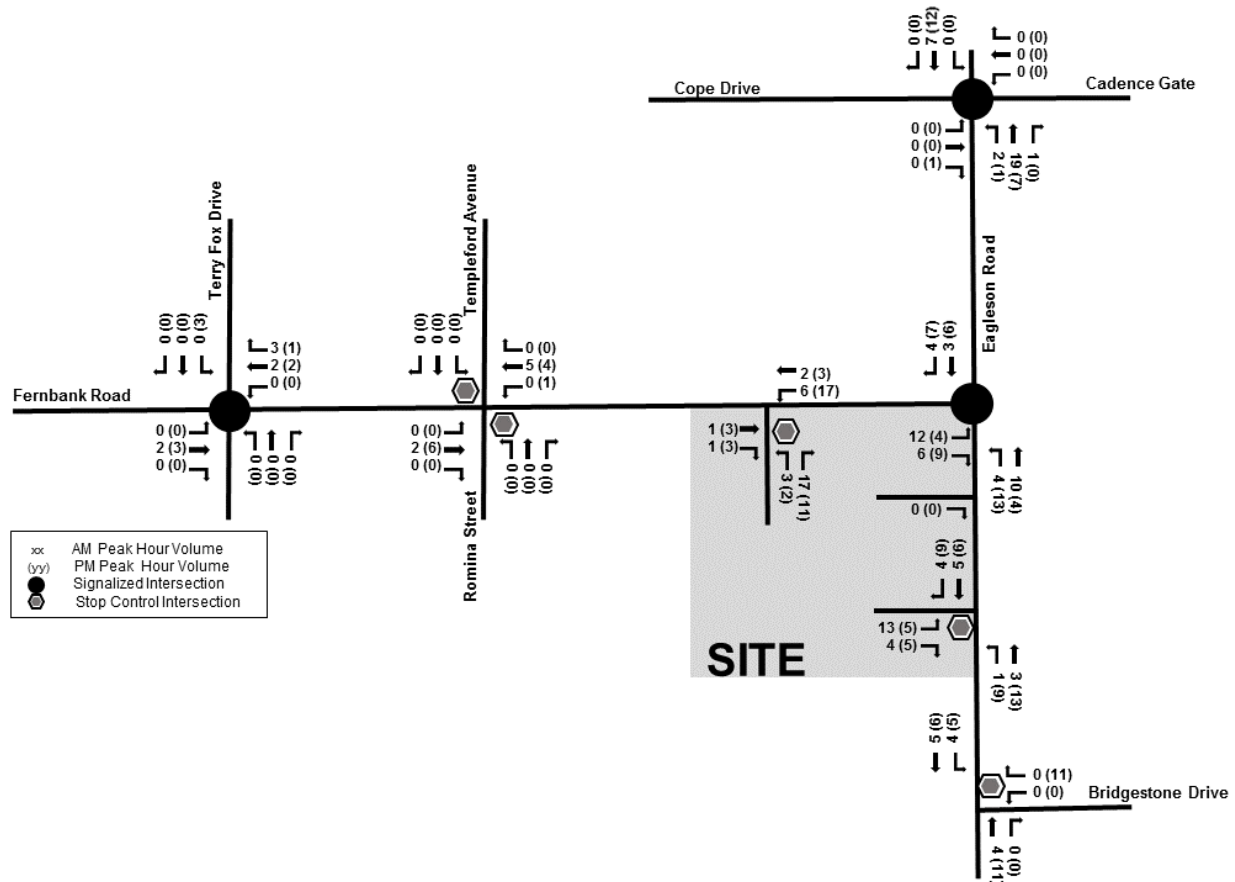


Figure 13. Trip Assignment

10 BACKGROUND NETWORK TRAFFIC

10.1 CHANGES TO THE BACKGROUND TRANSPORTATION NETWORK

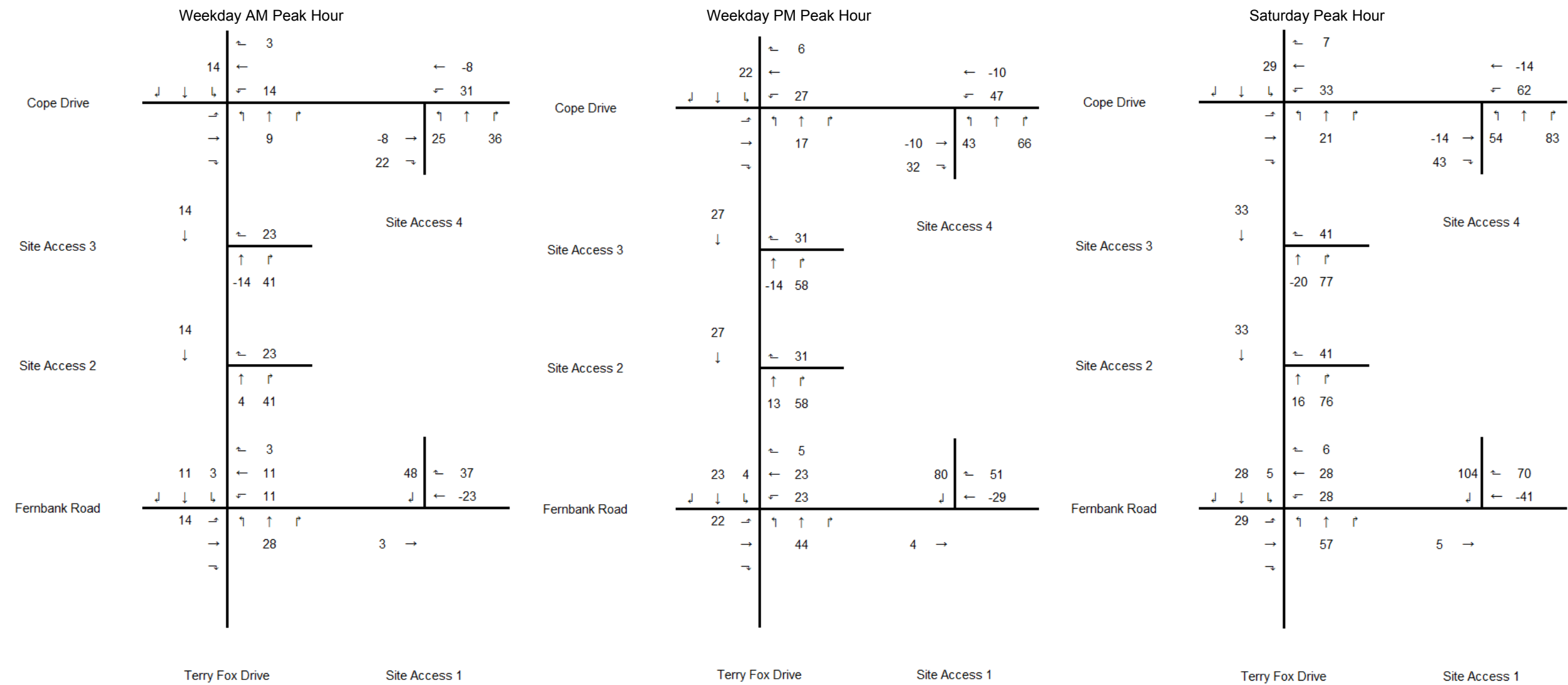
The City of Ottawa's Transportation Master Plan (2013) identifies a future road widening of Eagleson Road within our study area as part of the Affordable Network Phase 2 (2020-2025). However, the Environmental Assessment process for these road improvements have not been initiated and as such are considered to be beyond the future planning horizon of this TIA (2024).

There are no other road projects identified along the border streets in our study area. Furthermore, neither the Ottawa Pedestrian Plan (2013) nor the Ottawa Cycling Plan (2013) identify connectivity or infrastructure improvements along Fernbank Road or Eagleson Road in our study area.

TERRY FOX DRIVE & COPE DRIVE COMMERCIAL SHOPPING DEVELOPMENT

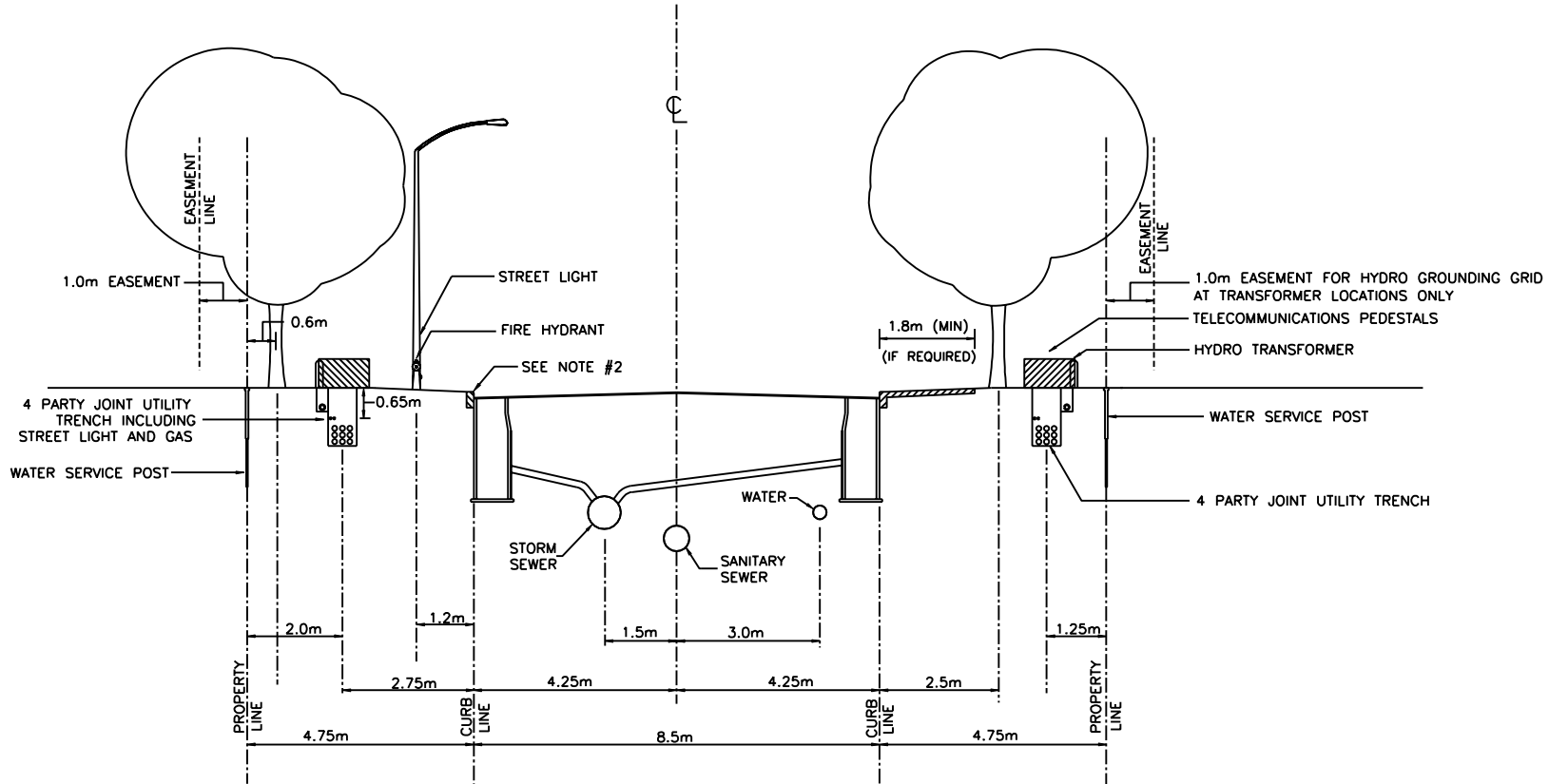
Forecasting
September 19, 2018

Figure 11 - Net Site Generated Volumes



APPENDIX H

Proposed Cross-Sections



NOTES:

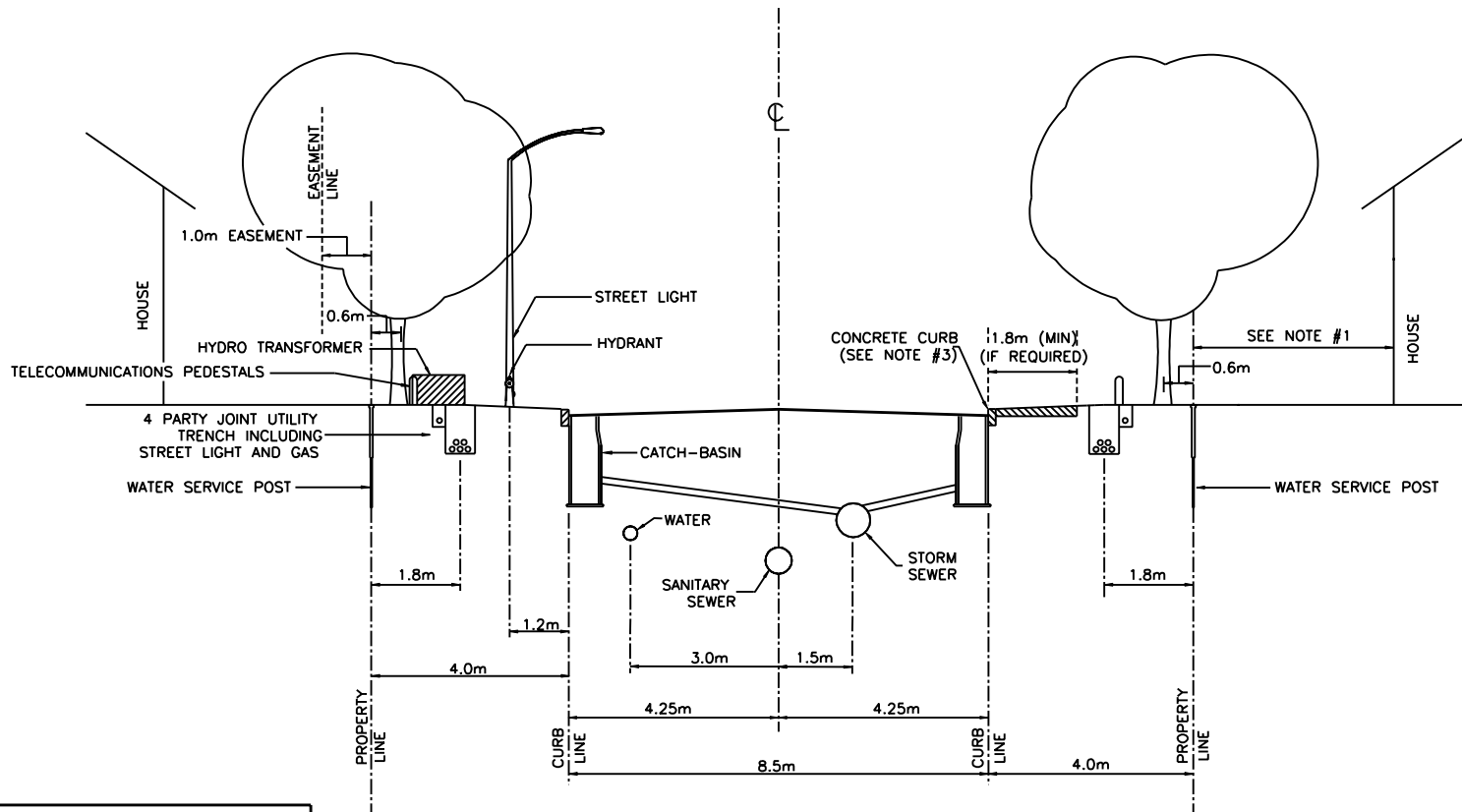
1. REFERENCE STANDARD NOTES ROAD ALLOWANCE (DGN:ROW-NOTES)
2. CONCRETE CURBS MAY BE BARRIER TYPE OR MOUNTABLE TYPE, CATCH BASIN TYPE WILL SUIT CURB DESIGN. SEE SEWER DESIGN GUIDELINES FOR CATCH BASIN PREFERENCE.
3. AT CATCH BASIN AND HYDRANT LOCATIONS THE GAS MAIN SHALL HAVE A MINIMUM 0.6m CLEARANCE FROM STRUCTURES.
4. HYDRO TRANSFORMERS AND SIDEWALKS ARE TO BE LOCATED ON OPPOSITE SIDE OF THE ROW WHENEVER POSSIBLE. REQUIREMENT FOR PROTECTIVE BOLLARDS AT TRANSFORMERS SHALL BE DETERMINED BY HYDRO ON A CASE BY CASE BASIS.
5. STREET LIGHTS AND SIDEWALKS ARE TO BE LOCATED ON OPPOSITE SIDES OF THE ROW.

SECTION



RESIDENTIAL ROAD
18.0m ROAD ALLOWANCE
4 PARTY JOINT USE TRENCH

DATE:	-
REV. DATE:	MARCH 2009
DWG. No.:	ROW-18JT



NOTES:

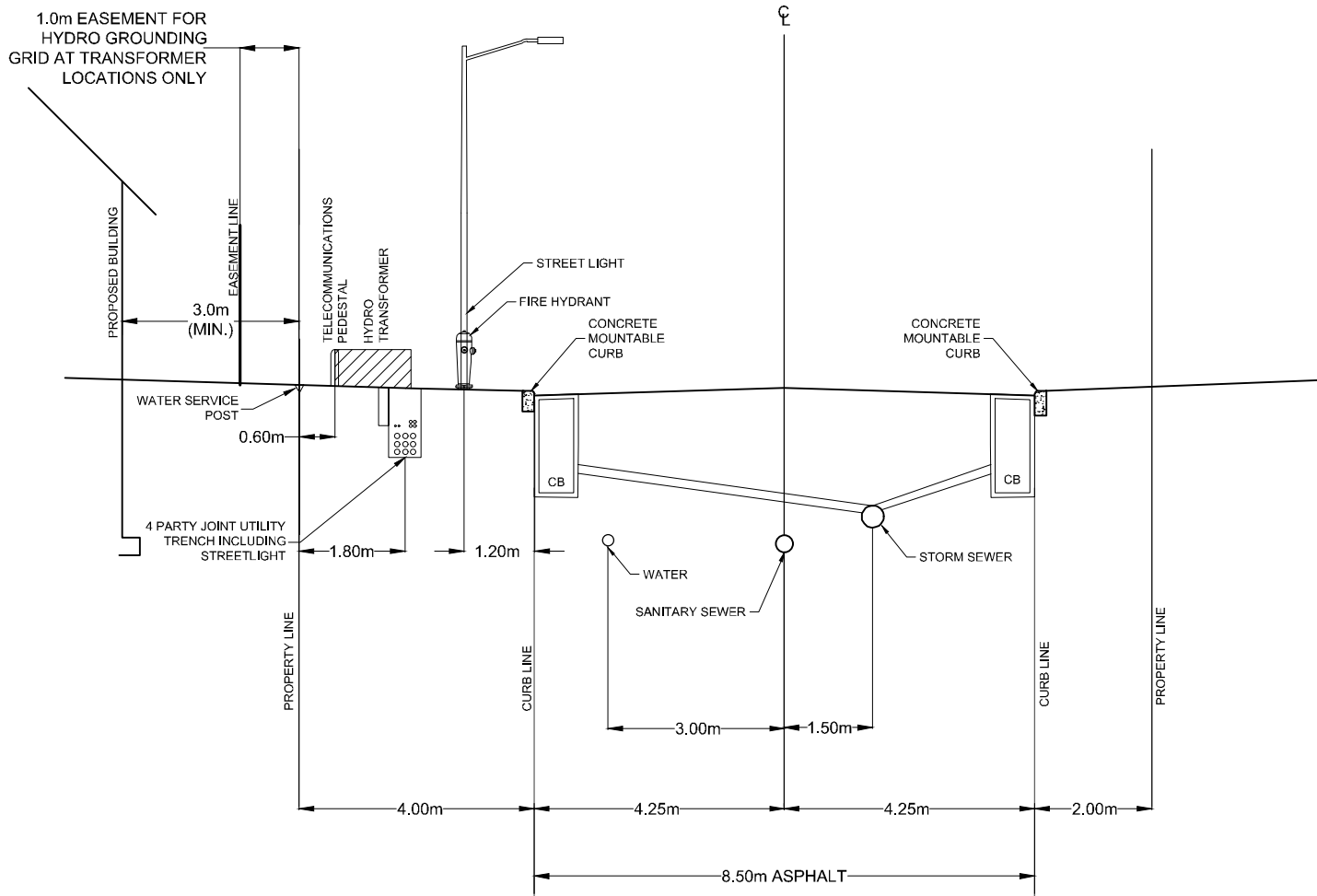
1. 16.5 METRE RIGHT-OF-WAY WILL ONLY BE USED WHERE A MINIMUM SEPARATION OF 3.0m IS PROVIDED FROM A BUILDING STRUCTURE TO THE R.O.W. LIMIT. THIS 3.0m AREA IS TO BE CLEAR AND UNENCUMBERED OF ANY SUBSURFACE ENCROACHMENTS.
2. REFERENCE STANDARD NOTES ROAD ALLOWANCE (DGN:ROW-NOTES).
3. CONCRETE CURBS MAY BE BARRIER TYPE OR MOUNTABLE TYPE. CATCH BASIN TYPE WILL SUIT CURB DESIGN. SEE SEWER DESIGN GUIDELINES FOR CATCH BASIN PREFERENCE.
4. SIDEWALKS (IF REQUIRED) AND HYDRO TRANSFORMERS ARE TO BE LOCATED ON OPPOSITE SIDES OF THE STREET. THE HYDRO TRANSFORMERS ARE TO BE PLACED ON THE OUTSIDE PORTION OF THE STREET ON CRESCENTS AND CURVED ROADWAYS.
5. STREET LIGHTS AND SIDEWALKS ARE TO BE LOCATED ON OPPOSITE SIDES OF THE R.O.W.
6. TREES WILL NOT BE PLACED ON LOTS THAT HAVE A HYDRO TRANSFORMER. WHERE TREES ARE PERMITTED, THE PLACEMENT AND SPECIES OF TREES WILL BE DETERMINED ON A SITE-BY-SITE BASIS AND BE INCORPORATED IN THE LANDSCAPING PLAN.
7. FOR SINGLE LOADED ROAD, BOULEVARD WITH NO HOUSING MAY BE REDUCED TO A MINIMUM 1.5m.

SECTION



RESIDENTIAL ROAD
16.5m ROAD ALLOWANCE
4 PARTY JOINT USE TRENCH

DATE: -
 REV. DATE: MARCH 2009
 DWG. No.: ROW-16.5JT



RESIDENTIAL ROAD 14.5m TYPICAL SECTION
N.T.S.



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

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

CITY OF OTTAWA
866 EAGLESON ROAD
BRIDLEWOOD 3

14.5m ROAD ALLOWANCE

SCALE

DATE **MAY 2019**

JOB **117153**

FIGURE **FIG8-XS**

APPENDIX I

Segment MMLOS Analysis

Pedestrian Level of Service (PLOS)

Sidewalk Width	Boulevard Width	Avg. Daily Curb Lane Traffic Volume	Presence of On-Street Parking	Operating Speed	Segment PLOS
Egleson Road					
2.0m ¹	None	>3000 vpd	No	90 km/hr	F
Terry Fox Drive					
2.0m ¹	None	>3000 vpd	No	90 km/hr	F
Romina Street (North Side)					
2.0m	2.0m	<3000 vpd	N/A	60 km/hr	A
Romina Street (South Side)					
>2.0m	None	<3000 vpd	N/A	60 km/hr	C
Overberg Way					
1.8m	None	<3000 vpd	N/A	50 km/hr	C

1. Paved/Gravel Shoulder

Bicycle Level of Service (BLOS)

Road Class	Bike Route	Type of Bikeway	Travel Lanes ¹	Centerline Markings	Operating Speed ²	Segment BLOS
Egleson Road						
Arterial	Spine	Gravel Shoulder	1	N/A	90 km/hr	F
Terry Fox Drive						
Arterial	Spine	Paved Shoulder	1	N/A	90 km/hr	E
Romina Street						
Collector	Local	Mixed Traffic	1	No	60 km/hr	F
Overberg Way						
Local	N/A	Mixed Traffic	1	No	50 km/hr	B

1. Travel lanes in each direction

Transit Level of Service (TLOS)

Facility Type	Level/Exposure to Congestion Delay, Friction and Incidents			Segment TLOS
	Congestion	Friction	Incident Potential	
Eagleson Road				
Mixed Traffic	Yes	Low	Medium	D
Terry Fox Drive ¹				
N/A	N/A	N/A	N/A	N/A
Romina Street				
Mixed Traffic	Yes	Low	Medium	D
Overberg Way ¹				
N/A	N/A	N/A	N/A	N/A

1. Segment does not serve transit

Truck Level of Service (TkLOS)

Curb Lane Width	Number of Travel Lanes (Per Direction)	Segment TkLOS
Eagleson Road		
≤3.3m	1	D
Terry Fox Drive		
>3.7m	1	B
Romina Street		
>3.7m	1	B
Overberg Way		
>3.7m	1	B

Auto LOS

Direction	Directional Capacity ¹	Traffic Volumes		V/C Ratio and LOS				Auto LOS
		AM Peak	PM Peak	AM Peak		PM Peak		
				v/c	LOS	v/c	LOS	
Eagleson Road								
NB	1200vph	602	478	0.50	A	0.40	A	A
SB	1200vph	328	611	0.27	A	0.51	A	
Terry Fox Drive								
NB	1200vph	474	596	0.40	A	0.50	A	A
SB	1200vph	438	538	0.37	A	0.45	A	
Romina Street								
EB	600vph	79	53	0.13	A	0.09	A	A
WB	600vph	34	89	0.06	A	0.15	A	
Overberg Way								
EB	400vph	3	6	0.01	A	0.02	A	A
WB	400vph	11	9	0.03	A	0.02	A	

1. Typical lane capacity based on the City's guidelines for the TRANS long-range transportation model

Segment MMLOS Summary

Segment		Eagleson Road	Terry Fox Drive	Romina Street	Overberg Way
Pedestrian	Sidewalk Width	2.0m	2.0m	> 2.0m	1.8m
	Boulevard Width	None	None	None	None
	Average Daily Curb Lane Traffic Volume	>3000 vpd	> 3000vpd	< 3000 vpd	< 3000 vpd
	On-Street Parking	No	No	N/A	N/A
	Operating Speed	90 km/h	90 km/hr	60 km/hr	50 km/hr
	Level of Service	F	F	C	C
	Target	C	C	C	C
Cyclist	Road Classification	Arterial	Arterial	Collector	Local
	Bike Route Classification	Spine	Spine	Local	N/A
	Type of Bikeway	Gravel Shoulder	Paved Shoulder	Mixed Traffic	Mixed Traffic
	Travel Lanes (Each Direction)	1	1	1	1
	Centerline Markings	N/A	N/A	No	No
	Operating Speed	90 km/h	90 km/hr	60 km/hr	50 km/hr
	Level of Service	F	E	F	B
	Target	C	C	B	D
Transit	Facility Type	Mixed Traffic	N/A	Mixed Traffic	N/A
	Congestion	Yes	N/A	Yes	N/A
	Friction	Low	N/A	Low	N/A
	Incident Potential	Medium	N/A	Medium	N/A
	Level of Service	D	-	D	-
	Target	-	-	-	-
Truck	Lane Width	≤3.3m	> 3.7m	>3.7m	>3.7m
	Travel Lanes (per direction)	1	1	1	1
	Level of Service	D	B	B	B
	Target	D	D	-	-
Auto	Volume	611 vph	596 vph	89	11
	Capacity	1200 vph	1200 vph	600 vph	400 vph
	Volume to Capacity Ratio	0.51	0.50	0.15	0.03
	Level of Service	A	A	A	A
	Target	D	D	D	D

Eagleson Road

STEP 1 of 3 Desirable Cycling Facility Pre-selection Nomograph

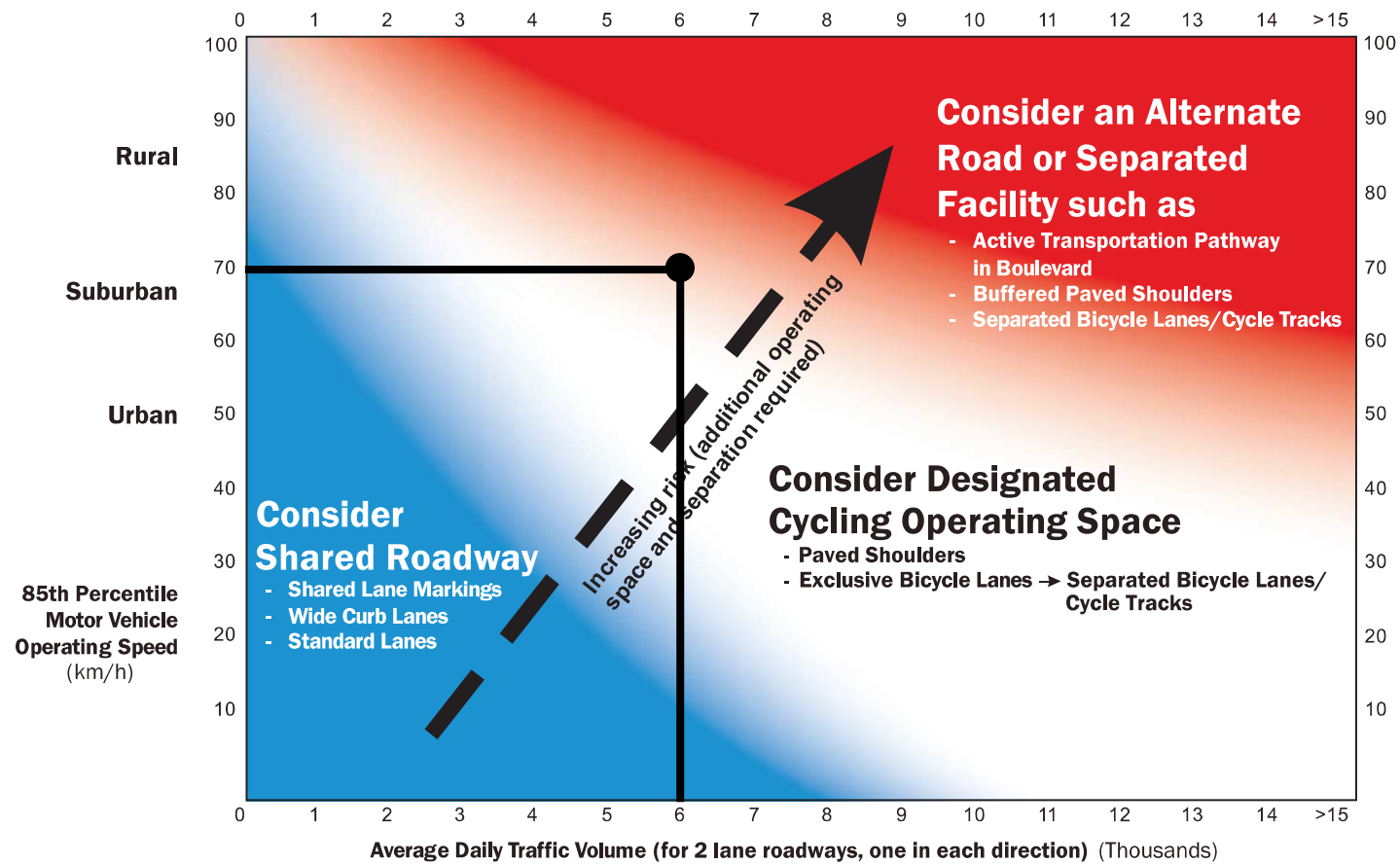


Figure 3.3 – Desirable Bicycle Facility Pre-Selection Nomograph

Footnotes: - This nomograph is the first of a three step bicycle facility selection process, and should not be used by itself as the justification for facility selection (see Steps 2 and 3). The nomograph simply helps practitioners pre-select a desirable cycling facility type, however the context of the situation governs the final decision.

- The nomograph has been adapted for the North American context and is based on international examples and research for two lane roadways. It is, however, still applicable for multi-lane roadways. For these situations, designers should consider the operating speed, total combined traffic volume and traffic mix of the vehicles traveling in the lanes immediately adjacent to the cycling facilities.

- Consider a Separated Facility or an Alternate Road for roadways with an AADT greater than 15,000 vehicles and an operating speed of greater than 50 km/h.

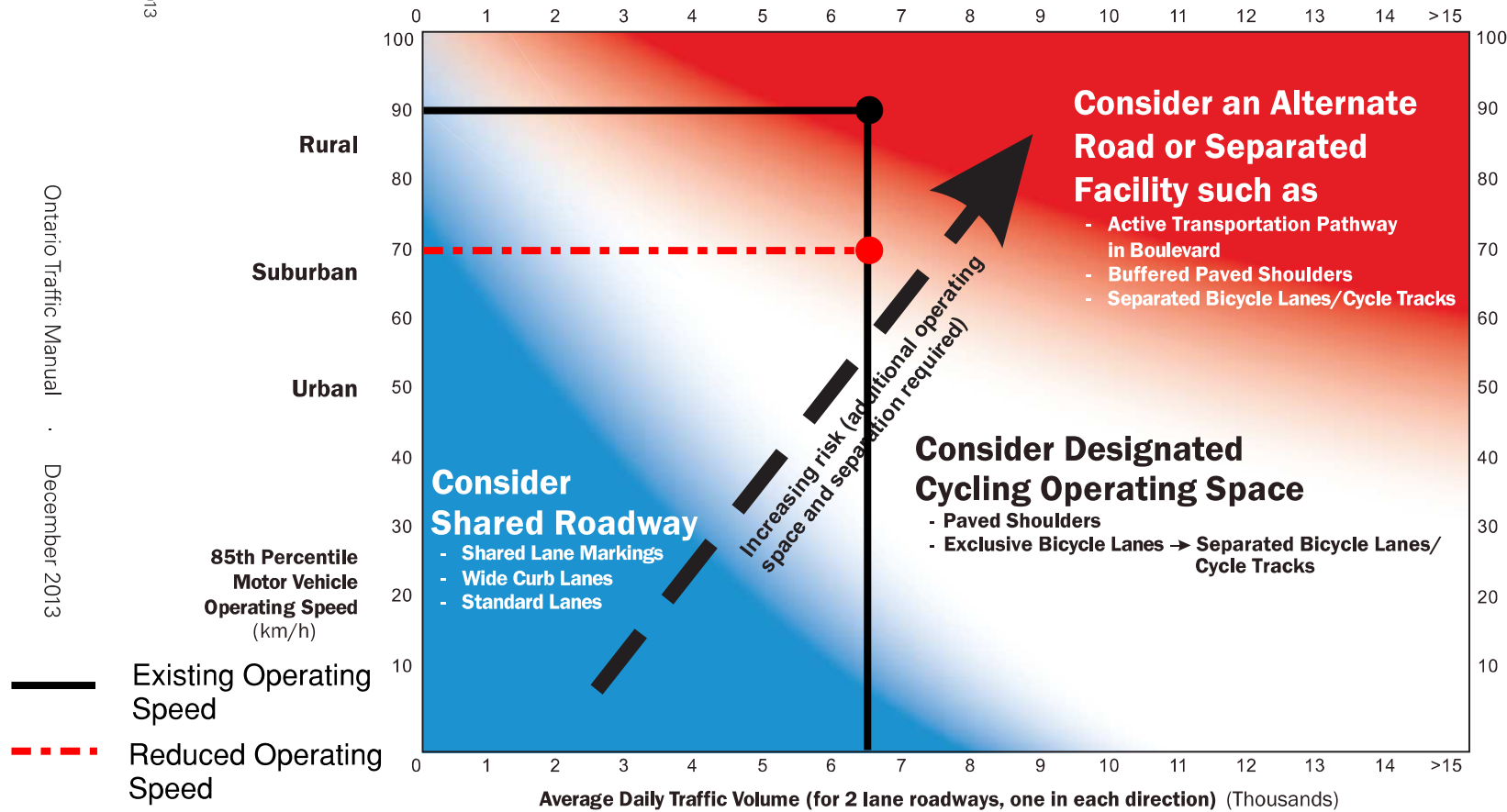
- For rural and suburban locations this nomograph assumes good sightlines are provided for all road users. In urban areas, there are typically more frequent conflict points at driveways, midblock crossings and intersections (especially on multi-lane roads), as well as on road segments with on-street parking. This needs to be considered when assessing risk exposure in urban environments since it will influence the selection of a suitable facility type.

Terry Fox Drive

STEP 1 of 3 Desirable Cycling Facility Pre-selection Nomograph

Source: MMM, 2013

Figure 3.3 – Desirable Bicycle Facility Pre-Selection Nomograph



Footnotes: - This nomograph is the first of a three step bicycle facility selection process, and should not be used by itself as the justification for facility selection (see Steps 2 and 3). The nomograph simply helps practitioners pre-select a desirable cycling facility type, however the context of the situation governs the final decision.

- The nomograph has been adapted for the North American context and is based on international examples and research for two lane roadways. It is, however, still applicable for multi-lane roadways. For these situations, designers should consider the operating speed, total combined traffic volume and traffic mix of the vehicles traveling in the lanes immediately adjacent to the cycling facilities.

- Consider a Separated Facility or an Alternate Road for roadways with an AADT greater than 15,000 vehicles and an operating speed of greater than 50 km/h.

- For rural and suburban locations this nomograph assumes good sightlines are provided for all road users. In urban areas, there are typically more frequent conflict points at driveways, midblock crossings and intersections (especially on multi-lane roads), as well as on road segments with on-street parking. This needs to be considered when assessing risk exposure in urban environments since it will influence the selection of a suitable facility type.

APPENDIX J

MTO Left Turn Lane Warrants

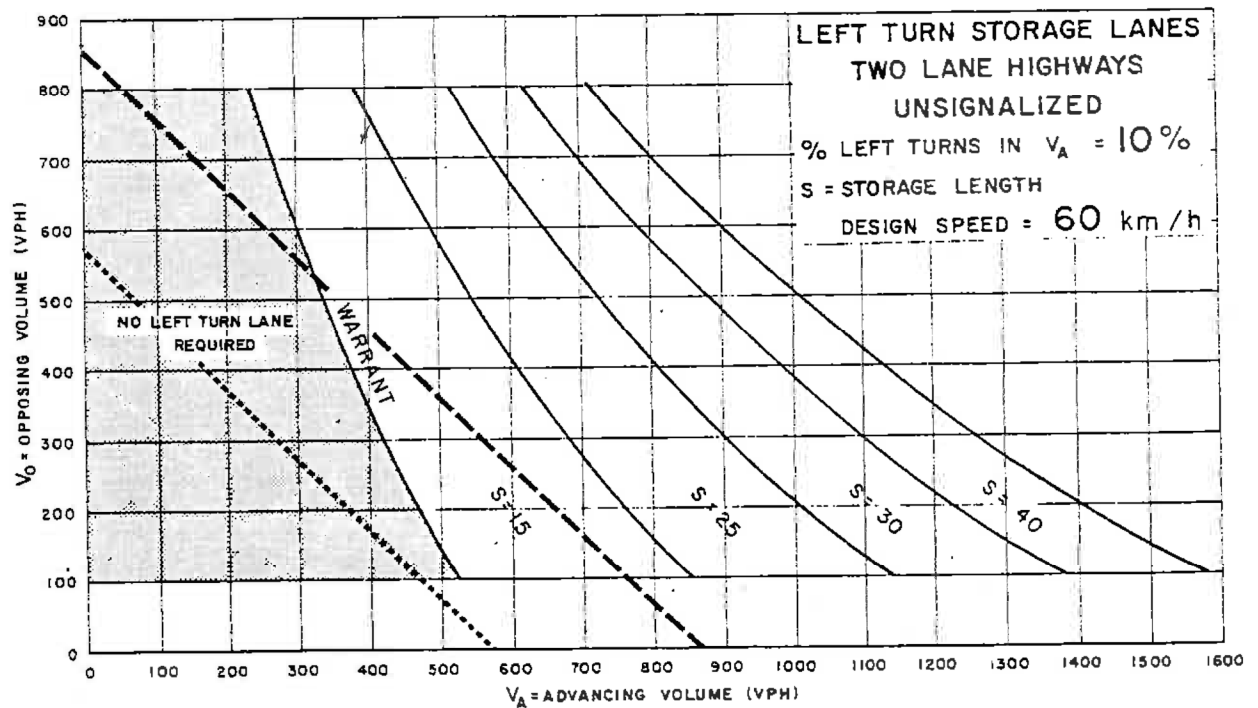
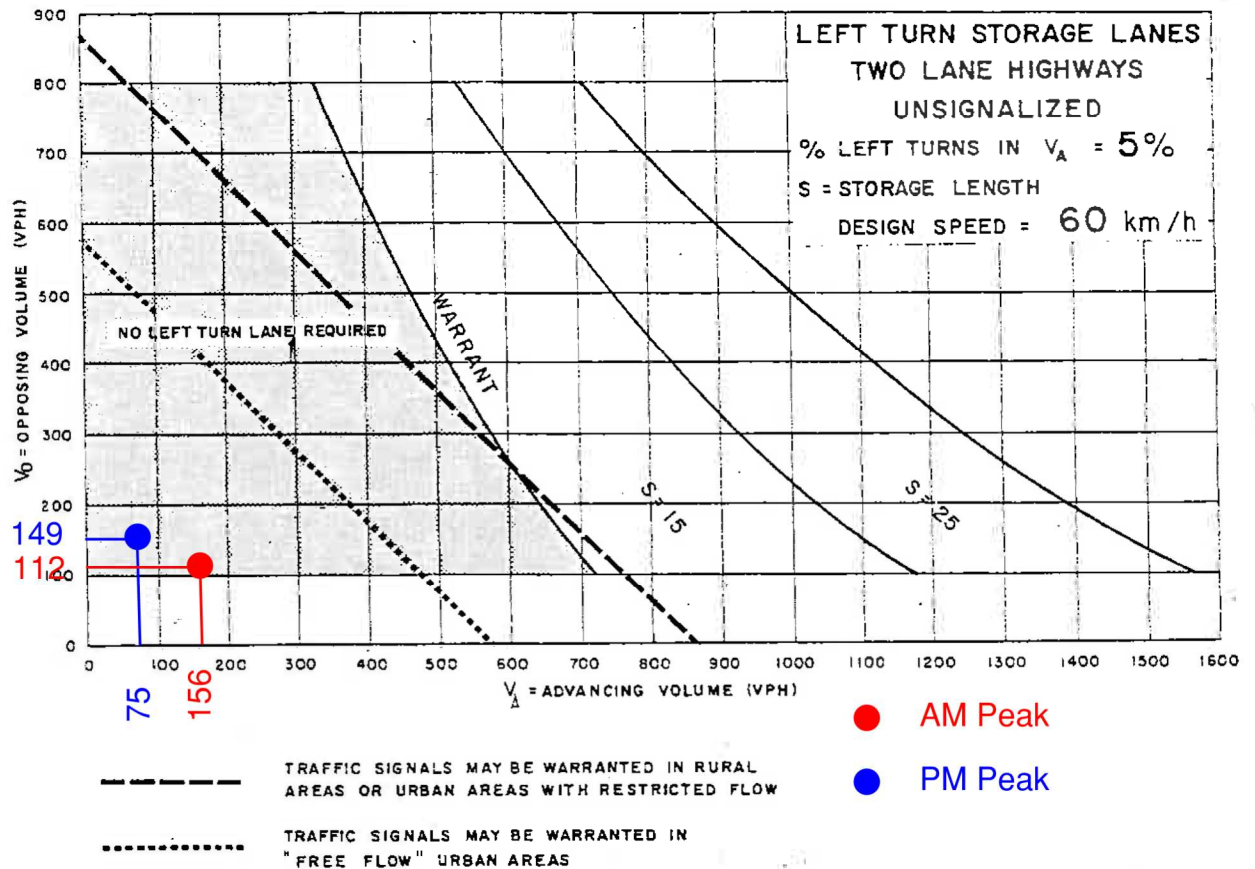
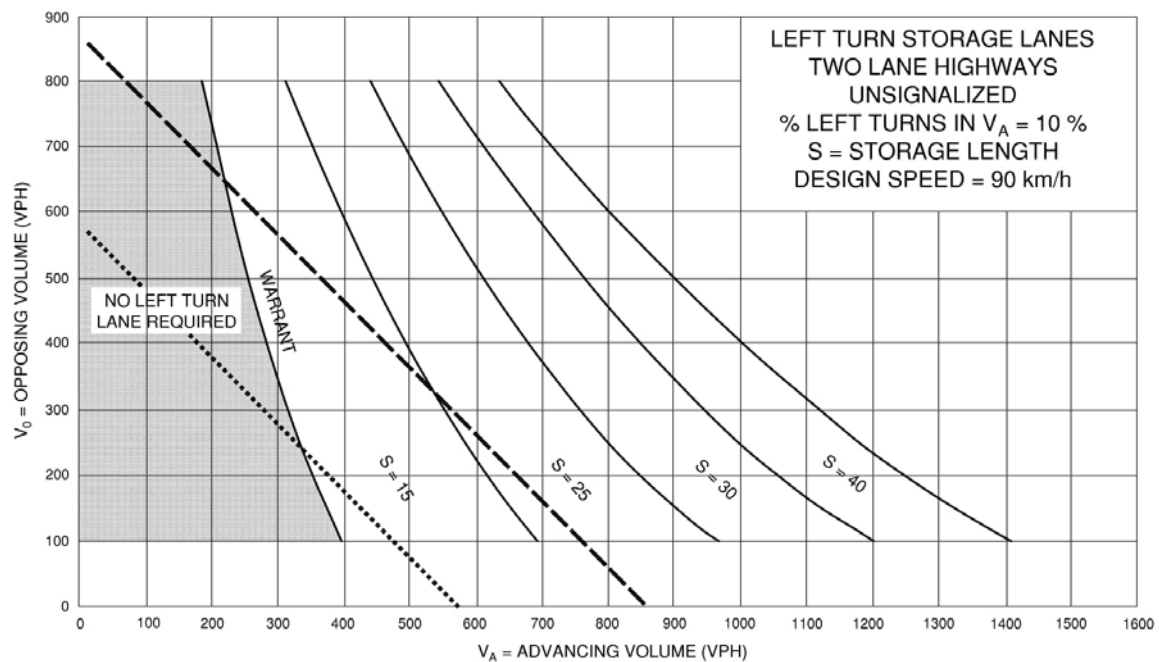
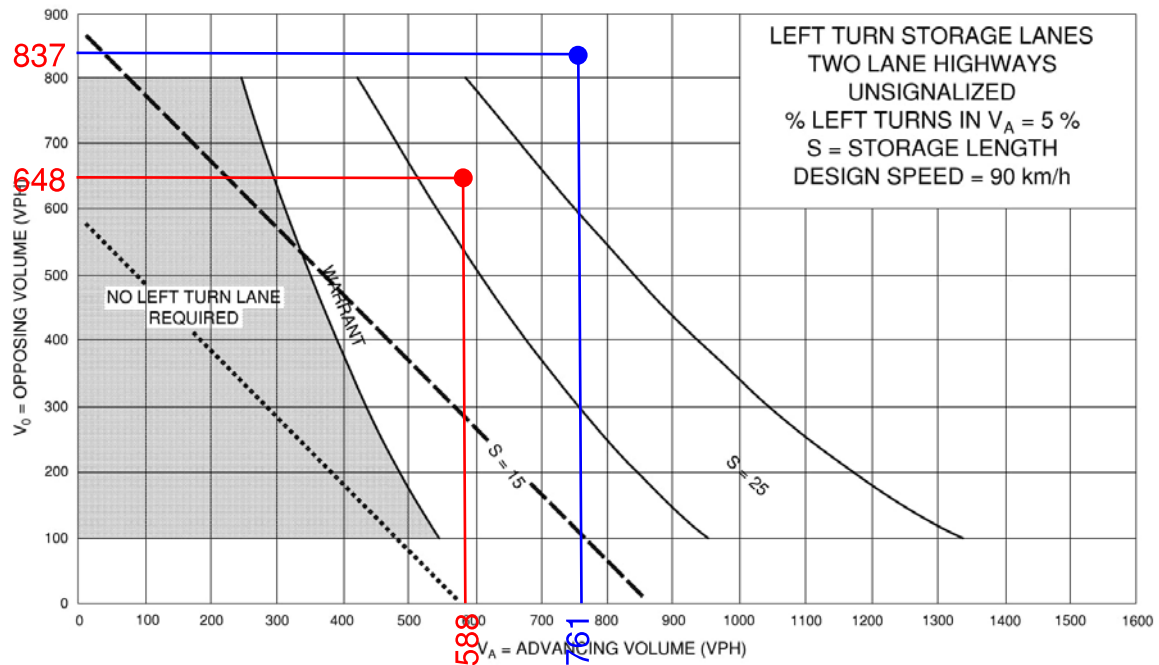


Figure EA-6

Terry Fox Drive/Overberg Way 2030 Total Traffic

Exhibit 9A-18



APPENDIX K

TDM Checklist

TDM Measures Checklist:
Residential Developments (multi-family, condominium or subdivision)

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

TDM measures: <i>Residential developments</i>		Check if proposed & add descriptions
1. TDM PROGRAM MANAGEMENT		
1.1 Program coordinator		
BASIC ★	1.1.1 Designate an internal coordinator, or contract with an external coordinator	☐
1.2 Travel surveys		
BETTER	1.2.1 Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress	☐
2. WALKING AND CYCLING		
2.1 Information on walking/cycling routes & destinations		
BASIC	2.1.1 Display local area maps with walking/cycling access routes and key destinations at major entrances (<i>multi-family, condominium</i>)	☐
2.2 Bicycle skills training		
BETTER	2.2.1 Offer on-site cycling courses for residents, or subsidize off-site courses	☐

TDM measures: <i>Residential developments</i>		Check if proposed & add descriptions
3. TRANSIT		
3.1 Transit information		
BASIC	3.1.1 Display relevant transit schedules and route maps at entrances (<i>multi-family, condominium</i>)	☐
BETTER	3.1.2 Provide real-time arrival information display at entrances (<i>multi-family, condominium</i>)	☐
3.2 Transit fare incentives		
BASIC ★	3.2.1 Offer PRESTO cards preloaded with one monthly transit pass on residence purchase/move-in, to encourage residents to use transit	☐
BETTER	3.2.2 Offer at least one year of free monthly transit passes on residence purchase/move-in	☐
3.3 Enhanced public transit service		
BETTER ★	3.3.1 Contract with OC Transpo to provide early transit services until regular services are warranted by occupancy levels (<i>subdivision</i>)	☐
3.4 Private transit service		
BETTER	3.4.1 Provide shuttle service for seniors homes or lifestyle communities (e.g. scheduled mall or supermarket runs)	☐
4. CARSHARING & BIKESHARING		
4.1 Bikeshare stations & memberships		
BETTER	4.1.1 Contract with provider to install on-site bikeshare station (<i>multi-family</i>)	☐
BETTER	4.1.2 Provide residents with bikeshare memberships, either free or subsidized (<i>multi-family</i>)	☐
4.2 Carshare vehicles & memberships		
BETTER	4.2.1 Contract with provider to install on-site carshare vehicles and promote their use by residents	☐
BETTER	4.2.2 Provide residents with carshare memberships, either free or subsidized	☐
5. PARKING		
5.1 Priced parking		
BASIC ★	5.1.1 Unbundle parking cost from purchase price (<i>condominium</i>)	☐
BASIC ★	5.1.2 Unbundle parking cost from monthly rent (<i>multi-family</i>)	☐

TDM measures: <i>Residential developments</i>		Check if proposed & add descriptions
6. TDM MARKETING & COMMUNICATIONS		
6.1 Multimodal travel information		
BASIC ★	6.1.1 Provide a multimodal travel option information package to new residents	☒
6.2 Personalized trip planning		
BETTER ★	6.2.1 Offer personalized trip planning to new residents	☐

APPENDIX L

Intersection MMLOS Analysis

Pedestrian Level of Service (PLOS)

CRITERIA	North Approach		South Approach		East Approach		West Approach	
Eagleson Road/Terry Fox Drive/Hope Side Road								
PETSİ SCORE								
CROSSING DISTANCE CONDITIONS								
Median > 2.4m in Width	No	55	No	55	No	55	No	55
Lanes Crossed (3.5m Lane Width)	6		6		6		6	
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	> 15m to 25m	-8	> 15m to 25m	-8	> 15m to 25m	-8	> 15m to 25m	-8
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
PETSİ SCORE		18		18		18		18
LOS		F		F		F		F
DELAY SCORE								
Cycle Length		110		110		110		110
Pedestrian Walk Time		21.6		21.6		28.8		16.8
DELAY SCORE		35.5		35.5		30		39.5
LOS		D		D		C		D
OVERALL		F		F		F		F

CRITERIA	North Approach		South Approach		West Approach	
Eagleson Road/Fernbank Road						
PETS I SCORE						
CROSSING DISTANCE CONDITIONS						
Median > 2.4m in Width	No	72	No	72	No	72
Lanes Crossed (3.5m Lane Width)	5		5		5	
SIGNAL PHASING AND TIMING						
Left Turn Conflict	Permissive	-8	No Left Turn/Prohibited	0	Permissive	-8
Right Turn Conflict	No Right Turn/Prohibited	0	Permissive or Yield	-5	Permissive or Yield	-5
Right Turn on Red	RTOR Allowed	-3	N/A	0	RTOR Allowed	-3
Leading Pedestrian Interval	No	-2	No	-2	No	-2
CORNER RADIUS						
Parallel Radius	No Right Turn	0	> 10m to 15m	-6	> 10m to 15m	-6
Parallel Right Turn Channel	No Right Turn	0	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
PETS I SCORE		52		48		37
LOS		D		D		E
DELAY SCORE						
Cycle Length		110		110		110
Pedestrian Walk Time		30		72		12
DELAY SCORE		29.1		6.6		43.7
LOS		C		A		E
OVERALL		D		D		E

CRITERIA	North Approach		South Approach		East Approach		West Approach	
Terry Fox Drive/Fernbank Road								
PETSİ SCORE								
CROSSING DISTANCE CONDITIONS								
Median > 2.4m in Width	No	39	No	55	No	39	No	55
Lanes Crossed (3.5m Lane Width)	7		6		7		6	
SIGNAL PHASING AND TIMING								
Left Turn Conflict	Perm + Prot	-8	Permissive	-8	Permissive	-8	Perm + Prot	-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	N/A	0	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	> 10m to 15m	-6
Parallel Right Turn Channel	Smart Channel	2	No Right Turn Channel	-4	No Right Turn Channel	-4	No Right Turn Channel	-4
Perpendicular Radius	N/A	0	N/A	0	> 15m to 25m	-8	N/A	0
Perpendicular Right Turn Channel	N/A	0	N/A	0	Smart Channel	2	N/A	0
CROSSING TREATMENT								
Treatment	Standard	-7	Standard	-7	Standard	-7	Standard	-7
PETSİ SCORE		8		20		1		20
LOS		F		F		F		F
DELAY SCORE								
Cycle Length		100		100		100		100
Pedestrian Walk Time		16.8		16.8		7.8		19.8
DELAY SCORE		34.6		34.6		42.5		32.2
LOS		D		D		E		D
OVERALL		F	F		F		F	

Bicycle Level of Service (BLOS)

Approach	Bikeway Facility Type	Criteria	Travel Lanes and/or Speed	BLOS
Eagleson Road/Terry Fox Drive/Hope Side Road				
North Approach	Mixed Traffic	Right Turn Lane Characteristics	Shared through/right-turn lane	A
		Left Turn Accommodation	One lane crossed, >60km/hr	F
South Approach	Mixed Traffic	Right Turn Lane Characteristics	Shared through/right-turn lane	A
		Left Turn Accommodation	One lane crossed, >60km/hr	F
East Approach	Paved Shoulder	Right Turn Lane Characteristics	No impact to LTS	A
		Left Turn Accommodation	One lane crossed, >60km/hr	E
West Approach	Paved Shoulder	Right Turn Lane Characteristics	No impact to LTS	A
		Left Turn Accommodation	One lane crossed, >60km/hr	E
Eagleson Road/Fernbank Road				
North Approach	Pocket Bike Lane	Right Turn Lane Characteristics	Bike lane shifts to the left of right-turn lane	D
South Approach	Paved Shoulder	Left Turn Accommodation	One lane crossed, >60km/hr	E
West Approach	Pocket Bike Lane	Right Turn Lane Characteristics	Bike lane shifts to the left of right-turn lane	D
		Left Turn Accommodation	One lane crossed, >60km/hr	E
Terry Fox Drive/Fernbank Road				
North Approach	Pocket Bike Lane	Right Turn Lane Characteristics	Right-turn lane > 50m	D
		Left Turn Accommodation	One lane crossed, >60km/hr	E
South Approach	Paved Shoulder	Right Turn Lane Characteristics	No impact to LTS	A
		Left Turn Accommodation	One lane crossed, >60km/hr	E
East Approach	Pocket Bike Lane	Right Turn Lane Characteristics	Right-turn lane > 50m	D
		Left Turn Accommodation	One lane crossed, >60km/hr	E
West Approach	Paved Shoulder	Right Turn Lane Characteristics	Bike lane shifts to the left of right-turn lane	D
		Left Turn Accommodation	One lane crossed, >60km/hr	E

Transit Level of Service (TLOS)

Approach	Facility Type	Delay ¹	Movement	TLOS
Eagleson Road/Terry Fox Drive/Hope Side Road				
North Approach	Mixed Traffic (No TSP)	30 sec	SBL	D
South Approach	Mixed Traffic (No TSP)	-	-	-
East Approach	Mixed Traffic (No TSP)	34 sec	WBT/R	E
West Approach	Mixed Traffic (No TSP)	-	-	-
Eagleson Road/Fernbank Road				
North Approach	Mixed Traffic (No TSP)	21 sec	SBT	D
South Approach	Mixed Traffic (No TSP)	15 sec	NBT	C
West Approach	Mixed Traffic (No TSP)	64 sec	EBL	F
Terry Fox Drive/Fernbank Road				
North Approach	Mixed Traffic (No TSP)	41 sec	SBL	F
South Approach	Mixed Traffic (No TSP)	-	-	-
East Approach	Mixed Traffic (No TSP)	37 sec	WBT	E
West Approach	Mixed Traffic (No TSP)	24 sec	EBL	D

1. Mixed traffic delay based on the critical approach delay in Synchro analysis
2. No OC Transpo Service on Terry Fox Drive south of Fernbank Road, on Hope Side Road west of Eagleson Road and on Eagleson Road south of Terry Fox Drive

Truck Level of Service (TkLOS)

Approach	Effective Corner Radius	Number of Receiving Lanes on Departure from Intersection	LOS
Egleson Road/Terry Fox Drive/Hope Side Road			
North Approach	> 15m	One	C
South Approach	> 15m	One	C
East Approach	> 15m	One	C
West Approach	> 15m	One	C
Egleson Road/Fernbank Road			
North Approach	> 15m	One	C
South Approach	N/A	N/A	-
West Approach	> 15m	One	C
Terry Fox Drive/Fernbank Road			
North Approach	10m to 15m	One	E
South Approach	10m to 15m	One	E
East Approach	> 15m	One	C
West Approach	10m to 15m	One	E

Auto LOS

Intersection	Approach	AM Peak			PM Peak		
		V/C or Delay	LOS	Mvmt	V/C or Delay	LOS	Mvmt
Eagleson Road/ Terry Fox Drive/ Hope Side Road	North Approach	0.25	A	SBT/R	0.74	C	SBT/R
	South Approach	0.46	A	NBT/R	0.63	B	NBL
	East Approach	0.52	A	WBT/R	0.69	B	WBT/R
	West Approach	0.83	D	EBT/R	0.87	D	EBT/R
Eagleson Road/ Fernbank Road	North Approach	0.38	A	SBT	0.75	C	SBT
	South Approach	0.61	B	NBT	0.55	A	NBL
	West Approach	0.69	B	EBL	0.66	B	EBL
Terry Fox Drive/ Fernbank Road	North Approach	0.54	A	SBT	0.67	B	SBL
	South Approach	0.78	C	NBT	0.80	C	NBL
	East Approach	0.23	A	WBT	0.61	B	WBT
	West Approach	0.22	A	EBT	0.37	A	EBL
Eagleson Road/ Romina Street	North Approach	9 sec	A	SBL	8 sec	A	SBL
	South Approach	8 sec	A	NBL	9 sec	A	NBL
	East Approach	17 sec	C	WB	23 sec	C	WB
	West Approach	26 sec	D	EB	41 sec	E	EB
Fernbank Road/ Romina Street	North Approach	15 sec	B	SB	22 sec	C	SB
	South Approach	18 sec	C	NB	35 sec	D	NB
	East Approach	8 sec	A	WBL	8 sec	A	WBL
	West Approach	8 sec	A	EBL	8 sec	A	EBL
Terry Fox Drive/ Overberg Way	North Approach	0 sec	A	SB	0 sec	A	SB
	South Approach	0 sec	A	NB	0 sec	A	NB
	East Approach	17 sec	C	WB	20 sec	C	WB

Notes:

- Intersection parameters used in the analysis are consistent with the TIA guidelines (saturation flow rate: 1800vphpl, PHF: 0.90).
- Traffic signal timings obtained from City of Ottawa, included in Appendix C.
- Detailed Synchro reports are included in Appendix I.

	Intersection	Eagleson Road/Terry Fox Drive/Hope Side Road				Eagleson Road/Fernbank Road			Terry Fox Drive/Fernbank Road			
		North	South	East	West	North	South	West	North	South	East	West
Pedestrian	Median > 2.4m in Width	No	No	No	No	No	No	No	No	No	No	No
	Lanes (3.5m Lane Width)	Six	Six	Six	Six	Five	Five	Five	Seven	Six	Seven	Six
	Conflicting Left Turns	Permissive	Permissive	Permissive	Permissive	Permissive	No Left Turn	Permissive	Perm + Prot	Permissive	Permissive	Permissive
	Conflicting Right Turns	Permissive	Permissive	Permissive	Permissive	No Right Turn	Permissive	Permissive	Permissive	Permissive	Permissive	Permissive
	Right Turn on Red	Allowed	Allowed	Allowed	Allowed	Allowed	N/A	Allowed	Allowed	Allowed	N/A	Allowed
	Pedestrian Leading Interval	No	No	No	No	No	No	No	No	No	No	No
	Parallel Radius	>15m to 25m	>15m to 25m	>15m to 25m	>15m to 25m	No Right Turn	>10m to 15m	>10m to 15m	>15m to 25m	>10m to 15m	>10m to 15m	>10m to 15m
	Parallel Channel	No Channel	No Channel	No Channel	No Channel	No Right Turn	No Channel	No Channel	Smart Channel	No Channel	No Channel	No Channel
	Perpendicular Radius	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	>10m to 15m	N/A
	Perpendicular Channel	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Smart Channel	N/A
	Crosswalk Type	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	PETSI Score	18	18	18	18	52	48	37	8	20	1	20
	Delay Score	35.5	35.5	35.5	35.5	29.1	6.6	43.7	34.6	34.6	42.5	32.2
	Level of Service	F	F	F	F	D	D	E	F	F	F	F
	Target	F C				E A			F C			
Cyclist	Type of Bikeway	Mixed Traffic	Mixed Traffic	Mixed Traffic	Mixed Traffic	Pocket Bike Lane	Paved Shoulder	Pocket Bike Lane	Pocket Bike Lane	Paved Shoulder	Pocket Bike Lane	Pocket Bike Lane
	Turning Speed	N/A	N/A	N/A	N/A	< 25km/hr	N/A	< 25km/hr	< 30km/hr	N/A	< 30km/hr	< 25km/hr
	Right Turn Storage	N/A	N/A	N/A	N/A	> 50m	N/A	> 50m	> 50m	N/A	> 50m	> 50m
	Dual Right Turn Lanes	No	No	No	No	No	N/A	No	No	No	No	No
	Shared Through-Right Lane	Yes	Yes	Yes	Yes	No	N/A	No	No	Yes	No	No
	Bike Box	No	No	No	No	No	No	No	No	No	No	No
	Lanes Crossed for Left Turns	One	One	One	One	One	One	One	One	One	One	One
	Dual Left Turn Lanes	No	No	No	No	No	No	No	No	No	No	No
	Approach Speed	> 60km/hr	> 60km/hr	> 60km/hr	> 60km/hr	> 60km/hr	> 60km/hr	> 60km/hr	> 60km/hr	> 60km/hr	> 60km/hr	> 60km/hr
	Level of Service	F	F	F	F	E	E	E	E	E	E	E
	Target	F C				E C			E C			
Transit	Average Signal Delay	30 seconds	-	34 seconds	-	21 seconds	15 seconds	64 seconds	41 seconds	-	37 seconds	24 seconds
	Level of Service	D	-	E	-	D	C	F	F	-	E	D
	Target	E -				F -			F -			
Truck	Turning Radius	>15m	>15m	>15m	>15m	>15m	N/A	>15m	10m to 15m	10m to 15m	> 15m	10m to 15m
	Receiving Lanes	One	One	One	One	One	N/A	One	One	One	One	One
	Level of Service	C	C	C	C	C	-	C	E	E	C	E
	Target	C D				C D			E D			
Auto	Volume to Capacity Ratio	0.74	0.63	0.69	0.87	0.75	0.61	0.69	0.67	0.80	0.61	0.37
	Level of Service	C	A	A	D	C	B	B	B	C	B	A
	Target	D D				C E			C D			

APPENDIX M

Traffic Signal Warrants

TRAFFIC SIGNAL JUSTIFICATION

LOCATION: EAGLESON at ROMINA

DATE: JUNE 20, 2018

JUSTIFICATION 1 – Minimum Vehicular Volume

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				PERCENTAGE		WARRANT						
APPROACH LANES	1		2 or MORE		HOUR ENDING								TOTAL ACROSS
FLOW CONDITION	FREE FLOW	RESTR FLOW	FREE FLOW	RESTR FLOW	8:00	9:00	10:00	12:30	13:30	16:00	17:00	18:00	
A. ALL APPROACHES	480 (385)	720 (575)	600 (480)	900 (720)	921	1012	747	659	649	945	1222	1131	
	100% FULFILLED				✓	✓	✓	✓	✓	✓	✓	✓	800%
	80% FULFILLED												—
	ACTUAL % IF BELOW 80% VALUE												—
										TOTAL DOWN:			800%
									AVERAGE (TOTAL/8):			100%	

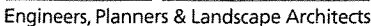
T Intersection Add 50%

		180	255	180	255								
		143	203	143	203								
B. MINOR STREET BOTH APPROACHES	120	170	120	170	146	96	70	56	63	71	92	79	TOTAL ACROSS
	(95)	(135)	(95)	(135)									
	100% FULFILLED				✓								100%
	80% FULFILLED					✓							80%
	ACTUAL % IF BELOW 80% VALUE						58%	47%	53%	59%	77%	66%	360%
									TOTAL DOWN:				540%
									AVERAGE (TOTAL/8):				68%

JUSTIFICATION 2 – Delay To Cross Traffic

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				PERCENTAGE WARRANT								
APPROACH LANES	1		2 or MORE		HOUR ENDING								TOTAL ACROSS
FLOW CONDITION	FREE FLOW	RESTR FLOW	FREE FLOW	RESTR FLOW	8:00	9:00	10:00	12:30	13:30	16:00	17:00	18:00	
A.	480	720	600	900	757	889	652	583	558	837	1088	1011	800%
MAJOR STREET BOTH APPROACHES	(385)	(575)	(480)	(720)	✓	✓	✓	✓	✓	✓	✓	✓	
	100% FULFILLED												
	80% FULFILLED												
ACTUAL % IF BELOW 80% VALUE													
									TOTAL DOWN:				800%
									AVERAGE (TOTAL/8):				100%

B. TRAFFIC CROSSING MAJOR STREET	50 (40)	75 (60)	50 (40)	75 (60)	58	45	31	30	26	32	43	29	TOTAL ACROSS
	100% FULFILLED				✓								100%
	80% FULFILLED					✓					✓		160%
	ACTUAL % IF BELOW 80% VALUE						62%	60%	52%	64%		58%	296%
										TOTAL DOWN:			556%
									AVERAGE (TOTAL/8):			70%	



TRAFFIC SIGNAL JUSTIFICATION

LOCATION: FERNBANK at ROMINA

DATE: JUNE 20, 2018

JUSTIFICATION 1 – Minimum Vehicular Volume

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				PERCENTAGE								WARRANT	
APPROACH LANES	1		2 or MORE		HOUR ENDING								TOTAL ACROSS	
FLOW CONDITION	FREE FLOW	RESTR FLOW	FREE FLOW	RESTR FLOW	8:00	9:00	10:00	12:30	13:30	16:00	17:00	18:00		
A. ALL APPROACHES	480	720	600	900	67%	72%	58%	54%	60%	73%	98%	103%		
	(385)	(575)	(480)	(720)										
	100% FULFILLED					✓				✓	✓	✓		460%
	80% FULFILLED				✓		✓	✓	✓				320%	
	ACTUAL % IF BELOW 80% VALUE													—
									TOTAL DOWN:				720%	
									AVERAGE (TOTAL/8):				90%	

T Intersection Add 50%

	180	255	180	255									
	143	203	143	203									
B. MINOR STREET BOTH APPROACHES	120	170	120	170	153	170	110	108	109	100	157	180	TOTAL ACROSS
	(95)	(135)	(95)	(135)									
	100% FULFILLED					✓					✓	200%	
	80% FULFILLED				✓					✓		160%	
	ACTUAL % IF BELOW 80% VALUE						65%	64%	64%	59%			252%
									TOTAL DOWN:		612%		
									AVERAGE (TOTAL/8):		77%		

JUSTIFICATION 2 – Delay To Cross Traffic

	MINIMUM REQUIREMENTS (80% SHOWN IN BRACKETS)				PERCENTAGE WARRANT								
APPROACH LANES	1		2 or MORE		HOUR ENDING								TOTAL ACROSS
FLOW CONDITION	FREE FLOW	RESTR FLOW	FREE FLOW	RESTR FLOW	8:00	9:00	10:00	12:30	13:30	16:00	17:00	18:00	
A. MAJOR STREET BOTH APPROACHES	480	720	600	900	499	519	442	446	455	563	739	758	200%
	(385)	(575)	(480)	(720)									
	100% FULFILLED										✓	✓	
	80% FULFILLED												
	ACTUAL % IF BELOW 80% VALUE				69%	72%	61%	62%	63%	78%			
									TOTAL DOWN:				605%
									AVERAGE (TOTAL/8):				76%

B. TRAFFIC CROSSING MAJOR STREET	50	75	50	75	89	104	65	59	71	55	86	98	TOTAL ACROSS
	(40)	(60)	(40)	(60)									
	100% FULFILLED				✓	✓				✓	✓	400%	
	80% FULFILLED						✓		✓			160%	
	ACTUAL % IF BELOW 80% VALUE							79%		73%		152%	
										TOTAL DOWN:			712%
									AVERAGE (TOTAL/8):			89%	

**TRAFFIC SIGNAL JUSTIFICATION
USING PROJECTED VOLUMES**

LOCATION: TERRY FOX at OVERBERG
YEAR: 2030

JUSTIFICATION	DESCRIPTION	MINIMUM REQUIREMENT		COMPLIANCE		
		FREE FLOW	RESTRICTED FLOW	SECTIONAL		ENTIRE % ⁽²⁾
		OPERATING SPEED ≥ 70KM/H	OPERATING SPEED < 70 KM/H	NUMERICAL	PERCENT	
1. MINIMUM VEHICULAR WARRANT	A. Vehicle volume, all approaches (average hour)	<u>480</u> 600 (2 or more lane approach)	720 900 (2 or more lane approach)	749	156%	23%
	B. Vehicle volume along minor street (average hour)	<u>120</u> <u>180</u> (tee intersection)	170 255 (tee intersection)	40	23%	
2. DELAY TO CROSS TRAFFIC	A. Vehicle volume along major street (average hour)	<u>480</u> 600 (2 or more lane approach)	720 900 (2 or more lane approach)	692	144%	42%
	B ⁽¹⁾ . Combined vehicle and pedestrian volume <u>crossing</u> the major street (average hour)	<u>50</u>	75	21	42%	

NOTES

- 1) For definition of crossing volume refer to the Ontario Traffic Manual Book 12, Section 4.5 (Nov. 2007).
- 2) The lowest sectional percentage governs the entire Justification.
- 3) Average hourly volumes estimated from peak hour volumes, $AHV = PM / 2$ or $AHV = (AM + PM) / 4$.

APPENDIX N

Synchro Analysis Reports

1: Eagleson Road & Terry Fox Drive
AM Peak

Bridlewood 3
Existing Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	177	153	19	105	104	263	405	60	70	188	1
Future Volume (vph)	0	177	153	19	105	104	263	405	60	70	188	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	95.0		0.0	115.0		0.0	80.0		0.0	80.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	60.0			60.0			60.0			60.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor					0.99							
Frt		0.931			0.925			0.981			0.999	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	1820	1617	0	1729	1602	0	1616	1770	0	1662	1783	0
Flt Permitted				0.260			0.541			0.473		
Satd. Flow (perm)	1820	1617	0	473	1602	0	920	1770	0	828	1783	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		44			50			10				
Link Speed (k/h)		80			80			60			60	
Link Distance (m)		557.7			461.4			424.3			505.5	
Travel Time (s)		25.1			20.8			25.5			30.3	
Confl. Bikes (#/hr)						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 (%)	0%	2%	8%	0%	3%	5%	7%	1%	0%	4%	2%	0%
Adj. Flow (vph)	0	197	170	21	117	116	292	450	67	78	209	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	367	0	21	233	0	292	517	0	78	210	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		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	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		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	
Detector 1 Position(m)	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	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	10.0		10.0	10.0	
Minimum Split (s)	30.4	30.4		30.4	30.4		11.2	33.2		33.2	33.2	
Total Split (s)	45.0	45.0		45.0	45.0		15.0	65.0		50.0	50.0	
Total Split (%)	40.9%	40.9%		40.9%	40.9%		13.6%	59.1%		45.5%	45.5%	
Maximum Green (s)	38.6	38.6		38.6	38.6		8.8	58.8		43.8	43.8	
Yellow Time (s)	4.6	4.6		4.6	4.6		3.7	3.7		3.7	3.7	
All-Red Time (s)	1.8	1.8		1.8	1.8		2.5	2.5		2.5	2.5	

1: Eagleson Road & Terry Fox Drive
AM Peak

Bridlewood 3
Existing Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.4	6.4		6.4	6.4		6.2	6.2		6.2	6.2	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	
Flash Dont Walk (s)	17.0	17.0		17.0	17.0			20.0		20.0	20.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effct Green (s)		28.0		28.0	28.0		69.4	69.4		51.1	51.1	
Actuated g/C Ratio		0.25		0.25	0.25		0.63	0.63		0.46	0.46	
v/c Ratio		0.83		0.17	0.52		0.44	0.46		0.20	0.25	
Control Delay		49.1		32.4	30.4		13.1	13.3		36.0	33.4	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		49.1		32.4	30.4		13.1	13.3		36.0	33.4	
LOS		D		C	C		B	B		D	C	
Approach Delay		49.1			30.6			13.2			34.1	
Approach LOS		D			C			B			C	
Queue Length 50th (m)		66.2		3.5	33.6		26.2	52.5		14.0	37.7	
Queue Length 95th (m)		90.0		9.3	50.9		50.5	95.3		31.2	66.6	
Internal Link Dist (m)		533.7			437.4			400.3			481.5	
Turn Bay Length (m)				115.0			80.0			80.0		
Base Capacity (vph)		595		165	594		657	1120		384	827	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.62		0.13	0.39		0.44	0.46		0.20	0.25	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 27.0

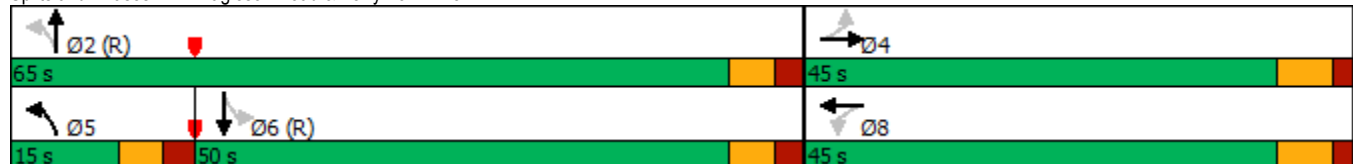
Intersection LOS: C

Intersection Capacity Utilization 70.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: Eagleson Road & Terry Fox Drive



3: Terry Fox Drive & Fernbank Road AM Peak

Bridlewood 3
Existing Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	212	184	3	167	152	141	323	1	67	222	56
Future Volume (vph)	93	212	184	3	167	152	141	323	1	67	222	56
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	75.0		75.0	80.0		100.0	90.0		0.0	95.0		95.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	100.0			30.0			70.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.98	1.00		0.98	1.00					0.98
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1631	1784	1502	1729	1784	1419	1616	1717	0	1616	1701	1369
Flt Permitted	0.556			0.612			0.500			0.316		
Satd. Flow (perm)	953	1784	1469	1113	1784	1386	849	1717	0	537	1701	1339
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			204			169						113
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		212.6			217.7			545.9			241.0	
Travel Time (s)		12.8			13.1			24.6			10.8	
Confl. Peds. (#/hr)	2		1	1		2	1					1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	6%	2%	3%	0%	2%	9%	7%	6%	0%	7%	7%	13%
Adj. Flow (vph)	103	236	204	3	186	169	157	359	1	74	247	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	103	236	204	3	186	169	157	360	0	74	247	62
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)		1.6			1.6			4.9			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	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	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	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	5	2			6			8			4	
Permitted Phases	2		2	6		6	8			4		4
Detector Phase	5	2	2	6	6	6	8	8		4	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	11.1	33.2	33.2	33.2	33.2	33.2	29.2	29.2		29.2	29.2	29.2
Total Split (s)	17.0	52.0	52.0	35.0	35.0	35.0	38.0	38.0		38.0	38.0	38.0
Total Split (%)	18.9%	57.8%	57.8%	38.9%	38.9%	38.9%	42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	10.9	45.8	45.8	28.8	28.8	28.8	31.8	31.8		31.8	31.8	31.8
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	4.6	4.6		4.6	4.6	4.6
All-Red Time (s)	2.4	2.5	2.5	2.5	2.5	2.5	1.6	1.6		1.6	1.6	1.6

3: Terry Fox Drive & Fernbank Road AM Peak

Bridlewood 3
Existing Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	6.2	6.2	6.2	6.2	6.2	6.2	6.2		6.2	6.2	6.2
Lead/Lag	Lead			Lag			Lag					
Lead-Lag Optimize?	Yes			Yes			Yes					
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		20.0	20.0	20.0	20.0	20.0	16.0	16.0		16.0	16.0	16.0
Pedestrian Calls (#/hr)		5	5	5	5	5	5	5		5	5	5
Act Effct Green (s)	53.4	53.3	53.3	41.5	41.5	41.5	24.3	24.3		24.3	24.3	24.3
Actuated g/C Ratio	0.59	0.59	0.59	0.46	0.46	0.46	0.27	0.27		0.27	0.27	0.27
v/c Ratio	0.16	0.22	0.21	0.01	0.23	0.23	0.69	0.78		0.51	0.54	0.14
Control Delay	10.2	10.5	2.3	19.3	19.1	4.5	44.2	41.7		39.2	31.5	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	10.2	10.5	2.3	19.3	19.1	4.5	44.2	41.7		39.2	31.5	1.4
LOS	B	B	A	B	B	A	D	D		D	C	A
Approach Delay	7.4			12.2			42.5			28.1		
Approach LOS	A			B			D			C		
Queue Length 50th (m)	7.1	17.6	0.0	0.3	19.6	0.0	24.3	57.4		10.8	36.4	0.0
Queue Length 95th (m)	17.1	35.9	10.0	2.3	41.2	13.3	40.9	78.0		22.3	52.1	1.9
Internal Link Dist (m)	188.6			193.7			521.9			217.0		
Turn Bay Length (m)	75.0		75.0	80.0		100.0	90.0			95.0		95.0
Base Capacity (vph)	647	1056	953	512	821	729	299	606		189	601	546
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.16	0.22	0.21	0.01	0.23	0.23	0.53	0.59		0.39	0.41	0.11

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 9 (10%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 22.8

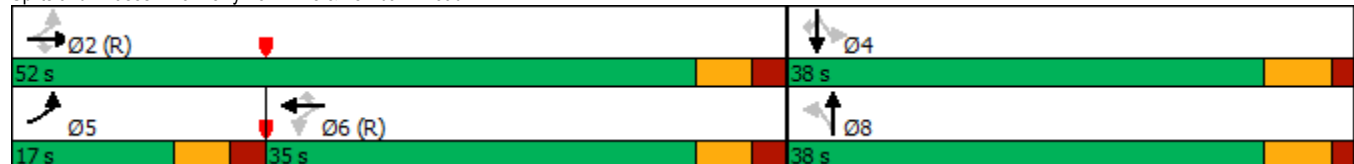
Intersection LOS: C

Intersection Capacity Utilization 77.8%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 3: Terry Fox Drive & Fernbank Road



8: Eagleson Road & Fernbank Road
AM Peak

Bridlewood 3
Existing Traffic



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	160	98	166	716	355	82
Future Volume (vph)	160	98	166	716	355	82
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Storage Length (m)	160.0	0.0	25.0			0.0
Storage Lanes	1	1	1			1
Taper Length (m)	60.0		30.0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98					
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1729	1446	1712	1767	1717	1517
Flt Permitted	0.950		0.439			
Satd. Flow (perm)	1702	1446	791	1767	1717	1517
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		109				91
Link Speed (k/h)	60			60	60	
Link Distance (m)	467.2			533.6	230.0	
Travel Time (s)	28.0			32.0	13.8	
Confl. Peds. (#/hr)	6					
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	7%	1%	3%	6%	2%
Adj. Flow (vph)	178	109	184	796	394	91
Shared Lane Traffic (%)						
Lane Group Flow (vph)	178	109	184	796	394	91
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			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
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	6.1	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
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	6.1	6.1	1.8	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+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				CI+Ex	CI+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Perm	Perm	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.0	27.0	11.0	24.0	27.0	27.0
Total Split (s)	32.0	32.0	28.0	78.0	50.0	50.0
Total Split (%)	29.1%	29.1%	25.5%	70.9%	45.5%	45.5%
Maximum Green (s)	26.0	26.0	22.0	72.0	44.0	44.0
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3	2.3

8: Eagleson Road & Fernbank Road
AM Peak

Bridlewood 3
Existing Traffic



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	14.0	14.0			14.0	14.0
Pedestrian Calls (#/hr)	5	5			5	5
Act Effct Green (s)	16.7	16.7	81.3	81.3	66.1	66.1
Actuated g/C Ratio	0.15	0.15	0.74	0.74	0.60	0.60
v/c Ratio	0.69	0.35	0.28	0.61	0.38	0.10
Control Delay	57.4	10.4	8.4	14.5	14.1	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.4	10.4	8.4	14.5	14.1	3.0
LOS	E	B	A	B	B	A
Approach Delay	39.5			13.3	12.0	
Approach LOS	D			B	B	
Queue Length 50th (m)	36.6	0.0	13.3	88.0	40.7	0.0
Queue Length 95th (m)	56.0	13.9	32.8	176.9	75.1	7.6
Internal Link Dist (m)	443.2			509.6	206.0	
Turn Bay Length (m)	160.0		25.0			
Base Capacity (vph)	402	425	768	1305	1031	947
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.26	0.24	0.61	0.38	0.10

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 17.2

Intersection LOS: B

Intersection Capacity Utilization 59.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 8: Eagleson Road & Fernbank Road



2: Terry Fox Drive & Overberg Way
AM Peak

Bridlewood 3
Existing Traffic

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	8	3	471	3	0	430
Future Volume (Veh/h)	8	3	471	3	0	430
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	9	3	523	3	0	478
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1002	524			526	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1002	524			526	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	99			100	
cM capacity (veh/h)	269	553			1041	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	12	526	478			
Volume Left	9	0	0			
Volume Right	3	3	0			
cSH	308	1700	1041			
Volume to Capacity	0.04	0.31	0.00			
Queue Length 95th (m)	0.9	0.0	0.0			
Control Delay (s)	17.2	0.0	0.0			
Lane LOS	C					
Approach Delay (s)	17.2	0.0	0.0			
Approach LOS	C					
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization		36.4%		ICU Level of Service		A
Analysis Period (min)			15			

9: Romina Street/Templeford Avenue & Fernbank Road
AM Peak

Bridlewood 3
Existing Traffic

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	247	27	5	243	12	54	15	36	24	6	31
Future Volume (Veh/h)	40	247	27	5	243	12	54	15	36	24	6	31
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	44	274	30	6	270	13	60	17	40	27	7	34
Pedestrians		1			2			5			8	
Lane Width (m)		3.7			3.7			3.7			3.7	
Walking Speed (m/s)		1.1			1.1			1.1			1.1	
Percent Blockage		0			0			0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)		218										
pX, platoon unblocked				0.99			0.99	0.99	0.99	0.99	0.99	
vC, conflicting volume	291			309			688	670	281	702	687	279
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	291			302			683	665	274	698	682	279
tC, single (s)	4.1			4.3			7.2	6.7	6.2	7.2	6.8	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.4			3.6	4.2	3.3	3.6	4.3	3.4
p0 queue free %	96			99			81	95	95	91	98	95
cM capacity (veh/h)	1255			1151			313	338	760	299	316	744
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	44	274	30	6	270	13	117	68				
Volume Left	44	0	0	6	0	0	60	27				
Volume Right	0	0	30	0	0	13	40	34				
cSH	1255	1700	1700	1151	1700	1700	397	430				
Volume to Capacity	0.04	0.16	0.02	0.01	0.16	0.01	0.29	0.16				
Queue Length 95th (m)	0.8	0.0	0.0	0.1	0.0	0.0	9.2	4.2				
Control Delay (s)	8.0	0.0	0.0	8.1	0.0	0.0	17.8	14.9				
Lane LOS	A			A			C	B				
Approach Delay (s)	1.0			0.2			17.8	14.9				
Approach LOS							C	B				
Intersection Summary												
Average Delay	4.3											
Intersection Capacity Utilization	36.5%			ICU Level of Service					A			
Analysis Period (min)	15											

13: Eagleson Road & Romina Street/Emerald Meadows Drive
AM Peak

Bridlewood 3
Existing Traffic

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	10	33	7	3	29	15	573	14	20	288	16
Future Volume (Veh/h)	36	10	33	7	3	29	15	573	14	20	288	16
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	40	11	37	8	3	32	17	637	16	22	320	18
Pedestrians								6				
Lane Width (m)								3.7				
Walking Speed (m/s)								1.1				
Percent Blockage								1				
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1068	1051	326	1084	1053	637	338			653		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1068	1051	326	1084	1053	637	338			653		
tC, single (s)	7.2	6.6	6.3	7.1	6.5	6.2	4.3			4.3		
tC, 2 stage (s)												
tF (s)	3.6	4.1	3.4	3.5	4.0	3.3	2.4			2.4		
p0 queue free %	76	95	95	95	99	93	98			97		
cM capacity (veh/h)	169	211	689	172	219	481	1127			854		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	88	43	17	637	16	22	320	18				
Volume Left	40	8	17	0	0	22	0	0				
Volume Right	37	32	0	0	16	0	0	18				
cSH	257	339	1127	1700	1700	854	1700	1700				
Volume to Capacity	0.34	0.13	0.02	0.37	0.01	0.03	0.19	0.01				
Queue Length 95th (m)	11.1	3.3	0.3	0.0	0.0	0.6	0.0	0.0				
Control Delay (s)	26.1	17.2	8.2	0.0	0.0	9.3	0.0	0.0				
Lane LOS	D	C	A			A						
Approach Delay (s)	26.1	17.2	0.2			0.6						
Approach LOS	D	C										
Intersection Summary												
Average Delay			2.9									
Intersection Capacity Utilization			49.6%		ICU Level of Service				A			
Analysis Period (min)			15									

1: Eagleson Road & Terry Fox Drive
AM Peak

Bridlewood 3
Existing Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	185	296	54	277	96	216	233	26	104	417	2
Future Volume (vph)	1	185	296	54	277	96	216	233	26	104	417	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	95.0		0.0	115.0		0.0	80.0		0.0	80.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	60.0			60.0			60.0			60.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	0.98		1.00	0.99		1.00				1.00	
Frt		0.908			0.961			0.985			0.999	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1729	1609	0	1695	1714	0	1695	1763	0	1679	1765	0
Flt Permitted	0.312			0.171			0.227			0.583		
Satd. Flow (perm)	567	1609	0	305	1714	0	405	1763	0	1030	1765	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		94			20			7				
Link Speed (k/h)		80			80			60			60	
Link Distance (m)		557.7			461.4			424.3			505.5	
Travel Time (s)		25.1			20.8			25.5			30.3	
Confl. Peds. (#/hr)	1		3	3		1	1					1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	1%	1%	2%	2%	0%	2%	1%	8%	3%	3%	0%
Adj. Flow (vph)	1	206	329	60	308	107	240	259	29	116	463	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	535	0	60	415	0	240	288	0	116	465	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	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		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	
Detector 1 Position(m)	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	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	10.0		10.0	10.0	
Minimum Split (s)	30.4	30.4		30.4	30.4		11.2	33.2		33.2	33.2	
Total Split (s)	55.0	55.0		55.0	55.0		12.0	55.0		43.0	43.0	
Total Split (%)	50.0%	50.0%		50.0%	50.0%		10.9%	50.0%		39.1%	39.1%	
Maximum Green (s)	48.6	48.6		48.6	48.6		5.8	48.8		36.8	36.8	
Yellow Time (s)	4.6	4.6		4.6	4.6		3.7	3.7		3.7	3.7	
All-Red Time (s)	1.8	1.8		1.8	1.8		2.5	2.5		2.5	2.5	

1: Eagleson Road & Terry Fox Drive
AM Peak

Bridlewood 3
Existing Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.4	6.4		6.4	6.4		6.2	6.2		6.2	6.2	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	
Flash Dont Walk (s)	17.0	17.0		17.0	17.0			20.0		20.0	20.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effct Green (s)	38.0	38.0		38.0	38.0		59.4	59.4		39.2	39.2	
Actuated g/C Ratio	0.35	0.35		0.35	0.35		0.54	0.54		0.36	0.36	
v/c Ratio	0.01	0.87		0.57	0.69		0.63	0.30		0.32	0.74	
Control Delay	19.0	41.7		48.9	34.4		27.5	16.5		29.9	40.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	19.0	41.7		48.9	34.4		27.5	16.5		29.9	40.3	
LOS	B	D		D	C		C	B		C	D	
Approach Delay		41.6			36.2			21.5			38.3	
Approach LOS		D			D			C			D	
Queue Length 50th (m)	0.1	89.5		10.3	71.7		26.7	31.9		18.5	89.6	
Queue Length 95th (m)	1.1	116.2		23.1	89.9		#77.1	59.7		34.1	#132.8	
Internal Link Dist (m)		533.7			437.4			400.3			481.5	
Turn Bay Length (m)	95.0			115.0			80.0			80.0		
Base Capacity (vph)	250	763		134	768		382	954		366	628	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.00	0.70		0.45	0.54		0.63	0.30		0.32	0.74	

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 34.5

Intersection LOS: C

Intersection Capacity Utilization 94.9%

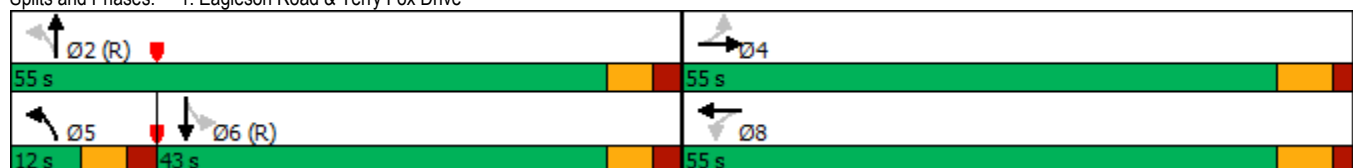
ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Eagleson Road & Terry Fox Drive



3: Terry Fox Drive & Fernbank Road AM Peak

Bridlewood 3
Existing Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	88	203	120	1	297	112	246	323	9	190	348	111
Future Volume (vph)	88	203	120	1	297	112	246	323	9	190	348	111
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	75.0		75.0	80.0		100.0	90.0		0.0	95.0		95.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	100.0			30.0			70.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97	0.99		0.97	1.00	1.00		1.00		0.97
Frt			0.850			0.850		0.996				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1586	1802	1532	1729	1802	1473	1712	1794	0	1695	1802	1488
Flt Permitted	0.308			0.617			0.279			0.542		
Satd. Flow (perm)	512	1802	1490	1117	1802	1428	501	1794	0	966	1802	1445
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			133			172		2				172
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		241.5			218.0			545.5			295.3	
Travel Time (s)		14.5			13.1			24.5			13.3	
Confl. Peds. (#/hr)	6		4	4		6	4		1	1		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 (%)	9%	1%	1%	0%	1%	5%	1%	1%	0%	2%	1%	4%
Adj. Flow (vph)	98	226	133	1	330	124	273	359	10	211	387	123
Shared Lane Traffic (%)												
Lane Group Flow (vph)	98	226	133	1	330	124	273	369	0	211	387	123
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)		1.6			1.6			4.9			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	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	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	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases	5	2			6		3	8			4	
Permitted Phases	2		2	6		6	8			4		4
Detector Phase	5	2	2	6	6	6	3	8		4	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0		10.0	10.0	10.0
Minimum Split (s)	11.1	33.2	33.2	33.2	33.2	33.2	11.5	29.2		29.2	29.2	29.2
Total Split (s)	12.0	46.0	46.0	34.0	34.0	34.0	15.0	54.0		39.0	39.0	39.0
Total Split (%)	12.0%	46.0%	46.0%	34.0%	34.0%	34.0%	15.0%	54.0%		39.0%	39.0%	39.0%
Maximum Green (s)	5.9	39.8	39.8	27.8	27.8	27.8	8.5	47.8		32.8	32.8	32.8
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	4.6	4.6		4.6	4.6	4.6
All-Red Time (s)	2.4	2.5	2.5	2.5	2.5	2.5	1.9	1.6		1.6	1.6	1.6

3: Terry Fox Drive & Fernbank Road AM Peak

Bridlewood 3
Existing Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	6.2	6.2	6.2	6.2	6.2	6.5	6.2		6.2	6.2	6.2
Lead/Lag	Lead			Lag	Lag	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	None	Max		Max	Max	Max
Walk Time (s)		7.0	7.0	7.0	7.0	7.0		7.0		7.0	7.0	7.0
Flash Dont Walk (s)		20.0	20.0	20.0	20.0	20.0		16.0		16.0	16.0	16.0
Pedestrian Calls (#/hr)		5	5	5	5	5		5		5	5	5
Act Effct Green (s)	39.9	39.8	39.8	30.2	30.2	30.2	47.5	47.8		32.8	32.8	32.8
Actuated g/C Ratio	0.40	0.40	0.40	0.30	0.30	0.30	0.48	0.48		0.33	0.33	0.33
v/c Ratio	0.37	0.32	0.20	0.00	0.61	0.23	0.80	0.43		0.67	0.65	0.21
Control Delay	23.6	22.3	4.3	26.0	36.6	2.6	37.7	19.0		41.0	35.0	2.2
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	23.6	22.3	4.3	26.0	36.6	2.6	37.7	19.0		41.0	35.0	2.2
LOS	C	C	A	C	D	A	D	B		D	D	A
Approach Delay		17.3			27.3			27.0			31.2	
Approach LOS		B			C			C			C	
Queue Length 50th (m)	11.9	29.6	0.0	0.2	56.5	0.0	31.9	45.1		34.9	63.7	0.0
Queue Length 95th (m)	22.6	47.4	10.8	1.4	85.9	5.6	#62.3	67.9		#62.2	95.2	4.9
Internal Link Dist (m)		217.5			194.0			521.5			271.3	
Turn Bay Length (m)	75.0		75.0	80.0		100.0	90.0			95.0		95.0
Base Capacity (vph)	267	717	673	337	543	551	340	858		316	591	589
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.37	0.32	0.20	0.00	0.61	0.23	0.80	0.43		0.67	0.65	0.21

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 91 (91%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 26.4

Intersection LOS: C

Intersection Capacity Utilization 85.5%

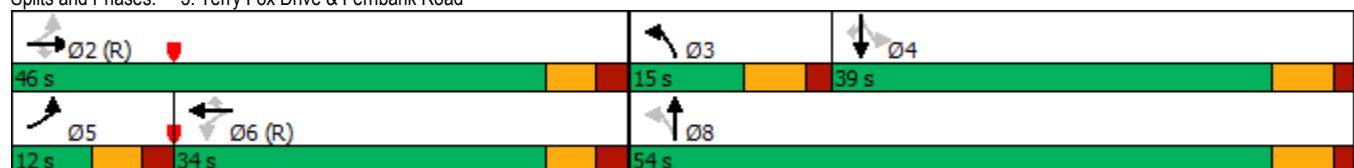
ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Terry Fox Drive & Fernbank Road



8: Eagleson Road & Fernbank Road
AM Peak

Bridlewood 3
Existing Traffic



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	129	178	169	462	793	205
Future Volume (vph)	129	178	169	462	793	205
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Storage Length (m)	160.0	0.0	25.0			0.0
Storage Lanes	1	1	1			1
Taper Length (m)	60.0		30.0			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99	0.98				0.97
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1712	1532	1695	1802	1802	1547
Flt Permitted	0.950		0.177			
Satd. Flow (perm)	1692	1497	316	1802	1802	1507
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		198				214
Link Speed (k/h)	60			60	60	
Link Distance (m)	453.7			529.9	179.0	
Travel Time (s)	27.2			31.8	10.7	
Confl. Peds. (#/hr)	4	1	2			2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	1%	1%	2%	1%	1%	0%
Adj. Flow (vph)	143	198	188	513	881	228
Shared Lane Traffic (%)						
Lane Group Flow (vph)	143	198	188	513	881	228
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			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
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	6.1	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
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	6.1	6.1	1.8	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+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				CI+Ex	CI+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Perm	Perm	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.0	27.0	11.0	22.5	27.0	27.0
Total Split (s)	27.0	27.0	15.0	93.0	78.0	78.0
Total Split (%)	22.5%	22.5%	12.5%	77.5%	65.0%	65.0%
Maximum Green (s)	21.0	21.0	9.0	87.0	72.0	72.0
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.3	2.3	2.3	2.3	2.3	2.3

8: Eagleson Road & Fernbank Road
AM Peak

Bridlewood 3
Existing Traffic



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	14.0	14.0			14.0	14.0
Pedestrian Calls (#/hr)	5	5			5	5
Act Effct Green (s)	15.3	15.3	92.7	92.7	78.2	78.2
Actuated g/C Ratio	0.13	0.13	0.77	0.77	0.65	0.65
v/c Ratio	0.66	0.55	0.55	0.37	0.75	0.22
Control Delay	64.1	12.0	10.3	5.7	20.7	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.1	12.0	10.3	5.7	20.7	2.1
LOS	E	B	B	A	C	A
Approach Delay	33.8			6.9	16.9	
Approach LOS	C			A	B	
Queue Length 50th (m)	32.5	0.0	9.6	32.4	132.2	1.1
Queue Length 95th (m)	51.2	20.1	19.2	57.3	214.7	11.0
Internal Link Dist (m)	429.7			505.9	155.0	
Turn Bay Length (m)	160.0		25.0			
Base Capacity (vph)	296	425	349	1391	1173	1056
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.47	0.54	0.37	0.75	0.22

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 29 (24%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 16.3

Intersection LOS: B

Intersection Capacity Utilization 76.8%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 8: Eagleson Road & Fernbank Road



2: Terry Fox Drive & Overberg Way
AM Peak

Bridlewood 3
Existing Traffic

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	5	4	592	4	2	533
Future Volume (Veh/h)	5	4	592	4	2	533
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	4	658	4	2	592
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1256	660			662	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1256	660			662	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	99			100	
cM capacity (veh/h)	189	463			927	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	10	662	594			
Volume Left	6	0	2			
Volume Right	4	4	0			
cSH	247	1700	927			
Volume to Capacity	0.04	0.39	0.00			
Queue Length 95th (m)	1.0	0.0	0.0			
Control Delay (s)	20.2	0.0	0.1			
Lane LOS	C		A			
Approach Delay (s)	20.2	0.0	0.1			
Approach LOS	C					
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization		43.1%		ICU Level of Service		A
Analysis Period (min)		15				

9: Romina Street/Templeford Avenue & Fernbank Road
AM Peak

Bridlewood 3
Existing Traffic

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	325	72	53	339	31	56	20	28	19	18	37
Future Volume (Veh/h)	42	325	72	53	339	31	56	20	28	19	18	37
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	47	361	80	59	377	34	62	22	31	21	20	41
Pedestrians					6			2			6	
Lane Width (m)					3.7			3.7			3.7	
Walking Speed (m/s)					1.1			1.1			1.1	
Percent Blockage					1			0			1	
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)		218										
pX, platoon unblocked				0.93			0.93	0.93	0.93	0.93	0.93	
vC, conflicting volume	417			443			1003	992	369	1004	1038	383
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	417			365			966	954	285	967	1004	383
tC, single (s)	4.1			4.1			7.1	6.7	6.2	7.1	6.6	6.3
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.1	3.3	3.5	4.1	3.4
p0 queue free %	96			95			64	89	96	88	90	94
cM capacity (veh/h)	1146			1120			174	206	701	176	196	641
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	47	361	80	59	377	34	115	82				
Volume Left	47	0	0	59	0	0	62	21				
Volume Right	0	0	80	0	0	34	31	41				
cSH	1146	1700	1700	1120	1700	1700	226	287				
Volume to Capacity	0.04	0.21	0.05	0.05	0.22	0.02	0.51	0.29				
Queue Length 95th (m)	1.0	0.0	0.0	1.3	0.0	0.0	19.8	8.7				
Control Delay (s)	8.3	0.0	0.0	8.4	0.0	0.0	36.2	22.5				
Lane LOS	A			A			E	C				
Approach Delay (s)	0.8			1.1			36.2	22.5				
Approach LOS							E	C				
Intersection Summary												
Average Delay			6.0									
Intersection Capacity Utilization			44.5%			ICU Level of Service			A			
Analysis Period (min)			15									

13: Eagleson Road & Romina Street/Emerald Meadows Drive
AM Peak

Bridlewood 3
Existing Traffic

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	9	17	6	10	23	42	421	15	27	588	37
Future Volume (Veh/h)	27	9	17	6	10	23	42	421	15	27	588	37
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
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
Hourly flow rate (vph)	30	10	19	7	11	26	47	468	17	30	653	41
Pedestrians					1			4			1	
Lane Width (m)					3.7			3.7			3.7	
Walking Speed (m/s)					1.1			1.1			1.1	
Percent Blockage					0			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1308	1293	657	1304	1317	470	694			486		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1308	1293	657	1304	1317	470	694			486		
tC, single (s)	7.2	6.5	6.3	7.1	6.5	6.2	4.2			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.4	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	73	93	96	94	92	96	95			97		
cM capacity (veh/h)	113	151	446	118	146	596	857			1086		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	59	44	47	468	17	30	653	41				
Volume Left	30	7	47	0	0	30	0	0				
Volume Right	19	26	0	0	17	0	0	41				
cSH	157	247	857	1700	1700	1086	1700	1700				
Volume to Capacity	0.38	0.18	0.05	0.28	0.01	0.03	0.38	0.02				
Queue Length 95th (m)	12.1	4.8	1.3	0.0	0.0	0.6	0.0	0.0				
Control Delay (s)	41.1	22.7	9.4	0.0	0.0	8.4	0.0	0.0				
Lane LOS	E	C	A			A						
Approach Delay (s)	41.1	22.7	0.8			0.3						
Approach LOS	E	C										
Intersection Summary												
Average Delay			3.0									
Intersection Capacity Utilization			52.4%		ICU Level of Service				A			
Analysis Period (min)			15									

1: Eagleson Road & Terry Fox Drive
AM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	220	191	22	137	127	318	473	69	87	225	1
Future Volume (vph)	0	220	191	22	137	127	318	473	69	87	225	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	95.0		0.0	115.0		0.0	80.0		0.0	80.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	60.0			60.0			60.0			60.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99		1.00	0.99		1.00				1.00	
Frt		0.930			0.928			0.981			0.999	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	1820	1665	0	1695	1661	0	1695	3329	0	1679	3354	0
Flt Permitted				0.266			0.516			0.450		
Satd. Flow (perm)	1820	1665	0	474	1661	0	920	3329	0	795	3354	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60			64			23				
Link Speed (k/h)		80			80			60			60	
Link Distance (m)		557.7			461.4			424.3			505.5	
Travel Time (s)		25.1			20.8			25.5			30.3	
Confl. Peds. (#/hr)	1		3	3		1	1					1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	1%	2%	2%	0%	2%	1%	8%	3%	3%	0%
Adj. Flow (vph)	0	220	191	22	137	127	318	473	69	87	225	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	411	0	22	264	0	318	542	0	87	226	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	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		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	
Detector 1 Position(m)	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	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	10.0		10.0	10.0	
Minimum Split (s)	44.6	44.6		44.6	44.6		11.2	33.2		33.2	33.2	
Total Split (s)	44.6	44.6		44.6	44.6		12.0	45.4		33.4	33.4	
Total Split (%)	49.6%	49.6%		49.6%	49.6%		13.3%	50.4%		37.1%	37.1%	
Maximum Green (s)	38.0	38.0		38.0	38.0		5.8	39.4		27.4	27.4	
Yellow Time (s)	4.6	4.6		4.6	4.6		3.5	3.7		3.7	3.7	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.7	2.3		2.3	2.3	

1: Eagleson Road & Terry Fox Drive
AM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.6	6.6		6.6	6.6		6.2	6.0		6.0	6.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	
Flash Dont Walk (s)	31.0	31.0		31.0	31.0			17.0		17.0	17.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effct Green (s)		25.5		25.5	25.5		51.7	51.9		33.9	33.9	
Actuated g/C Ratio		0.28		0.28	0.28		0.57	0.58		0.38	0.38	
v/c Ratio		0.80		0.16	0.51		0.50	0.28		0.29	0.18	
Control Delay		27.0		24.0	22.4		15.4	10.8		23.0	18.2	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		27.0		24.0	22.4		15.4	10.8		23.0	18.2	
LOS		C		C	C		B	B		C	B	
Approach Delay		27.0			22.5			12.5			19.6	
Approach LOS		C			C			B			B	
Queue Length 50th (m)		59.9		2.9	28.4		26.7	21.9		8.1	11.0	
Queue Length 95th (m)		83.1		7.7	43.2		54.6	39.7		25.8	17.1	
Internal Link Dist (m)		533.7			437.4			400.3			481.5	
Turn Bay Length (m)				115.0			80.0			80.0		
Base Capacity (vph)		737		200	738		630	1930		299	1263	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.56		0.11	0.36		0.50	0.28		0.29	0.18	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 66 (73%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 18.4

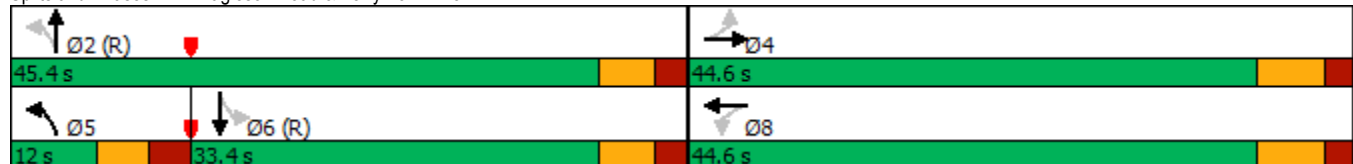
Intersection LOS: B

Intersection Capacity Utilization 79.5%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: Eagleson Road & Terry Fox Drive



7: Terry Fox Drive & Fernbank Road
AM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	214	185	14	180	158	144	406	1	70	269	56
Future Volume (vph)	107	214	185	14	180	158	144	406	1	70	269	56
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	75.0		75.0	80.0		100.0	90.0		0.0	95.0		95.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	100.0			30.0			70.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.98	1.00		0.98	1.00					0.98
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1631	1784	1502	1729	1784	1419	1616	1717	0	1616	1701	1369
Flt Permitted	0.556			0.624			0.478			0.272		
Satd. Flow (perm)	952	1784	1469	1134	1784	1386	812	1717	0	463	1701	1339
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			185			158						113
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		159.5			238.9			547.4			180.5	
Travel Time (s)		9.6			14.3			24.6			8.1	
Confl. Peds. (#/hr)	2		1	1		2	1					1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	6%	2%	3%	0%	2%	9%	7%	6%	0%	7%	7%	13%
Adj. Flow (vph)	107	214	185	14	180	158	144	406	1	70	269	56
Shared Lane Traffic (%)												
Lane Group Flow (vph)	107	214	185	14	180	158	144	407	0	70	269	56
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)		1.6			4.9			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	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	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	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	5	2			6			8			4	
Permitted Phases	2		2	6		6	8			4		4
Detector Phase	5	2	2	6	6	6	8	8		4	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	11.1	33.2	33.2	33.2	33.2	33.2	29.2	29.2		29.2	29.2	29.2
Total Split (s)	17.0	52.0	52.0	35.0	35.0	35.0	38.0	38.0		38.0	38.0	38.0
Total Split (%)	18.9%	57.8%	57.8%	38.9%	38.9%	38.9%	42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	10.9	45.8	45.8	28.8	28.8	28.8	31.8	31.8		31.8	31.8	31.8
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	4.6	4.6		4.6	4.6	4.6
All-Red Time (s)	2.4	2.5	2.5	2.5	2.5	2.5	1.6	1.6		1.6	1.6	1.6

7: Terry Fox Drive & Fernbank Road
AM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	6.2	6.2	6.2	6.2	6.2	6.2	6.2		6.2	6.2	6.2
Lead/Lag	Lead			Lag			Lag					
Lead-Lag Optimize?	Yes			Yes			Yes					
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		20.0	20.0	20.0	20.0	20.0	16.0	16.0		16.0	16.0	16.0
Pedestrian Calls (#/hr)		5	5	5	5	5	5	5		5	5	5
Act Effct Green (s)	51.7	51.6	51.6	39.5	39.5	39.5	26.0	26.0		26.0	26.0	26.0
Actuated g/C Ratio	0.57	0.57	0.57	0.44	0.44	0.44	0.29	0.29		0.29	0.29	0.29
v/c Ratio	0.18	0.21	0.20	0.03	0.23	0.23	0.62	0.82		0.53	0.55	0.12
Control Delay	10.9	11.2	2.4	21.0	21.0	7.1	37.1	41.9		40.2	30.5	0.8
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	10.9	11.2	2.4	21.0	21.0	7.1	37.1	41.9		40.2	30.5	0.8
LOS	B	B	A	C	C	A	D	D		D	C	A
Approach Delay	7.9			14.7			40.6			28.0		
Approach LOS	A			B			D			C		
Queue Length 50th (m)	8.0	17.0	0.0	1.6	22.7	0.0	21.2	62.1		10.0	38.8	0.0
Queue Length 95th (m)	17.7	32.5	9.5	6.5	43.6	17.4	36.8	88.7		22.4	56.9	0.9
Internal Link Dist (m)	135.5			214.9			523.4			156.5		
Turn Bay Length (m)	75.0		75.0	80.0		100.0	90.0			95.0		95.0
Base Capacity (vph)	628	1021	920	498	783	697	286	606		163	601	546
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.17	0.21	0.20	0.03	0.23	0.23	0.50	0.67		0.43	0.45	0.10

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 9 (10%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 23.6

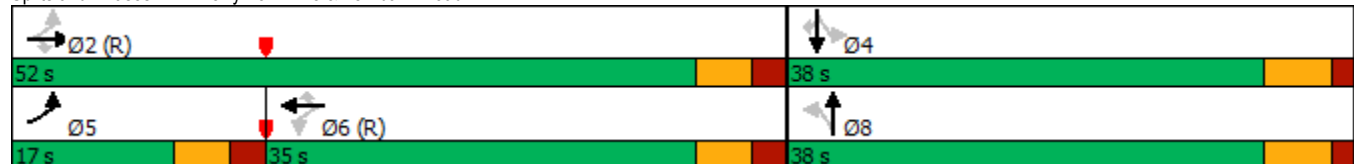
Intersection LOS: C

Intersection Capacity Utilization 82.5%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 7: Terry Fox Drive & Fernbank Road



8: Eagleson Road & Fernbank Road
AM Peak

Bridlewood 3
2025 Background Traffic

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	178	104	170	853	426	91
Future Volume (vph)	178	104	170	853	426	91
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Storage Length (m)	160.0	0.0	45.0			0.0
Storage Lanes	1	1	1			1
Taper Length (m)	60.0		50.0			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor	1.00					
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1729	1446	1712	3357	3262	1517
Flt Permitted	0.950		0.436			
Satd. Flow (perm)	1721	1446	786	3357	3262	1517
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		104				91
Link Speed (k/h)	60			60	60	
Link Distance (m)	455.9			529.6	171.0	
Travel Time (s)	27.4			31.8	10.3	
Confl. Peds. (#/hr)	6					
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	7%	1%	3%	6%	2%
Adj. Flow (vph)	178	104	170	853	426	91
Shared Lane Traffic (%)						
Lane Group Flow (vph)	178	104	170	853	426	91
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			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
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	6.1	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
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	6.1	6.1	1.8	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+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				CI+Ex	CI+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Perm	Perm	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	10.0	10.0	10.0
Minimum Split (s)	43.4	43.4	11.0	24.0	43.0	43.0
Total Split (s)	43.4	43.4	13.0	56.6	43.6	43.6
Total Split (%)	43.4%	43.4%	13.0%	56.6%	43.6%	43.6%
Maximum Green (s)	37.0	37.0	7.0	50.6	37.6	37.6
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.7	2.7	2.3	2.3	2.3	2.3

8: Eagleson Road & Fernbank Road
AM Peak

Bridlewood 3
2025 Background Traffic

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	6.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	Max
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	30.0	30.0			21.0	21.0
Pedestrian Calls (#/hr)	5	5			5	5
Act Effct Green (s)	16.0	16.0	51.3	51.3	38.3	38.3
Actuated g/C Ratio	0.20	0.20	0.64	0.64	0.48	0.48
v/c Ratio	0.52	0.28	0.29	0.40	0.27	0.12
Control Delay	32.8	7.0	9.2	9.2	14.9	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.8	7.0	9.2	9.2	14.9	4.5
LOS	C	A	A	A	B	A
Approach Delay	23.3			9.2	13.0	
Approach LOS	C			A	B	
Queue Length 50th (m)	23.9	0.0	7.7	24.6	17.6	0.0
Queue Length 95th (m)	40.1	10.3	29.3	71.3	43.0	9.6
Internal Link Dist (m)	431.9			505.6	147.0	
Turn Bay Length (m)	160.0		45.0			
Base Capacity (vph)	808	734	587	2156	1563	774
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.14	0.29	0.40	0.27	0.12

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 79.9

Natural Cycle: 100

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 12.5

Intersection LOS: B

Intersection Capacity Utilization 48.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 8: Eagleson Road & Fernbank Road

 Ø2	 Ø4
56.6 s	43.4 s
 Ø5	 Ø6
13 s	43.6 s

9: Romina Street/Templeford Avenue & Fernbank Road
AM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	249	27	5	252	12	59	15	36	24	6	36
Future Volume (vph)	40	249	27	5	252	12	59	15	36	24	6	36
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	100.0		25.0	100.0		15.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	30.0			30.0			7.6			7.6		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.98	1.00		0.97		0.99			0.99	
Frt			0.850			0.850		0.956			0.926	
Flt Protected	0.950			0.950				0.974			0.982	
Satd. Flow (prot)	1729	1802	1532	1729	1784	1459	0	1627	0	0	1529	0
Flt Permitted	0.603			0.605				0.832			0.851	
Satd. Flow (perm)	1088	1802	1494	1098	1784	1412	0	1390	0	0	1321	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			36			36		31			36	
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		238.9			455.9			301.3			168.5	
Travel Time (s)		14.3			27.4			21.7			12.1	
Confl. Peds. (#/hr)	6		2	2		6			6	6		
Confl. Bikes (#/hr)			1			1						1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	1%	0%	2%	6%	2%	15%	0%	0%	11%	11%
Adj. Flow (vph)	40	249	27	5	252	12	59	15	36	24	6	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	249	27	5	252	12	0	110	0	0	66	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			0.0			0.0	
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	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+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		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		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)	27.8	27.8	27.8	27.8	27.8	27.8	31.0	31.0		31.0	31.0	
Total Split (s)	50.0	50.0	50.0	50.0	50.0	50.0	40.0	40.0		40.0	40.0	
Total Split (%)	55.6%	55.6%	55.6%	55.6%	55.6%	55.6%	44.4%	44.4%		44.4%	44.4%	
Maximum Green (s)	44.2	44.2	44.2	44.2	44.2	44.2	34.0	34.0		34.0	34.0	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.3	3.3		3.3	3.3	

9: Romina Street/Templeford Avenue & Fernbank Road
AM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	2.1	2.1	2.1	2.1	2.1	2.1	2.7	2.7		2.7	2.7	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8		6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	15.0	15.0	15.0	15.0	15.0	15.0	18.0	18.0		18.0	18.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	70.6	70.6	70.6	70.6	70.6	70.6		12.0			12.0	
Actuated g/C Ratio	0.78	0.78	0.78	0.78	0.78	0.78		0.13			0.13	
v/c Ratio	0.05	0.18	0.02	0.01	0.18	0.01		0.52			0.32	
Control Delay	2.9	2.8	0.4	4.0	4.1	0.2		33.0			23.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	2.9	2.8	0.4	4.0	4.1	0.2		33.0			23.1	
LOS	A	A	A	A	A	A		C			C	
Approach Delay		2.6			3.9			33.0			23.1	
Approach LOS		A			A			C			C	
Queue Length 50th (m)	1.1	7.4	0.0	0.2	10.1	0.0		13.1			4.8	
Queue Length 95th (m)	m3.0	12.3	m0.5	1.2	22.1	0.3		26.1			15.5	
Internal Link Dist (m)		214.9			431.9			277.3			144.5	
Turn Bay Length (m)	100.0		25.0	100.0		15.0						
Base Capacity (vph)	853	1413	1179	861	1398	1115		544			521	
Starvation Cap Reductn	0	0	0	0	0	0		0			0	
Spillback Cap Reductn	0	0	0	0	0	0		0			0	
Storage Cap Reductn	0	0	0	0	0	0		0			0	
Reduced v/c Ratio	0.05	0.18	0.02	0.01	0.18	0.01		0.20			0.13	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 80 (89%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 9.2

Intersection LOS: A

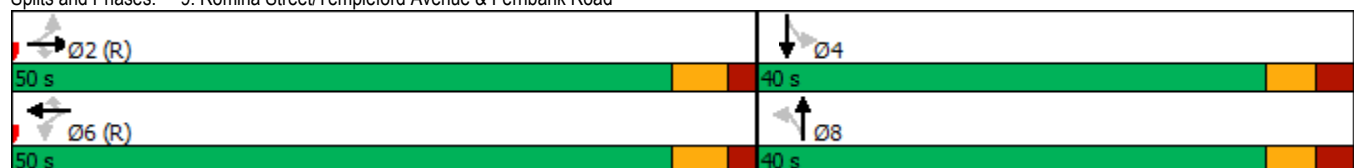
Intersection Capacity Utilization 53.7%

ICU Level of Service A

Analysis Period (min) 15

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

Splits and Phases: 9: Romina Street/Templeford Avenue & Fernbank Road



13: Eagleson Road & Romina Street/Emerald Meadows Drive
AM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	10	33	7	3	29	15	674	14	20	347	20
Future Volume (vph)	45	10	33	7	3	29	15	674	14	20	347	20
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	0.0		0.0	0.0		0.0	100.0		25.0	35.0		25.0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (m)	7.6			7.6			90.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			0.99			1.00		1.00	1.00	
Frt		0.949			0.900			0.997			0.992	
Flt Protected		0.975			0.991		0.950			0.950		
Satd. Flow (prot)	0	1549	0	0	1608	0	1544	3375	0	1729	3350	0
Flt Permitted		0.818			0.938		0.533			0.390		
Satd. Flow (perm)	0	1300	0	0	1521	0	866	3375	0	709	3350	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33			29			3			8	
Link Speed (k/h)		50			40			60			60	
Link Distance (m)		235.1			128.6			505.5			529.6	
Travel Time (s)		16.9			11.6			30.3			31.8	
Confl. Peds. (#/hr)	1		4	4		1			1	1		
Confl. Bikes (#/hr)												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 (%)	7%	0%	12%	0%	0%	0%	12%	2%	7%	0%	2%	7%
Adj. Flow (vph)	45	10	33	7	3	29	15	674	14	20	347	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	88	0	0	39	0	15	688	0	20	367	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)		0.0			0.0			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	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		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	
Detector 1 Position(m)	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	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	44.6	44.6		44.6	44.6		26.0	26.0		26.0	26.0	
Total Split (s)	48.0	48.0		48.0	48.0		42.0	42.0		42.0	42.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	41.5	41.5		41.5	41.5		36.0	36.0		36.0	36.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	

13: Eagleson Road & Romina Street/Emerald Meadows Drive
AM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	3.2	3.2		3.2	3.2		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.5			6.5		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	31.0	31.0		31.0	31.0		13.0	13.0		13.0	13.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		11.1			11.1		70.9	70.9		70.9	70.9	
Actuated g/C Ratio		0.12			0.12		0.79	0.79		0.79	0.79	
v/c Ratio		0.47			0.18		0.02	0.26		0.04	0.14	
Control Delay		32.7			18.7		3.1	3.0		3.8	3.4	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		32.7			18.7		3.1	3.0		3.8	3.4	
LOS		C			B		A	A		A	A	
Approach Delay		32.7			18.7			3.0			3.4	
Approach LOS		C			B			A			A	
Queue Length 50th (m)		8.9			1.6		0.5	13.1		0.7	7.4	
Queue Length 95th (m)		22.4			10.0		m1.8	17.7		2.9	13.6	
Internal Link Dist (m)		211.1			104.6			481.5			505.6	
Turn Bay Length (m)							100.0			35.0		
Base Capacity (vph)		617			716		682	2660		558	2641	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.14			0.05		0.02	0.26		0.04	0.14	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 67 (74%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 5.8

Intersection LOS: A

Intersection Capacity Utilization 45.1%

ICU Level of Service A

Analysis Period (min) 15

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

Splits and Phases: 13: Eagleson Road & Romina Street/Emerald Meadows Drive

 Ø2 (R)	 Ø4
42 s	48 s
 Ø6 (R)	 Ø8
42 s	48 s

2: Terry Fox Drive & Overberg Way
AM Peak

Bridlewood 3
2025 Background Traffic

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	18	13	569	7	4	516
Future Volume (Veh/h)	18	13	569	7	4	516
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	18	13	569	7	4	516
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1096	572			576	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1096	572			576	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	92	97			100	
cM capacity (veh/h)	235	519			997	
Direction, Lane #	WB 1	NB 1	SB 1	SB 2		
Volume Total	31	576	4	516		
Volume Left	18	0	4	0		
Volume Right	13	7	0	0		
cSH	305	1700	997	1700		
Volume to Capacity	0.10	0.34	0.00	0.30		
Queue Length 95th (m)	2.6	0.0	0.1	0.0		
Control Delay (s)	18.1	0.0	8.6	0.0		
Lane LOS	C		A			
Approach Delay (s)	18.1	0.0	0.1			
Approach LOS	C					
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utilization			42.1%		ICU Level of Service	A
Analysis Period (min)			15			

1: Eagleson Road & Terry Fox Drive
PM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	239	366	62	345	123	274	280	30	128	489	2
Future Volume (vph)	1	239	366	62	345	123	274	280	30	128	489	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	95.0		0.0	115.0		0.0	80.0		0.0	80.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	60.0			60.0			60.0			60.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	1.00	0.99		1.00	1.00		1.00				1.00	
Frt		0.909			0.961			0.985			0.999	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1729	1623	0	1695	1718	0	1695	3350	0	1679	3354	0
Flt Permitted	0.305			0.169			0.308			0.563		
Satd. Flow (perm)	555	1623	0	301	1718	0	549	3350	0	995	3354	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		96			22			11				
Link Speed (k/h)		80			80			60			60	
Link Distance (m)		557.7			461.4			424.3			505.5	
Travel Time (s)		25.1			20.8			25.5			30.3	
Confl. Peds. (#/hr)	1		3	3		1	1					1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	1%	2%	2%	0%	2%	1%	8%	3%	3%	0%
Adj. Flow (vph)	1	239	366	62	345	123	274	280	30	128	489	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	605	0	62	468	0	274	310	0	128	491	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	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		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	
Detector 1 Position(m)	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	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	10.0		10.0	10.0	
Minimum Split (s)	44.6	44.6		44.6	44.6		11.2	30.0		30.0	30.0	
Total Split (s)	69.0	69.0		69.0	69.0		21.0	51.0		30.0	30.0	
Total Split (%)	57.5%	57.5%		57.5%	57.5%		17.5%	42.5%		25.0%	25.0%	
Maximum Green (s)	62.4	62.4		62.4	62.4		14.8	45.0		24.0	24.0	
Yellow Time (s)	4.6	4.6		4.6	4.6		3.5	3.7		3.7	3.7	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.7	2.3		2.3	2.3	

1: Eagleson Road & Terry Fox Drive
PM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lost Time Adjst (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.6	6.6		6.6	6.6		6.2	6.0		6.0	6.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	
Flash Dont Walk (s)	31.0	31.0		31.0	31.0			17.0		17.0	17.0	
Pedestrian Calls (#/hr)	5	5		5	5			5		5	5	
Act Effct Green (s)	48.4	48.4		48.4	48.4		58.8	59.0		35.1	35.1	
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.49	0.49		0.29	0.29	
v/c Ratio	0.00	0.85		0.51	0.66		0.63	0.19		0.44	0.50	
Control Delay	16.0	38.2		39.8	31.3		28.9	18.8		32.0	27.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.0	38.2		39.8	31.3		28.9	18.8		32.0	27.7	
LOS	B	D		D	C		C	B		C	C	
Approach Delay		38.2			32.3			23.5			28.6	
Approach LOS		D			C			C			C	
Queue Length 50th (m)	0.1	108.7		10.6	83.1		38.9	20.4		25.7	53.0	
Queue Length 95th (m)	1.0	131.4		22.3	98.0		#75.5	35.3		#45.9	53.2	
Internal Link Dist (m)		533.7			437.4			400.3			481.5	
Turn Bay Length (m)	95.0			115.0			80.0			80.0		
Base Capacity (vph)	288	890		156	903		441	1652		291	981	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.00	0.68		0.40	0.52		0.62	0.19		0.44	0.50	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 30.7

Intersection LOS: C

Intersection Capacity Utilization 102.5%

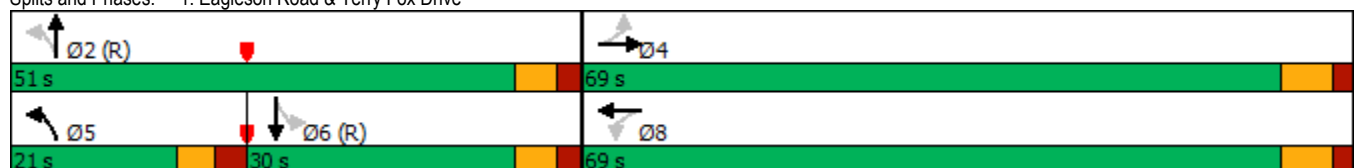
ICU Level of Service G

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Eagleson Road & Terry Fox Drive



3: Terry Fox Drive & Fernbank Road PM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	206	122	24	322	118	248	418	9	197	429	111
Future Volume (vph)	110	206	122	24	322	118	248	418	9	197	429	111
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	75.0		75.0	80.0		100.0	90.0		0.0	95.0		95.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	100.0			30.0			70.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.97	0.99		0.97	1.00	1.00		1.00		0.97
Frt			0.850			0.850		0.997				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1586	1802	1532	1729	1802	1473	1712	1796	0	1695	1802	1488
Flt Permitted	0.338			0.629			0.179			0.514		
Satd. Flow (perm)	562	1802	1490	1138	1802	1428	322	1796	0	916	1802	1445
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			122			172		1				172
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		207.0			218.3			542.0			184.5	
Travel Time (s)		12.4			13.1			24.4			8.3	
Confl. Peds. (#/hr)	6		4	4		6	4		1	1		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 (%)	9%	1%	1%	0%	1%	5%	1%	1%	0%	2%	1%	4%
Adj. Flow (vph)	110	206	122	24	322	118	248	418	9	197	429	111
Shared Lane Traffic (%)												
Lane Group Flow (vph)	110	206	122	24	322	118	248	427	0	197	429	111
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)		1.6			1.6			4.9			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	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	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	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases	5	2			6		3	8			4	
Permitted Phases	2		2	6		6	8			4		4
Detector Phase	5	2	2	6	6	6	3	8		4	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0		10.0	10.0	10.0
Minimum Split (s)	11.1	33.2	33.2	33.2	33.2	33.2	11.5	29.2		29.2	29.2	29.2
Total Split (s)	12.0	46.0	46.0	34.0	34.0	34.0	15.0	54.0		39.0	39.0	39.0
Total Split (%)	12.0%	46.0%	46.0%	34.0%	34.0%	34.0%	15.0%	54.0%		39.0%	39.0%	39.0%
Maximum Green (s)	5.9	39.8	39.8	27.8	27.8	27.8	8.5	47.8		32.8	32.8	32.8
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	4.6	4.6		4.6	4.6	4.6
All-Red Time (s)	2.4	2.5	2.5	2.5	2.5	2.5	1.9	1.6		1.6	1.6	1.6

3: Terry Fox Drive & Fernbank Road PM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	6.2	6.2	6.2	6.2	6.2	6.5	6.2		6.2	6.2	6.2
Lead/Lag	Lead			Lag	Lag	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0		7.0		7.0	7.0	7.0
Flash Dont Walk (s)		20.0	20.0	20.0	20.0	20.0		16.0		16.0	16.0	16.0
Pedestrian Calls (#/hr)		5	5	5	5	5		5		5	5	5
Act Effct Green (s)	44.3	44.2	44.2	31.0	31.0	31.0	43.1	43.4		28.4	28.4	28.4
Actuated g/C Ratio	0.44	0.44	0.44	0.31	0.31	0.31	0.43	0.43		0.28	0.28	0.28
v/c Ratio	0.34	0.26	0.17	0.07	0.58	0.21	0.96	0.55		0.76	0.84	0.21
Control Delay	21.6	19.9	4.3	27.0	35.0	4.5	71.0	23.3		51.2	48.4	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	21.6	19.9	4.3	27.0	35.0	4.5	71.0	23.3		51.2	48.4	1.7
LOS	C	B	A	C	D	A	E	C		D	D	A
Approach Delay		16.0			26.8			40.8			42.1	
Approach LOS		B			C			D			D	
Queue Length 50th (m)	12.8	25.1	0.0	3.6	57.3	0.3	30.4	58.2		34.1	76.4	0.0
Queue Length 95th (m)	25.1	43.4	10.5	10.5	86.6	6.4	#67.1	80.9		#58.7	107.8	2.9
Internal Link Dist (m)		183.0			194.3			518.0			160.5	
Turn Bay Length (m)	75.0		75.0	80.0		100.0	90.0			95.0		95.0
Base Capacity (vph)	321	796	726	353	559	561	257	859		300	591	589
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.34	0.26	0.17	0.07	0.58	0.21	0.96	0.50		0.66	0.73	0.19

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 91 (91%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 33.7

Intersection LOS: C

Intersection Capacity Utilization 90.1%

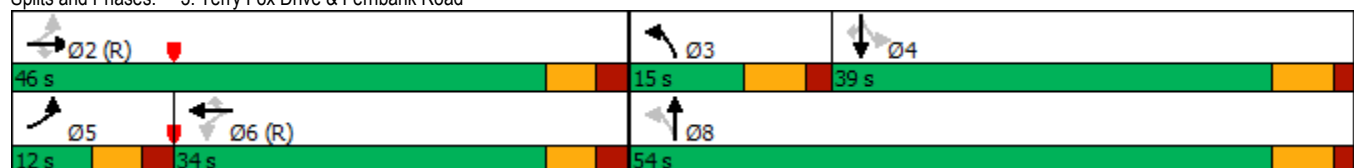
ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Terry Fox Drive & Fernbank Road



8: Eagleson Road & Fernbank Road
PM Peak

Bridlewood 3
2025 Background Traffic



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	140	187	182	554	937	219
Future Volume (vph)	140	187	182	554	937	219
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Storage Length (m)	160.0	0.0	25.0			0.0
Storage Lanes	1	1	1			1
Taper Length (m)	60.0		30.0			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor	1.00	0.99	1.00			0.98
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1712	1532	1695	3424	3424	1547
Flt Permitted	0.950		0.238			
Satd. Flow (perm)	1705	1512	424	3424	3424	1510
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		187				219
Link Speed (k/h)	60			60	60	
Link Distance (m)	458.2			532.9	161.4	
Travel Time (s)	27.5			32.0	9.7	
Confl. Peds. (#/hr)	4	1	2			2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	1%	2%	1%	1%	0%
Adj. Flow (vph)	140	187	182	554	937	219
Shared Lane Traffic (%)						
Lane Group Flow (vph)	140	187	182	554	937	219
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			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
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	6.1	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
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	6.1	6.1	1.8	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+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				CI+Ex	CI+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Perm	Perm	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	10.0	10.0	10.0
Minimum Split (s)	43.4	43.4	11.0	24.0	43.0	43.0
Total Split (s)	43.4	43.4	21.0	76.6	55.6	55.6
Total Split (%)	36.2%	36.2%	17.5%	63.8%	46.3%	46.3%
Maximum Green (s)	37.0	37.0	15.0	70.6	49.6	49.6
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.7	2.7	2.3	2.3	2.3	2.3

8: Eagleson Road & Fernbank Road
PM Peak

Bridlewood 3
2025 Background Traffic



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	6.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	30.0	30.0			21.0	21.0
Pedestrian Calls (#/hr)	5	5			5	5
Act Effct Green (s)	18.4	18.4	89.2	89.2	73.6	73.6
Actuated g/C Ratio	0.15	0.15	0.74	0.74	0.61	0.61
v/c Ratio	0.54	0.48	0.44	0.22	0.45	0.22
Control Delay	52.3	9.2	10.7	6.3	15.6	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.3	9.2	10.7	6.3	15.6	3.0
LOS	D	A	B	A	B	A
Approach Delay	27.7			7.4	13.2	
Approach LOS	C			A	B	
Queue Length 50th (m)	31.8	0.0	8.9	14.7	52.2	0.0
Queue Length 95th (m)	41.5	15.9	31.8	43.4	114.7	14.3
Internal Link Dist (m)	434.2			508.9	137.4	
Turn Bay Length (m)	160.0		25.0			
Base Capacity (vph)	525	595	473	2545	2099	1010
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.31	0.38	0.22	0.45	0.22

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 48 (40%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 13.4

Intersection LOS: B

Intersection Capacity Utilization 62.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 8: Eagleson Road & Fernbank Road



9: Romina Street/Templeford Avenue & Fernbank Road
PM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	331	72	54	350	31	63	20	28	19	18	45
Future Volume (vph)	42	331	72	54	350	31	63	20	28	19	18	45
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	95.0		25.0	100.0		15.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	30.0			30.0			7.6			7.6		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.97	1.00		0.97		0.99			0.99	
Frt			0.850			0.850		0.966			0.926	
Flt Protected	0.950			0.950				0.972			0.989	
Satd. Flow (prot)	1729	1802	1532	1729	1784	1459	0	1633	0	0	1519	0
Flt Permitted	0.550			0.561				0.813			0.914	
Satd. Flow (perm)	994	1802	1493	1018	1784	1410	0	1365	0	0	1401	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			72			33		19			45	
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		218.3			458.2			301.3			168.5	
Travel Time (s)		13.1			27.5			21.7			12.1	
Confl. Peds. (#/hr)	6		2	2		6			6	6		
Confl. Bikes (#/hr)			1			1						1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	1%	0%	2%	6%	2%	15%	0%	0%	11%	11%
Adj. Flow (vph)	42	331	72	54	350	31	63	20	28	19	18	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	331	72	54	350	31	0	111	0	0	82	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			0.0			0.0	
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	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+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		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		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)	27.8	27.8	27.8	27.8	27.8	27.8	31.0	31.0		31.0	31.0	
Total Split (s)	59.0	59.0	59.0	59.0	59.0	59.0	41.0	41.0		41.0	41.0	
Total Split (%)	59.0%	59.0%	59.0%	59.0%	59.0%	59.0%	41.0%	41.0%		41.0%	41.0%	
Maximum Green (s)	53.2	53.2	53.2	53.2	53.2	53.2	35.0	35.0		35.0	35.0	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.3	3.3		3.3	3.3	

9: Romina Street/Templeford Avenue & Fernbank Road
PM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	2.1	2.1	2.1	2.1	2.1	2.1	2.7	2.7		2.7	2.7	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8		6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	15.0	15.0	15.0	15.0	15.0	15.0	18.0	18.0		18.0	18.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	75.1	75.1	75.1	75.1	75.1	75.1		13.1			13.1	
Actuated g/C Ratio	0.75	0.75	0.75	0.75	0.75	0.75		0.13			0.13	
v/c Ratio	0.06	0.24	0.06	0.07	0.26	0.03		0.57			0.37	
Control Delay	1.4	1.6	0.1	4.2	4.8	1.5		44.6			24.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	1.4	1.6	0.1	4.2	4.8	1.5		44.6			24.6	
LOS	A	A	A	A	A	A		D			C	
Approach Delay		1.3			4.5			44.6			24.6	
Approach LOS		A			A			D			C	
Queue Length 50th (m)	0.5	3.8	0.0	2.2	16.7	0.0		17.0			6.6	
Queue Length 95th (m)	m1.1	6.1	m0.0	6.6	33.7	2.3		32.3			18.9	
Internal Link Dist (m)		194.3			434.2			277.3			144.5	
Turn Bay Length (m)	95.0		25.0	100.0		15.0						
Base Capacity (vph)	746	1353	1139	764	1340	1067		490			519	
Starvation Cap Reductn	0	0	0	0	0	0		0			0	
Spillback Cap Reductn	0	0	0	0	0	0		0			0	
Storage Cap Reductn	0	0	0	0	0	0		0			0	
Reduced v/c Ratio	0.06	0.24	0.06	0.07	0.26	0.03		0.23			0.16	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 71 (71%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 8.9

Intersection LOS: A

Intersection Capacity Utilization 57.2%

ICU Level of Service B

Analysis Period (min) 15

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

Splits and Phases: 9: Romina Street/Templeford Avenue & Fernbank Road

					
Ø2 (R)			Ø4		
59 s			41 s		
					
Ø6 (R)			Ø8		
59 s			41 s		

13: Eagleson Road & Romina Street/Emerald Meadows Drive
PM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	9	17	6	10	23	42	509	15	27	694	44
Future Volume (vph)	32	9	17	6	10	23	42	509	15	27	694	44
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	0.0		0.0	0.0		0.0	100.0		25.0	35.0		25.0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (m)	7.6			7.6			90.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			0.99			1.00		1.00	1.00	
Frt		0.960			0.920			0.996			0.991	
Flt Protected		0.973			0.992		0.950			0.950		
Satd. Flow (prot)	0	1576	0	0	1648	0	1544	3370	0	1729	3346	0
Flt Permitted		0.807			0.951		0.366			0.458		
Satd. Flow (perm)	0	1306	0	0	1579	0	595	3370	0	832	3346	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			23			4			8	
Link Speed (k/h)		50			40			60			60	
Link Distance (m)		235.1			128.6			505.5			532.9	
Travel Time (s)		16.9			11.6			30.3			32.0	
Confl. Peds. (#/hr)	1		4	4		1			1	1		
Confl. Bikes (#/hr)												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 (%)	7%	0%	12%	0%	0%	0%	12%	2%	7%	0%	2%	7%
Adj. Flow (vph)	32	9	17	6	10	23	42	509	15	27	694	44
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	58	0	0	39	0	42	524	0	27	738	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)		0.0			0.0			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	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		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	
Detector 1 Position(m)	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	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	44.5	44.5		44.5	44.5		26.0	26.0		26.0	26.0	
Total Split (s)	52.0	52.0		52.0	52.0		68.0	68.0		68.0	68.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Maximum Green (s)	45.5	45.5		45.5	45.5		62.0	62.0		62.0	62.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	

13: Eagleson Road & Romina Street/Emerald Meadows Drive
PM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	3.2	3.2		3.2	3.2		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.5			6.5		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	31.0	31.0		31.0	31.0		13.0	13.0		13.0	13.0	
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5	5	
Act Effct Green (s)		15.8			15.8		96.2	96.2		96.2	96.2	
Actuated g/C Ratio		0.13			0.13		0.80	0.80		0.80	0.80	
v/c Ratio		0.31			0.17		0.09	0.19		0.04	0.27	
Control Delay		36.1			23.1		5.3	3.8		1.3	1.9	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		36.1			23.1		5.3	3.8		1.3	1.9	
LOS		D			C		A	A		A	A	
Approach Delay		36.1			23.1			3.9			1.9	
Approach LOS		D			C			A			A	
Queue Length 50th (m)		9.3			3.6		1.2	8.6		0.1	2.2	
Queue Length 95th (m)		16.8			10.5		m7.6	30.2		m0.8	6.5	
Internal Link Dist (m)		211.1			104.6			481.5			508.9	
Turn Bay Length (m)							100.0			35.0		
Base Capacity (vph)		505			612		477	2702		667	2684	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.11			0.06		0.09	0.19		0.04	0.27	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 92 (77%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.31

Intersection Signal Delay: 4.6

Intersection LOS: A

Intersection Capacity Utilization 57.8%

ICU Level of Service B

Analysis Period (min) 15

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

Splits and Phases: 13: Eagleson Road & Romina Street/Emerald Meadows Drive

 Ø2 (R)	 Ø4
68 s	52 s
 Ø6 (R)	 Ø8
68 s	52 s

2: Terry Fox Drive & Overberg Way
PM Peak

Bridlewood 3
2025 Background Traffic

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	11	9	724	13	10	658
Future Volume (Veh/h)	11	9	724	13	10	658
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	11	9	724	13	10	658
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1408	730			737	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1408	730			737	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	93	98			99	
cM capacity (veh/h)	151	422			869	
Direction, Lane #	WB 1	NB 1	SB 1	SB 2		
Volume Total	20	737	10	658		
Volume Left	11	0	10	0		
Volume Right	9	13	0	0		
cSH	212	1700	869	1700		
Volume to Capacity	0.09	0.43	0.01	0.39		
Queue Length 95th (m)	2.3	0.0	0.3	0.0		
Control Delay (s)	23.7	0.0	9.2	0.0		
Lane LOS	C		A			
Approach Delay (s)	23.7	0.0	0.1			
Approach LOS	C					
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			51.1%		ICU Level of Service	A
Analysis Period (min)			15			

3: Terry Fox Drive & Fernbank Road PM Peak

Bridlewood 3
2025 Background Traffic (Optimized)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	206	122	24	322	118	248	418	9	197	429	111
Future Volume (vph)	110	206	122	24	322	118	248	418	9	197	429	111
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	75.0		75.0	80.0		100.0	90.0		0.0	95.0		95.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	100.0			30.0			70.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.97	0.99		0.97	1.00	1.00		1.00		0.97
Frt			0.850			0.850		0.997				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1586	1802	1532	1729	1802	1473	1712	1796	0	1695	1802	1488
Flt Permitted	0.323			0.629			0.177			0.514		
Satd. Flow (perm)	536	1802	1489	1138	1802	1426	318	1796	0	916	1802	1444
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			122			157		1				157
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		207.0			218.3			542.0			184.5	
Travel Time (s)		12.4			13.1			24.4			8.3	
Confl. Peds. (#/hr)	6		4	4		6	4		1	1		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 (%)	9%	1%	1%	0%	1%	5%	1%	1%	0%	2%	1%	4%
Adj. Flow (vph)	110	206	122	24	322	118	248	418	9	197	429	111
Shared Lane Traffic (%)												
Lane Group Flow (vph)	110	206	122	24	322	118	248	427	0	197	429	111
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)		1.6			1.6			4.9			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	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	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	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases	5	2			6		3	8			4	
Permitted Phases	2		2	6		6	8			4		4
Detector Phase	5	2	2	6	6	6	3	8		4	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0		10.0	10.0	10.0
Minimum Split (s)	11.1	33.2	33.2	33.2	33.2	33.2	11.5	29.2		29.2	29.2	29.2
Total Split (s)	11.1	46.0	46.0	34.9	34.9	34.9	20.0	64.0		44.0	44.0	44.0
Total Split (%)	10.1%	41.8%	41.8%	31.7%	31.7%	31.7%	18.2%	58.2%		40.0%	40.0%	40.0%
Maximum Green (s)	5.0	39.8	39.8	28.7	28.7	28.7	13.5	57.8		37.8	37.8	37.8
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	4.6	4.6		4.6	4.6	4.6
All-Red Time (s)	2.4	2.5	2.5	2.5	2.5	2.5	1.9	1.6		1.6	1.6	1.6

3: Terry Fox Drive & Fernbank Road PM Peak

Bridlewood 3
2025 Background Traffic (Optimized)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	6.2	6.2	6.2	6.2	6.2	6.5	6.2		6.2	6.2	6.2
Lead/Lag	Lead			Lag	Lag	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0		7.0		7.0	7.0	7.0
Flash Dont Walk (s)		20.0	20.0	20.0	20.0	20.0		16.0		16.0	16.0	16.0
Pedestrian Calls (#/hr)		5	5	5	5	5		5		5	5	5
Act Effct Green (s)	46.5	46.4	46.4	32.9	32.9	32.9	50.9	51.2		31.5	31.5	31.5
Actuated g/C Ratio	0.42	0.42	0.42	0.30	0.30	0.30	0.46	0.47		0.29	0.29	0.29
v/c Ratio	0.37	0.27	0.17	0.07	0.60	0.22	0.79	0.51		0.75	0.83	0.21
Control Delay	26.2	23.6	4.9	23.3	31.7	2.0	37.4	22.2		53.3	50.7	2.3
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	26.2	23.6	4.9	23.3	31.7	2.0	37.4	22.2		53.3	50.7	2.3
LOS	C	C	A	C	C	A	D	C		D	D	A
Approach Delay		19.1			23.7			27.8			44.1	
Approach LOS		B			C			C			D	
Queue Length 50th (m)	14.7	28.8	0.0	2.4	64.8	0.6	31.9	61.0		38.0	85.2	0.0
Queue Length 95th (m)	28.9	50.2	11.6	7.5	95.7	2.6	#54.5	79.0		61.2	114.2	4.6
Internal Link Dist (m)		183.0			194.3			518.0			160.5	
Turn Bay Length (m)	75.0		75.0	80.0		100.0	90.0			95.0		95.0
Base Capacity (vph)	297	760	699	340	539	537	318	944		314	619	599
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.37	0.27	0.17	0.07	0.60	0.22	0.78	0.45		0.63	0.69	0.19

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), 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: 30.5

Intersection LOS: C

Intersection Capacity Utilization 90.1%

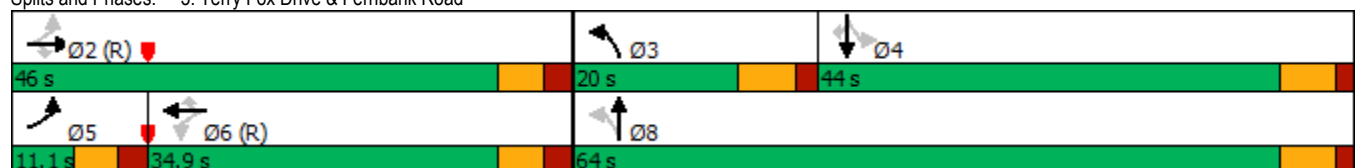
ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Terry Fox Drive & Fernbank Road



1: Eagleson Road & Terry Fox Drive
AM Peak

Bridlewood 3
2030 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	241	209	24	149	140	350	522	76	96	247	1
Future Volume (vph)	0	241	209	24	149	140	350	522	76	96	247	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	95.0		0.0	115.0		0.0	80.0		0.0	80.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	60.0			60.0			60.0			60.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99		1.00	0.99		1.00				1.00	
Frt		0.930			0.927			0.981			0.999	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	1820	1665	0	1695	1660	0	1695	3329	0	1679	3354	0
Flt Permitted				0.244			0.500			0.426		
Satd. Flow (perm)	1820	1665	0	435	1660	0	891	3329	0	753	3354	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60			65			23				
Link Speed (k/h)		80			80			60			60	
Link Distance (m)		557.7			461.4			424.3			505.5	
Travel Time (s)		25.1			20.8			25.5			30.3	
Confl. Peds. (#/hr)	1		3	3		1	1					1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	1%	2%	2%	0%	2%	1%	8%	3%	3%	0%
Adj. Flow (vph)	0	241	209	24	149	140	350	522	76	96	247	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	450	0	24	289	0	350	598	0	96	248	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	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		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	
Detector 1 Position(m)	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	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	10.0		10.0	10.0	
Minimum Split (s)	44.6	44.6		44.6	44.6		11.2	33.2		33.2	33.2	
Total Split (s)	44.6	44.6		44.6	44.6		12.0	45.4		33.4	33.4	
Total Split (%)	49.6%	49.6%		49.6%	49.6%		13.3%	50.4%		37.1%	37.1%	
Maximum Green (s)	38.0	38.0		38.0	38.0		5.8	39.4		27.4	27.4	
Yellow Time (s)	4.6	4.6		4.6	4.6		3.5	3.7		3.7	3.7	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.7	2.3		2.3	2.3	

1: Eagleson Road & Terry Fox Drive
AM Peak

Bridlewood 3
2030 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.6	6.6		6.6	6.6		6.2	6.0		6.0	6.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	
Flash Dont Walk (s)	31.0	31.0		31.0	31.0			17.0		17.0	17.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effct Green (s)		27.6		27.6	27.6		49.6	49.8		31.7	31.7	
Actuated g/C Ratio		0.31		0.31	0.31		0.55	0.55		0.35	0.35	
v/c Ratio		0.82		0.18	0.52		0.59	0.32		0.36	0.21	
Control Delay		26.8		23.2	21.9		19.5	12.3		25.8	19.3	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		26.8		23.2	21.9		19.5	12.3		25.8	19.3	
LOS		C		C	C		B	B		C	B	
Approach Delay		26.8			22.0			15.0			21.1	
Approach LOS		C			C			B			C	
Queue Length 50th (m)		65.8		3.0	31.2		32.3	26.6		8.9	12.0	
Queue Length 95th (m)		88.2		8.0	45.9		#71.6	46.6		28.5	18.3	
Internal Link Dist (m)		533.7			437.4			400.3			481.5	
Turn Bay Length (m)				115.0			80.0			80.0		
Base Capacity (vph)		737		183	738		597	1852		265	1180	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.61		0.13	0.39		0.59	0.32		0.36	0.21	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 66 (73%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 19.7

Intersection LOS: B

Intersection Capacity Utilization 83.4%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Eagleson Road & Terry Fox Drive

 Ø2 (R)	 Ø4
45.4 s	44.6 s
 Ø5	 Ø8
12 s	44.6 s
 Ø6 (R)	
33.4 s	

7: Terry Fox Drive & Fernbank Road
AM Peak

Bridlewood 3
2030 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	214	185	14	180	158	144	445	1	70	296	56
Future Volume (vph)	107	214	185	14	180	158	144	445	1	70	296	56
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	75.0		75.0	80.0		100.0	90.0		0.0	95.0		95.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	100.0			30.0			70.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.98	1.00		0.98	1.00					0.98
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1631	1784	1502	1729	1784	1419	1616	1717	0	1616	1701	1369
Flt Permitted	0.552			0.624			0.452			0.242		
Satd. Flow (perm)	946	1784	1469	1134	1784	1386	768	1717	0	412	1701	1339
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			185			158						113
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		159.5			238.9			547.4			180.5	
Travel Time (s)		9.6			14.3			24.6			8.1	
Confl. Peds. (#/hr)	2		1	1		2	1					1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	6%	2%	3%	0%	2%	9%	7%	6%	0%	7%	7%	13%
Adj. Flow (vph)	107	214	185	14	180	158	144	445	1	70	296	56
Shared Lane Traffic (%)												
Lane Group Flow (vph)	107	214	185	14	180	158	144	446	0	70	296	56
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)		1.6			4.9			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	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	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	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	5	2			6			8			4	
Permitted Phases	2		2	6		6	8			4		4
Detector Phase	5	2	2	6	6	6	8	8		4	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	11.1	33.2	33.2	33.2	33.2	33.2	29.2	29.2		29.2	29.2	29.2
Total Split (s)	17.0	52.0	52.0	35.0	35.0	35.0	38.0	38.0		38.0	38.0	38.0
Total Split (%)	18.9%	57.8%	57.8%	38.9%	38.9%	38.9%	42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	10.9	45.8	45.8	28.8	28.8	28.8	31.8	31.8		31.8	31.8	31.8
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	4.6	4.6		4.6	4.6	4.6
All-Red Time (s)	2.4	2.5	2.5	2.5	2.5	2.5	1.6	1.6		1.6	1.6	1.6

7: Terry Fox Drive & Fernbank Road
AM Peak

Bridlewood 3
2030 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	6.2	6.2	6.2	6.2	6.2	6.2	6.2		6.2	6.2	6.2
Lead/Lag	Lead			Lag			Lag					
Lead-Lag Optimize?	Yes			Yes			Yes					
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		20.0	20.0	20.0	20.0	20.0	16.0	16.0		16.0	16.0	16.0
Pedestrian Calls (#/hr)		5	5	5	5	5	5	5		5	5	5
Act Effct Green (s)	50.1	50.0	50.0	37.9	37.9	37.9	27.6	27.6		27.6	27.6	27.6
Actuated g/C Ratio	0.56	0.56	0.56	0.42	0.42	0.42	0.31	0.31		0.31	0.31	0.31
v/c Ratio	0.18	0.22	0.21	0.03	0.24	0.23	0.61	0.85		0.56	0.57	0.11
Control Delay	11.6	11.9	2.5	21.6	22.0	7.3	35.8	42.5		42.8	30.0	0.7
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	11.6	11.9	2.5	21.6	22.0	7.3	35.8	42.5		42.8	30.0	0.7
LOS	B	B	A	C	C	A	D	D		D	C	A
Approach Delay	8.4			15.4			40.8			28.2		
Approach LOS	A			B			D			C		
Queue Length 50th (m)	8.6	18.3	0.0	1.7	23.7	0.0	21.1	67.5		9.7	41.4	0.0
Queue Length 95th (m)	17.7	32.5	9.5	6.5	43.6	17.4	38.4	100.8		23.6	63.0	0.9
Internal Link Dist (m)	135.5			214.9			523.4			156.5		
Turn Bay Length (m)	75.0		75.0	80.0		100.0	90.0			95.0		95.0
Base Capacity (vph)	609	990	898	477	750	674	271	606		145	601	546
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.18	0.22	0.21	0.03	0.24	0.23	0.53	0.74		0.48	0.49	0.10

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 9 (10%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 24.4

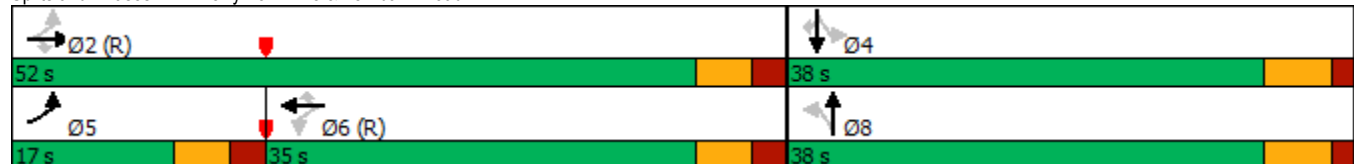
Intersection LOS: C

Intersection Capacity Utilization 84.6%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 7: Terry Fox Drive & Fernbank Road



8: Eagleson Road & Fernbank Road
AM Peak

Bridlewood 3
2030 Background Traffic

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	178	104	170	939	468	91
Future Volume (vph)	178	104	170	939	468	91
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Storage Length (m)	160.0	0.0	45.0			0.0
Storage Lanes	1	1	1			1
Taper Length (m)	60.0		50.0			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor	1.00					
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1729	1446	1712	3357	3262	1517
Flt Permitted	0.950		0.412			
Satd. Flow (perm)	1721	1446	742	3357	3262	1517
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		104				91
Link Speed (k/h)	60			60	60	
Link Distance (m)	455.9			529.6	171.0	
Travel Time (s)	27.4			31.8	10.3	
Confl. Peds. (#/hr)	6					
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	7%	1%	3%	6%	2%
Adj. Flow (vph)	178	104	170	939	468	91
Shared Lane Traffic (%)						
Lane Group Flow (vph)	178	104	170	939	468	91
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			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
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	6.1	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
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	6.1	6.1	1.8	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+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				CI+Ex	CI+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Perm	Perm	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	10.0	10.0	10.0
Minimum Split (s)	43.4	43.4	11.0	24.0	43.0	43.0
Total Split (s)	43.4	43.4	13.0	56.6	43.6	43.6
Total Split (%)	43.4%	43.4%	13.0%	56.6%	43.6%	43.6%
Maximum Green (s)	37.0	37.0	7.0	50.6	37.6	37.6
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.7	2.7	2.3	2.3	2.3	2.3

8: Eagleson Road & Fernbank Road
AM Peak

Bridlewood 3
2030 Background Traffic

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	6.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	Max
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	30.0	30.0			21.0	21.0
Pedestrian Calls (#/hr)	5	5			5	5
Act Effct Green (s)	16.0	16.0	51.3	51.3	38.3	38.3
Actuated g/C Ratio	0.20	0.20	0.64	0.64	0.48	0.48
v/c Ratio	0.52	0.28	0.30	0.44	0.30	0.12
Control Delay	32.8	7.0	9.4	9.6	15.1	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.8	7.0	9.4	9.6	15.1	4.5
LOS	C	A	A	A	B	A
Approach Delay	23.3			9.5	13.4	
Approach LOS	C			A	B	
Queue Length 50th (m)	23.9	0.0	7.7	28.1	19.6	0.0
Queue Length 95th (m)	40.1	10.3	29.3	80.8	47.3	9.6
Internal Link Dist (m)	431.9			505.6	147.0	
Turn Bay Length (m)	160.0		45.0			
Base Capacity (vph)	808	734	562	2156	1563	774
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.14	0.30	0.44	0.30	0.12

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 79.9

Natural Cycle: 100

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 12.6

Intersection LOS: B

Intersection Capacity Utilization 49.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 8: Eagleson Road & Fernbank Road

 Ø2	 Ø4
56.6 s	43.4 s
 Ø5	 Ø6
13 s	43.6 s

9: Romina Street/Templeford Avenue & Fernbank Road
AM Peak

Bridlewood 3
2030 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	249	27	5	252	12	59	15	36	24	6	36
Future Volume (vph)	40	249	27	5	252	12	59	15	36	24	6	36
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	100.0		25.0	100.0		15.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	30.0			30.0			7.6			7.6		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.98	1.00		0.97		0.99			0.99	
Frt			0.850			0.850		0.956			0.926	
Flt Protected	0.950			0.950				0.974			0.982	
Satd. Flow (prot)	1729	1802	1532	1729	1784	1459	0	1627	0	0	1529	0
Flt Permitted	0.603			0.605				0.832			0.851	
Satd. Flow (perm)	1088	1802	1494	1098	1784	1412	0	1390	0	0	1321	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			36			36		31			36	
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		238.9			455.9			301.3			168.5	
Travel Time (s)		14.3			27.4			21.7			12.1	
Confl. Peds. (#/hr)	6		2	2		6			6	6		
Confl. Bikes (#/hr)			1			1						1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	1%	0%	2%	6%	2%	15%	0%	0%	11%	11%
Adj. Flow (vph)	40	249	27	5	252	12	59	15	36	24	6	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	249	27	5	252	12	0	110	0	0	66	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			0.0			0.0	
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	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+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		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		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)	27.8	27.8	27.8	27.8	27.8	27.8	31.0	31.0		31.0	31.0	
Total Split (s)	50.0	50.0	50.0	50.0	50.0	50.0	40.0	40.0		40.0	40.0	
Total Split (%)	55.6%	55.6%	55.6%	55.6%	55.6%	55.6%	44.4%	44.4%		44.4%	44.4%	
Maximum Green (s)	44.2	44.2	44.2	44.2	44.2	44.2	34.0	34.0		34.0	34.0	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.3	3.3		3.3	3.3	

9: Romina Street/Templeford Avenue & Fernbank Road
AM Peak

Bridlewood 3
2030 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	2.1	2.1	2.1	2.1	2.1	2.1	2.7	2.7		2.7	2.7	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8		6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	15.0	15.0	15.0	15.0	15.0	15.0	18.0	18.0		18.0	18.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	70.6	70.6	70.6	70.6	70.6	70.6		12.0			12.0	
Actuated g/C Ratio	0.78	0.78	0.78	0.78	0.78	0.78		0.13			0.13	
v/c Ratio	0.05	0.18	0.02	0.01	0.18	0.01		0.52			0.32	
Control Delay	2.9	2.8	0.4	4.0	4.1	0.2		32.9			23.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	2.9	2.8	0.4	4.0	4.1	0.2		32.9			23.1	
LOS	A	A	A	A	A	A		C			C	
Approach Delay		2.6			3.9			32.9			23.1	
Approach LOS		A			A			C			C	
Queue Length 50th (m)	1.1	7.4	0.0	0.2	10.1	0.0		12.8			4.8	
Queue Length 95th (m)	m2.8	12.3	m0.4	1.2	22.1	0.3		25.6			15.5	
Internal Link Dist (m)		214.9			431.9			277.3			144.5	
Turn Bay Length (m)	100.0		25.0	100.0		15.0						
Base Capacity (vph)	853	1413	1179	861	1398	1115		544			521	
Starvation Cap Reductn	0	0	0	0	0	0		0			0	
Spillback Cap Reductn	0	0	0	0	0	0		0			0	
Storage Cap Reductn	0	0	0	0	0	0		0			0	
Reduced v/c Ratio	0.05	0.18	0.02	0.01	0.18	0.01		0.20			0.13	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 80 (89%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 9.2

Intersection LOS: A

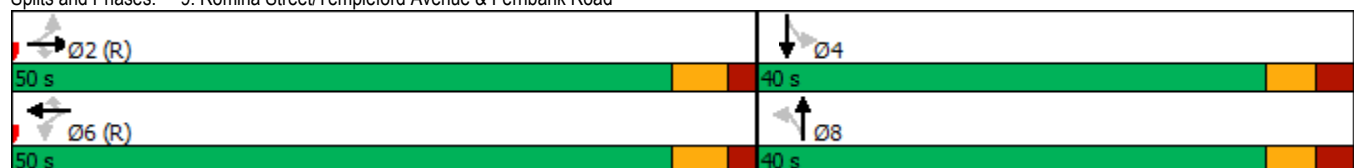
Intersection Capacity Utilization 53.7%

ICU Level of Service A

Analysis Period (min) 15

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

Splits and Phases: 9: Romina Street/Templeford Avenue & Fernbank Road



13: Eagleson Road & Romina Street/Emerald Meadows Drive
AM Peak

Bridlewood 3
2030 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	10	33	7	3	29	15	743	14	20	381	20
Future Volume (vph)	45	10	33	7	3	29	15	743	14	20	381	20
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	0.0		0.0	0.0		0.0	100.0		25.0	35.0		25.0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (m)	7.6			7.6			90.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			0.99			1.00		1.00	1.00	
Frt		0.949			0.900			0.997			0.993	
Flt Protected		0.975			0.991		0.950			0.950		
Satd. Flow (prot)	0	1549	0	0	1608	0	1544	3376	0	1729	3355	0
Flt Permitted		0.818			0.938		0.516			0.364		
Satd. Flow (perm)	0	1300	0	0	1521	0	839	3376	0	662	3355	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		33			29			2			7	
Link Speed (k/h)		50			40			60			60	
Link Distance (m)		235.1			128.6			505.5			529.6	
Travel Time (s)		16.9			11.6			30.3			31.8	
Confl. Peds. (#/hr)	1		4	4		1			1	1		
Confl. Bikes (#/hr)												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 (%)	7%	0%	12%	0%	0%	0%	12%	2%	7%	0%	2%	7%
Adj. Flow (vph)	45	10	33	7	3	29	15	743	14	20	381	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	88	0	0	39	0	15	757	0	20	401	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)		0.0			0.0			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	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		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	
Detector 1 Position(m)	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	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	44.6	44.6		44.6	44.6		26.0	26.0		26.0	26.0	
Total Split (s)	48.0	48.0		48.0	48.0		42.0	42.0		42.0	42.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	41.5	41.5		41.5	41.5		36.0	36.0		36.0	36.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	

13: Eagleson Road & Romina Street/Emerald Meadows Drive
AM Peak

Bridlewood 3
2030 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	3.2	3.2		3.2	3.2		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.5			6.5		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	31.0	31.0		31.0	31.0		13.0	13.0		13.0	13.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		11.1			11.1		70.9	70.9		70.9	70.9	
Actuated g/C Ratio		0.12			0.12		0.79	0.79		0.79	0.79	
v/c Ratio		0.47			0.18		0.02	0.28		0.04	0.15	
Control Delay		32.9			18.7		3.1	3.1		3.9	3.4	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		32.9			18.7		3.1	3.1		3.9	3.4	
LOS		C			B		A	A		A	A	
Approach Delay		32.9			18.7			3.1			3.4	
Approach LOS		C			B			A			A	
Queue Length 50th (m)		8.9			1.6		0.5	14.7		0.7	8.2	
Queue Length 95th (m)		22.6			10.0		m1.7	19.3		2.9	14.9	
Internal Link Dist (m)		211.1			104.6			481.5			505.6	
Turn Bay Length (m)							100.0			35.0		
Base Capacity (vph)		617			716		661	2660		521	2645	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.14			0.05		0.02	0.28		0.04	0.15	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 67 (74%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 5.6

Intersection LOS: A

Intersection Capacity Utilization 47.1%

ICU Level of Service A

Analysis Period (min) 15

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

Splits and Phases: 13: Eagleson Road & Romina Street/Emerald Meadows Drive

 Ø2 (R)	 Ø4
42 s	48 s
 Ø6 (R)	 Ø8
42 s	48 s

2: Terry Fox Drive & Overberg Way
AM Peak

Bridlewood 3
2030 Background Traffic

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	18	13	625	7	4	567
Future Volume (Veh/h)	18	13	625	7	4	567
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	18	13	625	7	4	567
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1204	628			632	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1204	628			632	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	91	97			100	
cM capacity (veh/h)	203	483			951	
Direction, Lane #	WB 1	NB 1	SB 1	SB 2		
Volume Total	31	632	4	567		
Volume Left	18	0	4	0		
Volume Right	13	7	0	0		
cSH	268	1700	951	1700		
Volume to Capacity	0.12	0.37	0.00	0.33		
Queue Length 95th (m)	2.9	0.0	0.1	0.0		
Control Delay (s)	20.2	0.0	8.8	0.0		
Lane LOS	C		A			
Approach Delay (s)	20.2	0.0	0.1			
Approach LOS	C					
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utilization			45.2%	ICU Level of Service		A
Analysis Period (min)			15			

1: Eagleson Road & Terry Fox Drive
PM Peak

Bridlewood 3
2030 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	261	401	68	378	135	300	308	33	141	539	3
Future Volume (vph)	1	261	401	68	378	135	300	308	33	141	539	3
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	95.0		0.0	115.0		0.0	80.0		0.0	80.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	60.0			60.0			60.0			60.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	1.00	0.99		1.00	1.00		1.00				1.00	
Frt		0.909			0.961			0.985			0.999	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1729	1623	0	1695	1718	0	1695	3350	0	1679	3354	0
Flt Permitted	0.290			0.154			0.217			0.547		
Satd. Flow (perm)	528	1623	0	275	1718	0	387	3350	0	967	3354	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		96			22			11				
Link Speed (k/h)		80			80			60			60	
Link Distance (m)		557.7			461.4			424.3			505.5	
Travel Time (s)		25.1			20.8			25.5			30.3	
Confl. Peds. (#/hr)	1		3	3		1	1					1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	1%	2%	2%	0%	2%	1%	8%	3%	3%	0%
Adj. Flow (vph)	1	261	401	68	378	135	300	308	33	141	539	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	662	0	68	513	0	300	341	0	141	542	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	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		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	
Detector 1 Position(m)	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	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	10.0		10.0	10.0	
Minimum Split (s)	44.6	44.6		44.6	44.6		11.2	30.0		30.0	30.0	
Total Split (s)	69.0	69.0		69.0	69.0		21.0	51.0		30.0	30.0	
Total Split (%)	57.5%	57.5%		57.5%	57.5%		17.5%	42.5%		25.0%	25.0%	
Maximum Green (s)	62.4	62.4		62.4	62.4		14.8	45.0		24.0	24.0	
Yellow Time (s)	4.6	4.6		4.6	4.6		3.5	3.7		3.7	3.7	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.7	2.3		2.3	2.3	

1: Eagleson Road & Terry Fox Drive
PM Peak

Bridlewood 3
2030 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lost Time Adjst (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.6	6.6		6.6	6.6		6.2	6.0		6.0	6.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	
Flash Dont Walk (s)	31.0	31.0		31.0	31.0			17.0		17.0	17.0	
Pedestrian Calls (#/hr)	5	5		5	5			5		5	5	
Act Effct Green (s)	52.3	52.3		52.3	52.3		54.9	55.1		27.8	27.8	
Actuated g/C Ratio	0.44	0.44		0.44	0.44		0.46	0.46		0.23	0.23	
v/c Ratio	0.00	0.87		0.57	0.68		0.74	0.22		0.63	0.70	
Control Delay	15.0	38.3		43.0	29.6		37.2	21.1		46.0	37.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.0	38.3		43.0	29.6		37.2	21.1		46.0	37.8	
LOS	B	D		D	C		D	C		D	D	
Approach Delay		38.2			31.2			28.6			39.5	
Approach LOS		D			C			C			D	
Queue Length 50th (m)	0.1	119.0		11.4	88.3		46.8	24.6		31.5	64.7	
Queue Length 95th (m)	1.0	150.9		26.1	108.4		#102.4	39.4		#60.0	#72.6	
Internal Link Dist (m)		533.7			437.4			400.3			481.5	
Turn Bay Length (m)	95.0			115.0			80.0			80.0		
Base Capacity (vph)	274	890		143	903		407	1544		223	775	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.00	0.74		0.48	0.57		0.74	0.22		0.63	0.70	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 34.6

Intersection LOS: C

Intersection Capacity Utilization 107.5%

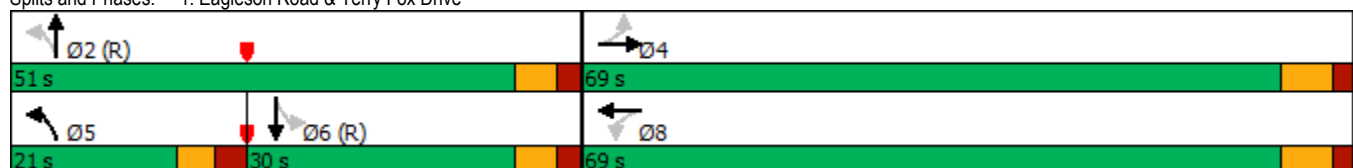
ICU Level of Service G

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Eagleson Road & Terry Fox Drive



3: Terry Fox Drive & Fernbank Road PM Peak

Bridlewood 3
2030 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	206	122	24	322	118	248	457	9	197	470	111
Future Volume (vph)	110	206	122	24	322	118	248	457	9	197	470	111
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	75.0		75.0	80.0		100.0	90.0		0.0	95.0		95.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	100.0			30.0			70.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.97	0.99		0.97		1.00		1.00		0.97
Frt			0.850			0.850		0.997				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1586	1802	1532	1729	1802	1473	1712	1796	0	1695	1802	1488
Flt Permitted	0.328			0.629			0.155			0.495		
Satd. Flow (perm)	545	1802	1490	1138	1802	1428	279	1796	0	882	1802	1445
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			122			172		1				172
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		207.0			218.3			542.0			184.5	
Travel Time (s)		12.4			13.1			24.4			8.3	
Confl. Peds. (#/hr)	6		4	4		6	4		1	1		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 (%)	9%	1%	1%	0%	1%	5%	1%	1%	0%	2%	1%	4%
Adj. Flow (vph)	110	206	122	24	322	118	248	457	9	197	470	111
Shared Lane Traffic (%)												
Lane Group Flow (vph)	110	206	122	24	322	118	248	466	0	197	470	111
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)		1.6			1.6			4.9			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	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	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	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases	5	2			6		3	8			4	
Permitted Phases	2		2	6		6	8			4		4
Detector Phase	5	2	2	6	6	6	3	8		4	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0		10.0	10.0	10.0
Minimum Split (s)	11.1	33.2	33.2	33.2	33.2	33.2	11.5	29.2		29.2	29.2	29.2
Total Split (s)	12.0	46.0	46.0	34.0	34.0	34.0	15.0	54.0		39.0	39.0	39.0
Total Split (%)	12.0%	46.0%	46.0%	34.0%	34.0%	34.0%	15.0%	54.0%		39.0%	39.0%	39.0%
Maximum Green (s)	5.9	39.8	39.8	27.8	27.8	27.8	8.5	47.8		32.8	32.8	32.8
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	4.6	4.6		4.6	4.6	4.6
All-Red Time (s)	2.4	2.5	2.5	2.5	2.5	2.5	1.9	1.6		1.6	1.6	1.6

3: Terry Fox Drive & Fernbank Road PM Peak

Bridlewood 3
2030 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	6.2	6.2	6.2	6.2	6.2	6.5	6.2		6.2	6.2	6.2
Lead/Lag	Lead			Lag	Lag	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0		7.0		7.0	7.0	7.0
Flash Dont Walk (s)		20.0	20.0	20.0	20.0	20.0		16.0		16.0	16.0	16.0
Pedestrian Calls (#/hr)		5	5	5	5	5		5		5	5	5
Act Effct Green (s)	42.7	42.6	42.6	30.0	30.0	30.0	44.7	45.0		30.0	30.0	30.0
Actuated g/C Ratio	0.43	0.43	0.43	0.30	0.30	0.30	0.45	0.45		0.30	0.30	0.30
v/c Ratio	0.37	0.27	0.17	0.07	0.60	0.21	1.01	0.58		0.75	0.87	0.20
Control Delay	22.8	20.8	4.3	27.2	36.1	4.5	82.0	23.2		49.3	50.4	1.6
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	22.8	20.8	4.3	27.2	36.1	4.5	82.0	23.2		49.3	50.4	1.6
LOS	C	C	A	C	D	A	F	C		D	D	A
Approach Delay		16.7			27.6			43.6			43.2	
Approach LOS		B			C			D			D	
Queue Length 50th (m)	13.5	26.6	0.0	3.6	57.3	0.3	28.5	61.2		32.8	82.2	0.0
Queue Length 95th (m)	25.1	43.4	10.5	10.5	86.6	6.4	#73.6	90.1		#63.8	#130.0	2.9
Internal Link Dist (m)		183.0			194.3			518.0			160.5	
Turn Bay Length (m)	75.0		75.0	80.0		100.0	90.0			95.0		95.0
Base Capacity (vph)	299	767	704	341	540	549	246	859		289	591	589
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.37	0.27	0.17	0.07	0.60	0.21	1.01	0.54		0.68	0.80	0.19

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 91 (91%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 35.4

Intersection LOS: D

Intersection Capacity Utilization 92.4%

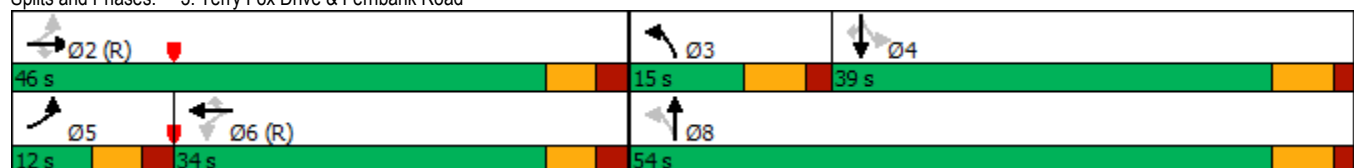
ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Terry Fox Drive & Fernbank Road



8: Eagleson Road & Fernbank Road
PM Peak

Bridlewood 3
2030 Background Traffic



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	140	187	182	609	1032	219
Future Volume (vph)	140	187	182	609	1032	219
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Storage Length (m)	160.0	0.0	25.0			0.0
Storage Lanes	1	1	1			1
Taper Length (m)	60.0		30.0			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor	1.00	0.99				0.98
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1712	1532	1695	3424	3424	1547
Flt Permitted	0.950		0.208			
Satd. Flow (perm)	1705	1512	371	3424	3424	1510
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		187				219
Link Speed (k/h)	60			60	60	
Link Distance (m)	458.2			532.9	161.4	
Travel Time (s)	27.5			32.0	9.7	
Confl. Peds. (#/hr)	4	1	2			2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	1%	2%	1%	1%	0%
Adj. Flow (vph)	140	187	182	609	1032	219
Shared Lane Traffic (%)						
Lane Group Flow (vph)	140	187	182	609	1032	219
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			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
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	6.1	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
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	6.1	6.1	1.8	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+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				CI+Ex	CI+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Perm	Perm	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	10.0	10.0	10.0
Minimum Split (s)	43.4	43.4	11.0	24.0	43.0	43.0
Total Split (s)	43.4	43.4	21.0	76.6	55.6	55.6
Total Split (%)	36.2%	36.2%	17.5%	63.8%	46.3%	46.3%
Maximum Green (s)	37.0	37.0	15.0	70.6	49.6	49.6
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.7	2.7	2.3	2.3	2.3	2.3

8: Eagleson Road & Fernbank Road
PM Peak

Bridlewood 3
2030 Background Traffic



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	6.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	30.0	30.0			21.0	21.0
Pedestrian Calls (#/hr)	5	5			5	5
Act Effct Green (s)	18.4	18.4	89.2	89.2	73.6	73.6
Actuated g/C Ratio	0.15	0.15	0.74	0.74	0.61	0.61
v/c Ratio	0.54	0.48	0.48	0.24	0.49	0.22
Control Delay	52.3	9.2	12.5	6.2	16.4	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.3	9.2	12.5	6.2	16.4	3.0
LOS	D	A	B	A	B	A
Approach Delay	27.7			7.7	14.0	
Approach LOS	C			A	B	
Queue Length 50th (m)	31.8	0.0	8.7	16.1	59.6	0.0
Queue Length 95th (m)	41.5	15.9	31.8	47.4	130.3	14.3
Internal Link Dist (m)	434.2			508.9	137.4	
Turn Bay Length (m)	160.0		25.0			
Base Capacity (vph)	525	595	441	2545	2099	1010
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.31	0.41	0.24	0.49	0.22

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 48 (40%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 13.8

Intersection LOS: B

Intersection Capacity Utilization 65.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 8: Eagleson Road & Fernbank Road



9: Romina Street/Templeford Avenue & Fernbank Road
PM Peak

Bridlewood 3
2030 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	331	72	54	350	31	63	20	28	19	18	45
Future Volume (vph)	42	331	72	54	350	31	63	20	28	19	18	45
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	95.0		25.0	100.0		15.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	30.0			30.0			7.6			7.6		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.97	1.00		0.97		0.99			0.99	
Frt			0.850			0.850		0.966			0.926	
Flt Protected	0.950			0.950				0.972			0.989	
Satd. Flow (prot)	1729	1802	1532	1729	1784	1459	0	1633	0	0	1519	0
Flt Permitted	0.550			0.561				0.813			0.914	
Satd. Flow (perm)	994	1802	1493	1018	1784	1410	0	1365	0	0	1401	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			72			33		19			45	
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		218.3			458.2			301.3			168.5	
Travel Time (s)		13.1			27.5			21.7			12.1	
Confl. Peds. (#/hr)	6		2	2		6			6	6		
Confl. Bikes (#/hr)			1			1						1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	1%	0%	2%	6%	2%	15%	0%	0%	11%	11%
Adj. Flow (vph)	42	331	72	54	350	31	63	20	28	19	18	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	331	72	54	350	31	0	111	0	0	82	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			0.0			0.0	
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	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+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		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		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)	27.8	27.8	27.8	27.8	27.8	27.8	31.0	31.0		31.0	31.0	
Total Split (s)	59.0	59.0	59.0	59.0	59.0	59.0	41.0	41.0		41.0	41.0	
Total Split (%)	59.0%	59.0%	59.0%	59.0%	59.0%	59.0%	41.0%	41.0%		41.0%	41.0%	
Maximum Green (s)	53.2	53.2	53.2	53.2	53.2	53.2	35.0	35.0		35.0	35.0	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.3	3.3		3.3	3.3	

9: Romina Street/Templeford Avenue & Fernbank Road
PM Peak

Bridlewood 3
2030 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	2.1	2.1	2.1	2.1	2.1	2.1	2.7	2.7		2.7	2.7	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8		6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	15.0	15.0	15.0	15.0	15.0	15.0	18.0	18.0		18.0	18.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	75.1	75.1	75.1	75.1	75.1	75.1		13.1			13.1	
Actuated g/C Ratio	0.75	0.75	0.75	0.75	0.75	0.75		0.13			0.13	
v/c Ratio	0.06	0.24	0.06	0.07	0.26	0.03		0.57			0.37	
Control Delay	1.3	1.6	0.1	4.2	4.8	1.5		44.6			24.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	1.3	1.6	0.1	4.2	4.8	1.5		44.6			24.6	
LOS	A	A	A	A	A	A		D			C	
Approach Delay		1.3			4.5			44.6			24.6	
Approach LOS		A			A			D			C	
Queue Length 50th (m)	0.5	3.8	0.0	2.2	16.7	0.0		17.0			6.6	
Queue Length 95th (m)	m1.0	6.0	m0.0	6.6	33.7	2.3		32.3			18.9	
Internal Link Dist (m)		194.3			434.2			277.3			144.5	
Turn Bay Length (m)	95.0		25.0	100.0		15.0						
Base Capacity (vph)	746	1353	1139	764	1340	1067		490			519	
Starvation Cap Reductn	0	0	0	0	0	0		0			0	
Spillback Cap Reductn	0	0	0	0	0	0		0			0	
Storage Cap Reductn	0	0	0	0	0	0		0			0	
Reduced v/c Ratio	0.06	0.24	0.06	0.07	0.26	0.03		0.23			0.16	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 71 (71%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 8.9

Intersection LOS: A

Intersection Capacity Utilization 57.2%

ICU Level of Service B

Analysis Period (min) 15

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

Splits and Phases: 9: Romina Street/Templeford Avenue & Fernbank Road

					
Ø2 (R)			Ø4		
59 s			41 s		
					
Ø6 (R)			Ø8		
59 s			41 s		

13: Eagleson Road & Romina Street/Emerald Meadows Drive
PM Peak

Bridlewood 3
2030 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	9	17	6	10	23	42	559	15	27	765	44
Future Volume (vph)	32	9	17	6	10	23	42	559	15	27	765	44
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	0.0		0.0	0.0		0.0	100.0		25.0	35.0		25.0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (m)	7.6			7.6			90.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			0.99			1.00		1.00	1.00	
Frt		0.960			0.920			0.996			0.992	
Flt Protected		0.973			0.992		0.950			0.950		
Satd. Flow (prot)	0	1576	0	0	1648	0	1544	3370	0	1729	3350	0
Flt Permitted		0.807			0.951		0.338			0.436		
Satd. Flow (perm)	0	1306	0	0	1579	0	549	3370	0	793	3350	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			23			3			7	
Link Speed (k/h)		50			40			60			60	
Link Distance (m)		235.1			128.6			505.5			532.9	
Travel Time (s)		16.9			11.6			30.3			32.0	
Confl. Peds. (#/hr)	1		4	4		1			1	1		
Confl. Bikes (#/hr)												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 (%)	7%	0%	12%	0%	0%	0%	12%	2%	7%	0%	2%	7%
Adj. Flow (vph)	32	9	17	6	10	23	42	559	15	27	765	44
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	58	0	0	39	0	42	574	0	27	809	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)		0.0			0.0			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	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		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	
Detector 1 Position(m)	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	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	44.5	44.5		44.5	44.5		26.0	26.0		26.0	26.0	
Total Split (s)	52.0	52.0		52.0	52.0		68.0	68.0		68.0	68.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Maximum Green (s)	45.5	45.5		45.5	45.5		62.0	62.0		62.0	62.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	

13: Eagleson Road & Romina Street/Emerald Meadows Drive
PM Peak

Bridlewood 3
2030 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	3.2	3.2		3.2	3.2		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.5			6.5		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	31.0	31.0		31.0	31.0		13.0	13.0		13.0	13.0	
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5	5	
Act Effct Green (s)		15.8			15.8		96.2	96.2		96.2	96.2	
Actuated g/C Ratio		0.13			0.13		0.80	0.80		0.80	0.80	
v/c Ratio		0.31			0.17		0.10	0.21		0.04	0.30	
Control Delay		36.1			23.1		5.3	3.8		1.2	1.9	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		36.1			23.1		5.3	3.8		1.2	1.9	
LOS		D			C		A	A		A	A	
Approach Delay		36.1			23.1			3.9			1.8	
Approach LOS		D			C			A			A	
Queue Length 50th (m)		9.3			3.6		1.2	9.5		0.1	2.2	
Queue Length 95th (m)		16.8			10.5		m7.0	32.0		m0.7	6.5	
Internal Link Dist (m)		211.1			104.6			481.5			508.9	
Turn Bay Length (m)							100.0			35.0		
Base Capacity (vph)		505			612		440	2702		636	2687	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.11			0.06		0.10	0.21		0.04	0.30	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 92 (77%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.31

Intersection Signal Delay: 4.5

Intersection LOS: A

Intersection Capacity Utilization 59.6%

ICU Level of Service B

Analysis Period (min) 15

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

Splits and Phases: 13: Eagleson Road & Romina Street/Emerald Meadows Drive

					
Ø2 (R)					Ø4
68 s					52 s
					
Ø6 (R)					Ø8
68 s					52 s

2: Terry Fox Drive & Overberg Way
PM Peak

Bridlewood 3
2030 Background Traffic

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	11	9	795	13	10	722
Future Volume (Veh/h)	11	9	795	13	10	722
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	11	9	795	13	10	722
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1544	802			808	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1544	802			808	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	91	98			99	
cM capacity (veh/h)	125	384			817	
Direction, Lane #	WB 1	NB 1	SB 1	SB 2		
Volume Total	20	808	10	722		
Volume Left	11	0	10	0		
Volume Right	9	13	0	0		
cSH	179	1700	817	1700		
Volume to Capacity	0.11	0.48	0.01	0.42		
Queue Length 95th (m)	2.8	0.0	0.3	0.0		
Control Delay (s)	27.6	0.0	9.5	0.0		
Lane LOS	D		A			
Approach Delay (s)	27.6	0.0	0.1			
Approach LOS	D					
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			55.0%	ICU Level of Service		A
Analysis Period (min)			15			

3: Terry Fox Drive & Fernbank Road PM Peak

Bridlewood 3
2030 Background Traffic (Optimized)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	206	122	24	322	118	248	457	9	197	470	111
Future Volume (vph)	110	206	122	24	322	118	248	457	9	197	470	111
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	75.0		75.0	80.0		100.0	90.0		0.0	95.0		95.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	100.0			30.0			70.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.97	0.99		0.97		1.00		1.00		0.97
Frt			0.850			0.850		0.997				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1586	1802	1532	1729	1802	1473	1712	1796	0	1695	1802	1488
Flt Permitted	0.314			0.629			0.155			0.495		
Satd. Flow (perm)	522	1802	1489	1138	1802	1426	279	1796	0	882	1802	1444
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			122			157		1				157
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		207.0			218.3			542.0			184.5	
Travel Time (s)		12.4			13.1			24.4			8.3	
Confl. Peds. (#/hr)	6		4	4		6	4		1	1		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 (%)	9%	1%	1%	0%	1%	5%	1%	1%	0%	2%	1%	4%
Adj. Flow (vph)	110	206	122	24	322	118	248	457	9	197	470	111
Shared Lane Traffic (%)												
Lane Group Flow (vph)	110	206	122	24	322	118	248	466	0	197	470	111
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)		1.6			1.6			4.9			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	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	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	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases	5	2			6		3	8			4	
Permitted Phases	2		2	6		6	8			4		4
Detector Phase	5	2	2	6	6	6	3	8		4	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0		10.0	10.0	10.0
Minimum Split (s)	11.1	33.2	33.2	33.2	33.2	33.2	11.5	29.2		29.2	29.2	29.2
Total Split (s)	11.1	46.0	46.0	34.9	34.9	34.9	20.0	64.0		44.0	44.0	44.0
Total Split (%)	10.1%	41.8%	41.8%	31.7%	31.7%	31.7%	18.2%	58.2%		40.0%	40.0%	40.0%
Maximum Green (s)	5.0	39.8	39.8	28.7	28.7	28.7	13.5	57.8		37.8	37.8	37.8
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	4.6	4.6		4.6	4.6	4.6
All-Red Time (s)	2.4	2.5	2.5	2.5	2.5	2.5	1.9	1.6		1.6	1.6	1.6

3: Terry Fox Drive & Fernbank Road PM Peak

Bridlewood 3
2030 Background Traffic (Optimized)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	6.2	6.2	6.2	6.2	6.2	6.5	6.2		6.2	6.2	6.2
Lead/Lag	Lead			Lag	Lag	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0		7.0		7.0	7.0	7.0
Flash Dont Walk (s)		20.0	20.0	20.0	20.0	20.0		16.0		16.0	16.0	16.0
Pedestrian Calls (#/hr)		5	5	5	5	5		5		5	5	5
Act Effct Green (s)	44.7	44.6	44.6	31.9	31.9	31.9	52.7	53.0		33.4	33.4	33.4
Actuated g/C Ratio	0.41	0.41	0.41	0.29	0.29	0.29	0.48	0.48		0.30	0.30	0.30
v/c Ratio	0.40	0.28	0.18	0.07	0.62	0.22	0.82	0.54		0.74	0.86	0.20
Control Delay	28.1	24.8	5.0	23.5	32.7	2.1	40.6	21.8		50.8	52.0	2.2
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	28.1	24.8	5.0	23.5	32.7	2.1	40.6	21.8		50.8	52.0	2.2
LOS	C	C	A	C	C	A	D	C		D	D	A
Approach Delay		20.1			24.5			28.4			44.6	
Approach LOS		C			C			C			D	
Queue Length 50th (m)	15.4	30.3	0.0	2.5	64.9	0.8	29.9	64.4		36.8	92.1	0.0
Queue Length 95th (m)	28.9	50.2	11.6	7.5	95.7	2.6	#61.8	88.2		62.3	128.0	4.6
Internal Link Dist (m)		183.0			194.3			518.0			160.5	
Turn Bay Length (m)	75.0		75.0	80.0		100.0	90.0			95.0		95.0
Base Capacity (vph)	275	730	676	330	523	525	309	944		303	619	599
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.40	0.28	0.18	0.07	0.62	0.22	0.80	0.49		0.65	0.76	0.19

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 31.4

Intersection LOS: C

Intersection Capacity Utilization 92.4%

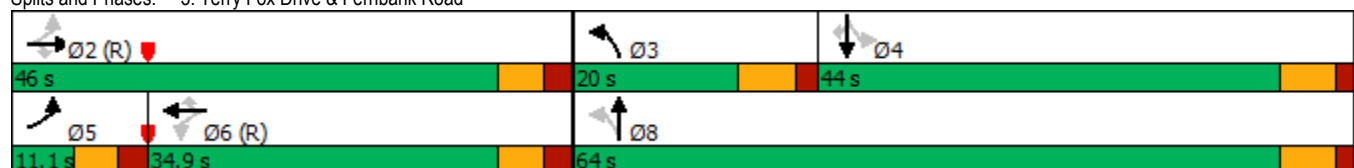
ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Terry Fox Drive & Fernbank Road



1: Eagleson Road & Terry Fox Drive
AM Peak

Bridlewood 3
2025 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	237	204	22	147	134	325	478	69	98	233	1
Future Volume (vph)	0	237	204	22	147	134	325	478	69	98	233	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	95.0		0.0	115.0		0.0	80.0		0.0	80.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	60.0			60.0			60.0			60.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99		1.00	0.99		1.00				1.00	
Frt		0.931			0.928			0.981			0.999	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	1820	1667	0	1695	1661	0	1695	3330	0	1679	3354	0
Flt Permitted				0.249			0.509			0.448		
Satd. Flow (perm)	1820	1667	0	444	1661	0	907	3330	0	792	3354	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60			63			22				
Link Speed (k/h)		80			80			60			60	
Link Distance (m)		557.7			461.4			424.3			505.5	
Travel Time (s)		25.1			20.8			25.5			30.3	
Confl. Peds. (#/hr)	1		3	3		1	1					1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	1%	2%	2%	0%	2%	1%	8%	3%	3%	0%
Adj. Flow (vph)	0	237	204	22	147	134	325	478	69	98	233	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	441	0	22	281	0	325	547	0	98	234	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	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		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	
Detector 1 Position(m)	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	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	10.0		10.0	10.0	
Minimum Split (s)	44.6	44.6		44.6	44.6		11.2	33.2		33.2	33.2	
Total Split (s)	44.6	44.6		44.6	44.6		12.0	45.4		33.4	33.4	
Total Split (%)	49.6%	49.6%		49.6%	49.6%		13.3%	50.4%		37.1%	37.1%	
Maximum Green (s)	38.0	38.0		38.0	38.0		5.8	39.4		27.4	27.4	
Yellow Time (s)	4.6	4.6		4.6	4.6		3.5	3.7		3.7	3.7	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.7	2.3		2.3	2.3	

1: Eagleson Road & Terry Fox Drive
AM Peak

Bridlewood 3
2025 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.6	6.6		6.6	6.6		6.2	6.0		6.0	6.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	
Flash Dont Walk (s)	31.0	31.0		31.0	31.0			17.0		17.0	17.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effct Green (s)		27.1		27.1	27.1		50.1	50.3		32.6	32.6	
Actuated g/C Ratio		0.30		0.30	0.30		0.56	0.56		0.36	0.36	
v/c Ratio		0.81		0.17	0.52		0.54	0.29		0.34	0.19	
Control Delay		27.3		23.0	22.1		17.3	11.7		23.1	18.3	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		27.3		23.0	22.1		17.3	11.7		23.1	18.3	
LOS		C		C	C		B	B		C	B	
Approach Delay		27.3			22.2			13.8			19.7	
Approach LOS		C			C			B			B	
Queue Length 50th (m)		64.7		2.8	30.5		28.9	23.4		9.6	12.2	
Queue Length 95th (m)		85.8		7.5	45.1		58.1	41.8		18.1	18.3	
Internal Link Dist (m)		533.7			437.4			400.3			481.5	
Turn Bay Length (m)				115.0			80.0			80.0		
Base Capacity (vph)		738		187	737		606	1871		286	1213	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.60		0.12	0.38		0.54	0.29		0.34	0.19	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 66 (73%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 19.2

Intersection LOS: B

Intersection Capacity Utilization 81.5%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 1: Eagleson Road & Terry Fox Drive

 Ø2 (R)	 Ø4
45.4 s	44.6 s
 Ø5	 Ø8
12 s	44.6 s
 Ø6 (R)	
33.4 s	

7: Terry Fox Drive & Fernbank Road
AM Peak

Bridlewood 3
2025 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	217	190	14	186	172	152	427	1	78	281	56
Future Volume (vph)	107	217	190	14	186	172	152	427	1	78	281	56
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	75.0		75.0	80.0		100.0	90.0		0.0	95.0		95.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	100.0			30.0			70.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.98	1.00		0.98	1.00					0.98
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1631	1784	1502	1729	1784	1419	1616	1717	0	1616	1701	1369
Flt Permitted	0.551			0.622			0.468			0.256		
Satd. Flow (perm)	944	1784	1469	1131	1784	1386	795	1717	0	435	1701	1339
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			190			172						113
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		159.5			238.9			547.4			180.5	
Travel Time (s)		9.6			14.3			24.6			8.1	
Confl. Peds. (#/hr)	2		1	1		2	1					1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	6%	2%	3%	0%	2%	9%	7%	6%	0%	7%	7%	13%
Adj. Flow (vph)	107	217	190	14	186	172	152	427	1	78	281	56
Shared Lane Traffic (%)												
Lane Group Flow (vph)	107	217	190	14	186	172	152	428	0	78	281	56
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)		1.6			4.9			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	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	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	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	5	2			6			8			4	
Permitted Phases	2		2	6		6	8			4		4
Detector Phase	5	2	2	6	6	6	8	8		4	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	11.1	33.2	33.2	33.2	33.2	33.2	29.2	29.2		29.2	29.2	29.2
Total Split (s)	17.0	52.0	52.0	35.0	35.0	35.0	38.0	38.0		38.0	38.0	38.0
Total Split (%)	18.9%	57.8%	57.8%	38.9%	38.9%	38.9%	42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	10.9	45.8	45.8	28.8	28.8	28.8	31.8	31.8		31.8	31.8	31.8
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	4.6	4.6		4.6	4.6	4.6
All-Red Time (s)	2.4	2.5	2.5	2.5	2.5	2.5	1.6	1.6		1.6	1.6	1.6

7: Terry Fox Drive & Fernbank Road
AM Peak

Bridlewood 3
2025 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	6.2	6.2	6.2	6.2	6.2	6.2	6.2		6.2	6.2	6.2
Lead/Lag	Lead			Lag			Lag					
Lead-Lag Optimize?	Yes			Yes			Yes					
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		20.0	20.0	20.0	20.0	20.0	16.0	16.0		16.0	16.0	16.0
Pedestrian Calls (#/hr)		5	5	5	5	5	5	5		5	5	5
Act Effct Green (s)	50.8	50.7	50.7	38.6	38.6	38.6	26.9	26.9		26.9	26.9	26.9
Actuated g/C Ratio	0.56	0.56	0.56	0.43	0.43	0.43	0.30	0.30		0.30	0.30	0.30
v/c Ratio	0.18	0.22	0.21	0.03	0.24	0.25	0.64	0.83		0.60	0.55	0.12
Control Delay	11.3	11.6	2.5	21.5	22.1	7.7	37.5	41.7		46.1	30.0	0.8
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	11.3	11.6	2.5	21.5	22.1	7.7	37.5	41.7		46.1	30.0	0.8
LOS	B	B	A	C	C	A	D	D		D	C	A
Approach Delay	8.2				15.4				40.6			
Approach LOS	A				B				D			
Queue Length 50th (m)	8.4	18.1	0.0	1.8	24.8	1.5	22.1	64.5		11.2	39.6	0.0
Queue Length 95th (m)	17.7	33.0	9.6	6.8	45.8	19.6	39.5	94.5		26.0	59.5	0.9
Internal Link Dist (m)	135.5				214.9				523.4			
Turn Bay Length (m)	75.0		75.0	80.0		100.0	90.0			95.0		95.0
Base Capacity (vph)	615	1004	909	484	764	692	280	606		153	601	546
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.17	0.22	0.21	0.03	0.24	0.25	0.54	0.71		0.51	0.47	0.10

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 9 (10%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 24.2

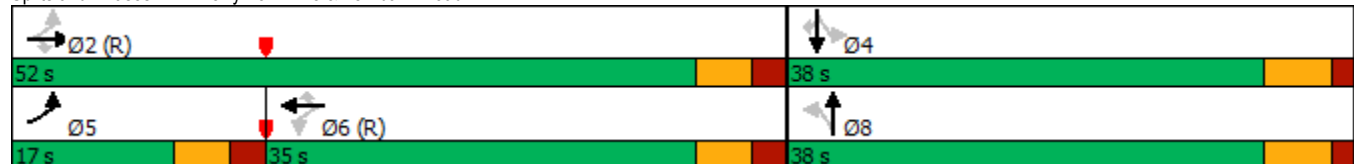
Intersection LOS: C

Intersection Capacity Utilization 83.6%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 7: Terry Fox Drive & Fernbank Road



8: Eagleson Road & Fernbank Road
AM Peak

Bridlewood 3
2025 Total Traffic

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	178	104	170	895	451	91
Future Volume (vph)	178	104	170	895	451	91
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Storage Length (m)	160.0	0.0	45.0			0.0
Storage Lanes	1	1	1			1
Taper Length (m)	60.0		50.0			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor	1.00					
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1729	1446	1712	3357	3262	1517
Flt Permitted	0.950		0.422			
Satd. Flow (perm)	1721	1446	760	3357	3262	1517
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		104				91
Link Speed (k/h)	60			60	60	
Link Distance (m)	455.9			529.6	171.0	
Travel Time (s)	27.4			31.8	10.3	
Confl. Peds. (#/hr)	6					
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	7%	1%	3%	6%	2%
Adj. Flow (vph)	178	104	170	895	451	91
Shared Lane Traffic (%)						
Lane Group Flow (vph)	178	104	170	895	451	91
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			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
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	6.1	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
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	6.1	6.1	1.8	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+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				CI+Ex	CI+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Perm	Perm	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	10.0	10.0	10.0
Minimum Split (s)	43.4	43.4	11.0	24.0	43.0	43.0
Total Split (s)	43.4	43.4	13.0	56.6	43.6	43.6
Total Split (%)	43.4%	43.4%	13.0%	56.6%	43.6%	43.6%
Maximum Green (s)	37.0	37.0	7.0	50.6	37.6	37.6
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.7	2.7	2.3	2.3	2.3	2.3

8: Eagleson Road & Fernbank Road
AM Peak

Bridlewood 3
2025 Total Traffic

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	6.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	Max
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	30.0	30.0			21.0	21.0
Pedestrian Calls (#/hr)	5	5			5	5
Act Effct Green (s)	16.0	16.0	51.3	51.3	38.3	38.3
Actuated g/C Ratio	0.20	0.20	0.64	0.64	0.48	0.48
v/c Ratio	0.52	0.28	0.30	0.42	0.29	0.12
Control Delay	32.8	7.0	9.3	9.4	15.0	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.8	7.0	9.3	9.4	15.0	4.5
LOS	C	A	A	A	B	A
Approach Delay	23.3			9.4	13.2	
Approach LOS	C			A	B	
Queue Length 50th (m)	23.9	0.0	7.7	26.3	18.8	0.0
Queue Length 95th (m)	40.1	10.3	29.3	75.8	45.6	9.6
Internal Link Dist (m)	431.9			505.6	147.0	
Turn Bay Length (m)	160.0		45.0			
Base Capacity (vph)	808	734	572	2156	1563	774
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.14	0.30	0.42	0.29	0.12

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 79.9

Natural Cycle: 100

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 12.5

Intersection LOS: B

Intersection Capacity Utilization 48.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 8: Eagleson Road & Fernbank Road

 Ø2	 Ø4
56.6 s	43.4 s
 Ø5	 Ø6
13 s	43.6 s

9: Romina Street/Templeford Avenue & Fernbank Road
AM Peak

Bridlewood 3
2025 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	249	38	5	252	12	79	15	36	24	6	36
Future Volume (vph)	40	249	38	5	252	12	79	15	36	24	6	36
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	100.0		25.0	100.0		15.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	30.0			30.0			7.6			7.6		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.98	1.00		0.97		0.99			0.99	
Frt			0.850			0.850		0.963			0.926	
Flt Protected	0.950			0.950				0.971			0.982	
Satd. Flow (prot)	1729	1802	1532	1729	1784	1459	0	1639	0	0	1529	0
Flt Permitted	0.603			0.605				0.788			0.861	
Satd. Flow (perm)	1088	1802	1494	1098	1784	1412	0	1330	0	0	1336	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			38			36		25			36	
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		238.9			455.9			301.3			168.5	
Travel Time (s)		14.3			27.4			21.7			12.1	
Confl. Peds. (#/hr)	6		2	2		6			6	6		
Confl. Bikes (#/hr)			1			1						1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	1%	0%	2%	6%	2%	15%	0%	0%	11%	11%
Adj. Flow (vph)	40	249	38	5	252	12	79	15	36	24	6	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	249	38	5	252	12	0	130	0	0	66	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			0.0			0.0	
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	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+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		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		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)	27.8	27.8	27.8	27.8	27.8	27.8	31.0	31.0		31.0	31.0	
Total Split (s)	50.0	50.0	50.0	50.0	50.0	50.0	40.0	40.0		40.0	40.0	
Total Split (%)	55.6%	55.6%	55.6%	55.6%	55.6%	55.6%	44.4%	44.4%		44.4%	44.4%	
Maximum Green (s)	44.2	44.2	44.2	44.2	44.2	44.2	34.0	34.0		34.0	34.0	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.3	3.3		3.3	3.3	

9: Romina Street/Templeford Avenue & Fernbank Road
AM Peak

Bridlewood 3
2025 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	2.1	2.1	2.1	2.1	2.1	2.1	2.7	2.7		2.7	2.7	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8		6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	15.0	15.0	15.0	15.0	15.0	15.0	18.0	18.0		18.0	18.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	64.9	64.9	64.9	64.9	64.9	64.9		13.3			13.3	
Actuated g/C Ratio	0.72	0.72	0.72	0.72	0.72	0.72		0.15			0.15	
v/c Ratio	0.05	0.19	0.03	0.01	0.20	0.01		0.60			0.29	
Control Delay	3.2	3.4	0.7	4.8	5.0	0.3		35.9			21.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	3.2	3.4	0.7	4.8	5.0	0.3		35.9			21.0	
LOS	A	A	A	A	A	A		D			C	
Approach Delay		3.0			4.8			35.9			21.0	
Approach LOS		A			A			D			C	
Queue Length 50th (m)	1.2	7.3	0.0	0.2	11.3	0.0		17.3			4.7	
Queue Length 95th (m)	m3.1	13.9	m0.8	1.3	24.7	0.4		30.4			14.9	
Internal Link Dist (m)		214.9			431.9			277.3			144.5	
Turn Bay Length (m)	100.0		25.0	100.0		15.0						
Base Capacity (vph)	784	1299	1087	791	1285	1027		518			527	
Starvation Cap Reductn	0	0	0	0	0	0		0			0	
Spillback Cap Reductn	0	0	0	0	0	0		0			0	
Storage Cap Reductn	0	0	0	0	0	0		0			0	
Reduced v/c Ratio	0.05	0.19	0.03	0.01	0.20	0.01		0.25			0.13	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 80 (89%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 10.5

Intersection LOS: B

Intersection Capacity Utilization 55.9%

ICU Level of Service B

Analysis Period (min) 15

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

Splits and Phases: 9: Romina Street/Templeford Avenue & Fernbank Road

					
Ø2 (R)			Ø4		
50 s			40 s		
					
Ø6 (R)			Ø8		
50 s			40 s		

13: Eagleson Road & Romina Street/Emerald Meadows Drive
AM Peak

Bridlewood 3
2025 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	10	52	7	3	29	27	674	14	20	347	45
Future Volume (vph)	87	10	52	7	3	29	27	674	14	20	347	45
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	0.0		0.0	0.0		0.0	100.0		25.0	35.0		25.0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (m)	7.6			7.6			90.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			0.99			1.00		1.00	1.00	
Frt		0.953			0.900			0.997			0.983	
Flt Protected		0.972			0.991		0.950			0.950		
Satd. Flow (prot)	0	1549	0	0	1608	0	1544	3375	0	1729	3306	0
Flt Permitted		0.798			0.940		0.520			0.386		
Satd. Flow (perm)	0	1271	0	0	1525	0	845	3375	0	702	3306	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40			29			3			19	
Link Speed (k/h)		50			40			60			60	
Link Distance (m)		235.1			128.6			505.5			529.6	
Travel Time (s)		16.9			11.6			30.3			31.8	
Confl. Peds. (#/hr)	1		4	4		1			1	1		
Confl. Bikes (#/hr)												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 (%)	7%	0%	12%	0%	0%	0%	12%	2%	7%	0%	2%	7%
Adj. Flow (vph)	87	10	52	7	3	29	27	674	14	20	347	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	149	0	0	39	0	27	688	0	20	392	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)		0.0			0.0			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	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		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	
Detector 1 Position(m)	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	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	44.6	44.6		44.6	44.6		26.0	26.0		26.0	26.0	
Total Split (s)	48.0	48.0		48.0	48.0		42.0	42.0		42.0	42.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	41.5	41.5		41.5	41.5		36.0	36.0		36.0	36.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	

13: Eagleson Road & Romina Street/Emerald Meadows Drive
AM Peak

Bridlewood 3
2025 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	3.2	3.2		3.2	3.2		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.5			6.5		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	31.0	31.0		31.0	31.0		13.0	13.0		13.0	13.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		14.1			14.1		63.4	63.4		63.4	63.4	
Actuated g/C Ratio		0.16			0.16		0.70	0.70		0.70	0.70	
v/c Ratio		0.64			0.15		0.05	0.29		0.04	0.17	
Control Delay		38.6			15.6		4.4	4.4		5.6	4.9	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		38.6			15.6		4.4	4.4		5.6	4.9	
LOS		D			B		A	A		A	A	
Approach Delay		38.6			15.6			4.4			5.0	
Approach LOS		D			B			A			A	
Queue Length 50th (m)		17.8			1.5		1.0	13.9		0.9	9.2	
Queue Length 95th (m)		34.7			9.1		m3.2	23.7		3.8	18.6	
Internal Link Dist (m)		211.1			104.6			481.5			505.6	
Turn Bay Length (m)							100.0			35.0		
Base Capacity (vph)		607			718		595	2379		494	2335	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.25			0.05		0.05	0.29		0.04	0.17	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 67 (74%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 8.8

Intersection LOS: A

Intersection Capacity Utilization 51.9%

ICU Level of Service A

Analysis Period (min) 15

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

Splits and Phases: 13: Eagleson Road & Romina Street/Emerald Meadows Drive

 Ø2 (R)	 Ø4
42 s	48 s
 Ø6 (R)	 Ø8
42 s	48 s

2: Terry Fox Drive & Overberg Way
AM Peak

Bridlewood 3
2025 Total Traffic

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	48	42	569	24	21	516
Future Volume (Veh/h)	48	42	569	24	21	516
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	48	42	569	24	21	516
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1139	581			593	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1139	581			593	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	78	92			98	
cM capacity (veh/h)	218	514			983	
Direction, Lane #	WB 1	NB 1	SB 1	SB 2		
Volume Total	90	593	21	516		
Volume Left	48	0	21	0		
Volume Right	42	24	0	0		
cSH	298	1700	983	1700		
Volume to Capacity	0.30	0.35	0.02	0.30		
Queue Length 95th (m)	9.4	0.0	0.5	0.0		
Control Delay (s)	22.2	0.0	8.7	0.0		
Lane LOS	C		A			
Approach Delay (s)	22.2	0.0	0.3			
Approach LOS	C					
Intersection Summary						
Average Delay			1.8			
Intersection Capacity Utilization			45.3%	ICU Level of Service	A	
Analysis Period (min)			15			

1: Eagleson Road & Terry Fox Drive
PM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	254	377	62	362	134	286	288	30	138	496	2
Future Volume (vph)	1	254	377	62	362	134	286	288	30	138	496	2
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	95.0		0.0	115.0		0.0	80.0		0.0	80.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	60.0			60.0			60.0			60.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	1.00	0.99		1.00	1.00		1.00				1.00	
Frt		0.910			0.959			0.986			0.999	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1729	1625	0	1695	1714	0	1695	3354	0	1679	3354	0
Flt Permitted	0.291			0.163			0.285			0.559		
Satd. Flow (perm)	529	1625	0	291	1714	0	508	3354	0	988	3354	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		93			23			11				
Link Speed (k/h)		80			80			60			60	
Link Distance (m)		557.7			461.4			424.3			505.5	
Travel Time (s)		25.1			20.8			25.5			30.3	
Confl. Peds. (#/hr)	1		3	3		1	1					1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	1%	2%	2%	0%	2%	1%	8%	3%	3%	0%
Adj. Flow (vph)	1	254	377	62	362	134	286	288	30	138	496	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	631	0	62	496	0	286	318	0	138	498	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	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		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	
Detector 1 Position(m)	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	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	10.0		10.0	10.0	
Minimum Split (s)	44.6	44.6		44.6	44.6		11.2	30.0		30.0	30.0	
Total Split (s)	69.0	69.0		69.0	69.0		21.0	51.0		30.0	30.0	
Total Split (%)	57.5%	57.5%		57.5%	57.5%		17.5%	42.5%		25.0%	25.0%	
Maximum Green (s)	62.4	62.4		62.4	62.4		14.8	45.0		24.0	24.0	
Yellow Time (s)	4.6	4.6		4.6	4.6		3.5	3.7		3.7	3.7	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.7	2.3		2.3	2.3	

1: Eagleson Road & Terry Fox Drive
PM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.6	6.6		6.6	6.6		6.2	6.0		6.0	6.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	
Flash Dont Walk (s)	31.0	31.0		31.0	31.0			17.0		17.0	17.0	
Pedestrian Calls (#/hr)	5	5		5	5			5		5	5	
Act Effct Green (s)	50.3	50.3		50.3	50.3		56.9	57.1		32.3	32.3	
Actuated g/C Ratio	0.42	0.42		0.42	0.42		0.47	0.48		0.27	0.27	
v/c Ratio	0.00	0.86		0.51	0.68		0.67	0.20		0.52	0.55	
Control Delay	15.0	38.2		38.7	30.8		32.4	19.8		36.1	29.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.0	38.2		38.7	30.8		32.4	19.8		36.1	29.6	
LOS	B	D		D	C		C	B		D	C	
Approach Delay		38.2			31.7			25.8			31.0	
Approach LOS		D			C			C			C	
Queue Length 50th (m)	0.1	114.0		10.4	87.3		42.4	21.8		29.6	56.7	
Queue Length 95th (m)	1.0	139.3		22.4	103.9		#77.7	36.6		#57.1	57.6	
Internal Link Dist (m)		533.7			437.4			400.3			481.5	
Turn Bay Length (m)	95.0			115.0			80.0			80.0		
Base Capacity (vph)	275	889		151	902		424	1600		265	903	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.00	0.71		0.41	0.55		0.67	0.20		0.52	0.55	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 31.7

Intersection LOS: C

Intersection Capacity Utilization 104.8%

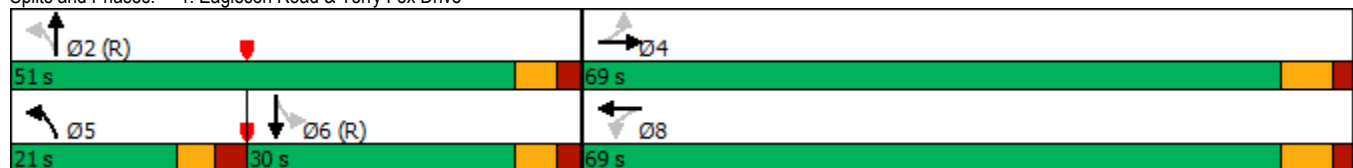
ICU Level of Service G

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Eagleson Road & Terry Fox Drive



3: Terry Fox Drive & Fernbank Road PM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	212	130	24	327	130	255	437	9	211	450	111
Future Volume (vph)	110	212	130	24	327	130	255	437	9	211	450	111
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	75.0		75.0	80.0		100.0	90.0		0.0	95.0		95.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	100.0			30.0			70.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97	0.99		0.97	1.00	1.00		1.00		0.97
Frt			0.850			0.850		0.997				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1586	1802	1532	1729	1802	1473	1712	1796	0	1695	1802	1488
Flt Permitted	0.327			0.625			0.168			0.505		
Satd. Flow (perm)	543	1802	1490	1131	1802	1428	302	1796	0	900	1802	1445
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			130			172		1				172
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		207.0			218.3			542.0			184.5	
Travel Time (s)		12.4			13.1			24.4			8.3	
Confl. Peds. (#/hr)	6		4	4		6	4		1	1		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 (%)	9%	1%	1%	0%	1%	5%	1%	1%	0%	2%	1%	4%
Adj. Flow (vph)	110	212	130	24	327	130	255	437	9	211	450	111
Shared Lane Traffic (%)												
Lane Group Flow (vph)	110	212	130	24	327	130	255	446	0	211	450	111
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)		1.6			1.6			4.9			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	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	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	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases	5	2			6		3	8			4	
Permitted Phases	2		2	6		6	8			4		4
Detector Phase	5	2	2	6	6	6	3	8		4	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0		10.0	10.0	10.0
Minimum Split (s)	11.1	33.2	33.2	33.2	33.2	33.2	11.5	29.2		29.2	29.2	29.2
Total Split (s)	12.0	46.0	46.0	34.0	34.0	34.0	15.0	54.0		39.0	39.0	39.0
Total Split (%)	12.0%	46.0%	46.0%	34.0%	34.0%	34.0%	15.0%	54.0%		39.0%	39.0%	39.0%
Maximum Green (s)	5.9	39.8	39.8	27.8	27.8	27.8	8.5	47.8		32.8	32.8	32.8
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	4.6	4.6		4.6	4.6	4.6
All-Red Time (s)	2.4	2.5	2.5	2.5	2.5	2.5	1.9	1.6		1.6	1.6	1.6

3: Terry Fox Drive & Fernbank Road PM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	6.2	6.2	6.2	6.2	6.2	6.5	6.2		6.2	6.2	6.2
Lead/Lag	Lead			Lag	Lag	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0		7.0		7.0	7.0	7.0
Flash Dont Walk (s)		20.0	20.0	20.0	20.0	20.0		16.0		16.0	16.0	16.0
Pedestrian Calls (#/hr)		5	5	5	5	5		5		5	5	5
Act Effct Green (s)	43.4	43.3	43.3	30.5	30.5	30.5	44.0	44.3		29.3	29.3	29.3
Actuated g/C Ratio	0.43	0.43	0.43	0.30	0.30	0.30	0.44	0.44		0.29	0.29	0.29
v/c Ratio	0.36	0.27	0.18	0.07	0.60	0.23	1.01	0.56		0.80	0.85	0.20
Control Delay	22.4	20.5	4.2	26.9	36.0	5.2	82.7	23.2		55.2	49.2	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	22.4	20.5	4.2	26.9	36.0	5.2	82.7	23.2		55.2	49.2	1.7
LOS	C	C	A	C	D	A	F	C		E	D	A
Approach Delay		16.3			27.3			44.8			44.0	
Approach LOS		B			C			D			D	
Queue Length 50th (m)	13.2	26.9	0.0	3.8	59.0	1.3	30.2	59.3		36.3	79.0	0.0
Queue Length 95th (m)	25.1	44.5	10.8	10.6	88.6	9.1	#73.5	85.4		#69.5	#114.9	2.9
Internal Link Dist (m)		183.0			194.3			518.0			160.5	
Turn Bay Length (m)	75.0		75.0	80.0		100.0	90.0			95.0		95.0
Base Capacity (vph)	306	780	719	345	549	555	252	859		295	591	589
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.36	0.27	0.18	0.07	0.60	0.23	1.01	0.52		0.72	0.76	0.19

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 91 (91%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 35.7

Intersection LOS: D

Intersection Capacity Utilization 91.7%

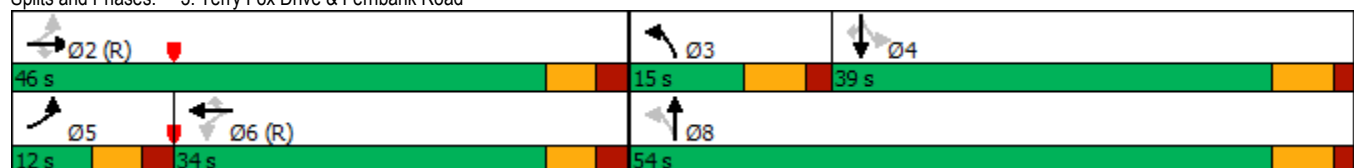
ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Terry Fox Drive & Fernbank Road



8: Eagleson Road & Fernbank Road
PM Peak

Bridlewood 3
2025 Background Traffic



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	140	187	182	591	978	219
Future Volume (vph)	140	187	182	591	978	219
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Storage Length (m)	160.0	0.0	25.0			0.0
Storage Lanes	1	1	1			1
Taper Length (m)	60.0		30.0			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor	1.00	0.99				0.98
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1712	1532	1695	3424	3424	1547
Flt Permitted	0.950		0.225			
Satd. Flow (perm)	1705	1512	401	3424	3424	1510
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		187				219
Link Speed (k/h)	60			60	60	
Link Distance (m)	458.2			532.9	161.4	
Travel Time (s)	27.5			32.0	9.7	
Confl. Peds. (#/hr)	4	1	2			2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	1%	2%	1%	1%	0%
Adj. Flow (vph)	140	187	182	591	978	219
Shared Lane Traffic (%)						
Lane Group Flow (vph)	140	187	182	591	978	219
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			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
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	6.1	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
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	6.1	6.1	1.8	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+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				CI+Ex	CI+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Perm	Perm	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	10.0	10.0	10.0
Minimum Split (s)	43.4	43.4	11.0	24.0	43.0	43.0
Total Split (s)	43.4	43.4	21.0	76.6	55.6	55.6
Total Split (%)	36.2%	36.2%	17.5%	63.8%	46.3%	46.3%
Maximum Green (s)	37.0	37.0	15.0	70.6	49.6	49.6
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.7	2.7	2.3	2.3	2.3	2.3

8: Eagleson Road & Fernbank Road
PM Peak

Bridlewood 3
2025 Background Traffic



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	6.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	30.0	30.0			21.0	21.0
Pedestrian Calls (#/hr)	5	5			5	5
Act Effct Green (s)	18.4	18.4	89.2	89.2	73.6	73.6
Actuated g/C Ratio	0.15	0.15	0.74	0.74	0.61	0.61
v/c Ratio	0.54	0.48	0.45	0.23	0.47	0.22
Control Delay	52.3	9.2	11.8	6.5	15.9	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.3	9.2	11.8	6.5	15.9	3.0
LOS	D	A	B	A	B	A
Approach Delay	27.7			7.7	13.6	
Approach LOS	C			A	B	
Queue Length 50th (m)	31.8	0.0	10.8	15.3	55.3	0.0
Queue Length 95th (m)	41.5	15.9	30.7	44.5	121.4	14.3
Internal Link Dist (m)	434.2			508.9	137.4	
Turn Bay Length (m)	160.0		25.0			
Base Capacity (vph)	525	595	459	2545	2099	1010
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.31	0.40	0.23	0.47	0.22

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 48 (40%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 13.6

Intersection LOS: B

Intersection Capacity Utilization 63.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 8: Eagleson Road & Fernbank Road



9: Romina Street/Templeford Avenue & Fernbank Road
PM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	331	92	54	350	31	80	20	28	19	18	45
Future Volume (vph)	42	331	92	54	350	31	80	20	28	19	18	45
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	95.0		25.0	100.0		15.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	30.0			30.0			7.6			7.6		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.97	1.00		0.97		0.99			0.99	
Frt			0.850			0.850		0.970			0.926	
Flt Protected	0.950			0.950				0.970			0.989	
Satd. Flow (prot)	1729	1802	1532	1729	1784	1459	0	1642	0	0	1519	0
Flt Permitted	0.547			0.560				0.798			0.915	
Satd. Flow (perm)	988	1802	1493	1017	1784	1410	0	1350	0	0	1402	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			92			33		16			45	
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		218.3			458.2			301.3			168.5	
Travel Time (s)		13.1			27.5			21.7			12.1	
Confl. Peds. (#/hr)	6		2	2		6			6	6		
Confl. Bikes (#/hr)			1			1						1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	1%	0%	2%	6%	2%	15%	0%	0%	11%	11%
Adj. Flow (vph)	42	331	92	54	350	31	80	20	28	19	18	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	331	92	54	350	31	0	128	0	0	82	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			0.0			0.0	
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	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+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		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		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)	27.8	27.8	27.8	27.8	27.8	27.8	31.0	31.0		31.0	31.0	
Total Split (s)	59.0	59.0	59.0	59.0	59.0	59.0	41.0	41.0		41.0	41.0	
Total Split (%)	59.0%	59.0%	59.0%	59.0%	59.0%	59.0%	41.0%	41.0%		41.0%	41.0%	
Maximum Green (s)	53.2	53.2	53.2	53.2	53.2	53.2	35.0	35.0		35.0	35.0	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.3	3.3		3.3	3.3	

9: Romina Street/Templeford Avenue & Fernbank Road
PM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	2.1	2.1	2.1	2.1	2.1	2.1	2.7	2.7		2.7	2.7	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8		6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	15.0	15.0	15.0	15.0	15.0	15.0	18.0	18.0		18.0	18.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	73.6	73.6	73.6	73.6	73.6	73.6		14.6			14.6	
Actuated g/C Ratio	0.74	0.74	0.74	0.74	0.74	0.74		0.15			0.15	
v/c Ratio	0.06	0.25	0.08	0.07	0.27	0.03		0.61			0.34	
Control Delay	1.5	1.7	0.2	4.9	5.5	1.8		46.6			22.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	1.5	1.7	0.2	4.9	5.5	1.8		46.6			22.7	
LOS	A	A	A	A	A	A		D			C	
Approach Delay		1.4			5.1			46.6			22.7	
Approach LOS		A			A			D			C	
Queue Length 50th (m)	0.5	3.9	0.0	2.4	18.2	0.0		20.7			6.4	
Queue Length 95th (m)	m1.1	6.2	m0.0	7.2	37.1	2.6		36.6			18.3	
Internal Link Dist (m)		194.3			434.2			277.3			144.5	
Turn Bay Length (m)	95.0		25.0	100.0		15.0						
Base Capacity (vph)	727	1327	1123	749	1313	1047		482			519	
Starvation Cap Reductn	0	0	0	0	0	0		0			0	
Spillback Cap Reductn	0	0	0	0	0	0		0			0	
Storage Cap Reductn	0	0	0	0	0	0		0			0	
Reduced v/c Ratio	0.06	0.25	0.08	0.07	0.27	0.03		0.27			0.16	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 71 (71%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 9.6

Intersection LOS: A

Intersection Capacity Utilization 58.0%

ICU Level of Service B

Analysis Period (min) 15

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

Splits and Phases: 9: Romina Street/Templeford Avenue & Fernbank Road

					
Ø2 (R)			Ø4		
59 s			41 s		
					
Ø6 (R)			Ø8		
59 s			41 s		

13: Eagleson Road & Romina Street/Emerald Meadows Drive
PM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	9	34	6	10	23	61	509	15	27	694	85
Future Volume (vph)	69	9	34	6	10	23	61	509	15	27	694	85
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	0.0		0.0	0.0		0.0	100.0		25.0	35.0		25.0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (m)	7.6			7.6			90.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			0.99			1.00		1.00	1.00	
Frt		0.959			0.920			0.996			0.984	
Flt Protected		0.970			0.992		0.950			0.950		
Satd. Flow (prot)	0	1561	0	0	1648	0	1544	3370	0	1729	3311	0
Flt Permitted		0.789			0.951		0.345			0.458		
Satd. Flow (perm)	0	1269	0	0	1579	0	561	3370	0	832	3311	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			23			4			16	
Link Speed (k/h)		50			40			60			60	
Link Distance (m)		235.1			128.6			505.5			532.9	
Travel Time (s)		16.9			11.6			30.3			32.0	
Confl. Peds. (#/hr)	1		4	4		1			1	1		
Confl. Bikes (#/hr)												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 (%)	7%	0%	12%	0%	0%	0%	12%	2%	7%	0%	2%	7%
Adj. Flow (vph)	69	9	34	6	10	23	61	509	15	27	694	85
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	112	0	0	39	0	61	524	0	27	779	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)		0.0			0.0			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	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		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	
Detector 1 Position(m)	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	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	44.5	44.5		44.5	44.5		26.0	26.0		26.0	26.0	
Total Split (s)	52.0	52.0		52.0	52.0		68.0	68.0		68.0	68.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Maximum Green (s)	45.5	45.5		45.5	45.5		62.0	62.0		62.0	62.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	

13: Eagleson Road & Romina Street/Emerald Meadows Drive
PM Peak

Bridlewood 3
2025 Background Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	3.2	3.2		3.2	3.2		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.5			6.5		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	31.0	31.0		31.0	31.0		13.0	13.0		13.0	13.0	
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5	5	
Act Effct Green (s)		18.0			18.0		89.5	89.5		89.5	89.5	
Actuated g/C Ratio		0.15			0.15		0.75	0.75		0.75	0.75	
v/c Ratio		0.54			0.15		0.15	0.21		0.04	0.31	
Control Delay		45.2			21.5		5.9	4.4		1.7	3.6	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		45.2			21.5		5.9	4.4		1.7	3.6	
LOS		D			C		A	A		A	A	
Approach Delay		45.2			21.5			4.6			3.6	
Approach LOS		D			C			A			A	
Queue Length 50th (m)		20.8			3.4		2.1	9.6		0.7	32.5	
Queue Length 95th (m)		30.7			10.5		m10.1	29.7		m0.7	5.2	
Internal Link Dist (m)		211.1			104.6			481.5			508.9	
Turn Bay Length (m)							100.0			35.0		
Base Capacity (vph)		494			612		418	2515		620	2474	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.23			0.06		0.15	0.21		0.04	0.31	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 92 (77%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 7.4

Intersection LOS: A

Intersection Capacity Utilization 62.6%

ICU Level of Service B

Analysis Period (min) 15

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

Splits and Phases: 13: Eagleson Road & Romina Street/Emerald Meadows Drive

					
Ø2 (R)					Ø4
68 s					52 s
					
Ø6 (R)					Ø8
68 s					52 s

2: Terry Fox Drive & Overberg Way
PM Peak

Bridlewood 3
2025 Background Traffic

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	37	35	724	42	39	658
Future Volume (Veh/h)	37	35	724	42	39	658
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	37	35	724	42	39	658
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1481	745			766	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1481	745			766	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	72	92			95	
cM capacity (veh/h)	132	414			847	
Direction, Lane #	WB 1	NB 1	SB 1	SB 2		
Volume Total	72	766	39	658		
Volume Left	37	0	39	0		
Volume Right	35	42	0	0		
cSH	197	1700	847	1700		
Volume to Capacity	0.37	0.45	0.05	0.39		
Queue Length 95th (m)	11.9	0.0	1.1	0.0		
Control Delay (s)	33.4	0.0	9.5	0.0		
Lane LOS	D		A			
Approach Delay (s)	33.4	0.0	0.5			
Approach LOS	D					
Intersection Summary						
Average Delay			1.8			
Intersection Capacity Utilization			54.0%		ICU Level of Service	A
Analysis Period (min)			15			

3: Terry Fox Drive & Fernbank Road PM Peak

Bridlewood 3
2025 Background Traffic (Optimized)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	212	130	24	327	130	255	437	9	211	450	111
Future Volume (vph)	110	212	130	24	327	130	255	437	9	211	450	111
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	75.0		75.0	80.0		100.0	90.0		0.0	95.0		95.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	100.0			30.0			70.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.97	0.99		0.97		1.00		1.00		0.97
Frt			0.850			0.850		0.997				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1586	1802	1532	1729	1802	1473	1712	1796	0	1695	1802	1488
Flt Permitted	0.313			0.625			0.166			0.505		
Satd. Flow (perm)	520	1802	1489	1131	1802	1426	299	1796	0	900	1802	1444
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			130			157		1				157
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		207.0			218.3			542.0			184.5	
Travel Time (s)		12.4			13.1			24.4			8.3	
Confl. Peds. (#/hr)	6		4	4		6	4		1	1		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 (%)	9%	1%	1%	0%	1%	5%	1%	1%	0%	2%	1%	4%
Adj. Flow (vph)	110	212	130	24	327	130	255	437	9	211	450	111
Shared Lane Traffic (%)												
Lane Group Flow (vph)	110	212	130	24	327	130	255	446	0	211	450	111
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)		1.6			1.6			4.9			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	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	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	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases	5	2			6		3	8			4	
Permitted Phases	2		2	6		6	8			4		4
Detector Phase	5	2	2	6	6	6	3	8		4	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0		10.0	10.0	10.0
Minimum Split (s)	11.1	33.2	33.2	33.2	33.2	33.2	11.5	29.2		29.2	29.2	29.2
Total Split (s)	11.1	46.0	46.0	34.9	34.9	34.9	20.0	64.0		44.0	44.0	44.0
Total Split (%)	10.1%	41.8%	41.8%	31.7%	31.7%	31.7%	18.2%	58.2%		40.0%	40.0%	40.0%
Maximum Green (s)	5.0	39.8	39.8	28.7	28.7	28.7	13.5	57.8		37.8	37.8	37.8
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	4.6	4.6		4.6	4.6	4.6
All-Red Time (s)	2.4	2.5	2.5	2.5	2.5	2.5	1.9	1.6		1.6	1.6	1.6

3: Terry Fox Drive & Fernbank Road PM Peak

Bridlewood 3
2025 Background Traffic (Optimized)

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	6.2	6.2	6.2	6.2	6.2	6.5	6.2		6.2	6.2	6.2
Lead/Lag	Lead			Lag	Lag	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0		7.0		7.0	7.0	7.0
Flash Dont Walk (s)		20.0	20.0	20.0	20.0	20.0		16.0		16.0	16.0	16.0
Pedestrian Calls (#/hr)		5	5	5	5	5		5		5	5	5
Act Effct Green (s)	45.5	45.4	45.4	32.4	32.4	32.4	51.9	52.2		32.5	32.5	32.5
Actuated g/C Ratio	0.41	0.41	0.41	0.29	0.29	0.29	0.47	0.47		0.30	0.30	0.30
v/c Ratio	0.39	0.29	0.19	0.07	0.62	0.24	0.82	0.52		0.79	0.84	0.21
Control Delay	27.4	24.4	4.9	26.5	32.3	2.9	40.9	21.9		56.7	51.0	2.2
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	27.4	24.4	4.9	26.5	32.3	2.9	40.9	21.9		56.7	51.0	2.2
LOS	C	C	A	C	C	A	D	C		E	D	A
Approach Delay		19.5			24.1			28.8			45.6	
Approach LOS		B			C			C			D	
Queue Length 50th (m)	15.1	30.7	0.0	2.8	41.3	0.7	31.8	62.4		40.7	88.5	0.0
Queue Length 95th (m)	28.9	51.6	11.9	8.4	61.3	4.6	#62.1	83.7		#68.4	121.1	4.6
Internal Link Dist (m)		183.0			194.3			518.0			160.5	
Turn Bay Length (m)	75.0		75.0	80.0		100.0	90.0			95.0		95.0
Base Capacity (vph)	281	743	690	333	531	531	314	944		309	619	599
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.39	0.29	0.19	0.07	0.62	0.24	0.81	0.47		0.68	0.73	0.19

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 91 (83%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 31.5

Intersection LOS: C

Intersection Capacity Utilization 91.7%

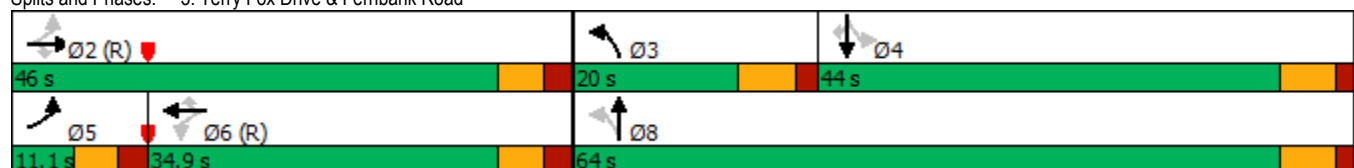
ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Terry Fox Drive & Fernbank Road



1: Eagleson Road & Terry Fox Drive
AM Peak

Bridlewood 3
2030 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	258	222	24	159	147	357	527	76	107	255	1
Future Volume (vph)	0	258	222	24	159	147	357	527	76	107	255	1
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	95.0		0.0	115.0		0.0	80.0		0.0	80.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	60.0			60.0			60.0			60.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99		1.00	0.99		1.00				1.00	
Frt		0.931			0.928			0.981			0.999	
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	1820	1667	0	1695	1661	0	1695	3330	0	1679	3354	0
Flt Permitted				0.226			0.494			0.424		
Satd. Flow (perm)	1820	1667	0	403	1661	0	880	3330	0	749	3354	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60			64			22				
Link Speed (k/h)		80			80			60			60	
Link Distance (m)		557.7			461.4			424.3			505.5	
Travel Time (s)		25.1			20.8			25.5			30.3	
Confl. Peds. (#/hr)	1		3	3		1	1					1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	1%	2%	2%	0%	2%	1%	8%	3%	3%	0%
Adj. Flow (vph)	0	258	222	24	159	147	357	527	76	107	255	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	480	0	24	306	0	357	603	0	107	256	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	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		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	
Detector 1 Position(m)	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	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	10.0		10.0	10.0	
Minimum Split (s)	44.6	44.6		44.6	44.6		11.2	33.2		33.2	33.2	
Total Split (s)	44.6	44.6		44.6	44.6		12.0	45.4		33.4	33.4	
Total Split (%)	49.6%	49.6%		49.6%	49.6%		13.3%	50.4%		37.1%	37.1%	
Maximum Green (s)	38.0	38.0		38.0	38.0		5.8	39.4		27.4	27.4	
Yellow Time (s)	4.6	4.6		4.6	4.6		3.5	3.7		3.7	3.7	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.7	2.3		2.3	2.3	

1: Eagleson Road & Terry Fox Drive
AM Peak

Bridlewood 3
2030 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.6	6.6		6.6	6.6		6.2	6.0		6.0	6.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	
Flash Dont Walk (s)	31.0	31.0		31.0	31.0			17.0		17.0	17.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effct Green (s)		29.0		29.0	29.0		48.2	48.4		30.8	30.8	
Actuated g/C Ratio		0.32		0.32	0.32		0.54	0.54		0.34	0.34	
v/c Ratio		0.83		0.18	0.53		0.62	0.34		0.42	0.22	
Control Delay		27.6		22.6	21.6		21.9	13.2		26.0	19.1	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		27.6		22.6	21.6		21.9	13.2		26.0	19.1	
LOS		C		C	C		C	B		C	B	
Approach Delay		27.6			21.7			16.4			21.1	
Approach LOS		C			C			B			C	
Queue Length 50th (m)		70.8		2.9	33.3		34.6	28.2		10.5	13.1	
Queue Length 95th (m)		95.5		8.0	48.4		#82.0	48.2		19.3	19.4	
Internal Link Dist (m)		533.7			437.4			400.3			481.5	
Turn Bay Length (m)				115.0			80.0			80.0		
Base Capacity (vph)		738		170	738		574	1799		256	1146	
Starvation Cap Reductn		0		0	0		0	0		0	0	
Spillback Cap Reductn		0		0	0		0	0		0	0	
Storage Cap Reductn		0		0	0		0	0		0	0	
Reduced v/c Ratio		0.65		0.14	0.41		0.62	0.34		0.42	0.22	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 66 (73%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 20.6

Intersection LOS: C

Intersection Capacity Utilization 85.5%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Eagleson Road & Terry Fox Drive

					
Ø2 (R)			Ø4		
45.4 s			44.6 s		
					
Ø5		Ø6 (R)	Ø8		
12 s		33.4 s	44.6 s		

7: Terry Fox Drive & Fernbank Road
AM Peak

Bridlewood 3
2030 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	107	217	190	14	186	172	152	466	1	78	308	56
Future Volume (vph)	107	217	190	14	186	172	152	466	1	78	308	56
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	75.0		75.0	80.0		100.0	90.0		0.0	95.0		95.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	100.0			30.0			70.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.98	1.00		0.98	1.00					0.98
Frt			0.850			0.850						0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1631	1784	1502	1729	1784	1419	1616	1717	0	1616	1701	1369
Flt Permitted	0.546			0.622			0.441			0.227		
Satd. Flow (perm)	935	1784	1469	1131	1784	1386	749	1717	0	386	1701	1339
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			190			172						113
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		159.5			238.9			547.4			180.5	
Travel Time (s)		9.6			14.3			24.6			8.1	
Confl. Peds. (#/hr)	2		1	1		2	1					1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	6%	2%	3%	0%	2%	9%	7%	6%	0%	7%	7%	13%
Adj. Flow (vph)	107	217	190	14	186	172	152	466	1	78	308	56
Shared Lane Traffic (%)												
Lane Group Flow (vph)	107	217	190	14	186	172	152	467	0	78	308	56
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)		1.6			4.9			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	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	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	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases	5	2			6			8			4	
Permitted Phases	2		2	6		6	8			4		4
Detector Phase	5	2	2	6	6	6	8	8		4	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0		10.0	10.0	10.0
Minimum Split (s)	11.1	33.2	33.2	33.2	33.2	33.2	29.2	29.2		29.2	29.2	29.2
Total Split (s)	17.0	52.0	52.0	35.0	35.0	35.0	38.0	38.0		38.0	38.0	38.0
Total Split (%)	18.9%	57.8%	57.8%	38.9%	38.9%	38.9%	42.2%	42.2%		42.2%	42.2%	42.2%
Maximum Green (s)	10.9	45.8	45.8	28.8	28.8	28.8	31.8	31.8		31.8	31.8	31.8
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	4.6	4.6		4.6	4.6	4.6
All-Red Time (s)	2.4	2.5	2.5	2.5	2.5	2.5	1.6	1.6		1.6	1.6	1.6

7: Terry Fox Drive & Fernbank Road
AM Peak

Bridlewood 3
2030 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lost Time Adjst (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	6.2	6.2	6.2	6.2	6.2	6.2	6.2		6.2	6.2	6.2
Lead/Lag	Lead			Lag			Lag					
Lead-Lag Optimize?	Yes			Yes			Yes					
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Flash Dont Walk (s)		20.0	20.0	20.0	20.0	20.0	16.0	16.0		16.0	16.0	16.0
Pedestrian Calls (#/hr)		5	5	5	5	5	5	5		5	5	5
Act Effct Green (s)	49.3	49.2	49.2	37.1	37.1	37.1	28.4	28.4		28.4	28.4	28.4
Actuated g/C Ratio	0.55	0.55	0.55	0.41	0.41	0.41	0.32	0.32		0.32	0.32	0.32
v/c Ratio	0.19	0.22	0.21	0.03	0.25	0.26	0.65	0.86		0.64	0.57	0.11
Control Delay	11.8	12.1	2.5	21.9	22.9	7.9	37.0	43.3		51.5	29.8	0.7
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	11.8	12.1	2.5	21.9	22.9	7.9	37.0	43.3		51.5	29.8	0.7
LOS	B	B	A	C	C	A	D	D		D	C	A
Approach Delay	8.5			15.9			41.8			30.0		
Approach LOS	A			B			D			C		
Queue Length 50th (m)	8.9	19.3	0.0	1.8	25.6	1.5	22.2	70.0		11.0	42.5	0.0
Queue Length 95th (m)	17.7	33.0	9.6	6.9	45.8	19.6	m40.0	#116.2		#30.8	65.8	0.9
Internal Link Dist (m)	135.5			214.9			523.4			156.5		
Turn Bay Length (m)	75.0		75.0	80.0		100.0	90.0			95.0		95.0
Base Capacity (vph)	597	975	889	466	735	672	264	606		136	601	546
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.18	0.22	0.21	0.03	0.25	0.26	0.58	0.77		0.57	0.51	0.10

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 9 (10%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 25.4

Intersection LOS: C

Intersection Capacity Utilization 85.8%

ICU Level of Service E

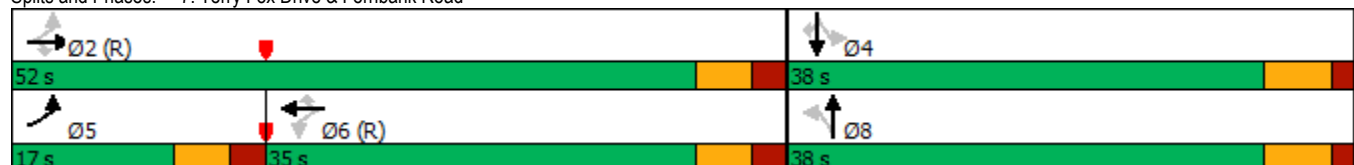
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

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

Splits and Phases: 7: Terry Fox Drive & Fernbank Road



8: Eagleson Road & Fernbank Road
AM Peak

Bridlewood 3
2030 Total Traffic



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	178	104	170	981	493	91
Future Volume (vph)	178	104	170	981	493	91
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Storage Length (m)	160.0	0.0	45.0			0.0
Storage Lanes	1	1	1			1
Taper Length (m)	60.0		50.0			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor	1.00					
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1729	1446	1712	3357	3262	1517
Flt Permitted	0.950		0.398			
Satd. Flow (perm)	1721	1446	717	3357	3262	1517
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		104				91
Link Speed (k/h)	60			60	60	
Link Distance (m)	455.9			529.6	171.0	
Travel Time (s)	27.4			31.8	10.3	
Confl. Peds. (#/hr)	6					
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	7%	1%	3%	6%	2%
Adj. Flow (vph)	178	104	170	981	493	91
Shared Lane Traffic (%)						
Lane Group Flow (vph)	178	104	170	981	493	91
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			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
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	6.1	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
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	6.1	6.1	1.8	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+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				CI+Ex	CI+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Perm	Perm	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	10.0	10.0	10.0
Minimum Split (s)	43.4	43.4	11.0	24.0	43.0	43.0
Total Split (s)	43.4	43.4	13.0	56.6	43.6	43.6
Total Split (%)	43.4%	43.4%	13.0%	56.6%	43.6%	43.6%
Maximum Green (s)	37.0	37.0	7.0	50.6	37.6	37.6
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.7	2.7	2.3	2.3	2.3	2.3

8: Eagleson Road & Fernbank Road
AM Peak

Bridlewood 3
2030 Total Traffic

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	6.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	Max	Max	Max
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	30.0	30.0			21.0	21.0
Pedestrian Calls (#/hr)	5	5			5	5
Act Effct Green (s)	16.0	16.0	51.3	51.3	38.3	38.3
Actuated g/C Ratio	0.20	0.20	0.64	0.64	0.48	0.48
v/c Ratio	0.52	0.28	0.31	0.46	0.32	0.12
Control Delay	32.8	7.0	9.5	9.8	15.3	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.8	7.0	9.5	9.8	15.3	4.5
LOS	C	A	A	A	B	A
Approach Delay	23.3			9.7	13.6	
Approach LOS	C			A	B	
Queue Length 50th (m)	23.9	0.0	7.7	29.9	20.8	0.0
Queue Length 95th (m)	40.1	10.3	29.3	85.5	49.9	9.6
Internal Link Dist (m)	431.9			505.6	147.0	
Turn Bay Length (m)	160.0		45.0			
Base Capacity (vph)	808	734	548	2156	1563	774
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.14	0.31	0.46	0.32	0.12

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 79.9

Natural Cycle: 100

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 12.7

Intersection LOS: B

Intersection Capacity Utilization 50.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 8: Eagleson Road & Fernbank Road

 Ø2	 Ø4
56.6 s	43.4 s
 Ø5	 Ø6
13 s	43.6 s

9: Romina Street/Templeford Avenue & Fernbank Road
AM Peak

Bridlewood 3
2030 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	249	38	5	252	12	79	15	36	24	6	36
Future Volume (vph)	40	249	38	5	252	12	79	15	36	24	6	36
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	100.0		25.0	100.0		15.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	30.0			30.0			7.6			7.6		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.98	1.00		0.97		0.99			0.99	
Frt			0.850			0.850		0.963			0.926	
Flt Protected	0.950			0.950				0.971			0.982	
Satd. Flow (prot)	1729	1802	1532	1729	1784	1459	0	1639	0	0	1529	0
Flt Permitted	0.603			0.605				0.788			0.861	
Satd. Flow (perm)	1088	1802	1494	1098	1784	1412	0	1330	0	0	1336	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			38			36		25			36	
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		238.9			455.9			301.3			168.5	
Travel Time (s)		14.3			27.4			21.7			12.1	
Confl. Peds. (#/hr)	6		2	2		6			6	6		
Confl. Bikes (#/hr)			1			1						1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	1%	0%	2%	6%	2%	15%	0%	0%	11%	11%
Adj. Flow (vph)	40	249	38	5	252	12	79	15	36	24	6	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	249	38	5	252	12	0	130	0	0	66	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			0.0			0.0	
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	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+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		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		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)	27.8	27.8	27.8	27.8	27.8	27.8	31.0	31.0		31.0	31.0	
Total Split (s)	50.0	50.0	50.0	50.0	50.0	50.0	40.0	40.0		40.0	40.0	
Total Split (%)	55.6%	55.6%	55.6%	55.6%	55.6%	55.6%	44.4%	44.4%		44.4%	44.4%	
Maximum Green (s)	44.2	44.2	44.2	44.2	44.2	44.2	34.0	34.0		34.0	34.0	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.3	3.3		3.3	3.3	

9: Romina Street/Templeford Avenue & Fernbank Road
AM Peak

Bridlewood 3
2030 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	2.1	2.1	2.1	2.1	2.1	2.1	2.7	2.7		2.7	2.7	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8		6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	15.0	15.0	15.0	15.0	15.0	15.0	18.0	18.0		18.0	18.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	64.9	64.9	64.9	64.9	64.9	64.9		13.3			13.3	
Actuated g/C Ratio	0.72	0.72	0.72	0.72	0.72	0.72		0.15			0.15	
v/c Ratio	0.05	0.19	0.03	0.01	0.20	0.01		0.60			0.29	
Control Delay	3.2	3.3	0.7	4.8	5.0	0.3		35.6			21.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	3.2	3.3	0.7	4.8	5.0	0.3		35.6			21.0	
LOS	A	A	A	A	A	A		D			C	
Approach Delay		3.0			4.8			35.6			21.0	
Approach LOS		A			A			D			C	
Queue Length 50th (m)	1.2	7.3	0.0	0.2	11.3	0.0		16.8			4.7	
Queue Length 95th (m)	m3.0	13.8	m0.7	1.3	24.7	0.4		29.7			14.9	
Internal Link Dist (m)		214.9			431.9			277.3			144.5	
Turn Bay Length (m)	100.0		25.0	100.0		15.0						
Base Capacity (vph)	784	1299	1087	791	1285	1027		518			527	
Starvation Cap Reductn	0	0	0	0	0	0		0			0	
Spillback Cap Reductn	0	0	0	0	0	0		0			0	
Storage Cap Reductn	0	0	0	0	0	0		0			0	
Reduced v/c Ratio	0.05	0.19	0.03	0.01	0.20	0.01		0.25			0.13	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 80 (89%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 10.5

Intersection LOS: B

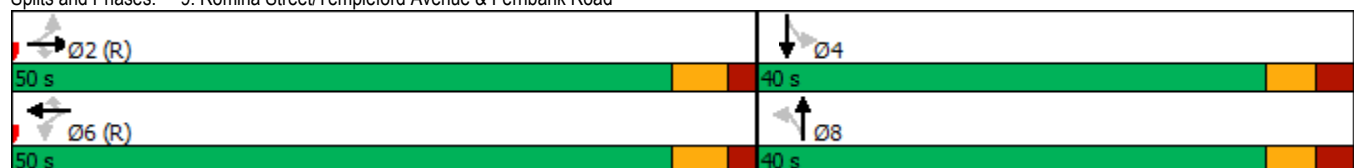
Intersection Capacity Utilization 55.9%

ICU Level of Service B

Analysis Period (min) 15

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

Splits and Phases: 9: Romina Street/Templeford Avenue & Fernbank Road



13: Eagleson Road & Romina Street/Emerald Meadows Drive
AM Peak

Bridlewood 3
2030 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	87	10	52	7	3	29	27	743	14	20	381	45
Future Volume (vph)	87	10	52	7	3	29	27	743	14	20	381	45
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	0.0		0.0	0.0		0.0	100.0		25.0	35.0		25.0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (m)	7.6			7.6			90.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			0.99			1.00		1.00	1.00	
Frt		0.953			0.900			0.997			0.984	
Flt Protected		0.972			0.991		0.950			0.950		
Satd. Flow (prot)	0	1549	0	0	1608	0	1544	3376	0	1729	3311	0
Flt Permitted		0.798			0.940		0.504			0.355		
Satd. Flow (perm)	0	1271	0	0	1525	0	819	3376	0	646	3311	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40			29			2			17	
Link Speed (k/h)		50			40			60			60	
Link Distance (m)		235.1			128.6			505.5			529.6	
Travel Time (s)		16.9			11.6			30.3			31.8	
Confl. Peds. (#/hr)	1		4	4		1			1	1		
Confl. Bikes (#/hr)												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 (%)	7%	0%	12%	0%	0%	0%	12%	2%	7%	0%	2%	7%
Adj. Flow (vph)	87	10	52	7	3	29	27	743	14	20	381	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	149	0	0	39	0	27	757	0	20	426	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)		0.0			0.0			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	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		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	
Detector 1 Position(m)	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	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	44.6	44.6		44.6	44.6		26.0	26.0		26.0	26.0	
Total Split (s)	48.0	48.0		48.0	48.0		42.0	42.0		42.0	42.0	
Total Split (%)	53.3%	53.3%		53.3%	53.3%		46.7%	46.7%		46.7%	46.7%	
Maximum Green (s)	41.5	41.5		41.5	41.5		36.0	36.0		36.0	36.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	

13: Eagleson Road & Romina Street/Emerald Meadows Drive
AM Peak

Bridlewood 3
2030 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	3.2	3.2		3.2	3.2		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.5			6.5		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	31.0	31.0		31.0	31.0		13.0	13.0		13.0	13.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		14.1			14.1		63.4	63.4		63.4	63.4	
Actuated g/C Ratio		0.16			0.16		0.70	0.70		0.70	0.70	
v/c Ratio		0.64			0.15		0.05	0.32		0.04	0.18	
Control Delay		38.6			15.6		4.3	4.5		5.7	5.0	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		38.6			15.6		4.3	4.5		5.7	5.0	
LOS		D			B		A	A		A	A	
Approach Delay		38.6			15.6			4.5			5.1	
Approach LOS		D			B			A			A	
Queue Length 50th (m)		17.8			1.5		1.0	15.3		0.9	10.2	
Queue Length 95th (m)		34.7			9.1		m3.1	25.8		3.8	20.3	
Internal Link Dist (m)		211.1			104.6			481.5			505.6	
Turn Bay Length (m)							100.0			35.0		
Base Capacity (vph)		607			718		577	2379		455	2338	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.25			0.05		0.05	0.32		0.04	0.18	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 67 (74%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 8.6

Intersection LOS: A

Intersection Capacity Utilization 51.9%

ICU Level of Service A

Analysis Period (min) 15

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

Splits and Phases: 13: Eagleson Road & Romina Street/Emerald Meadows Drive

					
Ø2 (R)			Ø4		
42 s			48 s		
					
Ø6 (R)			Ø8		
42 s			48 s		

2: Terry Fox Drive & Overberg Way
AM Peak

Bridlewood 3
2030 Total Traffic

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	48	42	625	24	21	567
Future Volume (Veh/h)	48	42	625	24	21	567
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	48	42	625	24	21	567
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1246	637			649	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1246	637			649	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	74	91			98	
cM capacity (veh/h)	188	477			937	
Direction, Lane #	WB 1	NB 1	SB 1	SB 2		
Volume Total	90	649	21	567		
Volume Left	48	0	21	0		
Volume Right	42	24	0	0		
cSH	262	1700	937	1700		
Volume to Capacity	0.34	0.38	0.02	0.33		
Queue Length 95th (m)	11.2	0.0	0.5	0.0		
Control Delay (s)	25.8	0.0	8.9	0.0		
Lane LOS	D		A			
Approach Delay (s)	25.8	0.0	0.3			
Approach LOS	D					
Intersection Summary						
Average Delay			1.9			
Intersection Capacity Utilization			48.4%	ICU Level of Service	A	
Analysis Period (min)			15			

1: Eagleson Road & Terry Fox Drive
PM Peak

Bridlewood 3
2030 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	276	412	68	395	146	312	316	33	151	546	3
Future Volume (vph)	1	276	412	68	395	146	312	316	33	151	546	3
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	95.0		0.0	115.0		0.0	80.0		0.0	80.0		0.0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (m)	60.0			60.0			60.0			60.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	1.00	0.99		1.00	1.00		1.00				1.00	
Frt		0.910			0.960			0.986			0.999	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1729	1625	0	1695	1716	0	1695	3354	0	1679	3354	0
Flt Permitted	0.275			0.146			0.187			0.542		
Satd. Flow (perm)	500	1625	0	260	1716	0	333	3354	0	958	3354	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		93			23			10				
Link Speed (k/h)		80			80			60			60	
Link Distance (m)		557.7			461.4			424.3			505.5	
Travel Time (s)		25.1			20.8			25.5			30.3	
Confl. Peds. (#/hr)	1		3	3		1	1					1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	1%	2%	2%	0%	2%	1%	8%	3%	3%	0%
Adj. Flow (vph)	1	276	412	68	395	146	312	316	33	151	546	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	688	0	68	541	0	312	349	0	151	549	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	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		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	
Detector 1 Position(m)	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	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		5.0	10.0		10.0	10.0	
Minimum Split (s)	44.6	44.6		44.6	44.6		11.2	30.0		30.0	30.0	
Total Split (s)	69.0	69.0		69.0	69.0		21.0	51.0		30.0	30.0	
Total Split (%)	57.5%	57.5%		57.5%	57.5%		17.5%	42.5%		25.0%	25.0%	
Maximum Green (s)	62.4	62.4		62.4	62.4		14.8	45.0		24.0	24.0	
Yellow Time (s)	4.6	4.6		4.6	4.6		3.5	3.7		3.7	3.7	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.7	2.3		2.3	2.3	

1: Eagleson Road & Terry Fox Drive
PM Peak

Bridlewood 3
2030 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lost Time Adjst (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.6	6.6		6.6	6.6		6.2	6.0		6.0	6.0	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	
Flash Dont Walk (s)	31.0	31.0		31.0	31.0			17.0		17.0	17.0	
Pedestrian Calls (#/hr)	5	5		5	5			5		5	5	
Act Effct Green (s)	53.8	53.8		53.8	53.8		53.4	53.6		25.3	25.3	
Actuated g/C Ratio	0.45	0.45		0.45	0.45		0.44	0.45		0.21	0.21	
v/c Ratio	0.00	0.88		0.59	0.69		0.78	0.23		0.75	0.78	
Control Delay	15.0	39.1		44.5	29.4		42.1	22.0		56.5	41.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.0	39.1		44.5	29.4		42.1	22.0		56.5	41.5	
LOS	B	D		D	C		D	C		E	D	
Approach Delay		39.1			31.1			31.5			44.8	
Approach LOS		D			C			C			D	
Queue Length 50th (m)	0.1	124.6		11.3	92.4		50.6	26.2		34.2	66.0	
Queue Length 95th (m)	1.0	162.7		27.5	117.0		#116.2	40.4		#66.8	#77.4	
Internal Link Dist (m)		533.7			437.4			400.3			481.5	
Turn Bay Length (m)	95.0			115.0			80.0			80.0		
Base Capacity (vph)	260	889		135	903		398	1503		201	706	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.00	0.77		0.50	0.60		0.78	0.23		0.75	0.78	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 36.9

Intersection LOS: D

Intersection Capacity Utilization 109.8%

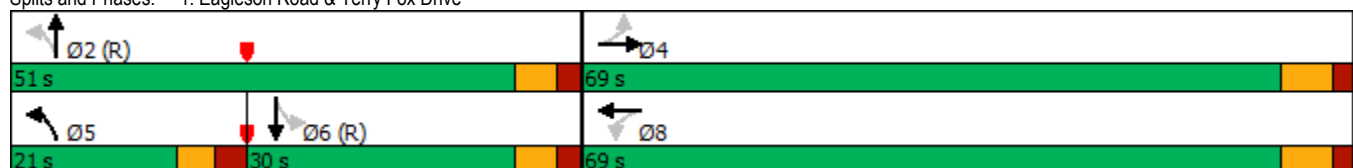
ICU Level of Service H

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Eagleson Road & Terry Fox Drive



3: Terry Fox Drive & Fernbank Road
PM Peak

Bridlewood 3
2030 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	212	130	24	327	130	255	476	9	211	491	111
Future Volume (vph)	110	212	130	24	327	130	255	476	9	211	491	111
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	75.0		75.0	80.0		100.0	90.0		0.0	95.0		95.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	100.0			30.0			70.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97	0.99		0.97		1.00		1.00		0.97
Frt			0.850			0.850		0.997				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1586	1802	1532	1729	1802	1473	1712	1796	0	1695	1802	1488
Flt Permitted	0.317			0.625			0.139			0.487		
Satd. Flow (perm)	527	1802	1490	1131	1802	1428	250	1796	0	868	1802	1445
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			130			172		1				172
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		207.0			218.3			542.0			184.5	
Travel Time (s)		12.4			13.1			24.4			8.3	
Confl. Peds. (#/hr)	6		4	4		6	4		1	1		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 (%)	9%	1%	1%	0%	1%	5%	1%	1%	0%	2%	1%	4%
Adj. Flow (vph)	110	212	130	24	327	130	255	476	9	211	491	111
Shared Lane Traffic (%)												
Lane Group Flow (vph)	110	212	130	24	327	130	255	485	0	211	491	111
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)		1.6			1.6			4.9			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	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	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	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases	5	2			6		3	8			4	
Permitted Phases	2		2	6		6	8			4		4
Detector Phase	5	2	2	6	6	6	3	8		4	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0		10.0	10.0	10.0
Minimum Split (s)	11.1	33.2	33.2	33.2	33.2	33.2	11.5	29.2		29.2	29.2	29.2
Total Split (s)	12.0	46.0	46.0	34.0	34.0	34.0	15.0	54.0		39.0	39.0	39.0
Total Split (%)	12.0%	46.0%	46.0%	34.0%	34.0%	34.0%	15.0%	54.0%		39.0%	39.0%	39.0%
Maximum Green (s)	5.9	39.8	39.8	27.8	27.8	27.8	8.5	47.8		32.8	32.8	32.8
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	4.6	4.6		4.6	4.6	4.6
All-Red Time (s)	2.4	2.5	2.5	2.5	2.5	2.5	1.9	1.6		1.6	1.6	1.6

3: Terry Fox Drive & Fernbank Road PM Peak

Bridlewood 3
2030 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	6.2	6.2	6.2	6.2	6.2	6.5	6.2		6.2	6.2	6.2
Lead/Lag	Lead			Lag	Lag	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0		7.0		7.0	7.0	7.0
Flash Dont Walk (s)		20.0	20.0	20.0	20.0	20.0		16.0		16.0	16.0	16.0
Pedestrian Calls (#/hr)		5	5	5	5	5		5		5	5	5
Act Effct Green (s)	42.2	42.1	42.1	29.5	29.5	29.5	45.2	45.5		30.5	30.5	30.5
Actuated g/C Ratio	0.42	0.42	0.42	0.30	0.30	0.30	0.45	0.46		0.30	0.30	0.30
v/c Ratio	0.38	0.28	0.19	0.07	0.62	0.24	1.08	0.59		0.80	0.89	0.20
Control Delay	23.2	21.1	4.2	27.0	37.2	5.3	102.1	23.4		54.5	53.0	1.6
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	23.2	21.1	4.2	27.0	37.2	5.3	102.1	23.4		54.5	53.0	1.6
LOS	C	C	A	C	D	A	F	C		D	D	A
Approach Delay		16.8			28.1			50.5			46.4	
Approach LOS		B			C			D			D	
Queue Length 50th (m)	13.5	27.5	0.0	3.8	59.0	1.3	~33.7	64.7		36.0	87.2	0.0
Queue Length 95th (m)	25.1	44.5	10.8	10.6	88.6	9.1	#82.1	95.0		#71.6	#139.3	2.9
Internal Link Dist (m)		183.0			194.3			518.0			160.5	
Turn Bay Length (m)	75.0		75.0	80.0		100.0	90.0			95.0		95.0
Base Capacity (vph)	290	758	702	333	530	542	237	859		284	591	589
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.38	0.28	0.19	0.07	0.62	0.24	1.08	0.56		0.74	0.83	0.19

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 91 (91%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.08

Intersection Signal Delay: 38.7

Intersection LOS: D

Intersection Capacity Utilization 93.9%

ICU Level of Service F

Analysis Period (min) 15

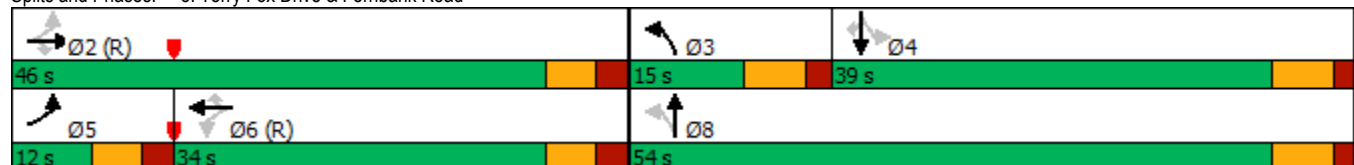
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Terry Fox Drive & Fernbank Road



8: Eagleson Road & Fernbank Road
PM Peak

Bridlewood 3
2030 Total Traffic



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	140	187	182	646	1073	219
Future Volume (vph)	140	187	182	646	1073	219
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Storage Length (m)	160.0	0.0	25.0			0.0
Storage Lanes	1	1	1			1
Taper Length (m)	60.0		30.0			
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Ped Bike Factor	1.00	0.99				0.98
Frt		0.850				0.850
Flt Protected	0.950		0.950			
Satd. Flow (prot)	1712	1532	1695	3424	3424	1547
Flt Permitted	0.950		0.195			
Satd. Flow (perm)	1705	1512	348	3424	3424	1510
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		187				218
Link Speed (k/h)	60			60	60	
Link Distance (m)	458.2			532.9	161.4	
Travel Time (s)	27.5			32.0	9.7	
Confl. Peds. (#/hr)	4	1	2			2
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	1%	1%	2%	1%	1%	0%
Adj. Flow (vph)	140	187	182	646	1073	219
Shared Lane Traffic (%)						
Lane Group Flow (vph)	140	187	182	646	1073	219
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.7			3.7	3.7	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			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
Number of Detectors	1	1	1	2	2	1
Detector Template	Left	Right	Left	Thru	Thru	Right
Leading Detector (m)	6.1	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
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Size(m)	6.1	6.1	6.1	1.8	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+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				CI+Ex	CI+Ex	
Detector 2 Channel						
Detector 2 Extend (s)				0.0	0.0	
Turn Type	Perm	Perm	pm+pt	NA	NA	Perm
Protected Phases			5	2	6	
Permitted Phases	4	4	2			6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	10.0	10.0	10.0
Minimum Split (s)	43.4	43.4	11.0	24.0	43.0	43.0
Total Split (s)	43.4	43.4	21.0	76.6	55.6	55.6
Total Split (%)	36.2%	36.2%	17.5%	63.8%	46.3%	46.3%
Maximum Green (s)	37.0	37.0	15.0	70.6	49.6	49.6
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.7	2.7	2.3	2.3	2.3	2.3

8: Eagleson Road & Fernbank Road
PM Peak

Bridlewood 3
2030 Total Traffic

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.4	6.4	6.0	6.0	6.0	6.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	30.0	30.0			21.0	21.0
Pedestrian Calls (#/hr)	5	5			5	5
Act Effct Green (s)	18.4	18.4	89.2	89.2	73.3	73.3
Actuated g/C Ratio	0.15	0.15	0.74	0.74	0.61	0.61
v/c Ratio	0.54	0.48	0.49	0.25	0.51	0.22
Control Delay	52.3	9.2	13.6	6.6	16.9	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.3	9.2	13.6	6.6	16.9	3.0
LOS	D	A	B	A	B	A
Approach Delay	27.7			8.1	14.5	
Approach LOS	C			A	B	
Queue Length 50th (m)	31.8	0.0	11.3	16.7	63.2	0.1
Queue Length 95th (m)	41.5	15.9	31.1	48.8	137.6	14.4
Internal Link Dist (m)	434.2			508.9	137.4	
Turn Bay Length (m)	160.0		25.0			
Base Capacity (vph)	525	595	427	2545	2092	1007
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.31	0.43	0.25	0.51	0.22

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 48 (40%), Referenced to phase 2:NBTL and 6:SBT, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 14.1

Intersection LOS: B

Intersection Capacity Utilization 66.2%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 8: Eagleson Road & Fernbank Road



9: Romina Street/Templeford Avenue & Fernbank Road
PM Peak

Bridlewood 3
2030 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	42	331	92	54	350	31	80	20	28	19	18	45
Future Volume (vph)	42	331	92	54	350	31	80	20	28	19	18	45
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	95.0		25.0	100.0		15.0	0.0		0.0	0.0		0.0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (m)	30.0			30.0			7.6			7.6		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.97	1.00		0.97		0.99			0.99	
Frt			0.850			0.850		0.970			0.926	
Flt Protected	0.950			0.950				0.970			0.989	
Satd. Flow (prot)	1729	1802	1532	1729	1784	1459	0	1642	0	0	1519	0
Flt Permitted	0.547			0.560				0.798			0.915	
Satd. Flow (perm)	988	1802	1493	1017	1784	1410	0	1350	0	0	1402	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			92			33		16			45	
Link Speed (k/h)		60			60			50			50	
Link Distance (m)		218.3			458.2			301.3			168.5	
Travel Time (s)		13.1			27.5			21.7			12.1	
Confl. Peds. (#/hr)	6		2	2		6			6	6		
Confl. Bikes (#/hr)			1			1						1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	1%	1%	0%	2%	6%	2%	15%	0%	0%	11%	11%
Adj. Flow (vph)	42	331	92	54	350	31	80	20	28	19	18	45
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	331	92	54	350	31	0	128	0	0	82	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			0.0			0.0	
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	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+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		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	2	2	2	6	6	6	8	8		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)	27.8	27.8	27.8	27.8	27.8	27.8	31.0	31.0		31.0	31.0	
Total Split (s)	59.0	59.0	59.0	59.0	59.0	59.0	41.0	41.0		41.0	41.0	
Total Split (%)	59.0%	59.0%	59.0%	59.0%	59.0%	59.0%	41.0%	41.0%		41.0%	41.0%	
Maximum Green (s)	53.2	53.2	53.2	53.2	53.2	53.2	35.0	35.0		35.0	35.0	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.3	3.3		3.3	3.3	

9: Romina Street/Templeford Avenue & Fernbank Road
PM Peak

Bridlewood 3
2030 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	2.1	2.1	2.1	2.1	2.1	2.1	2.7	2.7		2.7	2.7	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Lost Time (s)	5.8	5.8	5.8	5.8	5.8	5.8		6.0			6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	C-Max	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	15.0	15.0	15.0	15.0	15.0	15.0	18.0	18.0		18.0	18.0	
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0		0	0	
Act Effct Green (s)	73.6	73.6	73.6	73.6	73.6	73.6		14.6			14.6	
Actuated g/C Ratio	0.74	0.74	0.74	0.74	0.74	0.74		0.15			0.15	
v/c Ratio	0.06	0.25	0.08	0.07	0.27	0.03		0.61			0.34	
Control Delay	1.5	1.7	0.2	4.9	5.5	1.8		46.6			22.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	1.5	1.7	0.2	4.9	5.5	1.8		46.6			22.7	
LOS	A	A	A	A	A	A		D			C	
Approach Delay		1.4			5.1			46.6			22.7	
Approach LOS		A			A			D			C	
Queue Length 50th (m)	0.5	3.9	0.0	2.4	18.2	0.0		20.7			6.4	
Queue Length 95th (m)	m1.0	m6.0	m0.0	7.2	37.1	2.6		36.6			18.3	
Internal Link Dist (m)		194.3			434.2			277.3			144.5	
Turn Bay Length (m)	95.0		25.0	100.0		15.0						
Base Capacity (vph)	727	1327	1123	749	1313	1047		482			519	
Starvation Cap Reductn	0	0	0	0	0	0		0			0	
Spillback Cap Reductn	0	0	0	0	0	0		0			0	
Storage Cap Reductn	0	0	0	0	0	0		0			0	
Reduced v/c Ratio	0.06	0.25	0.08	0.07	0.27	0.03		0.27			0.16	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 71 (71%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 9.6

Intersection LOS: A

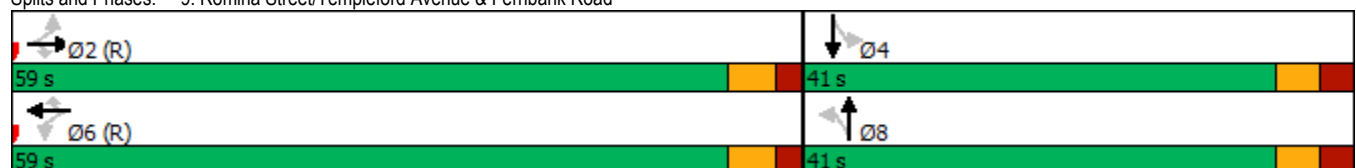
Intersection Capacity Utilization 58.0%

ICU Level of Service B

Analysis Period (min) 15

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

Splits and Phases: 9: Romina Street/Templeford Avenue & Fernbank Road



13: Eagleson Road & Romina Street/Emerald Meadows Drive
PM Peak

Bridlewood 3
2030 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	9	34	6	10	23	61	559	15	27	765	85
Future Volume (vph)	69	9	34	6	10	23	61	559	15	27	765	85
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	0.0		0.0	0.0		0.0	100.0		25.0	35.0		25.0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (m)	7.6			7.6			90.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			0.99			1.00		1.00	1.00	
Frt		0.959			0.920			0.996			0.985	
Flt Protected		0.970			0.992		0.950			0.950		
Satd. Flow (prot)	0	1561	0	0	1648	0	1544	3370	0	1729	3316	0
Flt Permitted		0.789			0.951		0.317			0.435		
Satd. Flow (perm)	0	1269	0	0	1579	0	515	3370	0	791	3316	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			23			3			15	
Link Speed (k/h)		50			40			60			60	
Link Distance (m)		235.1			128.6			505.5			532.9	
Travel Time (s)		16.9			11.6			30.3			32.0	
Confl. Peds. (#/hr)	1		4	4		1			1	1		
Confl. Bikes (#/hr)												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 (%)	7%	0%	12%	0%	0%	0%	12%	2%	7%	0%	2%	7%
Adj. Flow (vph)	69	9	34	6	10	23	61	559	15	27	765	85
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	112	0	0	39	0	61	574	0	27	850	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)		0.0			0.0			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	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5		6.1	30.5		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	
Detector 1 Position(m)	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	
Detector 1 Type	CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex		CI+Ex	CI+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0		10.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	44.5	44.5		44.5	44.5		26.0	26.0		26.0	26.0	
Total Split (s)	52.0	52.0		52.0	52.0		68.0	68.0		68.0	68.0	
Total Split (%)	43.3%	43.3%		43.3%	43.3%		56.7%	56.7%		56.7%	56.7%	
Maximum Green (s)	45.5	45.5		45.5	45.5		62.0	62.0		62.0	62.0	
Yellow Time (s)	3.3	3.3		3.3	3.3		3.7	3.7		3.7	3.7	

13: Eagleson Road & Romina Street/Emerald Meadows Drive
PM Peak

Bridlewood 3
2030 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
All-Red Time (s)	3.2	3.2		3.2	3.2		2.3	2.3		2.3	2.3	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.5			6.5		6.0	6.0		6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	31.0	31.0		31.0	31.0		13.0	13.0		13.0	13.0	
Pedestrian Calls (#/hr)	5	5		5	5		5	5		5	5	
Act Effct Green (s)		18.0			18.0		89.5	89.5		89.5	89.5	
Actuated g/C Ratio		0.15			0.15		0.75	0.75		0.75	0.75	
v/c Ratio		0.54			0.15		0.16	0.23		0.05	0.34	
Control Delay		45.2			21.5		6.0	4.4		1.5	3.5	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		45.2			21.5		6.0	4.4		1.5	3.5	
LOS		D			C		A	A		A	A	
Approach Delay		45.2			21.5			4.5			3.4	
Approach LOS		D			C			A			A	
Queue Length 50th (m)		20.8			3.4		2.2	10.6		0.6	33.9	
Queue Length 95th (m)		30.7			10.5		m9.7	31.4		m0.6	5.4	
Internal Link Dist (m)		211.1			104.6			481.5			508.9	
Turn Bay Length (m)							100.0			35.0		
Base Capacity (vph)		494			612		384	2514		590	2477	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.23			0.06		0.16	0.23		0.05	0.34	

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 92 (77%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 7.1

Intersection LOS: A

Intersection Capacity Utilization 64.7%

ICU Level of Service C

Analysis Period (min) 15

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

Splits and Phases: 13: Eagleson Road & Romina Street/Emerald Meadows Drive

					
Ø2 (R)					Ø4
68 s					52 s
					
Ø6 (R)					Ø8
68 s					52 s

2: Terry Fox Drive & Overberg Way
PM Peak

Bridlewood 3
2030 Total Traffic

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	37	35	795	42	39	722
Future Volume (Veh/h)	37	35	795	42	39	722
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	37	35	795	42	39	722
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	1616	816			837	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1616	816			837	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	66	91			95	
cM capacity (veh/h)	108	377			797	
Direction, Lane #	WB 1	NB 1	SB 1	SB 2		
Volume Total	72	837	39	722		
Volume Left	37	0	39	0		
Volume Right	35	42	0	0		
cSH	166	1700	797	1700		
Volume to Capacity	0.43	0.49	0.05	0.42		
Queue Length 95th (m)	15.0	0.0	1.2	0.0		
Control Delay (s)	42.4	0.0	9.7	0.0		
Lane LOS	E		A			
Approach Delay (s)	42.4	0.0	0.5			
Approach LOS	E					
Intersection Summary						
Average Delay			2.1			
Intersection Capacity Utilization			57.9%	ICU Level of Service	B	
Analysis Period (min)			15			

3: Terry Fox Drive & Fernbank Road PM Peak

Bridlewood 3
2030 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	212	130	24	327	130	255	476	9	211	491	111
Future Volume (vph)	110	212	130	24	327	130	255	476	9	211	491	111
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Storage Length (m)	75.0		75.0	80.0		100.0	90.0		0.0	95.0		95.0
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (m)	100.0			30.0			70.0			100.0		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.97	0.99		0.97		1.00		1.00		0.97
Frt			0.850			0.850		0.997				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1586	1802	1532	1729	1802	1473	1712	1796	0	1695	1802	1488
Flt Permitted	0.301			0.625			0.142			0.487		
Satd. Flow (perm)	500	1802	1489	1131	1802	1426	256	1796	0	868	1802	1444
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			130			157		1				157
Link Speed (k/h)		60			60			80			80	
Link Distance (m)		207.0			218.3			542.0			184.5	
Travel Time (s)		12.4			13.1			24.4			8.3	
Confl. Peds. (#/hr)	6		4	4		6	4		1	1		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 (%)	9%	1%	1%	0%	1%	5%	1%	1%	0%	2%	1%	4%
Adj. Flow (vph)	110	212	130	24	327	130	255	476	9	211	491	111
Shared Lane Traffic (%)												
Lane Group Flow (vph)	110	212	130	24	327	130	255	485	0	211	491	111
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)		1.6			1.6			4.9			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	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	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	0.0
Detector 1 Position(m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Size(m)	6.1	1.8	6.1	6.1	1.8	6.1	6.1	1.8		6.1	1.8	6.1
Detector 1 Type	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex	CI+Ex		CI+Ex	CI+Ex	CI+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(m)		28.7			28.7			28.7			28.7	
Detector 2 Size(m)		1.8			1.8			1.8			1.8	
Detector 2 Type		CI+Ex			CI+Ex			CI+Ex			CI+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	Perm	NA	Perm	pm+pt	NA		Perm	NA	Perm
Protected Phases	5	2			6		3	8			4	
Permitted Phases	2		2	6		6	8			4		4
Detector Phase	5	2	2	6	6	6	3	8		4	4	4
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0		10.0	10.0	10.0
Minimum Split (s)	11.1	33.2	33.2	33.2	33.2	33.2	11.5	29.2		29.2	29.2	29.2
Total Split (s)	11.1	46.0	46.0	34.9	34.9	34.9	20.0	64.0		44.0	44.0	44.0
Total Split (%)	10.1%	41.8%	41.8%	31.7%	31.7%	31.7%	18.2%	58.2%		40.0%	40.0%	40.0%
Maximum Green (s)	5.0	39.8	39.8	28.7	28.7	28.7	13.5	57.8		37.8	37.8	37.8
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	4.6	4.6		4.6	4.6	4.6
All-Red Time (s)	2.4	2.5	2.5	2.5	2.5	2.5	1.9	1.6		1.6	1.6	1.6

3: Terry Fox Drive & Fernbank Road PM Peak

Bridlewood 3
2030 Total Traffic

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	6.2	6.2	6.2	6.2	6.2	6.5	6.2		6.2	6.2	6.2
Lead/Lag	Lead			Lag	Lag	Lag	Lead			Lag	Lag	Lag
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes			Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	None	None		None	None	None
Walk Time (s)		7.0	7.0	7.0	7.0	7.0		7.0		7.0	7.0	7.0
Flash Dont Walk (s)		20.0	20.0	20.0	20.0	20.0		16.0		16.0	16.0	16.0
Pedestrian Calls (#/hr)		5	5	5	5	5		5		5	5	5
Act Effct Green (s)	43.8	43.7	43.7	31.3	31.3	31.3	53.6	53.9		34.2	34.2	34.2
Actuated g/C Ratio	0.40	0.40	0.40	0.28	0.28	0.28	0.49	0.49		0.31	0.31	0.31
v/c Ratio	0.42	0.30	0.19	0.07	0.64	0.25	0.85	0.55		0.78	0.88	0.20
Control Delay	29.2	25.4	4.9	24.1	34.5	2.7	46.2	21.7		54.8	53.3	2.2
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	29.2	25.4	4.9	24.1	34.5	2.7	46.2	21.7		54.8	53.3	2.2
LOS	C	C	A	C	C	A	D	C		D	D	A
Approach Delay		20.4			25.4			30.2			46.7	
Approach LOS		C			C			C			D	
Queue Length 50th (m)	15.8	32.1	0.0	2.6	66.5	0.9	30.1	66.1		39.6	95.8	0.0
Queue Length 95th (m)	28.9	51.6	11.9	7.8	97.5	3.6	#70.1	93.0		#73.4	#139.1	4.6
Internal Link Dist (m)		183.0			194.3			518.0			160.5	
Turn Bay Length (m)	75.0		75.0	80.0		100.0	90.0			95.0		95.0
Base Capacity (vph)	261	715	669	321	512	518	303	944		298	619	599
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.42	0.30	0.19	0.07	0.64	0.25	0.84	0.51		0.71	0.79	0.19

Intersection Summary

Area Type: Other

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 32.9

Intersection LOS: C

Intersection Capacity Utilization 93.9%

ICU Level of Service F

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Terry Fox Drive & Fernbank Road

