FINAL

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REPORT
TRANSPORTATION NETWORK IMPROVEMENT STRATEGY

October 2018









Stantec

Associated Engineering

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Executive Summary

With challenges aligned to aging infrastructure, changing growth pressures from development, quantity of candidate projects and high demands for use and limited availability of public funding, there is a required strategic approach that must be taken in selection of infrastructure capital investment.

In terms of the transportation network, consideration must be given towards what the overall benefit of the improvement(s) will provide – safety, efficiency, accommodation of alternative travel modes; and they must account for both today's needs with forecasted demand to meet expectations of levels of service.

To perform an updated transportation network evaluation that would result in a prioritized listing of transportation projects for consideration within the ten-year capital budget, Council approved funding to be used towards the project and requested the report back with recommendations by September 2018.

The City of St. Albert has engaged Associated Engineering along with Stantec, to perform the transportation network analysis and deliver upon recommendations for network improvements within the 10-year plan. The methodology utilized for this project was a four-phase approach.

The first phase reviewed the current traffic network and traffic conditions within the City of St. Albert. The second phase was to examine the future transportation network within the City of St. Albert by reviewing:

- Guiding Documents: 2015 St. Albert Transportation Master Plan (TMP), Capital Region Board Integrated Regional Transportation Master Plan (IRTMP), St. Albert Municipal Development Plan (MDP), St. Albert Environmental Master Plan (EMP), St. Albert LRT Planning Study (Phase 1 and 2), St. Albert Economic Development Master Plan;
- St. Albert Ray Gibbon Drive Operational Report;
- St. Albert Project Charters and Current and Future City of St. Albert Transportation projects;
- Traffic Impact Assessments (TIAs),
- Area Structure Plans (ASPs); and
- Current Traffic counts and collision data.

The third phase involved the evaluation of the future transportation network with nine scenarios which were developed to evaluate the transportation infrastructure projects from the 2015 Transportation Master Plan. The nine scenarios were analyzed by using the updated City of St. Albert EMME travel demand model and the developed Synchro model. The data obtained from the two models provided the required information for the evaluation matrix.

An evaluation matrix was developed on three key considerations to rank transportation infrastructure projects, they are:

- Local improvements – how the proposed project impacts the level of service
- Network improvements – the difference in total arterial travel time against doing no infrastructure improvements scenario
- Opportunity for safety improvements – a qualitive measurement based on potential for safety improvements through the design process.

The fourth phase was the final evaluation and ranking of projects. A list of transportation infrastructure projects was determined based on their scores from the evaluation matrix. However, this list was reviewed for consideration of feasibility and logical staging and provided the following recommended transportation infrastructure network project list with estimated construction costs:

Priority	Project	Description	Cost (x$1,000) +/- 35%
1	Ray Gibbon Drive: 137 Avenue to LeClair Way	Expand to 4 lanes of divided arterial road (approximately 800 m), upgrade LeClair Way intersection	$ 5,000
	LeClair Way at Riel Drive Intersection	Reconfigure LeClair Way at Riel Drive to address LOS	$ 300
2	North St. Albert Trail: Boudreau Road to Coal Mine Road	Widen to 3 lanes, upgrade intersections	$ 8,600
3	Ray Gibbon Drive: LeClair Way to McKenney Avenue	Expand to 4 lanes of divided arterial road (approximately 2.9 km), upgrade McKenney Ave intersection	$ 18,500
4	Fowler Way	Develop first 2 lanes of ultimate 4-lane arterial road	$ 35,900
5	North St. Albert Trail: Coal Mine Road to Everitt Drive	Widen to 3 lanes, upgrade intersections	$ 5,000
6	North St. Albert Trail: Everitt Drive to Neil Ross Road	Widen to 3 lanes, upgrade intersections	$ 5,250
7	Ray Gibbon Drive: McKenney Avenue to Giroux Road	Expand to 4 lanes of divided arterial road (approximately 1.35 km), upgrade Giroux Road intersection	$ 9,500
8	Giroux Road twinning to Ray Gibbon Drive	Twin last 300 m of roadway to tie to Ray Gibbon Drive	$ 1,200
9	Ray Gibbon Drive: Twinning from Giroux Road to Fowler Way	Expand to 4 lanes of divided arterial roadway (approximately 2.1 km) and improve Fowler Way intersection	$ 13,000
10	137 Avenue at Anthony Henday Drive Ramps	Construction of on / off ramps from Anthony Henday Drive to 137 Avenue	$ 3,000
11	McKenney Avenue to Ray Gibbon Drive	Twin approximately 1.5 km to tie into Ray Gibbon Drive	$ 7,200
12	Boudreau Road at Campbell Road	Reconfigure intersection to address LOS	$ 800
13	St. Albert Trail at Hebert / Gervais Road	East and westbound right turn bay construction, northbound lane extension from Superstore to Hebert	$ 1,900

Priority	Project	Description	Cost (x$1,000) +/- 35%
-	Sir Winston Churchill Ave: Sturgeon Road to City Limits	Twin approximately 620 m	$ 3,200
-	Bellerose Drive: Oakmont Drive to City Limits	Twin approximately 1.7 km	$ 8,500

Associated Engineering and Stantec would like to thank the City of St. Albert administration for their collaboration and valued input on this project.

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1 Introduction

1.1 PROJECT INTENT

In 2018, the City of St. Albert Council approved funding for completion of a Transportation Network Improvement Strategy that would deliver on a network wide review and evaluation of operational levels of service to prioritize transportation improvements that would result in highest increases to vehicular movement efficiencies. This strategy incorporates an evaluation of the existing and forecasted transportation roadway system improvements, with preliminary cost estimates.

The intent of this project is to build upon work performed through the 2015 Transportation Master Plan (TMP) to deliver a strategy identifying prioritized network improvements that result in the largest operational gain. It does not duplicate completed work, but expands upon previous work, considers additional criteria, and identifies a more refined level of detail.

1.2 PROJECT METHODOLOGY

The work plan for this project followed a four phases process that included:

Phase 1 – Existing Conditions

A review of the current traffic network and traffic conditions within the City of St. Albert (discussed in section 2 of the report).

Phase 2 – Future Conditions

Collection and review of all background information:

- 2015 St. Albert Transportation Master Plan (TMP)
- Capital Region Board Integrated Regional Transportation Master Plan (IRTMP)
- St. Albert Municipal Development Plan (MDP)
- St. Albert Environmental Master Plan (EMP)
- St. Albert LRT Planning Study (Phase 1 and 2)
- St. Albert Economic Development Master Plan
- St. Albert Ray Gibbon Drive Operational Report
- St. Albert Project Charters
- Traffic Impact Assessments (TIAs)
- Area Structure Plans (ASPs)
- Current and Future City of St. Albert Transportation projects
- Current Traffic counts and collision data were supplied by the City of St. Albert

A review and summary of the above documents is discussed in section 3 of the report.

Phase 3 - Network Evaluation

To initiate the process of evaluating the transportation network, in a joint working session with the City administration, a review of the 10-year capital plan for roadway improvements was reviewed and scored against a number of criteria. The criteria included:

- Current operational safety
- Level of Service (LOS)
- Reginal Influence
- TIA Identified Growth
- Active Transportation Mode
- Public Transport
- Movement of Goods

The results provided an initial project priority list that was utilized for the development of improvement scenarios. There were nine scenarios developed; one as a do nothing base scenario along with eight scenarios of future projects. All the scenarios were analyzed using St. Albert's EMME Travel Demand Model and a Synchro Model to provide the data required for the evaluation matrix.

The evaluation matrix criteria were developed on three key considerations:

- Local Improvements – is a measurement of how the proposed project impacts the level of service.
- Network Improvements – is a measurement of the difference in total arterial travel time against the base (do nothing) scenario.
- Opportunity for Safety Improvements – is a qualitive measurement based on potential for safety improvements.

The network evaluation process is discussed in more detail in Section 4 of the report.

Phase 4 – Final Evaluation

The final evaluation is a combination of the evaluation matrix results and interpretation of those results considering logical project phasing. In general, the evaluation criteria prioritized larger projects that impact a more significant proportion of the network. After each project was assigned scores based on the evaluation matrix criteria, each category score was multiplied by its weighting and summed to obtain the overall score. The projects were presented in a list based on their overall scores. However, this list was not the recommended final list of project improvements, as feasible and logical staging must be considered. After consideration of staging, a final list of projects in order of priority was compiled.

The detailed evaluation process is discussed in more depth in Section 5 of the report.

2 Existing Conditions

As stated in the TMP, the population of St. Albert is expected to nearly double within the next three decades. With population growth comes transportation impacts, such as higher volumes and higher user demands, which will present challenges to the existing road network.

Major Corridors

Within the City of St. Albert, St. Albert Trail and Ray Gibbon Drive provide the main north-south connections. St. Albert Trail and Ray Gibbon Drive are important connections for regional travel, as they connect directly to Anthony Henday Drive and into the City of Edmonton.

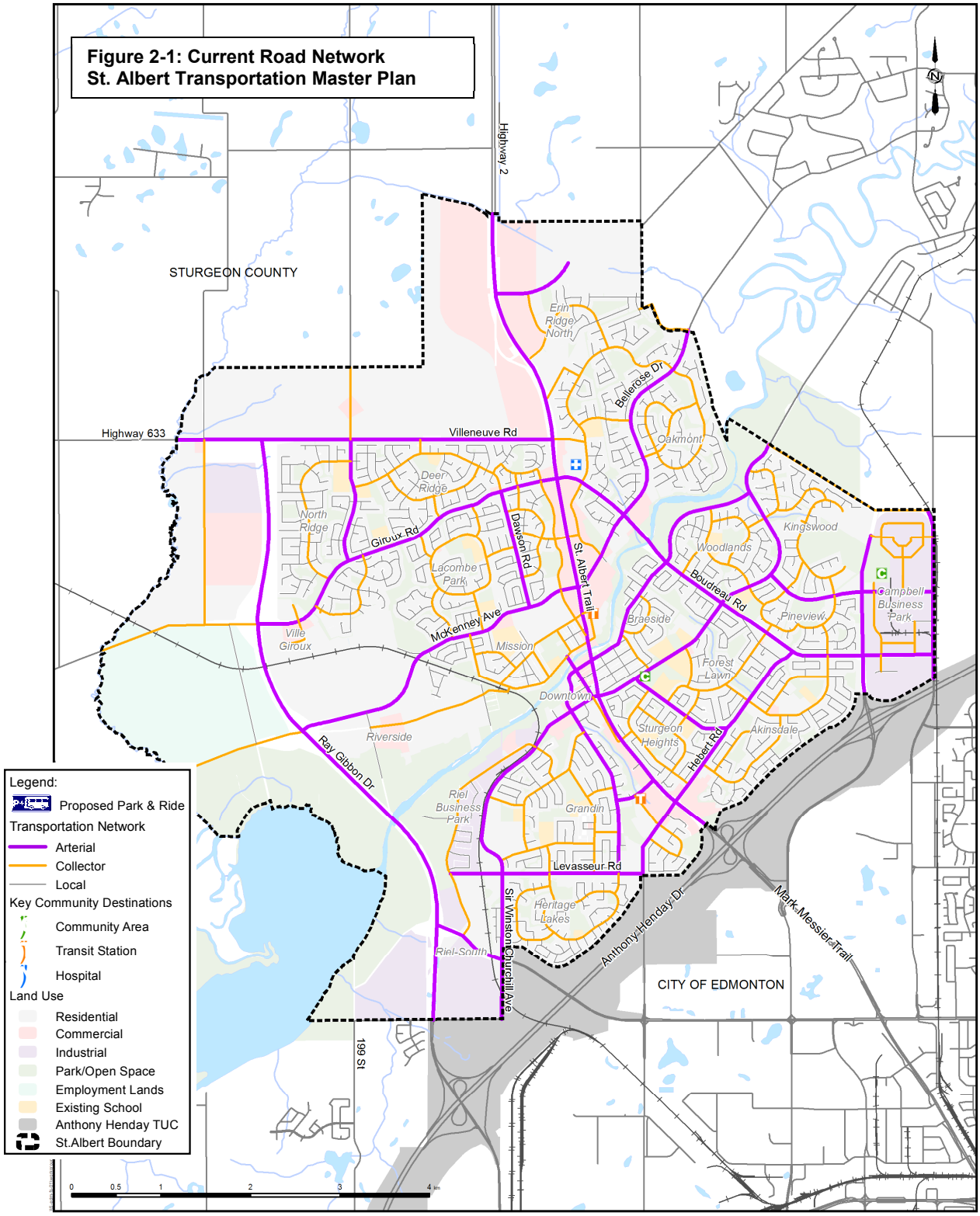
- **St. Albert Trail**: The main north-south connection through St. Albert. It varies between four and six lanes and the majority of the intersections are signalized. It is primarily fronted by commercial uses and is a key regional connector to the City of Edmonton.
- **Ray Gibbon Drive**: A north-south two-lane roadway on the west side of St. Albert that is currently heavily used to access residential and commercial properties. It connects to 184 Street in Edmonton south of the Anthony Henday.

There are several major arterials crossing St. Albert Trail. These arterials provide regularly spaced east-west access across St. Albert, allowing for efficient cross-wise city movement. These major arterials are:

- **Boudreau Road and Giroux Road:** A divided four lane road that runs north-south on the east side of St. Albert Trail, ultimately realigning east-west as Giroux Road west of St. Albert Trail. At the west end, Giroux Road connects to Ray Gibbon Drive, which connects directly to Anthony Henday Drive. On the east end, Boudreau Road connects to Campbell Road, which also connects to Anthony Henday Drive via an interchange.
- **McKenney Avenue and Bellerose Drive:** An east-west arterial that diverts northward as Bellerose Drive and connects to Sturgeon County east of St. Albert Trail. McKenney Ave and Bellerose Drive are mostly divided four lane arterials, with sections of two lanes at either terminus.
- **Sir Winston Churchill Avenue:** A divided four lane arterial for most of its segments, except for the north-east section which is an undivided two lane cross section that does not directly connect to St. Albert Trail and instead runs as an underpass near the downtown area.
- **Gervais Road and Hebert Road: T**he southernmost east-west arterials in St. Albert (four lane roads). Gervais Road shifts south towards Anthony Henday Drive, crossing over the Anthony Henday to become 170 Street within Edmonton.

Some of St. Albert's regional connector and arterial roadways are now serving dual functions as both internal and regional roads, which results in regional traffic passing near or even through local neighbourhoods.

The existing City road network (current as of the TMP) is shown in **Figure 2-1**.


Figure 2-1: Current Road Network
St. Albert Transportation Master Plan
STURGEON COUNTY
Highway 2
Highway 633
Villeneuve Rd
Erin Ridge North
Bellerose Dr
Oakmont
Deer Ridge
North Ridge
Giroux Rd
Dawson Rd
St. Albert Trail
Lacombe Park
McKenney Ave
Ville Giroux
Mission
Woodlands
Kingswood
Boudreau Rd
Braeside
Pineview
Campbell Business Park
Forest Lawn
Downtown
Riverside
Ray Gibbon Dr
Sturgeon Heights
Akinsdale
Hebert Rd
Riel Business Park
Grandin
Levasseur Rd
Heritage Lakes
Sir Winston Churchill Ave
Riel-South
Anthony Henday Dr
Mark Messier Trail
CITY OF EDMONTON
199 St
Legend:
Proposed Park & Ride
Transportation Network
Arterial
Collector
Local
Key Community Destinations
Community Area
Transit Station
Hospital
Land Use
Residential
Commercial
Industrial
Park/Open Space
Employment Lands
Existing School
Anthony Henday TUC
St.Albert Boundary
0
0.5
1
2
3
4

The TMP identified that currently 85% of all trips are taken by residents of St. Albert as either auto driver or passenger. Work, school and shopping are the most common trip purposes for St. Albert residents. 50% of St. Albert residents work in Edmonton, and another 13% work outside of St. Albert other than Edmonton. **Figure 2-2** shows the total traffic volumes in vehicle per hour (vph) on St. Albert roads during the afternoon peak hour period. Note that the PM Peak was used due to data availability, as the travel demand survey was based on the PM Peak.



Figure 2-2
2014 Auto Trips PM Peak Period

The existing road network in St. Albert faces significant pressure from regional traffic (traffic that has both an origin and destination outside of St. Albert). The most congested roadways within the City are generally the larger thoroughfares that support the movement of both local and regional traffic. For example, the TMP noted that about 50% of traffic on St. Albert Trail was pass through traffic. The average annual daily traffic on several key regional roads just outside St. Albert's limits is summarized in the table below.

Table 2-1
2014 Regional Traffic

Road Name	2014 AADT
Hwy 2 north of St. Albert (St. Albert Trail)	16,900
Bellerose Drive	2,200
Sturgeon Road (Sir Winston Churchill Drive)	4,000
Villeneuve Road	3,600

Congestion can be indicated through volume to capacity ratio, which compares the theoretical capacity of a roadway to the actual volumes on the road. In theory, a road with a volume to capacity ratio of 1.0 or greater is operating beyond its desired capacity and users would experience significant delays on this road.

Figure 2-3 is a map of the volume to capacity ratio on St. Albert's roads using 2014 PM Peak traffic volumes. In the PM Peak period, the most congested location in the City is Ray Gibbon Drive northbound. There is also congestion along Boudreau Road and at the southern and northern ends of St. Albert Trail. The most congested location on St. Albert Trail within St. Albert is near downtown.

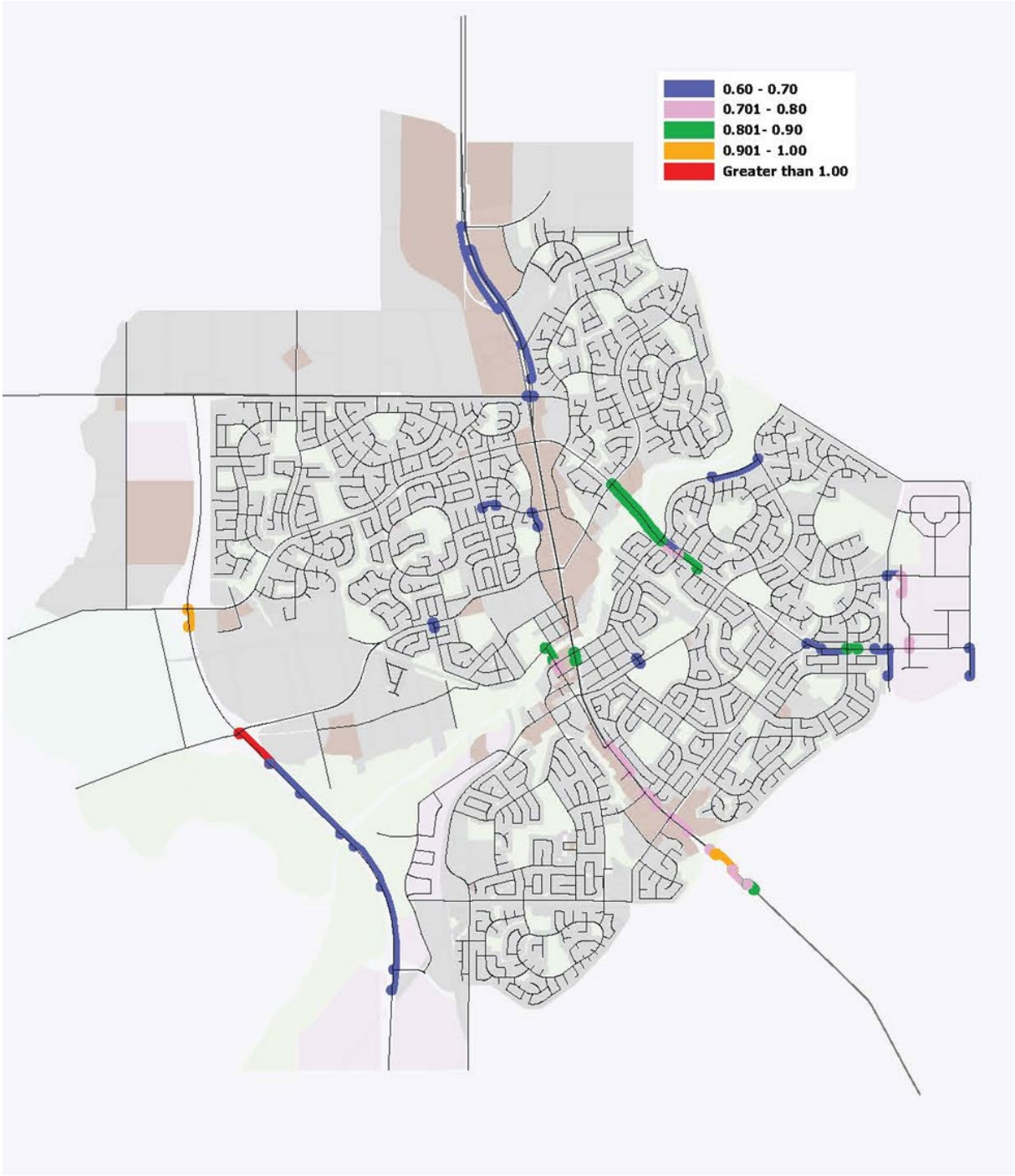


Figure 2-3
Existing Conditions Volume to Capacity Ratio (2014)

3 Future Conditions

3.1 BACKGROUND INFORMATION / CONSIDERATIONS

3.1.1 Guiding Documents

3.1.1.1 Transportation Master Plan (TMP)

The TMP is a strategic planning document that guides St. Albert in preparing for future growth and the challenges of growth pressure over the next three decades. The TMP is about connecting and moving people, goods and services throughout St. Albert in a safe, efficient and effective manner. It is transformative and lays down the foundation and vision for the future transportation network.

The starting point for the Network Improvement Strategy comes from the TMP's 10-year Road Plan, which identifies a variety of roadway and intersection improvements, intelligent transportation systems, twinning, widening and new construction projects. The 10-year Roads Plan developed in the TMP is provided in **Appendix A**.

Future conditions, including community and regional growth combined with existing limited road right-of-way area and minimum capability for construction of new internal arterial road segments, will require that the existing road network is utilized as efficiently as possible. The TMP, updated in 2015, provided guidance towards the creation of Complete Streets Design Guidelines for St. Albert. The Complete Streets Design Guidelines are intended to assist in providing greater alignment to the transportation network with actual land use and anticipated user needs. During the Transportation Network Evaluation project, the City was in process of developing the Complete Streets Guidelines; as such, references in roadway function, use and terminology are taken from the 2015 TMP and the following outlines the future expectations for the road network:

Major arterials are prioritized for the movement of higher volumes of vehicles and transit. Many arterials in St. Albert are divided four lane roads, and intersections between arterials are signalized. It is recommended that arterial alignments be used to facilitate cycling and pedestrian movements through development of multi-use trails off the roadway (due to generous right of-ways). Priorities for existing arterials are to ensure safe crossings for pedestrians and cyclists, examine the need for signal prioritization for transit and then to maximize the capacity of the existing arterial through Intelligent Transportation Systems (ITS) initiatives and intersection improvements.

A key objective is to ensure that roadways are balanced for all road users, with particular attention around areas such as the downtown **urbanized arterials (balanced streets).** These should have increased accommodation for pedestrians, cyclists and transit. Traffic should move at a slower speed on these roads and lower levels of service for vehicle traffic is acceptable.

Collector roads are primarily residential, with direct access to private driveways, and serve to feed local traffic onto the major arterials. Traffic calming measures may be implemented on collector roads where

feasible to address public safety or traffic operation concerns within communities. Collector roads should be limited to two lanes of traffic, with on street parking availability and speed limits not exceeding 50 km/h. Collector roads can carry cycling traffic directly on the roadway and should have sidewalk accommodation on both sides.

Local roads make up a significant part of the St. Albert road network. Local roads are typically designed with two driving lanes with resident parking available on both sides and speed limits no greater than 50 km/h. Local roads should accommodate pedestrians in the form of sidewalks on both sides. Cyclists should be comfortable riding directly on a local road.

The build out of the **Regional Road Network** would provide a bypass network that will contribute to the reduction of pass through traffic on St. Albert Trail. This bypass network will form an unofficial ring road around St. Albert consisting of:

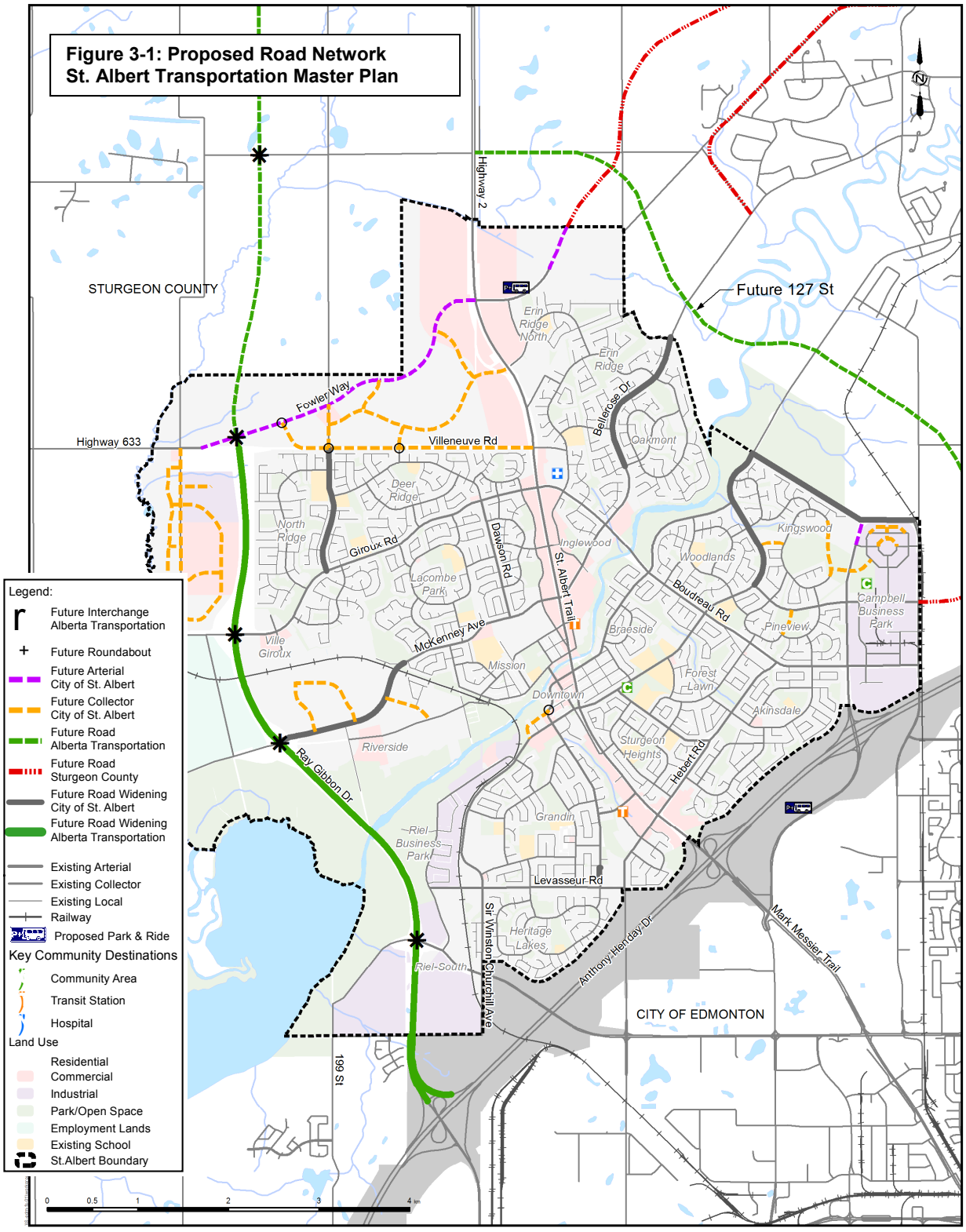
- Anthony Henday Drive along the southern border of St. Albert
- Ray Gibbon Drive along the western portion of St. Albert
- A combination of Fowler Way and Hwy 37 forms the northern connection
- 127 Street forms the eastern leg of the loop.

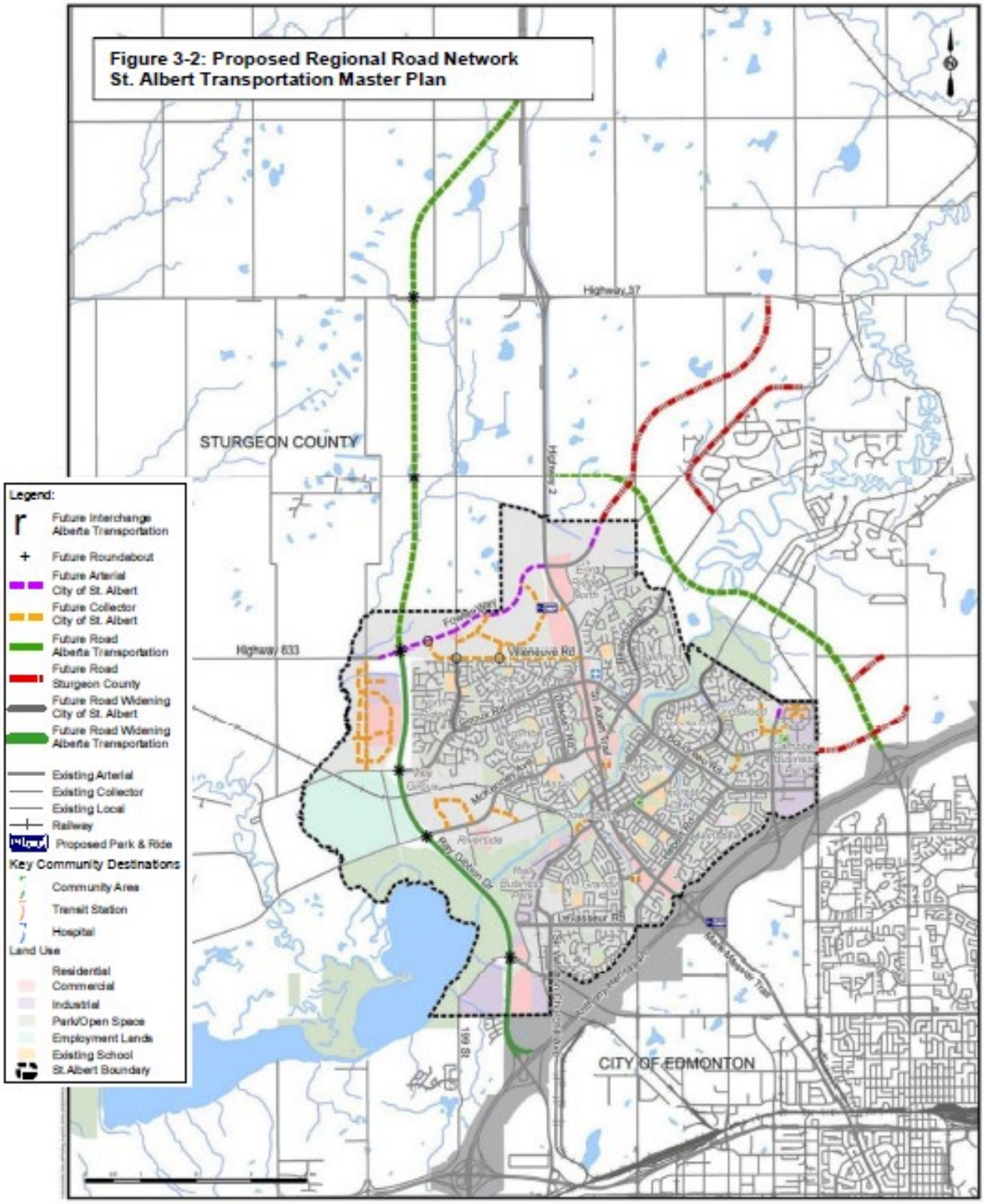
Ray Gibbon Drive – Ray Gibbon Drive is a potential future provincial highway that runs from Anthony Henday Drive to Highway 2, north of Highway 37. The future alignment of Ray Gibbon Drive will include 6 lanes of travel and interchanges, to make it a freeway. Within the horizon of the 2015 TMP, it is expected that Ray Gibbon Drive will be developed to a four lane cross section with at grade signalized intersections.

127 Street – 127 Street is identified in the Capital Region Board Integrated Regional Transportation Master Plan (IRTMP) as extending north past Anthony Henday Drive through Sturgeon County and connecting to Highway 2 north of St. Albert at Township Road 544. It is expected the 127 Street will ultimately be a four lane arterial and will divert regional traffic from St. Albert Trail.

The two St. Albert corridors most important for goods movement currently are St. Albert Trail and Ray Gibbon Drive. The expansion of Ray Gibbon Drive and development of Fowler Way are the priority infrastructure improvements to positively impact goods movement through the city. This change will take heavy vehicle traffic off Villeneuve Road in the short term, and St. Albert Trail in the long term. Villeneuve Road will be reclassified as a collector road and remove its designation as a truck route, while Fowler way will be designed and constructed as the designated commercial goods movement corridor.

The proposed future City road network and the proposed future regional road network identified in the TMP are shown in **Figure 3-1** and **Figure 3-2**, respectively.


Figure 3-1: Proposed Road Network
St. Albert Transportation Master Plan
STURGEON COUNTY
Highway 2
Future 127 St
Highway 633
Fowler Way
Villeneuve Rd
Bellerose Dr
Erin Ridge North
Erin Ridge
Oakmont
Deer Ridge
North Ridge
Giroux Rd
Dawson Rd
St. Albert Trail
Inglewood
Woodlands
Kingswood
Campbell Business Park
Pineview
Boudreau Rd
Lacombe Park
Ville Giroux
McKenney Ave
Braeside
Mission
Forest Lawn
Downtown
Akinsdale
Sturgeon Heights
Hebert Rd
Riverside
Ray Gibbon Dr
Riel Business Park
Grandin
Levasseur Rd
Sir Winston Churchill Ave
Heritage Lakes
Riel-South
Anthony Henday Dr
Mark Messier Trail
CITY OF EDMONTON
199 St
Legend:
Future Interchange Alberta Transportation
Future Roundabout
Future Arterial City of St. Albert
Future Collector City of St. Albert
Future Road Alberta Transportation
Future Road Sturgeon County
Future Road Widening City of St. Albert
Future Road Widening Alberta Transportation
Existing Arterial
Existing Collector
Existing Local
Railway
Proposed Park & Ride
Key Community Destinations
Community Area
Transit Station
Hospital
Land Use
Residential
Commercial
Industrial
Park/Open Space
Employment Lands
Existing School
St.Albert Boundary
0 0.5 1 2 3 4 km


Figure 3-2: Proposed Regional Road Network
St. Albert Transportation Master Plan
STURGEON COUNTY
Highway 37
Highway 2
Highway 633
Villeneuve Rd
CITY OF EDMONTON
Legend:
Future Interchange Alberta Transportation
Future Roundabout
Future Arterial City of St. Albert
Future Collector City of St. Albert
Future Road Alberta Transportation
Future Road Sturgeon County
Future Road Widening City of St. Albert
Future Road Widening Alberta Transportation
Existing Arterial
Existing Collector
Existing Local
Railway
Proposed Park & Ride
Key Community Destinations
Community Area
Transit Station
Hospital
Land Use
Residential
Commercial
Industrial
Park/Open Space
Employment Lands
Existing School
St.Albert Boundary

3.1.1.2 Capital Region Board Integrated Regional Transportation Master Plan (IRTMP)

In 2008, the Government of Alberta created the Capital Region Board (CRB) to support the implementation of a Capital Region Growth Plan. The CRB initiated an Integrated Regional Transportation System Study in 2009, the outcomes of which are summarized in the Integrated Regional Transportation Master Plan (IRTMP). The recommended infrastructure elements in the IRTMP that are applicable to this study include:

- Ray Gibbon Drive: identified as a future freeway from Anthony Henday Drive to Highway 2 south of Morinville. Ray Gibbon Drive may be designated as a Provincial Highway through St. Albert, which would replace St. Albert Trail as the provincial highway, with twinning to Villeneuve Road identified as a 10 year investment priority in the IRTMP.
- 127 Street: identified as a future arterial from Anthony Henday Drive to Highway 2 north of St. Albert city limits at Township Road 544.
- Anthony Henday Drive: north leg completed from Highway 16 east to Highway 16 west.
- Highway 2 is designated as a long combination vehicle route north of St. Albert city limits. There are no regional High Load Corridors through St. Albert; the closest high load corridor is Highway 37.
- St. Albert is identified as a part of the future LRT network for the Capital region. There is a proposed LRT extension identified in the IRTMP to north St. Albert city limits, supported with a regional bus corridor to Morinville. The IRTMP also identifies development of a Park and Ride lot at St. Albert Trail / Anthony Henday Drive as a 10-year investment priority.

3.1.1.3 Edmonton Metropolitan Region Growth Plan

In October 2017, the Edmonton Metropolitan Region Growth Plan came into effect. It is a comprehensive update that builds upon the foundation of the original 2010 Capital Region Growth Plan. The Plan applies to the following municipalities: City of Edmonton, Town of Beaumont, Town of Devon, City of Fort Saskatchewan, City of Leduc, Leduc County, Town of Morinville, Parkland County, City of St. Albert, City of Spruce Grove, Town of Stony Plain, Strathcona County, and Sturgeon County. It should be noted that the TMP created by the CRB, referenced in Section 3.1.1.2, has been incorporated into this Growth Plan.

One of the guiding principles of the Growth Plan is to ensure effective regional mobility by working towards a multi-modal and integrated regional transportation system. The first objective is to develop a regional transportation system to support and enhance growth and regional and global connectivity. Improving main corridors in St. Albert that are commonly used by regional traffic would support this mandate.

Another transportation-related objective of the Growth Plan is to encourage a mode shift to transit, high occupancy vehicles and active transportation modes as viable and attractive alternatives to private automobile travel. To support the implementation of infrastructure for active modes, the City of St. Albert has implemented Complete Streets Guidelines which would be referenced in future transportation network improvements.

3.1.1.4 St. Albert Municipal Development Plan (MDP)

As required by the Municipal Government Act, the City of St. Albert maintains a MDP. It was most recently updated in 2007 and has a planning horizon of 2029. The objectives for the transportation network in the MDP are in line with the most recent TMP and include:

- Plan and implement roadway improvements to accommodate the growing population.
- Plan a transportation network that accommodates all modes, including transit and potential LRT, cyclists and pedestrians.
- Mitigate community, social, environmental and noise impacts of transportation facilities.
- Facilitate maintenance and extension of infrastructure.
- Encourage use of public transit through improvements to the service in a low cost manner.
- Promote transit-supportive land use planning.
- Provide appropriate transit and road links for the region.
- Coordinate truck and dangerous goods linkages to minimize impacts on residential areas.
- Use transportation demand management and transportation system management.
- Ensure additional road capacity across the Sturgeon River.

At the time of issuing this report, a comprehensive update of the MDP has commenced and is expected to be completed in 2020.

3.1.1.5 Environmental Master Plan (EMP)

St. Albert City Council approved the EMP in May 2014, which identifies goals and targets for key environmental issues. Key goals identified in the EMP include:

- Managing air quality;
- Reducing energy consumption and greenhouse gas emissions;
- Promotion of sustainable neighbourhoods and transportation choices; and
- Fostering community environmental stewardship.

The TMP aligns with the EMP by identifying a number of lower emission transportation choices with the potential to promote a shift away from the private automobile to transit, cycling, and walking, and laying the foundation for a long-term transportation plan that supports that shift.

3.1.1.6 St. Albert LRT Planning Study (Phases 1 and 2)

In November 2015, Council approved the second phase of a long-term Light Rail Transit (LRT) Study that investigated the technical feasibility of constructing an LRT in St. Albert. The first phase of the LRT Study reviewed potential corridors. The second phase considered the potential alignment and station locations of the LRT. Following an extensive consultation process, Council has now endorsed the alignment along the east side of St. Albert Trail and the locations of the four stations at Hebert Road/Gervais Road, at the

Sturgeon River, at Boudreau Road/Giroux Road, and north of Jensen Lakes Boulevard and west of St. Albert Trail.

3.1.1.7 Economic Development Master Plan

The 2004 Economic Development Master Plan supports business opportunities and economic growth in the community. The location and future access to the Lakeview Business District area west of Ray Gibbon Drive is a priority for the TMP.

3.1.1.8 Ray Gibbon Drive Operational Report

A 2017 study was conducted to assess the existing operations of Ray Gibbon Drive, identifying current levels of service (amount of delay) and potential improvements with expected service life that would be anticipated for the improvements and estimated costs to be constructed.

The analysis found that twinning of the roadway is warranted from the south city limit to McKenney Avenue and to complete this work construction was estimated at approximately $23 million. The evaluation of Ray Gibbon Drive was inclusive of a review of both the corridor itself and the intersections along it.

3.1.1.9 North St. Albert Trail

The current ongoing initiative by the City of St. Albert for Phase 2 of Complete Streets involves an evaluation of the cross-section of North St. Albert Trail from the intersection of Boudreau Road / Giroux Road to the northern City Limits (north of Neil Ross Road). This will also involve evaluating and deciding on upgrades to the intersections of St. Albert Trail and Boudreau Road / Giroux Road, Villeneuve Road / Erin Ridge Road, Coal Mine Road, Everitt Drive, Neil Ross Road, and any minor accesses within those project limits.

3.1.1.10 Project Charters

The City of St. Albert has completed various Capital Project Charters that are aligned with this study.

Arterial and Collector Intersection Improvements
Charter No. ENGS-054 for 2019. This project shall perform network improvements to intersections that result in enhanced safety or increased capacity and levels of service. Intersection locations identified as operational concerns (as related by levels of service and delay) or captured as trending locations of safety concerns (as identified by multi-year motor vehicle collision data) have been prioritized and are proposed candidates to be redesigned to improve movement of people both safely and efficiently. Current priority intersections and work completed to date are inclusive of:

- Boudreau Road at Campbell Road – Preliminary improvements have been completed to the intersection to address priority northbound left turn movements and safety.

- St. Albert Trail at Boudreau Road / Giroux Road – Detailed design for proposed improvements have been completed and construction is tentatively scheduled for 2018 for north and westbound directions. The 2019 charter focuses work to construct improvements to the southbound and eastbound directions.
- St. Albert Trail at Hebert / Gervais Road – conceptual work has been completed that may then be used to engage and communicate with stakeholders.

Active Transportation Implementation
Charter No. ENGS-068 for 2019. This project will ensure infrastructure is in place to increase accessibility to alternative, non-motorized forms of transportation and the city is connected internally and regionally by an active transportation network that promotes the use for both commuting and recreational needs.

The City of St. Albert owns and maintains approximately 455 km of sidewalk and 85 Km of trail. Albeit not currently identified within any formal documentation, the system itself has existing gaps where sidewalk or trail infrastructure do not exist and thus result in loss of accessibility to specific destination sites or connection points to alternative transportation modes.

These gaps ultimately create limitations and restrict mobility through the network and contradict the vision / objectives of the transportation network, that states, the City will consider the “diverse needs of our population with many ways to move around the city in a safe, efficient, affordable and accessible manner...”

ITS Strategy Implementation
Charter No. ENGS-069 for 2019. This project will enact recommendations identified within the Intelligent Transportation Systems (ITS) Strategic Plan (2018) to improve upon efficiency, safety, and information sharing from the city’s road network.

North St. Albert Trail Corridor Management Implementation
Charter No. ENGS-070 for 2019. This project will follow through on the implementation of identified roadway improvements and urbanization of the north section of St. Albert Trail (north of Boudreau Road to the existing north City limit). This project is identified within the Off-Site Levy Bylaw 30/2013 (Transportation Infrastructure Projects 20 & 21) and is being identified for front-ending.

Growth and development has occurred along the north corridor segments of St. Albert Trail (north of the Boudreau Road intersection). This includes residential components in the vicinity and connecting to the arterial network, with further “big box” commercial development immediately adjacent to the roadway. However, this high-volume segment of St. Albert Trail remains operating with a rural cross-section and without any redesign work completed at intersections to better accommodate growing traffic volumes and active transportation modes.

Results of the increased demand with minimal to no roadway improvements are congestion, delay and reduced levels of service as the intersections and corridor itself reach levels of capacity, particularly during peak periods / weekends. The non-urbanized road design leaves portions with little or no accommodation of active modes (trails / sidewalks) and results in reduced accessibility.

3.1.2 Anticipated Development

There are several started and proposed developments within the City which need to be considered as their contribution of vehicular traffic may influence roadway improvement priorities. For example, the development of the Bellevue Village in South Riel will add 300 apartments, and Averton's (Mid-town) development in South Riel will add up to 800 residential units with some commercial units. This will add additional traffic on Ray Gibbon Drive and LeClair Way; this could advance the need for twinning of Ray Gibbon Drive from 137 Ave to LeClair Way. The on-going development of Erin Ridge North and Jensen Lakes neighbourhoods combined with Strata's new development could advance the need for Fowler Way or add additional intersection improvements, like Villeneuve and Hogan Road. There are other developments such as residential units off Range Road 260 and Holes houses off Bellerose Drive that will need to be taken into consideration as well.

The future annexation of the Sturgeon County lands will expand the City's transportation network and introduce new areas for roadway improvements to be considered. The current EMME model is built to a 2042 horizon and does not consider the impacts of annexation development on the existing and proposed transportation infrastructure. If the impacts of annexation are considered critical for any project evaluation, the model would need to be expanded to include these impacts.

Another consideration is the potential for any future changes to the urban structure, land uses, and/or development forms anticipated through the MDP update and associated impacts to the City's transportation infrastructure.

3.1.2.1 Traffic Impact Assessments (TIAs)

Several TIA's were provided to the project team as a representation of the anticipated upcoming development within the City of St. Albert. For details on how the TIA recommendations were applied to the model, refer to Section 4.3.1.

Erin Ridge and Oakmont (2006)

Proposed Development: Focus Corporation completed a TIA for the proposed development of Oakmont Stage 30 and Erin Ridge 38 in St. Albert. The development is planned to be 15.32 ha with 163 single family units and 250 multifamily units. The results of their analysis recommended the following:

- The intersection of Bellerose Drive / Erin Ridge Drive / Oak Vista Drive, with two-way stop control, will operate acceptably at post development stage for both peak hours. The intersection does not meet the warrant for signalization.
- With the development the level of service of the signalized intersection of Bellerose Drive and Boudreau Road decreases from B to C; however, there is no change in the average delay at the intersection.

Result: This development has been constructed and units are occupied. This development affects this project evaluation for the proposed improvement of twinning Bellerose Drive from Oakmont Drive to the City Limits.

South Riel Area Structure Plan (ASP) (2007)

Proposed Development: A TIA was completed by IBI Group in 2007 for the South Riel ASP. This ASP is 105 ha on land bounded by 137 Avenue, Ray Gibbon Drive, Levasseur Road and the CN Rail Line. The development concept calls for a mixture of uses including medium density residential, freestanding commercial retail and industrial park uses. The lands are expected to be developed over the next 7 years. Based on the results of their analysis, the following roadway improvements were proposed by IBI Group:

137 Avenue

- Recommended to be a 20.5 m divided arterial road with a design speed of 70 km/h.
- Left and right turn lanes are required at the East Collector and Riel Drive intersections, and traffic signals are required at both.
- Riel Drive should be located to provide at least 300 m separation from this intersection to the West Regional Road intersection.
- The 137 Ave / Ray Gibbon Drive intersection needs to be grade separated. A diamond interchange with ramps on each side controlled by signalized intersections and providing two left turn lanes WB and SB, and single left turn and right turn lanes for other movements are proposed.
- 137 Avenue on the west side of Ray Gibbon Drive should also be constructed as a 20.5 m Divided Arterial Road.
- Sidewalks and paved trails should be provided on either side of 137 Avenue.
- 137 Avenue should be designated as a Dangerous Goods Route and Truck Route.

Riel Drive

- Recommended to be a 15 m undivided arterial road with a design speed of 60 km/h.
- Turning lanes are required at the intersection with 137 Avenue.
- No physical raised curb and gutter in the median due to high volume of trucks.
- Local roads accessing Riel Drive should be stop controlled in favour of collector roadway.
- Riel Drive should be designated as a Truck Route.
- The road width should be adequate to accommodate left turn and right turn vehicles to the individual sites without requirement for left turn and right turn bays
- Sidewalks should be provided on both sides.

LeClair Way

- To be a 12 m major collector residential road north of 137 Avenue and 12 m collector industrial road south of 137 Avenue with a 60 km/h design speed.
- The intersection of LeClair Way and 137 Avenue should be at least 100 m west of the existing rail line to avoid traffic queues extending to the rail line.
- Turn lanes should be provided at the intersection of 137 Avenue, which will be signal-controlled.
- This road should be designated a Truck Route south of 137 Avenue.

- Sidewalks should be provided on both sides of the road north of 137 Avenue, and on one side of the road south of 137 Avenue.

Local Roads

- All other roads to be 11 m minor collector residential roads north of 137 Avenue and 11 m local industrial roads south of 137 Avenue with 60 km/h design speeds.
- Sidewalks should be provided on both sides of all roads, except one side of industrial roads south of 137 Avenue.

Sir Winston Churchill Avenue

- Due primarily to the heavy WB to NB and SB to EB background traffic flows, an allowance should be made for double left turn lanes in each direction at the intersection with 137 Avenue.
- Double left turns EB to NB as well as sufficient green time and a spacing of approximately 100 metres from the intersection to the rail line is required to avoid queues backing up to the rail line from this intersection.

Public transit is proposed on the arterial and collector roadways. All areas within the study area would be within a 400 metre walk distance to public transit.

The roadway improvements described were recommended to be constructed in conjunction with adjacent development, phased in over 2008-2014. It was estimated that the intersection of Ray Gibbon Drive and 137 Avenue would need to be grade separated when the subject site and adjacent development was 67% developed, likely by 2012. Transit service was recommended for when both Riel Drive and Collector Roads were constructed.

Result: Some of the development north of LeClair Way has been constructed and is in operation. The southern development has not been constructed. This development has a direct effect on one of the major improvements evaluated in this project; i.e., twinning of Ray Gibbon Drive. Though suggested in the TIA, the intersection of LeClair Way and Ray Gibbon Drive will not be grade-separated in the foreseeable future.

Erin Ridge North Area Structure Plan (2009)

Proposed Development: Bunt & Associates completed a TIA for the Erin Ridge North ASP in 2009. The Phase 1 area encompasses 92.2 ha and is bounded by the existing Erin Ridge neighbourhood and Coal Mine Road to the south, St. Albert Trail to the west, a future development area to the north (which is Phase 2 and in the ERN ASP bylaw), and the City of St. Albert boundary to the east. The development concept plan includes a variety of residential housing types, commercial and institutional land uses, and a school/park site.

The TIA concluded that the collector roadway cross-sections proposed for Coal Mine Road (major collector), Everitt Drive (major collector), and the N/S Collector (major collector) are appropriate to accommodate the anticipated traffic volumes. It also recommended that the intersections of St. Albert Trail

with Coal Mine Road, Everitt Drive, commercial site access, and Villeneuve Road, as well as the intersection of Villeneuve Road and the N/S Collector are all candidates for traffic signalization in the future.

Result: Some commercial properties have been developed in Erin Ridge North. Signals are in place at all the aforementioned intersections. Once Fowler Way is constructed, it will connect as the west leg at the St. Albert Trail / Neil Ross Road intersection at the north boundary of the Erin Ridge North area. This development influences the prioritization of North St. Albert Trail improvements.

Jensen Lakes Area Structure Plan (2013)

Proposed Development: Bunt & Associates completed a TIA for the Jensen Lakes ASP in 2013, which involved the lands generally located north of Villeneuve Road and west of St. Albert Trail. Jensen Lakes is a new neighbourhood that is focused around a central private lake and is proposed as an active lifestyle neighbourhood where residents can easily access recreational amenities. The ASP identified a total of 2,570 dwelling units, three commercial sites, church, and one elementary / junior high school site.

Based on the assessments completed, most of the study area intersections are anticipated to operate at acceptable levels of service in the long term based on the assumed geometry and traffic control. The primary exception is the Villeneuve Road / St. Albert Trail intersection, which could potentially operate below capacity in the AM and PM peak hours with the addition of a westbound right turn bay on the east approach, in addition to the geometry proposed in the St. Albert Trail urbanization functional plan. The Jensen Lakes ASP further recommended the following:

- Everitt Drive should be developed as a divided four-lane major collector between St. Albert Trail and the first collector intersection.
- The extension of Everitt Drive between the first collector intersection and Hogan Road should be developed as a major collector roadway.
- Opportunities to implement traffic calming measures along Everitt Drive North should be investigated at the design stage.
- Dennison Drive should be extended north into Jensen Lakes as a major collector roadway.
- The west north/south collector should be developed as a minor collector roadway.
- The north/south roadway along the west side of the regional commercial site should be developed as a major collector roadway.
- Consideration should be given to developing Lake Drive as a minor collector roadway west of Everitt Drive near the private beach.
- Villeneuve Road could be maintained as a two-lane rural roadway; however, left and right turn bays should be constructed at intersections and access points.
- The new collector intersections along Fowler Way should be developed with left turn bays, similar to other arterial/collector intersections within the City of St. Albert.
- Opportunities to provide additional northbound and southbound through capacity using auxiliary lanes along St. Albert Trail should be investigated prior to the construction of the ultimate Villeneuve Road / St. Albert Trail intersection.

Result: Jensen Lakes has begun construction. This anticipated development affects the prioritization of the construction of Fowler Way and improvements on the north portion of St. Albert Trail. The intersections providing access to Jensen Lakes from Fowler Way are currently proposed to be roundabouts. The cross-sections of Hogan Road, Villeneuve Road, and Fowler Way have been developed in consultation with the City of St. Albert.

North Ridge Area Structure Plan Amendment (2013)

Proposed Development: In December of 2013, Bunt & Associates completed a TIA for the North Ridge ASP, which allows for a second phase of development north of the existing Villeneuve Road and west of the future Jensen Lakes neighbourhood. Most of the lands within the amendment area currently accommodate agricultural land uses.

Based on the assessments completed, many of the study area intersections are anticipated to operate at acceptable levels of service in the long term based on the assumed geometry and traffic control. The primary exception is the Villeneuve Road / St. Albert Trail intersection, which can potentially operate below capacity in the AM and PM peak hours with the addition of a westbound right turn bay, in addition to the geometry proposed in the St. Albert Trail urbanization functional plan. As well, additional capacity is anticipated to be available via Fowler Way and Ray Gibbon Drive providing residents an alternative to St. Albert Trail.

Bunt & Associates also recommended the following:

- The roadway proposed to extend west from Hogan Road North should be designated a collector roadway to provide access to North Ridge Phase 2 and the future development lands to the west. The designation can be re-examined in the future once a development concept is prepared for the lands to the west of North Ridge Phase 2.
- Opportunities to provide additional northbound and southbound through capacity using auxiliary lanes along St. Albert Trail should be investigated prior to the construction of the ultimate Villeneuve Road / St. Albert Trail intersection.

Result: The North Ridge Phase 2 development has not been constructed. This anticipated development affects the prioritization of the construction of Fowler Way and improvements on the north portion of St. Albert Trail.

Icon Communities Site (2014)

Proposed Development: In 2014, a TIA was completed by Focus Corporation for the proposed Icon Communities Site development in the northeast quadrant of the intersection of Riel Drive and LeClair Way in St. Albert. The design horizon used was 2034 and the growth rate was 3.24%, as per the TMP. The subject site is to be accessed at three locations on Riel Drive and on LeClair Way. The northernmost access will be located at the existing Riel Drive / The Enjoy Centre Access intersection and the remaining intersections on Riel Drive will be provided as new priority-controlled 'T' intersections.

The report determined the following:

- Levasseur Road / Riel Drive intersection will require upgrades to the northern approach by 2034 due to increases in background traffic. The left turning lane should be increased by 20 m (for SB to EB).
- The Riel Drive / Enjoy Centre intersection will require upgrade to signal control by 2034 to address increases in background traffic volumes. As part of the proposed development, a site access is to be provided as the fourth approach to this intersection. The addition of this approach does not trigger any further infrastructure changes beyond signalization over the design horizon.
- The three site accesses operating as priority controlled 'T' intersections on Riel Drive and LeClair Way are expected to remain within acceptable limits over the design horizon.
- Upgrading of the LeClair Way / Ray Gibbon Drive intersections is triggered by 2019 due to increases in background traffic, i.e. before the addition of development related trips.
- Ray Gibbon Drive South requires a four-lane divided approach with: 100 m auxiliary right turn lane (for NB to EB) and amendment to existing priority controlled right turn arrangement to free turn through pavement marking and signage (EB receiving lane is available on LeClair Way), 135 m auxiliary through lane (for northbound traffic), and 135 auxiliary lane to receive southbound traffic.
- Ray Gibbon Drive North requires a four-lane divided approach with: 160 m auxiliary through lane (for SB traffic), 290 m auxiliary lane to receive NB traffic, and 160 m auxiliary lane to receive right turning traffic from the eastern approach.
- LeClair Way East requires a free right turn (for WB to NB) and increase in right turn lane by 15 m.

Result: The Icon Communities development has not been started. The intersection of Riel Drive and LeClair Way has been constructed to the layout recommended by the TIA to accommodate the development. This development has a direct effect on one of the major improvements evaluated in this project; i.e., twinning of Ray Gibbon Drive.

Henday Industrial (2015)

Proposed Development: In January 2015, Focus Corporation completed a TIA for the proposed Henday Industrial development, approximately 53.5 hectares of land located in the southeast quadrant of the intersection of Ray Gibbon Drive and LeClair Way. The subject site is to be accessed at two locations on LeClair Way. The eastern access will be a new signalized 'T' intersection to the west of Sir Winston Churchill Avenue, while the western access will be provided as the fourth approach at the existing LeClair Way / Riel Drive intersection.

The Henday Industrial development is expected to be completed by 2019 and will include Industrial and Commercial components totalling 1,630,331 ft^2 of building area. The Industrial portion of the site is expected to comprise of both light industrial and warehousing land uses. The Commercial component of the site is expected to operate similar to a shopping centre.

Recommendations from the Henday Industrial development TIA included the following:

LeClair Way / Riel Drive:
2019

- Signalize intersection
- LeClair Way West: additional full-length WB lane between Riel Drive and Ray Gibbon Drive
- LeClair Way East: amend right turn lane to shared through / right turn lane

2034

- Riel Drive North: extend left turning lane to 80 m for SB to EB
- LeClair Way West: increase outside auxiliary left turning lane to a full-length lane for EB to NB
- LeClair Way East: amend shared through / right turn lane to through lane and additional 80 m auxiliary right turn lane for WB to NB

LeClair Way / Ray Gibbon Drive:
2019

- LeClair Way East: additional full length left turn lane for WB to SB, signalized right turn as one 120 m auxiliary lane and one full length lane for WB to NB
- Ray Gibbon Drive South: 120 m auxiliary right turn lane for NB to EB and amend existing priority controlled arrangement to free turn through pavement marking and signage (EB receiving lane is available on LeClair Way), 225 m auxiliary through lane for NB traffic and 225 m auxiliary lane to receive SB traffic.
- Ray Gibbon Drive North: 65 m left turn lane for SB to EB, 160 m auxiliary through lane for SB traffic, and 495 m auxiliary lane to receive NB traffic.

2034

- LeClair Way East: additional 120 m auxiliary right turning lane for WB to NB, additional full length for EB traffic between Ray Gibbon Drive and Riel Drive
- Ray Gibbon Drive South: four lane divided approach
- Ray Gibbon Drive North: four lane divided approach and additional 65 m auxiliary left turn lane for SB to EB, i.e. dual left turn arrangement

Result: This development has been started. The intersection of Riel Drive and LeClair Way has been constructed to meet the requirements of the development. This development has a direct effect on one of the major improvements evaluated in this project; i.e., twinning of Ray Gibbon Drive.

Alberta Gaming and Liquor Commission (AGLC) Distribution Centre (2015)

Proposed Development: ISL Engineering and Land Services completed a TIA in February 2015 for the new Liquor Distribution Centre east of Campbell Road, north of Anthony Henday Drive, south of Boudreau Road, and west of Veness Road. The proposed development is a warehouse southeast of the existing Apex Casino. A new hotel is also proposed in the same area.

The analysis showed that the proposed development will not significantly impact the traffic operations of the surrounding roadway network. All movements at the new signal on Campbell Road will meet City of St. Albert's operational criteria. Specifically, the PM Peak Hour impacts are negligible. This is mainly due to the new signal on Campbell Road. It diverts background traffic (from the casino) and new traffic (from the warehouse and hotel) away from the congested intersection at Boudreau Road on Campbell Road. During the PM off-peak the warehouse employees will have acceptably short delays exiting the site. This is due to the internal connection to the new signal on Campbell Road.

Result: The distribution centre has been constructed. The AGLC TIA identified the transfer of traffic to the new intersection location but then the roadway was made private and as such no traffic may be diverted. This development affects the intersection of Boudreau and Campbell Road, as the dual northbound left turn volume is over capacity and the storage length cannot be extended due to the proximity of the new AGLC Centre intersection.

Grandin Park Plaza Master Plan (2015)

Proposed Development: In March 2015, Bunt & Associates completed a TIA for the Grandin Park Plaza Master Plan which incorporated the development of a mixed use urban village and 1200 residential units with three high rise towers. The proposed development is anticipated to be accessed via Sir Winston Churchill Avenue and Grandin Road.

It is anticipated to generate about 861 AM peak hour external primary vehicle trips and 1,076 PM peak hour external primary vehicle trips. Based on the analyses completed, the proposed access points to the arterial roadway network can accommodate the peak hour traffic activity anticipated to be generated by the proposed development at acceptable levels of service. No improvements to the future roadway network are required to accommodate site generated traffic volumes associated with the Grandin Park Plaza Master Plan.

Result: A portion of the proposed development has been constructed. This development has no effect on the network evaluation completed in this project.

Riverside Area Structure Plan (2015)

Proposed Development: Bunt & Associates prepared a TIA for the Riverside Area Structure Plan (ASP) Amendment in 2015. This ASP provides the framework for development of land located east of Ray Gibbon Drive, south and west of the CN railway, and north of the Sturgeon River. The area is bisected east-west by McKenney Avenue.

In terms of land use, the Riverside ASP identified a total of 3,932 dwelling units accommodating a potential population of 10,215 people, two commercial sites including a 1.95 ha neighbourhood commercial site and a 3.89 ha community commercial site, and one elementary / junior high school.

The TIA for the Riverside ASP concluded that most of the study area intersections are anticipated to operate at acceptable levels of service in the long term. The primary exception was the McKenney / Ray Gibbon Drive intersection, which can potentially operate below capacity in the AM and PM peak hours with the addition of a WB to SB loop ramp in the northwest quadrant, in addition to dual NB right turn bays at the east ramp intersection.

Other recommendations included the following (for reference to Collectors see **Figure 3-4** below):

- Collector C should be developed as a divided four-lane major collector between McKenney Avenue and Collector D.
- Collector A and Collector D east of the community commercial site and west of the neighbourhood commercial site should be developed as minor collectors.
- Collector D between the commercial accesses should be developed as a major collector.
- Collector B, Collector C north of McKenney Avenue, and Riverside Drive should be developed as major collectors.
- Collector C neighbourhood commercial access should be developed as a right in/right out access.
- Collector C community commercial access should be developed as a right in/right out/left in access.
- Access to the medium density residential land uses should align with the McKenney Avenue/Riverside Drive intersection.
- The Ray Gibbon Drive Functional Planning Study should be updated based on the potential buildout of the Riverside ASP area, the Avenir and Elysian Fields ASP, and the Ville Giroux ASP area to confirm the ultimate geometry for the McKenney Avenue/Ray Gibbon Drive intersection. Potential improvements include:
  - A loop ramp in the northwest quadrant to accommodate WB to SB movements
  - Dual NB right turn bays at the east ramp intersection to accommodate long term traffic volumes
- Pick up/drop off access and school bus activity for the school site should be incorporated on-site, and a TIA should be completed at the development permit stage to ensure that sufficient access capacity and on-site circulation space is provided to minimize congestion along the adjacent roadway network.
- School site accesses should be aligned at intersections and meet minimum intersection spacing guidelines and should consider best practices for school site design. The development of residential land uses with front drive access across from the school sites should be limited to reduce the impact on adjacent residents.

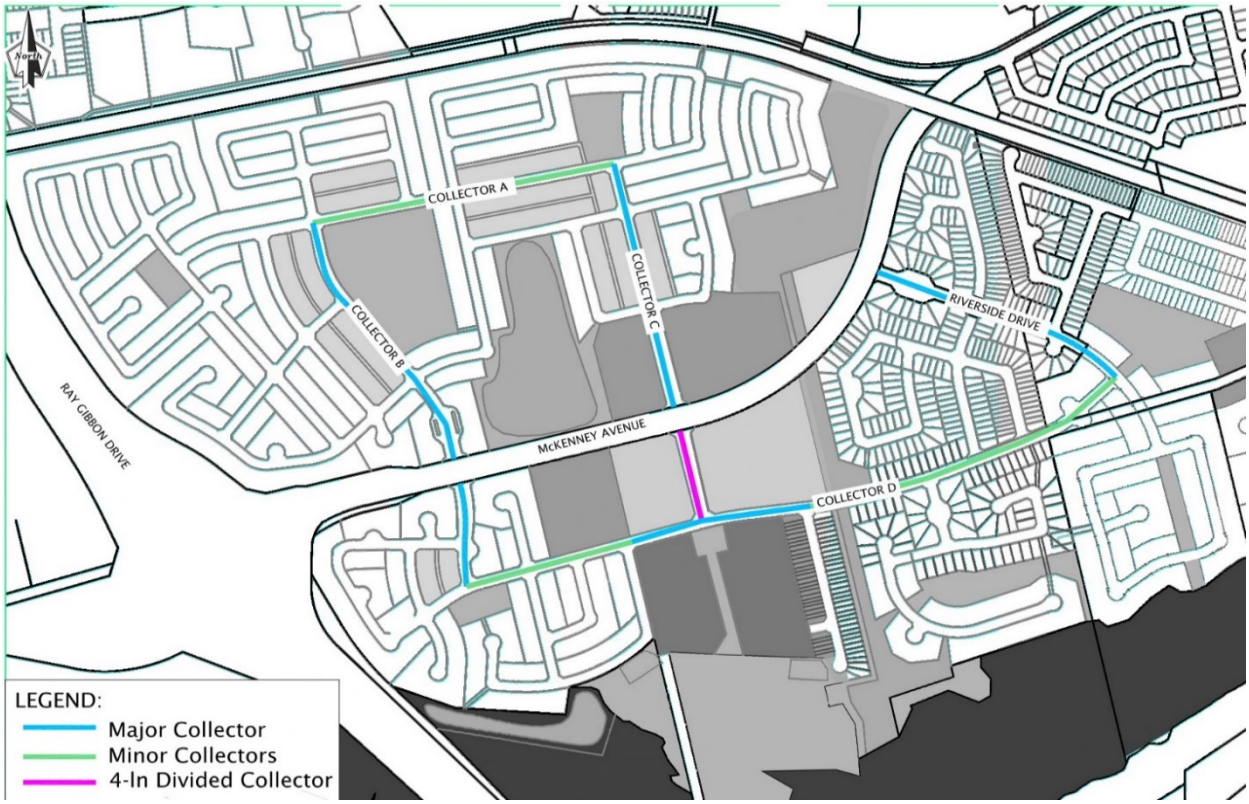


Figure 3-4
Riverside ASP Collectors

Result: Some development has occurred in the eastern portion of the Riverside ASP south of McKenney Avenue. The development of this area has a direct effect on a couple of the improvements evaluated in this project; i.e., twinning of Ray Gibbon Drive and twinning the remainder of McKenney Avenue.

3.1.3 Current and Future COSA Projects

- The development of Complete Streets Guidelines (2018) will provide overarching guidance on the accommodation of all road users through new street design and layouts. These changes will impact associated costs of roadway development and construction.
- Neighborhood Traffic Calming Strategies will improve traffic safety and influence resident confidence in walking and cycling through neighbourhoods; however, it could also impact the movement of traffic within the overall network and redistribute traffic patterns.
- Implementation of recommendations and strategies from the Transportation Safety Plan (2018) may impact levels of service and efficiency along corridors or local roadways. Although a balance and evaluation of impacts from safety to efficiency will be performed, the priority of the community and road network operational considerations is safety.
- Construction of St. Albert Transit Park and Rides, the first being the Campbell Park and Ride which

is a relocation of the Gate Avenue site to the new location in the City of Edmonton, may influence traffic patterns and volumes. Further planning and design work towards a North Park and Ride (located on the west side of St. Albert Trail in the Jensen Lakes area) is outside of the horizon of this project scope, but will also have impact on anticipated travel routes.

4 Network Evaluation

4.1 DETERMINATION OF STUDY PROJECTS

The St. Albert Transportation Master Plan (TMP) provided a recommended 10-year capital plan for roadway improvements. This plan, along with updated traffic data and input from stakeholders, formed the basis of evaluation of projects to be considered for this study.

In a joint workshop, the project team along with the City's administration created preliminary qualitative scoring criteria related to the implementation of these projects. That scoring criteria is shown in **Table 4-1**.

Table 4-1
Initial Scoring Criteria

Area	Higher Scoring End Reference to Criteria (Score)	Moderate Scoring Reference to Criteria (Score)	Low Scoring End Reference to Criteria (Score)
Safety Concern	Prone Issue (5)	Probable Issue (3)	Minimal Issue (1)
Level of Service Concern	Yes (5)	Not applicable (3)	No (1)
Regional Road / Regional Influence	Direct Regional (5)	Regional Connector (3)	No Regional Impact (0)
TIA / Growth Impact	High Growth Impact (5)	Moderate Growth Impact (3)	No Growth Impact (0)
Active Improvements	Directly Improves Active Accommodation (5)	Indirectly Improves Active Accommodation (3)	No Improvement to Active Accommodation (0)
Public Transport Improvements	Directly Improves Public Transit (5)	Indirectly Improves Public Transit (3)	No Improvement to Public Transit (0)
Influences Movement of Goods	Direct Improvement to Goods Movement (5)	Indirect Improvement to Goods Movement (3)	No Improvement to Goods Movement (0)

From these criteria, each project was given a score in each focus area, as shown in **Table 4-2.**

Table 4-2
Initial Project Scoring

Project	Safety	LOS	Regional Influence	TIA Growth	Active Mode	Public Transport	Movement of Goods	Total
St. Albert Trail at Boudreau / Giroux Road	5	5	5	3	5	5	5	**33**
Fowler Way	1	5	3	5	5	5	5	**29**
Ray Gibbon Drive	3	5	5	5	3	0	5	**26**
Boudreau Road at Campbell Road	5	5	0	5	3	3	5	**26**
LeClair Way at Riel Drive	3	5	3	5	5	0	5	**26**
St. Albert Trail at Hebert / Gervais Road	5	5	5	0	3	3	3	**21**
Bellerose Drive: Oakmont Drive to City Limits	1	1	3	5	5	3	3	**21**
Villeneuve Road	3	5	0	5	5	3	0	**21**
Giroux Road to Ray Gibbon Drive	1	1	3	5	5	0	5	**20**
McKenney Avenue to Ray Gibbon Drive	1	1	3	5	5	0	5	**20**
137 Avenue at Anthony Henday Drive Ramps	1	3	5	5	0	0	5	**19**
Sir Winston Churchill Avenue: Sturgeon Road to City Limits	1	1	3	3	5	3	0	**18**
Campbell Road to Poundmaker Road	1	3	0	3	5	3	0	**15**
Meadowview Drive	1	1	0	5	5	0	0	**12**
Boudreau Road at Sturgeon Road	1	3	0	0	0	3	3	**10**

In the 2015 TMP, a functional planning study for North St. Albert Trail was highlighted in the 10-year Capital Plan. Since the study was not yet completed, the North St. Albert Trail corridor transportation improvements were not ranked in the initial project scoring. However, as part of this network evaluation study, the project team included the North St. Albert Trail improvements within their analysis scenarios to capture all potential operational concerns within the city.

The scoring results were assigned a priority ranking and compiled in a list. Those that ranked Priority 1 and Priority 2 are shown in descending order in **Table 4-3**. Projects not shown were assigned Priority 3.

Table 4-3
Initial Project Priority Rankings

Priority	Project	Description	Growth Related	Direct TIA Influence	Data	Status	Score
1	St. Albert Trail at Boudreau / Giroux Road	Intersection improvement: additional north and south through lanes with east / west right turn lane extensions	Not direct but impacted	Jensen Lakes Erin Ridge North	2017 data collected	Design completed; construction to be in 2018 and 2019	33
1	Fowler Way	Develop first 2 lanes of ultimate 4-lane arterial roadway	Yes	Jensen Lakes, Strata, Badger Lands, Erin Ridge North County	2017 - SAT at Villeneuve - RGD at Villeneuve	Functional Study completed	29
1	Ray Gibbon Drive	Expand to 4 lanes of divided arterial road and upgrade intersections	Yes	Jensen Lakes, Riverside, Strata, Avenir/Elysian Fields, Employment Lands	2017 - Giroux, McKenney, Villeneuve, LeClair	Corridor review completed in 2017	26
1	Boudreau Road at Campbell Road	Reconfigure intersection to address LOS	Impacted but not due to	Campbell Business Park, AGLC, COE development on east side of Veness Road	2016 data collected	Minor operational improvements – dual NB left turns (2016)	26

Priority	Project	Description	Growth Related	Direct TIA Influence	Data	Status	Score
1	LeClair Way at Riel Drive	Reconfigure intersection to address LOS	Yes	Averton, GWL (south Riel)	2016 data collected		26
2	St. Albert Trail at Hebert / Gervais Road	Eastbound and westbound right turn bay construction, northbound lane extension from Superstore to Hebert Road	No		2017 data collected	Conceptual improvements proposed	21
2	Bellerose Drive: Oakmont Drive to City Limits	Twin approximately 1.7 km	County growth / annexation	Sturgeon County development	2016 - Bellerose at Coalmine		21
2	Villeneuve Road	Reclassification and tie-in with Complete Streets	Yes	Jensen Lakes, Strata, Badger Lands, Erin Ridge North, Sturgeon	2016 - Villeneuve at Dennison & Hogan	Complete conceptual work 2015	21
2	Giroux Road to Ray Gibbon Drive	Twin approximately 300 m to tie to Ray Gibbon Drive	Yes	Jensen Lakes, Strata, Badger lands	2017 - RGD at Giroux		20
2	McKenney Avenue to Ray Gibbon Drive	Twin approximately 1.5 km to tie to Ray Gibbon Drive	Yes	Riverside	2017 - RGD at McKenney		20
2	137 Avenue at Anthony Henday Drive Ramps	Construction of on / off ramps from Anthony Henday Drive to 137 Avenue	COE Growth	COE (170 St), Starling – pending removal old 137 Ave at RGD	No data	Base work completed with AHD construction	19
2	Sir Winston Churchill Avenue: Sturgeon Road to City Limits	Twin approximately 620 m from Sturgeon Road to City Limits	County growth / annexation	Sturgeon County, Kingswood	2016 - SWCA at Sturgeon		18

4.2 EMME MODEL

4.2.1 Determination of Analysis Scenarios

From the workshop and based on discussions with the City of St. Albert, the project team determined various scenarios to be analyzed that correspond to the City's anticipated future projects. These are summarized in **Table 4-4** below. It should be noted that all improvements attributed to private development (identified in development application TIAs, noted previously in Section 3.1.2) were included in all scenarios as funding for these improvements would be largely independent of City funding sources.

As the forecast year for the scenarios was 2024, each scenario was identified starting with "24" as the first two numbers.

Table 4-4
COSA Projects and Growth Scenarios

St. Albert Scenario (Forecast Year / Actions)	Traffic Model Evaluation (Scenario Number / *Network Change)
2024 / Do Nothing	2400 • Updated this and all scenarios to include work that is under construction.
2024 / Capital Plan From TMP	2401 • Four lane Ray Gibbon Drive (RGD) north of LeClair Way • Four lane Bellerose Drive from Eldorado Drive to city limits • Four lane Sir Winston Churchill Avenue from Poirier Avenue to Poundmaker Road • Four lane McKenney Avenue from Ray Gibbon Drive to the train tracks • Addition of Fowler Way/Villeneuve Road between St. Albert Trail and Ray Gibbon Drive
2024 / Do Nothing with Minor Intersection Upgrades and 137 Ave Ramps at Anthony Henday Drive	2402 • Interchange ramps added at Anthony Henday Drive and 137 Avenue for all movements • St. Albert and Hebert intersection improvements
2024 / Do Nothing with Ray Gibbon Drive twinning and intersection improvements to LeClair Way	2403 • Twinning of Ray Gibbon Drive to LeClair Way and LeClair Way intersection improvements
2024 / Do Nothing with 2 lane Fowler Way construction	2404 • Addition of Fowler Way/Villeneuve Road between St. Albert Trail and Ray Gibbon Drive
2024 / Capital Plan without twinning RGD	2405 • Everything in the Capital Plan except twinning

St. Albert Scenario (Forecast Year / Actions)	Traffic Model Evaluation (Scenario Number / *Network Change)
2024 / Do Nothing with Ray Gibbon Drive twinning to Giroux Road	2406 • Twinning of Ray Gibbon Drive to Giroux Road
2024 / Do Nothing with North St. Albert Trail Upgrades	2407 • Widening St. Albert Trail to 3 lanes with 1 left and 1 right turn at each intersection with lights from Boudreau Road to City Limits
2024 / Capital Plan with All Intersection Improvements	2411 • Widening St. Albert Trail to 3 lanes with 1 left and 1 right turn at each intersection with lights from Boudreau Road to City Limits • Intersection improvements at St. Albert Trail and Hebert • Fowler Way • Improvements at LeClair Way • Ramps at 137th and Anthony Henday

4.2.2 Model Methodology

The EMME Travel Demand Model was developed as part of the Transportation Master Plan project, and produces traffic volume forecasts for the 2024 and 2042 time horizons to correspond with the City's population and employment planning horizons. This tool predicts the traffic volume on roads based on the population and employment in St. Albert as well as external traffic that travels to/from St. Albert. The model predicts what route traffic will take using a shortest travel time path based on congestion. For example, if the shortest distance is congested and has long delays, traffic may take a longer route that isn't congested if the travel time is less on the longer route. At the outset of the project, an evaluation was performed to review how well the traffic assignment in the model emulates reality by comparing available traffic counts with model traffic counts for the calibration year 2014. The result of the evaluation identified that more internal St. Albert traffic is using Ray Gibbon Drive instead of St. Albert Trail. This is likely because of perceived congestion and delay occurring on St. Albert Trail. To address the discrepancy between the model and real world scenarios, adjustments to the model outputs were made to better reflect reality before using them for the traffic operations analysis in Synchro.

For each scenario noted previously in Section 4.2.1, the EMME model was modified to reflect the improvements attributed to the scenario. The EMME model was then run to generate new traffic volume distributions through key study intersections, thereby illustrating how the traffic distribution is expected to change across the City of St. Albert with the introduction of the set of improvements to the roadway network. **Appendix B** provides laning information and a layout of the roadway network associated with each of the scenarios noted above.

4.3 SYNCHRO MODEL METHODOLOGY

The intersection analysis for the intersections within the study area was undertaken using the Synchro 9 software package, which is based on the Highway Capacity Manual (HCM 2000). The project team received a base existing Synchro network from the City of St. Albert for reference. Using traffic count data obtained from the City, the City's Synchro model was updated to reflect existing traffic flow patterns and intersection geometries for the PM peak hour periods to coincide with the EMME model.

Key intersections were identified for comparison purposes between the various scenarios noted in Section 4.2.1. The key intersections and corresponding node numbers are provided below in **Table 4-5**.

Table 4-5
Key Study Intersections

NODE NUMBER	Roadway 1	Roadway 2
6035	Levasseur Road	Heritage Way
6037	Levasseur Road	Hudson Road
6142	St. Anne Street	Sir Winston Churchill Avenue
6175	St. Albert Trail	Villeneuve/Erin Ridge Road East
6176	St. Albert Trail	Giroux/Boudreau Road
6348	Perron Street	St Anne Street
6349	St. Albert Trail	St Anne Street
6386	Boudreau Road	Erin Ridge Drive
6458	St. Albert Trail	Coal Mine Road East
6595	Boudreau Road	Campbell Road
6596	Poirier Ave/Corriveau Avenue	Campbell Avenue
6624	Villeneuve Road	Hogan Road
6744	St. Albert Trail	Gervais Road
6871	Boudreau Road	Bellerose Road
6894	Perron Street	Sir Winston Churchill Avenue
6921	St. Albert Trail	McKenney Avenue
6922	St. Albert Trail	St. Vital Avenue
6927	Boudreau Road	Sir Winston Churchill Ave

NODE NUMBER	Roadway 1	Roadway 2
7121	Giroux Road	Hogan Road
7129	Boudreau Road	Sturgeon Road
7135	Levasseur Road	Sir Winston Churchill Avenue
7136	Levasseur Road	Gervais Road
7138	Levasseur Road	Riel Drive
7397	Ray Gibbon Drive	LeClair Way
7475	St. Albert Trail	Villeneuve/Erin Ridge Road West
7479	St. Albert Trail	Coal Mine Road West
7514	Ray Gibbon Drive	Meadowview Drive
7532	LeClair Way	Sir Winston Churchill Avenue
7590	St. Albert Trail	Neil Ross Road / Fowler Way West
7675	Villeneuve Road	Fowler Way
7683	LeClair Way	Riel Drive
7747	St. Albert Trail	Neil Ross Road / Fowler Way East
8217	Boudreau Road	Hebert Road
8227	Ray Gibbon Drive	Giroux Road
8228	Ray Gibbon Drive	Villeneuve Road / Fowler Way
8231	St. Albert Trail	Everitt Drive West
8232	St. Albert Trail	Everitt Drive East

In order to calibrate the Synchro model, EMME model outputs for the existing scenario were entered into Synchro and compared to existing traffic volumes provided by the City. Turning movement volumes were then compared at each study intersection. Based on this comparison, adjustments were deemed necessary to the EMME model outputs to account for actual travel patterns identified through the turning movement counts. **Figure 4-1** illustrates the turning movement volumes provided by the City for the PM peak hour. **Figure 4-2** illustrates the EMME model turning movement volumes for the existing (1400) scenario. **Figure 4-3** illustrates the net comparison between the turning movement volumes and EMME model. Positive values indicate increases necessary to the EMME model values, while negative values indicate decreases necessary to the EMME model values.

Volume differences between turning movement counts and the EMME model existing (1400) scenario can occur for a variety of reasons, including perceptions around congestion and subsequent traffic re-routing (such as alternatives to St. Albert Trail), linked trips associated with minor land use differences and locations of driveways and site access among other reasons. For example, at the intersection of St. Albert Trail & Hebert Road / Gervais Road, a number of movements are identified with volume variances. All four quadrants surrounding this intersection consist of commercial land uses with a number of driveways and accesses along both roadways that are not modeled in the EMME model. Therefore, variations in travel patterns are likely to occur at this intersection due to the impacts of these site access driveways and interaction of these land uses.

When considering the value differences identified in **Figure 4-3**, it is also important to note that daily variations are likely to occur when collecting turning movement data for these reasons. Therefore, only movements where volume variations exceeded 100 vehicles were considered when making adjustments to EMME model results. In addition, it was assumed that adjustments would only be required for the 2400, 2402, 2403, 2404, 2405, 2406 and 2407 scenarios as they each represent an “incomplete” roadway network. It was assumed that the complete roadway networks, 2401 and 2411, would likely result in drivers following the EMME model’s traffic distribution patterns more closely. Therefore, no adjustments were made to the 2401 and 2411 EMME model outputs. For further details on scenarios, refer back to **Table 4-4**.

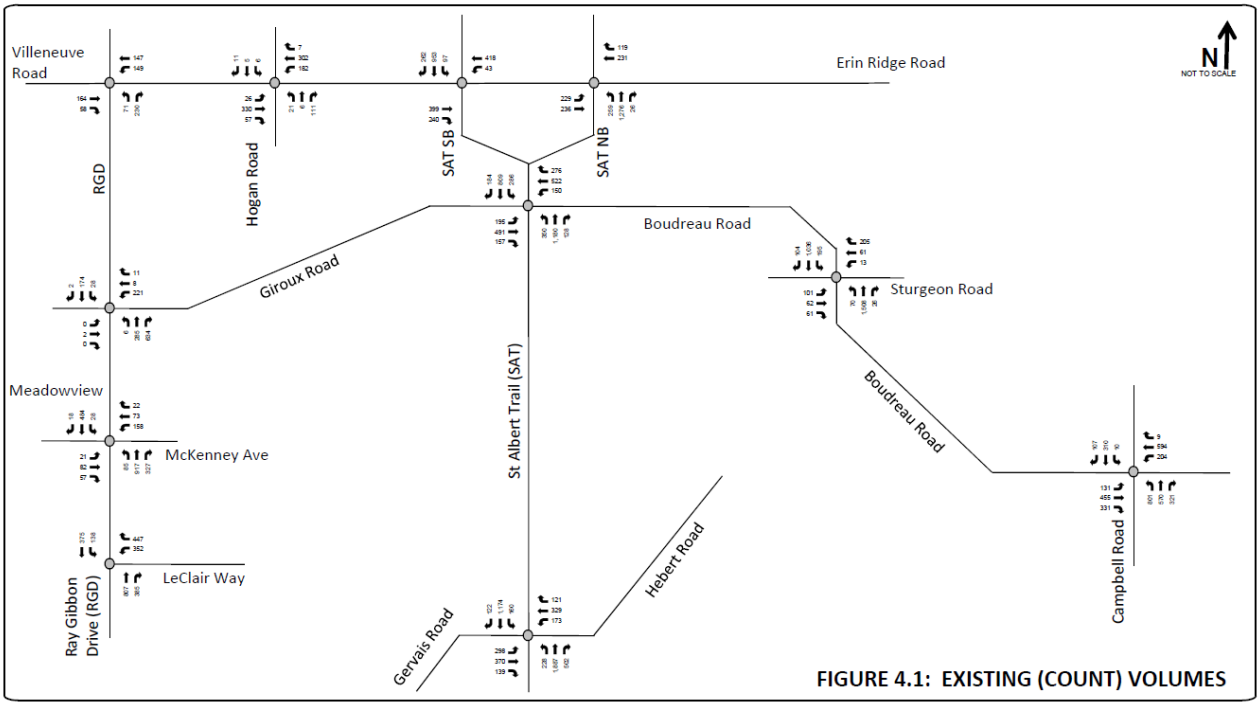


Figure 4-1
Existing (Count) Volumes

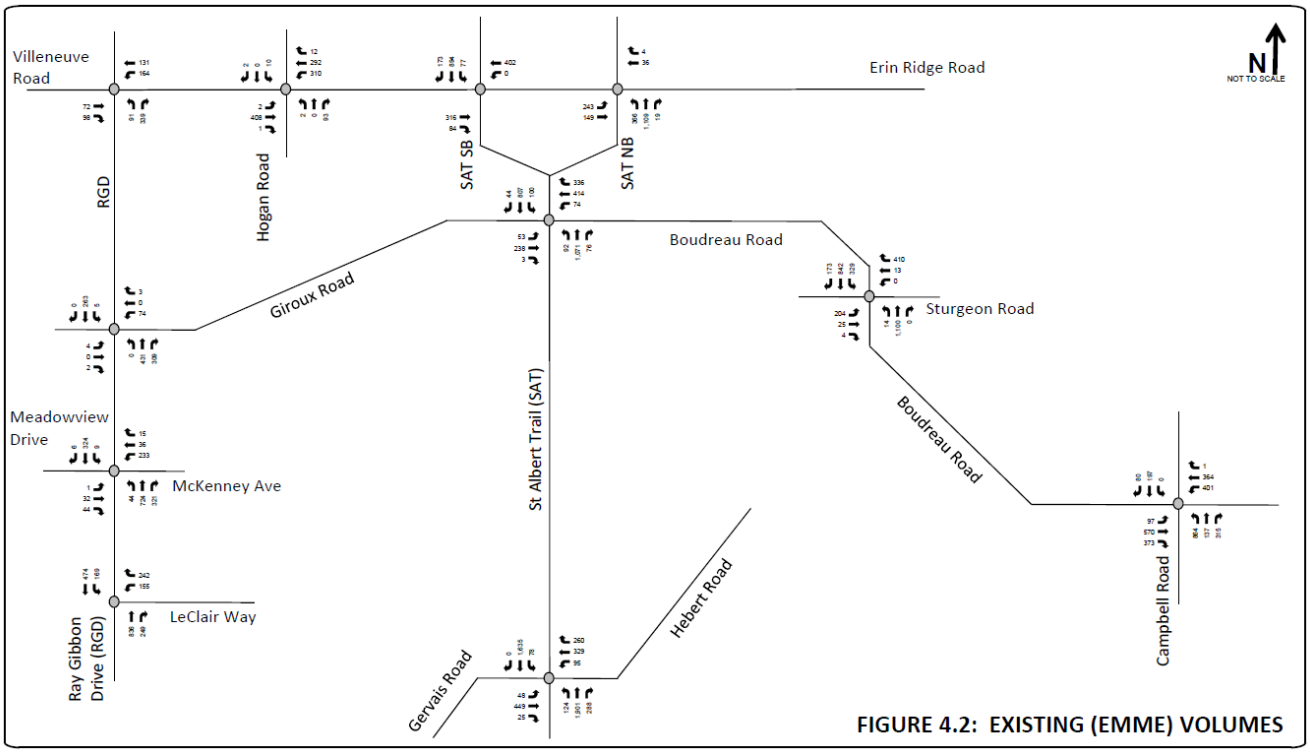


Figure 4-2
Existing (EMME) Volumes

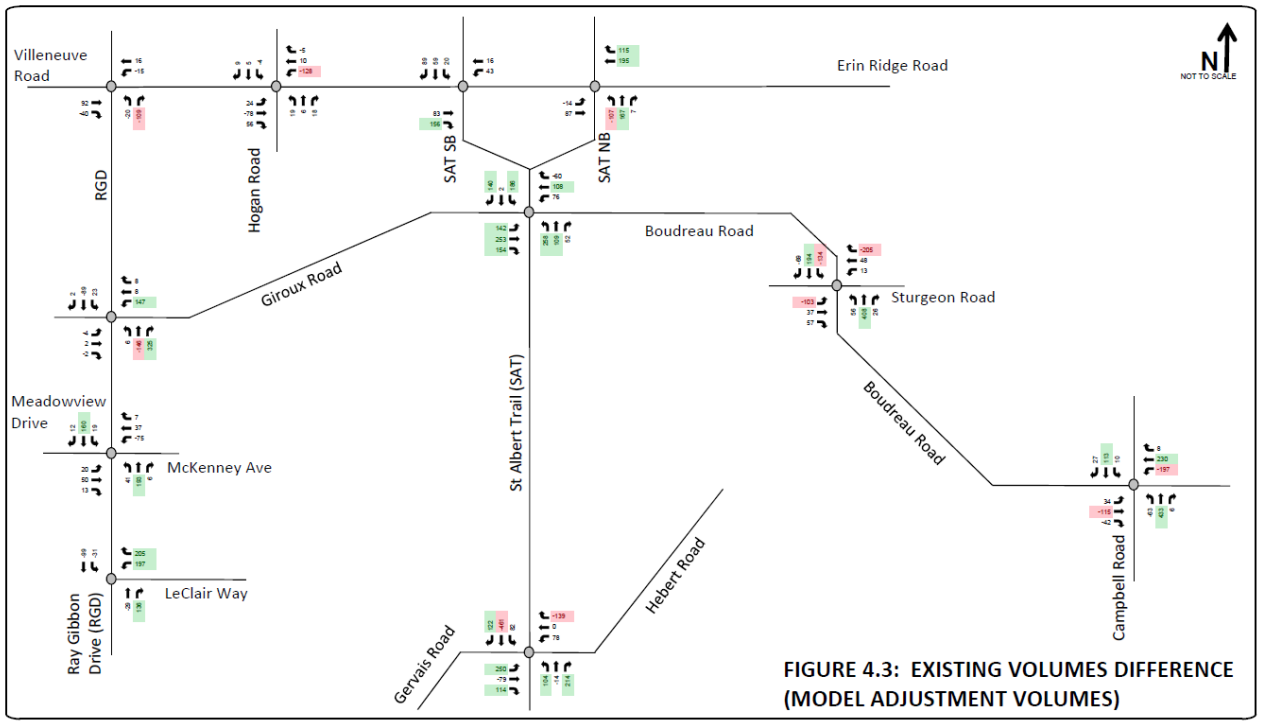


Figure 4-3
Existing Volumes Difference (Model Adjustment Volumes)

Furthermore, with volume balancing at intersections in each scenario, choices had to made in the appropriate signal timing plans. The optimization process required some balancing between the major streets and minor streets approaches to be realistic. Therefore, between scenarios, intersection timing plans and cycle lengths were modified to optimize operations, but no changes were made to the phasing plan or intersection geometry unless required by the scenario description.

Further calibration was done by collecting travel time information along key corridors within St. Albert, namely the following:

- Ray Gibbon Drive between 137 Avenue and Villeneuve Road (northbound and southbound directions)
- St. Albert Trail between Anthony Henday Drive and Neil Ross Road (northbound and southbound directions)
- Boudreau Road between Veness Road and St. Albert Trail (westbound / northbound and eastbound / southbound directions)

The travel time information collected was then compared to the EMME model existing (1400) scenario results along the same corridor and extents. This comparison was made to assess similarities between the model's outputs and actual travel times experienced by roadway users. The results of the travel time comparison are provided in **Table 4-6** and indicate relatively similar travel times along each corridor. It should be noted that some variances can be experienced as actual drivers may experience a signal delay or additional cycle compared to the model, which can result in a 1-2 average cycle length duration variation between travel times. For example, if the average cycle length along Boudreau Road is 120 seconds (2 minutes), the actual travel time compared to the Synchro travel time may have up to a 120 second variation per additional signal that a vehicle was stopped at during the data collection process

Table 4-6
Travel Time Comparisons

Road	Direction	Start Location	Time Start	End Location	Time End	Total Trip Time	Original (s)	1400 - Base Network			
								Running Time (s)	Signal Delay (s)	Travel Time (s)	Difference (s)
Ray Gibbon Dr	N	137 Ave	5:04 PM	Villeneuve Rd	5:13 PM	8 m 43 s	523	449.7	232.5	682.2	159.2
Ray Gibbon Dr	S	Villeneuve Rd	5:20 PM	137 Ave	5:29 PM	8 m 43 s	523	449.7	112.9	562.6	39.60
St. Albert Tr	N	Henday W to St. Albert Trail S	5:34 PM	Neil Ross Rd	5:43 PM	9 m 43 s	583	509	228.9	737.9	154.9
St. Albert Tr	S	Neil Ross Rd	4:38 PM	Henday W to St. Albert Trail	5:01 PM	13 m 2 s	782	524.9	222.8	747.7	-34.3
Boudreau Rd	N	Veness Rd	4:23 PM	St. Albert Trail	4:36 PM	12 m 52 s	772	390.3	153.8	544.1	-227.9
Boudreau Rd	S	St. Albert Trail	5:57 PM	Veness Rd	6:04 PM	7 m 27 s	447	390.3	184.4	574.7	127.7

Key outputs from Synchro that are used to evaluate operations at an intersection include Level of Service (LOS), volume to capacity ratio (v/c), 95th Percentile Queue lengths and travel time delays (arterial operations). If the v/c ratio for a movement is greater than 1.00, then that movement has technically exceeded capacity.

For signalized intersections, the analysis methodology considers the intersection geometry, the traffic volumes, the posted speed limit and the traffic signal phasing / timing plan. The average delay for each approach was calculated. An operation LOS is then assigned based on the calculated average delay. The level of service criteria for both signalized and unsignalized intersections is described in **Table 4-7**.

Table 4-7
Level of Service and Corresponding Delay

Level of Service	Average Control Delay (seconds per vehicle)		Comment
	Signalized Intersection	Unsignalized Intersection	
A	10.0 or less	10.0 or less	Very good operation
B	10.1 to 20.0	10.1 to 15.0	Good operation
C	20.1 to 35.0	15.1 to 25.0	Acceptable operation
D	35.1 to 55.0	25.1 to 35.0	Congestion
E	55.1 to 80.0	35.1 to 50.0	Significant congestion
F	More than 80.0	More than 50.0	Unacceptable operation

The scenario networks are described in the subsequent sections. For further details on scenarios, refer back to **Table 4-4.**

4.3.1 Ultimate Scenario Network

The ultimate scenario includes the 10-year Capital Plan from the Transportation Master Plan. This was required to compare and analyze the other scenarios developed for this assignment. Below are the changes applied to the Synchro model based on background information received from the City for the ultimate scenario network.

1. St. Albert Trail and Boudreau Road/Giroux Road

- Per May 11, 2018 intersection plan provided (14696Layoutt)
  i. Modified eastbound left and right turn bay storage to 80m
  ii. Modified northbound left to 75m
  iii. Added 135m northbound right turn bay storage (previously a lane drop)
  iv. Modified westbound left to 70m and westbound right turn bay storage to 120m
  v. Modified southbound left to 150m and southbound right turn bay storage to 100m

vi. Added third northbound lane through intersection (taking up the previous NBR lane drop) and continuing 250m north of Boudreau Road where transition back to two lanes northbound.

2. Ray Gibbon Drive (West Regional Road)

- Per CAD file provided (CL_WRR_Ultimate-Default)
  - i. Added 137 Avenue Diamond Interchange ramps and intersections
  - ii. Added McKenny Avenue Diamond Interchange ramps and intersections
  - iii. Added Giroux Road Parclo A/B Half-Interchange ramps and intersections
  - iv. Added Villeneuve Road Diamond Interchange ramps and intersections

3. Alberta Gaming and Liquor Commission

- Per February 2015 Draft TIA by ISL
  - i. Added AGLC signalized intersection on Campbell Road locate 190m south of Boudreau Road with:
    1. 50m southbound left
    2. 90m northbound right
  - ii. Modified Campbell Road lane configurations
    1. Removed northbound dual left/through/right configuration and replaced with northbound left/two through/right

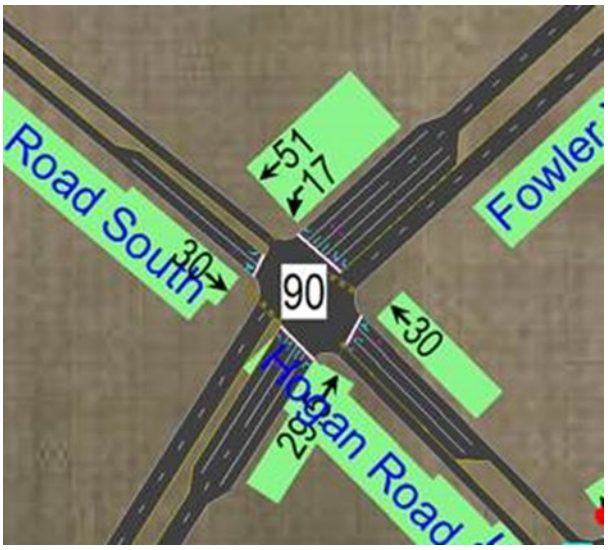
4. North Ridge ASP

- Per December 16, 2013 Draft TIA by Bunt (note that turn bay storage lengths were not specified and assumed to be 50m)

  i. Added Hogan Road North and Fowler Way intersection



ii. Added Hogan Road South and Fowler Way intersection

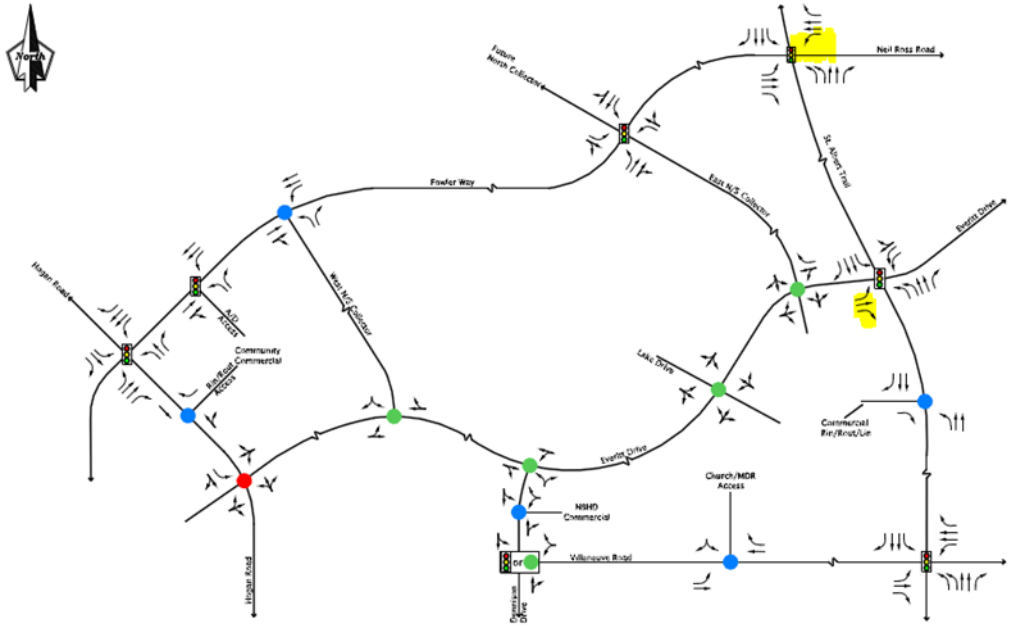


iii. Aligned unsignalized access with Everitt Drive N at Hogan Road South to match Jensen Lakes ASP below



5. Jensen Lakes ASP

- Per July 8, 2013 Draft TIA by Bunt (note that turn bay storage lengths were not specified and assumed to be 50m)
  i. Added the below intersection configurations and modified intersection configurations on St. Albert Trail to the with the exception of the two highlighted/noted below:
     1. Neil Ross Road: 65m dual westbound left were maintained per existing
     2. Everitt Drive: Two eastbound through lanes were maintained per existing



6. Melcor Residential Development Erin Ridge

- Per Aug 2006 TIA by Focus
  i. Bellerose Drive and Erin Ridge Drive
     1. Added 50m NBL lane
  ii. Bellerose Drive and Boudreau Road
     1. Adjusted turn bay lengths to match TIA and existing condition

7. Erin Ridge North Area Structure Plan TIA

- Per June 2009 TIA by Bunt
  i. Commercial Ridge Commercial Access and St. Albert Trail – Revised lane configuration with future west approach



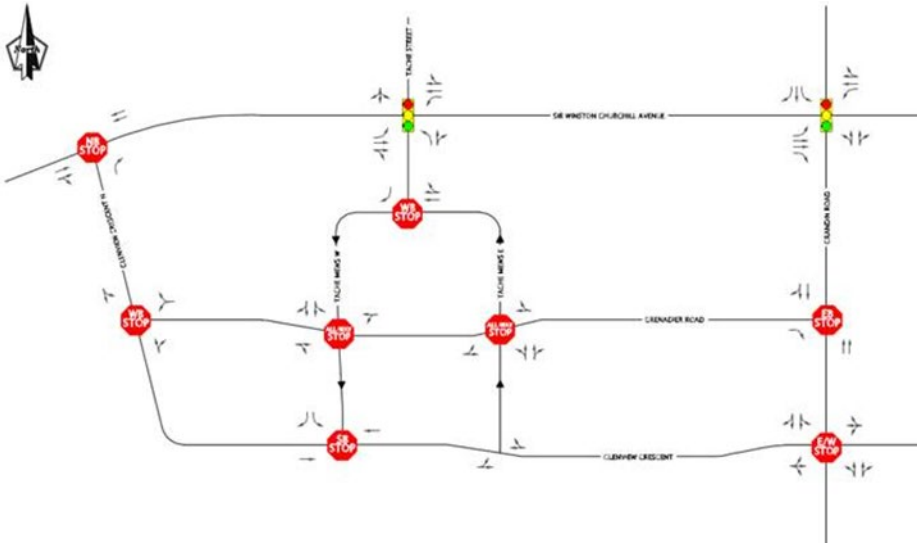
ii. Element Drive and Neil Ross Road – Revised lane configuration with future north and east approach



iii. The following intersections from this TIA were deemed obsolete (and not utilized) based on existing constructed lanes or more recent TIAs
   1. Coal Mine Road and St. Albert Trail
   2. Everitt Drive N and St. Albert Trail
   3. Villeneuve Road and St. Albert Trail

8. Grandin Park Plaza

- Per March 30, 2015 Draft TIA by Bunt
  i. Added the below intersection configurations

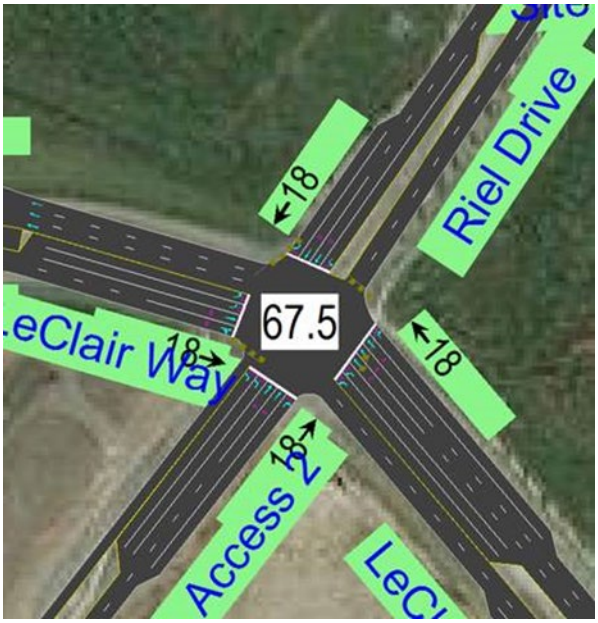


9. Henday Industrial City of St. Albert

- Per January 23, 2015 Draft TIA by Focus
  i. Added the Site Access 1 intersection west of Sir Winston Churchill Avenue on LeClair Way



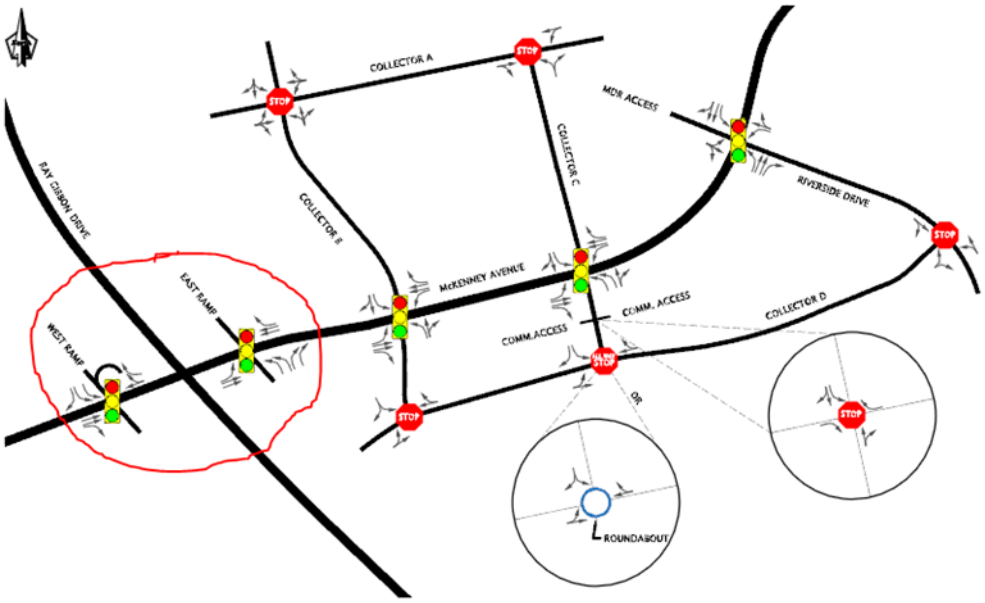
  ii. Site Access 2 and LeClair Way
    1. Considered TIA and existing construction to develop the below:
      a. South approach: 70m northbound dual left and 70m northbound right
      b. East approach: 75m westbound dual left and 80m westbound right
      c. North approach: 80m southbound left and 45m southbound right
      d. West approach: 90m eastbound dual left



- The various scenarios for LeClair Way and Ray Gibbon Drive were not received as it was superseded by interchange design for Ray Gibbon Drive in the ultimate (see reference 2) and the Aug 4, 2017 Ray Gibbon Drive Operational Analysis and Cost Update memo by ISL in the interim where at-grade intersections are maintained.

10. Riverside Area Structure Plan

- Per July 2, 2015 Draft TIA by Bunt
  i. Added the below intersection configurations (note that Ray Gibbon Drive intersections were per functional drawings rather than the below configuration)



11. South Riel Area Structure Plan

- The information from the July 17, 2007 Final TIA by IBI was not received as it was superseded by more recent TIAs in the area (see number 9 above and number 12 below)

12. ICON Communities Site

- Per August 2014 Draft TIA by Focus
  i. Added the Site Access 1/2/3 intersections on Riel Drive



  ii. The Site Access 4/LeClair Way intersection was superseded by reference 9.

- The assumed configuration for LeClair Way and Ray Gibbon Drive was not received as it was superseded by interchange design for Ray Gibbon Drive in the ultimate (see reference 2) and the Aug 4, 2017 Ray Gibbon Drive Operational Analysis and Cost Update memo by ISL in the interim where at-grade intersections are maintained.

13. Ultimate Anthony Henday Drive

- Per CAD file provided (CL_Hwy216_Ultimate-Default)
  i. Modified Ray Gibbon Drive Interchange ramps and intersections (south intersection replaced with directional eastbound Anthony Henday Drive to northbound Ray Gibbon Drive ramp)
  ii. Modified 137 Avenue underpass to be a Parclo A/B Half-Interchange with ramps and intersections based on existing grading (not per the CAD file)
  iii. Modified St. Albert Trail Parclo A Interchange intersections to take the “maximum” of ultimate plans or existing configuration

iv. Modified Campbell Road Diamond Interchange intersections to take the "maximum" of ultimate plans or existing configuration

14. St. Albert Trail and Gervais Road/Hebert Road

- Assumed Option C implemented (documents unclear which is the preferred option)
  i. Added fourth southbound through lane
  ii. Added 60m southbound right lane on St. Albert Trail
  iii. Added 100m eastbound right lane on Gervais Road
  iv. Added 80m westbound right lane on Hebert Road

4.3.2 2401 Scenario Network (Capital Plan from TMP)

The following documents the changes made from the Ultimate Scenario Network, above, to arrive at the 2401 Scenario Network:

- Reduced Ray Gibbon Drive to two lanes from LeClair Way to Villeneuve Road. Intersection configurations assumed based on the Aug 4, 2017 Ray Gibbon Drive Operational Analysis and Cost Update memo by ISL.
- Reduced Fowler Way to two lanes
  - Maintained turn bays from ultimate
  - Removed dual northbound left at Hogan Road S – Replaced with single left
  - Removed dual eastbound left at Hogan Road N – Replaced with single left
  - Maintained two eastbound through lanes at St. Albert Trail
  - Removed dual northbound left lanes at St. Albert Trail – Replaced with single left
- Removed west leg of LeClair Way at Ray Gibbon Drive
- LeClair Way and Riel Drive
  - Removed three westbound through lanes + westbound right lane; replaced with two westbound through lanes + westbound right lane
- St. Albert Trail at Hebert Road
  - Option A improvement assumed with four southbound through lanes
- Anthony Henday Drive
  - Removed the directional eastbound Anthony Henday Drive to northbound Ray Gibbon Drive ramp; existing intersection maintained
  - Removed ramps at 137 Avenue Interchange; Flyover maintained

4.3.3 2400 Scenario Network (Do Nothing)

The following documents the changes made from the 2401 Scenario Network, above, to arrive at the 2400 Scenario Network:

- Reduced Ray Gibbon Drive from four lanes to two lanes between LeClair Way and Villeneuve
  - Maintained turn bays per Aug 4, 2017 Ray Gibbon Drive Operational Analysis and Cost Update memo by ISL
- Changed dual westbound left at Giroux Road and Ray Gibbon Drive to single left
- Reduced McKenney Avenue from four lanes to two lanes west of the train tracks
- Reduced Sir Winston Churchill Ave from four lanes to two lanes north of Poirier Avenue
- Reduced Bellerose Drive from four lanes to two lanes north of Oakmont Drive
- Removed Jensen Lakes ASP road network (reference 5)

4.3.4 2402 Scenario Network (Do Nothing with Minor Intersection Upgrades and 137 Avenue Ramps at Anthony Henday Drive)

The following documents the changes made from the 2400 Scenario Network, above, to arrive at the 2402 Scenario Network:

- Added 137 Avenue and Anthony Henday Drive interchange intersections and ramps serving all movements
- The EMME model highlighted changes at the below locations but specifics were not outlined and not included in the 2402 Scenario Network:
  - Southbound St. Albert Trail at Hebert Road intersection changes noted
  - Northbound Campbell Road at Boudreau Road intersection changes noted

4.3.5 2403 Scenario Network (Do Nothing with Ray Gibbon Drive Twinning and Intersection Improvements at LeClair Way)

The following documents the changes made from the 2400 Scenario Network, above, to arrive at the 2403 Scenario Network:

- The EMME model highlighted changes at the below locations but specifics were not outlined and not included in the 2403 Scenario Network:
  - East leg and south leg of the LeClair Way at Ray Gibbon Drive intersection changes noted

4.3.6 2404 Scenario Network (Do Nothing with 2 lane Fowler Way Construction)

The following documents the changes made from the 2401 Scenario Network, above, to arrive at the 2404 Scenario Network:

- 2400 Scenario Network (above) except Jensen Lakes ASP road network maintained
- Connected Villeneuve Road between Hogan Road and Dennison Drive

4.3.1 2405 Scenario Network (Capital Plan without Twinning Ray Gibbon Drive)

The following documents the changes made from the 2401 Scenario Network, above, to arrive at the 2405 Scenario Network:

- 2401 Scenario Network (above) except Ray Gibbon Drive was not twinned north of 137 Avenue (from its current terminus point)

4.3.2 2406 Scenario Network (Do Nothing with Ray Gibbon Drive Twinning to Giroux Road)

The following documents the changes made from the 2400 Scenario Network, above, to arrive at the 2406 Scenario Network:

- 2400 Scenario Network (above) except Ray Gibbon Drive is twinning from its current terminus point north of 137 Avenue up to Giroux Road

4.3.3 2407 Scenario Network (North St. Albert Trail Upgrades)

The following documents the changes made from the 2400 Scenario Network, above, to arrive at the 2407 Scenario Network:

- 2400 Scenario Network (above) except 3 travel lanes are provided on St. Albert Trail in both the northbound and southbound directions between Boudreau Road to just north of Neil Ross Road

4.3.4 2411 Scenario Network (Capital Plan with North St. Albert Trail)

The following documents the changes made from the 2401 Scenario Network, above, to arrive at the 2411 Scenario Network:

- Widening St. Albert Trail to 3 lanes with 1 left and 1 right turn at each intersection with lights from Boudreau Road to City Limits
- Intersection improvements at St. Albert Trail and Hebert Road
- Improvements at LeClair Way
- Ramps at 137 Avenue and Anthony Henday Drive

4.4 SYNCHRO MODEL – INTERSECTION AND ARTERIAL ANALYSIS RESULTS

The results of the intersection analyses for each scenario noted above are summarized in tables provided in **Appendix C**. As noted previously, each intersection was optimized for signal timings and cycle lengths based on the expected traffic flow volumes generated by the EMME model for that scenario, however intersection phases and lane geometries were not changed unless the scenario required changes to be made. As result, individual intersections may appear to operate with a better LOS, v/c ratio and/or 95th Percentile Queue under one scenario compared to another, however the overall network and major arterials may operate differently when viewed as a whole.

Similar to the intersection analysis, an arterial analysis was conducted that considers the travel times and speeds along St. Albert Trail, Ray Gibbon Drive, Boudreau Road, Bellerose Drive and Villeneuve Road for each of the above scenarios. The arterial analysis considers both the running time (physical time required to travel the length of the roadway based on the free flow speed) as well as any signal delays due to traffic congestion and signal timings / cycle lengths / phasing at signalized intersections. Collectively these values are used to estimate the travel time along each corridor. A comparison of the travel times expected along each corridor for each scenario is provided in **Appendix C**.

Both the intersection operations and travel time analysis results were then used as part of the evaluation matrix to assess the roadway network's anticipated performance under each scenario.

4.5 EVALUATION CRITERIA

Based on discussions with the City of St. Albert, three key considerations were identified as critical to project evaluation:

- Local Improvements
- Network Improvements
- Opportunity for Safety Improvements

Local improvements is a measurement of how the proposed project impacts the level of service at directly impacted or nearby intersections. Ideally, projects will result in a decrease in delay at all intersections. However, in some cases the changes in volumes or operations may increase delay in locations while decreasing it in others. To account for this, delays were averaged across each approach for the study intersections, and then again across each intersection in the study area. The difference in delay was calculated between intersections in the 2400 "do nothing" scenario, and the scenario most closely isolating the proposed improvement. The detailed evaluation is included in **Appendix D**.

To evaluate the Network Improvement, the difference in total arterial travel time was measured between the 2400 "do nothing" scenario and the scenario most closely isolating the proposed improvement. Only scenarios 2402 through 2407 were considered for evaluation.

The third category is a qualitative measure based on potential for safety improvements as a result of this project. Because this is not a safety review, this category is scored simply based on the number of existing serious or fatal collisions in the past 5 years. Safety improvements would be incorporated during the time of detailed design of network improvements and would involve in-depth analysis of collision history at individual sites.

For all criteria, results were categorized into three tiers: a score of 1 reflecting little to no improvements, a score of 2 reflecting a moderate amount of improvements and a score of 3 representing the highest level of improvements. The tiers were determined following the evaluation to divide criteria into logical groupings.

The criteria are summarized in **Table 4-8**.

Table 4-8
Evaluation Matrix Criteria

Categories	Rank		
	1	2	3
Local Improvements	<2 sec average	> 2 sec – 10 sec	> 10 sec and any number of vehicles OR 2 – 10 sec and greater than 3500 vehicles
Network Improvements	Bottom 2 improvements in arterial travel times	Middle 2 scenarios in arterial travel time	Top 2 improvements in arterial travel time
Opportunity for Safety Improvements (in terms of collisions)	All intersections less than 10 serious injuries over 5 years	At least one intersection between 10 and 20 collisions	At least one intersection with more than 20 collisions

To reflect the key objective of this evaluation and prioritize individual projects, the Local Improvements category was assigned a slightly higher weighting (0.5) than Network Improvements (0.4). The third category with a weighting of 0.1 is Opportunities for Safety Improvements.

5 Final Evaluation

5.1 RESULTS

The final evaluation is a combination of the evaluation matrix results, and interpretation of those results for logical phasing. The full evaluation summary is included in **Appendix D**. Ultimately, the evaluation criteria selected prioritized larger projects that impact a more significant proportion of the network. Leaving aside phasing, the top three projects include upgrading Ray Gibbon Drive, Widening North St. Albert Trail and constructing Fowler Way.

The evaluation results of all improvements analyzed is presented in **Table 5-1** with each improvement option's scores from the evaluation matrix. The overall score is obtained by summing the total of the three categories' scores after each is multiplied by its weighting. They are shown in order of highest ranking (overall score of 3) to lowest ranking (overall score of 1). Those marked with scores of NA were either not available in a specific scenario or no scenario isolated the location specifically enough to use the results. For those projects, the ranking will be based on engineering judgement and appropriate staging.

Table 5-1
Evaluation Results

Project	Corresponding Scenario	Description	Improvement in local delay (sec/int)	Local Improvement Score (x 0.5)	Improvement in arterial travel time compared to 2400 (sec)	Network Improvement Score (x 0.4)	Safety Score (x 0.1)	Overall Score
Ray Gibbon Drive: 137 Avenue to LeClair Way and LeClair Way at Riel Drive	4. (2403)	Expand to 4 lanes of divided arterial road and upgrade LeClair Way intersection, reconfigure LeClair Way at Riel Drive to address LOS	17.35	3	1665.7	3	3	3
North St. Albert Trail: Boudreau Road to Coal Mine Road	2407	Widen to 3 lanes, upgrade intersections	5.35	3	1703.2	3	1	2.8
Fowler Way	1. (2401) 5. (2404)	Develop first 2 lanes of ultimate 4-lane arterial roadway	17.3	3	1542.6	2	3	2.6
Ray Gibbon Drive: McKenney Avenue to Giroux Road	1. (2401) 7. (2406)	Expand to 4 lanes of divided arterial road, upgrade Giroux Road intersection	9.15	3	1630.6	2	3	2.6
Ray Gibbon Drive: LeClair Way to McKenney Avenue	2406	Expand to 4 lanes of divided arterial road, upgrade McKenney Avenue intersection	11.88	3	1630.6	2	3	2.6
North St. Albert Trail: Coal Mine Road to Everitt Drive	2407	Widen to 3 lanes, upgrade intersections	4.15	2	1703.2	3	1	2.3
Ray Gibbon Drive: Giroux Road to Villeneuve Road	2401	Expand to 4 lanes of divided arterial road, upgrade Villeneuve Road intersection	6.96	2	1630.6	2	3	2.1
North St. Albert Trail: Everitt Drive to Fowler Way	2407	Widen to 3 lanes, upgrade intersections	1.52	1	1703.2	3	1	1.8

Project	Corresponding Scenario	Description	Improvement in local delay (sec/int)	Local Improvement Score (x 0.5)	Improvement in arterial travel time compared to 2400 (sec)	Network Improvement Score (x 0.4)	Safety Score (x 0.1)	Overall Score
137 Avenue at Anthony Henday Drive Ramps	3. (2402)	Construction of on / off ramps from Anthony Henday Drive to 137 Avenue	5.61	2	1052.5	1	1	1.5
Boudreau Road at Campbell Road	3. (2402)	Reconfigure intersection to address LOS	-6.88	1	1052.5	1	3	1.2
St. Albert Trail at Hebert / Gervais Road	3. (2402)	East and westbound right turn bay construction, northbound lane extension from Superstore to Hebert	1.38	1	1052.5	1	3	1.2
Bellerose Drive: Oakmont Drive to City Limits	1. (2401)	Twin approximately 1.7 km	-0.98	1	1580.8	1	3	1.2
Giroux Road to Ray Gibbon Drive	1. (2401) 7. (2406)	Twin approximately 300 m to tie into Ray Gibbon Drive	3.32	1	1580.8	1	1	1
McKenney Avenue to Ray Gibbon Drive	1. (2401)	Twin approximately 1.5 km to tie into Ray Gibbon Drive	NA	NA	NA	NA	NA	NA
Sir Winston Churchill Avenue: Sturgeon Road to City Limits	1. (2404)	Twin approximately 620 m	NA	NA	NA	NA	NA	NA
Campbell Road to Poundmaker Road	None	Extend approximately 300 m to tie to Poundmaker Road	Not in any scenario	NA	NA	NA	NA	NA
Boudreau Road at Sturgeon Road	None	Reconfigure intersection to address LOS	Not in any scenario	NA	NA	NA	NA	NA
Meadowview Drive	None	Re-build 1.6 km to urban design	Not in any scenario	NA	NA	NA	NA	NA

Project	Corresponding Scenario	Description	Improvement in local delay (sec/int)	Local Improvement Score (x 0.5)	Improvement in arterial travel time compared to 2400 (sec)	Network Improvement Score (x 0.4)	Safety Score (x 0.1)	Overall Score
Villeneuve Road	1 (2401)	Reclassification and tie-in with Complete Streets	NA	NA	NA	NA	NA	NA

5.2 IMPLEMENTATION STRATEGY

The list presented in **Table 5-1** is not the recommended final list of project improvements, as feasible and logical staging must be considered. For example, the final upgrade of Ray Gibbon Drive should not be completed until Fowler Way is constructed. The widening of approaches to Ray Gibbon Drive must also be phased alongside upgrades to Ray Gibbon Drive. The major change to the recommended upgrade plan is to maximize efficiency by upgrading Ray Gibbon Drive strategically to allow funding opportunities to benefit all of St. Albert. The recommended staged priority list and rationale are summarized in **Table 5-2**.

Table 5-2
Staged Priority List

Priority	Project	Description	Rationale
1	Ray Gibbon Drive: 137 Avenue to LeClair Way and LeClair Way at Riel Drive	Expand to 4 lanes of divided arterial road and upgrade LeClair Way intersection, reconfigure LeClair Way at Riel Drive to address LOS	Aligned with project ranking
2	North St. Albert Trail: Boudreau Road to Coal Mine Road	Widen to 3 lanes, upgrade intersections	Aligned with project ranking
3	Ray Gibbon Drive: LeClair Way to McKenney Avenue	Expand to 4 lanes of divided arterial road, upgrade McKenney Avenue intersection	Aligned with project ranking
4	Fowler Way	Develop first 2 lanes of ultimate 4-lane arterial roadway	Aligned with project ranking
5	North St. Albert Trail: Coal Mine Road to Everitt Drive	Widen to 3 lanes, upgrade intersections	Advance project in front of widening Ray Gibbon Drive to Giroux to balance upgrades and help facilitate anticipated additional traffic caused by construction of Fowler Way
6	North St. Albert Trail: Everitt Drive to Neil Ross Road	Widen to 3 lanes, upgrade intersections	Advance project in front of widening Ray Gibbon Drive to Giroux to balance upgrades and help facilitate anticipated additional traffic caused by construction of Fowler Way
7	Ray Gibbon Drive: McKenney Avenue to Giroux Road	Expand to 4 lanes of divided arterial road, upgrade Giroux Road intersection	Project ranking but prioritized behind St. Albert Trail north upgrades for reasons identified above.
8	Giroux Road to Ray Gibbon Drive	Twin approximately 300 m to tie to Ray Gibbon Drive	Support the twinning of Ray Gibbon Drive to Giroux.
9	Ray Gibbon Drive: Giroux Road to Villeneuve Road	Expand to 4 lanes of divided arterial road, upgrade Villeneuve Road intersection	Aligned with project ranking
10	137 Avenue Ramps at Anthony Henday Drive	Construction of on / off ramps from Anthony Henday Drive to 137 Avenue	Aligned with project ranking

Priority	Project	Description	Rationale
11	McKenney Avenue to Ray Gibbon Drive	Twin approximately 1.5 km to tie into Ray Gibbon Drive	Completed after major upgrades and as growth expands in west St. Albert.
12	Boudreau Road at Campbell Road	Reconfigure intersection to address LOS	Minor upgrades
13	St. Albert Trail at Hebert / Gervais Road	East and westbound right turn bay construction, northbound lane extension from Superstore to Hebert	Minor upgrades
14	Villeneuve Road	Reclassification and tie-in with Complete Streets	Does not provide substantial network benefit but is complete street implementation project and may therefore be prioritized sooner at discretion of City.
15	Sir Winston Churchill Avenue: Sturgeon Road to City Limits	Twin approximately 620 m	Minor upgrade mainly benefiting Sturgeon County Traffic
-	Campbell Road to Poundmaker Road	Extend approximately 300 m to tie to Poundmaker Road	Minor upgrade not currently required.
-	Boudreau Road at Sturgeon Road	Reconfigure intersection to address LOS	Minor upgrade mainly benefiting Sturgeon County Traffic.
-	Meadowview Drive Reconstruction	Re-build 1.6 km to urban design	Minor upgrade not currently required.
-	Bellerose Drive: Oakmont Drive to City Limits	Twin approximately 1.7 km	Minor upgrade mainly benefiting Sturgeon County Traffic.

5.3 RAY GIBBON DRIVE

5.3.1 Upgrading Considerations

Ray Gibbon Drive currently has a 2-lane undivided cross-section with a posted speed of 70 km/h and an assumed design speed of 80 km/h. It is a major urban arterial, with uninterrupted flow except at four signalized intersections that are entry points into St. Albert: 137 Avenue, LeClair Way, McKenney Avenue, Giroux Road, and terminus at Villeneuve Road. Ray Gibbon Drive is anticipated to be expanded to a four-lane divided cross-section in the near future, at least for a certain portion. In the long-term, the plan is to eventually provide grade-separated intersections for complete freeway operation.

The decision to implement an interchange is site-specific and requires consideration of many factors, such as of level of service (LOS), collision history, ultimate long-term cross-section, and financial priorities of the road authority. As per the Transportation Association of Canada Geometric Design Guide for Canadian Roads[1], a typical major arterial is expected to reasonably accommodate between 10,000 and 30,000 vehicles per day. Expressways typically accommodate a volume greater than 10,000 vehicles per day and

freeways typically accommodate a volume greater than 20,000 vehicles per day. Daily traffic volumes on Ray Gibbon Drive peak around 7400 vehicles which, at a growth rate of 3.24% (as per the TMP), can be expected to reach 13,400 by the year 2042. These numbers show that Ray Gibbon Drive will likely perform sufficiently as a major arterial long after the design horizon year. Furthermore, the largest traffic volumes are observed around McKenney Avenue and greatly decrease by the time traffic reaches Villeneuve Road.

Often the inability to provide required capacity with an at-grade intersection is a trigger for the need to upgrade to a grade-separation. An intersection is usually considered to be failing at a LOS F, which is the lowest LOS. Ray Gibbon Drive northbound functions at a LOS B for most of the scenarios, except at the McKenney Avenue intersection which drops to a LOS C or D in some cases. Ray Gibbon Drive southbound shows the intersections functioning around a LOS B for all scenarios except 2400, where McKenney Avenue drops to LOS E and Giroux Road and LeClair Way drop to LOS D. The analysis shows that Ray Gibbon Drive will be able to handle future volumes as a four-lane divided arterial for the foreseeable future.

Though an additional lane in each direction (to make a 6-lane divided cross-section) would increase capacity, this is not a viable interim solution if the ultimate plan is to construct interchanges with a four-lane divided cross-section. Similarly, construction of roundabouts at these intersections would improve safety conditions and may improve operations; but this would be a major investment that would end up being a throw-away cost if ultimately a higher speed, free-flow situation with interchanges is desired.

Collision history from 2012-2017 on Ray Gibbon Drive shows no fatalities. There was a total of 141 collisions on the corridor, 36 of which resulted in at least one injury and 105 which were property damage only. When compared to the rest of St. Albert, the intersection of Ray Gibbon Drive and LeClair Way was the 7th highest, Ray Gibbon Drive and McKenney Avenue was 18th, Ray Gibbon Drive and Villeneuve Road was 26th, and Ray Gibbon Drive and Giroux Road was 29th. As such, the corridor does not present itself as a top priority for reducing collisions within St. Albert. It is also not clear how these collisions happened and whether they are the type of collisions that would be minimized with the introduction of an interchange.

5.3.2 Reversible Lanes

The project team reviewed the potential use of a reversible lane on Ray Gibbon Drive. The goal of utilizing reversible lanes on routes is to provide additional road capacity though peak periods of the day. The intent is to ease congestion, optimize vehicle capacity and throughput, and potentially reduce capital investment over twinning of Ray Gibbon Drive. However, the concept of reversible lanes was investigated for site context to Ray Gibbon Drive and looked at the impacts to levels of service as well as potential operational and safety considerations.

The benefits of introducing a reversible lane versus twinning of Ray Gibbon Drive include:

- Efficient for moving directional vehicles.
- Increases Volume to Capacity ratio (V/C) ratio for peak hour traffic.
- Potentially less costly than twinning.
- The use of a barrier system to separate lanes help reduce safety concerns and risk of collisions.

The disadvantages of introducing a reversible lane for Ray Gibbon Drive include:

- Safety concerns due to lack of public awareness. Experience from other municipalities has been an increase in vehicle collisions with the use of reversible lanes, particularly side swipe and head on collisions.
- Costs associated with infrastructure necessary to accommodate reversible lanes– i.e. additional signage, warning lights, high visibility gates, overhead lane use lights and backup power systems. Furthermore, this infrastructure may only be in place for a brief time frame given the prioritization of Ray Gibbon Drive future upgrading.
- Increase in maintenance and operational costs – i.e. to maintain lighting systems, difficulties in snow removal if a barrier system is in place.
- Public education campaign is required to inform the public of the new facility, operational hours, and protocols. Notably, the education program will not reach non-local motorists.
- Requires set hours of operation, not accommodating to special events or activities.
- The location is constrained due to a CN railway crossing south of Giroux Road and the bridge over the Sturgeon River. The weaving movements that are required within this confined area can lead to safety concerns and dangerous situations for drivers.
- The Sturgeon River bridge would have to be reconstructed to accommodate a reversible lane configuration, increasing the overall project costs
- The construction of a third lane on a two-lane roadway that will be modified in the future to a four-lane divided roadway would result in throwaway costs.
- Locating a safe mid-block left turn across the favored travel direction may be difficult, which could increase the potential for collisions depending on left turn demand. The left turn demand is highest at LeClair Way intersection, with 27% of vehicles turning left from Ray Gibbon Drive southbound in the PM Peak.
- It could require an increase in traffic law enforcement.
- Constant monitoring and review of the corridor would be required more frequently with reversible lanes due to its new nature.
- NCHRP[2] suggests that to make effective use of a reversible lane, two lanes in the minor flow direction should be maintained to accommodate left turns without slowing down or stopping the through traffic. This suggests the need for a four-lane undivided cross-section, which is not conducive to the long-term solution for Ray Gibbon Drive.

Reversible lanes can serve a purpose; however, from an engineering, safety and life-cycle perspective a reversible lane on Ray Gibbon Drive is not a practical cost-saving measure and is therefore not recommended.

6 Conceptual Design and Cost Estimates

6.1 SITE-SPECIFIC IMPROVEMENTS AND COSTS

High level cost estimates associated with specific improvements are provided in **Table 6-1.** They are inclusive of 10% contingency and 10% engineering costs. Land acquisition costs were not included, as it was assumed that right of way requirements would be determined during preliminary design (except Fowler Way, for which ROW requirements have already been established).

Table 6-1
Cost Estimates

Priority	Project	Description	Cost (x$1,000) +/- 35%
1	Ray Gibbon Drive: 137 Avenue to LeClair Way	Expand to 4 lanes of divided arterial road (approximately 800 m), upgrade LeClair Way intersection	$ 5,000
	LeClair Way at Riel Drive Intersection	Reconfigure LeClair Way at Riel Drive to address LOS	$ 300
2	North St. Albert Trail: Boudreau Road to Coal Mine Road	Widen to 3 lanes, upgrade intersections	$ 8,600
3	Ray Gibbon Drive: LeClair Way to McKenney Avenue	Expand to 4 lanes of divided arterial road (approximately 2.9 km), upgrade McKenney Ave intersection	$ 18,500
4	Fowler Way	Develop first 2 lanes of ultimate 4-lane arterial road	$ 35,900
5	North St. Albert Trail: Coal Mine Road to Everitt Drive	Widen to 3 lanes, upgrade intersections	$ 5,000
6	North St. Albert Trail: Everitt Drive to Neil Ross Road	Widen to 3 lanes, upgrade intersections	$ 5,250
7	Ray Gibbon Drive: McKenney Avenue to Giroux Road	Expand to 4 lanes of divided arterial road (approximately 1.35 km), upgrade Giroux Road intersection	$9,500
8	Giroux Road twinning to Ray Gibbon Drive	Twin last 300 m of roadway to tie to Ray Gibbon Drive	$ 1,200
9	Ray Gibbon Drive: Twinning from Giroux Road to Fowler Way	Expand to 4 lanes of divided arterial roadway (approximately 2.1 km) and improve Fowler Way intersection	$ 13,000
10	137 Avenue at Anthony Henday Drive Ramps	Construction of on / off ramps from Anthony Henday Drive to 137 Avenue	$3,000
11	McKenney Avenue to Ray Gibbon Drive	Twin approximately 1.5 km to tie into Ray Gibbon Drive	$ 7,200
12	Boudreau Road at Campbell Road	Reconfigure intersection to address LOS	$800
13	St. Albert Trail at Hebert / Gervais Road	East and westbound right turn bay construction, northbound lane extension from Superstore to Hebert	$ 1,900

Priority	Project	Description	Cost (x$1,000) +/- 35%
-	Sir Winston Churchill Ave: Sturgeon Road to City Limits	Twin approximately 620 m	$ 3,200
-	Bellerose Drive: Oakmont Drive to City Limits	Twin approximately 1.7 km	$ 8,500

7 Funding and Partnership Opportunity

7.1 CITY OF ST. ALBERT CAPITAL BUDGET

The Municipal Capital Budget expenditures will be funded through grants, reserves and a portion supported by tax funds. The City utilizes grants as the primary source of funding, as not all projects are eligible for grant funding and may not meet the minimum requirements. In such cases, other sources such as reserves and tax supported funds are therefore utilized for the remainder of funding capital projects. Often, a tax supported fund (Pay-AsYou-GO or PAYG) is applied to projects that are smaller in nature, while the use of reserves are regularly planned and are applied for the use of lifecycle and replacement projects. The City ensures resources are targeted toward the necessary critical investments in St. Albert's infrastructure and transportation to position the community for sustaining current services and meeting future growth.

7.2 OFF-SITE LEVIES

Off-site levies are an approved mechanism under the *Municipal Government Act (MGA)* that allow a municipality to collect all or some of the capital dollars needed to construct new infrastructure required to support growth. Amongst other infrastructure types the MGA provides a mechanism to collect off-site levies for new or expanded roads required for or impacted by a subdivision development and the necessary land required to support the infrastructure. The current practice within the city, is a yearly update to the Off-Site Levy Bylaw to ensure the most reflective delineation of projects and associated costs. Front ending, off-setting and long term reimbursement of costs are identified in the Off-Site Levy Policy Framework.

Closure

This report was prepared for the City of St. Albert to perform the review of the 10 year Capital Plan.

The services provided by Associated Engineering Alberta Ltd. and Stantec Consulting Ltd. in the preparation of this report were conducted in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions. No other warranty expressed or implied is made.

Respectfully submitted,

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Date: Oct 12/18

APEGA Permit to Practice P 3979

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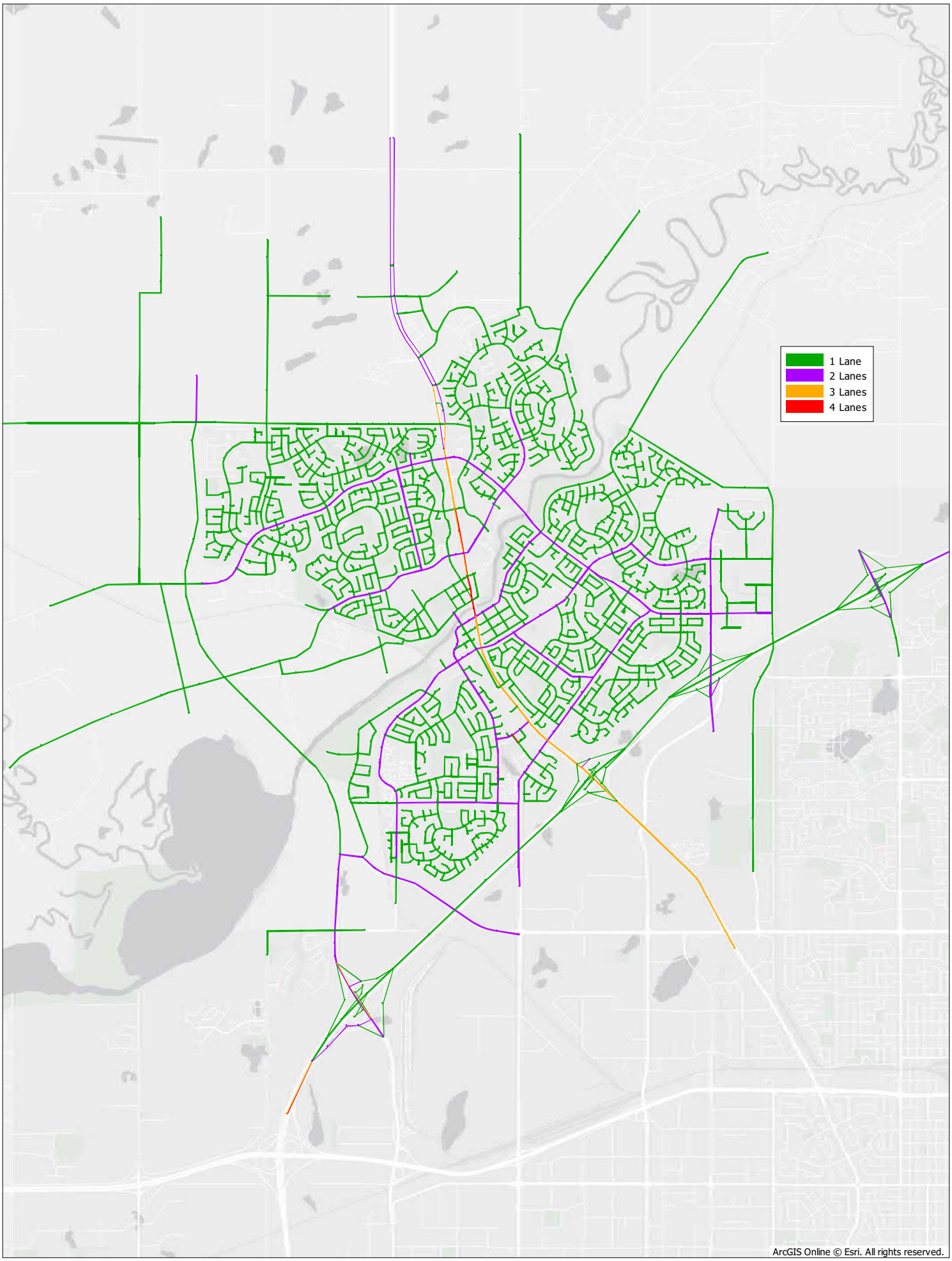
Appendix A - Ten Year Roads Plan

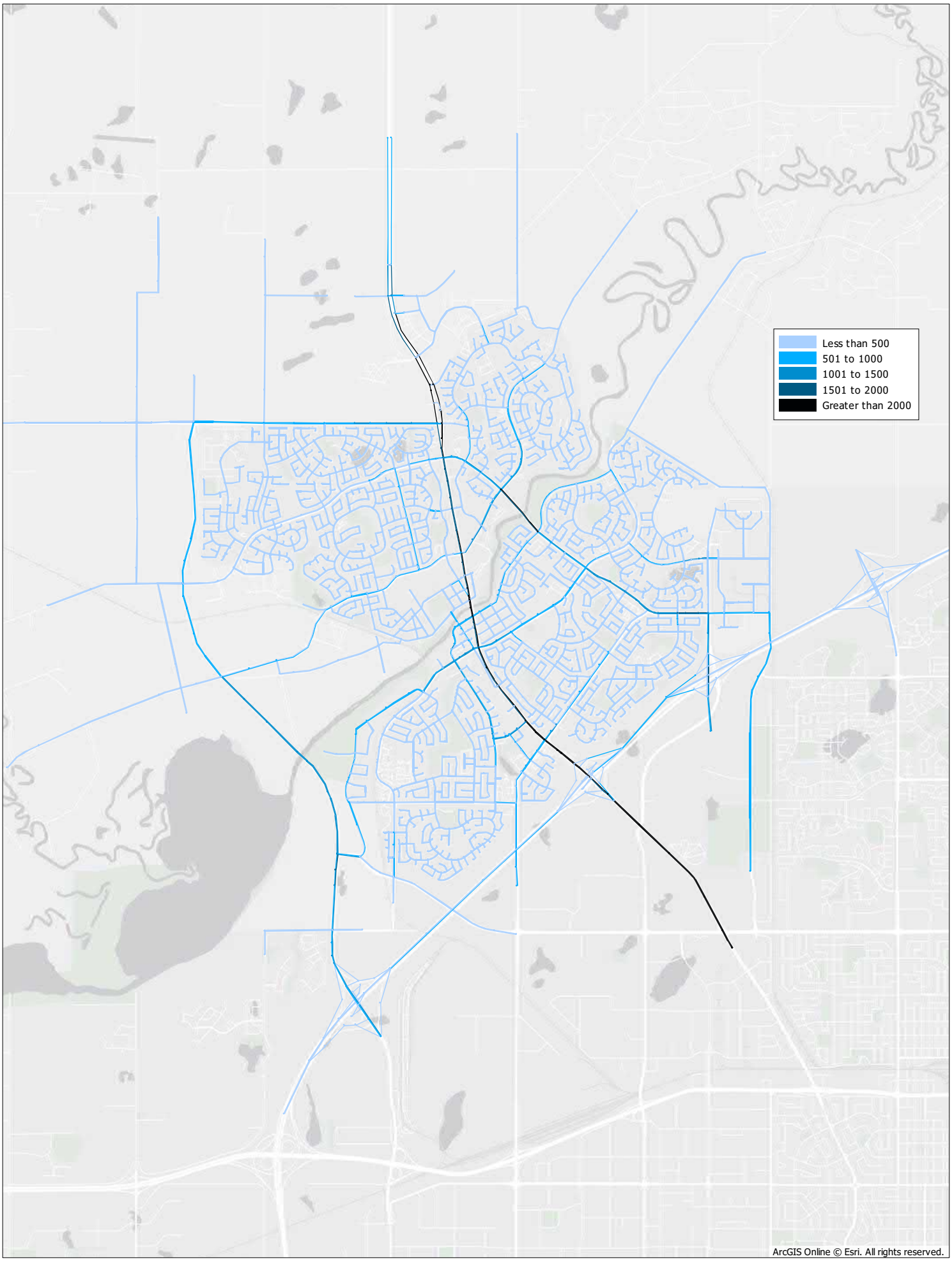
PROJECT	TYPE	DESCRIPTION	PRE-EXISTING CAPITAL PROJECT OR NEW TO TMP	OFF SITE LEVIABLE? (Yes/No)
St. Albert Trail - Signalization	ITS	Adaptive traffic signal controls for 14 Intersections on St. Albert Trail. To reduce congestion by creating smoother flow by adjusting the signal timing.	YES	NO
Erin Ridge Neighbourhood Traffic Calming	Roadway Design Improvements	Implement a Neighbourhood Traffic Calming Process in the community of Erin Ridge and evaluate the procedure to utilize in other city neighbourhoods.	YES	NO
North St. Albert Trail Functional Planning Study	Study	To Review and provide solutions for the northern part of St. Albert Trail.	NO	NO
Transit Priority Signals	ITS	To add transit priority measures on transit routes to optimize passenger travel time.	YES	NO
Traffic Pre-Emption System for Fire	ITS	To improve emergency response time due to increased congestion on roadways.	YES	NO
Ray Gibbon Drive	Widening	Expand to 4 lanes of divided arterial roadway improve efficiency of Ray Gibbon Drive and also enhance capability to absorb additional traffic volumes from St. Albert Trail.	NO	NO
St. Albert Trail & Hebert Road Intersection	Intersection Improvement	East and westbound right turn bay construction and northbound lane extension from the superstore access to Hebert road.	YES	NO
Fowler Way: From Ray Gibbon Drive to St. Albert Trail	New Construction	Develop first 2 lanes of ultimate 4 divided arterial roadway. Reduce congestion and reduce traffic on St. Albert Trail by allowing traffic to Ray Gibbon Drive.	NO	YES
Meadowview Drive	Re-Build & Upgrade	Re-build 1.6km to urban design due to determination of roadway and safety concerns, projected traffic levels and services the Employment Lands area.	YES	YES
Boudreau Road & Campbell Road Intersection	Intersection Improvement	To increase throughput capacity due to congestion from traffic accessing Anthony Henday Drive.	YES	NO

PROJECT	TYPE	DESCRIPTION	PRE-EXISTING CAPITAL PROJECT OR NEW TO TMP	OFF SITE LEVIABLE? (Yes/No)
Giroux Road Twinning to Ray Gibbon	Twinning	Currently Giroux Road is twinned its entire length but falls short 300m from the intersection of Ray Gibbon Drive. With the 4 laning of Ray Gibbon Drive and added capacity, traffic patterns will change and utilize Giroux to access Ray Gibbon Drive.	YES	YES
McKenney Avenue Twinning to Ray Gibbon Drive	Twinning	Currently McKenney Avenue is twinned from St. Albert Trail to Morgan Crescent, this project includes the continuation of the twinning 1.5km through the Riverside Neighborhood to Ray Gibbon Drive. As the city has seen a change in traffic patterns as traffic is utilizing Ray Gibbon Drive.	YES	YES
LeClair Way & Riel Drive intersection	Intersection Improvement	To increase capacity due to congestion from traffic accessing Anthony Henday Drive.	NO	NO
St. Albert Trail and Boudreau Road	Intersection Improvement	To increase capacity	YES	NO
Bellerose Drive: From Oakmont to City Limit	Twinning	Twin approx. 1.7km of roadway. Provide additional capacity to access Erin Ride Drive and residential developments.	YES	YES
Villeneuve Road	Redesign	Redesign and reclassify Villeneuve Road and intersections as per the approved Villeneuve Road Study.	NO	NO
Sir Winston Churchill Ave: From Sturgeon Road to City Limit	Twinning	This project is twinning of approximately 620). Two additional lanes will be constructed along the adjacent path of the current road structure.	YES	NO
Campbell Rd Extension to Poundmaker Road	New Construction	This project is to extend approximately 300m of Campbell Road to Poundmaker Road	YES	YES
Boudreau Road	Intersection Improvements	Intersection improvements at the intersection of Sturgeon Road and Bellerose Drive to improve capacity (potential turning lane addition at intersection)	NO	NO

Appendix B - EMME Results

Scenario 1400 – 2014 Base Scenario


1 Lane
2 Lanes
3 Lanes
4 Lanes
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Less than 500
501 to 1000
1001 to 1500
1501 to 2000
Greater than 2000
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Emme Scenario 1400 - 2014 Base Scneario

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6033-6035-6033	6035	6033	6033	U Turn		0	0	0	-1
6033-6035-6036	6035	6033	6036	WBR		-1	4	0	0
6033-6035-7135	6035	6033	7135	WBT		-1	32	0	0
6033-6035-7144	6035	6033	7144	WBL		-1	126	0	0
6036-6035-6033	6035	6036	6033	SBL		-1	1	0	0
6036-6035-6036	6035	6036	6036	U Turn		0	0	0	-1
6036-6035-7135	6035	6036	7135	SBR		-1	0	0	0
6036-6035-7144	6035	6036	7144	SBT		-1	37	0	0
7135-6035-6033	6035	7135	6033	EBT		-1	106	0	0
7135-6035-6036	6035	7135	6036	EBL		-1	1	0	0
7135-6035-7135	6035	7135	7135	U Turn		0	0	0	-1
7135-6035-7144	6035	7135	7144	EBR		-1	24	0	0
7144-6035-6033	6035	7144	6033	NBR		-1	138	0	0
7144-6035-6036	6035	7144	6036	NBT		-1	36	0	0
7144-6035-7135	6035	7144	7135	NBL		-1	0	0	0
7144-6035-7144	6035	7144	7144	U Turn		0	0	0	-1
6033-6037-6033	6037	6033	6033	U Turn		0	0	0	-1
6033-6037-6038	6037	6033	6038	EBL		-1	0	0	0
6033-6037-7136	6037	6033	7136	EBT		-1	160	0	0
6033-6037-7141	6037	6033	7141	EBR		-1	0	0	0
6038-6037-6033	6037	6038	6033	SBR		-1	29	0	0
6038-6037-6038	6037	6038	6038	U Turn		0	0	0	-1
6038-6037-7136	6037	6038	7136	SBL		-1	61	0	0
6038-6037-7141	6037	6038	7141	SBT		-1	60	0	0
7136-6037-6033	6037	7136	6033	WBT		-1	237	0	0
7136-6037-6038	6037	7136	6038	WBR		-1	95	0	0
7136-6037-7136	6037	7136	7136	U Turn		0	0	0	-1
7136-6037-7141	6037	7136	7141	WBL		-1	158	0	0

Emme Scenario 1400 - 2014 Base Scneario

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7141-6037-6033	6037	7141	6033	NBL		-1	0	0	0
7141-6037-6038	6037	7141	6038	NBT		-1	20	0	0
7141-6037-7136	6037	7141	7136	NBR		-1	29	0	0
7141-6037-7141	6037	7141	7141	U Turn		0	0	0	-1
6141-6142-6141	6142	6141	6141	U Turn		0	0	0	-1
6141-6142-6722	6142	6141	6722	NBR	Sir Winston Churchill is NB/SB	-1	80	0	0
6141-6142-7861	6142	6141	7861	NBT		-1	250	0	0
6141-6142-8201	6142	6141	8201	NBL		1	68	0	0
6722-6142-6141	6142	6722	6141	WBL		-1	26	0	0
6722-6142-6722	6142	6722	6722	U Turn		0	0	0	-1
6722-6142-7861	6142	6722	7861	WBR		-1	187	0	0
6722-6142-8201	6142	6722	8201	WBT		-1	81	0	0
7861-6142-6141	6142	7861	6141	SBT		-1	218	0	0
7861-6142-6722	6142	7861	6722	SBL		1	64	0	0
7861-6142-7861	6142	7861	7861	U Turn		0	0	0	-1
7861-6142-8201	6142	7861	8201	SBR		-1	0	0	0
8201-6142-6141	6142	8201	6141	EBR		-1	1	0	0
8201-6142-6722	6142	8201	6722	EBT		-1	22	0	0
8201-6142-7861	6142	8201	7861	EBL		-1	0	0	0
8201-6142-8201	6142	8201	8201	U Turn		0	0	0	-1
7475-6175-7475	6175	7475	7475	U Turn	East side of divided intersection, NB traffic only	0	0	0	-1
7475-6175-7502	6175	7475	7502	EBT		-1	149	0	0
7475-6175-8105	6175	7475	8105	EBL		-1	243	0	0
7502-6175-7475	6175	7502	7475	WBT		-1	36	0	0
7502-6175-7502	6175	7502	7502	U Turn		0	0	0	-1
7502-6175-8105	6175	7502	8105	WBR		-1	4	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7922-6175-7475	6175	7922	7475	NBL		-1	366	0	0
7922-6175-7502	6175	7922	7502	NBR		-1	19	0	0
7922-6175-8105	6175	7922	8105	NBT		-1	1109	0	0
7474-6176-7474	6176	7474	7474	U Turn		0	0	0	-1
7474-6176-7940	6176	7474	7940	SBR		-1	44	0	0
7474-6176-8172	6176	7474	8172	SBT		-1	807	0	0
7474-6176-8223	6176	7474	8223	SBL		1	100	0	1
7940-6176-7474	6176	7940	7474	EBL		1	53	0	0
7940-6176-7940	6176	7940	7940	U Turn		0	0	0	-1
7940-6176-8172	6176	7940	8172	EBR		-1	3	0	0
7940-6176-8223	6176	7940	8223	EBT		-1	238	0	0
8172-6176-7474	6176	8172	7474	NBT		-1	1071	0	0
8172-6176-7940	6176	8172	7940	NBL		1	92	0	1
8172-6176-8172	6176	8172	8172	U Turn		0	0	0	-1
8172-6176-8223	6176	8172	8223	NBR		-1	76	0	0
8223-6176-7474	6176	8223	7474	WBR		-1	336	0	0
8223-6176-7940	6176	8223	7940	WBT		-1	414	0	0
8223-6176-8172	6176	8223	8172	WBL		1	74	0	1
8223-6176-8223	6176	8223	8223	U Turn		0	0	0	-1
7938-6348-7938	6348	7938	7938	U Turn		0	0	0	-1
7938-6348-7939	6348	7938	7939	SBL	Perron St is NB/SB	-1	28	0	0
7938-6348-8195	6348	7938	8195	SBR		-1	76	0	0
7938-6348-8197	6348	7938	8197	SBT		-1	137	0	0
7939-6348-7938	6348	7939	7938	WBR		-1	135	0	0
7939-6348-7939	6348	7939	7939	U Turn		0	0	0	-1
7939-6348-8195	6348	7939	8195	WBT		-1	9	0	0
7939-6348-8197	6348	7939	8197	WBL		1	9	0	0
8195-6348-7938	6348	8195	7938	EBL		1	85	0	1

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8195-6348-7939	6348	8195	7939	EBT		-1	247	0	0
8195-6348-8195	6348	8195	8195	U Turn		0	0	0	-1
8195-6348-8197	6348	8195	8197	EBR		-1	0	0	0
8197-6348-7938	6348	8197	7938	NBT		-1	416	0	0
8197-6348-7939	6348	8197	7939	NBR		-1	7	0	0
8197-6348-8195	6348	8197	8195	NBL		-1	0	0	0
8197-6348-8197	6348	8197	8197	U Turn		0	0	0	-1
6594-6349-6594	6349	6594	6594	U Turn		0	0	0	-1
6594-6349-7936	6349	6594	7936	WBR	St Albert Trail is NB/SB	-1	107	0	0
6594-6349-7939	6349	6594	7939	WBT		-1	58	0	0
6594-6349-10802	6349	6594	10802	WBL		1	81	0	1
7936-6349-6594	6349	7936	6594	SBL		1	91	0	1
7936-6349-7936	6349	7936	7936	U Turn		0	0	0	-1
7936-6349-7939	6349	7936	7939	SBR		-1	39	0	0
7936-6349-10802	6349	7936	10802	SBT		-1	1493	0	0
7939-6349-6594	6349	7939	6594	EBT		-1	278	0	0
7939-6349-7936	6349	7939	7936	EBL		1	94	0	1
7939-6349-7939	6349	7939	7939	U Turn		0	0	0	-1
7939-6349-10802	6349	7939	10802	EBR		-1	26	0	0
10802-6349-6594	6349	10802	6594	NBR		-1	220	0	0
10802-6349-7936	6349	10802	7936	NBT		-1	2196	0	0
10802-6349-7939	6349	10802	7939	NBL		1	74	0	0
10802-6349-10802	6349	10802	10802	U Turn		0	0	0	-1
6279-6386-6279	6386	6279	6279	U Turn		0	0	0	-1
6279-6386-6485	6386	6279	6485	WBL		-1	0	0	0
6279-6386-6769	6386	6279	6769	WBR		-1	87	0	0
6279-6386-7923	6386	6279	7923	WBT		-1	732	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6485-6386-6279	6386	6485	6279	NBR		-1	4	0	0
6485-6386-6485	6386	6485	6485	U Turn		0	0	0	-1
6485-6386-6769	6386	6485	6769	NBT		-1	16	0	0
6485-6386-7923	6386	6485	7923	NBL		-1	16	0	0
6769-6386-6279	6386	6769	6279	SBL		1	84	0	1
6769-6386-6485	6386	6769	6485	SBT		-1	17	0	0
6769-6386-6769	6386	6769	6769	U Turn		0	0	0	-1
6769-6386-7923	6386	6769	7923	SBR		-1	51	0	0
7923-6386-6279	6386	7923	6279	EBT		-1	446	0	0
7923-6386-6485	6386	7923	6485	EBR		-1	7	0	0
7923-6386-6769	6386	7923	6769	EBL		1	52	0	0
7923-6386-7923	6386	7923	7923	U Turn		0	0	0	-1
6193-6458-6193	6458	6193	6193	U Turn		0	0	0	-1
6193-6458-7479	6458	6193	7479	WBT	East side of divided intersection, NB traffic only	-1	6	0	0
6193-6458-8232	6458	6193	8232	WBR		-1	3	0	0
7479-6458-6193	6458	7479	6193	EBT		-1	16	0	0
7479-6458-7479	6458	7479	7479	U Turn		0	0	0	-1
7479-6458-8232	6458	7479	8232	EBL		-1	53	0	0
8103-6458-6193	6458	8103	6193	NBR		-1	104	0	0
8103-6458-7479	6458	8103	7479	NBL		-1	0	0	0
8103-6458-8232	6458	8103	8232	NBT		-1	1166	0	0
6356-6595-6356	6595	6356	6356	U Turn		0	0	0	-1
6356-6595-7554	6595	6356	7554	WBL		-1	401	0	0
6356-6595-8121	6595	6356	8121	WBR		-1	1	0	0
6356-6595-8220	6595	6356	8220	WBT		-1	364	0	0
7554-6595-6356	6595	7554	6356	NBR		-1	315	0	0
7554-6595-7554	6595	7554	7554	U Turn		0	0	0	-1

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7554-6595-8121	6595	7554	8121	NBT		-1	137	0	0
7554-6595-8220	6595	7554	8220	NBL		-1	864	0	0
8121-6595-6356	6595	8121	6356	SBL		-1	0	0	0
8121-6595-7554	6595	8121	7554	SBT		-1	197	0	0
8121-6595-8121	6595	8121	8121	U Turn		0	0	0	-1
8121-6595-8220	6595	8121	8220	SBR		-1	80	0	0
8220-6595-6356	6595	8220	6356	EBT		-1	570	0	0
8220-6595-7554	6595	8220	7554	EBR		-1	373	0	0
8220-6595-8121	6595	8220	8121	EBL		-1	97	0	0
8220-6595-8220	6595	8220	8220	U Turn		0	0	0	-1
7286-6596-7286	6596	7286	7286	U Turn		0	0	0	-1
7286-6596-7822	6596	7286	7822	WBT		-1	537	0	0
7286-6596-7977	6596	7286	7977	WBL		1	14	0	0
7286-6596-8117	6596	7286	8117	WBR		-1	0	0	0
7822-6596-7286	6596	7822	7286	EBT		-1	146	0	0
7822-6596-7822	6596	7822	7822	U Turn		0	0	0	-1
7822-6596-7977	6596	7822	7977	EBR		-1	132	0	0
7822-6596-8117	6596	7822	8117	EBL		1	0	0	0
7977-6596-7286	6596	7977	7286	NBL		-1	96	0	0
7977-6596-7822	6596	7977	7822	NBR		1	86	0	1
7977-6596-7977	6596	7977	7977	U Turn		0	0	0	-1
7977-6596-8117	6596	7977	8117	NBT		-1	0	0	0
8117-6596-7286	6596	8117	7286	SBL		1	0	0	0
8117-6596-7822	6596	8117	7822	SBR		-1	167	0	0
8117-6596-7977	6596	8117	7977	SBT		-1	0	0	0
8117-6596-8117	6596	8117	8117	U Turn		0	0	0	-1
6427-6624-6427	6624	6427	6427	U Turn		0	0	0	-1
6427-6624-7675	6624	6427	7675	NBL		-1	2	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6427-6624-7875	6624	6427	7875	NBT		-1	0	0	0
6427-6624-7876	6624	6427	7876	NBR		-1	93	0	0
7675-6624-6427	6624	7675	6427	EBR		-1	1	0	0
7675-6624-7675	6624	7675	7675	U Turn		0	0	0	-1
7675-6624-7875	6624	7675	7875	EBL		-1	2	0	0
7675-6624-7876	6624	7675	7876	EBT		-1	408	0	0
7875-6624-6427	6624	7875	6427	SBT		-1	0	0	0
7875-6624-7675	6624	7875	7675	SBR		-1	2	0	0
7875-6624-7875	6624	7875	7875	U Turn		0	0	0	-1
7875-6624-7876	6624	7875	7876	SBL		-1	10	0	0
7876-6624-6427	6624	7876	6427	WBL		-1	310	0	0
7876-6624-7675	6624	7876	7675	WBT		-1	292	0	0
7876-6624-7875	6624	7876	7875	WBR		-1	12	0	0
7876-6624-7876	6624	7876	7876	U Turn		0	0	0	-1
7193-6744-7193	6744	7193	7193	U Turn		0	0	0	-1
7193-6744-7678	6744	7193	7678	EBR	St Albert Trail is NB/SB	-1	25	0	0
7193-6744-8135	6744	7193	8135	EBT		-1	449	0	0
7193-6744-8150	6744	7193	8150	EBL		1	48	0	0
7678-6744-7193	6744	7678	7193	NBL		1	124	0	3
7678-6744-7678	6744	7678	7678	U Turn		0	0	0	-1
7678-6744-8135	6744	7678	8135	NBR		-1	288	0	0
7678-6744-8150	6744	7678	8150	NBT		-1	1901	0	0
8135-6744-7193	6744	8135	7193	WBT		-1	329	0	0
8135-6744-7678	6744	8135	7678	WBL		1	95	0	1
8135-6744-8135	6744	8135	8135	U Turn		0	0	0	-1
8135-6744-8150	6744	8135	8150	WBR		-1	260	0	0
8150-6744-7193	6744	8150	7193	SBR		-1	0	0	0
8150-6744-7678	6744	8150	7678	SBT		-1	1635	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8150-6744-8135	6744	8150	8135	SBL		1	78	0	1
8150-6744-8150	6744	8150	8150	U Turn		0	0	0	-1
6091-6871-6091	6871	6091	6091	U Turn		0	0	0	-1
6091-6871-6279	6871	6091	6279	EBL	Boudreau Rd is NB/SB	-1	80	0	0
6091-6871-6697	6871	6091	6697	EBT		-1	485	0	0
6091-6871-7129	6871	6091	7129	EBR		-1	484	0	0
6279-6871-6091	6871	6279	6091	SBR		-1	19	0	0
6279-6871-6279	6871	6279	6279	U Turn		0	0	0	-1
6279-6871-6697	6871	6279	6697	SBL		-1	14	0	0
6279-6871-7129	6871	6279	7129	SBT		-1	532	0	0
6697-6871-6091	6871	6697	6091	WBT		-1	195	0	0
6697-6871-6279	6871	6697	6279	WBR		-1	0	0	0
6697-6871-6697	6871	6697	6697	U Turn		0	0	0	-1
6697-6871-7129	6871	6697	7129	WBL		-1	328	0	0
7129-6871-6091	6871	7129	6091	NBL		-1	530	0	0
7129-6871-6279	6871	7129	6279	NBT		-1	886	0	0
7129-6871-6697	6871	7129	6697	NBR		-1	298	0	0
7129-6871-7129	6871	7129	7129	U Turn		0	0	0	-1
6021-6894-6021	6894	6021	6021	U Turn		0	0	0	-1
6021-6894-6893	6894	6021	6893	SBT	Perron St is NB/SB	-1	6	0	0
6021-6894-8221	6894	6021	8221	SBL		-1	57	0	0
6021-6894-9910	6894	6021	9910	SBR		-1	71	0	0
6893-6894-6021	6894	6893	6021	NBT		-1	65	0	0
6893-6894-6893	6894	6893	6893	U Turn		0	0	0	-1
6893-6894-8221	6894	6893	8221	NBR		-1	0	0	0
6893-6894-9910	6894	6893	9910	NBL		-1	50	0	0
8221-6894-6021	6894	8221	6021	WBR		-1	39	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8221-6894-6893	6894	8221	6893	WBL		-1	0	0	0
8221-6894-8221	6894	8221	8221	U Turn		0	0	0	-1
8221-6894-9910	6894	8221	9910	WBT		-1	160	0	0
9910-6894-6021	6894	9910	6021	EBL		-1	233	0	0
9910-6894-6893	6894	9910	6893	EBR		-1	17	0	0
9910-6894-8221	6894	9910	8221	EBT		-1	167	0	0
9910-6894-9910	6894	9910	9910	U Turn		0	0	0	-1
7756-6921-7756	6921	7756	7756	U Turn		0	0	0	-1
7756-6921-7766	6921	7756	7766	NBR		-1	544	0	0
7756-6921-7964	6921	7756	7964	NBT		-1	1389	0	0
7756-6921-7967	6921	7756	7967	NBL		1	86	0	1
7766-6921-7756	6921	7766	7756	WBL		1	86	0	1
7766-6921-7766	6921	7766	7766	U Turn		0	0	0	-1
7766-6921-7964	6921	7766	7964	WBR		-1	49	0	0
7766-6921-7967	6921	7766	7967	WBT		-1	309	0	0
7964-6921-7756	6921	7964	7756	SBT		-1	924	0	0
7964-6921-7766	6921	7964	7766	SBL		1	33	0	0
7964-6921-7964	6921	7964	7964	U Turn		0	0	0	-1
7964-6921-7967	6921	7964	7967	SBR		-1	37	0	0
7967-6921-7756	6921	7967	7756	EBR		-1	127	0	0
7967-6921-7766	6921	7967	7766	EBT		-1	203	0	0
7967-6921-7964	6921	7967	7964	EBL		1	40	0	0
7967-6921-7967	6921	7967	7967	U Turn		0	0	0	-1
7151-6922-7151	6922	7151	7151	U Turn		0	0	0	-1
7151-6922-7756	6922	7151	7756	NBT		-1	2049	0	0
7151-6922-7759	6922	7151	7759	NBL		1	114	0	2
7151-6922-10408	6922	7151	10408	NBR		-1	0	0	0
7756-6922-7151	6922	7756	7151	SBT		-1	1094	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7756-6922-7756	6922	7756	7756	U Turn		0	0	0	-1
7756-6922-7759	6922	7756	7759	SBR		-1	35	0	0
7756-6922-10408	6922	7756	10408	SBL		1	0	0	0
7759-6922-7151	6922	7759	7151	EBR		-1	0	0	0
7759-6922-7756	6922	7759	7756	EBL		-1	1	0	0
7759-6922-7759	6922	7759	7759	U Turn		0	0	0	-1
7759-6922-10408	6922	7759	10408	EBT		-1	0	0	0
10408-6922-7151	6922	10408	7151	WBL		-1	120	0	0
10408-6922-7756	6922	10408	7756	EBR		-1	0	0	0
10408-6922-7759	6922	10408	7759	EBT		-1	46	0	0
10408-6922-10408	6922	10408	10408	U Turn		0	0	0	-1
6926-6927-6926	6927	6926	6926	U Turn		0	0	0	-1
6926-6927-6952	6927	6926	6952	NBT	Boudreau Rd is NB/SB	-1	714	0	0
6926-6927-7073	6927	6926	7073	NBL		-1	217	0	0
6926-6927-8066	6927	6926	8066	NBR		-1	0	0	0
6952-6927-6926	6927	6952	6926	SBT		-1	640	0	0
6952-6927-6952	6927	6952	6952	U Turn		0	0	0	-1
6952-6927-7073	6927	6952	7073	SBR		-1	18	0	0
6952-6927-8066	6927	6952	8066	SBL		-1	177	0	0
7073-6927-6926	6927	7073	6926	EBR		-1	262	0	0
7073-6927-6952	6927	7073	6952	EBL		-1	12	0	0
7073-6927-7073	6927	7073	7073	U Turn		0	0	0	-1
7073-6927-8066	6927	7073	8066	EBT		-1	111	0	0
8066-6927-6926	6927	8066	6926	WBL		-1	25	0	0
8066-6927-6952	6927	8066	6952	WBR		-1	264	0	0
8066-6927-7073	6927	8066	7073	WBT		-1	123	0	0
8066-6927-8066	6927	8066	8066	U Turn		0	0	0	-1
6467-7121-6467	7121	6467	6467	U Turn		0	0	0	-1

Emme Scenario 1400 - 2014 Base Scneario

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6467-7121-6946	7121	6467	6946	SBR		-1	14	0	0
6467-7121-7119	7121	6467	7119	SBL		-1	33	0	0
6946-7121-6467	7121	6946	6467	EBL		-1	0	0	0
6946-7121-6946	7121	6946	6946	U Turn		0	0	0	-1
6946-7121-7119	7121	6946	7119	EBT		-1	75	0	0
7119-7121-6467	7121	7119	6467	WBR		-1	72	0	0
7119-7121-6946	7121	7119	6946	WBT		-1	123	0	0
7119-7121-7119	7121	7119	7119	U Turn		0	0	0	-1
6394-7129-6394	7129	6394	6394	U Turn		0	0	0	-1
6394-7129-6549	7129	6394	6549	EBR	Boudreau Rd is NB/SB	-1	4	0	0
6394-7129-6785	7129	6394	6785	EBT		-1	25	0	0
6394-7129-6871	7129	6394	6871	EBL		-1	204	0	0
6549-7129-6394	7129	6549	6394	NBL		-1	14	0	0
6549-7129-6549	7129	6549	6549	U Turn		0	0	0	-1
6549-7129-6785	7129	6549	6785	NBR		-1	0	0	0
6549-7129-6871	7129	6549	6871	NBT		-1	1100	0	0
6785-7129-6394	7129	6785	6394	WBT		-1	13	0	0
6785-7129-6549	7129	6785	6549	WBL		-1	0	0	0
6785-7129-6785	7129	6785	6785	U Turn		0	0	0	-1
6785-7129-6871	7129	6785	6871	WBR		-1	410	0	0
6871-7129-6394	7129	6871	6394	SBR		-1	173	0	0
6871-7129-6549	7129	6871	6549	SBT		-1	842	0	0
6871-7129-6785	7129	6871	6785	SBL		-1	329	0	0
6871-7129-6871	7129	6871	6871	U Turn		0	0	0	-1
6035-7135-6035	7135	6035	6035	U Turn		0	0	0	-1
6035-7135-7132	7135	6035	7132	WBR		-1	0	0	0
6035-7135-7318	7135	6035	7318	WBL		-1	0	0	0
6035-7135-7892	7135	6035	7892	WBT		-1	32	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7132-7135-6035	7135	7132	6035	SBL		-1	0	0	0
7132-7135-7132	7135	7132	7132	U Turn		0	0	0	-1
7132-7135-7318	7135	7132	7318	SBT		-1	95	0	0
7132-7135-7892	7135	7132	7892	SBR		-1	23	0	0
7318-7135-6035	7135	7318	6035	NBR		-1	4	0	0
7318-7135-7132	7135	7318	7132	NBT		-1	56	0	0
7318-7135-7318	7135	7318	7318	U Turn		0	0	0	-1
7318-7135-7892	7135	7318	7892	NBL		-1	0	0	0
7892-7135-6035	7135	7892	6035	EBT		-1	127	0	0
7892-7135-7132	7135	7892	7132	EBL		-1	10	0	0
7892-7135-7318	7135	7892	7318	EBR		-1	16	0	0
7892-7135-7892	7135	7892	7892	U Turn		0	0	0	-1
6037-7136-6037	7136	6037	6037	U Turn		0	0	0	-1
6037-7136-7493	7136	6037	7493	EBR		-1	76	0	0
6037-7136-8149	7136	6037	8149	EBL		-1	174	0	0
7493-7136-6037	7136	7493	6037	NBL		-1	331	0	0
7493-7136-7493	7136	7493	7493	U Turn		0	0	0	-1
7493-7136-8149	7136	7493	8149	NBT		-1	477	0	0
8149-7136-6037	7136	8149	6037	SBR		-1	159	0	0
8149-7136-7493	7136	8149	7493	SBT		-1	213	0	0
8149-7136-8149	7136	8149	8149	U Turn		0	0	0	-1
6916-7138-6916	7138	6916	6916	U Turn		0	0	0	-1
6916-7138-7140	7138	6916	7140	SBL		-1	9	0	0
6916-7138-7682	7138	6916	7682	SBT		-1	117	0	0
7140-7138-6916	7138	7140	6916	WBR		-1	32	0	0
7140-7138-7140	7138	7140	7140	U Turn		0	0	0	-1
7140-7138-7682	7138	7140	7682	WBL		-1	23	0	0
7682-7138-6916	7138	7682	6916	NBT		-1	137	0	0

Emme Scenario 1400 - 2014 Base Scneario

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7682-7138-7140	7138	7682	7140	NBR		-1	172	0	0
7682-7138-7682	7138	7682	7682	U Turn		0	0	0	-1
7559-7397-7559	7397	7559	7559	U Turn		0	0	0	-1
7559-7397-7683	7397	7559	7683	NBR		-1	249	0	0
7559-7397-7835	7397	7559	7835	NBT		-1	836	0	0
7683-7397-7559	7397	7683	7559	WBL		-1	155	0	0
7683-7397-7683	7397	7683	7683	U Turn		0	0	0	-1
7683-7397-7835	7397	7683	7835	WBR		-1	242	0	0
7835-7397-7559	7397	7835	7559	SBT		-1	474	0	0
7835-7397-7683	7397	7835	7683	SBL		-1	169	0	0
7835-7397-7835	7397	7835	7835	U Turn		0	0	0	-1
6175-7475-6175	7475	6175	6175	U Turn		0	0	0	-1
6175-7475-7474	7475	6175	7474	WBL	West side of divided intersection, SB traffic only	-1	0	0	0
6175-7475-8106	7475	6175	8106	WBT		-1	402	0	0
8104-7475-6175	7475	8104	6175	SBL		-1	77	0	0
8104-7475-7474	7475	8104	7474	SBT		-1	894	0	0
8104-7475-8106	7475	8104	8106	SBR		-1	173	0	0
8106-7475-6175	7475	8106	6175	EBT		-1	316	0	0
8106-7475-7474	7475	8106	7474	EBR		-1	84	0	0
8106-7475-8106	7475	8106	8106	U Turn		0	0	0	-1
5008-7479-5008	7479	5008	5008	U Turn		0	0	0	-1
5008-7479-6458	7479	5008	6458	EBT	West side of divided intersection, SB traffic only	-1	66	0	0
5008-7479-7551	7479	5008	7551	EBR		-1	0	0	0
6458-7479-5008	7479	6458	5008	WBT		-1	0	0	0
6458-7479-6458	7479	6458	6458	U Turn		0	0	0	-1
6458-7479-7551	7479	6458	7551	WBL		-1	6	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8231-7479-5008	7479	8231	5008	SBR		-1	45	0	0
8231-7479-6458	7479	8231	6458	SBL		-1	3	0	0
8231-7479-7551	7479	8231	7551	SBT		-1	972	0	0
7434-7514-7434	7514	7434	7434	U Turn		0	0	0	-1
7434-7514-7476	7514	7434	7476	WBL		-1	233	0	0
7434-7514-7500	7514	7434	7500	WBR		-1	15	0	0
7434-7514-7633	7514	7434	7633	WBT		-1	36	0	0
7476-7514-7434	7514	7476	7434	NBR		-1	321	0	0
7476-7514-7476	7514	7476	7476	U Turn		0	0	0	-1
7476-7514-7500	7514	7476	7500	NBT		-1	724	0	0
7476-7514-7633	7514	7476	7633	NBL		-1	44	0	0
7500-7514-7434	7514	7500	7434	SBL		-1	9	0	0
7500-7514-7476	7514	7500	7476	SBT		-1	324	0	0
7500-7514-7500	7514	7500	7500	U Turn		0	0	0	-1
7500-7514-7633	7514	7500	7633	SBR		-1	6	0	0
7633-7514-7434	7514	7633	7434	EBT		-1	32	0	0
7633-7514-7476	7514	7633	7476	EBR		-1	44	0	0
7633-7514-7500	7514	7633	7500	EBL		-1	1	0	0
7633-7514-7633	7514	7633	7633	U Turn		0	0	0	-1
7219-7532-7219	7532	7219	7219	U Turn		0	0	0	-1
7219-7532-7499	7532	7219	7499	SBL		-1	41	0	0
7219-7532-7583	7532	7219	7583	SBR		-1	145	0	0
7219-7532-7586	7532	7219	7586	SBT		-1	0	0	0
7499-7532-7219	7532	7499	7219	WBR		-1	205	0	0
7499-7532-7499	7532	7499	7499	U Turn		0	0	0	-1
7499-7532-7583	7532	7499	7583	WBT		-1	103	0	0
7499-7532-7586	7532	7499	7586	WBL		-1	0	0	0
7583-7532-7219	7532	7583	7219	EBL		1	79	0	1

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7583-7532-7499	7532	7583	7499	EBT		-1	77	0	0
7583-7532-7583	7532	7583	7583	U Turn		0	0	0	-1
7583-7532-7586	7532	7583	7586	EBR		-1	0	0	0
7586-7532-7219	7532	7586	7219	NBT		-1	0	0	0
7586-7532-7499	7532	7586	7499	NBR		-1	0	0	0
7586-7532-7583	7532	7586	7583	NBL		-1	0	0	0
7586-7532-7586	7532	7586	7586	U Turn		0	0	0	-1
7592-7590-7592	7590	7592	7592	U Turn	West side of divided intersection, SB traffic only	0	0	0	-1
7592-7590-7747	7590	7592	7747	EBT		-1	0	0	0
7592-7590-8231	7590	7592	8231	EBR		-1	1	0	0
7747-7590-7592	7590	7747	7592	WBT		-1	0	0	0
7747-7590-7747	7590	7747	7747	U Turn		0	0	0	-1
7747-7590-8231	7590	7747	8231	WBL		-1	244	0	0
8099-7590-7592	7590	8099	7592	SBR		-1	0	0	0
8099-7590-7747	7590	8099	7747	SBL		-1	59	0	0
8099-7590-8231	7590	8099	8231	SBT		-1	764	0	0
7397-7683-7397	7683	7397	7397	U Turn		0	0	0	-1
7397-7683-7682	7683	7397	7682	EBL		-1	265	0	0
7397-7683-10501	7683	7397	10501	EBT		-1	152	0	0
7682-7683-7397	7683	7682	7397	SBR		-1	154	0	0
7682-7683-7682	7683	7682	7682	U Turn		0	0	0	-1
7682-7683-10501	7683	7682	10501	SBL		-1	4	0	0
10501-7683-7397	7683	10501	7397	WBT		-1	242	0	0
10501-7683-7682	7683	10501	7682	WBR		-1	5	0	0
10501-7683-10501	7683	10501	10501	U Turn		0	0	0	-1
7590-7747-7590	7747	7590	7590	U Turn	East side of divided intersection, NB traffic only	0	0	0	-1

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7590-7747-8102	7747	7590	8102	EBL		-1	0	0	0
7590-7747-8238	7747	7590	8238	EBT		-1	59	0	0
8238-7747-7590	7747	8238	7590	WBT		-1	244	0	0
8238-7747-8102	7747	8238	8102	WBR		-1	21	0	0
8238-7747-8238	7747	8238	8238	U Turn		0	0	0	-1
8239-7747-7590	7747	8239	7590	NBL		-1	0	0	0
8239-7747-8102	7747	8239	8102	NBT		-1	858	0	0
8239-7747-8238	7747	8239	8238	NBR		-1	0	0	0
6653-8217-6653	8217	6653	6653	U Turn		0	0	0	-1
6653-8217-6819	8217	6653	6819	NBR		-1	279	0	0
6653-8217-7301	8217	6653	7301	NBL		-1	178	0	0
6819-8217-6653	8217	6819	6653	WBL		-1	67	0	0
6819-8217-6819	8217	6819	6819	U Turn		0	0	0	-1
6819-8217-7301	8217	6819	7301	WBT		-1	861	0	0
7301-8217-6653	8217	7301	6653	EBR		-1	32	0	0
7301-8217-6819	8217	7301	6819	EBT		-1	786	0	0
7301-8217-7301	8217	7301	7301	U Turn		0	0	0	-1
7067-8227-7067	8227	7067	7067	U Turn		0	0	0	-1
7067-8227-7302	8227	7067	7302	EBR		-1	2	0	0
7067-8227-7448	8227	7067	7448	EBL		-1	4	0	0
7067-8227-8092	8227	7067	8092	EBT		-1	0	0	0
7302-8227-7067	8227	7302	7067	NBL		-1	0	0	0
7302-8227-7302	8227	7302	7302	U Turn		0	0	0	-1
7302-8227-7448	8227	7302	7448	NBT		-1	431	0	0
7302-8227-8092	8227	7302	8092	NBR		-1	309	0	0
7448-8227-7067	8227	7448	7067	SBR		-1	0	0	0
7448-8227-7302	8227	7448	7302	SBT		-1	263	0	0
7448-8227-7448	8227	7448	7448	U Turn		0	0	0	-1

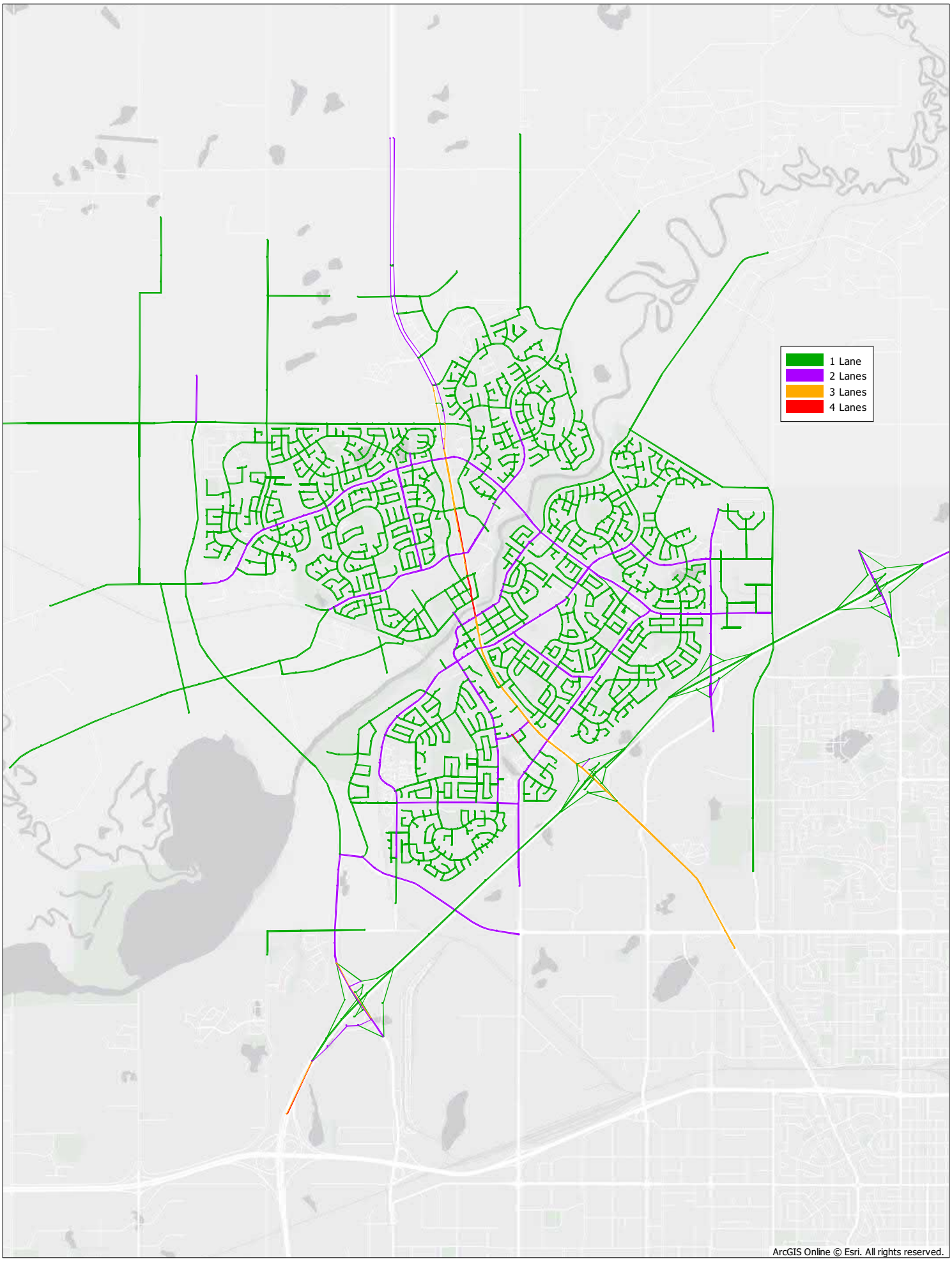
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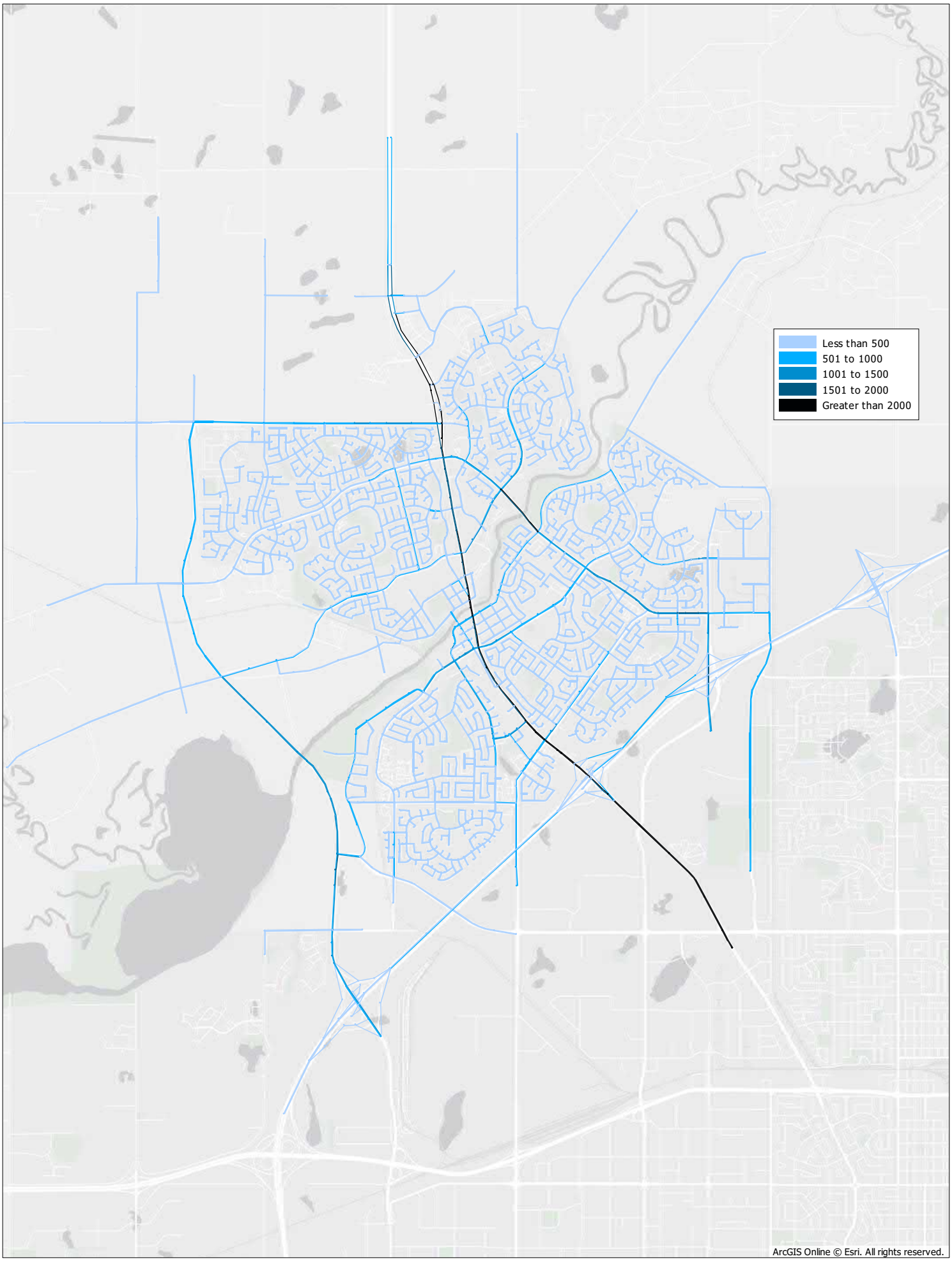
Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7448-8227-8092	8227	7448	8092	SBL		-1	5	0	0
8092-8227-7067	8227	8092	7067	WBT		-1	0	0	0
8092-8227-7302	8227	8092	7302	WBL		-1	74	0	0
8092-8227-7448	8227	8092	7448	WBR		-1	3	0	0
8092-8227-8092	8227	8092	8092	U Turn		0	0	0	-1
7510-8228-7510	8228	7510	7510	U Turn		0	0	0	-1
7510-8228-7675	8228	7510	7675	NBR		-1	339	0	0
7510-8228-8096	8228	7510	8096	NBL		-1	91	0	0
7510-8228-8229	8228	7510	8229	NBT		-1	0	0	0
7675-8228-7510	8228	7675	7510	WBL		-1	164	0	0
7675-8228-7675	8228	7675	7675	U Turn		0	0	0	-1
7675-8228-8096	8228	7675	8096	WBT		-1	131	0	0
7675-8228-8229	8228	7675	8229	WBR		-1	0	0	0
8096-8228-7510	8228	8096	7510	EBR		-1	98	0	0
8096-8228-7675	8228	8096	7675	EBT		-1	72	0	0
8096-8228-8096	8228	8096	8096	U Turn		0	0	0	-1
8096-8228-8229	8228	8096	8229	EBL		-1	0	0	0
8229-8228-7510	8228	8229	7510	SBT		-1	0	0	0
8229-8228-7675	8228	8229	7675	SBL		-1	0	0	0
8229-8228-8096	8228	8229	8096	SBR		-1	0	0	0
8229-8228-8229	8228	8229	8229	U Turn		0	0	0	-1
5034-8231-5034	8231	5034	5034	U Turn		0	0	0	-1
5034-8231-7479	8231	5034	7479	EBR	West side of divided intersection, SB traffic only	-1	0	0	0
5034-8231-8232	8231	5034	8232	EBT	St Albert Trail is NB/SB	-1	0	0	0
7590-8231-5034	8231	7590	5034	SBR		-1	0	0	0
7590-8231-7479	8231	7590	7479	SBT		-1	1005	0	0
7590-8231-8232	8231	7590	8232	SBL		-1	4	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8232-8231-5034	8231	8232	5034	WBT		-1	0	0	0
8232-8231-7479	8231	8232	7479	WBL		-1	15	0	0
8232-8231-8232	8231	8232	8232	U Turn		0	0	0	-1
6458-8232-8231	8232	6458	8231	NBL	East side of divided intersection, NB traffic only	-1	0	0	0
6458-8232-8234	8232	6458	8234	NBR	St Albert Trail is NB/SB	-1	0	0	0
6458-8232-8239	8232	6458	8239	NBT		-1	1223	0	0
8231-8232-8231	8232	8231	8231	U Turn		0	0	0	-1
8231-8232-8234	8232	8231	8234	EBT		-1	4	0	0
8231-8232-8239	8232	8231	8239	EBL		-1	0	0	0
8234-8232-8231	8232	8234	8231	WBT		-1	15	0	0
8234-8232-8234	8232	8234	8234	U Turn		0	0	0	-1
8234-8232-8239	8232	8234	8239	WBR		-1	0	0	0

Scenario 2400 – 2024 Do Nothing Scenario


1 Lane
2 Lanes
3 Lanes
4 Lanes
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Less than 500
501 to 1000
1001 to 1500
1501 to 2000
Greater than 2000
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Emme Scenario 2400 - 2024 Do Nothing Scneario

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6033-6035-6033	6035	6033	6033	U Turn		0	0	0	-1
6033-6035-6036	6035	6033	6036	WBR		-1	28	0	0
6033-6035-7135	6035	6033	7135	WBT		-1	57	0	0
6033-6035-7144	6035	6033	7144	WBL		-1	124	0	0
6036-6035-6033	6035	6036	6033	SBL		-1	7	0	0
6036-6035-6036	6035	6036	6036	U Turn		0	0	0	-1
6036-6035-7135	6035	6036	7135	SBR		-1	1	0	0
6036-6035-7144	6035	6036	7144	SBT		-1	42	0	0
7135-6035-6033	6035	7135	6033	EBT		-1	105	0	0
7135-6035-6036	6035	7135	6036	EBL		-1	2	0	0
7135-6035-7135	6035	7135	7135	U Turn		0	0	0	-1
7135-6035-7144	6035	7135	7144	EBR		-1	45	0	0
7144-6035-6033	6035	7144	6033	NBR		-1	136	0	0
7144-6035-6036	6035	7144	6036	NBT		-1	36	0	0
7144-6035-7135	6035	7144	7135	NBL		-1	4	0	0
7144-6035-7144	6035	7144	7144	U Turn		0	0	0	-1
6033-6037-6033	6037	6033	6033	U Turn		0	0	0	-1
6033-6037-6038	6037	6033	6038	EBL		-1	0	0	0
6033-6037-7136	6037	6033	7136	EBT		-1	120	0	0
6033-6037-7141	6037	6033	7141	EBR		-1	0	0	0
6038-6037-6033	6037	6038	6033	SBR		-1	35	0	0
6038-6037-6038	6037	6038	6038	U Turn		0	0	0	-1
6038-6037-7136	6037	6038	7136	SBL		-1	176	0	0
6038-6037-7141	6037	6038	7141	SBT		-1	92	0	0
7136-6037-6033	6037	7136	6033	WBT		-1	286	0	0
7136-6037-6038	6037	7136	6038	WBR		-1	330	0	0
7136-6037-7136	6037	7136	7136	U Turn		0	0	0	-1
7136-6037-7141	6037	7136	7141	WBL		-1	215	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7141-6037-6033	6037	7141	6033	NBL		-1	0	0	0
7141-6037-6038	6037	7141	6038	NBT		-1	45	0	0
7141-6037-7136	6037	7141	7136	NBR		-1	28	0	0
7141-6037-7141	6037	7141	7141	U Turn		0	0	0	-1
6141-6142-6141	6142	6141	6141	U Turn		0	0	0	-1
6141-6142-6722	6142	6141	6722	NBR	Sir Winston Churchill is NB/SB	-1	521	0	0
6141-6142-7861	6142	6141	7861	NBT		-1	713	0	0
6141-6142-8201	6142	6141	8201	NBL		1	63	0	0
6722-6142-6141	6142	6722	6141	WBL		-1	321	0	0
6722-6142-6722	6142	6722	6722	U Turn		0	0	0	-1
6722-6142-7861	6142	6722	7861	WBR		-1	314	0	0
6722-6142-8201	6142	6722	8201	WBT		-1	87	0	0
7861-6142-6141	6142	7861	6141	SBT		-1	1064	0	0
7861-6142-6722	6142	7861	6722	SBL		1	69	0	0
7861-6142-7861	6142	7861	7861	U Turn		0	0	0	-1
7861-6142-8201	6142	7861	8201	SBR		-1	0	0	0
8201-6142-6141	6142	8201	6141	EBR		-1	11	0	0
8201-6142-6722	6142	8201	6722	EBT		-1	604	0	0
8201-6142-7861	6142	8201	7861	EBL		-1	312	0	0
8201-6142-8201	6142	8201	8201	U Turn		0	0	0	-1
7475-6175-7475	6175	7475	7475	U Turn	East side of divided intersection, NB traffic only	0	0	0	-1
7475-6175-7502	6175	7475	7502	EBT		-1	120	0	0
7475-6175-8105	6175	7475	8105	EBL		-1	400	0	0
7502-6175-7475	6175	7502	7475	WBT		-1	77	0	0
7502-6175-7502	6175	7502	7502	U Turn		0	0	0	-1
7502-6175-8105	6175	7502	8105	WBR		-1	145	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7922-6175-7475	6175	7922	7475	NBL		-1	416	0	0
7922-6175-7502	6175	7922	7502	NBR		-1	91	0	0
7922-6175-8105	6175	7922	8105	NBT		-1	1734	0	0
7474-6176-7474	6176	7474	7474	U Turn		0	0	0	-1
7474-6176-7940	6176	7474	7940	SBR		-1	66	0	0
7474-6176-8172	6176	7474	8172	SBT		-1	1575	0	0
7474-6176-8223	6176	7474	8223	SBL		1	110	0	2
7940-6176-7474	6176	7940	7474	EBL		1	82	0	1
7940-6176-7940	6176	7940	7940	U Turn		0	0	0	-1
7940-6176-8172	6176	7940	8172	EBR		-1	9	0	0
7940-6176-8223	6176	7940	8223	EBT		-1	381	0	0
8172-6176-7474	6176	8172	7474	NBT		-1	1729	0	0
8172-6176-7940	6176	8172	7940	NBL		1	98	0	1
8172-6176-8172	6176	8172	8172	U Turn		0	0	0	-1
8172-6176-8223	6176	8172	8223	NBR		-1	57	0	0
8223-6176-7474	6176	8223	7474	WBR		-1	427	0	0
8223-6176-7940	6176	8223	7940	WBT		-1	498	0	0
8223-6176-8172	6176	8223	8172	WBL		1	86	0	1
8223-6176-8223	6176	8223	8223	U Turn		0	0	0	-1
7938-6348-7938	6348	7938	7938	U Turn		0	0	0	-1
7938-6348-7939	6348	7938	7939	SBL	Perron St is NB/SB	-1	9	0	0
7938-6348-8195	6348	7938	8195	SBR		-1	252	0	0
7938-6348-8197	6348	7938	8197	SBT		-1	238	0	0
7939-6348-7938	6348	7939	7938	WBR		-1	55	0	0
7939-6348-7939	6348	7939	7939	U Turn		0	0	0	-1
7939-6348-8195	6348	7939	8195	WBT		-1	692	0	0
7939-6348-8197	6348	7939	8197	WBL		1	62	0	0
8195-6348-7938	6348	8195	7938	EBL		1	103	0	2

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8195-6348-7939	6348	8195	7939	EBT		-1	810	0	0
8195-6348-8195	6348	8195	8195	U Turn		0	0	0	-1
8195-6348-8197	6348	8195	8197	EBR		-1	0	0	0
8197-6348-7938	6348	8197	7938	NBT		-1	580	0	0
8197-6348-7939	6348	8197	7939	NBR		-1	16	0	0
8197-6348-8195	6348	8197	8195	NBL		-1	0	0	0
8197-6348-8197	6348	8197	8197	U Turn		0	0	0	-1
6594-6349-6594	6349	6594	6594	U Turn		0	0	0	-1
6594-6349-7936	6349	6594	7936	WBR	St Albert Trail is NB/SB	-1	345	0	0
6594-6349-7939	6349	6594	7939	WBT		-1	207	0	0
6594-6349-10802	6349	6594	10802	WBL		1	74	0	1
7936-6349-6594	6349	7936	6594	SBL		1	99	0	1
7936-6349-7936	6349	7936	7936	U Turn		0	0	0	-1
7936-6349-7939	6349	7936	7939	SBR		-1	850	0	0
7936-6349-10802	6349	7936	10802	SBT		-1	1393	0	0
7939-6349-6594	6349	7939	6594	EBT		-1	662	0	0
7939-6349-7936	6349	7939	7936	EBL		1	130	0	4
7939-6349-7939	6349	7939	7939	U Turn		0	0	0	-1
7939-6349-10802	6349	7939	10802	EBR		-1	142	0	0
10802-6349-6594	6349	10802	6594	NBR		-1	137	0	0
10802-6349-7936	6349	10802	7936	NBT		-1	2913	0	0
10802-6349-7939	6349	10802	7939	NBL		1	97	0	1
10802-6349-10802	6349	10802	10802	U Turn		0	0	0	-1
6279-6386-6279	6386	6279	6279	U Turn		0	0	0	-1
6279-6386-6485	6386	6279	6485	WBL		-1	0	0	0
6279-6386-6769	6386	6279	6769	WBR		-1	376	0	0
6279-6386-7923	6386	6279	7923	WBT		-1	841	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6485-6386-6279	6386	6485	6279	NBR		-1	3	0	0
6485-6386-6485	6386	6485	6485	U Turn		0	0	0	-1
6485-6386-6769	6386	6485	6769	NBT		-1	143	0	0
6485-6386-7923	6386	6485	7923	NBL		-1	58	0	0
6769-6386-6279	6386	6769	6279	SBL		1	97	0	1
6769-6386-6485	6386	6769	6485	SBT		-1	15	0	0
6769-6386-6769	6386	6769	6769	U Turn		0	0	0	-1
6769-6386-7923	6386	6769	7923	SBR		-1	107	0	0
7923-6386-6279	6386	7923	6279	EBT		-1	570	0	0
7923-6386-6485	6386	7923	6485	EBR		-1	3	0	0
7923-6386-6769	6386	7923	6769	EBL		1	85	0	1
7923-6386-7923	6386	7923	7923	U Turn		0	0	0	-1
6193-6458-6193	6458	6193	6193	U Turn		0	0	0	-1
6193-6458-7479	6458	6193	7479	WBT	East side of divided intersection, NB traffic only	-1	15	0	0
6193-6458-8232	6458	6193	8232	WBR		-1	185	0	0
7479-6458-6193	6458	7479	6193	EBT		-1	91	0	0
7479-6458-7479	6458	7479	7479	U Turn		0	0	0	-1
7479-6458-8232	6458	7479	8232	EBL		-1	40	0	0
8103-6458-6193	6458	8103	6193	NBR		-1	4	0	0
8103-6458-7479	6458	8103	7479	NBL		-1	0	0	0
8103-6458-8232	6458	8103	8232	NBT		-1	2175	0	0
6356-6595-6356	6595	6356	6356	U Turn		0	0	0	-1
6356-6595-7554	6595	6356	7554	WBL		-1	245	0	0
6356-6595-8121	6595	6356	8121	WBR		-1	1	0	0
6356-6595-8220	6595	6356	8220	WBT		-1	639	0	0
7554-6595-6356	6595	7554	6356	NBR		-1	266	0	0
7554-6595-7554	6595	7554	7554	U Turn		0	0	0	-1

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7554-6595-8121	6595	7554	8121	NBT		-1	128	0	0
7554-6595-8220	6595	7554	8220	NBL		-1	1081	0	0
8121-6595-6356	6595	8121	6356	SBL		-1	0	0	0
8121-6595-7554	6595	8121	7554	SBT		-1	115	0	0
8121-6595-8121	6595	8121	8121	U Turn		0	0	0	-1
8121-6595-8220	6595	8121	8220	SBR		-1	41	0	0
8220-6595-6356	6595	8220	6356	EBT		-1	720	0	0
8220-6595-7554	6595	8220	7554	EBR		-1	345	0	0
8220-6595-8121	6595	8220	8121	EBL		-1	57	0	0
8220-6595-8220	6595	8220	8220	U Turn		0	0	0	-1
7286-6596-7286	6596	7286	7286	U Turn		0	0	0	-1
7286-6596-7822	6596	7286	7822	WBT		-1	633	0	0
7286-6596-7977	6596	7286	7977	WBL		1	0	0	0
7286-6596-8117	6596	7286	8117	WBR		-1	0	0	0
7822-6596-7286	6596	7822	7286	EBT		-1	157	0	0
7822-6596-7822	6596	7822	7822	U Turn		0	0	0	-1
7822-6596-7977	6596	7822	7977	EBR		-1	69	0	0
7822-6596-8117	6596	7822	8117	EBL		1	0	0	0
7977-6596-7286	6596	7977	7286	NBL		-1	41	0	0
7977-6596-7822	6596	7977	7822	NBR		1	102	0	2
7977-6596-7977	6596	7977	7977	U Turn		0	0	0	-1
7977-6596-8117	6596	7977	8117	NBT		-1	1	0	0
8117-6596-7286	6596	8117	7286	SBL		1	0	0	0
8117-6596-7822	6596	8117	7822	SBR		-1	309	0	0
8117-6596-7977	6596	8117	7977	SBT		-1	0	0	0
8117-6596-8117	6596	8117	8117	U Turn		0	0	0	-1
6427-6624-6427	6624	6427	6427	U Turn		0	0	0	-1
6427-6624-7675	6624	6427	7675	NBL		-1	2	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6427-6624-7875	6624	6427	7875	NBT		-1	0	0	0
6427-6624-7876	6624	6427	7876	NBR		-1	91	0	0
7675-6624-6427	6624	7675	6427	EBR		-1	7	0	0
7675-6624-7675	6624	7675	7675	U Turn		0	0	0	-1
7675-6624-7875	6624	7675	7875	EBL		-1	3	0	0
7675-6624-7876	6624	7675	7876	EBT		-1	808	0	0
7875-6624-6427	6624	7875	6427	SBT		-1	1	0	0
7875-6624-7675	6624	7875	7675	SBR		-1	3	0	0
7875-6624-7875	6624	7875	7875	U Turn		0	0	0	-1
7875-6624-7876	6624	7875	7876	SBL		-1	11	0	0
7876-6624-6427	6624	7876	6427	WBL		-1	361	0	0
7876-6624-7675	6624	7876	7675	WBT		-1	580	0	0
7876-6624-7875	6624	7876	7875	WBR		-1	16	0	0
7876-6624-7876	6624	7876	7876	U Turn		0	0	0	-1
7193-6744-7193	6744	7193	7193	U Turn		0	0	0	-1
7193-6744-7678	6744	7193	7678	EBR	St Albert Trail is NB/SB	-1	214	0	0
7193-6744-8135	6744	7193	8135	EBT		-1	393	0	0
7193-6744-8150	6744	7193	8150	EBL		1	72	0	0
7678-6744-7193	6744	7678	7193	NBL		1	133	0	4
7678-6744-7678	6744	7678	7678	U Turn		0	0	0	-1
7678-6744-8135	6744	7678	8135	NBR		-1	626	0	0
7678-6744-8150	6744	7678	8150	NBT		-1	2180	0	0
8135-6744-7193	6744	8135	7193	WBT		-1	407	0	0
8135-6744-7678	6744	8135	7678	WBL		1	76	0	1
8135-6744-8135	6744	8135	8135	U Turn		0	0	0	-1
8135-6744-8150	6744	8135	8150	WBR		-1	229	0	0
8150-6744-7193	6744	8150	7193	SBR		-1	61	0	0
8150-6744-7678	6744	8150	7678	SBT		-1	2052	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8150-6744-8135	6744	8150	8135	SBL		1	70	0	0
8150-6744-8150	6744	8150	8150	U Turn		0	0	0	-1
6091-6871-6091	6871	6091	6091	U Turn		0	0	0	-1
6091-6871-6279	6871	6091	6279	EBL	Boudreau Rd is NB/SB	-1	88	0	0
6091-6871-6697	6871	6091	6697	EBT		-1	736	0	0
6091-6871-7129	6871	6091	7129	EBR		-1	420	0	0
6279-6871-6091	6871	6279	6091	SBR		-1	28	0	0
6279-6871-6279	6871	6279	6279	U Turn		0	0	0	-1
6279-6871-6697	6871	6279	6697	SBL		-1	63	0	0
6279-6871-7129	6871	6279	7129	SBT		-1	630	0	0
6697-6871-6091	6871	6697	6091	WBT		-1	195	0	0
6697-6871-6279	6871	6697	6279	WBR		-1	17	0	0
6697-6871-6697	6871	6697	6697	U Turn		0	0	0	-1
6697-6871-7129	6871	6697	7129	WBL		-1	554	0	0
7129-6871-6091	6871	7129	6091	NBL		-1	440	0	0
7129-6871-6279	6871	7129	6279	NBT		-1	1264	0	0
7129-6871-6697	6871	7129	6697	NBR		-1	585	0	0
7129-6871-7129	6871	7129	7129	U Turn		0	0	0	-1
6021-6894-6021	6894	6021	6021	U Turn		0	0	0	-1
6021-6894-6893	6894	6021	6893	SBT	Perron St is NB/SB	-1	12	0	0
6021-6894-8221	6894	6021	8221	SBL		-1	73	0	0
6021-6894-9910	6894	6021	9910	SBR		-1	199	0	0
6893-6894-6021	6894	6893	6021	NBT		-1	66	0	0
6893-6894-6893	6894	6893	6893	U Turn		0	0	0	-1
6893-6894-8221	6894	6893	8221	NBR		-1	2	0	0
6893-6894-9910	6894	6893	9910	NBL		-1	82	0	0
8221-6894-6021	6894	8221	6021	WBR		-1	171	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8221-6894-6893	6894	8221	6893	WBL		-1	0	0	0
8221-6894-8221	6894	8221	8221	U Turn		0	0	0	-1
8221-6894-9910	6894	8221	9910	WBT		-1	853	0	0
9910-6894-6021	6894	9910	6021	EBL		-1	331	0	0
9910-6894-6893	6894	9910	6893	EBR		-1	286	0	0
9910-6894-8221	6894	9910	8221	EBT		-1	680	0	0
9910-6894-9910	6894	9910	9910	U Turn		0	0	0	-1
7756-6921-7756	6921	7756	7756	U Turn		0	0	0	-1
7756-6921-7766	6921	7756	7766	NBR		-1	788	0	0
7756-6921-7964	6921	7756	7964	NBT		-1	1937	0	0
7756-6921-7967	6921	7756	7967	NBL		1	107	0	2
7766-6921-7756	6921	7766	7756	WBL		1	90	0	1
7766-6921-7766	6921	7766	7766	U Turn		0	0	0	-1
7766-6921-7964	6921	7766	7964	WBR		-1	37	0	0
7766-6921-7967	6921	7766	7967	WBT		-1	325	0	0
7964-6921-7756	6921	7964	7756	SBT		-1	1511	0	0
7964-6921-7766	6921	7964	7766	SBL		1	9	0	0
7964-6921-7964	6921	7964	7964	U Turn		0	0	0	-1
7964-6921-7967	6921	7964	7967	SBR		-1	16	0	0
7967-6921-7756	6921	7967	7756	EBR		-1	198	0	0
7967-6921-7766	6921	7967	7766	EBT		-1	265	0	0
7967-6921-7964	6921	7967	7964	EBL		1	55	0	0
7967-6921-7967	6921	7967	7967	U Turn		0	0	0	-1
7151-6922-7151	6922	7151	7151	U Turn		0	0	0	-1
7151-6922-7756	6922	7151	7756	NBT		-1	2918	0	0
7151-6922-7759	6922	7151	7759	NBL		1	111	0	2
7151-6922-10408	6922	7151	10408	NBR		-1	0	0	0
7756-6922-7151	6922	7756	7151	SBT		-1	1763	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7756-6922-7756	6922	7756	7756	U Turn		0	0	0	-1
7756-6922-7759	6922	7756	7759	SBR		-1	52	0	0
7756-6922-10408	6922	7756	10408	SBL		1	0	0	0
7759-6922-7151	6922	7759	7151	EBR		-1	0	0	0
7759-6922-7756	6922	7759	7756	EBL		-1	5	0	0
7759-6922-7759	6922	7759	7759	U Turn		0	0	0	-1
7759-6922-10408	6922	7759	10408	EBT		-1	0	0	0
10408-6922-7151	6922	10408	7151	WBL		-1	157	0	0
10408-6922-7756	6922	10408	7756	EBR		-1	0	0	0
10408-6922-7759	6922	10408	7759	EBT		-1	127	0	0
10408-6922-10408	6922	10408	10408	U Turn		0	0	0	-1
6926-6927-6926	6927	6926	6926	U Turn		0	0	0	-1
6926-6927-6952	6927	6926	6952	NBT	Boudreau Rd is NB/SB	-1	835	0	0
6926-6927-7073	6927	6926	7073	NBL		-1	539	0	0
6926-6927-8066	6927	6926	8066	NBR		-1	0	0	0
6952-6927-6926	6927	6952	6926	SBT		-1	707	0	0
6952-6927-6952	6927	6952	6952	U Turn		0	0	0	-1
6952-6927-7073	6927	6952	7073	SBR		-1	16	0	0
6952-6927-8066	6927	6952	8066	SBL		-1	229	0	0
7073-6927-6926	6927	7073	6926	EBR		-1	512	0	0
7073-6927-6952	6927	7073	6952	EBL		-1	27	0	0
7073-6927-7073	6927	7073	7073	U Turn		0	0	0	-1
7073-6927-8066	6927	7073	8066	EBT		-1	149	0	0
8066-6927-6926	6927	8066	6926	WBL		-1	24	0	0
8066-6927-6952	6927	8066	6952	WBR		-1	256	0	0
8066-6927-7073	6927	8066	7073	WBT		-1	254	0	0
8066-6927-8066	6927	8066	8066	U Turn		0	0	0	-1
6467-7121-6467	7121	6467	6467	U Turn		0	0	0	-1

Emme Scenario 2400 - 2024 Do Nothing Scneario

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6467-7121-6946	7121	6467	6946	SBR		-1	78	0	0
6467-7121-7119	7121	6467	7119	SBL		-1	28	0	0
6946-7121-6467	7121	6946	6467	EBL		-1	1	0	0
6946-7121-6946	7121	6946	6946	U Turn		0	0	0	-1
6946-7121-7119	7121	6946	7119	EBT		-1	98	0	0
7119-7121-6467	7121	7119	6467	WBR		-1	59	0	0
7119-7121-6946	7121	7119	6946	WBT		-1	160	0	0
7119-7121-7119	7121	7119	7119	U Turn		0	0	0	-1
6394-7129-6394	7129	6394	6394	U Turn		0	0	0	-1
6394-7129-6549	7129	6394	6549	EBR	Boudreau Rd is NB/SB	-1	11	0	0
6394-7129-6785	7129	6394	6785	EBT		-1	35	0	0
6394-7129-6871	7129	6394	6871	EBL		-1	518	0	0
6549-7129-6394	7129	6549	6394	NBL		-1	89	0	0
6549-7129-6549	7129	6549	6549	U Turn		0	0	0	-1
6549-7129-6785	7129	6549	6785	NBR		-1	0	0	0
6549-7129-6871	7129	6549	6871	NBT		-1	1156	0	0
6785-7129-6394	7129	6785	6394	WBT		-1	26	0	0
6785-7129-6549	7129	6785	6549	WBL		-1	0	0	0
6785-7129-6785	7129	6785	6785	U Turn		0	0	0	-1
6785-7129-6871	7129	6785	6871	WBR		-1	615	0	0
6871-7129-6394	7129	6871	6394	SBR		-1	229	0	0
6871-7129-6549	7129	6871	6549	SBT		-1	973	0	0
6871-7129-6785	7129	6871	6785	SBL		-1	403	0	0
6871-7129-6871	7129	6871	6871	U Turn		0	0	0	-1
6035-7135-6035	7135	6035	6035	U Turn		0	0	0	-1
6035-7135-7132	7135	6035	7132	WBR		-1	1	0	0
6035-7135-7318	7135	6035	7318	WBL		-1	0	0	0
6035-7135-7892	7135	6035	7892	WBT		-1	60	0	0

Emme Scenario 2400 - 2024 Do Nothing Scneario

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7132-7135-6035	7135	7132	6035	SBL		-1	0	0	0
7132-7135-7132	7135	7132	7132	U Turn		0	0	0	-1
7132-7135-7318	7135	7132	7318	SBT		-1	265	0	0
7132-7135-7892	7135	7132	7892	SBR		-1	11	0	0
7318-7135-6035	7135	7318	6035	NBR		-1	43	0	0
7318-7135-7132	7135	7318	7132	NBT		-1	306	0	0
7318-7135-7318	7135	7318	7318	U Turn		0	0	0	-1
7318-7135-7892	7135	7318	7892	NBL		-1	4	0	0
7892-7135-6035	7135	7892	6035	EBT		-1	109	0	0
7892-7135-7132	7135	7892	7132	EBL		-1	141	0	0
7892-7135-7318	7135	7892	7318	EBR		-1	18	0	0
7892-7135-7892	7135	7892	7892	U Turn		0	0	0	-1
6037-7136-6037	7136	6037	6037	U Turn		0	0	0	-1
6037-7136-7493	7136	6037	7493	EBR		-1	182	0	0
6037-7136-8149	7136	6037	8149	EBL		-1	142	0	0
7493-7136-6037	7136	7493	6037	NBL		-1	574	0	0
7493-7136-7493	7136	7493	7493	U Turn		0	0	0	-1
7493-7136-8149	7136	7493	8149	NBT		-1	392	0	0
8149-7136-6037	7136	8149	6037	SBR		-1	258	0	0
8149-7136-7493	7136	8149	7493	SBT		-1	147	0	0
8149-7136-8149	7136	8149	8149	U Turn		0	0	0	-1
6916-7138-6916	7138	6916	6916	U Turn		0	0	0	-1
6916-7138-7140	7138	6916	7140	SBL		-1	34	0	0
6916-7138-7682	7138	6916	7682	SBT		-1	551	0	0
7140-7138-6916	7138	7140	6916	WBR		-1	24	0	0
7140-7138-7140	7138	7140	7140	U Turn		0	0	0	-1
7140-7138-7682	7138	7140	7682	WBL		-1	52	0	0
7682-7138-6916	7138	7682	6916	NBT		-1	396	0	0

Emme Scenario 2400 - 2024 Do Nothing Scneario

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7682-7138-7140	7138	7682	7140	NBR		-1	263	0	0
7682-7138-7682	7138	7682	7682	U Turn		0	0	0	-1
7559-7397-7559	7397	7559	7559	U Turn		0	0	0	-1
7559-7397-7683	7397	7559	7683	NBR		-1	615	0	0
7559-7397-7835	7397	7559	7835	NBT		-1	974	0	0
7683-7397-7559	7397	7683	7559	WBL		-1	313	0	0
7683-7397-7683	7397	7683	7683	U Turn		0	0	0	-1
7683-7397-7835	7397	7683	7835	WBR		-1	355	0	0
7835-7397-7559	7397	7835	7559	SBT		-1	593	0	0
7835-7397-7683	7397	7835	7683	SBL		-1	533	0	0
7835-7397-7835	7397	7835	7835	U Turn		0	0	0	-1
6175-7475-6175	7475	6175	6175	U Turn		0	0	0	-1
6175-7475-7474	7475	6175	7474	WBL	West side of divided intersection, SB traffic only	-1	1	0	0
6175-7475-8106	7475	6175	8106	WBT		-1	493	0	0
8104-7475-6175	7475	8104	6175	SBL		-1	15	0	0
8104-7475-7474	7475	8104	7474	SBT		-1	1665	0	0
8104-7475-8106	7475	8104	8106	SBR		-1	599	0	0
8106-7475-6175	7475	8106	6175	EBT		-1	505	0	0
8106-7475-7474	7475	8106	7474	EBR		-1	111	0	0
8106-7475-8106	7475	8106	8106	U Turn		0	0	0	-1
5008-7479-5008	7479	5008	5008	U Turn		0	0	0	-1
5008-7479-6458	7479	5008	6458	EBT	West side of divided intersection, SB traffic only	-1	61	0	0
5008-7479-7551	7479	5008	7551	EBR		-1	0	0	0
6458-7479-5008	7479	6458	5008	WBT		-1	0	0	0
6458-7479-6458	7479	6458	6458	U Turn		0	0	0	-1
6458-7479-7551	7479	6458	7551	WBL		-1	15	0	0

Emme Scenario 2400 - 2024 Do Nothing Scneario

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8231-7479-5008	7479	8231	5008	SBR		-1	25	0	0
8231-7479-6458	7479	8231	6458	SBL		-1	70	0	0
8231-7479-7551	7479	8231	7551	SBT		-1	2050	0	0
7434-7514-7434	7514	7434	7434	U Turn		0	0	0	-1
7434-7514-7476	7514	7434	7476	WBL		-1	296	0	0
7434-7514-7500	7514	7434	7500	WBR		-1	149	0	0
7434-7514-7633	7514	7434	7633	WBT		-1	52	0	0
7476-7514-7434	7514	7476	7434	NBR		-1	644	0	0
7476-7514-7476	7514	7476	7476	U Turn		0	0	0	-1
7476-7514-7500	7514	7476	7500	NBT		-1	697	0	0
7476-7514-7633	7514	7476	7633	NBL		-1	38	0	0
7500-7514-7434	7514	7500	7434	SBL		-1	174	0	0
7500-7514-7476	7514	7500	7476	SBT		-1	713	0	0
7500-7514-7500	7514	7500	7500	U Turn		0	0	0	-1
7500-7514-7633	7514	7500	7633	SBR		-1	0	0	0
7633-7514-7434	7514	7633	7434	EBT		-1	60	0	0
7633-7514-7476	7514	7633	7476	EBR		-1	18	0	0
7633-7514-7500	7514	7633	7500	EBL		-1	1	0	0
7633-7514-7633	7514	7633	7633	U Turn		0	0	0	-1
7219-7532-7219	7532	7219	7219	U Turn		0	0	0	-1
7219-7532-7499	7532	7219	7499	SBL		-1	42	0	0
7219-7532-7583	7532	7219	7583	SBR		-1	271	0	0
7219-7532-7586	7532	7219	7586	SBT		-1	14	0	0
7499-7532-7219	7532	7499	7219	WBR		-1	305	0	0
7499-7532-7499	7532	7499	7499	U Turn		0	0	0	-1
7499-7532-7583	7532	7499	7583	WBT		-1	63	0	0
7499-7532-7586	7532	7499	7586	WBL		-1	0	0	0
7583-7532-7219	7532	7583	7219	EBL		1	109	0	2

Emme Scenario 2400 - 2024 Do Nothing Scneario

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7583-7532-7499	7532	7583	7499	EBT		-1	88	0	0
7583-7532-7583	7532	7583	7583	U Turn		0	0	0	-1
7583-7532-7586	7532	7583	7586	EBR		-1	0	0	0
7586-7532-7219	7532	7586	7219	NBT		-1	159	0	0
7586-7532-7499	7532	7586	7499	NBR		-1	2	0	0
7586-7532-7583	7532	7586	7583	NBL		-1	24	0	0
7586-7532-7586	7532	7586	7586	U Turn		0	0	0	-1
7592-7590-7592	7590	7592	7592	U Turn	West side of divided intersection, SB traffic only	0	0	0	-1
7592-7590-7747	7590	7592	7747	EBT		-1	68	0	0
7592-7590-8231	7590	7592	8231	EBR		-1	194	0	0
7747-7590-7592	7590	7747	7592	WBT		-1	1	0	0
7747-7590-7747	7590	7747	7747	U Turn		0	0	0	-1
7747-7590-8231	7590	7747	8231	WBL		-1	619	0	0
8099-7590-7592	7590	8099	7592	SBR		-1	0	0	0
8099-7590-7747	7590	8099	7747	SBL		-1	63	0	0
8099-7590-8231	7590	8099	8231	SBT		-1	1133	0	0
7397-7683-7397	7683	7397	7397	U Turn		0	0	0	-1
7397-7683-7682	7683	7397	7682	EBL		-1	955	0	0
7397-7683-10501	7683	7397	10501	EBT		-1	193	0	0
7682-7683-7397	7683	7682	7397	SBR		-1	334	0	0
7682-7683-7682	7683	7682	7682	U Turn		0	0	0	-1
7682-7683-10501	7683	7682	10501	SBL		-1	5	0	0
10501-7683-7397	7683	10501	7397	WBT		-1	334	0	0
10501-7683-7682	7683	10501	7682	WBR		-1	24	0	0
10501-7683-10501	7683	10501	10501	U Turn		0	0	0	-1
7590-7747-7590	7747	7590	7590	U Turn	East side of divided intersection, NB traffic only	0	0	0	-1

Emme Scenario 2400 - 2024 Do Nothing Scneario

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7590-7747-8102	7747	7590	8102	EBL		-1	49	0	0
7590-7747-8238	7747	7590	8238	EBT		-1	83	0	0
8238-7747-7590	7747	8238	7590	WBT		-1	619	0	0
8238-7747-8102	7747	8238	8102	WBR		-1	4	0	0
8238-7747-8238	7747	8238	8238	U Turn		0	0	0	-1
8239-7747-7590	7747	8239	7590	NBL		-1	1	0	0
8239-7747-8102	7747	8239	8102	NBT		-1	1491	0	0
8239-7747-8238	7747	8239	8238	NBR		-1	0	0	0
6653-8217-6653	8217	6653	6653	U Turn		0	0	0	-1
6653-8217-6819	8217	6653	6819	NBR		-1	181	0	0
6653-8217-7301	8217	6653	7301	NBL		-1	174	0	0
6819-8217-6653	8217	6819	6653	WBL		-1	27	0	0
6819-8217-6819	8217	6819	6819	U Turn		0	0	0	-1
6819-8217-7301	8217	6819	7301	WBT		-1	1251	0	0
7301-8217-6653	8217	7301	6653	EBR		-1	22	0	0
7301-8217-6819	8217	7301	6819	EBT		-1	1077	0	0
7301-8217-7301	8217	7301	7301	U Turn		0	0	0	-1
7067-8227-7067	8227	7067	7067	U Turn		0	0	0	-1
7067-8227-7302	8227	7067	7302	EBR		-1	172	0	0
7067-8227-7448	8227	7067	7448	EBL		-1	183	0	0
7067-8227-8092	8227	7067	8092	EBT		-1	54	0	0
7302-8227-7067	8227	7302	7067	NBL		-1	35	0	0
7302-8227-7302	8227	7302	7302	U Turn		0	0	0	-1
7302-8227-7448	8227	7302	7448	NBT		-1	415	0	0
7302-8227-8092	8227	7302	8092	NBR		-1	397	0	0
7448-8227-7067	8227	7448	7067	SBR		-1	26	0	0
7448-8227-7302	8227	7448	7302	SBT		-1	569	0	0
7448-8227-7448	8227	7448	7448	U Turn		0	0	0	-1

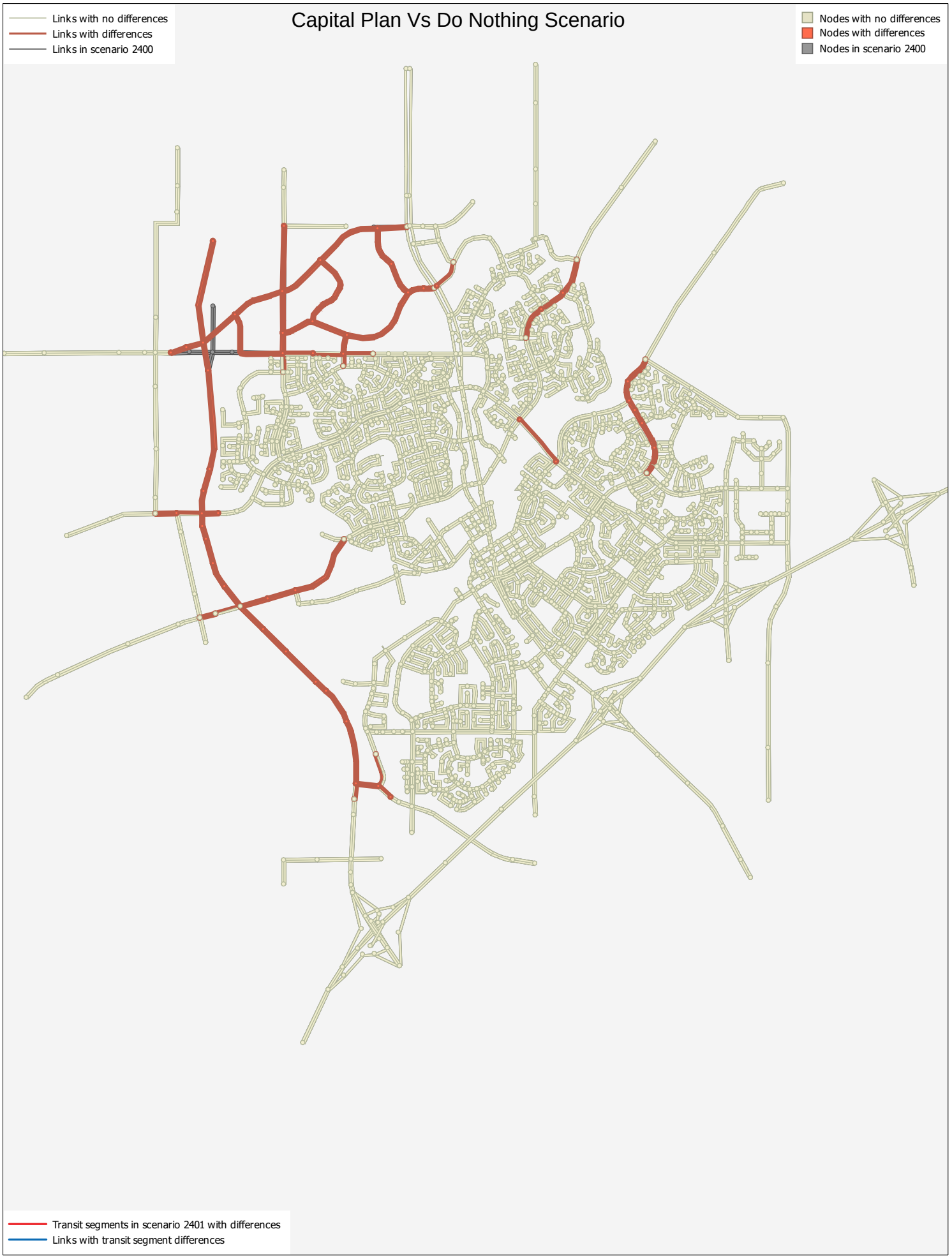
Emme Scenario 2400 - 2024 Do Nothing Scneario

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7448-8227-8092	8227	7448	8092	SBL		-1	10	0	0
8092-8227-7067	8227	8092	7067	WBT		-1	13	0	0
8092-8227-7302	8227	8092	7302	WBL		-1	146	0	0
8092-8227-7448	8227	8092	7448	WBR		-1	44	0	0
8092-8227-8092	8227	8092	8092	U Turn		0	0	0	-1
7510-8228-7510	8228	7510	7510	U Turn		0	0	0	-1
7510-8228-7675	8228	7510	7675	NBR		-1	485	0	0
7510-8228-8096	8228	7510	8096	NBL		-1	150	0	0
7510-8228-8229	8228	7510	8229	NBT		-1	0	0	0
7675-8228-7510	8228	7675	7510	WBL		-1	446	0	0
7675-8228-7675	8228	7675	7675	U Turn		0	0	0	-1
7675-8228-8096	8228	7675	8096	WBT		-1	140	0	0
7675-8228-8229	8228	7675	8229	WBR		-1	0	0	0
8096-8228-7510	8228	8096	7510	EBR		-1	153	0	0
8096-8228-7675	8228	8096	7675	EBT		-1	332	0	0
8096-8228-8096	8228	8096	8096	U Turn		0	0	0	-1
8096-8228-8229	8228	8096	8229	EBL		-1	0	0	0
8229-8228-7510	8228	8229	7510	SBT		-1	0	0	0
8229-8228-7675	8228	8229	7675	SBL		-1	0	0	0
8229-8228-8096	8228	8229	8096	SBR		-1	0	0	0
8229-8228-8229	8228	8229	8229	U Turn		0	0	0	-1
5034-8231-5034	8231	5034	5034	U Turn		0	0	0	-1
5034-8231-7479	8231	5034	7479	EBR	West side of divided intersection, SB traffic only	-1	74	0	0
5034-8231-8232	8231	5034	8232	EBT	St Albert Trail is NB/SB	-1	17	0	0
7590-8231-5034	8231	7590	5034	SBR		-1	16	0	0
7590-8231-7479	8231	7590	7479	SBT		-1	1874	0	0
7590-8231-8232	8231	7590	8232	SBL		-1	55	0	0

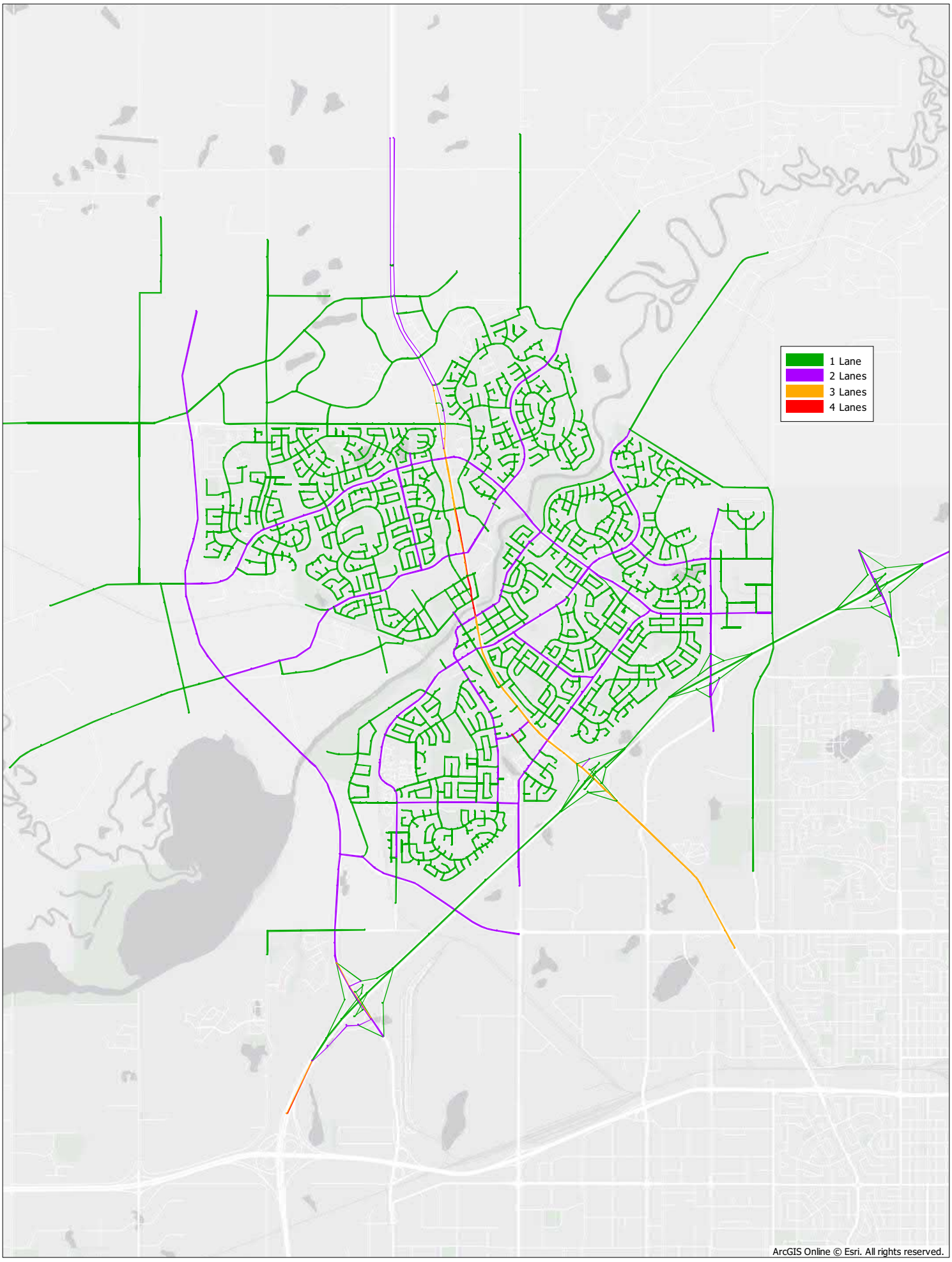
Emme Scenario 2400 - 2024 Do Nothing Scneario

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8232-8231-5034	8231	8232	5034	WBT		-1	116	0	0
8232-8231-7479	8231	8232	7479	WBL		-1	197	0	0
8232-8231-8232	8231	8232	8232	U Turn		0	0	0	-1
6458-8232-8231	8232	6458	8231	NBL	East side of divided intersection, NB traffic only	-1	110	0	0
6458-8232-8234	8232	6458	8234	NBR	St Albert Trail is NB/SB	-1	194	0	0
6458-8232-8239	8232	6458	8239	NBT		-1	2096	0	0
8231-8232-8231	8232	8231	8231	U Turn		0	0	0	-1
8231-8232-8234	8232	8231	8234	EBT		-1	63	0	0
8231-8232-8239	8232	8231	8239	EBL		-1	10	0	0
8234-8232-8231	8232	8234	8231	WBT		-1	203	0	0
8234-8232-8234	8232	8234	8234	U Turn		0	0	0	-1
8234-8232-8239	8232	8234	8239	WBR		-1	1	0	0

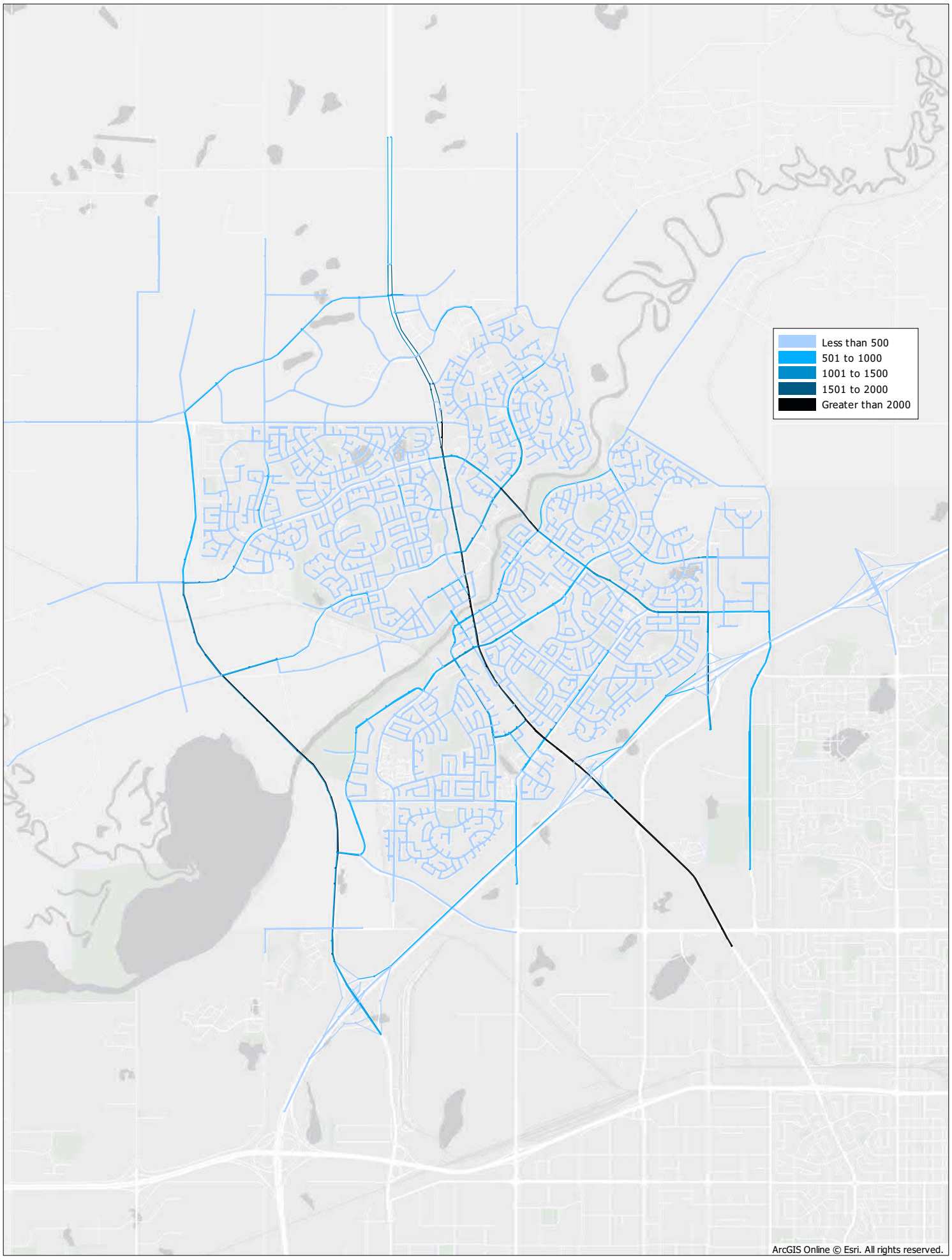
Scenario 2401 – 2024 Capital Plan Update


Capital Plan Vs Do Nothing Scenario
Links with no differences
Links with differences
Links in scenario 2400
Nodes with no differences
Nodes with differences
Nodes in scenario 2400
Transit segments in scenario 2401 with differences
Links with transit segment differences

Capital Plan - Lanes in Each Direction of Travel



Capital Plan - Volumes



Emme Scenario 2400 - 2024 Capital Plan Based on TMP

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6033-6035-6033	6035	6033	6033	U Turn		0	0	0	-1
6033-6035-6036	6035	6033	6036	WBR		-1	22	0	0
6033-6035-7135	6035	6033	7135	WBT		-1	65	0	0
6033-6035-7144	6035	6033	7144	WBL		-1	160	0	0
6036-6035-6033	6035	6036	6033	SBL		-1	5	0	0
6036-6035-6036	6035	6036	6036	U Turn		0	0	0	-1
6036-6035-7135	6035	6036	7135	SBR		-1	1	0	0
6036-6035-7144	6035	6036	7144	SBT		-1	42	0	0
7135-6035-6033	6035	7135	6033	EBT		-1	55	0	0
7135-6035-6036	6035	7135	6036	EBL		-1	2	0	0
7135-6035-7135	6035	7135	7135	U Turn		0	0	0	-1
7135-6035-7144	6035	7135	7144	EBR		-1	42	0	0
7144-6035-6033	6035	7144	6033	NBR		-1	103	0	0
7144-6035-6036	6035	7144	6036	NBT		-1	36	0	0
7144-6035-7135	6035	7144	7135	NBL		-1	4	0	0
7144-6035-7144	6035	7144	7144	U Turn		0	0	0	-1
6033-6037-6033	6037	6033	6033	U Turn		0	0	0	-1
6033-6037-6038	6037	6033	6038	EBL		-1	0	0	0
6033-6037-7136	6037	6033	7136	EBT		-1	110	0	0
6033-6037-7141	6037	6033	7141	EBR		-1	0	0	0
6038-6037-6033	6037	6038	6033	SBR		-1	50	0	0
6038-6037-6038	6037	6038	6038	U Turn		0	0	0	-1
6038-6037-7136	6037	6038	7136	SBL		-1	177	0	0
6038-6037-7141	6037	6038	7141	SBT		-1	85	0	0
7136-6037-6033	6037	7136	6033	WBT		-1	307	0	0
7136-6037-6038	6037	7136	6038	WBR		-1	329	0	0
7136-6037-7136	6037	7136	7136	U Turn		0	0	0	-1
7136-6037-7141	6037	7136	7141	WBL		-1	223	0	0

Emme Scenario 2400 - 2024 Capital Plan Based on TMP

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7141-6037-6033	6037	7141	6033	NBL		-1	0	0	0
7141-6037-6038	6037	7141	6038	NBT		-1	44	0	0
7141-6037-7136	6037	7141	7136	NBR		-1	28	0	0
7141-6037-7141	6037	7141	7141	U Turn		0	0	0	-1
6141-6142-6141	6142	6141	6141	U Turn		0	0	0	-1
6141-6142-6722	6142	6141	6722	NBR	Sir Winston Churchill is NB/SB	-1	513	0	0
6141-6142-7861	6142	6141	7861	NBT		-1	669	0	0
6141-6142-8201	6142	6141	8201	NBL		1	41	0	0
6722-6142-6141	6142	6722	6141	WBL		-1	326	0	0
6722-6142-6722	6142	6722	6722	U Turn		0	0	0	-1
6722-6142-7861	6142	6722	7861	WBR		-1	311	0	0
6722-6142-8201	6142	6722	8201	WBT		-1	82	0	0
7861-6142-6141	6142	7861	6141	SBT		-1	1103	0	0
7861-6142-6722	6142	7861	6722	SBL		1	67	0	0
7861-6142-7861	6142	7861	7861	U Turn		0	0	0	-1
7861-6142-8201	6142	7861	8201	SBR		-1	0	0	0
8201-6142-6141	6142	8201	6141	EBR		-1	15	0	0
8201-6142-6722	6142	8201	6722	EBT		-1	627	0	0
8201-6142-7861	6142	8201	7861	EBL		-1	252	0	0
8201-6142-8201	6142	8201	8201	U Turn		0	0	0	-1
7475-6175-7475	6175	7475	7475	U Turn	East side of divided intersection, NB traffic only	0	0	0	-1
7475-6175-7502	6175	7475	7502	EBT		-1	147	0	0
7475-6175-8105	6175	7475	8105	EBL		-1	1	0	0
7502-6175-7475	6175	7502	7475	WBT		-1	51	0	0
7502-6175-7502	6175	7502	7502	U Turn		0	0	0	-1
7502-6175-8105	6175	7502	8105	WBR		-1	175	0	0

Emme Scenario 2400 - 2024 Capital Plan Based on TMP

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7922-6175-7475	6175	7922	7475	NBL		-1	345	0	0
7922-6175-7502	6175	7922	7502	NBR		-1	83	0	0
7922-6175-8105	6175	7922	8105	NBT		-1	1670	0	0
7474-6176-7474	6176	7474	7474	U Turn		0	0	0	-1
7474-6176-7940	6176	7474	7940	SBR		-1	61	0	0
7474-6176-8172	6176	7474	8172	SBT		-1	1527	0	0
7474-6176-8223	6176	7474	8223	SBL		1	111	0	2
7940-6176-7474	6176	7940	7474	EBL		1	52	0	0
7940-6176-7940	6176	7940	7940	U Turn		0	0	0	-1
7940-6176-8172	6176	7940	8172	EBR		-1	10	0	0
7940-6176-8223	6176	7940	8223	EBT		-1	351	0	0
8172-6176-7474	6176	8172	7474	NBT		-1	1498	0	0
8172-6176-7940	6176	8172	7940	NBL		1	107	0	2
8172-6176-8172	6176	8172	8172	U Turn		0	0	0	-1
8172-6176-8223	6176	8172	8223	NBR		-1	70	0	0
8223-6176-7474	6176	8223	7474	WBR		-1	558	0	0
8223-6176-7940	6176	8223	7940	WBT		-1	512	0	0
8223-6176-8172	6176	8223	8172	WBL		1	81	0	1
8223-6176-8223	6176	8223	8223	U Turn		0	0	0	-1
7938-6348-7938	6348	7938	7938	U Turn		0	0	0	-1
7938-6348-7939	6348	7938	7939	SBL	Perron St is NB/SB	-1	5	0	0
7938-6348-8195	6348	7938	8195	SBR		-1	255	0	0
7938-6348-8197	6348	7938	8197	SBT		-1	254	0	0
7939-6348-7938	6348	7939	7938	WBR		-1	55	0	0
7939-6348-7939	6348	7939	7939	U Turn		0	0	0	-1
7939-6348-8195	6348	7939	8195	WBT		-1	695	0	0
7939-6348-8197	6348	7939	8197	WBL		1	67	0	0
8195-6348-7938	6348	8195	7938	EBL		1	101	0	2

Emme Scenario 2400 - 2024 Capital Plan Based on TMP

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8195-6348-7939	6348	8195	7939	EBT		-1	808	0	0
8195-6348-8195	6348	8195	8195	U Turn		0	0	0	-1
8195-6348-8197	6348	8195	8197	EBR		-1	0	0	0
8197-6348-7938	6348	8197	7938	NBT		-1	562	0	0
8197-6348-7939	6348	8197	7939	NBR		-1	19	0	0
8197-6348-8195	6348	8197	8195	NBL		-1	0	0	0
8197-6348-8197	6348	8197	8197	U Turn		0	0	0	-1
6594-6349-6594	6349	6594	6594	U Turn		0	0	0	-1
6594-6349-7936	6349	6594	7936	WBR	St Albert Trail is NB/SB	-1	205	0	0
6594-6349-7939	6349	6594	7939	WBT		-1	229	0	0
6594-6349-10802	6349	6594	10802	WBL		1	75	0	1
7936-6349-6594	6349	7936	6594	SBL		1	100	0	1
7936-6349-7936	6349	7936	7936	U Turn		0	0	0	-1
7936-6349-7939	6349	7936	7939	SBR		-1	868	0	0
7936-6349-10802	6349	7936	10802	SBT		-1	1401	0	0
7939-6349-6594	6349	7939	6594	EBT		-1	698	0	0
7939-6349-7936	6349	7939	7936	EBL		1	127	0	3
7939-6349-7939	6349	7939	7939	U Turn		0	0	0	-1
7939-6349-10802	6349	7939	10802	EBR		-1	142	0	0
10802-6349-6594	6349	10802	6594	NBR		-1	150	0	0
10802-6349-7936	6349	10802	7936	NBT		-1	2791	0	0
10802-6349-7939	6349	10802	7939	NBL		1	104	0	2
10802-6349-10802	6349	10802	10802	U Turn		0	0	0	-1
6279-6386-6279	6386	6279	6279	U Turn		0	0	0	-1
6279-6386-6485	6386	6279	6485	WBL		-1	0	0	0
6279-6386-6769	6386	6279	6769	WBR		-1	257	0	0
6279-6386-7923	6386	6279	7923	WBT		-1	1039	0	0

Emme Scenario 2400 - 2024 Capital Plan Based on TMP

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6485-6386-6279	6386	6485	6279	NBR		-1	3	0	0
6485-6386-6485	6386	6485	6485	U Turn		0	0	0	-1
6485-6386-6769	6386	6485	6769	NBT		-1	47	0	0
6485-6386-7923	6386	6485	7923	NBL		-1	17	0	0
6769-6386-6279	6386	6769	6279	SBL		1	86	0	1
6769-6386-6485	6386	6769	6485	SBT		-1	15	0	0
6769-6386-6769	6386	6769	6769	U Turn		0	0	0	-1
6769-6386-7923	6386	6769	7923	SBR		-1	91	0	0
7923-6386-6279	6386	7923	6279	EBT		-1	566	0	0
7923-6386-6485	6386	7923	6485	EBR		-1	3	0	0
7923-6386-6769	6386	7923	6769	EBL		1	75	0	1
7923-6386-7923	6386	7923	7923	U Turn		0	0	0	-1
6193-6458-6193	6458	6193	6193	U Turn		0	0	0	-1
6193-6458-7479	6458	6193	7479	WBT	East side of divided intersection, NB traffic only	-1	19	0	0
6193-6458-8232	6458	6193	8232	WBR		-1	21	0	0
7479-6458-6193	6458	7479	6193	EBT		-1	31	0	0
7479-6458-7479	6458	7479	7479	U Turn		0	0	0	-1
7479-6458-8232	6458	7479	8232	EBL		-1	39	0	0
8103-6458-6193	6458	8103	6193	NBR		-1	31	0	0
8103-6458-7479	6458	8103	7479	NBL		-1	0	0	0
8103-6458-8232	6458	8103	8232	NBT		-1	1714	0	0
6356-6595-6356	6595	6356	6356	U Turn		0	0	0	-1
6356-6595-7554	6595	6356	7554	WBL		-1	237	0	0
6356-6595-8121	6595	6356	8121	WBR		-1	4	0	0
6356-6595-8220	6595	6356	8220	WBT		-1	586	0	0
7554-6595-6356	6595	7554	6356	NBR		-1	269	0	0
7554-6595-7554	6595	7554	7554	U Turn		0	0	0	-1

Emme Scenario 2400 - 2024 Capital Plan Based on TMP

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7554-6595-8121	6595	7554	8121	NBT		-1	125	0	0
7554-6595-8220	6595	7554	8220	NBL		-1	1152	0	0
8121-6595-6356	6595	8121	6356	SBL		-1	0	0	0
8121-6595-7554	6595	8121	7554	SBT		-1	114	0	0
8121-6595-8121	6595	8121	8121	U Turn		0	0	0	-1
8121-6595-8220	6595	8121	8220	SBR		-1	34	0	0
8220-6595-6356	6595	8220	6356	EBT		-1	723	0	0
8220-6595-7554	6595	8220	7554	EBR		-1	363	0	0
8220-6595-8121	6595	8220	8121	EBL		-1	51	0	0
8220-6595-8220	6595	8220	8220	U Turn		0	0	0	-1
7286-6596-7286	6596	7286	7286	U Turn		0	0	0	-1
7286-6596-7822	6596	7286	7822	WBT		-1	657	0	0
7286-6596-7977	6596	7286	7977	WBL		1	1	0	0
7286-6596-8117	6596	7286	8117	WBR		-1	0	0	0
7822-6596-7286	6596	7822	7286	EBT		-1	164	0	0
7822-6596-7822	6596	7822	7822	U Turn		0	0	0	-1
7822-6596-7977	6596	7822	7977	EBR		-1	69	0	0
7822-6596-8117	6596	7822	8117	EBL		1	0	0	0
7977-6596-7286	6596	7977	7286	NBL		-1	42	0	0
7977-6596-7822	6596	7977	7822	NBR		1	101	0	2
7977-6596-7977	6596	7977	7977	U Turn		0	0	0	-1
7977-6596-8117	6596	7977	8117	NBT		-1	1	0	0
8117-6596-7286	6596	8117	7286	SBL		1	0	0	0
8117-6596-7822	6596	8117	7822	SBR		-1	346	0	0
8117-6596-7977	6596	8117	7977	SBT		-1	0	0	0
8117-6596-8117	6596	8117	8117	U Turn		0	0	0	-1
6427-6624-6427	6624	6427	6427	U Turn		0	0	0	-1
6427-6624-7675	6624	6427	7675	NBL		-1	2	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6427-6624-7875	6624	6427	7875	NBT		-1	364	0	0
6427-6624-7876	6624	6427	7876	NBR		-1	1	0	0
7675-6624-6427	6624	7675	6427	EBR		-1	0	0	0
7675-6624-7675	6624	7675	7675	U Turn		0	0	0	-1
7675-6624-7875	6624	7675	7875	EBL		-1	94	0	0
7675-6624-7876	6624	7675	7876	EBT		-1	60	0	0
7875-6624-6427	6624	7875	6427	SBT		-1	86	0	0
7875-6624-7675	6624	7875	7675	SBR		-1	0	0	0
7875-6624-7875	6624	7875	7875	U Turn		0	0	0	-1
7875-6624-7876	6624	7875	7876	SBL		-1	8	0	0
7876-6624-6427	6624	7876	6427	WBL		-1	228	0	0
7876-6624-7675	6624	7876	7675	WBT		-1	70	0	0
7876-6624-7875	6624	7876	7875	WBR		-1	15	0	0
7876-6624-7876	6624	7876	7876	U Turn		0	0	0	-1
7193-6744-7193	6744	7193	7193	U Turn		0	0	0	-1
7193-6744-7678	6744	7193	7678	EBR	St Albert Trail is NB/SB	-1	139	0	0
7193-6744-8135	6744	7193	8135	EBT		-1	422	0	0
7193-6744-8150	6744	7193	8150	EBL		1	70	0	0
7678-6744-7193	6744	7678	7193	NBL		1	138	0	5
7678-6744-7678	6744	7678	7678	U Turn		0	0	0	-1
7678-6744-8135	6744	7678	8135	NBR		-1	664	0	0
7678-6744-8150	6744	7678	8150	NBT		-1	2241	0	0
8135-6744-7193	6744	8135	7193	WBT		-1	433	0	0
8135-6744-7678	6744	8135	7678	WBL		1	76	0	1
8135-6744-8135	6744	8135	8135	U Turn		0	0	0	-1
8135-6744-8150	6744	8135	8150	WBR		-1	228	0	0
8150-6744-7193	6744	8150	7193	SBR		-1	9	0	0
8150-6744-7678	6744	8150	7678	SBT		-1	2100	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8150-6744-8135	6744	8150	8135	SBL		1	70	0	0
8150-6744-8150	6744	8150	8150	U Turn		0	0	0	-1
6091-6871-6091	6871	6091	6091	U Turn		0	0	0	-1
6091-6871-6279	6871	6091	6279	EBL	Boudreau Rd is NB/SB	-1	75	0	0
6091-6871-6697	6871	6091	6697	EBT		-1	669	0	0
6091-6871-7129	6871	6091	7129	EBR		-1	427	0	0
6279-6871-6091	6871	6279	6091	SBR		-1	27	0	0
6279-6871-6279	6871	6279	6279	U Turn		0	0	0	-1
6279-6871-6697	6871	6279	6697	SBL		-1	48	0	0
6279-6871-7129	6871	6279	7129	SBT		-1	677	0	0
6697-6871-6091	6871	6697	6091	WBT		-1	192	0	0
6697-6871-6279	6871	6697	6279	WBR		-1	15	0	0
6697-6871-6697	6871	6697	6697	U Turn		0	0	0	-1
6697-6871-7129	6871	6697	7129	WBL		-1	510	0	0
7129-6871-6091	6871	7129	6091	NBL		-1	559	0	0
7129-6871-6279	6871	7129	6279	NBT		-1	1363	0	0
7129-6871-6697	6871	7129	6697	NBR		-1	612	0	0
7129-6871-7129	6871	7129	7129	U Turn		0	0	0	-1
6021-6894-6021	6894	6021	6021	U Turn		0	0	0	-1
6021-6894-6893	6894	6021	6893	SBT	Perron St is NB/SB	-1	13	0	0
6021-6894-8221	6894	6021	8221	SBL		-1	68	0	0
6021-6894-9910	6894	6021	9910	SBR		-1	213	0	0
6893-6894-6021	6894	6893	6021	NBT		-1	84	0	0
6893-6894-6893	6894	6893	6893	U Turn		0	0	0	-1
6893-6894-8221	6894	6893	8221	NBR		-1	1	0	0
6893-6894-9910	6894	6893	9910	NBL		-1	90	0	0
8221-6894-6021	6894	8221	6021	WBR		-1	176	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8221-6894-6893	6894	8221	6893	WBL		-1	0	0	0
8221-6894-8221	6894	8221	8221	U Turn		0	0	0	-1
8221-6894-9910	6894	8221	9910	WBT		-1	869	0	0
9910-6894-6021	6894	9910	6021	EBL		-1	287	0	0
9910-6894-6893	6894	9910	6893	EBR		-1	231	0	0
9910-6894-8221	6894	9910	8221	EBT		-1	674	0	0
9910-6894-9910	6894	9910	9910	U Turn		0	0	0	-1
7756-6921-7756	6921	7756	7756	U Turn		0	0	0	-1
7756-6921-7766	6921	7756	7766	NBR		-1	777	0	0
7756-6921-7964	6921	7756	7964	NBT		-1	1723	0	0
7756-6921-7967	6921	7756	7967	NBL		1	106	0	2
7766-6921-7756	6921	7766	7756	WBL		1	93	0	1
7766-6921-7766	6921	7766	7766	U Turn		0	0	0	-1
7766-6921-7964	6921	7766	7964	WBR		-1	36	0	0
7766-6921-7967	6921	7766	7967	WBT		-1	402	0	0
7964-6921-7756	6921	7964	7756	SBT		-1	1455	0	0
7964-6921-7766	6921	7964	7766	SBL		1	9	0	0
7964-6921-7964	6921	7964	7964	U Turn		0	0	0	-1
7964-6921-7967	6921	7964	7967	SBR		-1	15	0	0
7967-6921-7756	6921	7967	7756	EBR		-1	198	0	0
7967-6921-7766	6921	7967	7766	EBT		-1	247	0	0
7967-6921-7964	6921	7967	7964	EBL		1	50	0	0
7967-6921-7967	6921	7967	7967	U Turn		0	0	0	-1
7151-6922-7151	6922	7151	7151	U Turn		0	0	0	-1
7151-6922-7756	6922	7151	7756	NBT		-1	2666	0	0
7151-6922-7759	6922	7151	7759	NBL		1	125	0	3
7151-6922-10408	6922	7151	10408	NBR		-1	0	0	0
7756-6922-7151	6922	7756	7151	SBT		-1	1692	0	0

Emme Scenario 2400 - 2024 Capital Plan Based on TMP

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7756-6922-7756	6922	7756	7756	U Turn		0	0	0	-1
7756-6922-7759	6922	7756	7759	SBR		-1	70	0	0
7756-6922-10408	6922	7756	10408	SBL		1	0	0	0
7759-6922-7151	6922	7759	7151	EBR		-1	0	0	0
7759-6922-7756	6922	7759	7756	EBL		-1	10	0	0
7759-6922-7759	6922	7759	7759	U Turn		0	0	0	-1
7759-6922-10408	6922	7759	10408	EBT		-1	0	0	0
10408-6922-7151	6922	10408	7151	WBL		-1	155	0	0
10408-6922-7756	6922	10408	7756	EBR		-1	0	0	0
10408-6922-7759	6922	10408	7759	EBT		-1	137	0	0
10408-6922-10408	6922	10408	10408	U Turn		0	0	0	-1
6926-6927-6926	6927	6926	6926	U Turn		0	0	0	-1
6926-6927-6952	6927	6926	6952	NBT	Boudreau Rd is NB/SB	-1	857	0	0
6926-6927-7073	6927	6926	7073	NBL		-1	529	0	0
6926-6927-8066	6927	6926	8066	NBR		-1	0	0	0
6952-6927-6926	6927	6952	6926	SBT		-1	710	0	0
6952-6927-6952	6927	6952	6952	U Turn		0	0	0	-1
6952-6927-7073	6927	6952	7073	SBR		-1	15	0	0
6952-6927-8066	6927	6952	8066	SBL		-1	234	0	0
7073-6927-6926	6927	7073	6926	EBR		-1	511	0	0
7073-6927-6952	6927	7073	6952	EBL		-1	28	0	0
7073-6927-7073	6927	7073	7073	U Turn		0	0	0	-1
7073-6927-8066	6927	7073	8066	EBT		-1	154	0	0
8066-6927-6926	6927	8066	6926	WBL		-1	25	0	0
8066-6927-6952	6927	8066	6952	WBR		-1	261	0	0
8066-6927-7073	6927	8066	7073	WBT		-1	287	0	0
8066-6927-8066	6927	8066	8066	U Turn		0	0	0	-1
6467-7121-6467	7121	6467	6467	U Turn		0	0	0	-1

Emme Scenario 2400 - 2024 Capital Plan Based on TMP

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6467-7121-6946	7121	6467	6946	SBR		-1	164	0	0
6467-7121-7119	7121	6467	7119	SBL		-1	29	0	0
6946-7121-6467	7121	6946	6467	EBL		-1	401	0	0
6946-7121-6946	7121	6946	6946	U Turn		0	0	0	-1
6946-7121-7119	7121	6946	7119	EBT		-1	119	0	0
7119-7121-6467	7121	7119	6467	WBR		-1	132	0	0
7119-7121-6946	7121	7119	6946	WBT		-1	160	0	0
7119-7121-7119	7121	7119	7119	U Turn		0	0	0	-1
6394-7129-6394	7129	6394	6394	U Turn		0	0	0	-1
6394-7129-6549	7129	6394	6549	EBR	Boudreau Rd is NB/SB	-1	11	0	0
6394-7129-6785	7129	6394	6785	EBT		-1	36	0	0
6394-7129-6871	7129	6394	6871	EBL		-1	620	0	0
6549-7129-6394	7129	6549	6394	NBL		-1	19	0	0
6549-7129-6549	7129	6549	6549	U Turn		0	0	0	-1
6549-7129-6785	7129	6549	6785	NBR		-1	0	0	0
6549-7129-6871	7129	6549	6871	NBT		-1	1263	0	0
6785-7129-6394	7129	6785	6394	WBT		-1	10	0	0
6785-7129-6549	7129	6785	6549	WBL		-1	0	0	0
6785-7129-6785	7129	6785	6785	U Turn		0	0	0	-1
6785-7129-6871	7129	6785	6871	WBR		-1	651	0	0
6871-7129-6394	7129	6871	6394	SBR		-1	228	0	0
6871-7129-6549	7129	6871	6549	SBT		-1	981	0	0
6871-7129-6785	7129	6871	6785	SBL		-1	405	0	0
6871-7129-6871	7129	6871	6871	U Turn		0	0	0	-1
6035-7135-6035	7135	6035	6035	U Turn		0	0	0	-1
6035-7135-7132	7135	6035	7132	WBR		-1	2	0	0
6035-7135-7318	7135	6035	7318	WBL		-1	0	0	0
6035-7135-7892	7135	6035	7892	WBT		-1	68	0	0

Emme Scenario 2400 - 2024 Capital Plan Based on TMP

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7132-7135-6035	7135	7132	6035	SBL		-1	0	0	0
7132-7135-7132	7135	7132	7132	U Turn		0	0	0	-1
7132-7135-7318	7135	7132	7318	SBT		-1	118	0	0
7132-7135-7892	7135	7132	7892	SBR		-1	156	0	0
7318-7135-6035	7135	7318	6035	NBR		-1	2	0	0
7318-7135-7132	7135	7318	7132	NBT		-1	289	0	0
7318-7135-7318	7135	7318	7318	U Turn		0	0	0	-1
7318-7135-7892	7135	7318	7892	NBL		-1	4	0	0
7892-7135-6035	7135	7892	6035	EBT		-1	96	0	0
7892-7135-7132	7135	7892	7132	EBL		-1	68	0	0
7892-7135-7318	7135	7892	7318	EBR		-1	14	0	0
7892-7135-7892	7135	7892	7892	U Turn		0	0	0	-1
6037-7136-6037	7136	6037	6037	U Turn		0	0	0	-1
6037-7136-7493	7136	6037	7493	EBR		-1	183	0	0
6037-7136-8149	7136	6037	8149	EBL		-1	132	0	0
7493-7136-6037	7136	7493	6037	NBL		-1	570	0	0
7493-7136-7493	7136	7493	7493	U Turn		0	0	0	-1
7493-7136-8149	7136	7493	8149	NBT		-1	395	0	0
8149-7136-6037	7136	8149	6037	SBR		-1	289	0	0
8149-7136-7493	7136	8149	7493	SBT		-1	146	0	0
8149-7136-8149	7136	8149	8149	U Turn		0	0	0	-1
6916-7138-6916	7138	6916	6916	U Turn		0	0	0	-1
6916-7138-7140	7138	6916	7140	SBL		-1	24	0	0
6916-7138-7682	7138	6916	7682	SBT		-1	602	0	0
7140-7138-6916	7138	7140	6916	WBR		-1	23	0	0
7140-7138-7140	7138	7140	7140	U Turn		0	0	0	-1
7140-7138-7682	7138	7140	7682	WBL		-1	206	0	0
7682-7138-6916	7138	7682	6916	NBT		-1	398	0	0

Emme Scenario 2400 - 2024 Capital Plan Based on TMP

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7682-7138-7140	7138	7682	7140	NBR		-1	172	0	0
7682-7138-7682	7138	7682	7682	U Turn		0	0	0	-1
7559-7397-7559	7397	7559	7559	U Turn		0	0	0	-1
7559-7397-7683	7397	7559	7683	NBR		-1	521	0	0
7559-7397-7835	7397	7559	7835	NBT		-1	710	0	0
7683-7397-7559	7397	7683	7559	WBL		-1	305	0	0
7683-7397-7683	7397	7683	7683	U Turn		0	0	0	-1
7683-7397-7835	7397	7683	7835	WBR		-1	667	0	0
7835-7397-7559	7397	7835	7559	SBT		-1	580	0	0
7835-7397-7683	7397	7835	7683	SBL		-1	501	0	0
7835-7397-7835	7397	7835	7835	U Turn		0	0	0	-1
6175-7475-6175	7475	6175	6175	U Turn		0	0	0	-1
6175-7475-7474	7475	6175	7474	WBL	West side of divided intersection, SB traffic only	-1	12	0	0
6175-7475-8106	7475	6175	8106	WBT		-1	383	0	0
8104-7475-6175	7475	8104	6175	SBL		-1	112	0	0
8104-7475-7474	7475	8104	7474	SBT		-1	1650	0	0
8104-7475-8106	7475	8104	8106	SBR		-1	33	0	0
8106-7475-6175	7475	8106	6175	EBT		-1	36	0	0
8106-7475-7474	7475	8106	7474	EBR		-1	50	0	0
8106-7475-8106	7475	8106	8106	U Turn		0	0	0	-1
5008-7479-5008	7479	5008	5008	U Turn		0	0	0	-1
5008-7479-6458	7479	5008	6458	EBT	West side of divided intersection, SB traffic only	-1	57	0	0
5008-7479-7551	7479	5008	7551	EBR		-1	0	0	0
6458-7479-5008	7479	6458	5008	WBT		-1	0	0	0
6458-7479-6458	7479	6458	6458	U Turn		0	0	0	-1
6458-7479-7551	7479	6458	7551	WBL		-1	19	0	0

Emme Scenario 2400 - 2024 Capital Plan Based on TMP

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8231-7479-5008	7479	8231	5008	SBR		-1	25	0	0
8231-7479-6458	7479	8231	6458	SBL		-1	13	0	0
8231-7479-7551	7479	8231	7551	SBT		-1	1572	0	0
7434-7514-7434	7514	7434	7434	U Turn		0	0	0	-1
7434-7514-7476	7514	7434	7476	WBL		-1	291	0	0
7434-7514-7500	7514	7434	7500	WBR		-1	183	0	0
7434-7514-7633	7514	7434	7633	WBT		-1	51	0	0
7476-7514-7434	7514	7476	7434	NBR		-1	458	0	0
7476-7514-7476	7514	7476	7476	U Turn		0	0	0	-1
7476-7514-7500	7514	7476	7500	NBT		-1	937	0	0
7476-7514-7633	7514	7476	7633	NBL		-1	36	0	0
7500-7514-7434	7514	7500	7434	SBL		-1	293	0	0
7500-7514-7476	7514	7500	7476	SBT		-1	680	0	0
7500-7514-7500	7514	7500	7500	U Turn		0	0	0	-1
7500-7514-7633	7514	7500	7633	SBR		-1	14	0	0
7633-7514-7434	7514	7633	7434	EBT		-1	62	0	0
7633-7514-7476	7514	7633	7476	EBR		-1	16	0	0
7633-7514-7500	7514	7633	7500	EBL		-1	20	0	0
7633-7514-7633	7514	7633	7633	U Turn		0	0	0	-1
7219-7532-7219	7532	7219	7219	U Turn		0	0	0	-1
7219-7532-7499	7532	7219	7499	SBL		-1	52	0	0
7219-7532-7583	7532	7219	7583	SBR		-1	129	0	0
7219-7532-7586	7532	7219	7586	SBT		-1	14	0	0
7499-7532-7219	7532	7499	7219	WBR		-1	242	0	0
7499-7532-7499	7532	7499	7499	U Turn		0	0	0	-1
7499-7532-7583	7532	7499	7583	WBT		-1	127	0	0
7499-7532-7586	7532	7499	7586	WBL		-1	0	0	0
7583-7532-7219	7532	7583	7219	EBL		1	97	0	1

Emme Scenario 2400 - 2024 Capital Plan Based on TMP

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7583-7532-7499	7532	7583	7499	EBT		-1	79	0	0
7583-7532-7583	7532	7583	7583	U Turn		0	0	0	-1
7583-7532-7586	7532	7583	7586	EBR		-1	0	0	0
7586-7532-7219	7532	7586	7219	NBT		-1	141	0	0
7586-7532-7499	7532	7586	7499	NBR		-1	2	0	0
7586-7532-7583	7532	7586	7583	NBL		-1	216	0	0
7586-7532-7586	7532	7586	7586	U Turn		0	0	0	-1
7592-7590-7592	7590	7592	7592	U Turn	West side of divided intersection, SB traffic only	0	0	0	-1
7592-7590-7747	7590	7592	7747	EBT		-1	664	0	0
7592-7590-8231	7590	7592	8231	EBR		-1	0	0	0
7747-7590-7592	7590	7747	7592	WBT		-1	162	0	0
7747-7590-7747	7590	7747	7747	U Turn		0	0	0	-1
7747-7590-8231	7590	7747	8231	WBL		-1	531	0	0
8099-7590-7592	7590	8099	7592	SBR		-1	286	0	0
8099-7590-7747	7590	8099	7747	SBL		-1	26	0	0
8099-7590-8231	7590	8099	8231	SBT		-1	884	0	0
5010-7675-5010	7675	5010	5010	U Turn	Villeneuve Rd is NB/SB	0	0	0	-1
5010-7675-6624	7675	5010	6624	SBT		-1	0	0	0
5010-7675-7873	7675	5010	7873	SBL		-1	0	0	0
5010-7675-8228	7675	5010	8228	SBR		-1	0	0	0
6624-7675-5010	7675	6624	5010	NBT		-1	0	0	0
6624-7675-6624	7675	6624	6624	U Turn		0	0	0	-1
6624-7675-7873	7675	6624	7873	NBR		-1	0	0	0
6624-7675-8228	7675	6624	8228	NBL		-1	72	0	0
7873-7675-5010	7675	7873	5010	WBR		-1	0	0	0
7873-7675-6624	7675	7873	6624	WBL		-1	0	0	0

Emme Scenario 2400 - 2024 Capital Plan Based on TMP

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7873-7675-7873	7675	7873	7873	U Turn		0	0	0	-1
7873-7675-8228	7675	7873	8228	WBT		-1	420	0	0
8228-7675-5010	7675	8228	5010	EBL		-1	0	0	0
8228-7675-6624	7675	8228	6624	EBR		-1	154	0	0
8228-7675-7873	7675	8228	7873	EBT		-1	494	0	0
8228-7675-8228	7675	8228	8228	U Turn		0	0	0	-1
7397-7683-7397	7683	7397	7397	U Turn		0	0	0	-1
7397-7683-7682	7683	7397	7682	EBL		-1	850	0	0
7397-7683-10501	7683	7397	10501	EBT		-1	172	0	0
7682-7683-7397	7683	7682	7397	SBR		-1	524	0	0
7682-7683-7682	7683	7682	7682	U Turn		0	0	0	-1
7682-7683-10501	7683	7682	10501	SBL		-1	5	0	0
10501-7683-7397	7683	10501	7397	WBT		-1	448	0	0
10501-7683-7682	7683	10501	7682	WBR		-1	24	0	0
10501-7683-10501	7683	10501	10501	U Turn		0	0	0	-1
7590-7747-7590	7747	7590	7590	U Turn	East side of divided intersection, NB traffic only	0	0	0	-1
7590-7747-8102	7747	7590	8102	EBL		-1	414	0	0
7590-7747-8238	7747	7590	8238	EBT		-1	276	0	0
8238-7747-7590	7747	8238	7590	WBT		-1	659	0	0
8238-7747-8102	7747	8238	8102	WBR		-1	4	0	0
8238-7747-8238	7747	8238	8238	U Turn		0	0	0	-1
8239-7747-7590	7747	8239	7590	NBL		-1	33	0	0
8239-7747-8102	7747	8239	8102	NBT		-1	1126	0	0
8239-7747-8238	7747	8239	8238	NBR		-1	0	0	0
6653-8217-6653	8217	6653	6653	U Turn		0	0	0	-1
6653-8217-6819	8217	6653	6819	NBR		-1	189	0	0
6653-8217-7301	8217	6653	7301	NBL		-1	166	0	0

Emme Scenario 2400 - 2024 Capital Plan Based on TMP

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6819-8217-6653	8217	6819	6653	WBL		-1	25	0	0
6819-8217-6819	8217	6819	6819	U Turn		0	0	0	-1
6819-8217-7301	8217	6819	7301	WBT		-1	1262	0	0
7301-8217-6653	8217	7301	6653	EBR		-1	23	0	0
7301-8217-6819	8217	7301	6819	EBT		-1	1086	0	0
7301-8217-7301	8217	7301	7301	U Turn		0	0	0	-1
7067-8227-7067	8227	7067	7067	U Turn		0	0	0	-1
7067-8227-7302	8227	7067	7302	EBR		-1	166	0	0
7067-8227-7448	8227	7067	7448	EBL		-1	57	0	0
7067-8227-8092	8227	7067	8092	EBT		-1	175	0	0
7302-8227-7067	8227	7302	7067	NBL		-1	37	0	0
7302-8227-7302	8227	7302	7302	U Turn		0	0	0	-1
7302-8227-7448	8227	7302	7448	NBT		-1	518	0	0
7302-8227-8092	8227	7302	8092	NBR		-1	584	0	0
7448-8227-7067	8227	7448	7067	SBR		-1	6	0	0
7448-8227-7302	8227	7448	7302	SBT		-1	590	0	0
7448-8227-7448	8227	7448	7448	U Turn		0	0	0	-1
7448-8227-8092	8227	7448	8092	SBL		-1	22	0	0
8092-8227-7067	8227	8092	7067	WBT		-1	24	0	0
8092-8227-7302	8227	8092	7302	WBL		-1	232	0	0
8092-8227-7448	8227	8092	7448	WBR		-1	8	0	0
8092-8227-8092	8227	8092	8092	U Turn		0	0	0	-1
7510-8228-7510	8228	7510	7510	U Turn		0	0	0	-1
7510-8228-7675	8228	7510	7675	NBR		-1	414	0	0
7510-8228-8096	8228	7510	8096	NBL		-1	162	0	0
7510-8228-8229	8228	7510	8229	NBT		-1	0	0	0
7675-8228-7510	8228	7675	7510	WBL		-1	372	0	0
7675-8228-7675	8228	7675	7675	U Turn		0	0	0	-1

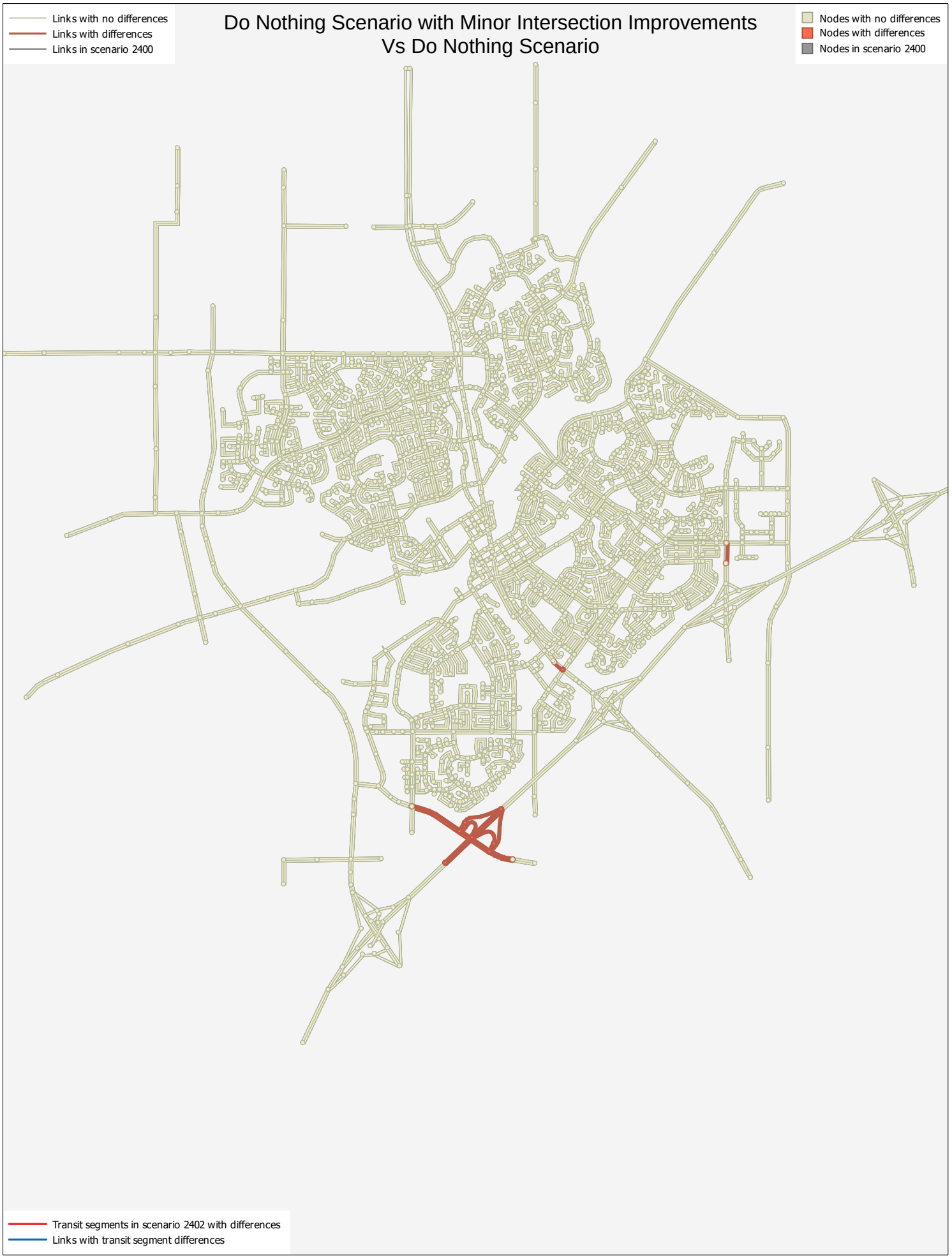
Emme Scenario 2400 - 2024 Capital Plan Based on TMP

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7675-8228-8096	8228	7675	8096	WBT		-1	121	0	0
7675-8228-8229	8228	7675	8229	WBR		-1	0	0	0
8096-8228-7510	8228	8096	7510	EBR		-1	239	0	0
8096-8228-7675	8228	8096	7675	EBT		-1	235	0	0
8096-8228-8096	8228	8096	8096	U Turn		0	0	0	-1
8096-8228-8229	8228	8096	8229	EBL		-1	0	0	0
8229-8228-7510	8228	8229	7510	SBT		-1	0	0	0
8229-8228-7675	8228	8229	7675	SBL		-1	0	0	0
8229-8228-8096	8228	8229	8096	SBR		-1	0	0	0
8229-8228-8229	8228	8229	8229	U Turn		0	0	0	-1
7536-8231-7479	8231	7536	7479	EBR	West side of divided intersection, SB traffic only	-1	131	0	0
7536-8231-7536	8231	7536	7536	U Turn		0	0	0	-1
7536-8231-8232	8231	7536	8232	EBT	St Albert Trail is NB/SB	-1	192	0	0
7590-8231-7479	8231	7590	7479	SBT		-1	1351	0	0
7590-8231-7536	8231	7590	7536	SBR		-1	11	0	0
7590-8231-8232	8231	7590	8232	SBL		-1	53	0	0
8232-8231-7479	8231	8232	7479	WBL		-1	127	0	0
8232-8231-7536	8231	8232	7536	WBT		-1	113	0	0
8232-8231-8232	8231	8232	8232	U Turn		0	0	0	-1
6458-8232-8231	8232	6458	8231	NBL	East side of divided intersection, NB traffic only	-1	47	0	0
6458-8232-8234	8232	6458	8234	NBR	St Albert Trail is NB/SB	-1	120	0	0
6458-8232-8239	8232	6458	8239	NBT		-1	1607	0	0
8231-8232-8231	8232	8231	8231	U Turn		0	0	0	-1
8231-8232-8234	8232	8231	8234	EBT		-1	208	0	0
8231-8232-8239	8232	8231	8239	EBL		-1	37	0	0

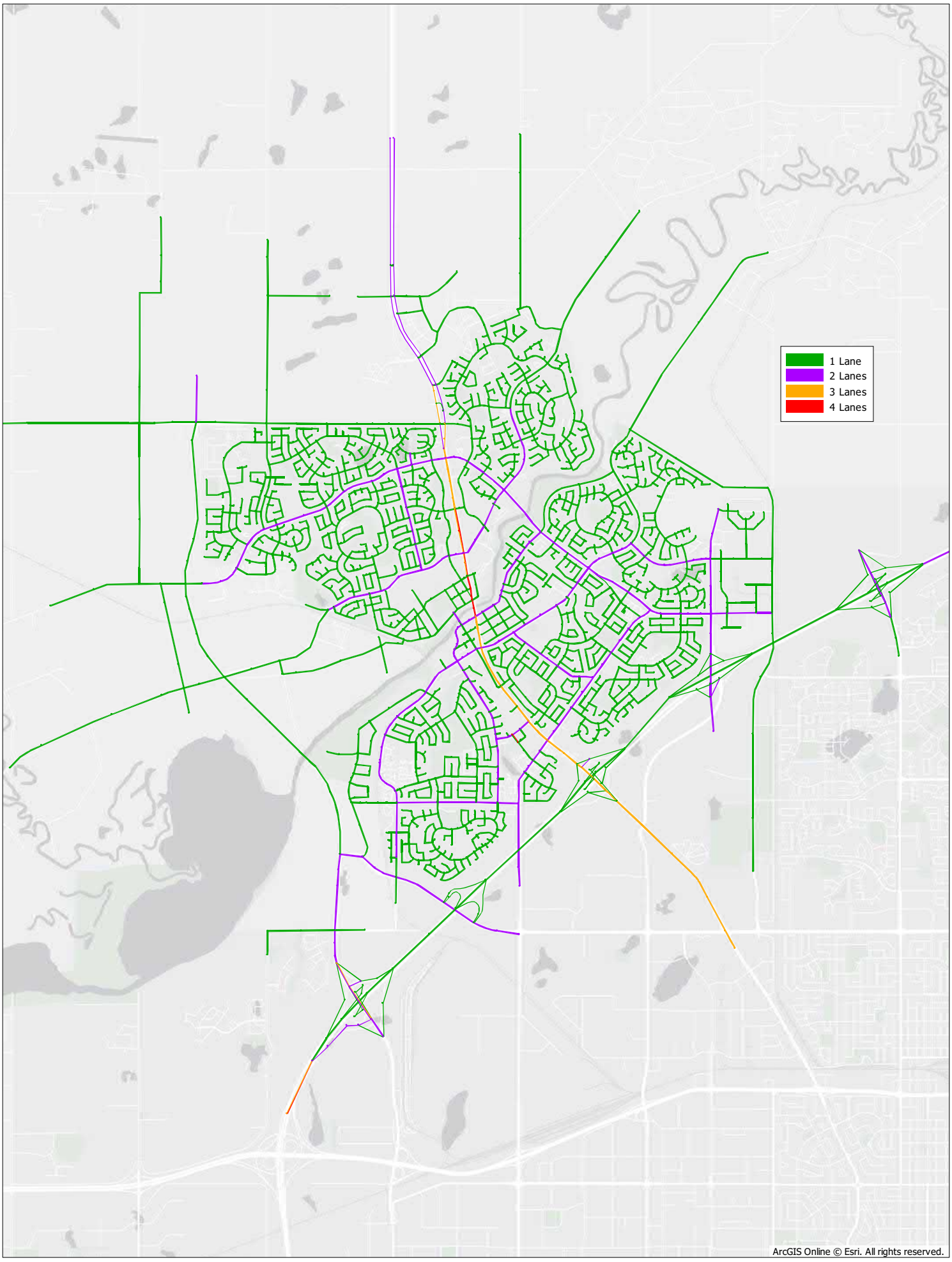
Emme Scenario 2400 - 2024 Capital Plan Based on TMP

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8234-8232-8231	8232	8234	8231	WBT		-1	193	0	0
8234-8232-8234	8232	8234	8234	U Turn		0	0	0	-1
8234-8232-8239	8232	8234	8239	WBR		-1	0	0	0

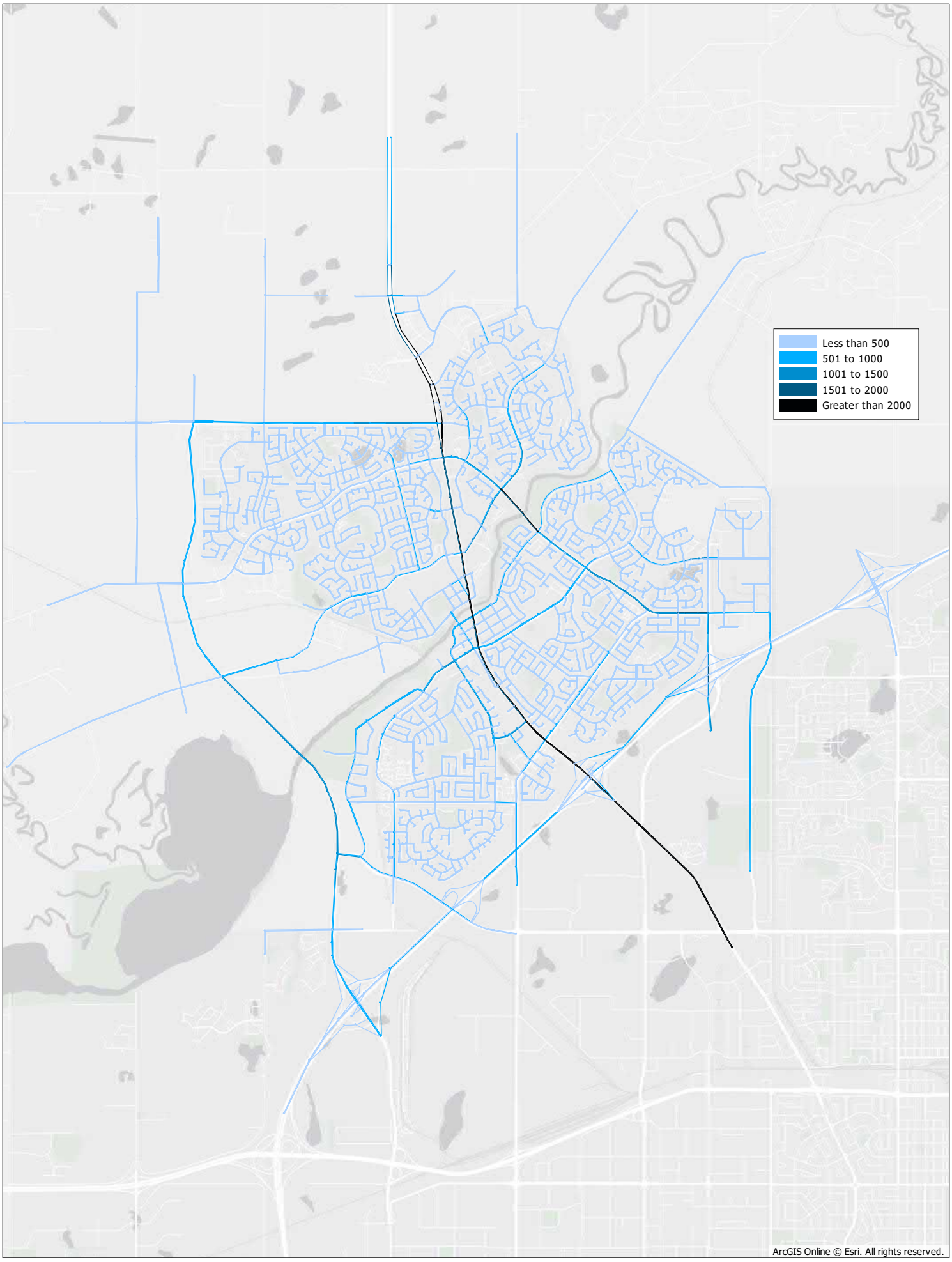
Scenario 2402 – Do Nothing with Minor Improvements


Do Nothing Scenario with Minor Intersection Improvements
Vs Do Nothing Scenario
Links with no differences
Links with differences
Links in scenario 2400
Nodes with no differences
Nodes with differences
Nodes in scenario 2400
Transit segments in scenario 2402 with differences
Links with transit segment differences

Do Nothing Scenario with Minor Intersection Improvements - Lanes in Each Direction of Travel



Do Nothing Scenario with Minor Intersection Improvements - Volumes



Emme Scenario 2402 - Do Nothing with Minor Intersection Improvements and Ramps at 137 Ave

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6033-6035-6033	6035	6033	6033	U Turn		0	0	0	-1
6033-6035-6036	6035	6033	6036	WBR		-1	36	0	0
6033-6035-7135	6035	6033	7135	WBT		-1	52	0	0
6033-6035-7144	6035	6033	7144	WBL		-1	66	0	0
6036-6035-6033	6035	6036	6033	SBL		-1	1	0	0
6036-6035-6036	6035	6036	6036	U Turn		0	0	0	-1
6036-6035-7135	6035	6036	7135	SBR		-1	1	0	0
6036-6035-7144	6035	6036	7144	SBT		-1	41	0	0
7135-6035-6033	6035	7135	6033	EBT		-1	137	0	0
7135-6035-6036	6035	7135	6036	EBL		-1	3	0	0
7135-6035-7135	6035	7135	7135	U Turn		0	0	0	-1
7135-6035-7144	6035	7135	7144	EBR		-1	15	0	0
7144-6035-6033	6035	7144	6033	NBR		-1	45	0	0
7144-6035-6036	6035	7144	6036	NBT		-1	37	0	0
7144-6035-7135	6035	7144	7135	NBL		-1	4	0	0
7144-6035-7144	6035	7144	7144	U Turn		0	0	0	-1
6033-6037-6033	6037	6033	6033	U Turn		0	0	0	-1
6033-6037-6038	6037	6033	6038	EBL		-1	0	0	0
6033-6037-7136	6037	6033	7136	EBT		-1	61	0	0
6033-6037-7141	6037	6033	7141	EBR		-1	0	0	0
6038-6037-6033	6037	6038	6033	SBR		-1	25	0	0
6038-6037-6038	6037	6038	6038	U Turn		0	0	0	-1
6038-6037-7136	6037	6038	7136	SBL		-1	176	0	0
6038-6037-7141	6037	6038	7141	SBT		-1	59	0	0
7136-6037-6033	6037	7136	6033	WBT		-1	241	0	0
7136-6037-6038	6037	7136	6038	WBR		-1	332	0	0
7136-6037-7136	6037	7136	7136	U Turn		0	0	0	-1
7136-6037-7141	6037	7136	7141	WBL		-1	190	0	0

Emme Scenario 2402 - Do Nothing with Minor Intersection Improvements and Ramps at 137 Ave

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7141-6037-6033	6037	7141	6033	NBL		-1	0	0	0
7141-6037-6038	6037	7141	6038	NBT		-1	44	0	0
7141-6037-7136	6037	7141	7136	NBR		-1	28	0	0
7141-6037-7141	6037	7141	7141	U Turn		0	0	0	-1
6141-6142-6141	6142	6141	6141	U Turn		0	0	0	-1
6141-6142-6722	6142	6141	6722	NBR	Sir Winston Churchill is NB/SB	-1	497	0	0
6141-6142-7861	6142	6141	7861	NBT		-1	715	0	0
6141-6142-8201	6142	6141	8201	NBL		1	68	0	0
6722-6142-6141	6142	6722	6141	WBL		-1	387	0	0
6722-6142-6722	6142	6722	6722	U Turn		0	0	0	-1
6722-6142-7861	6142	6722	7861	WBR		-1	302	0	0
6722-6142-8201	6142	6722	8201	WBT		-1	111	0	0
7861-6142-6141	6142	7861	6141	SBT		-1	905	0	0
7861-6142-6722	6142	7861	6722	SBL		1	74	0	1
7861-6142-7861	6142	7861	7861	U Turn		0	0	0	-1
7861-6142-8201	6142	7861	8201	SBR		-1	0	0	0
8201-6142-6141	6142	8201	6141	EBR		-1	9	0	0
8201-6142-6722	6142	8201	6722	EBT		-1	624	0	0
8201-6142-7861	6142	8201	7861	EBL		-1	295	0	0
8201-6142-8201	6142	8201	8201	U Turn		0	0	0	-1
7475-6175-7475	6175	7475	7475	U Turn	East side of divided intersection, NB traffic only	0	0	0	-1
7475-6175-7502	6175	7475	7502	EBT		-1	117	0	0
7475-6175-8105	6175	7475	8105	EBL		-1	402	0	0
7502-6175-7475	6175	7502	7475	WBT		-1	91	0	0
7502-6175-7502	6175	7502	7502	U Turn		0	0	0	-1
7502-6175-8105	6175	7502	8105	WBR		-1	131	0	0

Emme Scenario 2402 - Do Nothing with Minor Intersection Improvements and Ramps at 137 Ave

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7922-6175-7475	6175	7922	7475	NBL		-1	400	0	0
7922-6175-7502	6175	7922	7502	NBR		-1	91	0	0
7922-6175-8105	6175	7922	8105	NBT		-1	1751	0	0
7474-6176-7474	6176	7474	7474	U Turn		0	0	0	-1
7474-6176-7940	6176	7474	7940	SBR		-1	65	0	0
7474-6176-8172	6176	7474	8172	SBT		-1	1580	0	0
7474-6176-8223	6176	7474	8223	SBL		1	110	0	2
7940-6176-7474	6176	7940	7474	EBL		1	80	0	1
7940-6176-7940	6176	7940	7940	U Turn		0	0	0	-1
7940-6176-8172	6176	7940	8172	EBR		-1	9	0	0
7940-6176-8223	6176	7940	8223	EBT		-1	389	0	0
8172-6176-7474	6176	8172	7474	NBT		-1	1715	0	0
8172-6176-7940	6176	8172	7940	NBL		1	99	0	1
8172-6176-8172	6176	8172	8172	U Turn		0	0	0	-1
8172-6176-8223	6176	8172	8223	NBR		-1	57	0	0
8223-6176-7474	6176	8223	7474	WBR		-1	445	0	0
8223-6176-7940	6176	8223	7940	WBT		-1	495	0	0
8223-6176-8172	6176	8223	8172	WBL		1	86	0	1
8223-6176-8223	6176	8223	8223	U Turn		0	0	0	-1
7938-6348-7938	6348	7938	7938	U Turn		0	0	0	-1
7938-6348-7939	6348	7938	7939	SBL	Perron St is NB/SB	-1	10	0	0
7938-6348-8195	6348	7938	8195	SBR		-1	255	0	0
7938-6348-8197	6348	7938	8197	SBT		-1	219	0	0
7939-6348-7938	6348	7939	7938	WBR		-1	66	0	0
7939-6348-7939	6348	7939	7939	U Turn		0	0	0	-1
7939-6348-8195	6348	7939	8195	WBT		-1	684	0	0
7939-6348-8197	6348	7939	8197	WBL		1	59	0	0
8195-6348-7938	6348	8195	7938	EBL		1	100	0	1

Emme Scenario 2402 - Do Nothing with Minor Intersection Improvements and Ramps at 137 Ave

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8195-6348-7939	6348	8195	7939	EBT		-1	845	0	0
8195-6348-8195	6348	8195	8195	U Turn		0	0	0	-1
8195-6348-8197	6348	8195	8197	EBR		-1	0	0	0
8197-6348-7938	6348	8197	7938	NBT		-1	571	0	0
8197-6348-7939	6348	8197	7939	NBR		-1	27	0	0
8197-6348-8195	6348	8197	8195	NBL		-1	0	0	0
8197-6348-8197	6348	8197	8197	U Turn		0	0	0	-1
6594-6349-6594	6349	6594	6594	U Turn		0	0	0	-1
6594-6349-7936	6349	6594	7936	WBR	St Albert Trail is NB/SB	-1	332	0	0
6594-6349-7939	6349	6594	7939	WBT		-1	182	0	0
6594-6349-10802	6349	6594	10802	WBL		1	73	0	0
7936-6349-6594	6349	7936	6594	SBL		1	99	0	1
7936-6349-7936	6349	7936	7936	U Turn		0	0	0	-1
7936-6349-7939	6349	7936	7939	SBR		-1	858	0	0
7936-6349-10802	6349	7936	10802	SBT		-1	1386	0	0
7939-6349-6594	6349	7939	6594	EBT		-1	664	0	0
7939-6349-7936	6349	7939	7936	EBL		1	126	0	3
7939-6349-7939	6349	7939	7939	U Turn		0	0	0	-1
7939-6349-10802	6349	7939	10802	EBR		-1	147	0	0
10802-6349-6594	6349	10802	6594	NBR		-1	130	0	0
10802-6349-7936	6349	10802	7936	NBT		-1	2904	0	0
10802-6349-7939	6349	10802	7939	NBL		1	85	0	1
10802-6349-10802	6349	10802	10802	U Turn		0	0	0	-1
6279-6386-6279	6386	6279	6279	U Turn		0	0	0	-1
6279-6386-6485	6386	6279	6485	WBL		-1	0	0	0
6279-6386-6769	6386	6279	6769	WBR		-1	379	0	0
6279-6386-7923	6386	6279	7923	WBT		-1	851	0	0

Emme Scenario 2402 - Do Nothing with Minor Intersection Improvements and Ramps at 137 Ave

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6485-6386-6279	6386	6485	6279	NBR		-1	3	0	0
6485-6386-6485	6386	6485	6485	U Turn		0	0	0	-1
6485-6386-6769	6386	6485	6769	NBT		-1	141	0	0
6485-6386-7923	6386	6485	7923	NBL		-1	66	0	0
6769-6386-6279	6386	6769	6279	SBL		1	81	0	1
6769-6386-6485	6386	6769	6485	SBT		-1	15	0	0
6769-6386-6769	6386	6769	6769	U Turn		0	0	0	-1
6769-6386-7923	6386	6769	7923	SBR		-1	107	0	0
7923-6386-6279	6386	7923	6279	EBT		-1	576	0	0
7923-6386-6485	6386	7923	6485	EBR		-1	3	0	0
7923-6386-6769	6386	7923	6769	EBL		1	88	0	1
7923-6386-7923	6386	7923	7923	U Turn		0	0	0	-1
6193-6458-6193	6458	6193	6193	U Turn		0	0	0	-1
6193-6458-7479	6458	6193	7479	WBT	East side of divided intersection, NB traffic only	-1	15	0	0
6193-6458-8232	6458	6193	8232	WBR		-1	189	0	0
7479-6458-6193	6458	7479	6193	EBT		-1	95	0	0
7479-6458-7479	6458	7479	7479	U Turn		0	0	0	-1
7479-6458-8232	6458	7479	8232	EBL		-1	40	0	0
8103-6458-6193	6458	8103	6193	NBR		-1	3	0	0
8103-6458-7479	6458	8103	7479	NBL		-1	0	0	0
8103-6458-8232	6458	8103	8232	NBT		-1	2182	0	0
6356-6595-6356	6595	6356	6356	U Turn		0	0	0	-1
6356-6595-7554	6595	6356	7554	WBL		-1	272	0	0
6356-6595-8121	6595	6356	8121	WBR		-1	1	0	0
6356-6595-8220	6595	6356	8220	WBT		-1	644	0	0
7554-6595-6356	6595	7554	6356	NBR		-1	253	0	0
7554-6595-7554	6595	7554	7554	U Turn		0	0	0	-1

Emme Scenario 2402 - Do Nothing with Minor Intersection Improvements and Ramps at 137 Ave

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7554-6595-8121	6595	7554	8121	NBT		-1	144	0	0
7554-6595-8220	6595	7554	8220	NBL		-1	1058	0	0
8121-6595-6356	6595	8121	6356	SBL		-1	0	0	0
8121-6595-7554	6595	8121	7554	SBT		-1	132	0	0
8121-6595-8121	6595	8121	8121	U Turn		0	0	0	-1
8121-6595-8220	6595	8121	8220	SBR		-1	48	0	0
8220-6595-6356	6595	8220	6356	EBT		-1	715	0	0
8220-6595-7554	6595	8220	7554	EBR		-1	336	0	0
8220-6595-8121	6595	8220	8121	EBL		-1	56	0	0
8220-6595-8220	6595	8220	8220	U Turn		0	0	0	-1
7286-6596-7286	6596	7286	7286	U Turn		0	0	0	-1
7286-6596-7822	6596	7286	7822	WBT		-1	628	0	0
7286-6596-7977	6596	7286	7977	WBL		1	1	0	0
7286-6596-8117	6596	7286	8117	WBR		-1	0	0	0
7822-6596-7286	6596	7822	7286	EBT		-1	153	0	0
7822-6596-7822	6596	7822	7822	U Turn		0	0	0	-1
7822-6596-7977	6596	7822	7977	EBR		-1	86	0	0
7822-6596-8117	6596	7822	8117	EBL		1	0	0	0
7977-6596-7286	6596	7977	7286	NBL		-1	41	0	0
7977-6596-7822	6596	7977	7822	NBR		1	110	0	2
7977-6596-7977	6596	7977	7977	U Turn		0	0	0	-1
7977-6596-8117	6596	7977	8117	NBT		-1	3	0	0
8117-6596-7286	6596	8117	7286	SBL		1	0	0	0
8117-6596-7822	6596	8117	7822	SBR		-1	274	0	0
8117-6596-7977	6596	8117	7977	SBT		-1	0	0	0
8117-6596-8117	6596	8117	8117	U Turn		0	0	0	-1
6427-6624-6427	6624	6427	6427	U Turn		0	0	0	-1
6427-6624-7675	6624	6427	7675	NBL		-1	2	0	0

Emme Scenario 2402 - Do Nothing with Minor Intersection Improvements and Ramps at 137 Ave

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6427-6624-7875	6624	6427	7875	NBT		-1	0	0	0
6427-6624-7876	6624	6427	7876	NBR		-1	93	0	0
7675-6624-6427	6624	7675	6427	EBR		-1	6	0	0
7675-6624-7675	6624	7675	7675	U Turn		0	0	0	-1
7675-6624-7875	6624	7675	7875	EBL		-1	3	0	0
7675-6624-7876	6624	7675	7876	EBT		-1	795	0	0
7875-6624-6427	6624	7875	6427	SBT		-1	1	0	0
7875-6624-7675	6624	7875	7675	SBR		-1	3	0	0
7875-6624-7875	6624	7875	7875	U Turn		0	0	0	-1
7875-6624-7876	6624	7875	7876	SBL		-1	11	0	0
7876-6624-6427	6624	7876	6427	WBL		-1	365	0	0
7876-6624-7675	6624	7876	7675	WBT		-1	579	0	0
7876-6624-7875	6624	7876	7875	WBR		-1	16	0	0
7876-6624-7876	6624	7876	7876	U Turn		0	0	0	-1
7193-6744-7193	6744	7193	7193	U Turn		0	0	0	-1
7193-6744-7678	6744	7193	7678	EBR	St Albert Trail is NB/SB	-1	75	0	0
7193-6744-8135	6744	7193	8135	EBT		-1	387	0	0
7193-6744-8150	6744	7193	8150	EBL		1	73	0	0
7678-6744-7193	6744	7678	7193	NBL		1	114	0	2
7678-6744-7678	6744	7678	7678	U Turn		0	0	0	-1
7678-6744-8135	6744	7678	8135	NBR		-1	527	0	0
7678-6744-8150	6744	7678	8150	NBT		-1	2140	0	0
8135-6744-7193	6744	8135	7193	WBT		-1	365	0	0
8135-6744-7678	6744	8135	7678	WBL		1	78	0	1
8135-6744-8135	6744	8135	8135	U Turn		0	0	0	-1
8135-6744-8150	6744	8135	8150	WBR		-1	228	0	0
8150-6744-7193	6744	8150	7193	SBR		-1	11	0	0
8150-6744-7678	6744	8150	7678	SBT		-1	2151	0	0

Emme Scenario 2402 - Do Nothing with Minor Intersection Improvements and Ramps at 137 Ave

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8150-6744-8135	6744	8150	8135	SBL		1	70	0	0
8150-6744-8150	6744	8150	8150	U Turn		0	0	0	-1
6091-6871-6091	6871	6091	6091	U Turn		0	0	0	-1
6091-6871-6279	6871	6091	6279	EBL	Boudreau Rd is NB/SB	-1	89	0	0
6091-6871-6697	6871	6091	6697	EBT		-1	735	0	0
6091-6871-7129	6871	6091	7129	EBR		-1	418	0	0
6279-6871-6091	6871	6279	6091	SBR		-1	27	0	0
6279-6871-6279	6871	6279	6279	U Turn		0	0	0	-1
6279-6871-6697	6871	6279	6697	SBL		-1	70	0	0
6279-6871-7129	6871	6279	7129	SBT		-1	610	0	0
6697-6871-6091	6871	6697	6091	WBT		-1	191	0	0
6697-6871-6279	6871	6697	6279	WBR		-1	17	0	0
6697-6871-6697	6871	6697	6697	U Turn		0	0	0	-1
6697-6871-7129	6871	6697	7129	WBL		-1	570	0	0
7129-6871-6091	6871	7129	6091	NBL		-1	447	0	0
7129-6871-6279	6871	7129	6279	NBT		-1	1272	0	0
7129-6871-6697	6871	7129	6697	NBR		-1	569	0	0
7129-6871-7129	6871	7129	7129	U Turn		0	0	0	-1
6021-6894-6021	6894	6021	6021	U Turn		0	0	0	-1
6021-6894-6893	6894	6021	6893	SBT	Perron St is NB/SB	-1	11	0	0
6021-6894-8221	6894	6021	8221	SBL		-1	76	0	0
6021-6894-9910	6894	6021	9910	SBR		-1	177	0	0
6893-6894-6021	6894	6893	6021	NBT		-1	72	0	0
6893-6894-6893	6894	6893	6893	U Turn		0	0	0	-1
6893-6894-8221	6894	6893	8221	NBR		-1	1	0	0
6893-6894-9910	6894	6893	9910	NBL		-1	85	0	0
8221-6894-6021	6894	8221	6021	WBR		-1	157	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8221-6894-6893	6894	8221	6893	WBL		-1	0	0	0
8221-6894-8221	6894	8221	8221	U Turn		0	0	0	-1
8221-6894-9910	6894	8221	9910	WBT		-1	718	0	0
9910-6894-6021	6894	9910	6021	EBL		-1	342	0	0
9910-6894-6893	6894	9910	6893	EBR		-1	280	0	0
9910-6894-8221	6894	9910	8221	EBT		-1	649	0	0
9910-6894-9910	6894	9910	9910	U Turn		0	0	0	-1
7756-6921-7756	6921	7756	7756	U Turn		0	0	0	-1
7756-6921-7766	6921	7756	7766	NBR		-1	731	0	0
7756-6921-7964	6921	7756	7964	NBT		-1	1975	0	0
7756-6921-7967	6921	7756	7967	NBL		1	107	0	2
7766-6921-7756	6921	7766	7756	WBL		1	93	0	1
7766-6921-7766	6921	7766	7766	U Turn		0	0	0	-1
7766-6921-7964	6921	7766	7964	WBR		-1	38	0	0
7766-6921-7967	6921	7766	7967	WBT		-1	322	0	0
7964-6921-7756	6921	7964	7756	SBT		-1	1507	0	0
7964-6921-7766	6921	7964	7766	SBL		1	9	0	0
7964-6921-7964	6921	7964	7964	U Turn		0	0	0	-1
7964-6921-7967	6921	7964	7967	SBR		-1	16	0	0
7967-6921-7756	6921	7967	7756	EBR		-1	201	0	0
7967-6921-7766	6921	7967	7766	EBT		-1	322	0	0
7967-6921-7964	6921	7967	7964	EBL		1	52	0	0
7967-6921-7967	6921	7967	7967	U Turn		0	0	0	-1
7151-6922-7151	6922	7151	7151	U Turn		0	0	0	-1
7151-6922-7756	6922	7151	7756	NBT		-1	2894	0	0
7151-6922-7759	6922	7151	7759	NBL		1	117	0	3
7151-6922-10408	6922	7151	10408	NBR		-1	0	0	0
7756-6922-7151	6922	7756	7151	SBT		-1	1769	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7756-6922-7756	6922	7756	7756	U Turn		0	0	0	-1
7756-6922-7759	6922	7756	7759	SBR		-1	48	0	0
7756-6922-10408	6922	7756	10408	SBL		1	0	0	0
7759-6922-7151	6922	7759	7151	EBR		-1	0	0	0
7759-6922-7756	6922	7759	7756	EBL		-1	9	0	0
7759-6922-7759	6922	7759	7759	U Turn		0	0	0	-1
7759-6922-10408	6922	7759	10408	EBT		-1	0	0	0
10408-6922-7151	6922	10408	7151	WBL		-1	157	0	0
10408-6922-7756	6922	10408	7756	EBR		-1	0	0	0
10408-6922-7759	6922	10408	7759	EBT		-1	120	0	0
10408-6922-10408	6922	10408	10408	U Turn		0	0	0	-1
6926-6927-6926	6927	6926	6926	U Turn		0	0	0	-1
6926-6927-6952	6927	6926	6952	NBT	Boudreau Rd is NB/SB	-1	834	0	0
6926-6927-7073	6927	6926	7073	NBL		-1	526	0	0
6926-6927-8066	6927	6926	8066	NBR		-1	0	0	0
6952-6927-6926	6927	6952	6926	SBT		-1	701	0	0
6952-6927-6952	6927	6952	6952	U Turn		0	0	0	-1
6952-6927-7073	6927	6952	7073	SBR		-1	15	0	0
6952-6927-8066	6927	6952	8066	SBL		-1	229	0	0
7073-6927-6926	6927	7073	6926	EBR		-1	507	0	0
7073-6927-6952	6927	7073	6952	EBL		-1	26	0	0
7073-6927-7073	6927	7073	7073	U Turn		0	0	0	-1
7073-6927-8066	6927	7073	8066	EBT		-1	139	0	0
8066-6927-6926	6927	8066	6926	WBL		-1	23	0	0
8066-6927-6952	6927	8066	6952	WBR		-1	263	0	0
8066-6927-7073	6927	8066	7073	WBT		-1	224	0	0
8066-6927-8066	6927	8066	8066	U Turn		0	0	0	-1
6467-7121-6467	7121	6467	6467	U Turn		0	0	0	-1

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6467-7121-6946	7121	6467	6946	SBR		-1	79	0	0
6467-7121-7119	7121	6467	7119	SBL		-1	28	0	0
6946-7121-6467	7121	6946	6467	EBL		-1	0	0	0
6946-7121-6946	7121	6946	6946	U Turn		0	0	0	-1
6946-7121-7119	7121	6946	7119	EBT		-1	97	0	0
7119-7121-6467	7121	7119	6467	WBR		-1	57	0	0
7119-7121-6946	7121	7119	6946	WBT		-1	158	0	0
7119-7121-7119	7121	7119	7119	U Turn		0	0	0	-1
6394-7129-6394	7129	6394	6394	U Turn		0	0	0	-1
6394-7129-6549	7129	6394	6549	EBR	Boudreau Rd is NB/SB	-1	12	0	0
6394-7129-6785	7129	6394	6785	EBT		-1	20	0	0
6394-7129-6871	7129	6394	6871	EBL		-1	512	0	0
6549-7129-6394	7129	6549	6394	NBL		-1	67	0	0
6549-7129-6549	7129	6549	6549	U Turn		0	0	0	-1
6549-7129-6785	7129	6549	6785	NBR		-1	0	0	0
6549-7129-6871	7129	6549	6871	NBT		-1	1184	0	0
6785-7129-6394	7129	6785	6394	WBT		-1	24	0	0
6785-7129-6549	7129	6785	6549	WBL		-1	0	0	0
6785-7129-6785	7129	6785	6785	U Turn		0	0	0	-1
6785-7129-6871	7129	6785	6871	WBR		-1	592	0	0
6871-7129-6394	7129	6871	6394	SBR		-1	231	0	0
6871-7129-6549	7129	6871	6549	SBT		-1	967	0	0
6871-7129-6785	7129	6871	6785	SBL		-1	401	0	0
6871-7129-6871	7129	6871	6871	U Turn		0	0	0	-1
6035-7135-6035	7135	6035	6035	U Turn		0	0	0	-1
6035-7135-7132	7135	6035	7132	WBR		-1	1	0	0
6035-7135-7318	7135	6035	7318	WBL		-1	0	0	0
6035-7135-7892	7135	6035	7892	WBT		-1	56	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7132-7135-6035	7135	7132	6035	SBL		-1	0	0	0
7132-7135-7132	7135	7132	7132	U Turn		0	0	0	-1
7132-7135-7318	7135	7132	7318	SBT		-1	213	0	0
7132-7135-7892	7135	7132	7892	SBR		-1	15	0	0
7318-7135-6035	7135	7318	6035	NBR		-1	43	0	0
7318-7135-7132	7135	7318	7132	NBT		-1	534	0	0
7318-7135-7318	7135	7318	7318	U Turn		0	0	0	-1
7318-7135-7892	7135	7318	7892	NBL		-1	6	0	0
7892-7135-6035	7135	7892	6035	EBT		-1	112	0	0
7892-7135-7132	7135	7892	7132	EBL		-1	5	0	0
7892-7135-7318	7135	7892	7318	EBR		-1	13	0	0
7892-7135-7892	7135	7892	7892	U Turn		0	0	0	-1
6037-7136-6037	7136	6037	6037	U Turn		0	0	0	-1
6037-7136-7493	7136	6037	7493	EBR		-1	182	0	0
6037-7136-8149	7136	6037	8149	EBL		-1	83	0	0
7493-7136-6037	7136	7493	6037	NBL		-1	573	0	0
7493-7136-7493	7136	7493	7493	U Turn		0	0	0	-1
7493-7136-8149	7136	7493	8149	NBT		-1	393	0	0
8149-7136-6037	7136	8149	6037	SBR		-1	191	0	0
8149-7136-7493	7136	8149	7493	SBT		-1	147	0	0
8149-7136-8149	7136	8149	8149	U Turn		0	0	0	-1
6916-7138-6916	7138	6916	6916	U Turn		0	0	0	-1
6916-7138-7140	7138	6916	7140	SBL		-1	20	0	0
6916-7138-7682	7138	6916	7682	SBT		-1	586	0	0
7140-7138-6916	7138	7140	6916	WBR		-1	29	0	0
7140-7138-7140	7138	7140	7140	U Turn		0	0	0	-1
7140-7138-7682	7138	7140	7682	WBL		-1	49	0	0
7682-7138-6916	7138	7682	6916	NBT		-1	424	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7682-7138-7140	7138	7682	7140	NBR		-1	110	0	0
7682-7138-7682	7138	7682	7682	U Turn		0	0	0	-1
7559-7397-7559	7397	7559	7559	U Turn		0	0	0	-1
7559-7397-7683	7397	7559	7683	NBR		-1	309	0	0
7559-7397-7835	7397	7559	7835	NBT		-1	925	0	0
7683-7397-7559	7397	7683	7559	WBL		-1	311	0	0
7683-7397-7683	7397	7683	7683	U Turn		0	0	0	-1
7683-7397-7835	7397	7683	7835	WBR		-1	434	0	0
7835-7397-7559	7397	7835	7559	SBT		-1	433	0	0
7835-7397-7683	7397	7835	7683	SBL		-1	728	0	0
7835-7397-7835	7397	7835	7835	U Turn		0	0	0	-1
6175-7475-6175	7475	6175	6175	U Turn		0	0	0	-1
6175-7475-7474	7475	6175	7474	WBL	West side of divided intersection, SB traffic only	-1	2	0	0
6175-7475-8106	7475	6175	8106	WBT		-1	490	0	0
8104-7475-6175	7475	8104	6175	SBL		-1	16	0	0
8104-7475-7474	7475	8104	7474	SBT		-1	1667	0	0
8104-7475-8106	7475	8104	8106	SBR		-1	596	0	0
8106-7475-6175	7475	8106	6175	EBT		-1	503	0	0
8106-7475-7474	7475	8106	7474	EBR		-1	110	0	0
8106-7475-8106	7475	8106	8106	U Turn		0	0	0	-1
5008-7479-5008	7479	5008	5008	U Turn		0	0	0	-1
5008-7479-6458	7479	5008	6458	EBT	West side of divided intersection, SB traffic only	-1	61	0	0
5008-7479-7551	7479	5008	7551	EBR		-1	0	0	0
6458-7479-5008	7479	6458	5008	WBT		-1	0	0	0
6458-7479-6458	7479	6458	6458	U Turn		0	0	0	-1
6458-7479-7551	7479	6458	7551	WBL		-1	15	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8231-7479-5008	7479	8231	5008	SBR		-1	25	0	0
8231-7479-6458	7479	8231	6458	SBL		-1	74	0	0
8231-7479-7551	7479	8231	7551	SBT		-1	2048	0	0
7499-7503-7499	7503	7499	7499	U Turn	Anthony Henday Drive is NB/SB	0	0	0	-1
7499-7503-7504	7503	7499	7504	WBT		-1	232	0	0
7499-7503-15048	7503	7499	15048	WBR		-1	137	0	0
7504-7503-7499	7503	7504	7499	EBT		-1	133	0	0
7504-7503-7504	7503	7504	7504	U Turn		0	0	0	-1
7504-7503-15048	7503	7504	15048	EBL		-1	227	0	0
7533-7503-7499	7503	7533	7499	SBL	NB OFF RAMP (ESSENTIALLY SB AT RAMP TERMINAL)	-1	0	0	0
7533-7503-7504	7503	7533	7504	SBR		-1	344	0	0
7533-7503-15048	7503	7533	15048	U Turn		0	0	0	-1
7503-7504-7503	7504	7503	7503	U Turn	Anthony Henday Drive is NB/SB	0	0	0	-1
7503-7504-7532	7504	7503	7532	WBT		-1	575	0	0
7503-7504-7536	7504	7503	7536	WBR		-1	0	0	0
7532-7504-7503	7504	7532	7503	EBT		-1	317	0	0
7532-7504-7532	7504	7532	7532	U Turn		0	0	0	-1
7532-7504-7536	7504	7532	7536	EBL		-1	0	0	0
7555-7504-7503	7504	7555	7503	SBL		-1	44	0	0
7555-7504-7532	7504	7555	7532	SBR		-1	408	0	0
7555-7504-7536	7504	7555	7536	U Turn		0	0	0	-1
7434-7514-7434	7514	7434	7434	U Turn		0	0	0	-1
7434-7514-7476	7514	7434	7476	WBL		-1	324	0	0
7434-7514-7500	7514	7434	7500	WBR		-1	148	0	0
7434-7514-7633	7514	7434	7633	WBT		-1	50	0	0
7476-7514-7434	7514	7476	7434	NBR		-1	663	0	0
7476-7514-7476	7514	7476	7476	U Turn		0	0	0	-1

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7476-7514-7500	7514	7476	7500	NBT		-1	707	0	0
7476-7514-7633	7514	7476	7633	NBL		-1	38	0	0
7500-7514-7434	7514	7500	7434	SBL		-1	172	0	0
7500-7514-7476	7514	7500	7476	SBT		-1	720	0	0
7500-7514-7500	7514	7500	7500	U Turn		0	0	0	-1
7500-7514-7633	7514	7500	7633	SBR		-1	0	0	0
7633-7514-7434	7514	7633	7434	EBT		-1	59	0	0
7633-7514-7476	7514	7633	7476	EBR		-1	18	0	0
7633-7514-7500	7514	7633	7500	EBL		-1	0	0	0
7633-7514-7633	7514	7633	7633	U Turn		0	0	0	-1
7219-7532-7219	7532	7219	7219	U Turn		0	0	0	-1
7219-7532-7504	7532	7219	7504	SBL		-1	7	0	0
7219-7532-7583	7532	7219	7583	SBR		-1	242	0	0
7219-7532-7586	7532	7219	7586	SBT		-1	14	0	0
7504-7532-7219	7532	7504	7219	WBR		-1	690	0	0
7504-7532-7504	7532	7504	7504	U Turn		0	0	0	-1
7504-7532-7583	7532	7504	7583	WBT		-1	291	0	0
7504-7532-7586	7532	7504	7586	WBL		-1	2	0	0
7583-7532-7219	7532	7583	7219	EBL		1	65	0	0
7583-7532-7504	7532	7583	7504	EBT		-1	279	0	0
7583-7532-7583	7532	7583	7583	U Turn		0	0	0	-1
7583-7532-7586	7532	7583	7586	EBR		-1	0	0	0
7586-7532-7219	7532	7586	7219	NBT		-1	125	0	0
7586-7532-7504	7532	7586	7504	NBR		-1	31	0	0
7586-7532-7583	7532	7586	7583	NBL		-1	0	0	0
7586-7532-7586	7532	7586	7586	U Turn		0	0	0	-1
7592-7590-7592	7590	7592	7592	U Turn	West side of divided intersection, SB traffic only	0	0	0	-1

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7592-7590-7747	7590	7592	7747	EBT		-1	67	0	0
7592-7590-8231	7590	7592	8231	EBR		-1	195	0	0
7747-7590-7592	7590	7747	7592	WBT		-1	1	0	0
7747-7590-7747	7590	7747	7747	U Turn		0	0	0	-1
7747-7590-8231	7590	7747	8231	WBL		-1	615	0	0
8099-7590-7592	7590	8099	7592	SBR		-1	0	0	0
8099-7590-7747	7590	8099	7747	SBL		-1	60	0	0
8099-7590-8231	7590	8099	8231	SBT		-1	1136	0	0
7397-7683-7397	7683	7397	7397	U Turn		0	0	0	-1
7397-7683-7682	7683	7397	7682	EBL		-1	728	0	0
7397-7683-10501	7683	7397	10501	EBT		-1	309	0	0
7682-7683-7397	7683	7682	7397	SBR		-1	262	0	0
7682-7683-7682	7683	7682	7682	U Turn		0	0	0	-1
7682-7683-10501	7683	7682	10501	SBL		-1	35	0	0
10501-7683-7397	7683	10501	7397	WBT		-1	483	0	0
10501-7683-7682	7683	10501	7682	WBR		-1	51	0	0
10501-7683-10501	7683	10501	10501	U Turn		0	0	0	-1
7590-7747-7590	7747	7590	7590	U Turn	East side of divided intersection, NB traffic only	0	0	0	-1
7590-7747-8102	7747	7590	8102	EBL		-1	49	0	0
7590-7747-8238	7747	7590	8238	EBT		-1	77	0	0
8238-7747-7590	7747	8238	7590	WBT		-1	615	0	0
8238-7747-8102	7747	8238	8102	WBR		-1	4	0	0
8238-7747-8238	7747	8238	8238	U Turn		0	0	0	-1
8239-7747-7590	7747	8239	7590	NBL		-1	1	0	0
8239-7747-8102	7747	8239	8102	NBT		-1	1491	0	0
8239-7747-8238	7747	8239	8238	NBR		-1	0	0	0
6653-8217-6653	8217	6653	6653	U Turn		0	0	0	-1

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6653-8217-6819	8217	6653	6819	NBR		-1	163	0	0
6653-8217-7301	8217	6653	7301	NBL		-1	202	0	0
6819-8217-6653	8217	6819	6653	WBL		-1	28	0	0
6819-8217-6819	8217	6819	6819	U Turn		0	0	0	-1
6819-8217-7301	8217	6819	7301	WBT		-1	1227	0	0
7301-8217-6653	8217	7301	6653	EBR		-1	21	0	0
7301-8217-6819	8217	7301	6819	EBT		-1	1067	0	0
7301-8217-7301	8217	7301	7301	U Turn		0	0	0	-1
7067-8227-7067	8227	7067	7067	U Turn		0	0	0	-1
7067-8227-7302	8227	7067	7302	EBR		-1	172	0	0
7067-8227-7448	8227	7067	7448	EBL		-1	183	0	0
7067-8227-8092	8227	7067	8092	EBT		-1	54	0	0
7302-8227-7067	8227	7302	7067	NBL		-1	36	0	0
7302-8227-7302	8227	7302	7302	U Turn		0	0	0	-1
7302-8227-7448	8227	7302	7448	NBT		-1	405	0	0
7302-8227-8092	8227	7302	8092	NBR		-1	414	0	0
7448-8227-7067	8227	7448	7067	SBR		-1	25	0	0
7448-8227-7302	8227	7448	7302	SBT		-1	573	0	0
7448-8227-7448	8227	7448	7448	U Turn		0	0	0	-1
7448-8227-8092	8227	7448	8092	SBL		-1	10	0	0
8092-8227-7067	8227	8092	7067	WBT		-1	13	0	0
8092-8227-7302	8227	8092	7302	WBL		-1	148	0	0
8092-8227-7448	8227	8092	7448	WBR		-1	44	0	0
8092-8227-8092	8227	8092	8092	U Turn		0	0	0	-1
7510-8228-7510	8228	7510	7510	U Turn		0	0	0	-1
7510-8228-7675	8228	7510	7675	NBR		-1	473	0	0
7510-8228-8096	8228	7510	8096	NBL		-1	151	0	0
7510-8228-8229	8228	7510	8229	NBT		-1	0	0	0

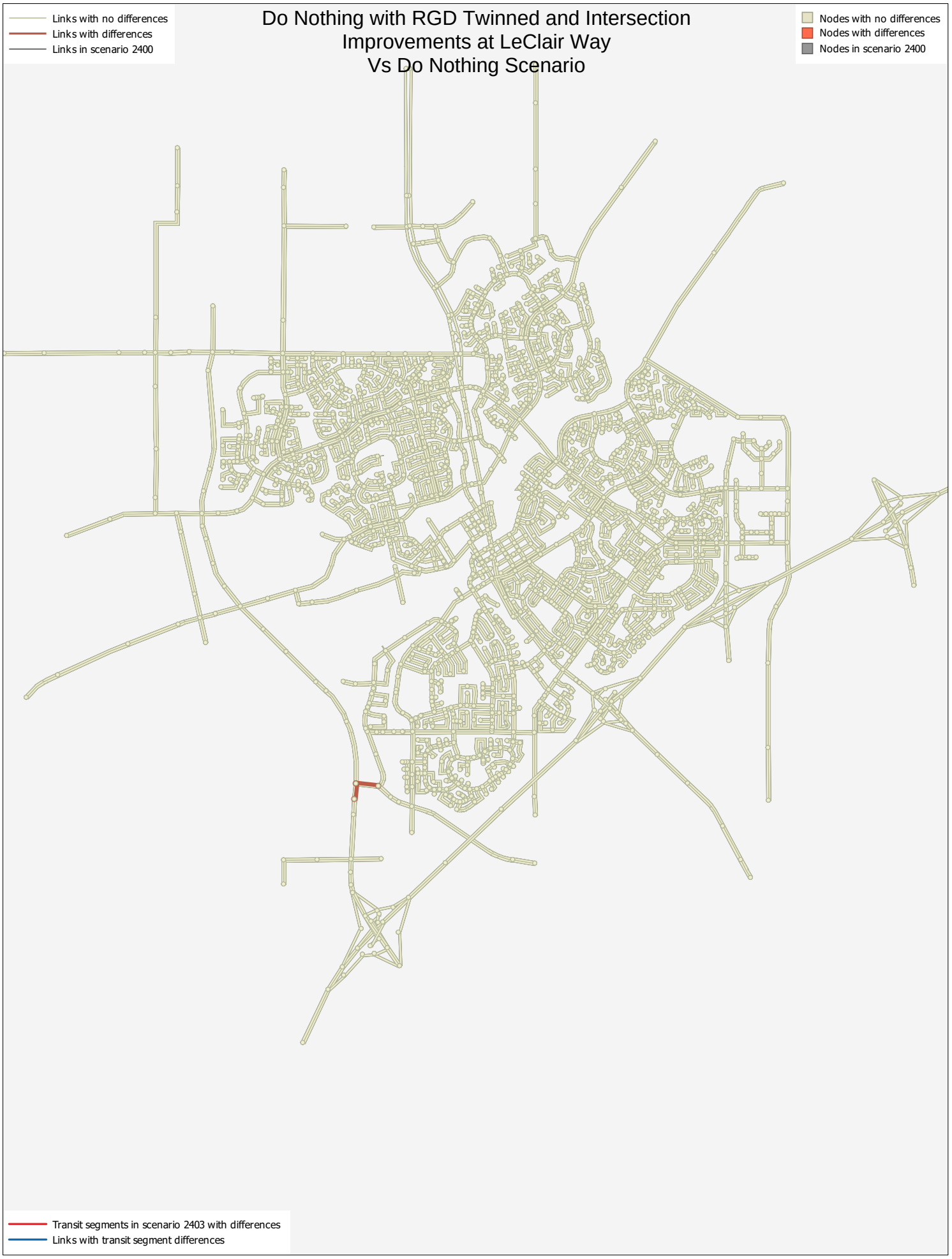
Emme Scenario 2402 - Do Nothing with Minor Intersection Improvements and Ramps at 137 Ave

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7675-8228-7510	8228	7675	7510	WBL		-1	447	0	0
7675-8228-7675	8228	7675	7675	U Turn		0	0	0	-1
7675-8228-8096	8228	7675	8096	WBT		-1	138	0	0
7675-8228-8229	8228	7675	8229	WBR		-1	0	0	0
8096-8228-7510	8228	8096	7510	EBR		-1	155	0	0
8096-8228-7675	8228	8096	7675	EBT		-1	330	0	0
8096-8228-8096	8228	8096	8096	U Turn		0	0	0	-1
8096-8228-8229	8228	8096	8229	EBL		-1	0	0	0
8229-8228-7510	8228	8229	7510	SBT		-1	0	0	0
8229-8228-7675	8228	8229	7675	SBL		-1	0	0	0
8229-8228-8096	8228	8229	8096	SBR		-1	0	0	0
8229-8228-8229	8228	8229	8229	U Turn		0	0	0	-1
5034-8231-5034	8231	5034	5034	U Turn	West side of divided intersection, SB traffic only	0	0	0	-1
5034-8231-7479	8231	5034	7479	EBR		-1	74	0	0
5034-8231-8232	8231	5034	8232	EBT	St Albert Trail is NB/SB	-1	18	0	0
7590-8231-5034	8231	7590	5034	EBL		-1	16	0	0
7590-8231-7479	8231	7590	7479	SBT		-1	1872	0	0
7590-8231-8232	8231	7590	8232	SBL		-1	59	0	0
8232-8231-5034	8231	8232	5034	WBT		-1	116	0	0
8232-8231-7479	8231	8232	7479	WBL		-1	202	0	0
8232-8231-8232	8231	8232	8232	U Turn		0	0	0	-1
6458-8232-8231	8232	6458	8231	NBL	East side of divided intersection, NB traffic only	-1	110	0	0
6458-8232-8234	8232	6458	8234	NBR	St Albert Trail is NB/SB	-1	234	0	0
6458-8232-8239	8232	6458	8239	NBT		-1	2066	0	0
8231-8232-8231	8232	8231	8231	EBR		0	0	0	-1
8231-8232-8234	8232	8231	8234	EBT		-1	66	0	0

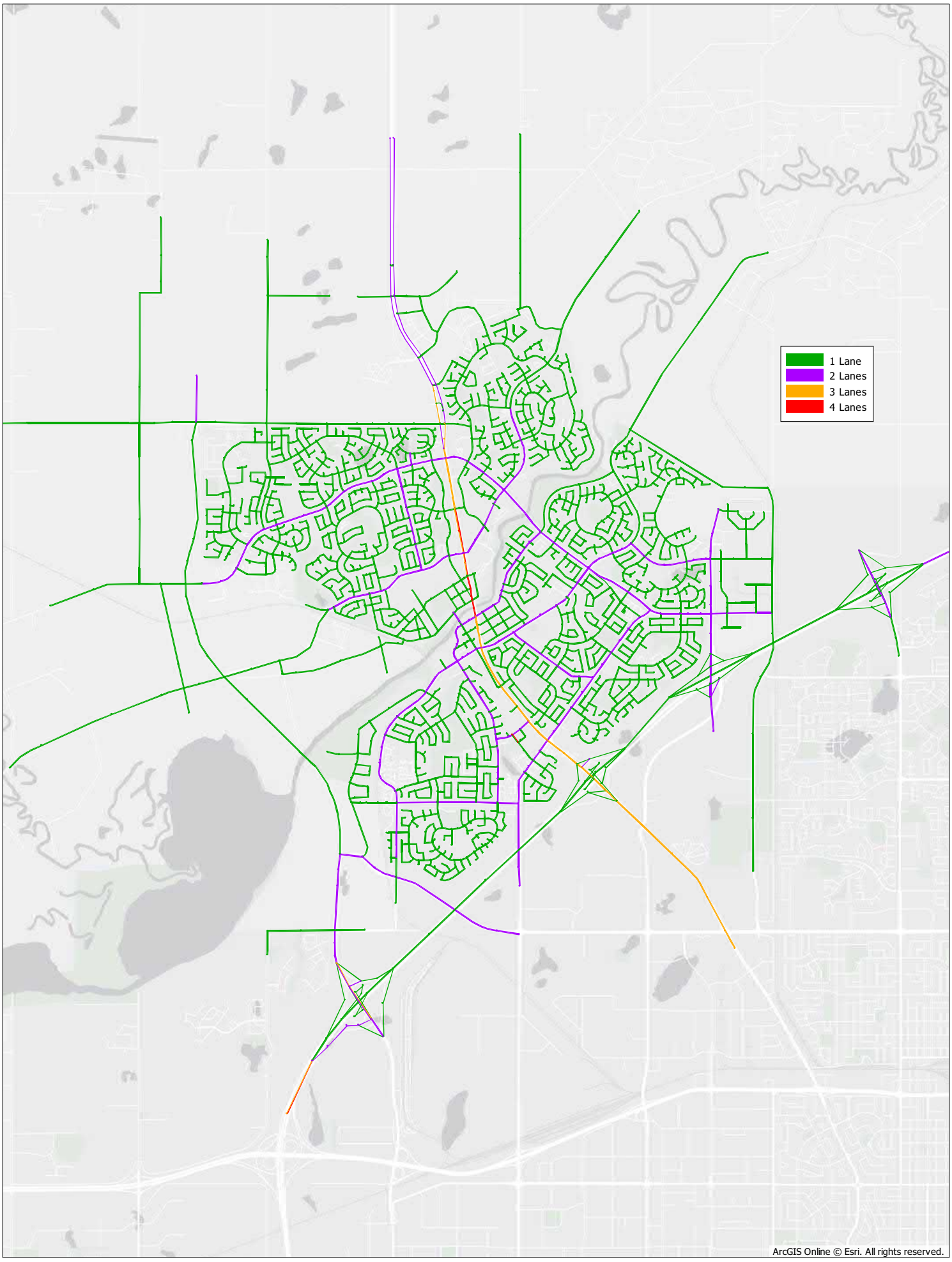
Emme Scenario 2402 - Do Nothing with Minor Intersection Improvements and Ramps at 137 Ave

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8231-8232-8239	8232	8231	8239	EBL		-1	10	0	0
8234-8232-8231	8232	8234	8231	WBL		-1	208	0	0
8234-8232-8234	8232	8234	8234	U Turn		0	0	0	-1
8234-8232-8239	8232	8234	8239	WBR		-1	1	0	0
7503-15048-7555	15048	7503	7555	U Turn	Anthony Henday Drive is NB/SB	0	0	0	-1
7503-15048-15055	15048	7503	15055	NB MERGE		-1	365	0	0
7503-15048-15056	15048	7503	15056	U Turn		0	0	0	-1
15055-15048-7555	15048	15055	7555	SB DIVERGE		-1	452	0	0
15055-15048-15055	15048	15055	15055	U Turn		0	0	0	-1
15055-15048-15056	15048	15055	15056	SBT		-1	175	0	0
15056-15048-7555	15048	15056	7555	U Turn		0	0	0	-1
15056-15048-15055	15048	15056	15055	NBT		-1	198	0	0
15056-15048-15056	15048	15056	15056	U Turn		0	0	0	-1
7536-15056-7533	15056	7536	7533	U Turn	Anthony Henday Drive is NB/SB	0	0	0	-1
7536-15056-15045	15056	7536	15045	SB MERGE		-1	0	0	0
7536-15056-15048	15056	7536	15048	U Turn		0	0	0	-1
15045-15056-7533	15056	15045	7533	NB DIVERGE		-1	344	0	0
15045-15056-15045	15056	15045	15045	U Turn		0	0	0	-1
15045-15056-15048	15056	15045	15048	NBT		-1	198	0	0
15048-15056-7533	15056	15048	7533	U Turn		0	0	0	-1
15048-15056-15045	15056	15048	15045	SBT		-1	175	0	0
15048-15056-15048	15056	15048	15048	U Turn		0	0	0	-1

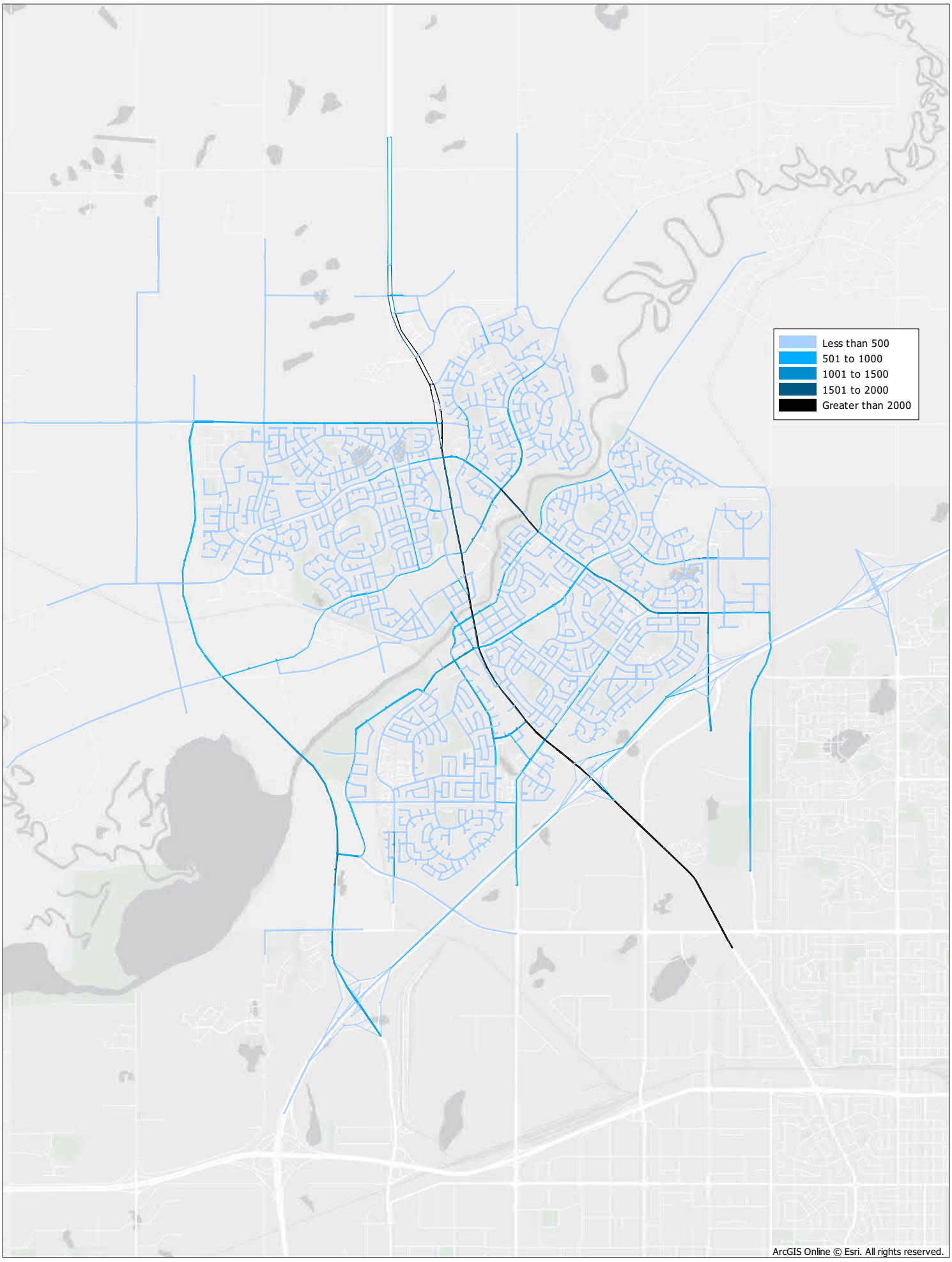
Scenario 2403 – Do Nothing with RGD Twinned and Intersection Improvements to LeClair Way


Do Nothing with RGD Twinned and Intersection Improvements at LeClair Way Vs Do Nothing Scenario
Links with no differences
Links with differences
Links in scenario 2400
Nodes with no differences
Nodes with differences
Nodes in scenario 2400
Transit segments in scenario 2403 with differences
Links with transit segment differences

Do Nothing with RGD Twinned and Intersection Improvements at LeClair Way - Lanes in Each Direction of Travel



Do Nothing with RGD Twinned and Intersection Improvements at LeClair Way - Volumes



Emme Scenario 2403 - Do Nothing with RGD Twinning and Intersection Improvements to LeClair Way

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6033-6035-6033	6035	6033	6033	U Turn		0	0	0	-1
6033-6035-6036	6035	6033	6036	WBR		-1	24	0	0
6033-6035-7135	6035	6033	7135	WBT		-1	54	0	0
6033-6035-7144	6035	6033	7144	WBL		-1	115	0	0
6036-6035-6033	6035	6036	6033	SBL		-1	6	0	0
6036-6035-6036	6035	6036	6036	U Turn		0	0	0	-1
6036-6035-7135	6035	6036	7135	SBR		-1	1	0	0
6036-6035-7144	6035	6036	7144	SBT		-1	42	0	0
7135-6035-6033	6035	7135	6033	EBT		-1	99	0	0
7135-6035-6036	6035	7135	6036	EBL		-1	2	0	0
7135-6035-7135	6035	7135	7135	U Turn		0	0	0	-1
7135-6035-7144	6035	7135	7144	EBR		-1	42	0	0
7144-6035-6033	6035	7144	6033	NBR		-1	134	0	0
7144-6035-6036	6035	7144	6036	NBT		-1	36	0	0
7144-6035-7135	6035	7144	7135	NBL		-1	4	0	0
7144-6035-7144	6035	7144	7144	U Turn		0	0	0	-1
6033-6037-6033	6037	6033	6033	U Turn		0	0	0	-1
6033-6037-6038	6037	6033	6038	EBL		-1	0	0	0
6033-6037-7136	6037	6033	7136	EBT		-1	120	0	0
6033-6037-7141	6037	6033	7141	EBR		-1	0	0	0
6038-6037-6033	6037	6038	6033	SBR		-1	34	0	0
6038-6037-6038	6037	6038	6038	U Turn		0	0	0	-1
6038-6037-7136	6037	6038	7136	SBL		-1	176	0	0
6038-6037-7141	6037	6038	7141	SBT		-1	78	0	0
7136-6037-6033	6037	7136	6033	WBT		-1	271	0	0
7136-6037-6038	6037	7136	6038	WBR		-1	331	0	0
7136-6037-7136	6037	7136	7136	U Turn		0	0	0	-1
7136-6037-7141	6037	7136	7141	WBL		-1	229	0	0

Emme Scenario 2403 - Do Nothing with RGD Twinning and Intersection Improvements to LeClair Way

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7141-6037-6033	6037	7141	6033	NBL		-1	0	0	0
7141-6037-6038	6037	7141	6038	NBT		-1	45	0	0
7141-6037-7136	6037	7141	7136	NBR		-1	28	0	0
7141-6037-7141	6037	7141	7141	U Turn		0	0	0	-1
6141-6142-6141	6142	6141	6141	U Turn		0	0	0	-1
6141-6142-6722	6142	6141	6722	NBR	Sir Winston Churchill is NB/SB	-1	567	0	0
6141-6142-7861	6142	6141	7861	NBT		-1	673	0	0
6141-6142-8201	6142	6141	8201	NBL		1	64	0	0
6722-6142-6141	6142	6722	6141	WBL		-1	323	0	0
6722-6142-6722	6142	6722	6722	U Turn		0	0	0	-1
6722-6142-7861	6142	6722	7861	WBR		-1	318	0	0
6722-6142-8201	6142	6722	8201	WBT		-1	87	0	0
7861-6142-6141	6142	7861	6141	SBT		-1	1047	0	0
7861-6142-6722	6142	7861	6722	SBL		1	69	0	0
7861-6142-7861	6142	7861	7861	U Turn		0	0	0	-1
7861-6142-8201	6142	7861	8201	SBR		-1	0	0	0
8201-6142-6141	6142	8201	6141	EBR		-1	11	0	0
8201-6142-6722	6142	8201	6722	EBT		-1	564	0	0
8201-6142-7861	6142	8201	7861	EBL		-1	338	0	0
8201-6142-8201	6142	8201	8201	U Turn		0	0	0	-1
7475-6175-7475	6175	7475	7475	U Turn	East side of divided intersection, NB traffic only	0	0	0	-1
7475-6175-7502	6175	7475	7502	EBT		-1	117	0	0
7475-6175-8105	6175	7475	8105	EBL		-1	394	0	0
7502-6175-7475	6175	7502	7475	WBT		-1	83	0	0
7502-6175-7502	6175	7502	7502	U Turn		0	0	0	-1
7502-6175-8105	6175	7502	8105	WBR		-1	134	0	0

Emme Scenario 2403 - Do Nothing with RGD Twinning and Intersection Improvements to LeClair Way

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7922-6175-7475	6175	7922	7475	NBL		-1	411	0	0
7922-6175-7502	6175	7922	7502	NBR		-1	92	0	0
7922-6175-8105	6175	7922	8105	NBT		-1	1729	0	0
7474-6176-7474	6176	7474	7474	U Turn		0	0	0	-1
7474-6176-7940	6176	7474	7940	SBR		-1	65	0	0
7474-6176-8172	6176	7474	8172	SBT		-1	1579	0	0
7474-6176-8223	6176	7474	8223	SBL		1	110	0	2
7940-6176-7474	6176	7940	7474	EBL		1	80	0	1
7940-6176-7940	6176	7940	7940	U Turn		0	0	0	-1
7940-6176-8172	6176	7940	8172	EBR		-1	9	0	0
7940-6176-8223	6176	7940	8223	EBT		-1	389	0	0
8172-6176-7474	6176	8172	7474	NBT		-1	1725	0	0
8172-6176-7940	6176	8172	7940	NBL		1	99	0	1
8172-6176-8172	6176	8172	8172	U Turn		0	0	0	-1
8172-6176-8223	6176	8172	8223	NBR		-1	57	0	0
8223-6176-7474	6176	8223	7474	WBR		-1	428	0	0
8223-6176-7940	6176	8223	7940	WBT		-1	496	0	0
8223-6176-8172	6176	8223	8172	WBL		1	86	0	1
8223-6176-8223	6176	8223	8223	U Turn		0	0	0	-1
7938-6348-7938	6348	7938	7938	U Turn		0	0	0	-1
7938-6348-7939	6348	7938	7939	SBL	Perron St is NB/SB	-1	10	0	0
7938-6348-8195	6348	7938	8195	SBR		-1	251	0	0
7938-6348-8197	6348	7938	8197	SBT		-1	240	0	0
7939-6348-7938	6348	7939	7938	WBR		-1	59	0	0
7939-6348-7939	6348	7939	7939	U Turn		0	0	0	-1
7939-6348-8195	6348	7939	8195	WBT		-1	693	0	0
7939-6348-8197	6348	7939	8197	WBL		1	62	0	0
8195-6348-7938	6348	8195	7938	EBL		1	98	0	1

Emme Scenario 2403 - Do Nothing with RGD Twinning and Intersection Improvements to LeClair Way

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8195-6348-7939	6348	8195	7939	EBT		-1	813	0	0
8195-6348-8195	6348	8195	8195	U Turn		0	0	0	-1
8195-6348-8197	6348	8195	8197	EBR		-1	0	0	0
8197-6348-7938	6348	8197	7938	NBT		-1	585	0	0
8197-6348-7939	6348	8197	7939	NBR		-1	16	0	0
8197-6348-8195	6348	8197	8195	NBL		-1	0	0	0
8197-6348-8197	6348	8197	8197	U Turn		0	0	0	-1
6594-6349-6594	6349	6594	6594	U Turn		0	0	0	-1
6594-6349-7936	6349	6594	7936	WBR	St Albert Trail is NB/SB	-1	338	0	0
6594-6349-7939	6349	6594	7939	WBT		-1	206	0	0
6594-6349-10802	6349	6594	10802	WBL		1	73	0	0
7936-6349-6594	6349	7936	6594	SBL		1	100	0	1
7936-6349-7936	6349	7936	7936	U Turn		0	0	0	-1
7936-6349-7939	6349	7936	7939	SBR		-1	852	0	0
7936-6349-10802	6349	7936	10802	SBT		-1	1395	0	0
7939-6349-6594	6349	7939	6594	EBT		-1	669	0	0
7939-6349-7936	6349	7939	7936	EBL		1	130	0	4
7939-6349-7939	6349	7939	7939	U Turn		0	0	0	-1
7939-6349-10802	6349	7939	10802	EBR		-1	142	0	0
10802-6349-6594	6349	10802	6594	NBR		-1	143	0	0
10802-6349-7936	6349	10802	7936	NBT		-1	2899	0	0
10802-6349-7939	6349	10802	7939	NBL		1	98	0	1
10802-6349-10802	6349	10802	10802	U Turn		0	0	0	-1
6279-6386-6279	6386	6279	6279	U Turn		0	0	0	-1
6279-6386-6485	6386	6279	6485	WBL		-1	0	0	0
6279-6386-6769	6386	6279	6769	WBR		-1	385	0	0
6279-6386-7923	6386	6279	7923	WBT		-1	840	0	0

Emme Scenario 2403 - Do Nothing with RGD Twinning and Intersection Improvements to LeClair Way

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6485-6386-6279	6386	6485	6279	NBR		-1	3	0	0
6485-6386-6485	6386	6485	6485	U Turn		0	0	0	-1
6485-6386-6769	6386	6485	6769	NBT		-1	140	0	0
6485-6386-7923	6386	6485	7923	NBL		-1	57	0	0
6769-6386-6279	6386	6769	6279	SBL		1	88	0	1
6769-6386-6485	6386	6769	6485	SBT		-1	15	0	0
6769-6386-6769	6386	6769	6769	U Turn		0	0	0	-1
6769-6386-7923	6386	6769	7923	SBR		-1	105	0	0
7923-6386-6279	6386	7923	6279	EBT		-1	577	0	0
7923-6386-6485	6386	7923	6485	EBR		-1	3	0	0
7923-6386-6769	6386	7923	6769	EBL		1	88	0	1
7923-6386-7923	6386	7923	7923	U Turn		0	0	0	-1
6193-6458-6193	6458	6193	6193	U Turn		0	0	0	-1
6193-6458-7479	6458	6193	7479	WBT	East side of divided intersection, NB traffic only	-1	16	0	0
6193-6458-8232	6458	6193	8232	WBR		-1	207	0	0
7479-6458-6193	6458	7479	6193	EBT		-1	99	0	0
7479-6458-7479	6458	7479	7479	U Turn		0	0	0	-1
7479-6458-8232	6458	7479	8232	EBL		-1	40	0	0
8103-6458-6193	6458	8103	6193	NBR		-1	5	0	0
8103-6458-7479	6458	8103	7479	NBL		-1	0	0	0
8103-6458-8232	6458	8103	8232	NBT		-1	2151	0	0
6356-6595-6356	6595	6356	6356	U Turn		0	0	0	-1
6356-6595-7554	6595	6356	7554	WBL		-1	247	0	0
6356-6595-8121	6595	6356	8121	WBR		-1	1	0	0
6356-6595-8220	6595	6356	8220	WBT		-1	643	0	0
7554-6595-6356	6595	7554	6356	NBR		-1	253	0	0
7554-6595-7554	6595	7554	7554	U Turn		0	0	0	-1

Emme Scenario 2403 - Do Nothing with RGD Twinning and Intersection Improvements to LeClair Way

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7554-6595-8121	6595	7554	8121	NBT		-1	134	0	0
7554-6595-8220	6595	7554	8220	NBL		-1	1056	0	0
8121-6595-6356	6595	8121	6356	SBL		-1	0	0	0
8121-6595-7554	6595	8121	7554	SBT		-1	115	0	0
8121-6595-8121	6595	8121	8121	U Turn		0	0	0	-1
8121-6595-8220	6595	8121	8220	SBR		-1	43	0	0
8220-6595-6356	6595	8220	6356	EBT		-1	720	0	0
8220-6595-7554	6595	8220	7554	EBR		-1	345	0	0
8220-6595-8121	6595	8220	8121	EBL		-1	55	0	0
8220-6595-8220	6595	8220	8220	U Turn		0	0	0	-1
7286-6596-7286	6596	7286	7286	U Turn		0	0	0	-1
7286-6596-7822	6596	7286	7822	WBT		-1	633	0	0
7286-6596-7977	6596	7286	7977	WBL		1	1	0	0
7286-6596-8117	6596	7286	8117	WBR		-1	0	0	0
7822-6596-7286	6596	7822	7286	EBT		-1	158	0	0
7822-6596-7822	6596	7822	7822	U Turn		0	0	0	-1
7822-6596-7977	6596	7822	7977	EBR		-1	69	0	0
7822-6596-8117	6596	7822	8117	EBL		1	0	0	0
7977-6596-7286	6596	7977	7286	NBL		-1	40	0	0
7977-6596-7822	6596	7977	7822	NBR		1	107	0	2
7977-6596-7977	6596	7977	7977	U Turn		0	0	0	-1
7977-6596-8117	6596	7977	8117	NBT		-1	1	0	0
8117-6596-7286	6596	8117	7286	SBL		1	0	0	0
8117-6596-7822	6596	8117	7822	SBR		-1	295	0	0
8117-6596-7977	6596	8117	7977	SBT		-1	0	0	0
8117-6596-8117	6596	8117	8117	U Turn		0	0	0	-1
6427-6624-6427	6624	6427	6427	U Turn		0	0	0	-1
6427-6624-7675	6624	6427	7675	NBL		-1	2	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6427-6624-7875	6624	6427	7875	NBT		-1	0	0	0
6427-6624-7876	6624	6427	7876	NBR		-1	92	0	0
7675-6624-6427	6624	7675	6427	EBR		-1	8	0	0
7675-6624-7675	6624	7675	7675	U Turn		0	0	0	-1
7675-6624-7875	6624	7675	7875	EBL		-1	3	0	0
7675-6624-7876	6624	7675	7876	EBT		-1	799	0	0
7875-6624-6427	6624	7875	6427	SBT		-1	1	0	0
7875-6624-7675	6624	7875	7675	SBR		-1	3	0	0
7875-6624-7875	6624	7875	7875	U Turn		0	0	0	-1
7875-6624-7876	6624	7875	7876	SBL		-1	11	0	0
7876-6624-6427	6624	7876	6427	WBL		-1	364	0	0
7876-6624-7675	6624	7876	7675	WBT		-1	579	0	0
7876-6624-7875	6624	7876	7875	WBR		-1	16	0	0
7876-6624-7876	6624	7876	7876	U Turn		0	0	0	-1
7193-6744-7193	6744	7193	7193	U Turn		0	0	0	-1
7193-6744-7678	6744	7193	7678	EBR	St Albert Trail is NB/SB	-1	195	0	0
7193-6744-8135	6744	7193	8135	EBT		-1	396	0	0
7193-6744-8150	6744	7193	8150	EBL		1	75	0	1
7678-6744-7193	6744	7678	7193	NBL		1	131	0	4
7678-6744-7678	6744	7678	7678	U Turn		0	0	0	-1
7678-6744-8135	6744	7678	8135	NBR		-1	621	0	0
7678-6744-8150	6744	7678	8150	NBT		-1	2182	0	0
8135-6744-7193	6744	8135	7193	WBT		-1	403	0	0
8135-6744-7678	6744	8135	7678	WBL		1	76	0	1
8135-6744-8135	6744	8135	8135	U Turn		0	0	0	-1
8135-6744-8150	6744	8135	8150	WBR		-1	230	0	0
8150-6744-7193	6744	8150	7193	SBR		-1	54	0	0
8150-6744-7678	6744	8150	7678	SBT		-1	2066	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8150-6744-8135	6744	8150	8135	SBL		1	70	0	0
8150-6744-8150	6744	8150	8150	U Turn		0	0	0	-1
6091-6871-6091	6871	6091	6091	U Turn		0	0	0	-1
6091-6871-6279	6871	6091	6279	EBL	Boudreau Rd is NB/SB	-1	88	0	0
6091-6871-6697	6871	6091	6697	EBT		-1	737	0	0
6091-6871-7129	6871	6091	7129	EBR		-1	420	0	0
6279-6871-6091	6871	6279	6091	SBR		-1	28	0	0
6279-6871-6279	6871	6279	6279	U Turn		0	0	0	-1
6279-6871-6697	6871	6279	6697	SBL		-1	67	0	0
6279-6871-7129	6871	6279	7129	SBT		-1	622	0	0
6697-6871-6091	6871	6697	6091	WBT		-1	196	0	0
6697-6871-6279	6871	6697	6279	WBR		-1	17	0	0
6697-6871-6697	6871	6697	6697	U Turn		0	0	0	-1
6697-6871-7129	6871	6697	7129	WBL		-1	561	0	0
7129-6871-6091	6871	7129	6091	NBL		-1	438	0	0
7129-6871-6279	6871	7129	6279	NBT		-1	1270	0	0
7129-6871-6697	6871	7129	6697	NBR		-1	582	0	0
7129-6871-7129	6871	7129	7129	U Turn		0	0	0	-1
6021-6894-6021	6894	6021	6021	U Turn		0	0	0	-1
6021-6894-6893	6894	6021	6893	SBT	Perron St is NB/SB	-1	12	0	0
6021-6894-8221	6894	6021	8221	SBL		-1	72	0	0
6021-6894-9910	6894	6021	9910	SBR		-1	201	0	0
6893-6894-6021	6894	6893	6021	NBT		-1	66	0	0
6893-6894-6893	6894	6893	6893	U Turn		0	0	0	-1
6893-6894-8221	6894	6893	8221	NBR		-1	1	0	0
6893-6894-9910	6894	6893	9910	NBL		-1	87	0	0
8221-6894-6021	6894	8221	6021	WBR		-1	168	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8221-6894-6893	6894	8221	6893	WBL		-1	0	0	0
8221-6894-8221	6894	8221	8221	U Turn		0	0	0	-1
8221-6894-9910	6894	8221	9910	WBT		-1	829	0	0
9910-6894-6021	6894	9910	6021	EBL		-1	338	0	0
9910-6894-6893	6894	9910	6893	EBR		-1	278	0	0
9910-6894-8221	6894	9910	8221	EBT		-1	672	0	0
9910-6894-9910	6894	9910	9910	U Turn		0	0	0	-1
7756-6921-7756	6921	7756	7756	U Turn		0	0	0	-1
7756-6921-7766	6921	7756	7766	NBR		-1	795	0	0
7756-6921-7964	6921	7756	7964	NBT		-1	1921	0	0
7756-6921-7967	6921	7756	7967	NBL		1	104	0	2
7766-6921-7756	6921	7766	7756	WBL		1	91	0	1
7766-6921-7766	6921	7766	7766	U Turn		0	0	0	-1
7766-6921-7964	6921	7766	7964	WBR		-1	37	0	0
7766-6921-7967	6921	7766	7967	WBT		-1	321	0	0
7964-6921-7756	6921	7964	7756	SBT		-1	1508	0	0
7964-6921-7766	6921	7964	7766	SBL		1	9	0	0
7964-6921-7964	6921	7964	7964	U Turn		0	0	0	-1
7964-6921-7967	6921	7964	7967	SBR		-1	16	0	0
7967-6921-7756	6921	7967	7756	EBR		-1	198	0	0
7967-6921-7766	6921	7967	7766	EBT		-1	266	0	0
7967-6921-7964	6921	7967	7964	EBL		1	55	0	0
7967-6921-7967	6921	7967	7967	U Turn		0	0	0	-1
7151-6922-7151	6922	7151	7151	U Turn		0	0	0	-1
7151-6922-7756	6922	7151	7756	NBT		-1	2901	0	0
7151-6922-7759	6922	7151	7759	NBL		1	120	0	3
7151-6922-10408	6922	7151	10408	NBR		-1	0	0	0
7756-6922-7151	6922	7756	7151	SBT		-1	1765	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7756-6922-7756	6922	7756	7756	U Turn		0	0	0	-1
7756-6922-7759	6922	7756	7759	SBR		-1	48	0	0
7756-6922-10408	6922	7756	10408	SBL		1	0	0	0
7759-6922-7151	6922	7759	7151	EBR		-1	0	0	0
7759-6922-7756	6922	7759	7756	EBL		-1	6	0	0
7759-6922-7759	6922	7759	7759	U Turn		0	0	0	-1
7759-6922-10408	6922	7759	10408	EBT		-1	0	0	0
10408-6922-7151	6922	10408	7151	WBL		-1	156	0	0
10408-6922-7756	6922	10408	7756	EBR		-1	0	0	0
10408-6922-7759	6922	10408	7759	EBT		-1	121	0	0
10408-6922-10408	6922	10408	10408	U Turn		0	0	0	-1
6926-6927-6926	6927	6926	6926	U Turn		0	0	0	-1
6926-6927-6952	6927	6926	6952	NBT	Boudreau Rd is NB/SB	-1	840	0	0
6926-6927-7073	6927	6926	7073	NBL		-1	523	0	0
6926-6927-8066	6927	6926	8066	NBR		-1	0	0	0
6952-6927-6926	6927	6952	6926	SBT		-1	706	0	0
6952-6927-6952	6927	6952	6952	U Turn		0	0	0	-1
6952-6927-7073	6927	6952	7073	SBR		-1	16	0	0
6952-6927-8066	6927	6952	8066	SBL		-1	230	0	0
7073-6927-6926	6927	7073	6926	EBR		-1	511	0	0
7073-6927-6952	6927	7073	6952	EBL		-1	25	0	0
7073-6927-7073	6927	7073	7073	U Turn		0	0	0	-1
7073-6927-8066	6927	7073	8066	EBT		-1	150	0	0
8066-6927-6926	6927	8066	6926	WBL		-1	24	0	0
8066-6927-6952	6927	8066	6952	WBR		-1	273	0	0
8066-6927-7073	6927	8066	7073	WBT		-1	246	0	0
8066-6927-8066	6927	8066	8066	U Turn		0	0	0	-1
6467-7121-6467	7121	6467	6467	U Turn		0	0	0	-1

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6467-7121-6946	7121	6467	6946	SBR		-1	79	0	0
6467-7121-7119	7121	6467	7119	SBL		-1	28	0	0
6946-7121-6467	7121	6946	6467	EBL		-1	1	0	0
6946-7121-6946	7121	6946	6946	U Turn		0	0	0	-1
6946-7121-7119	7121	6946	7119	EBT		-1	103	0	0
7119-7121-6467	7121	7119	6467	WBR		-1	57	0	0
7119-7121-6946	7121	7119	6946	WBT		-1	159	0	0
7119-7121-7119	7121	7119	7119	U Turn		0	0	0	-1
6394-7129-6394	7129	6394	6394	U Turn		0	0	0	-1
6394-7129-6549	7129	6394	6549	EBR	Boudreau Rd is NB/SB	-1	13	0	0
6394-7129-6785	7129	6394	6785	EBT		-1	35	0	0
6394-7129-6871	7129	6394	6871	EBL		-1	525	0	0
6549-7129-6394	7129	6549	6394	NBL		-1	103	0	0
6549-7129-6549	7129	6549	6549	U Turn		0	0	0	-1
6549-7129-6785	7129	6549	6785	NBR		-1	0	0	0
6549-7129-6871	7129	6549	6871	NBT		-1	1163	0	0
6785-7129-6394	7129	6785	6394	WBT		-1	24	0	0
6785-7129-6549	7129	6785	6549	WBL		-1	0	0	0
6785-7129-6785	7129	6785	6785	U Turn		0	0	0	-1
6785-7129-6871	7129	6785	6871	WBR		-1	602	0	0
6871-7129-6394	7129	6871	6394	SBR		-1	228	0	0
6871-7129-6549	7129	6871	6549	SBT		-1	973	0	0
6871-7129-6785	7129	6871	6785	SBL		-1	403	0	0
6871-7129-6871	7129	6871	6871	U Turn		0	0	0	-1
6035-7135-6035	7135	6035	6035	U Turn		0	0	0	-1
6035-7135-7132	7135	6035	7132	WBR		-1	1	0	0
6035-7135-7318	7135	6035	7318	WBL		-1	0	0	0
6035-7135-7892	7135	6035	7892	WBT		-1	58	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7132-7135-6035	7135	7132	6035	SBL		-1	0	0	0
7132-7135-7132	7135	7132	7132	U Turn		0	0	0	-1
7132-7135-7318	7135	7132	7318	SBT		-1	262	0	0
7132-7135-7892	7135	7132	7892	SBR		-1	11	0	0
7318-7135-6035	7135	7318	6035	NBR		-1	36	0	0
7318-7135-7132	7135	7318	7132	NBT		-1	294	0	0
7318-7135-7318	7135	7318	7318	U Turn		0	0	0	-1
7318-7135-7892	7135	7318	7892	NBL		-1	4	0	0
7892-7135-6035	7135	7892	6035	EBT		-1	108	0	0
7892-7135-7132	7135	7892	7132	EBL		-1	137	0	0
7892-7135-7318	7135	7892	7318	EBR		-1	21	0	0
7892-7135-7892	7135	7892	7892	U Turn		0	0	0	-1
6037-7136-6037	7136	6037	6037	U Turn		0	0	0	-1
6037-7136-7493	7136	6037	7493	EBR		-1	182	0	0
6037-7136-8149	7136	6037	8149	EBL		-1	143	0	0
7493-7136-6037	7136	7493	6037	NBL		-1	573	0	0
7493-7136-7493	7136	7493	7493	U Turn		0	0	0	-1
7493-7136-8149	7136	7493	8149	NBT		-1	393	0	0
8149-7136-6037	7136	8149	6037	SBR		-1	259	0	0
8149-7136-7493	7136	8149	7493	SBT		-1	147	0	0
8149-7136-8149	7136	8149	8149	U Turn		0	0	0	-1
6916-7138-6916	7138	6916	6916	U Turn		0	0	0	-1
6916-7138-7140	7138	6916	7140	SBL		-1	34	0	0
6916-7138-7682	7138	6916	7682	SBT		-1	552	0	0
7140-7138-6916	7138	7140	6916	WBR		-1	23	0	0
7140-7138-7140	7138	7140	7140	U Turn		0	0	0	-1
7140-7138-7682	7138	7140	7682	WBL		-1	51	0	0
7682-7138-6916	7138	7682	6916	NBT		-1	419	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7682-7138-7140	7138	7682	7140	NBR		-1	264	0	0
7682-7138-7682	7138	7682	7682	U Turn		0	0	0	-1
7559-7397-7559	7397	7559	7559	U Turn		0	0	0	-1
7559-7397-7683	7397	7559	7683	NBR		-1	665	0	0
7559-7397-7835	7397	7559	7835	NBT		-1	1005	0	0
7683-7397-7559	7397	7683	7559	WBL		-1	313	0	0
7683-7397-7683	7397	7683	7683	U Turn		0	0	0	-1
7683-7397-7835	7397	7683	7835	WBR		-1	349	0	0
7835-7397-7559	7397	7835	7559	SBT		-1	592	0	0
7835-7397-7683	7397	7835	7683	SBL		-1	529	0	0
7835-7397-7835	7397	7835	7835	U Turn		0	0	0	-1
6175-7475-6175	7475	6175	6175	U Turn		0	0	0	-1
6175-7475-7474	7475	6175	7474	WBL	West side of divided intersection, SB traffic only	-1	1	0	0
6175-7475-8106	7475	6175	8106	WBT		-1	493	0	0
8104-7475-6175	7475	8104	6175	SBL		-1	12	0	0
8104-7475-7474	7475	8104	7474	SBT		-1	1665	0	0
8104-7475-8106	7475	8104	8106	SBR		-1	595	0	0
8106-7475-6175	7475	8106	6175	EBT		-1	499	0	0
8106-7475-7474	7475	8106	7474	EBR		-1	115	0	0
8106-7475-8106	7475	8106	8106	U Turn		0	0	0	-1
5008-7479-5008	7479	5008	5008	U Turn		0	0	0	-1
5008-7479-6458	7479	5008	6458	EBT	West side of divided intersection, SB traffic only	-1	62	0	0
5008-7479-7551	7479	5008	7551	EBR		-1	0	0	0
6458-7479-5008	7479	6458	5008	WBT		-1	0	0	0
6458-7479-6458	7479	6458	6458	U Turn		0	0	0	-1
6458-7479-7551	7479	6458	7551	WBL		-1	16	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8231-7479-5008	7479	8231	5008	SBR		-1	25	0	0
8231-7479-6458	7479	8231	6458	SBL		-1	77	0	0
8231-7479-7551	7479	8231	7551	SBT		-1	2044	0	0
7434-7514-7434	7514	7434	7434	U Turn		0	0	0	-1
7434-7514-7476	7514	7434	7476	WBL		-1	293	0	0
7434-7514-7500	7514	7434	7500	WBR		-1	149	0	0
7434-7514-7633	7514	7434	7633	WBT		-1	53	0	0
7476-7514-7434	7514	7476	7434	NBR		-1	667	0	0
7476-7514-7476	7514	7476	7476	U Turn		0	0	0	-1
7476-7514-7500	7514	7476	7500	NBT		-1	700	0	0
7476-7514-7633	7514	7476	7633	NBL		-1	37	0	0
7500-7514-7434	7514	7500	7434	SBL		-1	174	0	0
7500-7514-7476	7514	7500	7476	SBT		-1	712	0	0
7500-7514-7500	7514	7500	7500	U Turn		0	0	0	-1
7500-7514-7633	7514	7500	7633	SBR		-1	0	0	0
7633-7514-7434	7514	7633	7434	EBT		-1	60	0	0
7633-7514-7476	7514	7633	7476	EBR		-1	17	0	0
7633-7514-7500	7514	7633	7500	EBL		-1	1	0	0
7633-7514-7633	7514	7633	7633	U Turn		0	0	0	-1
7219-7532-7219	7532	7219	7219	U Turn		0	0	0	-1
7219-7532-7499	7532	7219	7499	SBL		-1	42	0	0
7219-7532-7583	7532	7219	7583	SBR		-1	264	0	0
7219-7532-7586	7532	7219	7586	SBT		-1	14	0	0
7499-7532-7219	7532	7499	7219	WBR		-1	305	0	0
7499-7532-7499	7532	7499	7499	U Turn		0	0	0	-1
7499-7532-7583	7532	7499	7583	WBT		-1	64	0	0
7499-7532-7586	7532	7499	7586	WBL		-1	0	0	0
7583-7532-7219	7532	7583	7219	EBL		1	110	0	2

Emme Scenario 2403 - Do Nothing with RGD Twinning and Intersection Improvements to LeClair Way

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7583-7532-7499	7532	7583	7499	EBT		-1	89	0	0
7583-7532-7583	7532	7583	7583	U Turn		0	0	0	-1
7583-7532-7586	7532	7583	7586	EBR		-1	0	0	0
7586-7532-7219	7532	7586	7219	NBT		-1	138	0	0
7586-7532-7499	7532	7586	7499	NBR		-1	2	0	0
7586-7532-7583	7532	7586	7583	NBL		-1	3	0	0
7586-7532-7586	7532	7586	7586	U Turn		0	0	0	-1
7592-7590-7592	7590	7592	7592	U Turn	West side of divided intersection, SB traffic only	0	0	0	-1
7592-7590-7747	7590	7592	7747	EBT		-1	69	0	0
7592-7590-8231	7590	7592	8231	EBR		-1	193	0	0
7747-7590-7592	7590	7747	7592	WBT		-1	1	0	0
7747-7590-7747	7590	7747	7747	U Turn		0	0	0	-1
7747-7590-8231	7590	7747	8231	WBL		-1	604	0	0
8099-7590-7592	7590	8099	7592	SBR		-1	0	0	0
8099-7590-7747	7590	8099	7747	SBL		-1	63	0	0
8099-7590-8231	7590	8099	8231	SBT		-1	1133	0	0
7397-7683-7397	7683	7397	7397	U Turn		0	0	0	-1
7397-7683-7682	7683	7397	7682	EBL		-1	999	0	0
7397-7683-10501	7683	7397	10501	EBT		-1	194	0	0
7682-7683-7397	7683	7682	7397	SBR		-1	335	0	0
7682-7683-7682	7683	7682	7682	U Turn		0	0	0	-1
7682-7683-10501	7683	7682	10501	SBL		-1	5	0	0
10501-7683-7397	7683	10501	7397	WBT		-1	328	0	0
10501-7683-7682	7683	10501	7682	WBR		-1	4	0	0
10501-7683-10501	7683	10501	10501	U Turn		0	0	0	-1
7590-7747-7590	7747	7590	7590	U Turn	East side of divided intersection, NB traffic only	0	0	0	-1

Emme Scenario 2403 - Do Nothing with RGD Twinning and Intersection Improvements to LeClair Way

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7590-7747-8102	7747	7590	8102	EBL		-1	49	0	0
7590-7747-8238	7747	7590	8238	EBT		-1	83	0	0
8238-7747-7590	7747	8238	7590	WBT		-1	604	0	0
8238-7747-8102	7747	8238	8102	WBR		-1	4	0	0
8238-7747-8238	7747	8238	8238	U Turn		0	0	0	-1
8239-7747-7590	7747	8239	7590	NBL		-1	1	0	0
8239-7747-8102	7747	8239	8102	NBT		-1	1491	0	0
8239-7747-8238	7747	8239	8238	NBR		-1	0	0	0
6653-8217-6653	8217	6653	6653	U Turn		0	0	0	-1
6653-8217-6819	8217	6653	6819	NBR		-1	181	0	0
6653-8217-7301	8217	6653	7301	NBL		-1	174	0	0
6819-8217-6653	8217	6819	6653	WBL		-1	23	0	0
6819-8217-6819	8217	6819	6819	U Turn		0	0	0	-1
6819-8217-7301	8217	6819	7301	WBT		-1	1241	0	0
7301-8217-6653	8217	7301	6653	EBR		-1	22	0	0
7301-8217-6819	8217	7301	6819	EBT		-1	1073	0	0
7301-8217-7301	8217	7301	7301	U Turn		0	0	0	-1
7067-8227-7067	8227	7067	7067	U Turn		0	0	0	-1
7067-8227-7302	8227	7067	7302	EBR		-1	172	0	0
7067-8227-7448	8227	7067	7448	EBL		-1	183	0	0
7067-8227-8092	8227	7067	8092	EBT		-1	54	0	0
7302-8227-7067	8227	7302	7067	NBL		-1	35	0	0
7302-8227-7302	8227	7302	7302	U Turn		0	0	0	-1
7302-8227-7448	8227	7302	7448	NBT		-1	411	0	0
7302-8227-8092	8227	7302	8092	NBR		-1	404	0	0
7448-8227-7067	8227	7448	7067	SBR		-1	26	0	0
7448-8227-7302	8227	7448	7302	SBT		-1	569	0	0
7448-8227-7448	8227	7448	7448	U Turn		0	0	0	-1

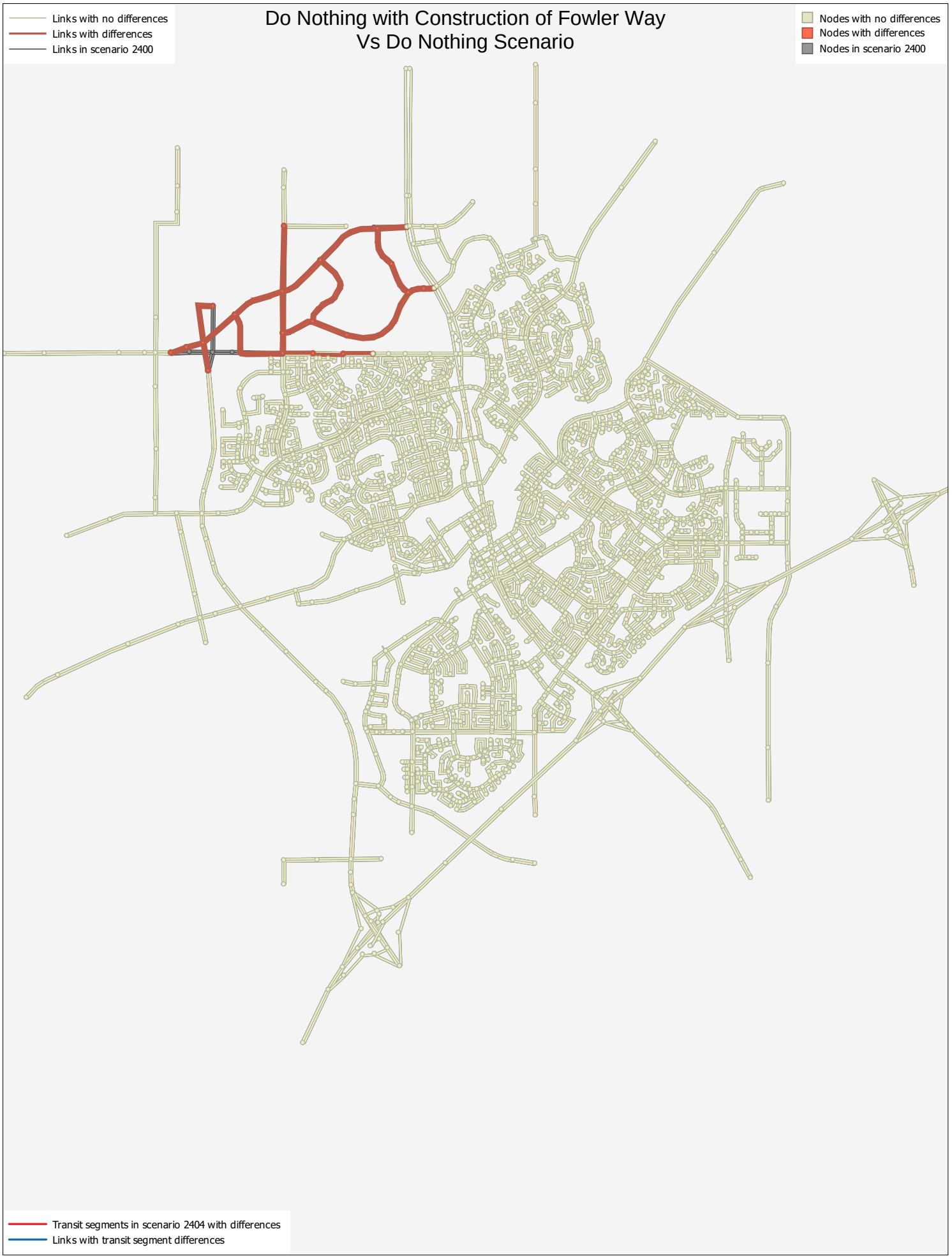
Emme Scenario 2403 - Do Nothing with RGD Twinning and Intersection Improvements to LeClair Way

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7448-8227-8092	8227	7448	8092	SBL		-1	10	0	0
8092-8227-7067	8227	8092	7067	WBT		-1	13	0	0
8092-8227-7302	8227	8092	7302	WBL		-1	146	0	0
8092-8227-7448	8227	8092	7448	WBR		-1	41	0	0
8092-8227-8092	8227	8092	8092	U Turn		0	0	0	-1
7510-8228-7510	8228	7510	7510	U Turn		0	0	0	-1
7510-8228-7675	8228	7510	7675	NBR		-1	477	0	0
7510-8228-8096	8228	7510	8096	NBL		-1	150	0	0
7510-8228-8229	8228	7510	8229	NBT		-1	0	0	0
7675-8228-7510	8228	7675	7510	WBL		-1	445	0	0
7675-8228-7675	8228	7675	7675	U Turn		0	0	0	-1
7675-8228-8096	8228	7675	8096	WBT		-1	139	0	0
7675-8228-8229	8228	7675	8229	WBR		-1	0	0	0
8096-8228-7510	8228	8096	7510	EBR		-1	153	0	0
8096-8228-7675	8228	8096	7675	EBT		-1	332	0	0
8096-8228-8096	8228	8096	8096	U Turn		0	0	0	-1
8096-8228-8229	8228	8096	8229	EBL		-1	0	0	0
8229-8228-7510	8228	8229	7510	SBT		-1	0	0	0
8229-8228-7675	8228	8229	7675	SBL		-1	0	0	0
8229-8228-8096	8228	8229	8096	SBR		-1	0	0	0
8229-8228-8229	8228	8229	8229	U Turn		0	0	0	-1
5034-8231-5034	8231	5034	5034	U Turn	West side of divided intersection, SB traffic only	0	0	0	-1
5034-8231-7479	8231	5034	7479	EBR		-1	74	0	0
5034-8231-8232	8231	5034	8232	EBT	St Albert Trail is NB/SB	-1	17	0	0
7590-8231-5034	8231	7590	5034	EBL		-1	16	0	0
7590-8231-7479	8231	7590	7479	SBT		-1	1862	0	0
7590-8231-8232	8231	7590	8232	SBL		-1	52	0	0

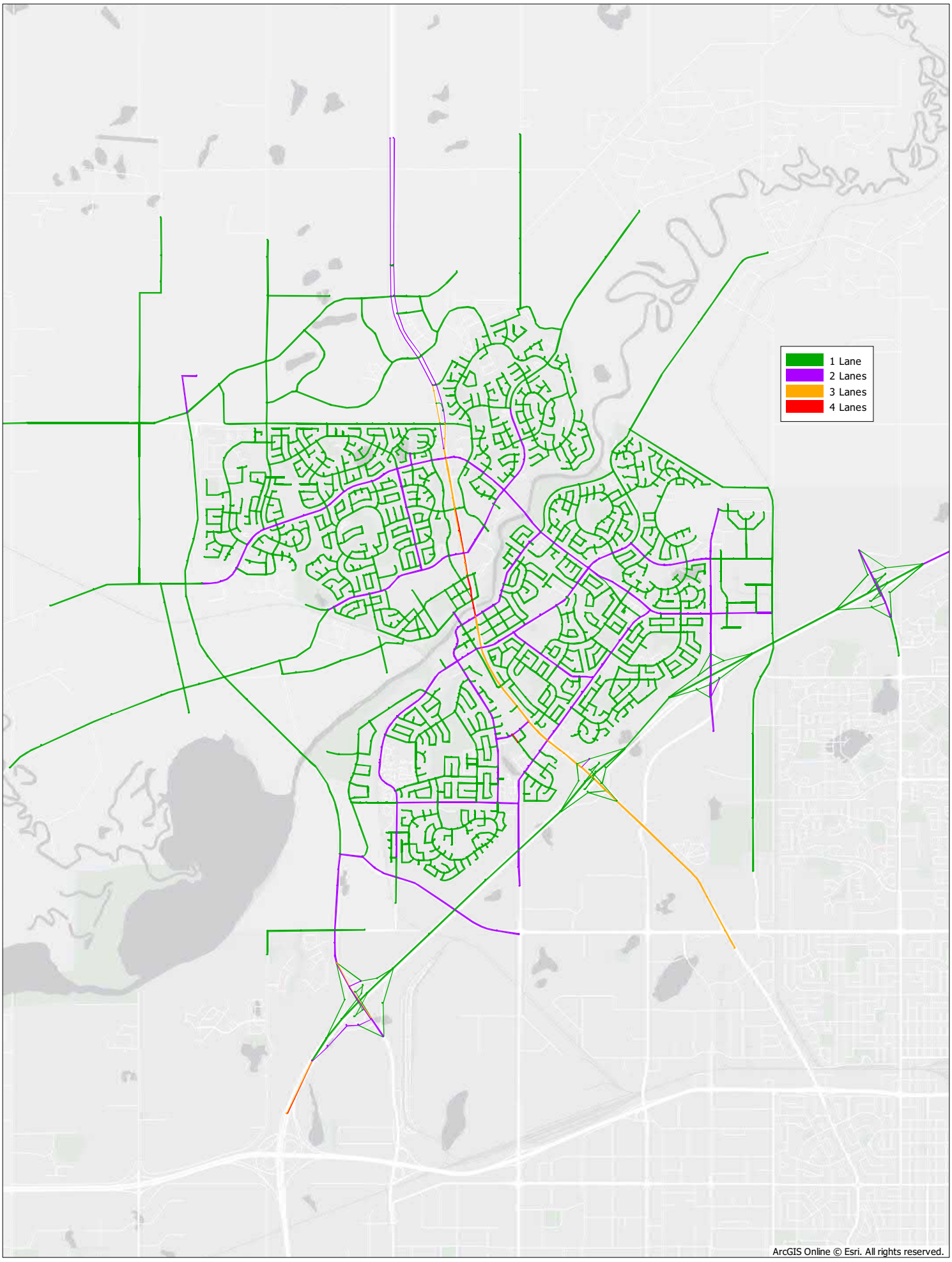
Emme Scenario 2403 - Do Nothing with RGD Twinning and Intersection Improvements to LeClair Way

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8232-8231-5034	8231	8232	5034	WBT		-1	116	0	0
8232-8231-7479	8231	8232	7479	WBL		-1	210	0	0
8232-8231-8232	8231	8232	8232	U Turn		0	0	0	-1
6458-8232-8231	8232	6458	8231	NBL	East side of divided intersection, NB traffic only	-1	109	0	0
6458-8232-8234	8232	6458	8234	NBR	St Albert Trail is NB/SB	-1	208	0	0
6458-8232-8239	8232	6458	8239	NBT		-1	2081	0	0
8231-8232-8231	8232	8231	8231	EBR		0	0	0	-1
8231-8232-8234	8232	8231	8234	EBT		-1	60	0	0
8231-8232-8239	8232	8231	8239	EBL		-1	10	0	0
8234-8232-8231	8232	8234	8231	WBL		-1	216	0	0
8234-8232-8234	8232	8234	8234	U Turn		0	0	0	-1
8234-8232-8239	8232	8234	8239	WBR		-1	0	0	0

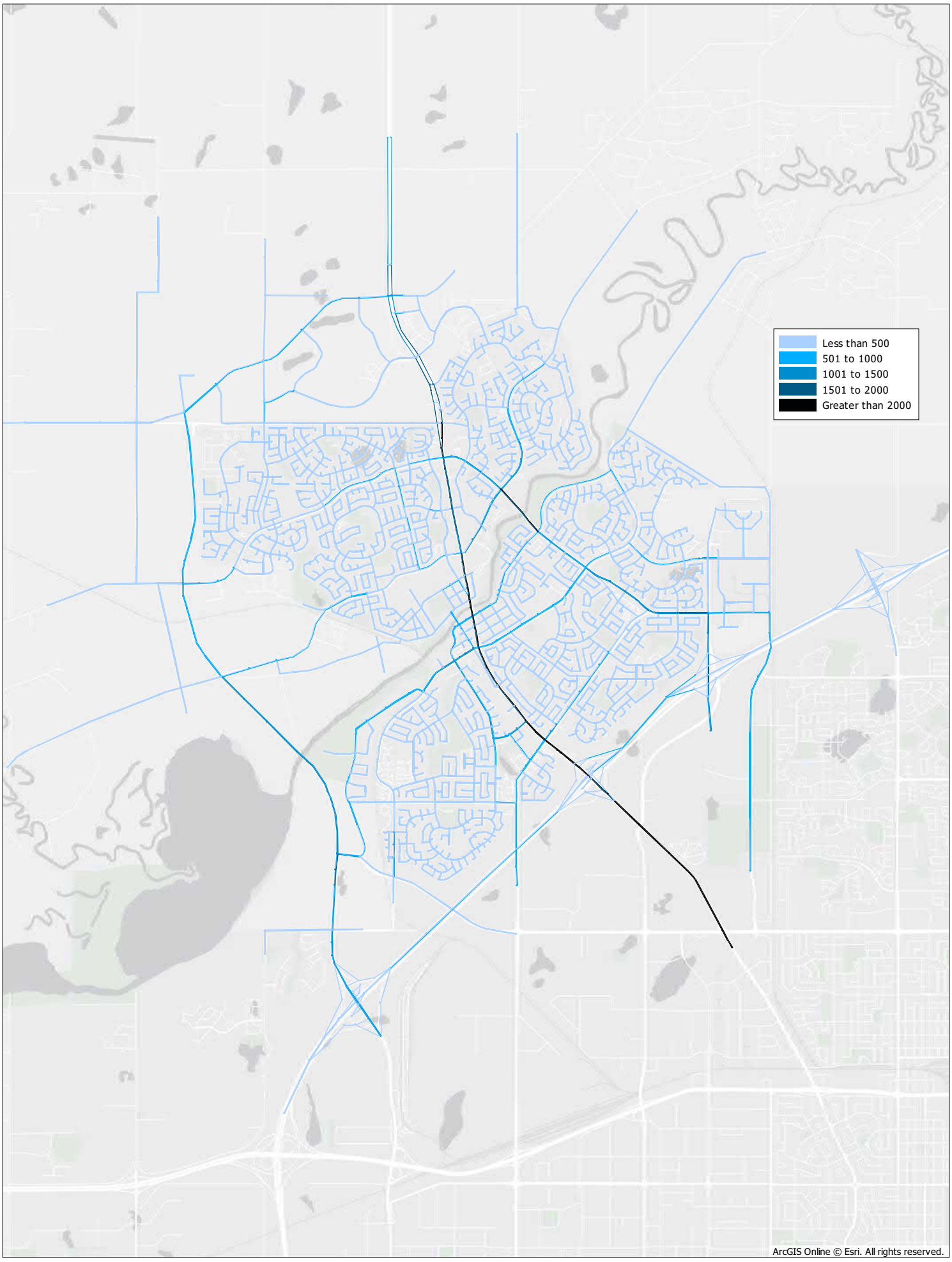
Scenario 2404 – Do Nothing with Construction of Fowler Way


Do Nothing with Construction of Fowler Way
Vs Do Nothing Scenario
Links with no differences
Links with differences
Links in scenario 2400
Nodes with no differences
Nodes with differences
Nodes in scenario 2400
Transit segments in scenario 2404 with differences
Links with transit segment differences

Do Nothing with Construction of Fowler Way - Lanes in Each Direction of Travel



Do Nothing with Construction of Fowler Way - Volumes



Emme Scenario 2404 - Do Nothing with Construction of Fowler Way

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6033-6035-6033	6035	6033	6033	U Turn		0	0	0	-1
6033-6035-6036	6035	6033	6036	WBR		-1	27	0	0
6033-6035-7135	6035	6033	7135	WBT		-1	56	0	0
6033-6035-7144	6035	6033	7144	WBL		-1	112	0	0
6036-6035-6033	6035	6036	6033	SBL		-1	5	0	0
6036-6035-6036	6035	6036	6036	U Turn		0	0	0	-1
6036-6035-7135	6035	6036	7135	SBR		-1	1	0	0
6036-6035-7144	6035	6036	7144	SBT		-1	42	0	0
7135-6035-6033	6035	7135	6033	EBT		-1	65	0	0
7135-6035-6036	6035	7135	6036	EBL		-1	2	0	0
7135-6035-7135	6035	7135	7135	U Turn		0	0	0	-1
7135-6035-7144	6035	7135	7144	EBR		-1	43	0	0
7144-6035-6033	6035	7144	6033	NBR		-1	110	0	0
7144-6035-6036	6035	7144	6036	NBT		-1	37	0	0
7144-6035-7135	6035	7144	7135	NBL		-1	4	0	0
7144-6035-7144	6035	7144	7144	U Turn		0	0	0	-1
6033-6037-6033	6037	6033	6033	U Turn		0	0	0	-1
6033-6037-6038	6037	6033	6038	EBL		-1	0	0	0
6033-6037-7136	6037	6033	7136	EBT		-1	121	0	0
6033-6037-7141	6037	6033	7141	EBR		-1	0	0	0
6038-6037-6033	6037	6038	6033	SBR		-1	35	0	0
6038-6037-6038	6037	6038	6038	U Turn		0	0	0	-1
6038-6037-7136	6037	6038	7136	SBL		-1	176	0	0
6038-6037-7141	6037	6038	7141	SBT		-1	82	0	0
7136-6037-6033	6037	7136	6033	WBT		-1	270	0	0
7136-6037-6038	6037	7136	6038	WBR		-1	338	0	0
7136-6037-7136	6037	7136	7136	U Turn		0	0	0	-1
7136-6037-7141	6037	7136	7141	WBL		-1	224	0	0

Emme Scenario 2404 - Do Nothing with Construction of Fowler Way

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7141-6037-6033	6037	7141	6033	NBL		-1	0	0	0
7141-6037-6038	6037	7141	6038	NBT		-1	45	0	0
7141-6037-7136	6037	7141	7136	NBR		-1	28	0	0
7141-6037-7141	6037	7141	7141	U Turn		0	0	0	-1
6141-6142-6141	6142	6141	6141	U Turn		0	0	0	-1
6141-6142-6722	6142	6141	6722	NBR	Sir Winston Churchill is NB/SB	-1	446	0	0
6141-6142-7861	6142	6141	7861	NBT		-1	763	0	0
6141-6142-8201	6142	6141	8201	NBL		1	60	0	0
6722-6142-6141	6142	6722	6141	WBL		-1	329	0	0
6722-6142-6722	6142	6722	6722	U Turn		0	0	0	-1
6722-6142-7861	6142	6722	7861	WBR		-1	309	0	0
6722-6142-8201	6142	6722	8201	WBT		-1	87	0	0
7861-6142-6141	6142	7861	6141	SBT		-1	1043	0	0
7861-6142-6722	6142	7861	6722	SBL		1	70	0	0
7861-6142-7861	6142	7861	7861	U Turn		0	0	0	-1
7861-6142-8201	6142	7861	8201	SBR		-1	0	0	0
8201-6142-6141	6142	8201	6141	EBR		-1	13	0	0
8201-6142-6722	6142	8201	6722	EBT		-1	697	0	0
8201-6142-7861	6142	8201	7861	EBL		-1	250	0	0
8201-6142-8201	6142	8201	8201	U Turn		0	0	0	-1
7475-6175-7475	6175	7475	7475	U Turn	East side of divided intersection, NB traffic only	0	0	0	-1
7475-6175-7502	6175	7475	7502	EBT		-1	149	0	0
7475-6175-8105	6175	7475	8105	EBL		-1	0	0	0
7502-6175-7475	6175	7502	7475	WBT		-1	27	0	0
7502-6175-7502	6175	7502	7502	U Turn		0	0	0	-1
7502-6175-8105	6175	7502	8105	WBR		-1	195	0	0

Emme Scenario 2404 - Do Nothing with Construction of Fowler Way

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7922-6175-7475	6175	7922	7475	NBL		-1	304	0	0
7922-6175-7502	6175	7922	7502	NBR		-1	91	0	0
7922-6175-8105	6175	7922	8105	NBT		-1	1758	0	0
7474-6176-7474	6176	7474	7474	U Turn		0	0	0	-1
7474-6176-7940	6176	7474	7940	SBR		-1	41	0	0
7474-6176-8172	6176	7474	8172	SBT		-1	1525	0	0
7474-6176-8223	6176	7474	8223	SBL		1	112	0	2
7940-6176-7474	6176	7940	7474	EBL		1	68	0	0
7940-6176-7940	6176	7940	7940	U Turn		0	0	0	-1
7940-6176-8172	6176	7940	8172	EBR		-1	10	0	0
7940-6176-8223	6176	7940	8223	EBT		-1	362	0	0
8172-6176-7474	6176	8172	7474	NBT		-1	1601	0	0
8172-6176-7940	6176	8172	7940	NBL		1	112	0	2
8172-6176-8172	6176	8172	8172	U Turn		0	0	0	-1
8172-6176-8223	6176	8172	8223	NBR		-1	62	0	0
8223-6176-7474	6176	8223	7474	WBR		-1	489	0	0
8223-6176-7940	6176	8223	7940	WBT		-1	510	0	0
8223-6176-8172	6176	8223	8172	WBL		1	79	0	1
8223-6176-8223	6176	8223	8223	U Turn		0	0	0	-1
7938-6348-7938	6348	7938	7938	U Turn		0	0	0	-1
7938-6348-7939	6348	7938	7939	SBL	Perron St is NB/SB	-1	8	0	0
7938-6348-8195	6348	7938	8195	SBR		-1	271	0	0
7938-6348-8197	6348	7938	8197	SBT		-1	231	0	0
7939-6348-7938	6348	7939	7938	WBR		-1	64	0	0
7939-6348-7939	6348	7939	7939	U Turn		0	0	0	-1
7939-6348-8195	6348	7939	8195	WBT		-1	673	0	0
7939-6348-8197	6348	7939	8197	WBL		1	62	0	0
8195-6348-7938	6348	8195	7938	EBL		1	108	0	2

Emme Scenario 2404 - Do Nothing with Construction of Fowler Way

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8195-6348-7939	6348	8195	7939	EBT		-1	808	0	0
8195-6348-8195	6348	8195	8195	U Turn		0	0	0	-1
8195-6348-8197	6348	8195	8197	EBR		-1	0	0	0
8197-6348-7938	6348	8197	7938	NBT		-1	574	0	0
8197-6348-7939	6348	8197	7939	NBR		-1	20	0	0
8197-6348-8195	6348	8197	8195	NBL		-1	0	0	0
8197-6348-8197	6348	8197	8197	U Turn		0	0	0	-1
6594-6349-6594	6349	6594	6594	U Turn		0	0	0	-1
6594-6349-7936	6349	6594	7936	WBR	St Albert Trail is NB/SB	-1	353	0	0
6594-6349-7939	6349	6594	7939	WBT		-1	212	0	0
6594-6349-10802	6349	6594	10802	WBL		1	76	0	1
7936-6349-6594	6349	7936	6594	SBL		1	99	0	1
7936-6349-7936	6349	7936	7936	U Turn		0	0	0	-1
7936-6349-7939	6349	7936	7939	SBR		-1	843	0	0
7936-6349-10802	6349	7936	10802	SBT		-1	1391	0	0
7939-6349-6594	6349	7939	6594	EBT		-1	679	0	0
7939-6349-7936	6349	7939	7936	EBL		1	116	0	3
7939-6349-7939	6349	7939	7939	U Turn		0	0	0	-1
7939-6349-10802	6349	7939	10802	EBR		-1	141	0	0
10802-6349-6594	6349	10802	6594	NBR		-1	144	0	0
10802-6349-7936	6349	10802	7936	NBT		-1	2898	0	0
10802-6349-7939	6349	10802	7939	NBL		1	96	0	1
10802-6349-10802	6349	10802	10802	U Turn		0	0	0	-1
6279-6386-6279	6386	6279	6279	U Turn		0	0	0	-1
6279-6386-6485	6386	6279	6485	WBL		-1	0	0	0
6279-6386-6769	6386	6279	6769	WBR		-1	272	0	0
6279-6386-7923	6386	6279	7923	WBT		-1	968	0	0

Emme Scenario 2404 - Do Nothing with Construction of Fowler Way

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6485-6386-6279	6386	6485	6279	NBR		-1	3	0	0
6485-6386-6485	6386	6485	6485	U Turn		0	0	0	-1
6485-6386-6769	6386	6485	6769	NBT		-1	57	0	0
6485-6386-7923	6386	6485	7923	NBL		-1	15	0	0
6769-6386-6279	6386	6769	6279	SBL		1	88	0	1
6769-6386-6485	6386	6769	6485	SBT		-1	15	0	0
6769-6386-6769	6386	6769	6769	U Turn		0	0	0	-1
6769-6386-7923	6386	6769	7923	SBR		-1	94	0	0
7923-6386-6279	6386	7923	6279	EBT		-1	558	0	0
7923-6386-6485	6386	7923	6485	EBR		-1	3	0	0
7923-6386-6769	6386	7923	6769	EBL		1	85	0	1
7923-6386-7923	6386	7923	7923	U Turn		0	0	0	-1
6193-6458-6193	6458	6193	6193	U Turn		0	0	0	-1
6193-6458-7479	6458	6193	7479	WBT	East side of divided intersection, NB traffic only	-1	21	0	0
6193-6458-8232	6458	6193	8232	WBR		-1	24	0	0
7479-6458-6193	6458	7479	6193	EBT		-1	41	0	0
7479-6458-7479	6458	7479	7479	U Turn		0	0	0	-1
7479-6458-8232	6458	7479	8232	EBL		-1	41	0	0
8103-6458-6193	6458	8103	6193	NBR		-1	3	0	0
8103-6458-7479	6458	8103	7479	NBL		-1	0	0	0
8103-6458-8232	6458	8103	8232	NBT		-1	1848	0	0
6356-6595-6356	6595	6356	6356	U Turn		0	0	0	-1
6356-6595-7554	6595	6356	7554	WBL		-1	247	0	0
6356-6595-8121	6595	6356	8121	WBR		-1	2	0	0
6356-6595-8220	6595	6356	8220	WBT		-1	633	0	0
7554-6595-6356	6595	7554	6356	NBR		-1	263	0	0
7554-6595-7554	6595	7554	7554	U Turn		0	0	0	-1

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7554-6595-8121	6595	7554	8121	NBT		-1	123	0	0
7554-6595-8220	6595	7554	8220	NBL		-1	1105	0	0
8121-6595-6356	6595	8121	6356	SBL		-1	0	0	0
8121-6595-7554	6595	8121	7554	SBT		-1	115	0	0
8121-6595-8121	6595	8121	8121	U Turn		0	0	0	-1
8121-6595-8220	6595	8121	8220	SBR		-1	40	0	0
8220-6595-6356	6595	8220	6356	EBT		-1	721	0	0
8220-6595-7554	6595	8220	7554	EBR		-1	350	0	0
8220-6595-8121	6595	8220	8121	EBL		-1	56	0	0
8220-6595-8220	6595	8220	8220	U Turn		0	0	0	-1
7286-6596-7286	6596	7286	7286	U Turn		0	0	0	-1
7286-6596-7822	6596	7286	7822	WBT		-1	629	0	0
7286-6596-7977	6596	7286	7977	WBL		1	1	0	0
7286-6596-8117	6596	7286	8117	WBR		-1	0	0	0
7822-6596-7286	6596	7822	7286	EBT		-1	158	0	0
7822-6596-7822	6596	7822	7822	U Turn		0	0	0	-1
7822-6596-7977	6596	7822	7977	EBR		-1	69	0	0
7822-6596-8117	6596	7822	8117	EBL		1	0	0	0
7977-6596-7286	6596	7977	7286	NBL		-1	41	0	0
7977-6596-7822	6596	7977	7822	NBR		1	98	0	1
7977-6596-7977	6596	7977	7977	U Turn		0	0	0	-1
7977-6596-8117	6596	7977	8117	NBT		-1	1	0	0
8117-6596-7286	6596	8117	7286	SBL		1	0	0	0
8117-6596-7822	6596	8117	7822	SBR		-1	316	0	0
8117-6596-7977	6596	8117	7977	SBT		-1	0	0	0
8117-6596-8117	6596	8117	8117	U Turn		0	0	0	-1
6427-6624-6427	6624	6427	6427	U Turn		0	0	0	-1
6427-6624-7675	6624	6427	7675	NBL		-1	2	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6427-6624-7875	6624	6427	7875	NBT		-1	360	0	0
6427-6624-7876	6624	6427	7876	NBR		-1	0	0	0
7675-6624-6427	6624	7675	6427	EBR		-1	0	0	0
7675-6624-7675	6624	7675	7675	U Turn		0	0	0	-1
7675-6624-7875	6624	7675	7875	EBL		-1	138	0	0
7675-6624-7876	6624	7675	7876	EBT		-1	71	0	0
7875-6624-6427	6624	7875	6427	SBT		-1	180	0	0
7875-6624-7675	6624	7875	7675	SBR		-1	14	0	0
7875-6624-7875	6624	7875	7875	U Turn		0	0	0	-1
7875-6624-7876	6624	7875	7876	SBL		-1	22	0	0
7876-6624-6427	6624	7876	6427	WBL		-1	180	0	0
7876-6624-7675	6624	7876	7675	WBT		-1	82	0	0
7876-6624-7875	6624	7876	7875	WBR		-1	61	0	0
7876-6624-7876	6624	7876	7876	U Turn		0	0	0	-1
7193-6744-7193	6744	7193	7193	U Turn		0	0	0	-1
7193-6744-7678	6744	7193	7678	EBR	St Albert Trail is NB/SB	-1	172	0	0
7193-6744-8135	6744	7193	8135	EBT		-1	408	0	0
7193-6744-8150	6744	7193	8150	EBL		1	75	0	1
7678-6744-7193	6744	7678	7193	NBL		1	136	0	5
7678-6744-7678	6744	7678	7678	U Turn		0	0	0	-1
7678-6744-8135	6744	7678	8135	NBR		-1	596	0	0
7678-6744-8150	6744	7678	8150	NBT		-1	2227	0	0
8135-6744-7193	6744	8135	7193	WBT		-1	411	0	0
8135-6744-7678	6744	8135	7678	WBL		1	76	0	1
8135-6744-8135	6744	8135	8135	U Turn		0	0	0	-1
8135-6744-8150	6744	8135	8150	WBR		-1	230	0	0
8150-6744-7193	6744	8150	7193	SBR		-1	31	0	0
8150-6744-7678	6744	8150	7678	SBT		-1	2073	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8150-6744-8135	6744	8150	8135	SBL		1	70	0	0
8150-6744-8150	6744	8150	8150	U Turn		0	0	0	-1
6091-6871-6091	6871	6091	6091	U Turn		0	0	0	-1
6091-6871-6279	6871	6091	6279	EBL	Boudreau Rd is NB/SB	-1	81	0	0
6091-6871-6697	6871	6091	6697	EBT		-1	737	0	0
6091-6871-7129	6871	6091	7129	EBR		-1	421	0	0
6279-6871-6091	6871	6279	6091	SBR		-1	27	0	0
6279-6871-6279	6871	6279	6279	U Turn		0	0	0	-1
6279-6871-6697	6871	6279	6697	SBL		-1	51	0	0
6279-6871-7129	6871	6279	7129	SBT		-1	660	0	0
6697-6871-6091	6871	6697	6091	WBT		-1	191	0	0
6697-6871-6279	6871	6697	6279	WBR		-1	15	0	0
6697-6871-6697	6871	6697	6697	U Turn		0	0	0	-1
6697-6871-7129	6871	6697	7129	WBL		-1	526	0	0
7129-6871-6091	6871	7129	6091	NBL		-1	442	0	0
7129-6871-6279	6871	7129	6279	NBT		-1	1293	0	0
7129-6871-6697	6871	7129	6697	NBR		-1	569	0	0
7129-6871-7129	6871	7129	7129	U Turn		0	0	0	-1
6021-6894-6021	6894	6021	6021	U Turn		0	0	0	-1
6021-6894-6893	6894	6021	6893	SBT	Perron St is NB/SB	-1	12	0	0
6021-6894-8221	6894	6021	8221	SBL		-1	69	0	0
6021-6894-9910	6894	6021	9910	SBR		-1	196	0	0
6893-6894-6021	6894	6893	6021	NBT		-1	71	0	0
6893-6894-6893	6894	6893	6893	U Turn		0	0	0	-1
6893-6894-8221	6894	6893	8221	NBR		-1	1	0	0
6893-6894-9910	6894	6893	9910	NBL		-1	94	0	0
8221-6894-6021	6894	8221	6021	WBR		-1	170	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8221-6894-6893	6894	8221	6893	WBL		-1	0	0	0
8221-6894-8221	6894	8221	8221	U Turn		0	0	0	-1
8221-6894-9910	6894	8221	9910	WBT		-1	826	0	0
9910-6894-6021	6894	9910	6021	EBL		-1	331	0	0
9910-6894-6893	6894	9910	6893	EBR		-1	269	0	0
9910-6894-8221	6894	9910	8221	EBT		-1	682	0	0
9910-6894-9910	6894	9910	9910	U Turn		0	0	0	-1
7756-6921-7756	6921	7756	7756	U Turn		0	0	0	-1
7756-6921-7766	6921	7756	7766	NBR		-1	831	0	0
7756-6921-7964	6921	7756	7964	NBT		-1	1876	0	0
7756-6921-7967	6921	7756	7967	NBL		1	102	0	2
7766-6921-7756	6921	7766	7756	WBL		1	87	0	1
7766-6921-7766	6921	7766	7766	U Turn		0	0	0	-1
7766-6921-7964	6921	7766	7964	WBR		-1	37	0	0
7766-6921-7967	6921	7766	7967	WBT		-1	325	0	0
7964-6921-7756	6921	7964	7756	SBT		-1	1455	0	0
7964-6921-7766	6921	7964	7766	SBL		1	9	0	0
7964-6921-7964	6921	7964	7964	U Turn		0	0	0	-1
7964-6921-7967	6921	7964	7967	SBR		-1	16	0	0
7967-6921-7756	6921	7967	7756	EBR		-1	200	0	0
7967-6921-7766	6921	7967	7766	EBT		-1	266	0	0
7967-6921-7964	6921	7967	7964	EBL		1	51	0	0
7967-6921-7967	6921	7967	7967	U Turn		0	0	0	-1
7151-6922-7151	6922	7151	7151	U Turn		0	0	0	-1
7151-6922-7756	6922	7151	7756	NBT		-1	2891	0	0
7151-6922-7759	6922	7151	7759	NBL		1	114	0	2
7151-6922-10408	6922	7151	10408	NBR		-1	0	0	0
7756-6922-7151	6922	7756	7151	SBT		-1	1695	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7756-6922-7756	6922	7756	7756	U Turn		0	0	0	-1
7756-6922-7759	6922	7756	7759	SBR		-1	62	0	0
7756-6922-10408	6922	7756	10408	SBL		1	0	0	0
7759-6922-7151	6922	7759	7151	EBR		-1	0	0	0
7759-6922-7756	6922	7759	7756	EBL		-1	12	0	0
7759-6922-7759	6922	7759	7759	U Turn		0	0	0	-1
7759-6922-10408	6922	7759	10408	EBT		-1	0	0	0
10408-6922-7151	6922	10408	7151	WBL		-1	155	0	0
10408-6922-7756	6922	10408	7756	EBR		-1	0	0	0
10408-6922-7759	6922	10408	7759	EBT		-1	142	0	0
10408-6922-10408	6922	10408	10408	U Turn		0	0	0	-1
6926-6927-6926	6927	6926	6926	U Turn		0	0	0	-1
6926-6927-6952	6927	6926	6952	NBT	Boudreau Rd is NB/SB	-1	825	0	0
6926-6927-7073	6927	6926	7073	NBL		-1	568	0	0
6926-6927-8066	6927	6926	8066	NBR		-1	0	0	0
6952-6927-6926	6927	6952	6926	SBT		-1	711	0	0
6952-6927-6952	6927	6952	6952	U Turn		0	0	0	-1
6952-6927-7073	6927	6952	7073	SBR		-1	14	0	0
6952-6927-8066	6927	6952	8066	SBL		-1	230	0	0
7073-6927-6926	6927	7073	6926	EBR		-1	511	0	0
7073-6927-6952	6927	7073	6952	EBL		-1	29	0	0
7073-6927-7073	6927	7073	7073	U Turn		0	0	0	-1
7073-6927-8066	6927	7073	8066	EBT		-1	149	0	0
8066-6927-6926	6927	8066	6926	WBL		-1	24	0	0
8066-6927-6952	6927	8066	6952	WBR		-1	273	0	0
8066-6927-7073	6927	8066	7073	WBT		-1	259	0	0
8066-6927-8066	6927	8066	8066	U Turn		0	0	0	-1
6467-7121-6467	7121	6467	6467	U Turn		0	0	0	-1

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6467-7121-6946	7121	6467	6946	SBR		-1	185	0	0
6467-7121-7119	7121	6467	7119	SBL		-1	29	0	0
6946-7121-6467	7121	6946	6467	EBL		-1	256	0	0
6946-7121-6946	7121	6946	6946	U Turn		0	0	0	-1
6946-7121-7119	7121	6946	7119	EBT		-1	93	0	0
7119-7121-6467	7121	7119	6467	WBR		-1	119	0	0
7119-7121-6946	7121	7119	6946	WBT		-1	190	0	0
7119-7121-7119	7121	7119	7119	U Turn		0	0	0	-1
6394-7129-6394	7129	6394	6394	U Turn		0	0	0	-1
6394-7129-6549	7129	6394	6549	EBR	Boudreau Rd is NB/SB	-1	9	0	0
6394-7129-6785	7129	6394	6785	EBT		-1	35	0	0
6394-7129-6871	7129	6394	6871	EBL		-1	532	0	0
6549-7129-6394	7129	6549	6394	NBL		-1	78	0	0
6549-7129-6549	7129	6549	6549	U Turn		0	0	0	-1
6549-7129-6785	7129	6549	6785	NBR		-1	0	0	0
6549-7129-6871	7129	6549	6871	NBT		-1	1174	0	0
6785-7129-6394	7129	6785	6394	WBT		-1	25	0	0
6785-7129-6549	7129	6785	6549	WBL		-1	0	0	0
6785-7129-6785	7129	6785	6785	U Turn		0	0	0	-1
6785-7129-6871	7129	6785	6871	WBR		-1	597	0	0
6871-7129-6394	7129	6871	6394	SBR		-1	227	0	0
6871-7129-6549	7129	6871	6549	SBT		-1	978	0	0
6871-7129-6785	7129	6871	6785	SBL		-1	403	0	0
6871-7129-6871	7129	6871	6871	U Turn		0	0	0	-1
6035-7135-6035	7135	6035	6035	U Turn		0	0	0	-1
6035-7135-7132	7135	6035	7132	WBR		-1	1	0	0
6035-7135-7318	7135	6035	7318	WBL		-1	0	0	0
6035-7135-7892	7135	6035	7892	WBT		-1	60	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7132-7135-6035	7135	7132	6035	SBL		-1	0	0	0
7132-7135-7132	7135	7132	7132	U Turn		0	0	0	-1
7132-7135-7318	7135	7132	7318	SBT		-1	265	0	0
7132-7135-7892	7135	7132	7892	SBR		-1	12	0	0
7318-7135-6035	7135	7318	6035	NBR		-1	4	0	0
7318-7135-7132	7135	7318	7132	NBT		-1	303	0	0
7318-7135-7318	7135	7318	7318	U Turn		0	0	0	-1
7318-7135-7892	7135	7318	7892	NBL		-1	4	0	0
7892-7135-6035	7135	7892	6035	EBT		-1	106	0	0
7892-7135-7132	7135	7892	7132	EBL		-1	139	0	0
7892-7135-7318	7135	7892	7318	EBR		-1	17	0	0
7892-7135-7892	7135	7892	7892	U Turn		0	0	0	-1
6037-7136-6037	7136	6037	6037	U Turn		0	0	0	-1
6037-7136-7493	7136	6037	7493	EBR		-1	182	0	0
6037-7136-8149	7136	6037	8149	EBL		-1	143	0	0
7493-7136-6037	7136	7493	6037	NBL		-1	570	0	0
7493-7136-7493	7136	7493	7493	U Turn		0	0	0	-1
7493-7136-8149	7136	7493	8149	NBT		-1	395	0	0
8149-7136-6037	7136	8149	6037	SBR		-1	261	0	0
8149-7136-7493	7136	8149	7493	SBT		-1	147	0	0
8149-7136-8149	7136	8149	8149	U Turn		0	0	0	-1
6916-7138-6916	7138	6916	6916	U Turn		0	0	0	-1
6916-7138-7140	7138	6916	7140	SBL		-1	35	0	0
6916-7138-7682	7138	6916	7682	SBT		-1	544	0	0
7140-7138-6916	7138	7140	6916	WBR		-1	24	0	0
7140-7138-7140	7138	7140	7140	U Turn		0	0	0	-1
7140-7138-7682	7138	7140	7682	WBL		-1	52	0	0
7682-7138-6916	7138	7682	6916	NBT		-1	414	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7682-7138-7140	7138	7682	7140	NBR		-1	262	0	0
7682-7138-7682	7138	7682	7682	U Turn		0	0	0	-1
7559-7397-7559	7397	7559	7559	U Turn		0	0	0	-1
7559-7397-7683	7397	7559	7683	NBR		-1	631	0	0
7559-7397-7835	7397	7559	7835	NBT		-1	935	0	0
7683-7397-7559	7397	7683	7559	WBL		-1	313	0	0
7683-7397-7683	7397	7683	7683	U Turn		0	0	0	-1
7683-7397-7835	7397	7683	7835	WBR		-1	397	0	0
7835-7397-7559	7397	7835	7559	SBT		-1	591	0	0
7835-7397-7683	7397	7835	7683	SBL		-1	534	0	0
7835-7397-7835	7397	7835	7835	U Turn		0	0	0	-1
6175-7475-6175	7475	6175	6175	U Turn		0	0	0	-1
6175-7475-7474	7475	6175	7474	WBL	West side of divided intersection, SB traffic only	-1	14	0	0
6175-7475-8106	7475	6175	8106	WBT		-1	318	0	0
8104-7475-6175	7475	8104	6175	SBL		-1	115	0	0
8104-7475-7474	7475	8104	7474	SBT		-1	1644	0	0
8104-7475-8106	7475	8104	8106	SBR		-1	16	0	0
8106-7475-6175	7475	8106	6175	EBT		-1	34	0	0
8106-7475-7474	7475	8106	7474	EBR		-1	34	0	0
8106-7475-8106	7475	8106	8106	U Turn		0	0	0	-1
5008-7479-5008	7479	5008	5008	U Turn		0	0	0	-1
5008-7479-6458	7479	5008	6458	EBT	West side of divided intersection, SB traffic only	-1	60	0	0
5008-7479-7551	7479	5008	7551	EBR		-1	0	0	0
6458-7479-5008	7479	6458	5008	WBT		-1	0	0	0
6458-7479-6458	7479	6458	6458	U Turn		0	0	0	-1
6458-7479-7551	7479	6458	7551	WBL		-1	21	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8231-7479-5008	7479	8231	5008	SBR		-1	25	0	0
8231-7479-6458	7479	8231	6458	SBL		-1	22	0	0
8231-7479-7551	7479	8231	7551	SBT		-1	1537	0	0
7434-7514-7434	7514	7434	7434	U Turn		0	0	0	-1
7434-7514-7476	7514	7434	7476	WBL		-1	297	0	0
7434-7514-7500	7514	7434	7500	WBR		-1	134	0	0
7434-7514-7633	7514	7434	7633	WBT		-1	52	0	0
7476-7514-7434	7514	7476	7434	NBR		-1	523	0	0
7476-7514-7476	7514	7476	7476	U Turn		0	0	0	-1
7476-7514-7500	7514	7476	7500	NBT		-1	817	0	0
7476-7514-7633	7514	7476	7633	NBL		-1	40	0	0
7500-7514-7434	7514	7500	7434	SBL		-1	267	0	0
7500-7514-7476	7514	7500	7476	SBT		-1	712	0	0
7500-7514-7500	7514	7500	7500	U Turn		0	0	0	-1
7500-7514-7633	7514	7500	7633	SBR		-1	0	0	0
7633-7514-7434	7514	7633	7434	EBT		-1	60	0	0
7633-7514-7476	7514	7633	7476	EBR		-1	18	0	0
7633-7514-7500	7514	7633	7500	EBL		-1	1	0	0
7633-7514-7633	7514	7633	7633	U Turn		0	0	0	-1
7219-7532-7219	7532	7219	7219	U Turn		0	0	0	-1
7219-7532-7499	7532	7219	7499	SBL		-1	43	0	0
7219-7532-7583	7532	7219	7583	SBR		-1	261	0	0
7219-7532-7586	7532	7219	7586	SBT		-1	14	0	0
7499-7532-7219	7532	7499	7219	WBR		-1	249	0	0
7499-7532-7499	7532	7499	7499	U Turn		0	0	0	-1
7499-7532-7583	7532	7499	7583	WBT		-1	119	0	0
7499-7532-7586	7532	7499	7586	WBL		-1	0	0	0
7583-7532-7219	7532	7583	7219	EBL		1	109	0	2

Emme Scenario 2404 - Do Nothing with Construction of Fowler Way

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7583-7532-7499	7532	7583	7499	EBT		-1	88	0	0
7583-7532-7583	7532	7583	7583	U Turn		0	0	0	-1
7583-7532-7586	7532	7583	7586	EBR		-1	0	0	0
7586-7532-7219	7532	7586	7219	NBT		-1	148	0	0
7586-7532-7499	7532	7586	7499	NBR		-1	2	0	0
7586-7532-7583	7532	7586	7583	NBL		-1	24	0	0
7586-7532-7586	7532	7586	7586	U Turn		0	0	0	-1
7592-7590-7592	7590	7592	7592	U Turn	West side of divided intersection, SB traffic only	0	0	0	-1
7592-7590-7747	7590	7592	7747	EBT		-1	661	0	0
7592-7590-8231	7590	7592	8231	EBR		-1	0	0	0
7747-7590-7592	7590	7747	7592	WBT		-1	154	0	0
7747-7590-7747	7590	7747	7747	U Turn		0	0	0	-1
7747-7590-8231	7590	7747	8231	WBL		-1	550	0	0
8099-7590-7592	7590	8099	7592	SBR		-1	285	0	0
8099-7590-7747	7590	8099	7747	SBL		-1	25	0	0
8099-7590-8231	7590	8099	8231	SBT		-1	886	0	0
5010-7675-5010	7675	5010	5010	U Turn	Villeneuve Rd is NB/SB	0	0	0	-1
5010-7675-6624	7675	5010	6624	SBT		-1	0	0	0
5010-7675-7873	7675	5010	7873	SBL		-1	0	0	0
5010-7675-8228	7675	5010	8228	SBR		-1	0	0	0
6624-7675-5010	7675	6624	5010	NBT		-1	0	0	0
6624-7675-6624	7675	6624	6624	U Turn		0	0	0	-1
6624-7675-7873	7675	6624	7873	NBR		-1	0	0	0
6624-7675-8228	7675	6624	8228	NBL		-1	98	0	0
7873-7675-5010	7675	7873	5010	WBR		-1	0	0	0
7873-7675-6624	7675	7873	6624	WBL		-1	0	0	0
7873-7675-7873	7675	7873	7873	U Turn		0	0	0	-1

Emme Scenario 2404 - Do Nothing with Construction of Fowler Way

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7873-7675-8228	7675	7873	8228	WBT		-1	408	0	0
8228-7675-5010	7675	8228	5010	EBL		-1	0	0	0
8228-7675-6624	7675	8228	6624	EBR		-1	209	0	0
8228-7675-7873	7675	8228	7873	EBT		-1	506	0	0
8228-7675-8228	7675	8228	8228	U Turn		0	0	0	-1
7397-7683-7397	7683	7397	7397	U Turn		0	0	0	-1
7397-7683-7682	7683	7397	7682	EBL		-1	973	0	0
7397-7683-10501	7683	7397	10501	EBT		-1	192	0	0
7682-7683-7397	7683	7682	7397	SBR		-1	329	0	0
7682-7683-7682	7683	7682	7682	U Turn		0	0	0	-1
7682-7683-10501	7683	7682	10501	SBL		-1	6	0	0
10501-7683-7397	7683	10501	7397	WBT		-1	380	0	0
10501-7683-7682	7683	10501	7682	WBR		-1	24	0	0
10501-7683-10501	7683	10501	10501	U Turn		0	0	0	-1
7590-7747-7590	7747	7590	7590	U Turn	East side of divided intersection, NB traffic only	0	0	0	-1
7590-7747-8102	7747	7590	8102	EBL		-1	407	0	0
7590-7747-8238	7747	7590	8238	EBT		-1	278	0	0
8238-7747-7590	7747	8238	7590	WBT		-1	655	0	0
8238-7747-8102	7747	8238	8102	WBR		-1	4	0	0
8238-7747-8238	7747	8238	8238	U Turn		0	0	0	-1
8239-7747-7590	7747	8239	7590	NBL		-1	49	0	0
8239-7747-8102	7747	8239	8102	NBT		-1	1133	0	0
8239-7747-8238	7747	8239	8238	NBR		-1	0	0	0
6653-8217-6653	8217	6653	6653	U Turn		0	0	0	-1
6653-8217-6819	8217	6653	6819	NBR		-1	180	0	0
6653-8217-7301	8217	6653	7301	NBL		-1	173	0	0
6819-8217-6653	8217	6819	6653	WBL		-1	26	0	0

Emme Scenario 2404 - Do Nothing with Construction of Fowler Way

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6819-8217-6819	8217	6819	6819	U Turn		0	0	0	-1
6819-8217-7301	8217	6819	7301	WBT		-1	1271	0	0
7301-8217-6653	8217	7301	6653	EBR		-1	22	0	0
7301-8217-6819	8217	7301	6819	EBT		-1	1080	0	0
7301-8217-7301	8217	7301	7301	U Turn		0	0	0	-1
7067-8227-7067	8227	7067	7067	U Turn		0	0	0	-1
7067-8227-7302	8227	7067	7302	EBR		-1	170	0	0
7067-8227-7448	8227	7067	7448	EBL		-1	95	0	0
7067-8227-8092	8227	7067	8092	EBT		-1	156	0	0
7302-8227-7067	8227	7302	7067	NBL		-1	35	0	0
7302-8227-7302	8227	7302	7302	U Turn		0	0	0	-1
7302-8227-7448	8227	7302	7448	NBT		-1	507	0	0
7302-8227-8092	8227	7302	8092	NBR		-1	410	0	0
7448-8227-7067	8227	7448	7067	SBR		-1	17	0	0
7448-8227-7302	8227	7448	7302	SBT		-1	568	0	0
7448-8227-7448	8227	7448	7448	U Turn		0	0	0	-1
7448-8227-8092	8227	7448	8092	SBL		-1	22	0	0
8092-8227-7067	8227	8092	7067	WBT		-1	27	0	0
8092-8227-7302	8227	8092	7302	WBL		-1	242	0	0
8092-8227-7448	8227	8092	7448	WBR		-1	25	0	0
8092-8227-8092	8227	8092	8092	U Turn		0	0	0	-1
7510-8228-7510	8228	7510	7510	U Turn		0	0	0	-1
7510-8228-7675	8228	7510	7675	NBR		-1	469	0	0
7510-8228-8096	8228	7510	8096	NBL		-1	149	0	0
7510-8228-8229	8228	7510	8229	NBT		-1	0	0	0
7675-8228-7510	8228	7675	7510	WBL		-1	371	0	0
7675-8228-7675	8228	7675	7675	U Turn		0	0	0	-1
7675-8228-8096	8228	7675	8096	WBT		-1	135	0	0

Emme Scenario 2404 - Do Nothing with Construction of Fowler Way

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7675-8228-8229	8228	7675	8229	WBR		-1	0	0	0
8096-8228-7510	8228	8096	7510	EBR		-1	229	0	0
8096-8228-7675	8228	8096	7675	EBT		-1	246	0	0
8096-8228-8096	8228	8096	8096	U Turn		0	0	0	-1
8096-8228-8229	8228	8096	8229	EBL		-1	0	0	0
8229-8228-7510	8228	8229	7510	SBT		-1	0	0	0
8229-8228-7675	8228	8229	7675	SBL		-1	0	0	0
8229-8228-8096	8228	8229	8096	SBR		-1	0	0	0
8229-8228-8229	8228	8229	8229	U Turn		0	0	0	-1
7536-8231-7479	8231	7536	7479	EBR	West side of divided intersection, SB traffic only	-1	112	0	0
7536-8231-7536	8231	7536	7536	U Turn		0	0	0	-1
7536-8231-8232	8231	7536	8232	EBT	St Albert Trail is NB/SB	-1	146	0	0
7590-8231-7479	8231	7590	7479	SBT		-1	1371	0	0
7590-8231-7536	8231	7590	7536	SBR		-1	11	0	0
7590-8231-8232	8231	7590	8232	SBL		-1	53	0	0
8232-8231-7479	8231	8232	7479	WBL		-1	100	0	0
8232-8231-7536	8231	8232	7536	WBT		-1	249	0	0
8232-8231-8232	8231	8232	8232	U Turn		0	0	0	-1
6458-8232-8231	8232	6458	8231	NBL	East side of divided intersection, NB traffic only	-1	185	0	0
6458-8232-8234	8232	6458	8234	NBR	St Albert Trail is NB/SB	-1	119	0	0
6458-8232-8239	8232	6458	8239	NBT		-1	1608	0	0
8231-8232-8231	8232	8231	8231	U Turn		0	0	0	-1
8231-8232-8234	8232	8231	8234	EBT		-1	189	0	0
8231-8232-8239	8232	8231	8239	EBL		-1	10	0	0
8234-8232-8231	8232	8234	8231	WBT		-1	164	0	0

Emme Scenario 2404 - Do Nothing with Construction of Fowler Way

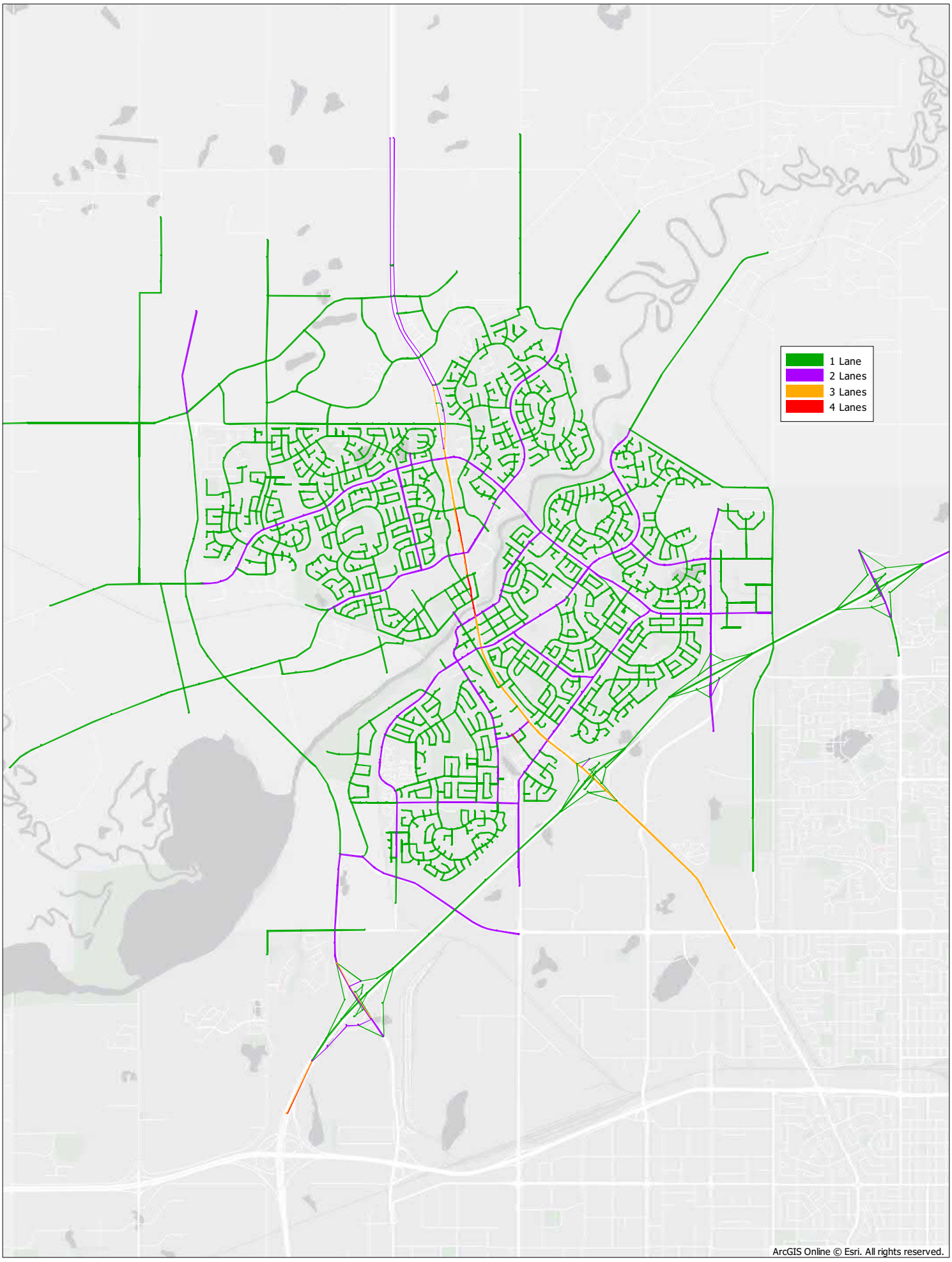
Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8234-8232-8234	8232	8234	8234	U Turn		0	0	0	-1
8234-8232-8239	8232	8234	8239	WBR		-1	0	0	0

Scenario 2405 – Capital Plan without RGD Twinned

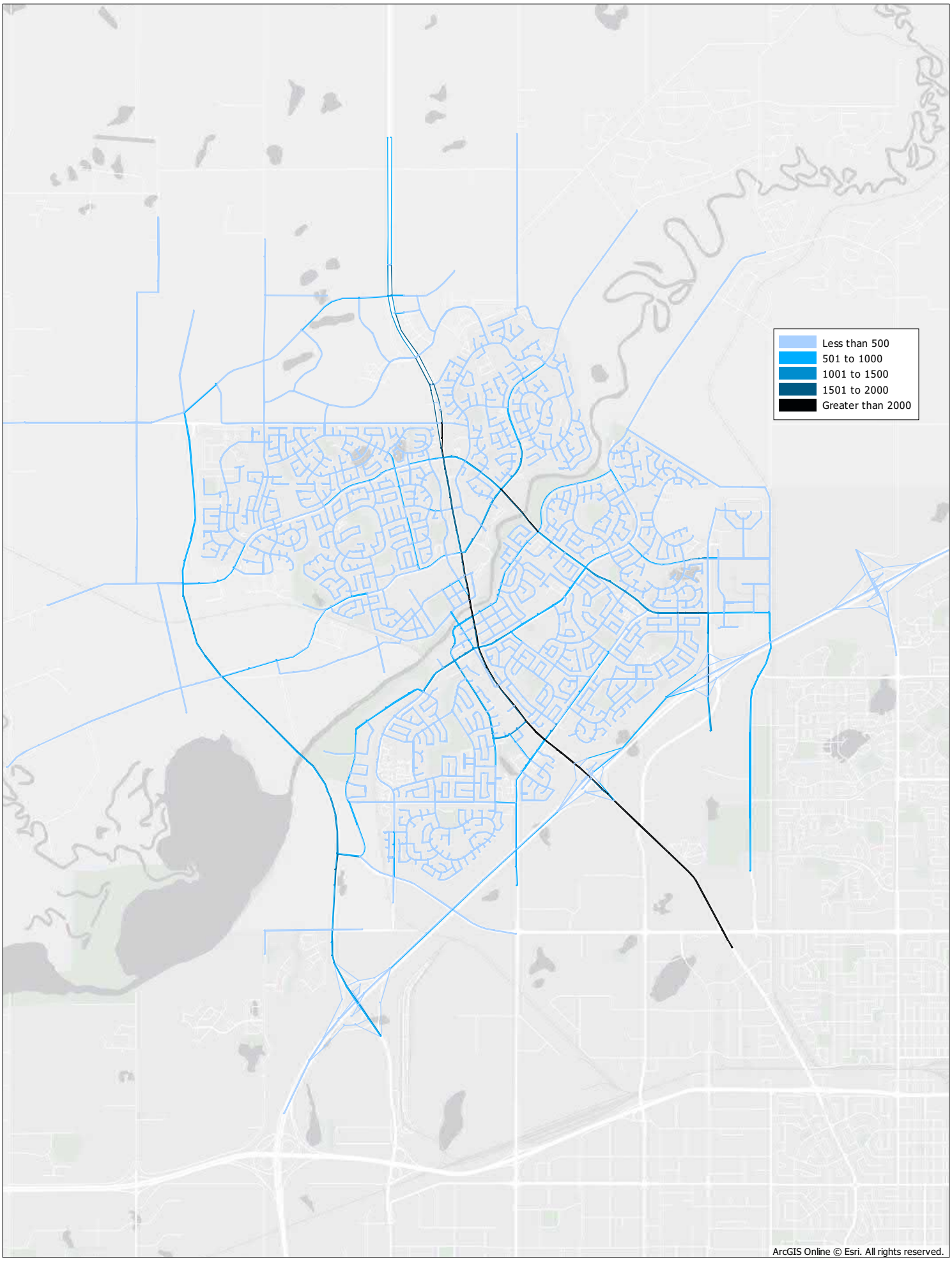
Capital Plan without RGD Twinning Vs Capital Plan Scenario



Capital Plan without RGD Twinning - Lanes in Each Direction of Travel



Capital Plan without RGD Twinning - Volumes



Emme Scenario 2405 - Capital Plan without Ray Gibbon Drive Twinning

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6033-6035-6033	6035	6033	6033	U Turn		0	0	0	-1
6033-6035-6036	6035	6033	6036	WBR		-1	23	0	0
6033-6035-7135	6035	6033	7135	WBT		-1	76	0	0
6033-6035-7144	6035	6033	7144	WBL		-1	101	0	0
6036-6035-6033	6035	6036	6033	SBL		-1	6	0	0
6036-6035-6036	6035	6036	6036	U Turn		0	0	0	-1
6036-6035-7135	6035	6036	7135	SBR		-1	3	0	0
6036-6035-7144	6035	6036	7144	SBT		-1	41	0	0
7135-6035-6033	6035	7135	6033	EBT		-1	59	0	0
7135-6035-6036	6035	7135	6036	EBL		-1	1	0	0
7135-6035-7135	6035	7135	7135	U Turn		0	0	0	-1
7135-6035-7144	6035	7135	7144	EBR		-1	41	0	0
7144-6035-6033	6035	7144	6033	NBR		-1	110	0	0
7144-6035-6036	6035	7144	6036	NBT		-1	37	0	0
7144-6035-7135	6035	7144	7135	NBL		-1	4	0	0
7144-6035-7144	6035	7144	7144	U Turn		0	0	0	-1
6033-6037-6033	6037	6033	6033	U Turn		0	0	0	-1
6033-6037-6038	6037	6033	6038	EBL		-1	0	0	0
6033-6037-7136	6037	6033	7136	EBT		-1	110	0	0
6033-6037-7141	6037	6033	7141	EBR		-1	0	0	0
6038-6037-6033	6037	6038	6033	SBR		-1	47	0	0
6038-6037-6038	6037	6038	6038	U Turn		0	0	0	-1
6038-6037-7136	6037	6038	7136	SBL		-1	176	0	0
6038-6037-7141	6037	6038	7141	SBT		-1	78	0	0
7136-6037-6033	6037	7136	6033	WBT		-1	264	0	0
7136-6037-6038	6037	7136	6038	WBR		-1	339	0	0
7136-6037-7136	6037	7136	7136	U Turn		0	0	0	-1
7136-6037-7141	6037	7136	7141	WBL		-1	229	0	0

Emme Scenario 2405 - Capital Plan without Ray Gibbon Drive Twinning

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7141-6037-6033	6037	7141	6033	NBL		-1	0	0	0
7141-6037-6038	6037	7141	6038	NBT		-1	46	0	0
7141-6037-7136	6037	7141	7136	NBR		-1	28	0	0
7141-6037-7141	6037	7141	7141	U Turn		0	0	0	-1
6141-6142-6141	6142	6141	6141	U Turn		0	0	0	-1
6141-6142-6722	6142	6141	6722	NBR	Sir Winston Churchill is NB/SB	-1	442	0	0
6141-6142-7861	6142	6141	7861	NBT		-1	796	0	0
6141-6142-8201	6142	6141	8201	NBL		1	60	0	0
6722-6142-6141	6142	6722	6141	WBL		-1	329	0	0
6722-6142-6722	6142	6722	6722	U Turn		0	0	0	-1
6722-6142-7861	6142	6722	7861	WBR		-1	302	0	0
6722-6142-8201	6142	6722	8201	WBT		-1	82	0	0
7861-6142-6141	6142	7861	6141	SBT		-1	1086	0	0
7861-6142-6722	6142	7861	6722	SBL		1	68	0	0
7861-6142-7861	6142	7861	7861	U Turn		0	0	0	-1
7861-6142-8201	6142	7861	8201	SBR		-1	0	0	0
8201-6142-6141	6142	8201	6141	EBR		-1	14	0	0
8201-6142-6722	6142	8201	6722	EBT		-1	697	0	0
8201-6142-7861	6142	8201	7861	EBL		-1	209	0	0
8201-6142-8201	6142	8201	8201	U Turn		0	0	0	-1
7475-6175-7475	6175	7475	7475	U Turn	East side of divided intersection, NB traffic only	0	0	0	-1
7475-6175-7502	6175	7475	7502	EBT		-1	147	0	0
7475-6175-8105	6175	7475	8105	EBL		-1	1	0	0
7502-6175-7475	6175	7502	7475	WBT		-1	52	0	0
7502-6175-7502	6175	7502	7502	U Turn		0	0	0	-1
7502-6175-8105	6175	7502	8105	WBR		-1	199	0	0

Emme Scenario 2405 - Capital Plan without Ray Gibbon Drive Twinning

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7922-6175-7475	6175	7922	7475	NBL		-1	344	0	0
7922-6175-7502	6175	7922	7502	NBR		-1	92	0	0
7922-6175-8105	6175	7922	8105	NBT		-1	1655	0	0
7474-6176-7474	6176	7474	7474	U Turn		0	0	0	-1
7474-6176-7940	6176	7474	7940	SBR		-1	62	0	0
7474-6176-8172	6176	7474	8172	SBT		-1	1533	0	0
7474-6176-8223	6176	7474	8223	SBL		1	107	0	2
7940-6176-7474	6176	7940	7474	EBL		1	51	0	0
7940-6176-7940	6176	7940	7940	U Turn		0	0	0	-1
7940-6176-8172	6176	7940	8172	EBR		-1	10	0	0
7940-6176-8223	6176	7940	8223	EBT		-1	356	0	0
8172-6176-7474	6176	8172	7474	NBT		-1	1483	0	0
8172-6176-7940	6176	8172	7940	NBL		1	101	0	2
8172-6176-8172	6176	8172	8172	U Turn		0	0	0	-1
8172-6176-8223	6176	8172	8223	NBR		-1	68	0	0
8223-6176-7474	6176	8223	7474	WBR		-1	570	0	0
8223-6176-7940	6176	8223	7940	WBT		-1	508	0	0
8223-6176-8172	6176	8223	8172	WBL		1	81	0	1
8223-6176-8223	6176	8223	8223	U Turn		0	0	0	-1
7938-6348-7938	6348	7938	7938	U Turn		0	0	0	-1
7938-6348-7939	6348	7938	7939	SBL	Perron St is NB/SB	-1	4	0	0
7938-6348-8195	6348	7938	8195	SBR		-1	246	0	0
7938-6348-8197	6348	7938	8197	SBT		-1	257	0	0
7939-6348-7938	6348	7939	7938	WBR		-1	52	0	0
7939-6348-7939	6348	7939	7939	U Turn		0	0	0	-1
7939-6348-8195	6348	7939	8195	WBT		-1	705	0	0
7939-6348-8197	6348	7939	8197	WBL		1	65	0	0
8195-6348-7938	6348	8195	7938	EBL		1	101	0	2

Emme Scenario 2405 - Capital Plan without Ray Gibbon Drive Twinning

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8195-6348-7939	6348	8195	7939	EBT		-1	821	0	0
8195-6348-8195	6348	8195	8195	U Turn		0	0	0	-1
8195-6348-8197	6348	8195	8197	EBR		-1	0	0	0
8197-6348-7938	6348	8197	7938	NBT		-1	584	0	0
8197-6348-7939	6348	8197	7939	NBR		-1	17	0	0
8197-6348-8195	6348	8197	8195	NBL		-1	0	0	0
8197-6348-8197	6348	8197	8197	U Turn		0	0	0	-1
6594-6349-6594	6349	6594	6594	U Turn		0	0	0	-1
6594-6349-7936	6349	6594	7936	WBR	St Albert Trail is NB/SB	-1	189	0	0
6594-6349-7939	6349	6594	7939	WBT		-1	201	0	0
6594-6349-10802	6349	6594	10802	WBL		1	73	0	0
7936-6349-6594	6349	7936	6594	SBL		1	100	0	1
7936-6349-7936	6349	7936	7936	U Turn		0	0	0	-1
7936-6349-7939	6349	7936	7939	SBR		-1	873	0	0
7936-6349-10802	6349	7936	10802	SBT		-1	1423	0	0
7939-6349-6594	6349	7939	6594	EBT		-1	698	0	0
7939-6349-7936	6349	7939	7936	EBL		1	117	0	3
7939-6349-7939	6349	7939	7939	U Turn		0	0	0	-1
7939-6349-10802	6349	7939	10802	EBR		-1	142	0	0
10802-6349-6594	6349	10802	6594	NBR		-1	144	0	0
10802-6349-7936	6349	10802	7936	NBT		-1	2831	0	0
10802-6349-7939	6349	10802	7939	NBL		1	99	0	1
10802-6349-10802	6349	10802	10802	U Turn		0	0	0	-1
6279-6386-6279	6386	6279	6279	U Turn		0	0	0	-1
6279-6386-6485	6386	6279	6485	WBL		-1	0	0	0
6279-6386-6769	6386	6279	6769	WBR		-1	281	0	0
6279-6386-7923	6386	6279	7923	WBT		-1	1046	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6485-6386-6279	6386	6485	6279	NBR		-1	3	0	0
6485-6386-6485	6386	6485	6485	U Turn		0	0	0	-1
6485-6386-6769	6386	6485	6769	NBT		-1	50	0	0
6485-6386-7923	6386	6485	7923	NBL		-1	16	0	0
6769-6386-6279	6386	6769	6279	SBL		1	94	0	1
6769-6386-6485	6386	6769	6485	SBT		-1	15	0	0
6769-6386-6769	6386	6769	6769	U Turn		0	0	0	-1
6769-6386-7923	6386	6769	7923	SBR		-1	90	0	0
7923-6386-6279	6386	7923	6279	EBT		-1	565	0	0
7923-6386-6485	6386	7923	6485	EBR		-1	3	0	0
7923-6386-6769	6386	7923	6769	EBL		1	74	0	1
7923-6386-7923	6386	7923	7923	U Turn		0	0	0	-1
6193-6458-6193	6458	6193	6193	U Turn		0	0	0	-1
6193-6458-7479	6458	6193	7479	WBT	East side of divided intersection, NB traffic only	-1	21	0	0
6193-6458-8232	6458	6193	8232	WBR		-1	22	0	0
7479-6458-6193	6458	7479	6193	EBT		-1	30	0	0
7479-6458-7479	6458	7479	7479	U Turn		0	0	0	-1
7479-6458-8232	6458	7479	8232	EBL		-1	39	0	0
8103-6458-6193	6458	8103	6193	NBR		-1	22	0	0
8103-6458-7479	6458	8103	7479	NBL		-1	0	0	0
8103-6458-8232	6458	8103	8232	NBT		-1	1730	0	0
6356-6595-6356	6595	6356	6356	U Turn		0	0	0	-1
6356-6595-7554	6595	6356	7554	WBL		-1	247	0	0
6356-6595-8121	6595	6356	8121	WBR		-1	3	0	0
6356-6595-8220	6595	6356	8220	WBT		-1	632	0	0
7554-6595-6356	6595	7554	6356	NBR		-1	257	0	0
7554-6595-7554	6595	7554	7554	U Turn		0	0	0	-1

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7554-6595-8121	6595	7554	8121	NBT		-1	133	0	0
7554-6595-8220	6595	7554	8220	NBL		-1	1068	0	0
8121-6595-6356	6595	8121	6356	SBL		-1	0	0	0
8121-6595-7554	6595	8121	7554	SBT		-1	115	0	0
8121-6595-8121	6595	8121	8121	U Turn		0	0	0	-1
8121-6595-8220	6595	8121	8220	SBR		-1	43	0	0
8220-6595-6356	6595	8220	6356	EBT		-1	721	0	0
8220-6595-7554	6595	8220	7554	EBR		-1	355	0	0
8220-6595-8121	6595	8220	8121	EBL		-1	55	0	0
8220-6595-8220	6595	8220	8220	U Turn		0	0	0	-1
7286-6596-7286	6596	7286	7286	U Turn		0	0	0	-1
7286-6596-7822	6596	7286	7822	WBT		-1	626	0	0
7286-6596-7977	6596	7286	7977	WBL		1	1	0	0
7286-6596-8117	6596	7286	8117	WBR		-1	0	0	0
7822-6596-7286	6596	7822	7286	EBT		-1	159	0	0
7822-6596-7822	6596	7822	7822	U Turn		0	0	0	-1
7822-6596-7977	6596	7822	7977	EBR		-1	69	0	0
7822-6596-8117	6596	7822	8117	EBL		1	0	0	0
7977-6596-7286	6596	7977	7286	NBL		-1	42	0	0
7977-6596-7822	6596	7977	7822	NBR		1	108	0	2
7977-6596-7977	6596	7977	7977	U Turn		0	0	0	-1
7977-6596-8117	6596	7977	8117	NBT		-1	1	0	0
8117-6596-7286	6596	8117	7286	SBL		1	0	0	0
8117-6596-7822	6596	8117	7822	SBR		-1	318	0	0
8117-6596-7977	6596	8117	7977	SBT		-1	0	0	0
8117-6596-8117	6596	8117	8117	U Turn		0	0	0	-1
6427-6624-6427	6624	6427	6427	U Turn		0	0	0	-1
6427-6624-7675	6624	6427	7675	NBL		-1	2	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6427-6624-7875	6624	6427	7875	NBT		-1	349	0	0
6427-6624-7876	6624	6427	7876	NBR		-1	1	0	0
7675-6624-6427	6624	7675	6427	EBR		-1	0	0	0
7675-6624-7675	6624	7675	7675	U Turn		0	0	0	-1
7675-6624-7875	6624	7675	7875	EBL		-1	96	0	0
7675-6624-7876	6624	7675	7876	EBT		-1	62	0	0
7875-6624-6427	6624	7875	6427	SBT		-1	86	0	0
7875-6624-7675	6624	7875	7675	SBR		-1	0	0	0
7875-6624-7875	6624	7875	7875	U Turn		0	0	0	-1
7875-6624-7876	6624	7875	7876	SBL		-1	8	0	0
7876-6624-6427	6624	7876	6427	WBL		-1	225	0	0
7876-6624-7675	6624	7876	7675	WBT		-1	76	0	0
7876-6624-7875	6624	7876	7875	WBR		-1	16	0	0
7876-6624-7876	6624	7876	7876	U Turn		0	0	0	-1
7193-6744-7193	6744	7193	7193	U Turn		0	0	0	-1
7193-6744-7678	6744	7193	7678	EBR	St Albert Trail is NB/SB	-1	219	0	0
7193-6744-8135	6744	7193	8135	EBT		-1	396	0	0
7193-6744-8150	6744	7193	8150	EBL		1	72	0	0
7678-6744-7193	6744	7678	7193	NBL		1	137	0	5
7678-6744-7678	6744	7678	7678	U Turn		0	0	0	-1
7678-6744-8135	6744	7678	8135	NBR		-1	615	0	0
7678-6744-8150	6744	7678	8150	NBT		-1	2207	0	0
8135-6744-7193	6744	8135	7193	WBT		-1	408	0	0
8135-6744-7678	6744	8135	7678	WBL		1	76	0	1
8135-6744-8135	6744	8135	8135	U Turn		0	0	0	-1
8135-6744-8150	6744	8135	8150	WBR		-1	227	0	0
8150-6744-7193	6744	8150	7193	SBR		-1	75	0	0
8150-6744-7678	6744	8150	7678	SBT		-1	2052	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8150-6744-8135	6744	8150	8135	SBL		1	70	0	0
8150-6744-8150	6744	8150	8150	U Turn		0	0	0	-1
6091-6871-6091	6871	6091	6091	U Turn		0	0	0	-1
6091-6871-6279	6871	6091	6279	EBL	Boudreau Rd is NB/SB	-1	75	0	0
6091-6871-6697	6871	6091	6697	EBT		-1	714	0	0
6091-6871-7129	6871	6091	7129	EBR		-1	425	0	0
6279-6871-6091	6871	6279	6091	SBR		-1	27	0	0
6279-6871-6279	6871	6279	6279	U Turn		0	0	0	-1
6279-6871-6697	6871	6279	6697	SBL		-1	48	0	0
6279-6871-7129	6871	6279	7129	SBT		-1	667	0	0
6697-6871-6091	6871	6697	6091	WBT		-1	179	0	0
6697-6871-6279	6871	6697	6279	WBR		-1	13	0	0
6697-6871-6697	6871	6697	6697	U Turn		0	0	0	-1
6697-6871-7129	6871	6697	7129	WBL		-1	534	0	0
7129-6871-6091	6871	7129	6091	NBL		-1	569	0	0
7129-6871-6279	6871	7129	6279	NBT		-1	1390	0	0
7129-6871-6697	6871	7129	6697	NBR		-1	565	0	0
7129-6871-7129	6871	7129	7129	U Turn		0	0	0	-1
6021-6894-6021	6894	6021	6021	U Turn		0	0	0	-1
6021-6894-6893	6894	6021	6893	SBT	Perron St is NB/SB	-1	13	0	0
6021-6894-8221	6894	6021	8221	SBL		-1	68	0	0
6021-6894-9910	6894	6021	9910	SBR		-1	224	0	0
6893-6894-6021	6894	6893	6021	NBT		-1	75	0	0
6893-6894-6893	6894	6893	6893	U Turn		0	0	0	-1
6893-6894-8221	6894	6893	8221	NBR		-1	1	0	0
6893-6894-9910	6894	6893	9910	NBL		-1	96	0	0
8221-6894-6021	6894	8221	6021	WBR		-1	166	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8221-6894-6893	6894	8221	6893	WBL		-1	0	0	0
8221-6894-8221	6894	8221	8221	U Turn		0	0	0	-1
8221-6894-9910	6894	8221	9910	WBT		-1	836	0	0
9910-6894-6021	6894	9910	6021	EBL		-1	332	0	0
9910-6894-6893	6894	9910	6893	EBR		-1	248	0	0
9910-6894-8221	6894	9910	8221	EBT		-1	686	0	0
9910-6894-9910	6894	9910	9910	U Turn		0	0	0	-1
7756-6921-7756	6921	7756	7756	U Turn		0	0	0	-1
7756-6921-7766	6921	7756	7766	NBR		-1	812	0	0
7756-6921-7964	6921	7756	7964	NBT		-1	1700	0	0
7756-6921-7967	6921	7756	7967	NBL		1	111	0	2
7766-6921-7756	6921	7766	7756	WBL		1	93	0	1
7766-6921-7766	6921	7766	7766	U Turn		0	0	0	-1
7766-6921-7964	6921	7766	7964	WBR		-1	35	0	0
7766-6921-7967	6921	7766	7967	WBT		-1	395	0	0
7964-6921-7756	6921	7964	7756	SBT		-1	1469	0	0
7964-6921-7766	6921	7964	7766	SBL		1	9	0	0
7964-6921-7964	6921	7964	7964	U Turn		0	0	0	-1
7964-6921-7967	6921	7964	7967	SBR		-1	11	0	0
7967-6921-7756	6921	7967	7756	EBR		-1	199	0	0
7967-6921-7766	6921	7967	7766	EBT		-1	247	0	0
7967-6921-7964	6921	7967	7964	EBL		1	51	0	0
7967-6921-7967	6921	7967	7967	U Turn		0	0	0	-1
7151-6922-7151	6922	7151	7151	U Turn		0	0	0	-1
7151-6922-7756	6922	7151	7756	NBT		-1	2688	0	0
7151-6922-7759	6922	7151	7759	NBL		1	121	0	3
7151-6922-10408	6922	7151	10408	NBR		-1	0	0	0
7756-6922-7151	6922	7756	7151	SBT		-1	1720	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7756-6922-7756	6922	7756	7756	U Turn		0	0	0	-1
7756-6922-7759	6922	7756	7759	SBR		-1	59	0	0
7756-6922-10408	6922	7756	10408	SBL		1	0	0	0
7759-6922-7151	6922	7759	7151	EBR		-1	0	0	0
7759-6922-7756	6922	7759	7756	EBL		-1	12	0	0
7759-6922-7759	6922	7759	7759	U Turn		0	0	0	-1
7759-6922-10408	6922	7759	10408	EBT		-1	0	0	0
10408-6922-7151	6922	10408	7151	WBL		-1	157	0	0
10408-6922-7756	6922	10408	7756	EBR		-1	0	0	0
10408-6922-7759	6922	10408	7759	EBT		-1	137	0	0
10408-6922-10408	6922	10408	10408	U Turn		0	0	0	-1
6926-6927-6926	6927	6926	6926	U Turn		0	0	0	-1
6926-6927-6952	6927	6926	6952	NBT	Boudreau Rd is NB/SB	-1	836	0	0
6926-6927-7073	6927	6926	7073	NBL		-1	525	0	0
6926-6927-8066	6927	6926	8066	NBR		-1	0	0	0
6952-6927-6926	6927	6952	6926	SBT		-1	714	0	0
6952-6927-6952	6927	6952	6952	U Turn		0	0	0	-1
6952-6927-7073	6927	6952	7073	SBR		-1	15	0	0
6952-6927-8066	6927	6952	8066	SBL		-1	232	0	0
7073-6927-6926	6927	7073	6926	EBR		-1	507	0	0
7073-6927-6952	6927	7073	6952	EBL		-1	33	0	0
7073-6927-7073	6927	7073	7073	U Turn		0	0	0	-1
7073-6927-8066	6927	7073	8066	EBT		-1	151	0	0
8066-6927-6926	6927	8066	6926	WBL		-1	24	0	0
8066-6927-6952	6927	8066	6952	WBR		-1	272	0	0
8066-6927-7073	6927	8066	7073	WBT		-1	250	0	0
8066-6927-8066	6927	8066	8066	U Turn		0	0	0	-1
6467-7121-6467	7121	6467	6467	U Turn		0	0	0	-1

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6467-7121-6946	7121	6467	6946	SBR		-1	163	0	0
6467-7121-7119	7121	6467	7119	SBL		-1	28	0	0
6946-7121-6467	7121	6946	6467	EBL		-1	312	0	0
6946-7121-6946	7121	6946	6946	U Turn		0	0	0	-1
6946-7121-7119	7121	6946	7119	EBT		-1	109	0	0
7119-7121-6467	7121	7119	6467	WBR		-1	126	0	0
7119-7121-6946	7121	7119	6946	WBT		-1	167	0	0
7119-7121-7119	7121	7119	7119	U Turn		0	0	0	-1
6394-7129-6394	7129	6394	6394	U Turn		0	0	0	-1
6394-7129-6549	7129	6394	6549	EBR	Boudreau Rd is NB/SB	-1	5	0	0
6394-7129-6785	7129	6394	6785	EBT		-1	34	0	0
6394-7129-6871	7129	6394	6871	EBL		-1	656	0	0
6549-7129-6394	7129	6549	6394	NBL		-1	20	0	0
6549-7129-6549	7129	6549	6549	U Turn		0	0	0	-1
6549-7129-6785	7129	6549	6785	NBR		-1	0	0	0
6549-7129-6871	7129	6549	6871	NBT		-1	1244	0	0
6785-7129-6394	7129	6785	6394	WBT		-1	11	0	0
6785-7129-6549	7129	6785	6549	WBL		-1	0	0	0
6785-7129-6785	7129	6785	6785	U Turn		0	0	0	-1
6785-7129-6871	7129	6785	6871	WBR		-1	625	0	0
6871-7129-6394	7129	6871	6394	SBR		-1	239	0	0
6871-7129-6549	7129	6871	6549	SBT		-1	983	0	0
6871-7129-6785	7129	6871	6785	SBL		-1	404	0	0
6871-7129-6871	7129	6871	6871	U Turn		0	0	0	-1
6035-7135-6035	7135	6035	6035	U Turn		0	0	0	-1
6035-7135-7132	7135	6035	7132	WBR		-1	2	0	0
6035-7135-7318	7135	6035	7318	WBL		-1	0	0	0
6035-7135-7892	7135	6035	7892	WBT		-1	81	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7132-7135-6035	7135	7132	6035	SBL		-1	0	0	0
7132-7135-7132	7135	7132	7132	U Turn		0	0	0	-1
7132-7135-7318	7135	7132	7318	SBT		-1	133	0	0
7132-7135-7892	7135	7132	7892	SBR		-1	104	0	0
7318-7135-6035	7135	7318	6035	NBR		-1	8	0	0
7318-7135-7132	7135	7318	7132	NBT		-1	301	0	0
7318-7135-7318	7135	7318	7318	U Turn		0	0	0	-1
7318-7135-7892	7135	7318	7892	NBL		-1	4	0	0
7892-7135-6035	7135	7892	6035	EBT		-1	94	0	0
7892-7135-7132	7135	7892	7132	EBL		-1	147	0	0
7892-7135-7318	7135	7892	7318	EBR		-1	19	0	0
7892-7135-7892	7135	7892	7892	U Turn		0	0	0	-1
6037-7136-6037	7136	6037	6037	U Turn		0	0	0	-1
6037-7136-7493	7136	6037	7493	EBR		-1	182	0	0
6037-7136-8149	7136	6037	8149	EBL		-1	132	0	0
7493-7136-6037	7136	7493	6037	NBL		-1	570	0	0
7493-7136-7493	7136	7493	7493	U Turn		0	0	0	-1
7493-7136-8149	7136	7493	8149	NBT		-1	396	0	0
8149-7136-6037	7136	8149	6037	SBR		-1	262	0	0
8149-7136-7493	7136	8149	7493	SBT		-1	147	0	0
8149-7136-8149	7136	8149	8149	U Turn		0	0	0	-1
6916-7138-6916	7138	6916	6916	U Turn		0	0	0	-1
6916-7138-7140	7138	6916	7140	SBL		-1	24	0	0
6916-7138-7682	7138	6916	7682	SBT		-1	608	0	0
7140-7138-6916	7138	7140	6916	WBR		-1	23	0	0
7140-7138-7140	7138	7140	7140	U Turn		0	0	0	-1
7140-7138-7682	7138	7140	7682	WBL		-1	166	0	0
7682-7138-6916	7138	7682	6916	NBT		-1	378	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7682-7138-7140	7138	7682	7140	NBR		-1	266	0	0
7682-7138-7682	7138	7682	7682	U Turn		0	0	0	-1
7559-7397-7559	7397	7559	7559	U Turn		0	0	0	-1
7559-7397-7683	7397	7559	7683	NBR		-1	645	0	0
7559-7397-7835	7397	7559	7835	NBT		-1	977	0	0
7683-7397-7559	7397	7683	7559	WBL		-1	313	0	0
7683-7397-7683	7397	7683	7683	U Turn		0	0	0	-1
7683-7397-7835	7397	7683	7835	WBR		-1	382	0	0
7835-7397-7559	7397	7835	7559	SBT		-1	574	0	0
7835-7397-7683	7397	7835	7683	SBL		-1	469	0	0
7835-7397-7835	7397	7835	7835	U Turn		0	0	0	-1
6175-7475-6175	7475	6175	6175	U Turn		0	0	0	-1
6175-7475-7474	7475	6175	7474	WBL	West side of divided intersection, SB traffic only	-1	11	0	0
6175-7475-8106	7475	6175	8106	WBT		-1	385	0	0
8104-7475-6175	7475	8104	6175	SBL		-1	111	0	0
8104-7475-7474	7475	8104	7474	SBT		-1	1647	0	0
8104-7475-8106	7475	8104	8106	SBR		-1	33	0	0
8106-7475-6175	7475	8106	6175	EBT		-1	37	0	0
8106-7475-7474	7475	8106	7474	EBR		-1	59	0	0
8106-7475-8106	7475	8106	8106	U Turn		0	0	0	-1
5008-7479-5008	7479	5008	5008	U Turn		0	0	0	-1
5008-7479-6458	7479	5008	6458	EBT	West side of divided intersection, SB traffic only	-1	57	0	0
5008-7479-7551	7479	5008	7551	EBR		-1	0	0	0
6458-7479-5008	7479	6458	5008	WBT		-1	0	0	0
6458-7479-6458	7479	6458	6458	U Turn		0	0	0	-1
6458-7479-7551	7479	6458	7551	WBL		-1	21	0	0

Emme Scenario 2405 - Capital Plan without Ray Gibbon Drive Twinning

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8231-7479-5008	7479	8231	5008	SBR		-1	25	0	0
8231-7479-6458	7479	8231	6458	SBL		-1	12	0	0
8231-7479-7551	7479	8231	7551	SBT		-1	1571	0	0
7434-7514-7434	7514	7434	7434	U Turn		0	0	0	-1
7434-7514-7476	7514	7434	7476	WBL		-1	255	0	0
7434-7514-7500	7514	7434	7500	WBR		-1	162	0	0
7434-7514-7633	7514	7434	7633	WBT		-1	56	0	0
7476-7514-7434	7514	7476	7434	NBR		-1	495	0	0
7476-7514-7476	7514	7476	7476	U Turn		0	0	0	-1
7476-7514-7500	7514	7476	7500	NBT		-1	884	0	0
7476-7514-7633	7514	7476	7633	NBL		-1	32	0	0
7500-7514-7434	7514	7500	7434	SBL		-1	272	0	0
7500-7514-7476	7514	7500	7476	SBT		-1	675	0	0
7500-7514-7500	7514	7500	7500	U Turn		0	0	0	-1
7500-7514-7633	7514	7500	7633	SBR		-1	14	0	0
7633-7514-7434	7514	7633	7434	EBT		-1	63	0	0
7633-7514-7476	7514	7633	7476	EBR		-1	16	0	0
7633-7514-7500	7514	7633	7500	EBL		-1	1	0	0
7633-7514-7633	7514	7633	7633	U Turn		0	0	0	-1
7219-7532-7219	7532	7219	7219	U Turn		0	0	0	-1
7219-7532-7499	7532	7219	7499	SBL		-1	69	0	0
7219-7532-7583	7532	7219	7583	SBR		-1	86	0	0
7219-7532-7586	7532	7219	7586	SBT		-1	14	0	0
7499-7532-7219	7532	7499	7219	WBR		-1	252	0	0
7499-7532-7499	7532	7499	7499	U Turn		0	0	0	-1
7499-7532-7583	7532	7499	7583	WBT		-1	117	0	0

Emme Scenario 2405 - Capital Plan without Ray Gibbon Drive Twinning

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7499-7532-7586	7532	7499	7586	WBL		-1	0	0	0
7583-7532-7219	7532	7583	7219	EBL		1	108	0	2
7583-7532-7499	7532	7583	7499	EBT		-1	62	0	0
7583-7532-7583	7532	7583	7583	U Turn		0	0	0	-1
7583-7532-7586	7532	7583	7586	EBR		-1	0	0	0
7586-7532-7219	7532	7586	7219	NBT		-1	149	0	0
7586-7532-7499	7532	7586	7499	NBR		-1	2	0	0
7586-7532-7583	7532	7586	7583	NBL		-1	0	0	0
7586-7532-7586	7532	7586	7586	U Turn		0	0	0	-1
7592-7590-7592	7590	7592	7592	U Turn	West side of divided intersection, SB traffic only	0	0	0	-1
7592-7590-7747	7590	7592	7747	EBT		-1	662	0	0
7592-7590-8231	7590	7592	8231	EBR		-1	0	0	0
7747-7590-7592	7590	7747	7592	WBT		-1	161	0	0
7747-7590-7747	7590	7747	7747	U Turn		0	0	0	-1
7747-7590-8231	7590	7747	8231	WBL		-1	542	0	0
8099-7590-7592	7590	8099	7592	SBR		-1	286	0	0
8099-7590-7747	7590	8099	7747	SBL		-1	27	0	0
8099-7590-8231	7590	8099	8231	SBT		-1	884	0	0
5010-7675-5010	7675	5010	5010	U Turn	5010 Is centroid connector	0	0	0	-1
5010-7675-6624	7675	5010	6624	SBT		-1	0	0	0
5010-7675-7873	7675	5010	7873	SBL		-1	0	0	0
5010-7675-8228	7675	5010	8228	SBR		-1	0	0	0
6624-7675-5010	7675	6624	5010	NBT		-1	0	0	0
6624-7675-6624	7675	6624	6624	U Turn		0	0	0	-1
6624-7675-7873	7675	6624	7873	NBR		-1	0	0	0
6624-7675-8228	7675	6624	8228	NBL		-1	78	0	0

Emme Scenario 2405 - Capital Plan without Ray Gibbon Drive Twinning

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7873-7675-5010	7675	7873	5010	WBR		-1	0	0	0
7873-7675-6624	7675	7873	6624	WBL		-1	0	0	0
7873-7675-7873	7675	7873	7873	U Turn		0	0	0	-1
7873-7675-8228	7675	7873	8228	WBT		-1	408	0	0
8228-7675-5010	7675	8228	5010	EBL		-1	0	0	0
8228-7675-6624	7675	8228	6624	EBR		-1	158	0	0
8228-7675-7873	7675	8228	7873	EBT		-1	488	0	0
8228-7675-8228	7675	8228	8228	U Turn		0	0	0	-1
7397-7683-7397	7683	7397	7397	U Turn		0	0	0	-1
7397-7683-7682	7683	7397	7682	EBL		-1	950	0	0
7397-7683-10501	7683	7397	10501	EBT		-1	164	0	0
7682-7683-7397	7683	7682	7397	SBR		-1	492	0	0
7682-7683-7682	7683	7682	7682	U Turn		0	0	0	-1
7682-7683-10501	7683	7682	10501	SBL		-1	6	0	0
10501-7683-7397	7683	10501	7397	WBT		-1	203	0	0
10501-7683-7682	7683	10501	7682	WBR		-1	0	0	0
10501-7683-10501	7683	10501	10501	U Turn		0	0	0	-1
7590-7747-7590	7747	7590	7590	U Turn	East side of divided intersection, NB traffic only	0	0	0	-1
7590-7747-8102	7747	7590	8102	EBL		-1	411	0	0
7590-7747-8238	7747	7590	8238	EBT		-1	278	0	0
8238-7747-7590	7747	8238	7590	WBT		-1	664	0	0
8238-7747-8102	7747	8238	8102	WBR		-1	4	0	0
8238-7747-8238	7747	8238	8238	U Turn		0	0	0	-1
8239-7747-7590	7747	8239	7590	NBL		-1	39	0	0
8239-7747-8102	7747	8239	8102	NBT		-1	1129	0	0
8239-7747-8238	7747	8239	8238	NBR		-1	0	0	0
6653-8217-6653	8217	6653	6653	U Turn		0	0	0	-1

Emme Scenario 2405 - Capital Plan without Ray Gibbon Drive Twinning

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6653-8217-6819	8217	6653	6819	NBR		-1	182	0	0
6653-8217-7301	8217	6653	7301	NBL		-1	175	0	0
6819-8217-6653	8217	6819	6653	WBL		-1	27	0	0
6819-8217-6819	8217	6819	6819	U Turn		0	0	0	-1
6819-8217-7301	8217	6819	7301	WBT		-1	1237	0	0
7301-8217-6653	8217	7301	6653	EBR		-1	24	0	0
7301-8217-6819	8217	7301	6819	EBT		-1	1078	0	0
7301-8217-7301	8217	7301	7301	U Turn		0	0	0	-1
7067-8227-7067	8227	7067	7067	U Turn		0	0	0	-1
7067-8227-7302	8227	7067	7302	EBR		-1	165	0	0
7067-8227-7448	8227	7067	7448	EBL		-1	73	0	0
7067-8227-8092	8227	7067	8092	EBT		-1	178	0	0
7302-8227-7067	8227	7302	7067	NBL		-1	36	0	0
7302-8227-7302	8227	7302	7302	U Turn		0	0	0	-1
7302-8227-7448	8227	7302	7448	NBT		-1	491	0	0
7302-8227-8092	8227	7302	8092	NBR		-1	520	0	0
7448-8227-7067	8227	7448	7067	SBR		-1	6	0	0
7448-8227-7302	8227	7448	7302	SBT		-1	577	0	0
7448-8227-7448	8227	7448	7448	U Turn		0	0	0	-1
7448-8227-8092	8227	7448	8092	SBL		-1	22	0	0
8092-8227-7067	8227	8092	7067	WBT		-1	25	0	0
8092-8227-7302	8227	8092	7302	WBL		-1	219	0	0
8092-8227-7448	8227	8092	7448	WBR		-1	9	0	0
8092-8227-8092	8227	8092	8092	U Turn		0	0	0	-1
7510-8228-7510	8228	7510	7510	U Turn		0	0	0	-1
7510-8228-7675	8228	7510	7675	NBR		-1	410	0	0
7510-8228-8096	8228	7510	8096	NBL		-1	155	0	0
7510-8228-8229	8228	7510	8229	NBT		-1	0	0	0

Emme Scenario 2405 - Capital Plan without Ray Gibbon Drive Twinning

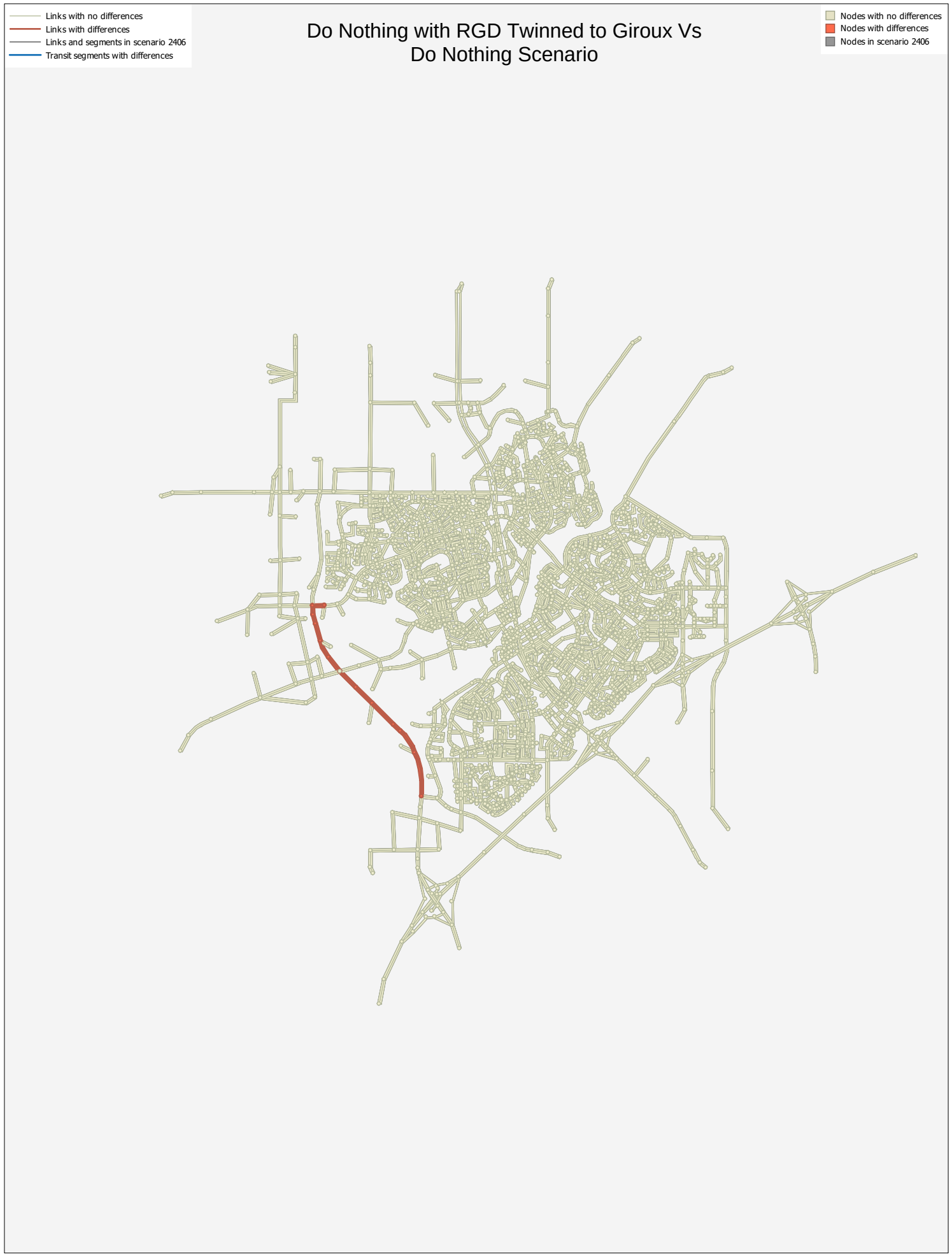
Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7675-8228-7510	8228	7675	7510	WBL		-1	360	0	0
7675-8228-7675	8228	7675	7675	U Turn		0	0	0	-1
7675-8228-8096	8228	7675	8096	WBT		-1	127	0	0
7675-8228-8229	8228	7675	8229	WBR		-1	0	0	0
8096-8228-7510	8228	8096	7510	EBR		-1	238	0	0
8096-8228-7675	8228	8096	7675	EBT		-1	236	0	0
8096-8228-8096	8228	8096	8096	U Turn		0	0	0	-1
8096-8228-8229	8228	8096	8229	EBL		-1	0	0	0
8229-8228-7510	8228	8229	7510	SBT		-1	0	0	0
8229-8228-7675	8228	8229	7675	SBL		-1	0	0	0
8229-8228-8096	8228	8229	8096	SBR		-1	0	0	0
8229-8228-8229	8228	8229	8229	U Turn		0	0	0	-1
7536-8231-7479	8231	7536	7479	U Turn	West side of divided intersection, SB traffic only	-1	133	0	0
7536-8231-7536	8231	7536	7536	EBR		0	0	0	-1
7536-8231-8232	8231	7536	8232	EBT	St Albert Trail is NB/SB	-1	181	0	0
7590-8231-7479	8231	7590	7479	EBL		-1	1364	0	0
7590-8231-7536	8231	7590	7536	SBT		-1	11	0	0
7590-8231-8232	8231	7590	8232	SBL		-1	51	0	0
8232-8231-7479	8231	8232	7479	WBT		-1	110	0	0
8232-8231-7536	8231	8232	7536	WBL		-1	113	0	0
8232-8231-8232	8231	8232	8232	U Turn		0	0	0	-1
6458-8232-8231	8232	6458	8231	NBL	East side of divided intersection, NB traffic only	-1	49	0	0
6458-8232-8234	8232	6458	8234	NBR	St Albert Trail is NB/SB	-1	131	0	0
6458-8232-8239	8232	6458	8239	NBT		-1	1611	0	0
8231-8232-8231	8232	8231	8231	EBR		0	0	0	-1
8231-8232-8234	8232	8231	8234	EBT		-1	195	0	0

Emme Scenario 2405 - Capital Plan without Ray Gibbon Drive Twinning

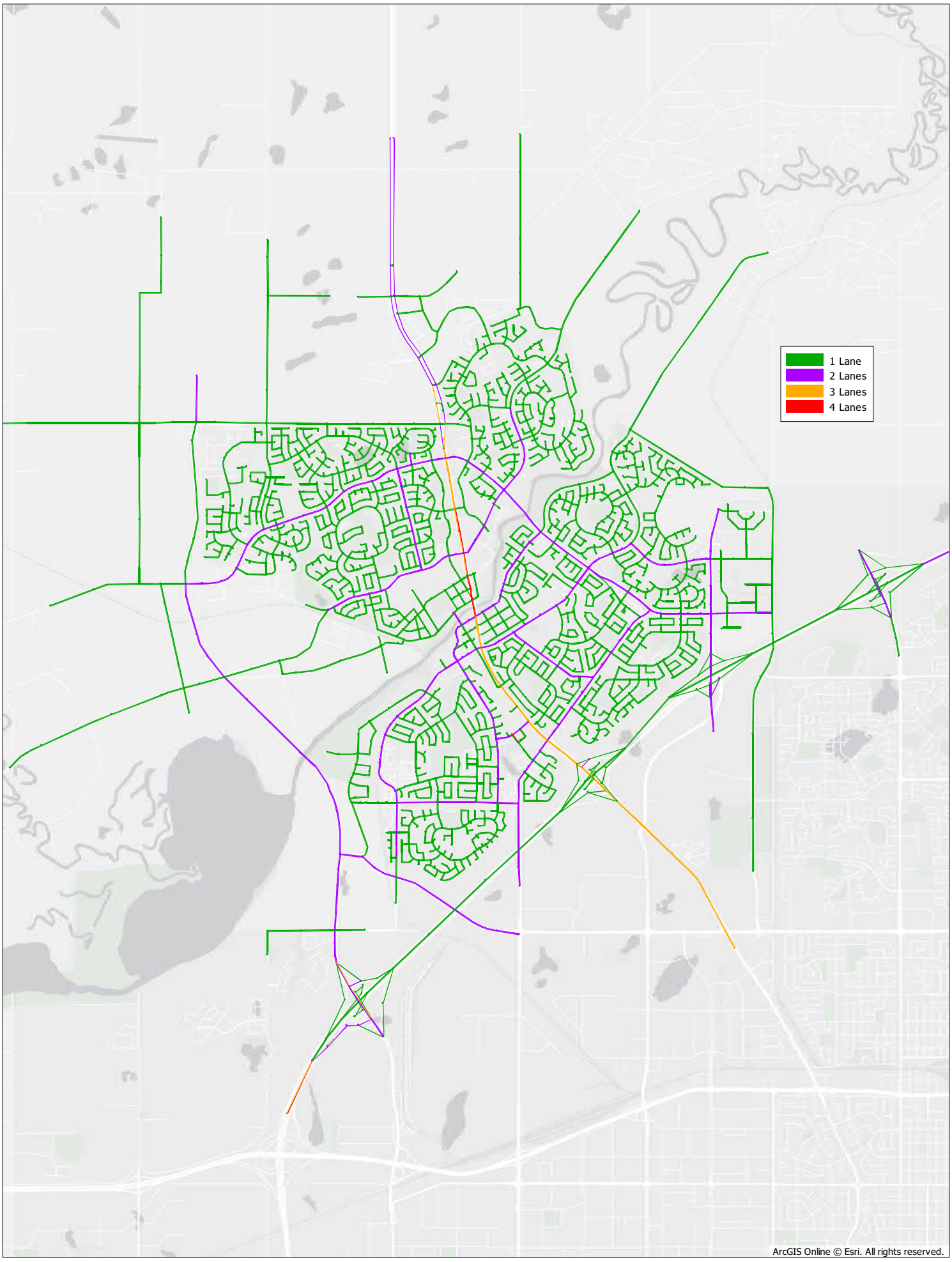
Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8231-8232-8239	8232	8231	8239	EBL		-1	37	0	0
8234-8232-8231	8232	8234	8231	WBL		-1	174	0	0
8234-8232-8234	8232	8234	8234	U Turn		0	0	0	-1
8234-8232-8239	8232	8234	8239	WBR		-1	0	0	0

Scenario 2406 – Do Nothing with RGD Twinned to Giroux

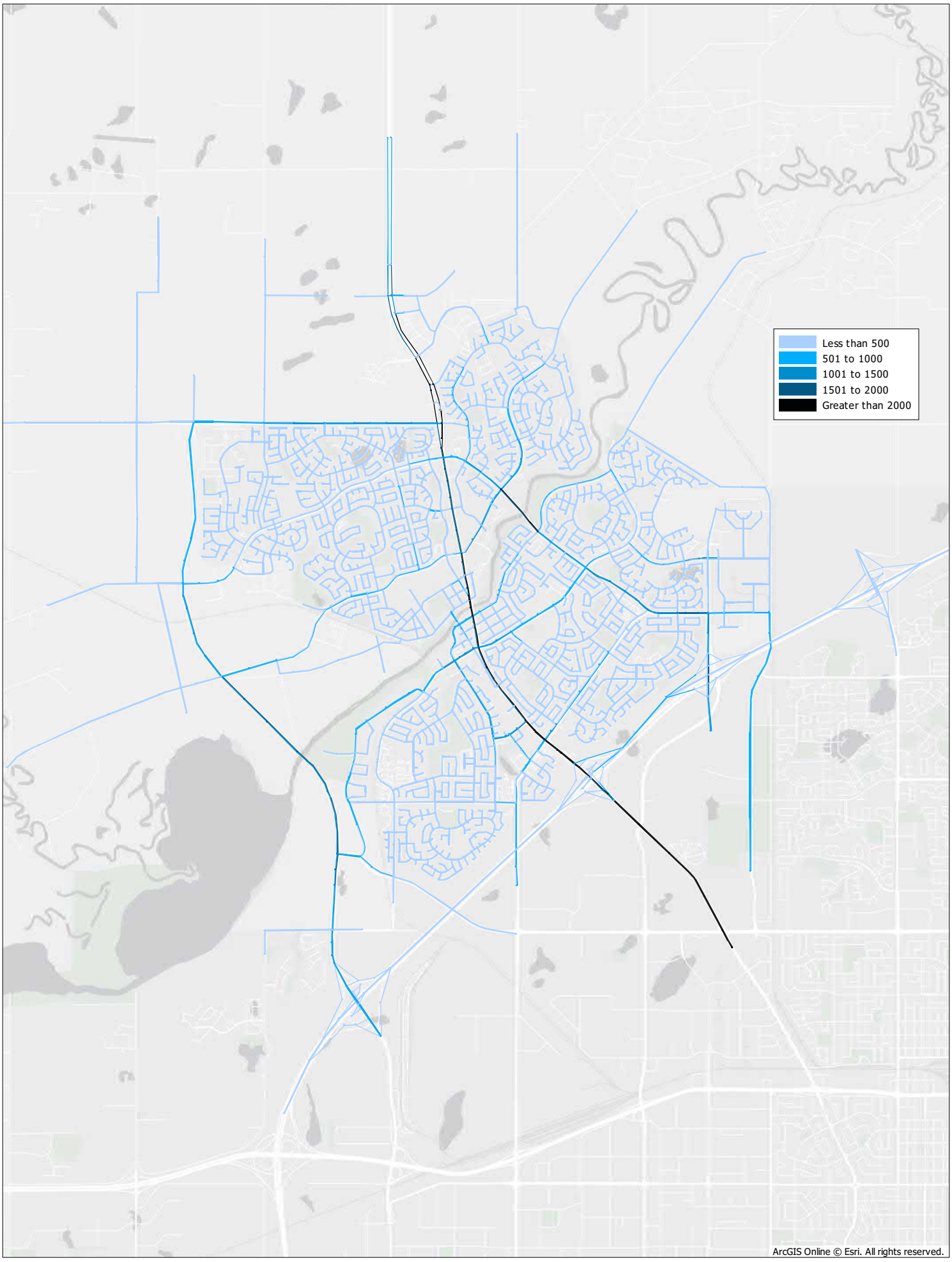
Do Nothing with RGD Twinned to Giroux Vs Do Nothing Scenario



Do Nothing with RGD Twinned to Giroux - Lanes in Each Direction of Travel



Do Nothing with RGD Twinned to Giroux - Volumes



Emme Scenario 2406 - Do Nothing with Ray Gibbon Drive Twinned to Giroux

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6033-6035-6033	6035	6033	6033	U Turn		0	0	0	-1
6033-6035-6036	6035	6033	6036	WBR		-1	8	0	0
6033-6035-7135	6035	6033	7135	WBT		-1	60	0	0
6033-6035-7144	6035	6033	7144	WBL		-1	201	0	0
6036-6035-6033	6035	6036	6033	SBL		-1	3	0	0
6036-6035-6036	6035	6036	6036	U Turn		0	0	0	-1
6036-6035-7135	6035	6036	7135	SBR		-1	1	0	0
6036-6035-7144	6035	6036	7144	SBT		-1	43	0	0
7135-6035-6033	6035	7135	6033	EBT		-1	66	0	0
7135-6035-6036	6035	7135	6036	EBL		-1	2	0	0
7135-6035-7135	6035	7135	7135	U Turn		0	0	0	-1
7135-6035-7144	6035	7135	7144	EBR		-1	40	0	0
7144-6035-6033	6035	7144	6033	NBR		-1	82	0	0
7144-6035-6036	6035	7144	6036	NBT		-1	36	0	0
7144-6035-7135	6035	7144	7135	NBL		-1	4	0	0
7144-6035-7144	6035	7144	7144	U Turn		0	0	0	-1
6033-6037-6033	6037	6033	6033	U Turn		0	0	0	-1
6033-6037-6038	6037	6033	6038	EBL		-1	0	0	0
6033-6037-7136	6037	6033	7136	EBT		-1	123	0	0
6033-6037-7141	6037	6033	7141	EBR		-1	0	0	0
6038-6037-6033	6037	6038	6033	SBR		-1	48	0	0
6038-6037-6038	6037	6038	6038	U Turn		0	0	0	-1
6038-6037-7136	6037	6038	7136	SBL		-1	176	0	0
6038-6037-7141	6037	6038	7141	SBT		-1	82	0	0
7136-6037-6033	6037	7136	6033	WBT		-1	330	0	0
7136-6037-6038	6037	7136	6038	WBR		-1	325	0	0
7136-6037-7136	6037	7136	7136	U Turn		0	0	0	-1
7136-6037-7141	6037	7136	7141	WBL		-1	224	0	0

Emme Scenario 2406 - Do Nothing with Ray Gibbon Drive Twinned to Giroux

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7141-6037-6033	6037	7141	6033	NBL		-1	0	0	0
7141-6037-6038	6037	7141	6038	NBT		-1	42	0	0
7141-6037-7136	6037	7141	7136	NBR		-1	28	0	0
7141-6037-7141	6037	7141	7141	U Turn		0	0	0	-1
6141-6142-6141	6142	6141	6141	U Turn		0	0	0	-1
6141-6142-6722	6142	6141	6722	NBR	Sir Winston Churchill is NB/SB	-1	450	0	0
6141-6142-7861	6142	6141	7861	NBT		-1	687	0	0
6141-6142-8201	6142	6141	8201	NBL		1	47	0	0
6722-6142-6141	6142	6722	6141	WBL		-1	325	0	0
6722-6142-6722	6142	6722	6722	U Turn		0	0	0	-1
6722-6142-7861	6142	6722	7861	WBR		-1	281	0	0
6722-6142-8201	6142	6722	8201	WBT		-1	78	0	0
7861-6142-6141	6142	7861	6141	SBT		-1	1059	0	0
7861-6142-6722	6142	7861	6722	SBL		1	69	0	0
7861-6142-7861	6142	7861	7861	U Turn		0	0	0	-1
7861-6142-8201	6142	7861	8201	SBR		-1	0	0	0
8201-6142-6141	6142	8201	6141	EBR		-1	12	0	0
8201-6142-6722	6142	8201	6722	EBT		-1	690	0	0
8201-6142-7861	6142	8201	7861	EBL		-1	168	0	0
8201-6142-8201	6142	8201	8201	U Turn		0	0	0	-1
7475-6175-7475	6175	7475	7475	U Turn	East side of divided intersection, NB traffic only	0	0	0	-1
7475-6175-7502	6175	7475	7502	EBT		-1	120	0	0
7475-6175-8105	6175	7475	8105	EBL		-1	447	0	0
7502-6175-7475	6175	7502	7475	WBT		-1	119	0	0
7502-6175-7502	6175	7502	7502	U Turn		0	0	0	-1
7502-6175-8105	6175	7502	8105	WBR		-1	21	0	0

Emme Scenario 2406 - Do Nothing with Ray Gibbon Drive Twinned to Giroux

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7922-6175-7475	6175	7922	7475	NBL		-1	314	0	0
7922-6175-7502	6175	7922	7502	NBR		-1	110	0	0
7922-6175-8105	6175	7922	8105	NBT		-1	1799	0	0
7474-6176-7474	6176	7474	7474	U Turn		0	0	0	-1
7474-6176-7940	6176	7474	7940	SBR		-1	69	0	0
7474-6176-8172	6176	7474	8172	SBT		-1	1522	0	0
7474-6176-8223	6176	7474	8223	SBL		1	110	0	2
7940-6176-7474	6176	7940	7474	EBL		1	92	0	1
7940-6176-7940	6176	7940	7940	U Turn		0	0	0	-1
7940-6176-8172	6176	7940	8172	EBR		-1	10	0	0
7940-6176-8223	6176	7940	8223	EBT		-1	397	0	0
8172-6176-7474	6176	8172	7474	NBT		-1	1622	0	0
8172-6176-7940	6176	8172	7940	NBL		1	96	0	1
8172-6176-8172	6176	8172	8172	U Turn		0	0	0	-1
8172-6176-8223	6176	8172	8223	NBR		-1	59	0	0
8223-6176-7474	6176	8223	7474	WBR		-1	425	0	0
8223-6176-7940	6176	8223	7940	WBT		-1	446	0	0
8223-6176-8172	6176	8223	8172	WBL		1	85	0	1
8223-6176-8223	6176	8223	8223	U Turn		0	0	0	-1
7938-6348-7938	6348	7938	7938	U Turn		0	0	0	-1
7938-6348-7939	6348	7938	7939	SBL	Perron St is NB/SB	-1	11	0	0
7938-6348-8195	6348	7938	8195	SBR		-1	253	0	0
7938-6348-8197	6348	7938	8197	SBT		-1	218	0	0
7939-6348-7938	6348	7939	7938	WBR		-1	53	0	0
7939-6348-7939	6348	7939	7939	U Turn		0	0	0	-1
7939-6348-8195	6348	7939	8195	WBT		-1	689	0	0
7939-6348-8197	6348	7939	8197	WBL		1	59	0	0
8195-6348-7938	6348	8195	7938	EBL		1	94	0	1

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8195-6348-7939	6348	8195	7939	EBT		-1	747	0	0
8195-6348-8195	6348	8195	8195	U Turn		0	0	0	-1
8195-6348-8197	6348	8195	8197	EBR		-1	0	0	0
8197-6348-7938	6348	8197	7938	NBT		-1	520	0	0
8197-6348-7939	6348	8197	7939	NBR		-1	18	0	0
8197-6348-8195	6348	8197	8195	NBL		-1	0	0	0
8197-6348-8197	6348	8197	8197	U Turn		0	0	0	-1
6594-6349-6594	6349	6594	6594	U Turn		0	0	0	-1
6594-6349-7936	6349	6594	7936	WBR	St Albert Trail is NB/SB	-1	257	0	0
6594-6349-7939	6349	6594	7939	WBT		-1	192	0	0
6594-6349-10802	6349	6594	10802	WBL		1	74	0	0
7936-6349-6594	6349	7936	6594	SBL		1	101	0	1
7936-6349-7936	6349	7936	7936	U Turn		0	0	0	-1
7936-6349-7939	6349	7936	7939	SBR		-1	866	0	0
7936-6349-10802	6349	7936	10802	SBT		-1	1393	0	0
7939-6349-6594	6349	7939	6594	EBT		-1	638	0	0
7939-6349-7936	6349	7939	7936	EBL		1	125	0	3
7939-6349-7939	6349	7939	7939	U Turn		0	0	0	-1
7939-6349-10802	6349	7939	10802	EBR		-1	143	0	0
10802-6349-6594	6349	10802	6594	NBR		-1	150	0	0
10802-6349-7936	6349	10802	7936	NBT		-1	2656	0	0
10802-6349-7939	6349	10802	7939	NBL		1	100	0	1
10802-6349-10802	6349	10802	10802	U Turn		0	0	0	-1
6279-6386-6279	6386	6279	6279	U Turn		0	0	0	-1
6279-6386-6485	6386	6279	6485	WBL		-1	0	0	0
6279-6386-6769	6386	6279	6769	WBR		-1	310	0	0
6279-6386-7923	6386	6279	7923	WBT		-1	850	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6485-6386-6279	6386	6485	6279	NBR		-1	3	0	0
6485-6386-6485	6386	6485	6485	U Turn		0	0	0	-1
6485-6386-6769	6386	6485	6769	NBT		-1	104	0	0
6485-6386-7923	6386	6485	7923	NBL		-1	13	0	0
6769-6386-6279	6386	6769	6279	SBL		1	86	0	1
6769-6386-6485	6386	6769	6485	SBT		-1	15	0	0
6769-6386-6769	6386	6769	6769	U Turn		0	0	0	-1
6769-6386-7923	6386	6769	7923	SBR		-1	90	0	0
7923-6386-6279	6386	7923	6279	EBT		-1	582	0	0
7923-6386-6485	6386	7923	6485	EBR		-1	3	0	0
7923-6386-6769	6386	7923	6769	EBL		1	91	0	1
7923-6386-7923	6386	7923	7923	U Turn		0	0	0	-1
6193-6458-6193	6458	6193	6193	U Turn		0	0	0	-1
6193-6458-7479	6458	6193	7479	WBT	East side of divided intersection, NB traffic only	-1	1	0	0
6193-6458-8232	6458	6193	8232	WBR		-1	200	0	0
7479-6458-6193	6458	7479	6193	EBT		-1	105	0	0
7479-6458-7479	6458	7479	7479	U Turn		0	0	0	-1
7479-6458-8232	6458	7479	8232	EBL		-1	40	0	0
8103-6458-6193	6458	8103	6193	NBR		-1	5	0	0
8103-6458-7479	6458	8103	7479	NBL		-1	0	0	0
8103-6458-8232	6458	8103	8232	NBT		-1	2162	0	0
6356-6595-6356	6595	6356	6356	U Turn		0	0	0	-1
6356-6595-7554	6595	6356	7554	WBL		-1	239	0	0
6356-6595-8121	6595	6356	8121	WBR		-1	1	0	0
6356-6595-8220	6595	6356	8220	WBT		-1	672	0	0
7554-6595-6356	6595	7554	6356	NBR		-1	257	0	0
7554-6595-7554	6595	7554	7554	U Turn		0	0	0	-1

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7554-6595-8121	6595	7554	8121	NBT		-1	132	0	0
7554-6595-8220	6595	7554	8220	NBL		-1	1032	0	0
8121-6595-6356	6595	8121	6356	SBL		-1	0	0	0
8121-6595-7554	6595	8121	7554	SBT		-1	114	0	0
8121-6595-8121	6595	8121	8121	U Turn		0	0	0	-1
8121-6595-8220	6595	8121	8220	SBR		-1	45	0	0
8220-6595-6356	6595	8220	6356	EBT		-1	721	0	0
8220-6595-7554	6595	8220	7554	EBR		-1	338	0	0
8220-6595-8121	6595	8220	8121	EBL		-1	59	0	0
8220-6595-8220	6595	8220	8220	U Turn		0	0	0	-1
7286-6596-7286	6596	7286	7286	U Turn		0	0	0	-1
7286-6596-7822	6596	7286	7822	WBT		-1	632	0	0
7286-6596-7977	6596	7286	7977	WBL		1	1	0	0
7286-6596-8117	6596	7286	8117	WBR		-1	0	0	0
7822-6596-7286	6596	7822	7286	EBT		-1	154	0	0
7822-6596-7822	6596	7822	7822	U Turn		0	0	0	-1
7822-6596-7977	6596	7822	7977	EBR		-1	69	0	0
7822-6596-8117	6596	7822	8117	EBL		1	0	0	0
7977-6596-7286	6596	7977	7286	NBL		-1	40	0	0
7977-6596-7822	6596	7977	7822	NBR		1	106	0	2
7977-6596-7977	6596	7977	7977	U Turn		0	0	0	-1
7977-6596-8117	6596	7977	8117	NBT		-1	1	0	0
8117-6596-7286	6596	8117	7286	SBL		1	0	0	0
8117-6596-7822	6596	8117	7822	SBR		-1	285	0	0
8117-6596-7977	6596	8117	7977	SBT		-1	0	0	0
8117-6596-8117	6596	8117	8117	U Turn		0	0	0	-1
6427-6624-6427	6624	6427	6427	U Turn		0	0	0	-1
6427-6624-7675	6624	6427	7675	NBL		-1	2	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6427-6624-7875	6624	6427	7875	NBT		-1	0	0	0
6427-6624-7876	6624	6427	7876	NBR		-1	77	0	0
7675-6624-6427	6624	7675	6427	EBR		-1	28	0	0
7675-6624-7675	6624	7675	7675	U Turn		0	0	0	-1
7675-6624-7875	6624	7675	7875	EBL		-1	4	0	0
7675-6624-7876	6624	7675	7876	EBT		-1	959	0	0
7875-6624-6427	6624	7875	6427	SBT		-1	1	0	0
7875-6624-7675	6624	7875	7675	SBR		-1	3	0	0
7875-6624-7875	6624	7875	7875	U Turn		0	0	0	-1
7875-6624-7876	6624	7875	7876	SBL		-1	11	0	0
7876-6624-6427	6624	7876	6427	WBL		-1	260	0	0
7876-6624-7675	6624	7876	7675	WBT		-1	571	0	0
7876-6624-7875	6624	7876	7875	WBR		-1	15	0	0
7876-6624-7876	6624	7876	7876	U Turn		0	0	0	-1
7193-6744-7193	6744	7193	7193	U Turn		0	0	0	-1
7193-6744-7678	6744	7193	7678	EBR	St Albert Trail is NB/SB	-1	142	0	0
7193-6744-8135	6744	7193	8135	EBT		-1	411	0	0
7193-6744-8150	6744	7193	8150	EBL		1	70	0	0
7678-6744-7193	6744	7678	7193	NBL		1	137	0	5
7678-6744-7678	6744	7678	7678	U Turn		0	0	0	-1
7678-6744-8135	6744	7678	8135	NBR		-1	652	0	0
7678-6744-8150	6744	7678	8150	NBT		-1	2053	0	0
8135-6744-7193	6744	8135	7193	WBT		-1	435	0	0
8135-6744-7678	6744	8135	7678	WBL		1	76	0	1
8135-6744-8135	6744	8135	8135	U Turn		0	0	0	-1
8135-6744-8150	6744	8135	8150	WBR		-1	221	0	0
8150-6744-7193	6744	8150	7193	SBR		-1	15	0	0
8150-6744-7678	6744	8150	7678	SBT		-1	2113	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8150-6744-8135	6744	8150	8135	SBL		1	70	0	0
8150-6744-8150	6744	8150	8150	U Turn		0	0	0	-1
6091-6871-6091	6871	6091	6091	U Turn		0	0	0	-1
6091-6871-6279	6871	6091	6279	EBL	Boudreau Rd is NB/SB	-1	83	0	0
6091-6871-6697	6871	6091	6697	EBT		-1	751	0	0
6091-6871-7129	6871	6091	7129	EBR		-1	429	0	0
6279-6871-6091	6871	6279	6091	SBR		-1	28	0	0
6279-6871-6279	6871	6279	6279	U Turn		0	0	0	-1
6279-6871-6697	6871	6279	6697	SBL		-1	68	0	0
6279-6871-7129	6871	6279	7129	SBT		-1	619	0	0
6697-6871-6091	6871	6697	6091	WBT		-1	194	0	0
6697-6871-6279	6871	6697	6279	WBR		-1	17	0	0
6697-6871-6697	6871	6697	6697	U Turn		0	0	0	-1
6697-6871-7129	6871	6697	7129	WBL		-1	558	0	0
7129-6871-6091	6871	7129	6091	NBL		-1	477	0	0
7129-6871-6279	6871	7129	6279	NBT		-1	1208	0	0
7129-6871-6697	6871	7129	6697	NBR		-1	519	0	0
7129-6871-7129	6871	7129	7129	U Turn		0	0	0	-1
6021-6894-6021	6894	6021	6021	U Turn		0	0	0	-1
6021-6894-6893	6894	6021	6893	SBT	Perron St is NB/SB	-1	10	0	0
6021-6894-8221	6894	6021	8221	SBL		-1	75	0	0
6021-6894-9910	6894	6021	9910	SBR		-1	170	0	0
6893-6894-6021	6894	6893	6021	NBT		-1	75	0	0
6893-6894-6893	6894	6893	6893	U Turn		0	0	0	-1
6893-6894-8221	6894	6893	8221	NBR		-1	1	0	0
6893-6894-9910	6894	6893	9910	NBL		-1	90	0	0
8221-6894-6021	6894	8221	6021	WBR		-1	211	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8221-6894-6893	6894	8221	6893	WBL		-1	0	0	0
8221-6894-8221	6894	8221	8221	U Turn		0	0	0	-1
8221-6894-9910	6894	8221	9910	WBT		-1	869	0	0
9910-6894-6021	6894	9910	6021	EBL		-1	209	0	0
9910-6894-6893	6894	9910	6893	EBR		-1	294	0	0
9910-6894-8221	6894	9910	8221	EBT		-1	590	0	0
9910-6894-9910	6894	9910	9910	U Turn		0	0	0	-1
7756-6921-7756	6921	7756	7756	U Turn		0	0	0	-1
7756-6921-7766	6921	7756	7766	NBR		-1	719	0	0
7756-6921-7964	6921	7756	7964	NBT		-1	1720	0	0
7756-6921-7967	6921	7756	7967	NBL		1	104	0	2
7766-6921-7756	6921	7766	7756	WBL		1	91	0	1
7766-6921-7766	6921	7766	7766	U Turn		0	0	0	-1
7766-6921-7964	6921	7766	7964	WBR		-1	38	0	0
7766-6921-7967	6921	7766	7967	WBT		-1	346	0	0
7964-6921-7756	6921	7964	7756	SBT		-1	1506	0	0
7964-6921-7766	6921	7964	7766	SBL		1	9	0	0
7964-6921-7964	6921	7964	7964	U Turn		0	0	0	-1
7964-6921-7967	6921	7964	7967	SBR		-1	16	0	0
7967-6921-7756	6921	7967	7756	EBR		-1	190	0	0
7967-6921-7766	6921	7967	7766	EBT		-1	353	0	0
7967-6921-7964	6921	7967	7964	EBL		1	55	0	0
7967-6921-7967	6921	7967	7967	U Turn		0	0	0	-1
7151-6922-7151	6922	7151	7151	U Turn		0	0	0	-1
7151-6922-7756	6922	7151	7756	NBT		-1	2609	0	0
7151-6922-7759	6922	7151	7759	NBL		1	115	0	2
7151-6922-10408	6922	7151	10408	NBR		-1	0	0	0
7756-6922-7151	6922	7756	7151	SBT		-1	1756	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7756-6922-7756	6922	7756	7756	U Turn		0	0	0	-1
7756-6922-7759	6922	7756	7759	SBR		-1	47	0	0
7756-6922-10408	6922	7756	10408	SBL		1	0	0	0
7759-6922-7151	6922	7759	7151	EBR		-1	0	0	0
7759-6922-7756	6922	7759	7756	EBL		-1	3	0	0
7759-6922-7759	6922	7759	7759	U Turn		0	0	0	-1
7759-6922-10408	6922	7759	10408	EBT		-1	0	0	0
10408-6922-7151	6922	10408	7151	WBL		-1	156	0	0
10408-6922-7756	6922	10408	7756	EBR		-1	0	0	0
10408-6922-7759	6922	10408	7759	EBT		-1	99	0	0
10408-6922-10408	6922	10408	10408	U Turn		0	0	0	-1
6926-6927-6926	6927	6926	6926	U Turn		0	0	0	-1
6926-6927-6952	6927	6926	6952	NBT	Boudreau Rd is NB/SB	-1	822	0	0
6926-6927-7073	6927	6926	7073	NBL		-1	547	0	0
6926-6927-8066	6927	6926	8066	NBR		-1	0	0	0
6952-6927-6926	6927	6952	6926	SBT		-1	702	0	0
6952-6927-6952	6927	6952	6952	U Turn		0	0	0	-1
6952-6927-7073	6927	6952	7073	SBR		-1	17	0	0
6952-6927-8066	6927	6952	8066	SBL		-1	227	0	0
7073-6927-6926	6927	7073	6926	EBR		-1	512	0	0
7073-6927-6952	6927	7073	6952	EBL		-1	24	0	0
7073-6927-7073	6927	7073	7073	U Turn		0	0	0	-1
7073-6927-8066	6927	7073	8066	EBT		-1	145	0	0
8066-6927-6926	6927	8066	6926	WBL		-1	24	0	0
8066-6927-6952	6927	8066	6952	WBR		-1	261	0	0
8066-6927-7073	6927	8066	7073	WBT		-1	261	0	0
8066-6927-8066	6927	8066	8066	U Turn		0	0	0	-1
6467-7121-6467	7121	6467	6467	U Turn		0	0	0	-1

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6467-7121-6946	7121	6467	6946	SBR		-1	85	0	0
6467-7121-7119	7121	6467	7119	SBL		-1	28	0	0
6946-7121-6467	7121	6946	6467	EBL		-1	72	0	0
6946-7121-6946	7121	6946	6946	U Turn		0	0	0	-1
6946-7121-7119	7121	6946	7119	EBT		-1	197	0	0
7119-7121-6467	7121	7119	6467	WBR		-1	88	0	0
7119-7121-6946	7121	7119	6946	WBT		-1	143	0	0
7119-7121-7119	7121	7119	7119	U Turn		0	0	0	-1
6394-7129-6394	7129	6394	6394	U Turn		0	0	0	-1
6394-7129-6549	7129	6394	6549	EBR	Boudreau Rd is NB/SB	-1	14	0	0
6394-7129-6785	7129	6394	6785	EBT		-1	36	0	0
6394-7129-6871	7129	6394	6871	EBL		-1	426	0	0
6549-7129-6394	7129	6549	6394	NBL		-1	44	0	0
6549-7129-6549	7129	6549	6549	U Turn		0	0	0	-1
6549-7129-6785	7129	6549	6785	NBR		-1	0	0	0
6549-7129-6871	7129	6549	6871	NBT		-1	1197	0	0
6785-7129-6394	7129	6785	6394	WBT		-1	19	0	0
6785-7129-6549	7129	6785	6549	WBL		-1	0	0	0
6785-7129-6785	7129	6785	6785	U Turn		0	0	0	-1
6785-7129-6871	7129	6785	6871	WBR		-1	580	0	0
6871-7129-6394	7129	6871	6394	SBR		-1	235	0	0
6871-7129-6549	7129	6871	6549	SBT		-1	966	0	0
6871-7129-6785	7129	6871	6785	SBL		-1	405	0	0
6871-7129-6871	7129	6871	6871	U Turn		0	0	0	-1
6035-7135-6035	7135	6035	6035	U Turn		0	0	0	-1
6035-7135-7132	7135	6035	7132	WBR		-1	1	0	0
6035-7135-7318	7135	6035	7318	WBL		-1	0	0	0
6035-7135-7892	7135	6035	7892	WBT		-1	64	0	0

Emme Scenario 2406 - Do Nothing with Ray Gibbon Drive Twinned to Giroux

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7132-7135-6035	7135	7132	6035	SBL		-1	0	0	0
7132-7135-7132	7135	7132	7132	U Turn		0	0	0	-1
7132-7135-7318	7135	7132	7318	SBT		-1	337	0	0
7132-7135-7892	7135	7132	7892	SBR		-1	19	0	0
7318-7135-6035	7135	7318	6035	NBR		-1	0	0	0
7318-7135-7132	7135	7318	7132	NBT		-1	228	0	0
7318-7135-7318	7135	7318	7318	U Turn		0	0	0	-1
7318-7135-7892	7135	7318	7892	NBL		-1	4	0	0
7892-7135-6035	7135	7892	6035	EBT		-1	107	0	0
7892-7135-7132	7135	7892	7132	EBL		-1	20	0	0
7892-7135-7318	7135	7892	7318	EBR		-1	16	0	0
7892-7135-7892	7135	7892	7892	U Turn		0	0	0	-1
6037-7136-6037	7136	6037	6037	U Turn		0	0	0	-1
6037-7136-7493	7136	6037	7493	EBR		-1	182	0	0
6037-7136-8149	7136	6037	8149	EBL		-1	144	0	0
7493-7136-6037	7136	7493	6037	NBL		-1	588	0	0
7493-7136-7493	7136	7493	7493	U Turn		0	0	0	-1
7493-7136-8149	7136	7493	8149	NBT		-1	377	0	0
8149-7136-6037	7136	8149	6037	SBR		-1	291	0	0
8149-7136-7493	7136	8149	7493	SBT		-1	147	0	0
8149-7136-8149	7136	8149	8149	U Turn		0	0	0	-1
6916-7138-6916	7138	6916	6916	U Turn		0	0	0	-1
6916-7138-7140	7138	6916	7140	SBL		-1	34	0	0
6916-7138-7682	7138	6916	7682	SBT		-1	567	0	0
7140-7138-6916	7138	7140	6916	WBR		-1	24	0	0
7140-7138-7140	7138	7140	7140	U Turn		0	0	0	-1
7140-7138-7682	7138	7140	7682	WBL		-1	64	0	0
7682-7138-6916	7138	7682	6916	NBT		-1	487	0	0

Emme Scenario 2406 - Do Nothing with Ray Gibbon Drive Twinned to Giroux

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7682-7138-7140	7138	7682	7140	NBR		-1	127	0	0
7682-7138-7682	7138	7682	7682	U Turn		0	0	0	-1
7559-7397-7559	7397	7559	7559	U Turn		0	0	0	-1
7559-7397-7683	7397	7559	7683	NBR		-1	526	0	0
7559-7397-7835	7397	7559	7835	NBT		-1	1276	0	0
7683-7397-7559	7397	7683	7559	WBL		-1	305	0	0
7683-7397-7683	7397	7683	7683	U Turn		0	0	0	-1
7683-7397-7835	7397	7683	7835	WBR		-1	612	0	0
7835-7397-7559	7397	7835	7559	SBT		-1	598	0	0
7835-7397-7683	7397	7835	7683	SBL		-1	556	0	0
7835-7397-7835	7397	7835	7835	U Turn		0	0	0	-1
6175-7475-6175	7475	6175	6175	U Turn		0	0	0	-1
6175-7475-7474	7475	6175	7474	WBL	West side of divided intersection, SB traffic only	-1	11	0	0
6175-7475-8106	7475	6175	8106	WBT		-1	423	0	0
8104-7475-6175	7475	8104	6175	SBL		-1	7	0	0
8104-7475-7474	7475	8104	7474	SBT		-1	1667	0	0
8104-7475-8106	7475	8104	8106	SBR		-1	580	0	0
8106-7475-6175	7475	8106	6175	EBT		-1	559	0	0
8106-7475-7474	7475	8106	7474	EBR		-1	130	0	0
8106-7475-8106	7475	8106	8106	U Turn		0	0	0	-1
5008-7479-5008	7479	5008	5008	U Turn		0	0	0	-1
5008-7479-6458	7479	5008	6458	EBT	West side of divided intersection, SB traffic only	-1	66	0	0
5008-7479-7551	7479	5008	7551	EBR		-1	0	0	0
6458-7479-5008	7479	6458	5008	WBT		-1	0	0	0
6458-7479-6458	7479	6458	6458	U Turn		0	0	0	-1
6458-7479-7551	7479	6458	7551	WBL		-1	1	0	0

Emme Scenario 2406 - Do Nothing with Ray Gibbon Drive Twinned to Giroux

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8231-7479-5008	7479	8231	5008	SBR		-1	25	0	0
8231-7479-6458	7479	8231	6458	SBL		-1	79	0	0
8231-7479-7551	7479	8231	7551	SBT		-1	2042	0	0
7434-7514-7434	7514	7434	7434	U Turn		0	0	0	-1
7434-7514-7476	7514	7434	7476	WBL		-1	308	0	0
7434-7514-7500	7514	7434	7500	WBR		-1	162	0	0
7434-7514-7633	7514	7434	7633	WBT		-1	48	0	0
7476-7514-7434	7514	7476	7434	NBR		-1	734	0	0
7476-7514-7476	7514	7476	7476	U Turn		0	0	0	-1
7476-7514-7500	7514	7476	7500	NBT		-1	1170	0	0
7476-7514-7633	7514	7476	7633	NBL		-1	37	0	0
7500-7514-7434	7514	7500	7434	SBL		-1	186	0	0
7500-7514-7476	7514	7500	7476	SBT		-1	735	0	0
7500-7514-7500	7514	7500	7500	U Turn		0	0	0	-1
7500-7514-7633	7514	7500	7633	SBR		-1	15	0	0
7633-7514-7434	7514	7633	7434	EBT		-1	64	0	0
7633-7514-7476	7514	7633	7476	EBR		-1	18	0	0
7633-7514-7500	7514	7633	7500	EBL		-1	16	0	0
7633-7514-7633	7514	7633	7633	U Turn		0	0	0	-1
7219-7532-7219	7532	7219	7219	U Turn		0	0	0	-1
7219-7532-7499	7532	7219	7499	SBL		-1	50	0	0
7219-7532-7583	7532	7219	7583	SBR		-1	396	0	0
7219-7532-7586	7532	7219	7586	SBT		-1	13	0	0
7499-7532-7219	7532	7499	7219	WBR		-1	207	0	0
7499-7532-7499	7532	7499	7499	U Turn		0	0	0	-1
7499-7532-7583	7532	7499	7583	WBT		-1	162	0	0
7499-7532-7586	7532	7499	7586	WBL		-1	0	0	0
7583-7532-7219	7532	7583	7219	EBL		1	103	0	2

Emme Scenario 2406 - Do Nothing with Ray Gibbon Drive Twinned to Giroux

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7583-7532-7499	7532	7583	7499	EBT		-1	80	0	0
7583-7532-7583	7532	7583	7583	U Turn		0	0	0	-1
7583-7532-7586	7532	7583	7586	EBR		-1	0	0	0
7586-7532-7219	7532	7586	7219	NBT		-1	88	0	0
7586-7532-7499	7532	7586	7499	NBR		-1	2	0	0
7586-7532-7583	7532	7586	7583	NBL		-1	26	0	0
7586-7532-7586	7532	7586	7586	U Turn		0	0	0	-1
7592-7590-7592	7590	7592	7592	U Turn	West side of divided intersection, SB traffic only	0	0	0	-1
7592-7590-7747	7590	7592	7747	EBT		-1	68	0	0
7592-7590-8231	7590	7592	8231	EBR		-1	194	0	0
7747-7590-7592	7590	7747	7592	WBT		-1	1	0	0
7747-7590-7747	7590	7747	7747	U Turn		0	0	0	-1
7747-7590-8231	7590	7747	8231	WBL		-1	607	0	0
8099-7590-7592	7590	8099	7592	SBR		-1	0	0	0
8099-7590-7747	7590	8099	7747	SBL		-1	64	0	0
8099-7590-8231	7590	8099	8231	SBT		-1	1133	0	0
7397-7683-7397	7683	7397	7397	U Turn		0	0	0	-1
7397-7683-7682	7683	7397	7682	EBL		-1	903	0	0
7397-7683-10501	7683	7397	10501	EBT		-1	179	0	0
7682-7683-7397	7683	7682	7397	SBR		-1	358	0	0
7682-7683-7682	7683	7682	7682	U Turn		0	0	0	-1
7682-7683-10501	7683	7682	10501	SBL		-1	4	0	0
10501-7683-7397	7683	10501	7397	WBT		-1	560	0	0
10501-7683-7682	7683	10501	7682	WBR		-1	24	0	0
10501-7683-10501	7683	10501	10501	U Turn		0	0	0	-1
7590-7747-7590	7747	7590	7590	U Turn	East side of divided intersection, NB traffic only	0	0	0	-1

Emme Scenario 2406 - Do Nothing with Ray Gibbon Drive Twinned to Giroux

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7590-7747-8102	7747	7590	8102	EBL		-1	49	0	0
7590-7747-8238	7747	7590	8238	EBT		-1	83	0	0
8238-7747-7590	7747	8238	7590	WBT		-1	607	0	0
8238-7747-8102	7747	8238	8102	WBR		-1	4	0	0
8238-7747-8238	7747	8238	8238	U Turn		0	0	0	-1
8239-7747-7590	7747	8239	7590	NBL		-1	1	0	0
8239-7747-8102	7747	8239	8102	NBT		-1	1491	0	0
8239-7747-8238	7747	8239	8238	NBR		-1	0	0	0
6653-8217-6653	8217	6653	6653	U Turn		0	0	0	-1
6653-8217-6819	8217	6653	6819	NBR		-1	179	0	0
6653-8217-7301	8217	6653	7301	NBL		-1	173	0	0
6819-8217-6653	8217	6819	6653	WBL		-1	30	0	0
6819-8217-6819	8217	6819	6819	U Turn		0	0	0	-1
6819-8217-7301	8217	6819	7301	WBT		-1	1245	0	0
7301-8217-6653	8217	7301	6653	EBR		-1	23	0	0
7301-8217-6819	8217	7301	6819	EBT		-1	1067	0	0
7301-8217-7301	8217	7301	7301	U Turn		0	0	0	-1
7067-8227-7067	8227	7067	7067	U Turn		0	0	0	-1
7067-8227-7302	8227	7067	7302	EBR		-1	172	0	0
7067-8227-7448	8227	7067	7448	EBL		-1	163	0	0
7067-8227-8092	8227	7067	8092	EBT		-1	59	0	0
7302-8227-7067	8227	7302	7067	NBL		-1	37	0	0
7302-8227-7302	8227	7302	7302	U Turn		0	0	0	-1
7302-8227-7448	8227	7302	7448	NBT		-1	664	0	0
7302-8227-8092	8227	7302	8092	NBR		-1	647	0	0
7448-8227-7067	8227	7448	7067	SBR		-1	12	0	0
7448-8227-7302	8227	7448	7302	SBT		-1	602	0	0
7448-8227-7448	8227	7448	7448	U Turn		0	0	0	-1

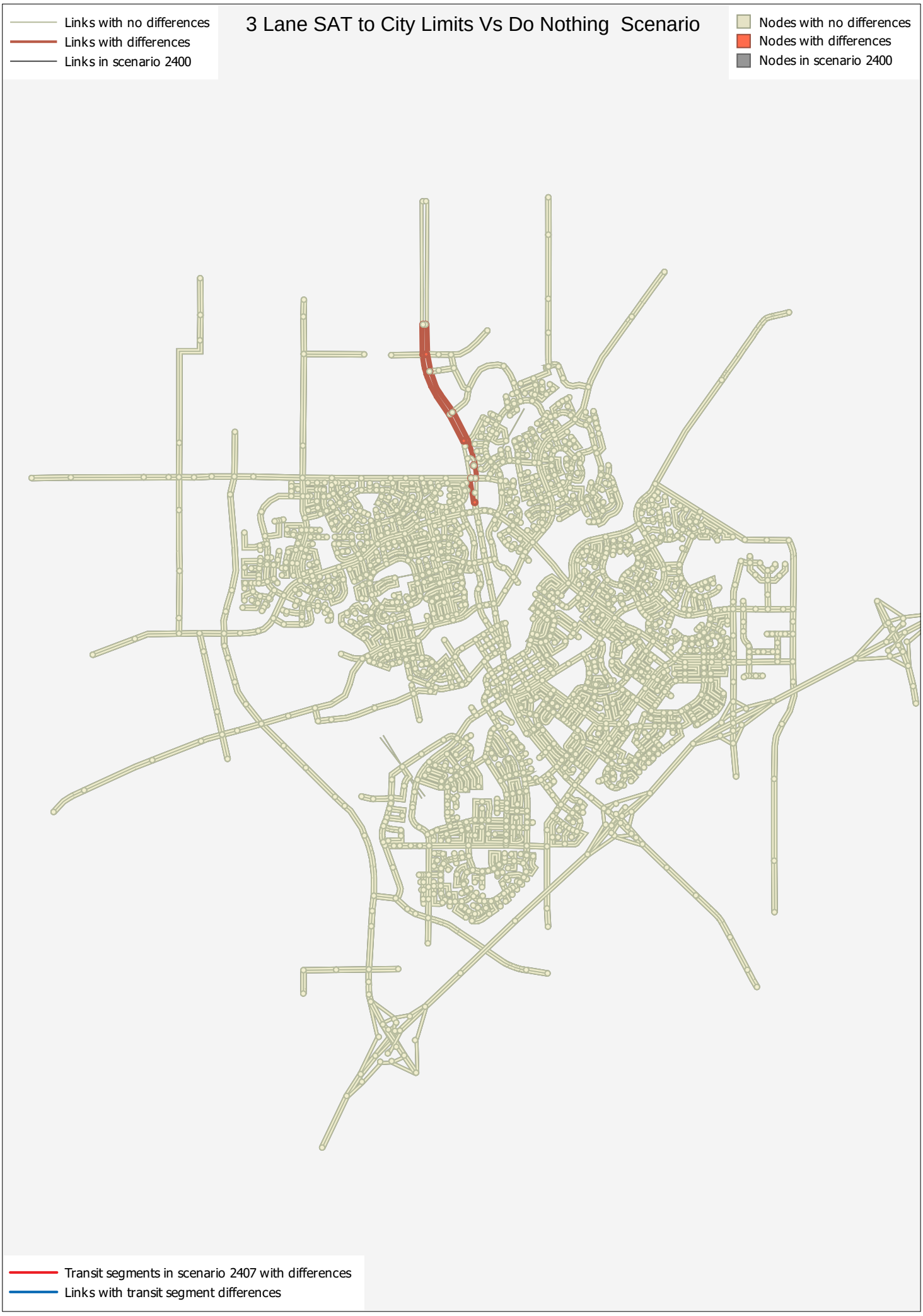
Emme Scenario 2406 - Do Nothing with Ray Gibbon Drive Twinned to Giroux

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7448-8227-8092	8227	7448	8092	SBL		-1	10	0	0
8092-8227-7067	8227	8092	7067	WBT		-1	12	0	0
8092-8227-7302	8227	8092	7302	WBL		-1	161	0	0
8092-8227-7448	8227	8092	7448	WBR		-1	24	0	0
8092-8227-8092	8227	8092	8092	U Turn		0	0	0	-1
7510-8228-7510	8228	7510	7510	U Turn		0	0	0	-1
7510-8228-7675	8228	7510	7675	NBR		-1	675	0	0
7510-8228-8096	8228	7510	8096	NBL		-1	168	0	0
7510-8228-8229	8228	7510	8229	NBT		-1	0	0	0
7675-8228-7510	8228	7675	7510	WBL		-1	455	0	0
7675-8228-7675	8228	7675	7675	U Turn		0	0	0	-1
7675-8228-8096	8228	7675	8096	WBT		-1	121	0	0
7675-8228-8229	8228	7675	8229	WBR		-1	0	0	0
8096-8228-7510	8228	8096	7510	EBR		-1	162	0	0
8096-8228-7675	8228	8096	7675	EBT		-1	316	0	0
8096-8228-8096	8228	8096	8096	U Turn		0	0	0	-1
8096-8228-8229	8228	8096	8229	EBL		-1	0	0	0
8229-8228-7510	8228	8229	7510	SBT		-1	0	0	0
8229-8228-7675	8228	8229	7675	SBL		-1	0	0	0
8229-8228-8096	8228	8229	8096	SBR		-1	0	0	0
8229-8228-8229	8228	8229	8229	U Turn		0	0	0	-1
5034-8231-5034	8231	5034	5034	U Turn	West side of divided intersection, SB traffic only	0	0	0	-1
5034-8231-7479	8231	5034	7479	EBR		-1	74	0	0
5034-8231-8232	8231	5034	8232	EBT	St Albert Trail is NB/SB	-1	17	0	0
7590-8231-5034	8231	7590	5034	EBL		-1	16	0	0
7590-8231-7479	8231	7590	7479	SBT		-1	1862	0	0
7590-8231-8232	8231	7590	8232	SBL		-1	55	0	0

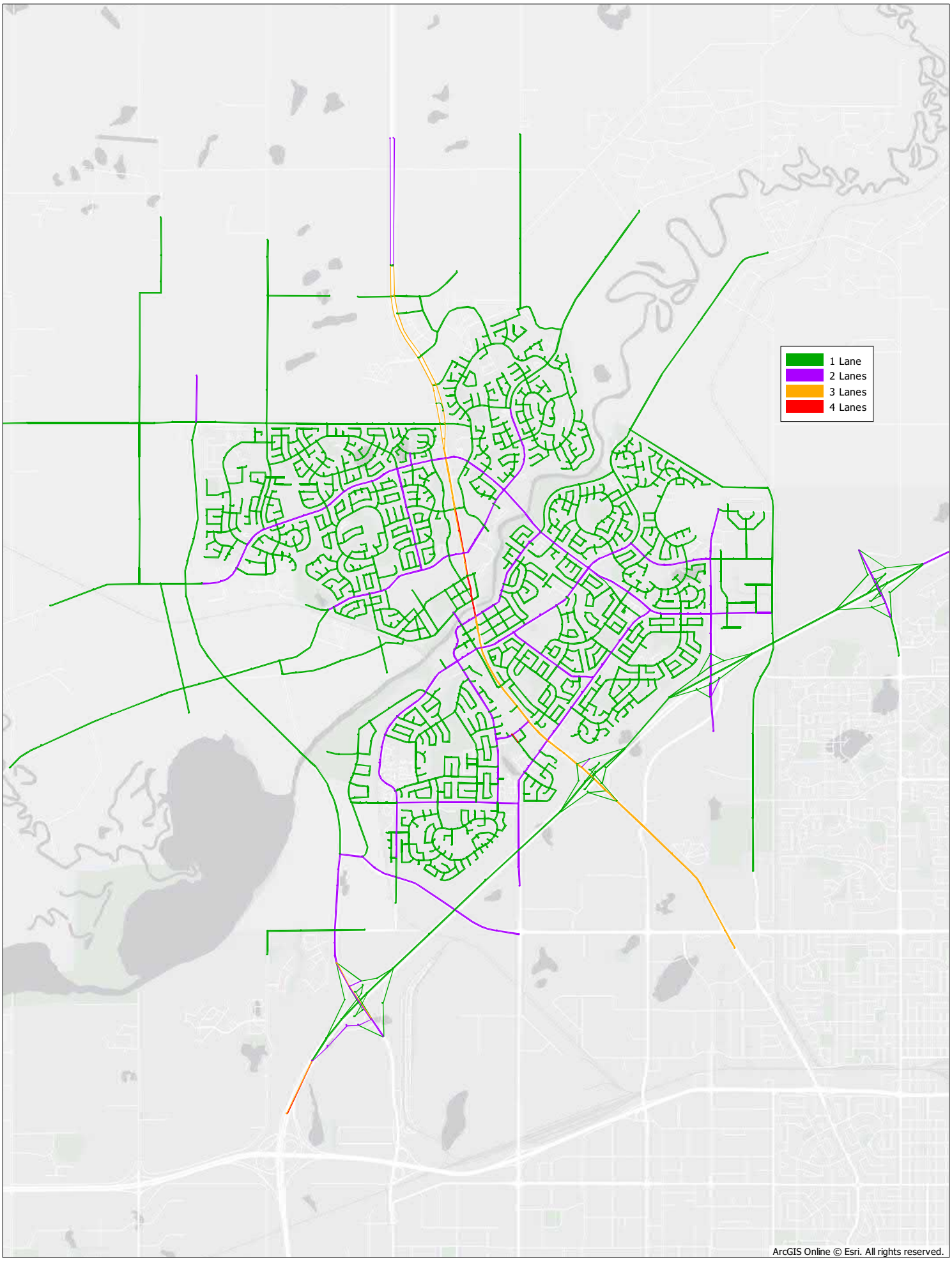
Emme Scenario 2406 - Do Nothing with Ray Gibbon Drive Twinned to Giroux

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8232-8231-5034	8231	8232	5034	WBT		-1	116	0	0
8232-8231-7479	8231	8232	7479	WBL		-1	210	0	0
8232-8231-8232	8231	8232	8232	U Turn		0	0	0	-1
6458-8232-8231	8232	6458	8231	NBL	East side of divided intersection, NB traffic only	-1	110	0	0
6458-8232-8234	8232	6458	8234	NBR	St Albert Trail is NB/SB	-1	202	0	0
6458-8232-8239	8232	6458	8239	NBT		-1	2090	0	0
8231-8232-8231	8232	8231	8231	EBR		0	0	0	-1
8231-8232-8234	8232	8231	8234	EBT		-1	62	0	0
8231-8232-8239	8232	8231	8239	EBL		-1	10	0	0
8234-8232-8231	8232	8234	8231	WBL		-1	216	0	0
8234-8232-8234	8232	8234	8234	U Turn		0	0	0	-1
8234-8232-8239	8232	8234	8239	WBR		-1	1	0	0

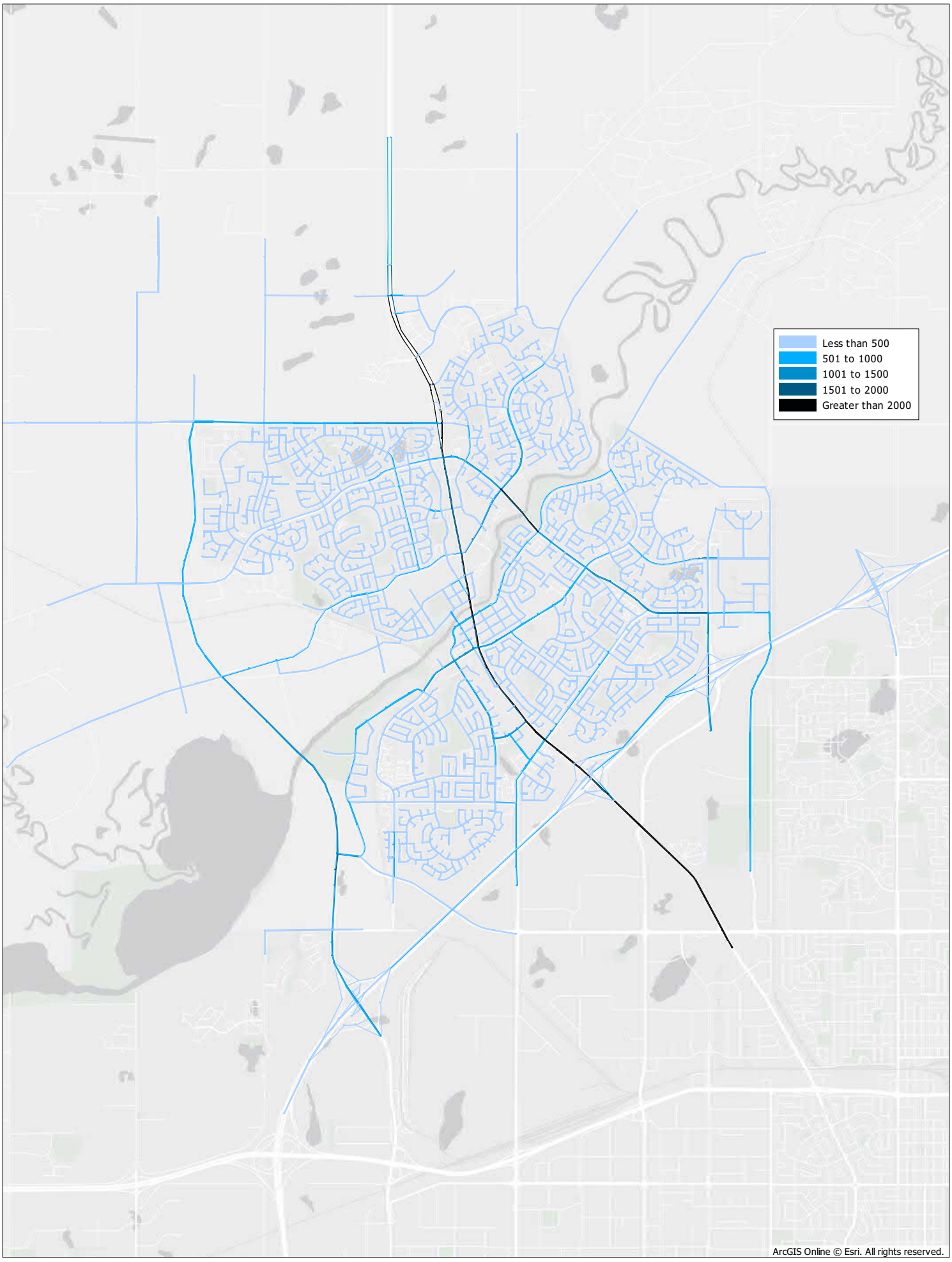
Scenario 2407 – North SAT Widened to 3 Lanes


Links with no differences
Links with differences
Links in scenario 2400
3 Lane SAT to City Limits Vs Do Nothing Scenario
Nodes with no differences
Nodes with differences
Nodes in scenario 2400
Transit segments in scenario 2407 with differences
Links with transit segment differences

3 Lane SAT to City Limits -
Lanes in Each Direction of Travel



3 Lane SAT to City Limits - Volumes



Emme Scenario 2407 - Three Lane Expansion Of North St Albert Trail

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6033-6035-6033	6035	6033	6033	U Turn		0	0	0	-1
6033-6035-6036	6035	6033	6036	WBR		-1	25	0	0
6033-6035-7135	6035	6033	7135	WBT		-1	56	0	0
6033-6035-7144	6035	6033	7144	WBL		-1	124	0	0
6036-6035-6033	6035	6036	6033	SBL		-1	6	0	0
6036-6035-6036	6035	6036	6036	U Turn		0	0	0	-1
6036-6035-7135	6035	6036	7135	SBR		-1	1	0	0
6036-6035-7144	6035	6036	7144	SBT		-1	42	0	0
7135-6035-6033	6035	7135	6033	EBT		-1	99	0	0
7135-6035-6036	6035	7135	6036	EBL		-1	2	0	0
7135-6035-7135	6035	7135	7135	U Turn		0	0	0	-1
7135-6035-7144	6035	7135	7144	EBR		-1	46	0	0
7144-6035-6033	6035	7144	6033	NBR		-1	138	0	0
7144-6035-6036	6035	7144	6036	NBT		-1	36	0	0
7144-6035-7135	6035	7144	7135	NBL		-1	4	0	0
7144-6035-7144	6035	7144	7144	U Turn		0	0	0	-1
6033-6037-6033	6037	6033	6033	U Turn		0	0	0	-1
6033-6037-6038	6037	6033	6038	EBL		-1	0	0	0
6033-6037-7136	6037	6033	7136	EBT		-1	120	0	0
6033-6037-7141	6037	6033	7141	EBR		-1	0	0	0
6038-6037-6033	6037	6038	6033	SBR		-1	38	0	0
6038-6037-6038	6037	6038	6038	U Turn		0	0	0	-1
6038-6037-7136	6037	6038	7136	SBL		-1	176	0	0
6038-6037-7141	6037	6038	7141	SBT		-1	74	0	0
7136-6037-6033	6037	7136	6033	WBT		-1	279	0	0
7136-6037-6038	6037	7136	6038	WBR		-1	329	0	0
7136-6037-7136	6037	7136	7136	U Turn		0	0	0	-1
7136-6037-7141	6037	7136	7141	WBL		-1	233	0	0

Emme Scenario 2407 - Three Lane Expansion Of North St Albert Trail

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7141-6037-6033	6037	7141	6033	NBL		-1	0	0	0
7141-6037-6038	6037	7141	6038	NBT		-1	45	0	0
7141-6037-7136	6037	7141	7136	NBR		-1	28	0	0
7141-6037-7141	6037	7141	7141	U Turn		0	0	0	-1
6141-6142-6141	6142	6141	6141	U Turn		0	0	0	-1
6141-6142-6722	6142	6141	6722	NBR	Sir Winston Churchill is NB/SB	-1	457	0	0
6141-6142-7861	6142	6141	7861	NBT		-1	798	0	0
6141-6142-8201	6142	6141	8201	NBL		1	63	0	0
6722-6142-6141	6142	6722	6141	WBL		-1	322	0	0
6722-6142-6722	6142	6722	6722	U Turn		0	0	0	-1
6722-6142-7861	6142	6722	7861	WBR		-1	313	0	0
6722-6142-8201	6142	6722	8201	WBT		-1	88	0	0
7861-6142-6141	6142	7861	6141	SBT		-1	1057	0	0
7861-6142-6722	6142	7861	6722	SBL		1	69	0	0
7861-6142-7861	6142	7861	7861	U Turn		0	0	0	-1
7861-6142-8201	6142	7861	8201	SBR		-1	0	0	0
8201-6142-6141	6142	8201	6141	EBR		-1	15	0	0
8201-6142-6722	6142	8201	6722	EBT		-1	689	0	0
8201-6142-7861	6142	8201	7861	EBL		-1	212	0	0
8201-6142-8201	6142	8201	8201	U Turn		0	0	0	-1
7475-6175-7475	6175	7475	7475	U Turn	East side of divided intersection, NB traffic only	0	0	0	-1
7475-6175-7502	6175	7475	7502	EBT		-1	112	0	0
7475-6175-8105	6175	7475	8105	EBL		-1	408	0	0
7502-6175-7475	6175	7502	7475	WBT		-1	73	0	0
7502-6175-7502	6175	7502	7502	U Turn		0	0	0	-1
7502-6175-8105	6175	7502	8105	WBR		-1	347	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7922-6175-7475	6175	7922	7475	NBL		-1	402	0	0
7922-6175-7502	6175	7922	7502	NBR		-1	73	0	0
7922-6175-8105	6175	7922	8105	NBT		-1	1861	0	0
7474-6176-7474	6176	7474	7474	U Turn		0	0	0	-1
7474-6176-7940	6176	7474	7940	SBR		-1	68	0	0
7474-6176-8172	6176	7474	8172	SBT		-1	1581	0	0
7474-6176-8223	6176	7474	8223	SBL		1	112	0	2
7940-6176-7474	6176	7940	7474	EBL		1	80	0	1
7940-6176-7940	6176	7940	7940	U Turn		0	0	0	-1
7940-6176-8172	6176	7940	8172	EBR		-1	10	0	0
7940-6176-8223	6176	7940	8223	EBT		-1	379	0	0
8172-6176-7474	6176	8172	7474	NBT		-1	1744	0	0
8172-6176-7940	6176	8172	7940	NBL		1	101	0	2
8172-6176-8172	6176	8172	8172	U Turn		0	0	0	-1
8172-6176-8223	6176	8172	8223	NBR		-1	58	0	0
8223-6176-7474	6176	8223	7474	WBR		-1	504	0	0
8223-6176-7940	6176	8223	7940	WBT		-1	485	0	0
8223-6176-8172	6176	8223	8172	WBL		1	86	0	1
8223-6176-8223	6176	8223	8223	U Turn		0	0	0	-1
7938-6348-7938	6348	7938	7938	U Turn		0	0	0	-1
7938-6348-7939	6348	7938	7939	SBL	Perron St is NB/SB	-1	11	0	0
7938-6348-8195	6348	7938	8195	SBR		-1	255	0	0
7938-6348-8197	6348	7938	8197	SBT		-1	234	0	0
7939-6348-7938	6348	7939	7938	WBR		-1	62	0	0
7939-6348-7939	6348	7939	7939	U Turn		0	0	0	-1
7939-6348-8195	6348	7939	8195	WBT		-1	692	0	0
7939-6348-8197	6348	7939	8197	WBL		1	62	0	0
8195-6348-7938	6348	8195	7938	EBL		1	100	0	1

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8195-6348-7939	6348	8195	7939	EBT		-1	807	0	0
8195-6348-8195	6348	8195	8195	U Turn		0	0	0	-1
8195-6348-8197	6348	8195	8197	EBR		-1	0	0	0
8197-6348-7938	6348	8197	7938	NBT		-1	579	0	0
8197-6348-7939	6348	8197	7939	NBR		-1	18	0	0
8197-6348-8195	6348	8197	8195	NBL		-1	0	0	0
8197-6348-8197	6348	8197	8197	U Turn		0	0	0	-1
6594-6349-6594	6349	6594	6594	U Turn		0	0	0	-1
6594-6349-7936	6349	6594	7936	WBR	St Albert Trail is NB/SB	-1	337	0	0
6594-6349-7939	6349	6594	7939	WBT		-1	217	0	0
6594-6349-10802	6349	6594	10802	WBL		1	73	0	0
7936-6349-6594	6349	7936	6594	SBL		1	99	0	1
7936-6349-7936	6349	7936	7936	U Turn		0	0	0	-1
7936-6349-7939	6349	7936	7939	SBR		-1	857	0	0
7936-6349-10802	6349	7936	10802	SBT		-1	1394	0	0
7939-6349-6594	6349	7939	6594	EBT		-1	668	0	0
7939-6349-7936	6349	7939	7936	EBL		1	128	0	4
7939-6349-7939	6349	7939	7939	U Turn		0	0	0	-1
7939-6349-10802	6349	7939	10802	EBR		-1	142	0	0
10802-6349-6594	6349	10802	6594	NBR		-1	140	0	0
10802-6349-7936	6349	10802	7936	NBT		-1	2909	0	0
10802-6349-7939	6349	10802	7939	NBL		1	95	0	1
10802-6349-10802	6349	10802	10802	U Turn		0	0	0	-1
6279-6386-6279	6386	6279	6279	U Turn		0	0	0	-1
6279-6386-6485	6386	6279	6485	WBL		-1	0	0	0
6279-6386-6769	6386	6279	6769	WBR		-1	384	0	0
6279-6386-7923	6386	6279	7923	WBT		-1	911	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6485-6386-6279	6386	6485	6279	NBR		-1	3	0	0
6485-6386-6485	6386	6485	6485	U Turn		0	0	0	-1
6485-6386-6769	6386	6485	6769	NBT		-1	104	0	0
6485-6386-7923	6386	6485	7923	NBL		-1	67	0	0
6769-6386-6279	6386	6769	6279	SBL		1	84	0	1
6769-6386-6485	6386	6769	6485	SBT		-1	15	0	0
6769-6386-6769	6386	6769	6769	U Turn		0	0	0	-1
6769-6386-7923	6386	6769	7923	SBR		-1	95	0	0
7923-6386-6279	6386	7923	6279	EBT		-1	573	0	0
7923-6386-6485	6386	7923	6485	EBR		-1	3	0	0
7923-6386-6769	6386	7923	6769	EBL		1	83	0	1
7923-6386-7923	6386	7923	7923	U Turn		0	0	0	-1
6193-6458-6193	6458	6193	6193	U Turn		0	0	0	-1
6193-6458-7479	6458	6193	7479	WBT	East side of divided intersection, NB traffic only	-1	21	0	0
6193-6458-8232	6458	6193	8232	WBR		-1	15	0	0
7479-6458-6193	6458	7479	6193	EBT		-1	119	0	0
7479-6458-7479	6458	7479	7479	U Turn		0	0	0	-1
7479-6458-8232	6458	7479	8232	EBL		-1	38	0	0
8103-6458-6193	6458	8103	6193	NBR		-1	20	0	0
8103-6458-7479	6458	8103	7479	NBL		-1	0	0	0
8103-6458-8232	6458	8103	8232	NBT		-1	2497	0	0
6356-6595-6356	6595	6356	6356	U Turn		0	0	0	-1
6356-6595-7554	6595	6356	7554	WBL		-1	245	0	0
6356-6595-8121	6595	6356	8121	WBR		-1	1	0	0
6356-6595-8220	6595	6356	8220	WBT		-1	649	0	0
7554-6595-6356	6595	7554	6356	NBR		-1	262	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7554-6595-7554	6595	7554	7554	U Turn		0	0	0	-1
7554-6595-8121	6595	7554	8121	NBT		-1	130	0	0
7554-6595-8220	6595	7554	8220	NBL		-1	1060	0	0
8121-6595-6356	6595	8121	6356	SBL		-1	0	0	0
8121-6595-7554	6595	8121	7554	SBT		-1	115	0	0
8121-6595-8121	6595	8121	8121	U Turn		0	0	0	-1
8121-6595-8220	6595	8121	8220	SBR		-1	42	0	0
8220-6595-6356	6595	8220	6356	EBT		-1	721	0	0
8220-6595-7554	6595	8220	7554	EBR		-1	340	0	0
8220-6595-8121	6595	8220	8121	EBL		-1	58	0	0
8220-6595-8220	6595	8220	8220	U Turn		0	0	0	-1
7286-6596-7286	6596	7286	7286	U Turn		0	0	0	-1
7286-6596-7822	6596	7286	7822	WBT		-1	631	0	0
7286-6596-7977	6596	7286	7977	WBL		1	1	0	0
7286-6596-8117	6596	7286	8117	WBR		-1	0	0	0
7822-6596-7286	6596	7822	7286	EBT		-1	155	0	0
7822-6596-7822	6596	7822	7822	U Turn		0	0	0	-1
7822-6596-7977	6596	7822	7977	EBR		-1	69	0	0
7822-6596-8117	6596	7822	8117	EBL		1	0	0	0
7977-6596-7286	6596	7977	7286	NBL		-1	40	0	0
7977-6596-7822	6596	7977	7822	NBR		1	104	0	2
7977-6596-7977	6596	7977	7977	U Turn		0	0	0	-1
7977-6596-8117	6596	7977	8117	NBT		-1	1	0	0
8117-6596-7286	6596	8117	7286	SBL		1	0	0	0
8117-6596-7822	6596	8117	7822	SBR		-1	297	0	0
8117-6596-7977	6596	8117	7977	SBT		-1	0	0	0
8117-6596-8117	6596	8117	8117	U Turn		0	0	0	-1
6427-6624-6427	6624	6427	6427	U Turn		0	0	0	-1

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6427-6624-7675	6624	6427	7675	NBL		-1	2	0	0
6427-6624-7875	6624	6427	7875	NBT		-1	0	0	0
6427-6624-7876	6624	6427	7876	NBR		-1	93	0	0
7675-6624-6427	6624	7675	6427	EBR		-1	7	0	0
7675-6624-7675	6624	7675	7675	U Turn		0	0	0	-1
7675-6624-7875	6624	7675	7875	EBL		-1	3	0	0
7675-6624-7876	6624	7675	7876	EBT		-1	807	0	0
7875-6624-6427	6624	7875	6427	SBT		-1	1	0	0
7875-6624-7675	6624	7875	7675	SBR		-1	3	0	0
7875-6624-7875	6624	7875	7875	U Turn		0	0	0	-1
7875-6624-7876	6624	7875	7876	SBL		-1	11	0	0
7876-6624-6427	6624	7876	6427	WBL		-1	359	0	0
7876-6624-7675	6624	7876	7675	WBT		-1	583	0	0
7876-6624-7875	6624	7876	7875	WBR		-1	16	0	0
7876-6624-7876	6624	7876	7876	U Turn		0	0	0	-1
7193-6744-7193	6744	7193	7193	U Turn		0	0	0	-1
7193-6744-7678	6744	7193	7678	EBR	St Albert Trail is NB/SB	-1	248	0	0
7193-6744-8135	6744	7193	8135	EBT		-1	394	0	0
7193-6744-8150	6744	7193	8150	EBL		1	72	0	0
7678-6744-7193	6744	7678	7193	NBL		1	134	0	4
7678-6744-7678	6744	7678	7678	U Turn		0	0	0	-1
7678-6744-8135	6744	7678	8135	NBR		-1	625	0	0
7678-6744-8150	6744	7678	8150	NBT		-1	2194	0	0
8135-6744-7193	6744	8135	7193	WBT		-1	405	0	0
8135-6744-7678	6744	8135	7678	WBL		1	76	0	1
8135-6744-8135	6744	8135	8135	U Turn		0	0	0	-1
8135-6744-8150	6744	8135	8150	WBR		-1	229	0	0
8150-6744-7193	6744	8150	7193	SBR		-1	67	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8150-6744-7678	6744	8150	7678	SBT		-1	2019	0	0
8150-6744-8135	6744	8150	8135	SBL		1	70	0	0
8150-6744-8150	6744	8150	8150	U Turn		0	0	0	-1
6091-6871-6091	6871	6091	6091	U Turn		0	0	0	-1
6091-6871-6279	6871	6091	6279	EBL	Boudreau Rd is NB/SB	-1	81	0	0
6091-6871-6697	6871	6091	6697	EBT		-1	755	0	0
6091-6871-7129	6871	6091	7129	EBR		-1	419	0	0
6279-6871-6091	6871	6279	6091	SBR		-1	27	0	0
6279-6871-6279	6871	6279	6279	U Turn		0	0	0	-1
6279-6871-6697	6871	6279	6697	SBL		-1	66	0	0
6279-6871-7129	6871	6279	7129	SBT		-1	619	0	0
6697-6871-6091	6871	6697	6091	WBT		-1	195	0	0
6697-6871-6279	6871	6697	6279	WBR		-1	16	0	0
6697-6871-6697	6871	6697	6697	U Turn		0	0	0	-1
6697-6871-7129	6871	6697	7129	WBL		-1	564	0	0
7129-6871-6091	6871	7129	6091	NBL		-1	461	0	0
7129-6871-6279	6871	7129	6279	NBT		-1	1347	0	0
7129-6871-6697	6871	7129	6697	NBR		-1	490	0	0
7129-6871-7129	6871	7129	7129	U Turn		0	0	0	-1
6021-6894-6021	6894	6021	6021	U Turn		0	0	0	-1
6021-6894-6893	6894	6021	6893	SBT	Perron St is NB/SB	-1	13	0	0
6021-6894-8221	6894	6021	8221	SBL		-1	72	0	0
6021-6894-9910	6894	6021	9910	SBR		-1	195	0	0
6893-6894-6021	6894	6893	6021	NBT		-1	69	0	0
6893-6894-6893	6894	6893	6893	U Turn		0	0	0	-1
6893-6894-8221	6894	6893	8221	NBR		-1	3	0	0
6893-6894-9910	6894	6893	9910	NBL		-1	93	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8221-6894-6021	6894	8221	6021	WBR		-1	166	0	0
8221-6894-6893	6894	8221	6893	WBL		-1	0	0	0
8221-6894-8221	6894	8221	8221	U Turn		0	0	0	-1
8221-6894-9910	6894	8221	9910	WBT		-1	838	0	0
9910-6894-6021	6894	9910	6021	EBL		-1	332	0	0
9910-6894-6893	6894	9910	6893	EBR		-1	272	0	0
9910-6894-8221	6894	9910	8221	EBT		-1	678	0	0
9910-6894-9910	6894	9910	9910	U Turn		0	0	0	-1
7756-6921-7756	6921	7756	7756	U Turn		0	0	0	-1
7756-6921-7766	6921	7756	7766	NBR		-1	827	0	0
7756-6921-7964	6921	7756	7964	NBT		-1	1894	0	0
7756-6921-7967	6921	7756	7967	NBL		1	107	0	2
7766-6921-7756	6921	7766	7756	WBL		1	88	0	1
7766-6921-7766	6921	7766	7766	U Turn		0	0	0	-1
7766-6921-7964	6921	7766	7964	WBR		-1	37	0	0
7766-6921-7967	6921	7766	7967	WBT		-1	344	0	0
7964-6921-7756	6921	7964	7756	SBT		-1	1511	0	0
7964-6921-7766	6921	7964	7766	SBL		1	9	0	0
7964-6921-7964	6921	7964	7964	U Turn		0	0	0	-1
7964-6921-7967	6921	7964	7967	SBR		-1	16	0	0
7967-6921-7756	6921	7967	7756	EBR		-1	202	0	0
7967-6921-7766	6921	7967	7766	EBT		-1	252	0	0
7967-6921-7964	6921	7967	7964	EBL		1	56	0	0
7967-6921-7967	6921	7967	7967	U Turn		0	0	0	-1
7151-6922-7151	6922	7151	7151	U Turn		0	0	0	-1
7151-6922-7756	6922	7151	7756	NBT		-1	2902	0	0
7151-6922-7759	6922	7151	7759	NBL		1	114	0	2
7151-6922-10408	6922	7151	10408	NBR		-1	0	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7756-6922-7151	6922	7756	7151	SBT		-1	1769	0	0
7756-6922-7756	6922	7756	7756	U Turn		0	0	0	-1
7756-6922-7759	6922	7756	7759	SBR		-1	47	0	0
7756-6922-10408	6922	7756	10408	SBL		1	0	0	0
7759-6922-7151	6922	7759	7151	EBR		-1	0	0	0
7759-6922-7756	6922	7759	7756	EBL		-1	16	0	0
7759-6922-7759	6922	7759	7759	U Turn		0	0	0	-1
7759-6922-10408	6922	7759	10408	EBT		-1	0	0	0
10408-6922-7151	6922	10408	7151	WBL		-1	152	0	0
10408-6922-7756	6922	10408	7756	EBR		-1	0	0	0
10408-6922-7759	6922	10408	7759	EBT		-1	139	0	0
10408-6922-10408	6922	10408	10408	U Turn		0	0	0	-1
6926-6927-6926	6927	6926	6926	U Turn		0	0	0	-1
6926-6927-6952	6927	6926	6952	NBT	Boudreau Rd is NB/SB	-1	841	0	0
6926-6927-7073	6927	6926	7073	NBL		-1	530	0	0
6926-6927-8066	6927	6926	8066	NBR		-1	0	0	0
6952-6927-6926	6927	6952	6926	SBT		-1	706	0	0
6952-6927-6952	6927	6952	6952	U Turn		0	0	0	-1
6952-6927-7073	6927	6952	7073	SBR		-1	15	0	0
6952-6927-8066	6927	6952	8066	SBL		-1	228	0	0
7073-6927-6926	6927	7073	6926	EBR		-1	509	0	0
7073-6927-6952	6927	7073	6952	EBL		-1	27	0	0
7073-6927-7073	6927	7073	7073	U Turn		0	0	0	-1
7073-6927-8066	6927	7073	8066	EBT		-1	149	0	0
8066-6927-6926	6927	8066	6926	WBL		-1	25	0	0
8066-6927-6952	6927	8066	6952	WBR		-1	253	0	0
8066-6927-7073	6927	8066	7073	WBT		-1	241	0	0
8066-6927-8066	6927	8066	8066	U Turn		0	0	0	-1

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6467-7121-6467	7121	6467	6467	U Turn		0	0	0	-1
6467-7121-6946	7121	6467	6946	SBR		-1	80	0	0
6467-7121-7119	7121	6467	7119	SBL		-1	29	0	0
6946-7121-6467	7121	6946	6467	EBL		-1	1	0	0
6946-7121-6946	7121	6946	6946	U Turn		0	0	0	-1
6946-7121-7119	7121	6946	7119	EBT		-1	100	0	0
7119-7121-6467	7121	7119	6467	WBR		-1	62	0	0
7119-7121-6946	7121	7119	6946	WBT		-1	157	0	0
7119-7121-7119	7121	7119	7119	U Turn		0	0	0	-1
6394-7129-6394	7129	6394	6394	U Turn		0	0	0	-1
6394-7129-6549	7129	6394	6549	EBR	Boudreau Rd is NB/SB	-1	11	0	0
6394-7129-6785	7129	6394	6785	EBT		-1	34	0	0
6394-7129-6871	7129	6394	6871	EBL		-1	523	0	0
6549-7129-6394	7129	6549	6394	NBL		-1	91	0	0
6549-7129-6549	7129	6549	6549	U Turn		0	0	0	-1
6549-7129-6785	7129	6549	6785	NBR		-1	0	0	0
6549-7129-6871	7129	6549	6871	NBT		-1	1156	0	0
6785-7129-6394	7129	6785	6394	WBT		-1	23	0	0
6785-7129-6549	7129	6785	6549	WBL		-1	0	0	0
6785-7129-6785	7129	6785	6785	U Turn		0	0	0	-1
6785-7129-6871	7129	6785	6871	WBR		-1	618	0	0
6871-7129-6394	7129	6871	6394	SBR		-1	227	0	0
6871-7129-6549	7129	6871	6549	SBT		-1	971	0	0
6871-7129-6785	7129	6871	6785	SBL		-1	403	0	0
6871-7129-6871	7129	6871	6871	U Turn		0	0	0	-1
6035-7135-6035	7135	6035	6035	U Turn		0	0	0	-1
6035-7135-7132	7135	6035	7132	WBR		-1	1	0	0
6035-7135-7318	7135	6035	7318	WBL		-1	0	0	0

Emme Scenario 2407 - Three Lane Expansion Of North St Albert Trail

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6035-7135-7892	7135	6035	7892	WBT		-1	59	0	0
7132-7135-6035	7135	7132	6035	SBL		-1	0	0	0
7132-7135-7132	7135	7132	7132	U Turn		0	0	0	-1
7132-7135-7318	7135	7132	7318	SBT		-1	263	0	0
7132-7135-7892	7135	7132	7892	SBR		-1	12	0	0
7318-7135-6035	7135	7318	6035	NBR		-1	38	0	0
7318-7135-7132	7135	7318	7132	NBT		-1	311	0	0
7318-7135-7318	7135	7318	7318	U Turn		0	0	0	-1
7318-7135-7892	7135	7318	7892	NBL		-1	4	0	0
7892-7135-6035	7135	7892	6035	EBT		-1	109	0	0
7892-7135-7132	7135	7892	7132	EBL		-1	148	0	0
7892-7135-7318	7135	7892	7318	EBR		-1	22	0	0
7892-7135-7892	7135	7892	7892	U Turn		0	0	0	-1
6037-7136-6037	7136	6037	6037	U Turn		0	0	0	-1
6037-7136-7493	7136	6037	7493	EBR		-1	182	0	0
6037-7136-8149	7136	6037	8149	EBL		-1	143	0	0
7493-7136-6037	7136	7493	6037	NBL		-1	573	0	0
7493-7136-7493	7136	7493	7493	U Turn		0	0	0	-1
7493-7136-8149	7136	7493	8149	NBT		-1	393	0	0
8149-7136-6037	7136	8149	6037	SBR		-1	268	0	0
8149-7136-7493	7136	8149	7493	SBT		-1	147	0	0
8149-7136-8149	7136	8149	8149	U Turn		0	0	0	-1
6916-7138-6916	7138	6916	6916	U Turn		0	0	0	-1
6916-7138-7140	7138	6916	7140	SBL		-1	35	0	0
6916-7138-7682	7138	6916	7682	SBT		-1	552	0	0
7140-7138-6916	7138	7140	6916	WBR		-1	24	0	0
7140-7138-7140	7138	7140	7140	U Turn		0	0	0	-1
7140-7138-7682	7138	7140	7682	WBL		-1	52	0	0

Emme Scenario 2407 - Three Lane Expansion Of North St Albert Trail

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7682-7138-6916	7138	7682	6916	NBT		-1	394	0	0
7682-7138-7140	7138	7682	7140	NBR		-1	271	0	0
7682-7138-7682	7138	7682	7682	U Turn		0	0	0	-1
7559-7397-7559	7397	7559	7559	U Turn		0	0	0	-1
7559-7397-7683	7397	7559	7683	NBR		-1	622	0	0
7559-7397-7835	7397	7559	7835	NBT		-1	975	0	0
7683-7397-7559	7397	7683	7559	WBL		-1	313	0	0
7683-7397-7683	7397	7683	7683	U Turn		0	0	0	-1
7683-7397-7835	7397	7683	7835	WBR		-1	360	0	0
7835-7397-7559	7397	7835	7559	SBT		-1	593	0	0
7835-7397-7683	7397	7835	7683	SBL		-1	533	0	0
7835-7397-7835	7397	7835	7835	U Turn		0	0	0	-1
6175-7475-6175	7475	6175	6175	U Turn		0	0	0	-1
6175-7475-7474	7475	6175	7474	WBL	West side of divided intersection, SB traffic only	-1	0	0	0
6175-7475-8106	7475	6175	8106	WBT		-1	474	0	0
8104-7475-6175	7475	8104	6175	SBL		-1	16	0	0
8104-7475-7474	7475	8104	7474	SBT		-1	1675	0	0
8104-7475-8106	7475	8104	8106	SBR		-1	610	0	0
8106-7475-6175	7475	8106	6175	EBT		-1	504	0	0
8106-7475-7474	7475	8106	7474	EBR		-1	117	0	0
8106-7475-8106	7475	8106	8106	U Turn		0	0	0	-1
5008-7479-5008	7479	5008	5008	U Turn		0	0	0	-1
5008-7479-6458	7479	5008	6458	EBT	West side of divided intersection, SB traffic only	-1	61	0	0
5008-7479-7551	7479	5008	7551	EBR		-1	0	0	0
6458-7479-5008	7479	6458	5008	WBT		-1	0	0	0

Emme Scenario 2407 - Three Lane Expansion Of North St Albert Trail

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6458-7479-6458	7479	6458	6458	U Turn		0	0	0	-1
6458-7479-7551	7479	6458	7551	WBL		-1	21	0	0
8231-7479-5008	7479	8231	5008	SBR		-1	25	0	0
8231-7479-6458	7479	8231	6458	SBL		-1	96	0	0
8231-7479-7551	7479	8231	7551	SBT		-1	2066	0	0
7434-7514-7434	7514	7434	7434	U Turn		0	0	0	-1
7434-7514-7476	7514	7434	7476	WBL		-1	293	0	0
7434-7514-7500	7514	7434	7500	WBR		-1	150	0	0
7434-7514-7633	7514	7434	7633	WBT		-1	51	0	0
7476-7514-7434	7514	7476	7434	NBR		-1	648	0	0
7476-7514-7476	7514	7476	7476	U Turn		0	0	0	-1
7476-7514-7500	7514	7476	7500	NBT		-1	698	0	0
7476-7514-7633	7514	7476	7633	NBL		-1	38	0	0
7500-7514-7434	7514	7500	7434	SBL		-1	174	0	0
7500-7514-7476	7514	7500	7476	SBT		-1	717	0	0
7500-7514-7500	7514	7500	7500	U Turn		0	0	0	-1
7500-7514-7633	7514	7500	7633	SBR		-1	0	0	0
7633-7514-7434	7514	7633	7434	EBT		-1	60	0	0
7633-7514-7476	7514	7633	7476	EBR		-1	18	0	0
7633-7514-7500	7514	7633	7500	EBL		-1	1	0	0
7633-7514-7633	7514	7633	7633	U Turn		0	0	0	-1
7219-7532-7219	7532	7219	7219	U Turn		0	0	0	-1
7219-7532-7499	7532	7219	7499	SBL		-1	42	0	0
7219-7532-7583	7532	7219	7583	SBR		-1	270	0	0
7219-7532-7586	7532	7219	7586	SBT		-1	14	0	0
7499-7532-7219	7532	7499	7219	WBR		-1	304	0	0
7499-7532-7499	7532	7499	7499	U Turn		0	0	0	-1
7499-7532-7583	7532	7499	7583	WBT		-1	65	0	0

Emme Scenario 2407 - Three Lane Expansion Of North St Albert Trail

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7499-7532-7586	7532	7499	7586	WBL		-1	0	0	0
7583-7532-7219	7532	7583	7219	EBL		1	109	0	2
7583-7532-7499	7532	7583	7499	EBT		-1	88	0	0
7583-7532-7583	7532	7583	7583	U Turn		0	0	0	-1
7583-7532-7586	7532	7583	7586	EBR		-1	0	0	0
7586-7532-7219	7532	7586	7219	NBT		-1	160	0	0
7586-7532-7499	7532	7586	7499	NBR		-1	2	0	0
7586-7532-7583	7532	7586	7583	NBL		-1	24	0	0
7586-7532-7586	7532	7586	7586	U Turn		0	0	0	-1
7592-7590-7592	7590	7592	7592	U Turn	West side of divided intersection, SB traffic only	0	0	0	-1
7592-7590-7747	7590	7592	7747	EBT		-1	50	0	0
7592-7590-8231	7590	7592	8231	EBR		-1	212	0	0
7747-7590-7592	7590	7747	7592	WBT		-1	1	0	0
7747-7590-7747	7590	7747	7747	U Turn		0	0	0	-1
7747-7590-8231	7590	7747	8231	WBL		-1	721	0	0
8099-7590-7592	7590	8099	7592	SBR		-1	0	0	0
8099-7590-7747	7590	8099	7747	SBL		-1	25	0	0
8099-7590-8231	7590	8099	8231	SBT		-1	1171	0	0
7397-7683-7397	7683	7397	7397	U Turn		0	0	0	-1
7397-7683-7682	7683	7397	7682	EBL		-1	962	0	0
7397-7683-10501	7683	7397	10501	EBT		-1	193	0	0
7682-7683-7397	7683	7682	7397	SBR		-1	338	0	0
7682-7683-7682	7683	7682	7682	U Turn		0	0	0	-1
7682-7683-10501	7683	7682	10501	SBL		-1	5	0	0
10501-7683-7397	7683	10501	7397	WBT		-1	335	0	0
10501-7683-7682	7683	10501	7682	WBR		-1	24	0	0

Emme Scenario 2407 - Three Lane Expansion Of North St Albert Trail

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
10501-7683-10501	7683	10501	10501	U Turn		0	0	0	-1
7590-7747-7590	7747	7590	7590	U Turn	East side of divided intersection, NB traffic only	0	0	0	-1
7590-7747-8102	7747	7590	8102	EBL		-1	49	0	0
7590-7747-8238	7747	7590	8238	EBT		-1	27	0	0
8238-7747-7590	7747	8238	7590	WBT		-1	643	0	0
8238-7747-8102	7747	8238	8102	WBR		-1	4	0	0
8238-7747-8238	7747	8238	8238	U Turn		0	0	0	-1
8239-7747-7590	7747	8239	7590	NBL		-1	79	0	0
8239-7747-8102	7747	8239	8102	NBT		-1	1491	0	0
8239-7747-8238	7747	8239	8238	NBR		-1	0	0	0
6653-8217-6653	8217	6653	6653	U Turn		0	0	0	-1
6653-8217-6819	8217	6653	6819	NBR		-1	181	0	0
6653-8217-7301	8217	6653	7301	NBL		-1	171	0	0
6819-8217-6653	8217	6819	6653	WBL		-1	34	0	0
6819-8217-6819	8217	6819	6819	U Turn		0	0	0	-1
6819-8217-7301	8217	6819	7301	WBT		-1	1239	0	0
7301-8217-6653	8217	7301	6653	EBR		-1	23	0	0
7301-8217-6819	8217	7301	6819	EBT		-1	1069	0	0
7301-8217-7301	8217	7301	7301	U Turn		0	0	0	-1
7067-8227-7067	8227	7067	7067	U Turn		0	0	0	-1
7067-8227-7302	8227	7067	7302	EBR		-1	172	0	0
7067-8227-7448	8227	7067	7448	EBL		-1	183	0	0
7067-8227-8092	8227	7067	8092	EBT		-1	54	0	0
7302-8227-7067	8227	7302	7067	NBL		-1	35	0	0
7302-8227-7302	8227	7302	7302	U Turn		0	0	0	-1
7302-8227-7448	8227	7302	7448	NBT		-1	416	0	0

Emme Scenario 2407 - Three Lane Expansion Of North St Albert Trail

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7302-8227-8092	8227	7302	8092	NBR		-1	397	0	0
7448-8227-7067	8227	7448	7067	SBR		-1	26	0	0
7448-8227-7302	8227	7448	7302	SBT		-1	572	0	0
7448-8227-7448	8227	7448	7448	U Turn		0	0	0	-1
7448-8227-8092	8227	7448	8092	SBL		-1	10	0	0
8092-8227-7067	8227	8092	7067	WBT		-1	13	0	0
8092-8227-7302	8227	8092	7302	WBL		-1	146	0	0
8092-8227-7448	8227	8092	7448	WBR		-1	44	0	0
8092-8227-8092	8227	8092	8092	U Turn		0	0	0	-1
7510-8228-7510	8228	7510	7510	U Turn		0	0	0	-1
7510-8228-7675	8228	7510	7675	NBR		-1	486	0	0
7510-8228-8096	8228	7510	8096	NBL		-1	150	0	0
7510-8228-8229	8228	7510	8229	NBT		-1	0	0	0
7675-8228-7510	8228	7675	7510	WBL		-1	448	0	0
7675-8228-7675	8228	7675	7675	U Turn		0	0	0	-1
7675-8228-8096	8228	7675	8096	WBT		-1	140	0	0
7675-8228-8229	8228	7675	8229	WBR		-1	0	0	0
8096-8228-7510	8228	8096	7510	EBR		-1	154	0	0
8096-8228-7675	8228	8096	7675	EBT		-1	331	0	0
8096-8228-8096	8228	8096	8096	U Turn		0	0	0	-1
8096-8228-8229	8228	8096	8229	EBL		-1	0	0	0
8229-8228-7510	8228	8229	7510	SBT		-1	0	0	0
8229-8228-7675	8228	8229	7675	SBL		-1	0	0	0
8229-8228-8096	8228	8229	8096	SBR		-1	0	0	0
8229-8228-8229	8228	8229	8229	U Turn		0	0	0	-1
5034-8231-5034	8231	5034	5034	U Turn		0	0	0	-1

Emme Scenario 2407 - Three Lane Expansion Of North St Albert Trail

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
5034-8231-7479	8231	5034	7479	EBR	West side of divided intersection, SB traffic only	-1	77	0	0
5034-8231-8232	8231	5034	8232	EBT	St Albert Trail is NB/SB	-1	14	0	0
7590-8231-5034	8231	7590	5034	SBR		-1	17	0	0
7590-8231-7479	8231	7590	7479	SBT		-1	2015	0	0
7590-8231-8232	8231	7590	8232	SBL		-1	72	0	0
8232-8231-5034	8231	8232	5034	WBT		-1	116	0	0
8232-8231-7479	8231	8232	7479	WBL		-1	95	0	0
8232-8231-8232	8231	8232	8232	U Turn		0	0	0	-1
6458-8232-8231	8232	6458	8231	NBL	East side of divided intersection, NB traffic only	-1	109	0	0
6458-8232-8234	8232	6458	8234	NBR	St Albert Trail is NB/SB	-1	171	0	0
6458-8232-8239	8232	6458	8239	NBT		-1	2270	0	0
8231-8232-8231	8232	8231	8231	U Turn		0	0	0	-1
8231-8232-8234	8232	8231	8234	EBT		-1	76	0	0
8231-8232-8239	8232	8231	8239	EBL		-1	10	0	0
8234-8232-8231	8232	8234	8231	WBT		-1	101	0	0
8234-8232-8234	8232	8234	8234	U Turn		0	0	0	-1
8234-8232-8239	8232	8234	8239	WBR		-1	0	0	0

Scenario 2411 – Capital Plan with all Minor Intersection Improvements

Capital Plan with all Minor Improvements Vs Capital Plan Scenario

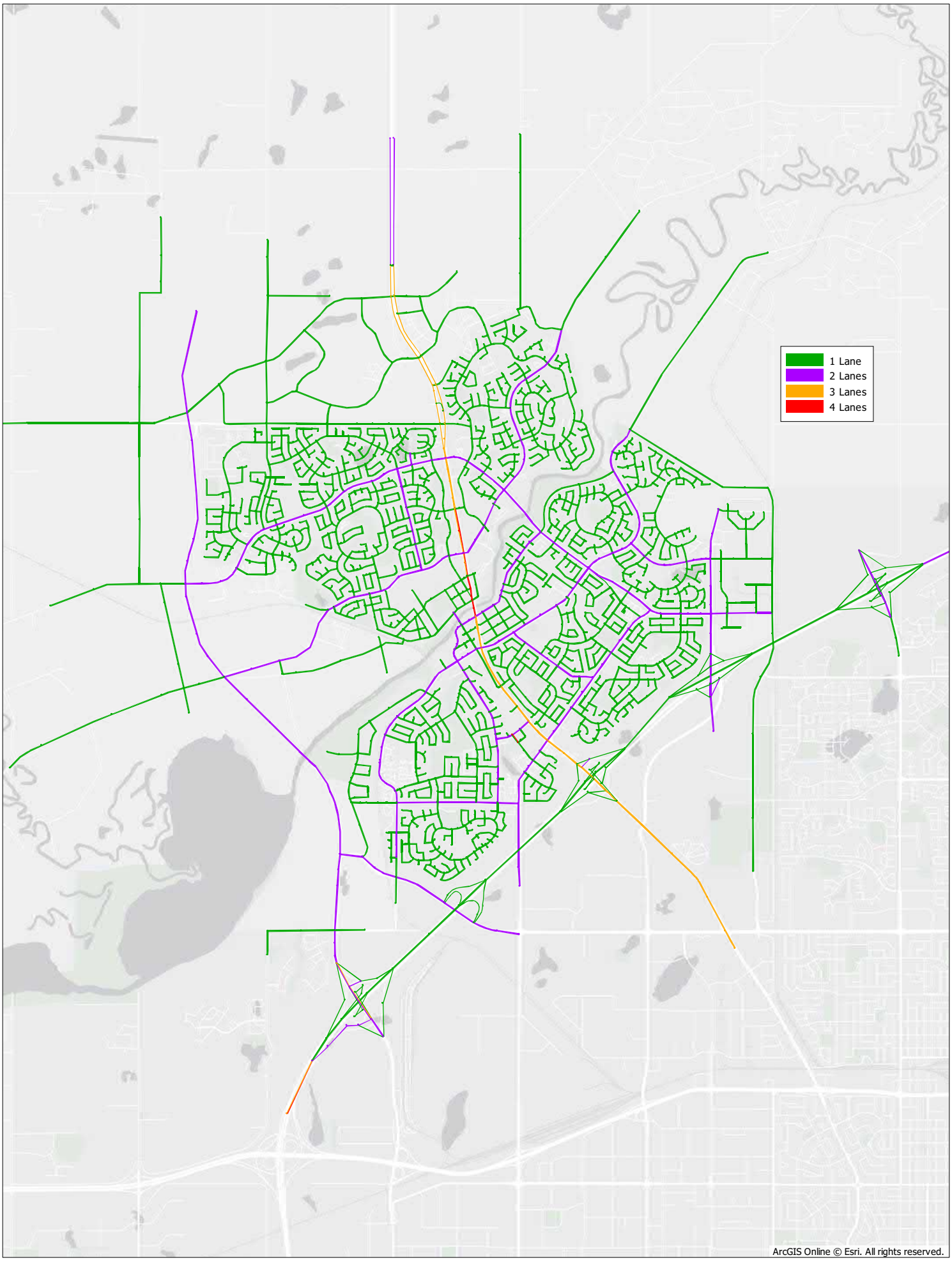
Links with no differences
Links with differences
Links in scenario 2401

Nodes with no differences
Nodes with differences
Nodes in scenario 2401

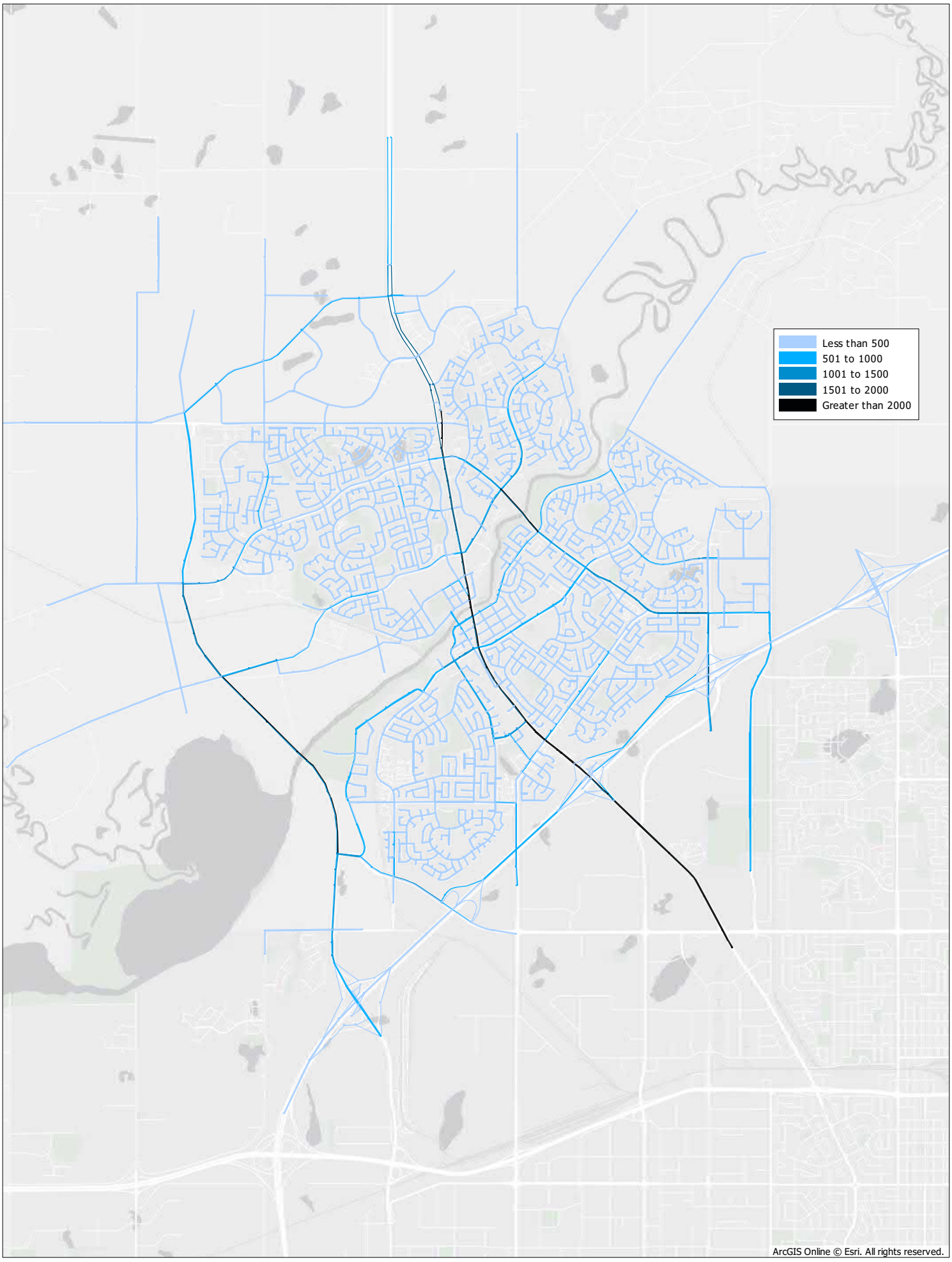


Transit segments in scenario 2411 with differences
Links with transit segment differences

Capital Plan with all Minor Improvements - Lanes in Each Direction of Travel



Capital Plan with all Minor Improvements - Volumes



Emme Scenario 2411 - Capital Plan with All Minor Improvements Included

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6033-6035-6033	6035	6033	6033	U Turn		0	0	0	-1
6033-6035-6036	6035	6033	6036	WBR		-1	27	0	0
6033-6035-7135	6035	6033	7135	WBT		-1	56	0	0
6033-6035-7144	6035	6033	7144	WBL		-1	108	0	0
6036-6035-6033	6035	6036	6033	SBL		-1	0	0	0
6036-6035-6036	6035	6036	6036	U Turn		0	0	0	-1
6036-6035-7135	6035	6036	7135	SBR		-1	1	0	0
6036-6035-7144	6035	6036	7144	SBT		-1	42	0	0
7135-6035-6033	6035	7135	6033	EBT		-1	26	0	0
7135-6035-6036	6035	7135	6036	EBL		-1	1	0	0
7135-6035-7135	6035	7135	7135	U Turn		0	0	0	-1
7135-6035-7144	6035	7135	7144	EBR		-1	15	0	0
7144-6035-6033	6035	7144	6033	NBR		-1	56	0	0
7144-6035-6036	6035	7144	6036	NBT		-1	37	0	0
7144-6035-7135	6035	7144	7135	NBL		-1	4	0	0
7144-6035-7144	6035	7144	7144	U Turn		0	0	0	-1
6033-6037-6033	6037	6033	6033	U Turn		0	0	0	-1
6033-6037-6038	6037	6033	6038	EBL		-1	0	0	0
6033-6037-7136	6037	6033	7136	EBT		-1	58	0	0
6033-6037-7141	6037	6033	7141	EBR		-1	0	0	0
6038-6037-6033	6037	6038	6033	SBR		-1	27	0	0
6038-6037-6038	6037	6038	6038	U Turn		0	0	0	-1
6038-6037-7136	6037	6038	7136	SBL		-1	176	0	0
6038-6037-7141	6037	6038	7141	SBT		-1	70	0	0
7136-6037-6033	6037	7136	6033	WBT		-1	274	0	0
7136-6037-6038	6037	7136	6038	WBR		-1	330	0	0
7136-6037-7136	6037	7136	7136	U Turn		0	0	0	-1
7136-6037-7141	6037	7136	7141	WBL		-1	197	0	0

Emme Scenario 2411 - Capital Plan with All Minor Improvements Included

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7141-6037-6033	6037	7141	6033	NBL		-1	0	0	0
7141-6037-6038	6037	7141	6038	NBT		-1	42	0	0
7141-6037-7136	6037	7141	7136	NBR		-1	28	0	0
7141-6037-7141	6037	7141	7141	U Turn		0	0	0	-1
6141-6142-6141	6142	6141	6141	U Turn		0	0	0	-1
6141-6142-6722	6142	6141	6722	NBR	Sir Winston Churchill is NB/SB	-1	460	0	0
6141-6142-7861	6142	6141	7861	NBT		-1	673	0	0
6141-6142-8201	6142	6141	8201	NBL		1	47	0	0
6722-6142-6141	6142	6722	6141	WBL		-1	355	0	0
6722-6142-6722	6142	6722	6722	U Turn		0	0	0	-1
6722-6142-7861	6142	6722	7861	WBR		-1	269	0	0
6722-6142-8201	6142	6722	8201	WBT		-1	76	0	0
7861-6142-6141	6142	7861	6141	SBT		-1	947	0	0
7861-6142-6722	6142	7861	6722	SBL		1	72	0	0
7861-6142-7861	6142	7861	7861	U Turn		0	0	0	-1
7861-6142-8201	6142	7861	8201	SBR		-1	0	0	0
8201-6142-6141	6142	8201	6141	EBR		-1	15	0	0
8201-6142-6722	6142	8201	6722	EBT		-1	632	0	0
8201-6142-7861	6142	8201	7861	EBL		-1	204	0	0
8201-6142-8201	6142	8201	8201	U Turn		0	0	0	-1
7475-6175-7475	6175	7475	7475	U Turn	East side of divided intersection, NB traffic only	0	0	0	-1
7475-6175-7502	6175	7475	7502	EBT		-1	178	0	0
7475-6175-8105	6175	7475	8105	EBL		-1	1	0	0
7502-6175-7475	6175	7502	7475	WBT		-1	42	0	0
7502-6175-7502	6175	7502	7502	U Turn		0	0	0	-1
7502-6175-8105	6175	7502	8105	WBR		-1	210	0	0

Emme Scenario 2411 - Capital Plan with All Minor Improvements Included

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7922-6175-7475	6175	7922	7475	NBL		-1	192	0	0
7922-6175-7502	6175	7922	7502	NBR		-1	54	0	0
7922-6175-8105	6175	7922	8105	NBT		-1	1841	0	0
7474-6176-7474	6176	7474	7474	U Turn		0	0	0	-1
7474-6176-7940	6176	7474	7940	SBR		-1	46	0	0
7474-6176-8172	6176	7474	8172	SBT		-1	1505	0	0
7474-6176-8223	6176	7474	8223	SBL		1	104	0	2
7940-6176-7474	6176	7940	7474	EBL		1	74	0	0
7940-6176-7940	6176	7940	7940	U Turn		0	0	0	-1
7940-6176-8172	6176	7940	8172	EBR		-1	10	0	0
7940-6176-8223	6176	7940	8223	EBT		-1	329	0	0
8172-6176-7474	6176	8172	7474	NBT		-1	1419	0	0
8172-6176-7940	6176	8172	7940	NBL		1	89	0	1
8172-6176-8172	6176	8172	8172	U Turn		0	0	0	-1
8172-6176-8223	6176	8172	8223	NBR		-1	65	0	0
8223-6176-7474	6176	8223	7474	WBR		-1	601	0	0
8223-6176-7940	6176	8223	7940	WBT		-1	430	0	0
8223-6176-8172	6176	8223	8172	WBL		1	76	0	1
8223-6176-8223	6176	8223	8223	U Turn		0	0	0	-1
7938-6348-7938	6348	7938	7938	U Turn		0	0	0	-1
7938-6348-7939	6348	7938	7939	SBL	Perron St is NB/SB	-1	5	0	0
7938-6348-8195	6348	7938	8195	SBR		-1	285	0	0
7938-6348-8197	6348	7938	8197	SBT		-1	211	0	0
7939-6348-7938	6348	7939	7938	WBR		-1	64	0	0
7939-6348-7939	6348	7939	7939	U Turn		0	0	0	-1
7939-6348-8195	6348	7939	8195	WBT		-1	652	0	0
7939-6348-8197	6348	7939	8197	WBL		1	63	0	0
8195-6348-7938	6348	8195	7938	EBL		1	96	0	1

Emme Scenario 2411 - Capital Plan with All Minor Improvements Included

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8195-6348-7939	6348	8195	7939	EBT		-1	750	0	0
8195-6348-8195	6348	8195	8195	U Turn		0	0	0	-1
8195-6348-8197	6348	8195	8197	EBR		-1	0	0	0
8197-6348-7938	6348	8197	7938	NBT		-1	483	0	0
8197-6348-7939	6348	8197	7939	NBR		-1	26	0	0
8197-6348-8195	6348	8197	8195	NBL		-1	0	0	0
8197-6348-8197	6348	8197	8197	U Turn		0	0	0	-1
6594-6349-6594	6349	6594	6594	U Turn		0	0	0	-1
6594-6349-7936	6349	6594	7936	WBR	St Albert Trail is NB/SB	-1	170	0	0
6594-6349-7939	6349	6594	7939	WBT		-1	171	0	0
6594-6349-10802	6349	6594	10802	WBL		1	74	0	0
7936-6349-6594	6349	7936	6594	SBL		1	99	0	1
7936-6349-7936	6349	7936	7936	U Turn		0	0	0	-1
7936-6349-7939	6349	7936	7939	SBR		-1	878	0	0
7936-6349-10802	6349	7936	10802	SBT		-1	1381	0	0
7939-6349-6594	6349	7939	6594	EBT		-1	652	0	0
7939-6349-7936	6349	7939	7936	EBL		1	115	0	2
7939-6349-7939	6349	7939	7939	U Turn		0	0	0	-1
7939-6349-10802	6349	7939	10802	EBR		-1	131	0	0
10802-6349-6594	6349	10802	6594	NBR		-1	154	0	0
10802-6349-7936	6349	10802	7936	NBT		-1	2548	0	0
10802-6349-7939	6349	10802	7939	NBL		1	90	0	1
10802-6349-10802	6349	10802	10802	U Turn		0	0	0	-1
6279-6386-6279	6386	6279	6279	U Turn		0	0	0	-1
6279-6386-6485	6386	6279	6485	WBL		-1	0	0	0
6279-6386-6769	6386	6279	6769	WBR		-1	276	0	0
6279-6386-7923	6386	6279	7923	WBT		-1	1006	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6485-6386-6279	6386	6485	6279	NBR		-1	3	0	0
6485-6386-6485	6386	6485	6485	U Turn		0	0	0	-1
6485-6386-6769	6386	6485	6769	NBT		-1	47	0	0
6485-6386-7923	6386	6485	7923	NBL		-1	17	0	0
6769-6386-6279	6386	6769	6279	SBL		1	94	0	1
6769-6386-6485	6386	6769	6485	SBT		-1	15	0	0
6769-6386-6769	6386	6769	6769	U Turn		0	0	0	-1
6769-6386-7923	6386	6769	7923	SBR		-1	81	0	0
7923-6386-6279	6386	7923	6279	EBT		-1	530	0	0
7923-6386-6485	6386	7923	6485	EBR		-1	3	0	0
7923-6386-6769	6386	7923	6769	EBL		1	75	0	1
7923-6386-7923	6386	7923	7923	U Turn		0	0	0	-1
6193-6458-6193	6458	6193	6193	U Turn		0	0	0	-1
6193-6458-7479	6458	6193	7479	WBT	East side of divided intersection, NB traffic only	-1	18	0	0
6193-6458-8232	6458	6193	8232	WBR		-1	18	0	0
7479-6458-6193	6458	7479	6193	EBT		-1	42	0	0
7479-6458-7479	6458	7479	7479	U Turn		0	0	0	-1
7479-6458-8232	6458	7479	8232	EBL		-1	39	0	0
8103-6458-6193	6458	8103	6193	NBR		-1	66	0	0
8103-6458-7479	6458	8103	7479	NBL		-1	0	0	0
8103-6458-8232	6458	8103	8232	NBT		-1	1886	0	0
6356-6595-6356	6595	6356	6356	U Turn		0	0	0	-1
6356-6595-7554	6595	6356	7554	WBL		-1	277	0	0
6356-6595-8121	6595	6356	8121	WBR		-1	2	0	0
6356-6595-8220	6595	6356	8220	WBT		-1	663	0	0
7554-6595-6356	6595	7554	6356	NBR		-1	267	0	0
7554-6595-7554	6595	7554	7554	U Turn		0	0	0	-1

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7554-6595-8121	6595	7554	8121	NBT		-1	135	0	0
7554-6595-8220	6595	7554	8220	NBL		-1	983	0	0
8121-6595-6356	6595	8121	6356	SBL		-1	0	0	0
8121-6595-7554	6595	8121	7554	SBT		-1	121	0	0
8121-6595-8121	6595	8121	8121	U Turn		0	0	0	-1
8121-6595-8220	6595	8121	8220	SBR		-1	55	0	0
8220-6595-6356	6595	8220	6356	EBT		-1	719	0	0
8220-6595-7554	6595	8220	7554	EBR		-1	320	0	0
8220-6595-8121	6595	8220	8121	EBL		-1	56	0	0
8220-6595-8220	6595	8220	8220	U Turn		0	0	0	-1
7286-6596-7286	6596	7286	7286	U Turn		0	0	0	-1
7286-6596-7822	6596	7286	7822	WBT		-1	629	0	0
7286-6596-7977	6596	7286	7977	WBL		1	1	0	0
7286-6596-8117	6596	7286	8117	WBR		-1	0	0	0
7822-6596-7286	6596	7822	7286	EBT		-1	149	0	0
7822-6596-7822	6596	7822	7822	U Turn		0	0	0	-1
7822-6596-7977	6596	7822	7977	EBR		-1	74	0	0
7822-6596-8117	6596	7822	8117	EBL		1	0	0	0
7977-6596-7286	6596	7977	7286	NBL		-1	41	0	0
7977-6596-7822	6596	7977	7822	NBR		1	106	0	2
7977-6596-7977	6596	7977	7977	U Turn		0	0	0	-1
7977-6596-8117	6596	7977	8117	NBT		-1	3	0	0
8117-6596-7286	6596	8117	7286	SBL		1	0	0	0
8117-6596-7822	6596	8117	7822	SBR		-1	271	0	0
8117-6596-7977	6596	8117	7977	SBT		-1	0	0	0
8117-6596-8117	6596	8117	8117	U Turn		0	0	0	-1
6427-6624-6427	6624	6427	6427	U Turn		0	0	0	-1
6427-6624-7675	6624	6427	7675	NBL		-1	2	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6427-6624-7875	6624	6427	7875	NBT		-1	307	0	0
6427-6624-7876	6624	6427	7876	NBR		-1	1	0	0
7675-6624-6427	6624	7675	6427	EBR		-1	0	0	0
7675-6624-7675	6624	7675	7675	U Turn		0	0	0	-1
7675-6624-7875	6624	7675	7875	EBL		-1	96	0	0
7675-6624-7876	6624	7675	7876	EBT		-1	36	0	0
7875-6624-6427	6624	7875	6427	SBT		-1	86	0	0
7875-6624-7675	6624	7875	7675	SBR		-1	1	0	0
7875-6624-7875	6624	7875	7875	U Turn		0	0	0	-1
7875-6624-7876	6624	7875	7876	SBL		-1	4	0	0
7876-6624-6427	6624	7876	6427	WBL		-1	182	0	0
7876-6624-7675	6624	7876	7675	WBT		-1	44	0	0
7876-6624-7875	6624	7876	7875	WBR		-1	3	0	0
7876-6624-7876	6624	7876	7876	U Turn		0	0	0	-1
7193-6744-7193	6744	7193	7193	U Turn		0	0	0	-1
7193-6744-7678	6744	7193	7678	EBR	St Albert Trail is NB/SB	-1	44	0	0
7193-6744-8135	6744	7193	8135	EBT		-1	392	0	0
7193-6744-8150	6744	7193	8150	EBL		1	63	0	0
7678-6744-7193	6744	7678	7193	NBL		1	122	0	3
7678-6744-7678	6744	7678	7678	U Turn		0	0	0	-1
7678-6744-8135	6744	7678	8135	NBR		-1	554	0	0
7678-6744-8150	6744	7678	8150	NBT		-1	1982	0	0
8135-6744-7193	6744	8135	7193	WBT		-1	371	0	0
8135-6744-7678	6744	8135	7678	WBL		1	78	0	1
8135-6744-8135	6744	8135	8135	U Turn		0	0	0	-1
8135-6744-8150	6744	8135	8150	WBR		-1	235	0	0
8150-6744-7193	6744	8150	7193	SBR		-1	0	0	0
8150-6744-7678	6744	8150	7678	SBT		-1	2159	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8150-6744-8135	6744	8150	8135	SBL		1	72	0	0
8150-6744-8150	6744	8150	8150	U Turn		0	0	0	-1
6091-6871-6091	6871	6091	6091	U Turn		0	0	0	-1
6091-6871-6279	6871	6091	6279	EBL	Boudreau Rd is NB/SB	-1	71	0	0
6091-6871-6697	6871	6091	6697	EBT		-1	741	0	0
6091-6871-7129	6871	6091	7129	EBR		-1	425	0	0
6279-6871-6091	6871	6279	6091	SBR		-1	28	0	0
6279-6871-6279	6871	6279	6279	U Turn		0	0	0	-1
6279-6871-6697	6871	6279	6697	SBL		-1	50	0	0
6279-6871-7129	6871	6279	7129	SBT		-1	655	0	0
6697-6871-6091	6871	6697	6091	WBT		-1	198	0	0
6697-6871-6279	6871	6697	6279	WBR		-1	19	0	0
6697-6871-6697	6871	6697	6697	U Turn		0	0	0	-1
6697-6871-7129	6871	6697	7129	WBL		-1	497	0	0
7129-6871-6091	6871	7129	6091	NBL		-1	555	0	0
7129-6871-6279	6871	7129	6279	NBT		-1	1339	0	0
7129-6871-6697	6871	7129	6697	NBR		-1	425	0	0
7129-6871-7129	6871	7129	7129	U Turn		0	0	0	-1
6021-6894-6021	6894	6021	6021	U Turn		0	0	0	-1
6021-6894-6893	6894	6021	6893	SBT	Perron St is NB/SB	-1	10	0	0
6021-6894-8221	6894	6021	8221	SBL		-1	72	0	0
6021-6894-9910	6894	6021	9910	SBR		-1	174	0	0
6893-6894-6021	6894	6893	6021	NBT		-1	91	0	0
6893-6894-6893	6894	6893	6893	U Turn		0	0	0	-1
6893-6894-8221	6894	6893	8221	NBR		-1	1	0	0
6893-6894-9910	6894	6893	9910	NBL		-1	95	0	0
8221-6894-6021	6894	8221	6021	WBR		-1	170	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8221-6894-6893	6894	8221	6893	WBL		-1	0	0	0
8221-6894-8221	6894	8221	8221	U Turn		0	0	0	-1
8221-6894-9910	6894	8221	9910	WBT		-1	751	0	0
9910-6894-6021	6894	9910	6021	EBL		-1	215	0	0
9910-6894-6893	6894	9910	6893	EBR		-1	323	0	0
9910-6894-8221	6894	9910	8221	EBT		-1	568	0	0
9910-6894-9910	6894	9910	9910	U Turn		0	0	0	-1
7756-6921-7756	6921	7756	7756	U Turn		0	0	0	-1
7756-6921-7766	6921	7756	7766	NBR		-1	712	0	0
7756-6921-7964	6921	7756	7964	NBT		-1	1551	0	0
7756-6921-7967	6921	7756	7967	NBL		1	98	0	1
7766-6921-7756	6921	7766	7756	WBL		1	88	0	1
7766-6921-7766	6921	7766	7766	U Turn		0	0	0	-1
7766-6921-7964	6921	7766	7964	WBR		-1	38	0	0
7766-6921-7967	6921	7766	7967	WBT		-1	410	0	0
7964-6921-7756	6921	7964	7756	SBT		-1	1438	0	0
7964-6921-7766	6921	7964	7766	SBL		1	8	0	0
7964-6921-7964	6921	7964	7964	U Turn		0	0	0	-1
7964-6921-7967	6921	7964	7967	SBR		-1	16	0	0
7967-6921-7756	6921	7967	7756	EBR		-1	200	0	0
7967-6921-7766	6921	7967	7766	EBT		-1	330	0	0
7967-6921-7964	6921	7967	7964	EBL		1	57	0	0
7967-6921-7967	6921	7967	7967	U Turn		0	0	0	-1
7151-6922-7151	6922	7151	7151	U Turn		0	0	0	-1
7151-6922-7756	6922	7151	7756	NBT		-1	2419	0	0
7151-6922-7759	6922	7151	7759	NBL		1	108	0	2
7151-6922-10408	6922	7151	10408	NBR		-1	0	0	0
7756-6922-7151	6922	7756	7151	SBT		-1	1690	0	0

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Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7756-6922-7756	6922	7756	7756	U Turn		0	0	0	-1
7756-6922-7759	6922	7756	7759	SBR		-1	51	0	0
7756-6922-10408	6922	7756	10408	SBL		1	0	0	0
7759-6922-7151	6922	7759	7151	EBR		-1	0	0	0
7759-6922-7756	6922	7759	7756	EBL		-1	8	0	0
7759-6922-7759	6922	7759	7759	U Turn		0	0	0	-1
7759-6922-10408	6922	7759	10408	EBT		-1	0	0	0
10408-6922-7151	6922	10408	7151	WBL		-1	154	0	0
10408-6922-7756	6922	10408	7756	EBR		-1	0	0	0
10408-6922-7759	6922	10408	7759	EBT		-1	113	0	0
10408-6922-10408	6922	10408	10408	U Turn		0	0	0	-1
6926-6927-6926	6927	6926	6926	U Turn		0	0	0	-1
6926-6927-6952	6927	6926	6952	NBT	Boudreau Rd is NB/SB	-1	817	0	0
6926-6927-7073	6927	6926	7073	NBL		-1	532	0	0
6926-6927-8066	6927	6926	8066	NBR		-1	1	0	0
6952-6927-6926	6927	6952	6926	SBT		-1	690	0	0
6952-6927-6952	6927	6952	6952	U Turn		0	0	0	-1
6952-6927-7073	6927	6952	7073	SBR		-1	21	0	0
6952-6927-8066	6927	6952	8066	SBL		-1	226	0	0
7073-6927-6926	6927	7073	6926	EBR		-1	506	0	0
7073-6927-6952	6927	7073	6952	EBL		-1	22	0	0
7073-6927-7073	6927	7073	7073	U Turn		0	0	0	-1
7073-6927-8066	6927	7073	8066	EBT		-1	130	0	0
8066-6927-6926	6927	8066	6926	WBL		-1	25	0	0
8066-6927-6952	6927	8066	6952	WBR		-1	252	0	0
8066-6927-7073	6927	8066	7073	WBT		-1	230	0	0
8066-6927-8066	6927	8066	8066	U Turn		0	0	0	-1
6467-7121-6467	7121	6467	6467	U Turn		0	0	0	-1

Emme Scenario 2411 - Capital Plan with All Minor Improvements Included

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
6467-7121-6946	7121	6467	6946	SBR		-1	190	0	0
6467-7121-7119	7121	6467	7119	SBL		-1	27	0	0
6946-7121-6467	7121	6946	6467	EBL		-1	483	0	0
6946-7121-6946	7121	6946	6946	U Turn		0	0	0	-1
6946-7121-7119	7121	6946	7119	EBT		-1	176	0	0
7119-7121-6467	7121	7119	6467	WBR		-1	103	0	0
7119-7121-6946	7121	7119	6946	WBT		-1	136	0	0
7119-7121-7119	7121	7119	7119	U Turn		0	0	0	-1
6394-7129-6394	7129	6394	6394	U Turn		0	0	0	-1
6394-7129-6549	7129	6394	6549	EBR	Boudreau Rd is NB/SB	-1	15	0	0
6394-7129-6785	7129	6394	6785	EBT		-1	25	0	0
6394-7129-6871	7129	6394	6871	EBL		-1	522	0	0
6549-7129-6394	7129	6549	6394	NBL		-1	21	0	0
6549-7129-6549	7129	6549	6549	U Turn		0	0	0	-1
6549-7129-6785	7129	6549	6785	NBR		-1	0	0	0
6549-7129-6871	7129	6549	6871	NBT		-1	1205	0	0
6785-7129-6394	7129	6785	6394	WBT		-1	13	0	0
6785-7129-6549	7129	6785	6549	WBL		-1	0	0	0
6785-7129-6785	7129	6785	6785	U Turn		0	0	0	-1
6785-7129-6871	7129	6785	6871	WBR		-1	592	0	0
6871-7129-6394	7129	6871	6394	SBR		-1	221	0	0
6871-7129-6549	7129	6871	6549	SBT		-1	953	0	0
6871-7129-6785	7129	6871	6785	SBL		-1	403	0	0
6871-7129-6871	7129	6871	6871	U Turn		0	0	0	-1
6035-7135-6035	7135	6035	6035	U Turn		0	0	0	-1
6035-7135-7132	7135	6035	7132	WBR		-1	1	0	0
6035-7135-7318	7135	6035	7318	WBL		-1	0	0	0
6035-7135-7892	7135	6035	7892	WBT		-1	61	0	0

Emme Scenario 2411 - Capital Plan with All Minor Improvements Included

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7132-7135-6035	7135	7132	6035	SBL		-1	0	0	0
7132-7135-7132	7135	7132	7132	U Turn		0	0	0	-1
7132-7135-7318	7135	7132	7318	SBT		-1	169	0	0
7132-7135-7892	7135	7132	7892	SBR		-1	146	0	0
7318-7135-6035	7135	7318	6035	NBR		-1	16	0	0
7318-7135-7132	7135	7318	7132	NBT		-1	297	0	0
7318-7135-7318	7135	7318	7318	U Turn		0	0	0	-1
7318-7135-7892	7135	7318	7892	NBL		-1	44	0	0
7892-7135-6035	7135	7892	6035	EBT		-1	26	0	0
7892-7135-7132	7135	7892	7132	EBL		-1	7	0	0
7892-7135-7318	7135	7892	7318	EBR		-1	14	0	0
7892-7135-7892	7135	7892	7892	U Turn		0	0	0	-1
6037-7136-6037	7136	6037	6037	U Turn		0	0	0	-1
6037-7136-7493	7136	6037	7493	EBR		-1	182	0	0
6037-7136-8149	7136	6037	8149	EBL		-1	79	0	0
7493-7136-6037	7136	7493	6037	NBL		-1	590	0	0
7493-7136-7493	7136	7493	7493	U Turn		0	0	0	-1
7493-7136-8149	7136	7493	8149	NBT		-1	376	0	0
8149-7136-6037	7136	8149	6037	SBR		-1	211	0	0
8149-7136-7493	7136	8149	7493	SBT		-1	147	0	0
8149-7136-8149	7136	8149	8149	U Turn		0	0	0	-1
6916-7138-6916	7138	6916	6916	U Turn		0	0	0	-1
6916-7138-7140	7138	6916	7140	SBL		-1	19	0	0
6916-7138-7682	7138	6916	7682	SBT		-1	621	0	0
7140-7138-6916	7138	7140	6916	WBR		-1	63	0	0
7140-7138-7140	7138	7140	7140	U Turn		0	0	0	-1
7140-7138-7682	7138	7140	7682	WBL		-1	189	0	0
7682-7138-6916	7138	7682	6916	NBT		-1	452	0	0

Emme Scenario 2411 - Capital Plan with All Minor Improvements Included

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7682-7138-7140	7138	7682	7140	NBR		-1	28	0	0
7682-7138-7682	7138	7682	7682	U Turn		0	0	0	-1
7559-7397-7559	7397	7559	7559	U Turn		0	0	0	-1
7559-7397-7683	7397	7559	7683	NBR		-1	361	0	0
7559-7397-7835	7397	7559	7835	NBT		-1	1046	0	0
7683-7397-7559	7397	7683	7559	WBL		-1	306	0	0
7683-7397-7683	7397	7683	7683	U Turn		0	0	0	-1
7683-7397-7835	7397	7683	7835	WBR		-1	981	0	0
7835-7397-7559	7397	7835	7559	SBT		-1	443	0	0
7835-7397-7683	7397	7835	7683	SBL		-1	764	0	0
7835-7397-7835	7397	7835	7835	U Turn		0	0	0	-1
6175-7475-6175	7475	6175	6175	U Turn		0	0	0	-1
6175-7475-7474	7475	6175	7474	WBL	West side of divided intersection, SB traffic only	-1	16	0	0
6175-7475-8106	7475	6175	8106	WBT		-1	218	0	0
8104-7475-6175	7475	8104	6175	SBL		-1	139	0	0
8104-7475-7474	7475	8104	7474	SBT		-1	1596	0	0
8104-7475-8106	7475	8104	8106	SBR		-1	55	0	0
8106-7475-6175	7475	8106	6175	EBT		-1	40	0	0
8106-7475-7474	7475	8106	7474	EBR		-1	57	0	0
8106-7475-8106	7475	8106	8106	U Turn		0	0	0	-1
5008-7479-5008	7479	5008	5008	U Turn		0	0	0	-1
5008-7479-6458	7479	5008	6458	EBT	West side of divided intersection, SB traffic only	-1	57	0	0
5008-7479-7551	7479	5008	7551	EBR		-1	0	0	0
6458-7479-5008	7479	6458	5008	WBT		-1	0	0	0
6458-7479-6458	7479	6458	6458	U Turn		0	0	0	-1
6458-7479-7551	7479	6458	7551	WBL		-1	18	0	0

Emme Scenario 2411 - Capital Plan with All Minor Improvements Included

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
8231-7479-5008	7479	8231	5008	SBR		-1	25	0	0
8231-7479-6458	7479	8231	6458	SBL		-1	24	0	0
8231-7479-7551	7479	8231	7551	SBT		-1	1596	0	0
7499-7503-7499	7503	7499	7499	U Turn	Anthony Henday Drive is NB/SB	0	0	0	-1
7499-7503-7504	7503	7499	7504	WBT		-1	303	0	0
7499-7503-15048	7503	7499	15048	WBR		-1	66	0	0
7504-7503-7499	7503	7504	7499	EBT		-1	133	0	0
7504-7503-7504	7503	7504	7504	U Turn		0	0	0	-1
7504-7503-15048	7503	7504	15048	EBL		-1	245	0	0
7515-7503-7499	7503	7515	7499	SBL	NB OFF RAMP (ESSENTIALLY SB AT RAMP TERMINAL)	-1	0	0	0
7515-7503-7504	7503	7515	7504	SBR		-1	208	0	0
7515-7503-15048	7503	7515	15048	U Turn		-1	0	0	0
7503-7504-7503	7504	7503	7503	U Turn	Anthony Henday Drive is NB/SB	0	0	0	-1
7503-7504-7532	7504	7503	7532	WBT		-1	510	0	0
7503-7504-15056	7504	7503	15056	WBR		-1	0	0	0
7516-7504-7503	7504	7516	7503	EBT		-1	21	0	0
7516-7504-7532	7504	7516	7532	U Turn		-1	545	0	0
7516-7504-15056	7504	7516	15056	EBL		-1	0	0	0
7532-7504-7503	7504	7532	7503	SBL		-1	357	0	0
7532-7504-7532	7504	7532	7532	SBR		0	0	0	-1
7532-7504-15056	7504	7532	15056	U Turn		-1	0	0	0
7434-7514-7434	7514	7434	7434	U Turn		0	0	0	-1
7434-7514-7476	7514	7434	7476	WBL		-1	318	0	0
7434-7514-7500	7514	7434	7500	WBR		-1	195	0	0
7434-7514-7633	7514	7434	7633	WBT		-1	46	0	0
7476-7514-7434	7514	7476	7434	NBR		-1	664	0	0
7476-7514-7476	7514	7476	7476	U Turn		0	0	0	-1

Emme Scenario 2411 - Capital Plan with All Minor Improvements Included

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7476-7514-7500	7514	7476	7500	NBT		-1	1378	0	0
7476-7514-7633	7514	7476	7633	NBL		-1	39	0	0
7500-7514-7434	7514	7500	7434	SBL		-1	286	0	0
7500-7514-7476	7514	7500	7476	SBT		-1	775	0	0
7500-7514-7500	7514	7500	7500	U Turn		0	0	0	-1
7500-7514-7633	7514	7500	7633	SBR		-1	15	0	0
7633-7514-7434	7514	7633	7434	EBT		-1	57	0	0
7633-7514-7476	7514	7633	7476	EBR		-1	20	0	0
7633-7514-7500	7514	7633	7500	EBL		-1	22	0	0
7633-7514-7633	7514	7633	7633	U Turn		0	0	0	-1
7219-7532-7219	7532	7219	7219	U Turn		0	0	0	-1
7219-7532-7504	7532	7219	7504	SBL		-1	30	0	0
7219-7532-7583	7532	7219	7583	SBR		-1	223	0	0
7219-7532-7586	7532	7219	7586	SBT		-1	14	0	0
7504-7532-7219	7532	7504	7219	WBR		-1	512	0	0
7504-7532-7504	7532	7504	7504	U Turn		0	0	0	-1
7504-7532-7583	7532	7504	7583	WBT		-1	541	0	0
7504-7532-7586	7532	7504	7586	WBL		-1	2	0	0
7583-7532-7219	7532	7583	7219	EBL		1	53	0	0
7583-7532-7504	7532	7583	7504	EBT		-1	296	0	0
7583-7532-7583	7532	7583	7583	U Turn		0	0	0	-1
7583-7532-7586	7532	7583	7586	EBR		-1	0	0	0
7586-7532-7219	7532	7586	7219	NBT		-1	84	0	0
7586-7532-7504	7532	7586	7504	NBR		-1	31	0	0
7586-7532-7583	7532	7586	7583	NBL		-1	0	0	0
7586-7532-7586	7532	7586	7586	U Turn		0	0	0	-1
7592-7590-7592	7590	7592	7592	U Turn	West side of divided intersection, SB traffic only	0	0	0	-1

Emme Scenario 2411 - Capital Plan with All Minor Improvements Included

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7592-7590-7747	7590	7592	7747	EBT		-1	667	0	0
7592-7590-8231	7590	7592	8231	EBR		-1	1	0	0
7747-7590-7592	7590	7747	7592	WBT		-1	160	0	0
7747-7590-7747	7590	7747	7747	U Turn		0	0	0	-1
7747-7590-8231	7590	7747	8231	WBL		-1	618	0	0
8099-7590-7592	7590	8099	7592	SBR		-1	279	0	0
8099-7590-7747	7590	8099	7747	SBL		-1	23	0	0
8099-7590-8231	7590	8099	8231	SBT		-1	895	0	0
5010-7675-5010	7675	5010	5010	U Turn	Villeneuve Rd is NB/SB	0	0	0	-1
5010-7675-6624	7675	5010	6624	SBT		-1	0	0	0
5010-7675-7873	7675	5010	7873	SBL		-1	0	0	0
5010-7675-8228	7675	5010	8228	SBR		-1	0	0	0
6624-7675-5010	7675	6624	5010	NBT		-1	0	0	0
6624-7675-6624	7675	6624	6624	U Turn		0	0	0	-1
6624-7675-7873	7675	6624	7873	NBR		-1	0	0	0
6624-7675-8228	7675	6624	8228	NBL		-1	47	0	0
7873-7675-5010	7675	7873	5010	WBR		-1	0	0	0
7873-7675-6624	7675	7873	6624	WBL		-1	0	0	0
7873-7675-7873	7675	7873	7873	U Turn		0	0	0	-1
7873-7675-8228	7675	7873	8228	WBT		-1	429	0	0
8228-7675-5010	7675	8228	5010	EBL		-1	0	0	0
8228-7675-6624	7675	8228	6624	EBR		-1	132	0	0
8228-7675-7873	7675	8228	7873	EBT		-1	523	0	0
8228-7675-8228	7675	8228	8228	U Turn		0	0	0	-1
7397-7683-7397	7683	7397	7397	U Turn		0	0	0	-1
7397-7683-7682	7683	7397	7682	EBL		-1	800	0	0
7397-7683-10501	7683	7397	10501	EBT		-1	325	0	0
7682-7683-7397	7683	7682	7397	SBR		-1	535	0	0

Emme Scenario 2411 - Capital Plan with All Minor Improvements Included

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7682-7683-7682	7683	7682	7682	U Turn		0	0	0	-1
7682-7683-10501	7683	7682	10501	SBL		-1	23	0	0
10501-7683-7397	7683	10501	7397	WBT		-1	753	0	0
10501-7683-7682	7683	10501	7682	WBR		-1	12	0	0
10501-7683-10501	7683	10501	10501	U Turn		0	0	0	-1
7590-7747-7590	7747	7590	7590	U Turn	East side of divided intersection, NB traffic only	0	0	0	-1
7590-7747-8102	7747	7590	8102	EBL		-1	415	0	0
7590-7747-8238	7747	7590	8238	EBT		-1	275	0	0
8238-7747-7590	7747	8238	7590	WBT		-1	620	0	0
8238-7747-8102	7747	8238	8102	WBR		-1	3	0	0
8238-7747-8238	7747	8238	8238	U Turn		0	0	0	-1
8239-7747-7590	7747	8239	7590	NBL		-1	158	0	0
8239-7747-8102	7747	8239	8102	NBT		-1	1126	0	0
8239-7747-8238	7747	8239	8238	NBR		-1	0	0	0
6653-8217-6653	8217	6653	6653	U Turn		0	0	0	-1
6653-8217-6819	8217	6653	6819	NBR		-1	165	0	0
6653-8217-7301	8217	6653	7301	NBL		-1	239	0	0
6819-8217-6653	8217	6819	6653	WBL		-1	66	0	0
6819-8217-6819	8217	6819	6819	U Turn		0	0	0	-1
6819-8217-7301	8217	6819	7301	WBT		-1	1173	0	0
7301-8217-6653	8217	7301	6653	EBR		-1	23	0	0
7301-8217-6819	8217	7301	6819	EBT		-1	1042	0	0
7301-8217-7301	8217	7301	7301	U Turn		0	0	0	-1
7067-8227-7067	8227	7067	7067	U Turn		0	0	0	-1
7067-8227-7302	8227	7067	7302	EBR		-1	173	0	0
7067-8227-7448	8227	7067	7448	EBL		-1	57	0	0
7067-8227-8092	8227	7067	8092	EBT		-1	167	0	0

Emme Scenario 2411 - Capital Plan with All Minor Improvements Included

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7302-8227-7067	8227	7302	7067	NBL		-1	39	0	0
7302-8227-7302	8227	7302	7302	U Turn		0	0	0	-1
7302-8227-7448	8227	7302	7448	NBT		-1	575	0	0
7302-8227-8092	8227	7302	8092	NBR		-1	981	0	0
7448-8227-7067	8227	7448	7067	SBR		-1	6	0	0
7448-8227-7302	8227	7448	7302	SBT		-1	624	0	0
7448-8227-7448	8227	7448	7448	U Turn		0	0	0	-1
7448-8227-8092	8227	7448	8092	SBL		-1	22	0	0
8092-8227-7067	8227	8092	7067	WBT		-1	23	0	0
8092-8227-7302	8227	8092	7302	WBL		-1	280	0	0
8092-8227-7448	8227	8092	7448	WBR		-1	7	0	0
8092-8227-8092	8227	8092	8092	U Turn		0	0	0	-1
7510-8228-7510	8228	7510	7510	U Turn		0	0	0	-1
7510-8228-7675	8228	7510	7675	NBR		-1	444	0	0
7510-8228-8096	8228	7510	8096	NBL		-1	187	0	0
7510-8228-8229	8228	7510	8229	NBT		-1	0	0	0
7675-8228-7510	8228	7675	7510	WBL		-1	381	0	0
7675-8228-7675	8228	7675	7675	U Turn		0	0	0	-1
7675-8228-8096	8228	7675	8096	WBT		-1	96	0	0
7675-8228-8229	8228	7675	8229	WBR		-1	0	0	0
8096-8228-7510	8228	8096	7510	EBR		-1	264	0	0
8096-8228-7675	8228	8096	7675	EBT		-1	211	0	0
8096-8228-8096	8228	8096	8096	U Turn		0	0	0	-1
8096-8228-8229	8228	8096	8229	EBL		-1	0	0	0
8229-8228-7510	8228	8229	7510	SBT		-1	0	0	0
8229-8228-7675	8228	8229	7675	SBL		-1	0	0	0
8229-8228-8096	8228	8229	8096	SBR		-1	0	0	0
8229-8228-8229	8228	8229	8229	U Turn		0	0	0	-1

Emme Scenario 2411 - Capital Plan with All Minor Improvements Included

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
7536-8231-7479	8231	7536	7479	EBR	West side of divided intersection, SB traffic only	-1	134	0	0
7536-8231-7536	8231	7536	7536	U Turn		0	0	0	-1
7536-8231-8232	8231	7536	8232	EBT	St Albert Trail is NB/SB	-1	217	0	0
7590-8231-7479	8231	7590	7479	SBT		-1	1448	0	0
7590-8231-7536	8231	7590	7536	SBR		-1	20	0	0
7590-8231-8232	8231	7590	8232	SBL		-1	44	0	0
8232-8231-7479	8231	8232	7479	WBL		-1	63	0	0
8232-8231-7536	8231	8232	7536	WBT		-1	194	0	0
8232-8231-8232	8231	8232	8232	U Turn		0	0	0	-1
6458-8232-8231	8232	6458	8231	NBL	East side of divided intersection, NB traffic only	-1	129	0	0
6458-8232-8234	8232	6458	8234	NBR	St Albert Trail is NB/SB	-1	0	0	0
6458-8232-8239	8232	6458	8239	NBT		-1	1813	0	0
8231-8232-8231	8232	8231	8231	U Turn		0	0	0	-1
8231-8232-8234	8232	8231	8234	EBT		-1	238	0	0
8231-8232-8239	8232	8231	8239	EBL		-1	24	0	0
8234-8232-8231	8232	8234	8231	WBT		-1	128	0	0
8234-8232-8234	8232	8234	8234	U Turn		0	0	0	-1
8234-8232-8239	8232	8234	8239	WBR		-1	0	0	0
7503-15048-7516	15048	7503	7516	U Turn	Anthony Henday Drive is NB/SB	0	0	0	-1
7503-15048-15055	15048	7503	15055	NB MERGE		-1	311	0	0
7503-15048-15056	15048	7503	15056	U Turn		0	0	0	-1
15055-15048-7516	15048	15055	7516	SB DIVERGE		-1	566	0	0
15055-15048-15055	15048	15055	15055	U Turn		0	0	0	-1
15055-15048-15056	15048	15055	15056	SBT		-1	169	0	0
15056-15048-7516	15048	15056	7516	U Turn		0	0	0	-1

Emme Scenario 2411 - Capital Plan with All Minor Improvements Included

Intersection ID	JNODE	INODE	KNODE	Movement	Comments	Turn Penalty Factor	Auto Volume	Added Volume	Auto Time
15056-15048-15055	15048	15056	15055	NBT		-1	202	0	0
15056-15048-15056	15048	15056	15056	U Turn		0	0	0	-1
7504-15056-7515	15056	7504	7515	U Turn	Anthony Henday Drive is NB/SB	0	0	0	-1
7504-15056-15045	15056	7504	15045	SB MERGE		-1	0	0	0
7504-15056-15048	15056	7504	15048	U Turn		0	0	0	-1
15045-15056-7515	15056	15045	7515	NB DIVERGE		-1	208	0	0
15045-15056-15045	15056	15045	15045	U Turn		0	0	0	-1
15045-15056-15048	15056	15045	15048	NBT		-1	202	0	0
15048-15056-7515	15056	15048	7515	U Turn		0	0	0	-1
15048-15056-15045	15056	15048	15045	SBT		-1	169	0	0
15048-15056-15048	15056	15048	15048	U Turn		0	0	0	-1

Appendix C - Synchro Results

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
1	6386	Boudreau Rd & Erin Ridge Drive	Signalized	1400	PM	Volumes (vph)	52	796	7	0	932	87	16	16	4	84	17	51
						V/C Ratio By Movement	0.22	0.38		0.48			0.05	0.05		0.27	0.16	
						Approach LOS	A			B			C			C		
						Queue Length (in metres)	12.3	59		80.1			9.6	10.1		33.7	15.8	
				2400	PM	Volumes (vph)	85	920	3	0	1041	376	58	143	3	97	15	107
						V/C Ratio By Movement	0.7	0.43		0.68			0.22	0.35		0.39	0.27	
						Approach LOS	B			B			D			C		
						Queue Length (in metres)	#48.4	70.5		131.7			25.6	52.5		39.7	20	
				2401	PM	Volumes (vph)	75	566	3	0	1039	257	17	47	3	86	15	91
						V/C Ratio By Movement	0.36	0.26		0.68			0.06	0.13		0.3	0.26	
						Approach LOS	A			B			D			C		
						Queue Length (in metres)	11.4	37.4		151.7			10	21.6		35.3	18.7	
				2402	PM	Volumes (vph)	88	926	3	0	1051	379	66	141	3	81	15	107
						V/C Ratio By Movement	0.69	0.42		0.67			0.27	0.37		0.36	0.29	
						Approach LOS	B			B			D			C		
						Queue Length (in metres)	#49.4	66.3		123.7			29	53.5		35.2	19.7	
				2403	PM	Volumes (vph)	88	927	3	0	1040	385	57	140	3	88	15	105
						V/C Ratio By Movement	0.73	0.43		0.68			0.21	0.34		0.36	0.27	
						Approach LOS	B			B			D			C		
						Queue Length (in metres)	#51.8	71.3		132.4			25.1	51.5		36.7	19.4	
				2404	PM	Volumes (vph)	85	908	3	0	1168	272	15	57	3	88	15	94
						V/C Ratio By Movement	0.67	0.41		0.67			0.06	0.16		0.32	0.27	
						Approach LOS	B			B			D			C		
						Queue Length (in metres)	#47.0	64.6		128.3			9.5	25.2		36.6	21.3	
				2405	PM	Volumes (vph)	74	915	3	0	1246	281	16	50	3	94	15	90
						V/C Ratio By Movement	0.47	0.42		0.8			0.06	0.13		0.33	0.26	
						Approach LOS	B			C			D			C		
						Queue Length (in metres)	17.1	66.1		199.3			9.8	22.7		38.4	18.5	
				2406	PM	Volumes (vph)	91	932	3	0	1050	310	13	104	3	86	15	90
						V/C Ratio By Movement	0.62	0.42		0.63			0.05	0.28		0.34	0.26	
						Approach LOS	B			B			D			C		
						Queue Length (in metres)	#46.6	67		114.4			8.6	41.1		36.1	18.6	

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2	6595	Boudreau Rd & Campbell Rd	Signalized	1400	PM	Volumes (vph)	97	470	373	201	614	1	864	587	315	0	297	80
						V/C Ratio By Movement	0.31	0.53	0.26	0.53	0.7	0	1.92	0.43	0.39		0.35	0.17
						Approach LOS		B			C			F			C	
						Queue Length (in metres)	19.4	54.8	0	37.2	73.1	0	#322.5	53.4	15.2		35.6	3.5
				2400	PM	Volumes (vph)	0	157	69	0	633	0	291	201	102	0	0	309
						V/C Ratio By Movement		0.1			0.42		0.72	0.21			0.24	
						Approach LOS		B			C			C			B	
						Queue Length (in metres)	17.7		8		68.5		95	24.7			21.6	
				2401	PM	Volumes (vph)	51	723	363	237	586	4	1152	125	269	0	114	34
						V/C Ratio By Movement	0.26	1.01	0.25	1.25	0.68	0.01	1.42	0.07	0.29	0.29		0.12
						Approach LOS		D			F			F			D	
						Queue Length (in metres)	19.3	#153.7	0	#121.7	100.3	0	#448.8	11.8	11.5	23.5		0
				2402	PM	Volumes (vph)	56	615	336	72	894	1	1058	594	253	0	232	48
						V/C Ratio By Movement	0.49	0.74	0.23	0.48	1.03	0	1.27	0.31	0.27	0.66		0.21
						Approach LOS		D			F			F			E	
						Queue Length (in metres)	25.3	126.8	0	30.6	#227.0	0	#505.4	60.6	26.4	54.9		5.3
				2403	PM	Volumes (vph)	55	620	345	47	893	1	1056	584	253	0	215	43
						V/C Ratio By Movement	0.47	0.72	0.24	0.31	1.03	0	1.25	0.3	0.27	0.62		0.2
						Approach LOS		D			F			F			E	
						Queue Length (in metres)	24.5	127.1	0	21.7	#222.6	0	#501.8	60.5	27.3	51.2		3.3
				2404	PM	Volumes (vph)	56	621	350	47	883	2	1105	573	263	0	215	40
						V/C Ratio By Movement	0.48	0.76	0.24	0.33	1.08	0	1.27	0.29	0.28	0.62		0.18
						Approach LOS		D			F			F			E	
						Queue Length (in metres)	25.5	129.7	0	22.1	#226.9	0	#528.8	57	27.9	51.2		1.7
				2405	PM	Volumes (vph)	55	621	355	47	882	3	1068	583	257	0	215	43
						V/C Ratio By Movement	0.37	0.71	0.24	0.26	1.01	0.01	1.38	0.32	0.28		0.53	0.15
						Approach LOS		C			E			F			D	
						Queue Length (in metres)	20.1	104.5	0	17.7	#182.3	0	#427.3	53.3	11.8		40.6	0
				2406	PM	Volumes (vph)	59	621	338	39	922	1	1032	582	257	0	214	45
						V/C Ratio By Movement	0.29	0.74	0.23	0.17	1.1	0	1.75	0.37	0.31	0.28		0.1
						Approach LOS		C			F			F			C	
						Queue Length (in metres)	14.6	75.5	0	10.6	#142.0	0	#364.5	46.8	14.3	27.3		0

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
3	6871	Boudreau Rd & Bellerose Rd	Signalized	1400	PM	Volumes (vph)	164	732	19	530	986	298	80	485	484	328	295	100
						V/C Ratio By Movement	1.35	0.79		2.11	0.68	0.37	0.35	1		1.34	0.3	
						Approach LOS	E			F			D			F		
						Queue Length (in metres)	#80.3	89.2		m#180.3	m32.3	m0.0	25.7	#122.4		#117.8	33.1	
				2400	PM	Volumes (vph)	213	830	28	440	1364	585	88	736	420	554	295	117
						V/C Ratio By Movement	2.67	0.9		1.78	0.94	0.72	0.4	1.28		2.25	0.32	
						Approach LOS	F			F			F			F		
						Queue Length (in metres)	#100.9	#116.5		m#85.9	m49.8	m11.8	28.3	#179.3		#219.7	36.9	
				2401	PM	Volumes (vph)	48	677	27	559	1363	612	75	669	427	510	192	15
						V/C Ratio By Movement	0.5	1.09		1.38	1.04	0.81	0.23	1.31		1.4	0.16	
						Approach LOS	F			F			F			F		
						Queue Length (in metres)	18.4	#194.1		#331.4	#333.2	181.1	25.4	#303.7		#308.5	34	
				2402	PM	Volumes (vph)	220	810	27	447	1372	569	89	735	418	570	291	117
						V/C Ratio By Movement	1.37	1.03		1.51	1.26	0.82	0.29	1.37		1.63	0.34	
						Approach LOS	F			F			F			F		
						Queue Length (in metres)	#114.1	#169.2		m#71.1	m101.7	m10.7	23.2	#252.5		#280.2	48.8	
				2403	PM	Volumes (vph)	217	822	28	438	1370	582	88	737	420	561	296	117
						V/C Ratio By Movement	1.35	1.05		1.48	1.26	0.83	0.29	1.37		1.61	0.34	
						Approach LOS	F			F			F			F		
						Queue Length (in metres)	#112.6	#173.1		m#144.8	m#234.7	m89.5	23	#253.7		#274.9	49.6	
				2404	PM	Volumes (vph)	201	860	27	442	1393	569	81	737	421	526	291	115
						V/C Ratio By Movement	1.25	1.09		1.49	1.28	0.82	0.26	1.33		1.56	0.33	
						Approach LOS	F			F			F			F		
						Queue Length (in metres)	#101.6	#185.2		m#144.2	m#237.7	m86.2	21.5	#250.2		#256.7	48.3	
				2405	PM	Volumes (vph)	198	867	27	569	1490	565	75	714	425	534	279	113
						V/C Ratio By Movement	1.41	1.19		1.52	1.22	0.82	0.26	1.38		1.55	0.31	
						Approach LOS	F			F			F			F		
						Queue Length (in metres)	#136.1	#250.8		#351.4	#393.3	176.4	26.1	#324.7		#335.4	59.9	
				2406	PM	Volumes (vph)	218	819	28	477	1308	519	83	751	429	558	294	117
						V/C Ratio By Movement	2.72	0.74		2.1	0.83	0.63	0.39	1.36		2.69	0.34	
						Approach LOS	F			F			F			F		
						Queue Length (in metres)	#102.7	93.8		m#115.4	m55.4	m17.9	27.2	#188.3		#229.3	38.6	

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
4	6927	Boudreau Rd & Sir Winston Churchill Ave	Signalized	1400	PM	Volumes (vph)	112	111	262	25	123	264	267	1014	50	177	540	218
						V/C Ratio By Movement	0.35	0.35		0.07	0.5		0.73	0.64		1.5	0.82	
						Approach LOS	B			C			C			F		
						Queue Length (in metres)	21.9	18.7		7	32.5		#93.6	110.7		#87.1	#88.0	
				2400	PM	Volumes (vph)	127	149	512	24	254	256	589	1135	50	229	607	216
						V/C Ratio By Movement	0.47	0.57		0.1	0.7		1.73	0.73		2.37	0.89	
						Approach LOS	B			C			F			F		
						Queue Length (in metres)	24.5	39.3		6.8	49.8		#239.4	130.3		#102.2	#108.5	
				2401	PM	Volumes (vph)	28	154	511	25	287	261	529	857	0	234	710	15
						V/C Ratio By Movement	0.14	0.6		0.16	0.63		0.92	0.6		0.7	0.93	
						Approach LOS	B			C			D			D		
						Queue Length (in metres)	12.2	39		11.5	72		#194.4	126.3		45.4	#140.6	
				2402	PM	Volumes (vph)	126	139	507	23	224	263	576	1134	50	229	601	215
						V/C Ratio By Movement	0.79	0.67		0.14	0.77		0.93	0.82		0.8	1.08	
						Approach LOS	C			D			D			F		
						Queue Length (in metres)	#44.3	37.4		11.1	55.7		#242.6	185.4		#109.3	#167.8	
				2403	PM	Volumes (vph)	125	150	511	24	246	273	573	1140	50	230	606	216
						V/C Ratio By Movement	0.76	0.67		0.15	0.8		0.91	0.78		0.77	1.02	
						Approach LOS	C			D			D			E		
						Queue Length (in metres)	#43.8	38.8		11.3	62.9		#221.1	186.4		#73.8	#162.1	
				2404	PM	Volumes (vph)	129	149	511	24	259	273	618	1125	50	230	611	214
						V/C Ratio By Movement	0.77	0.65		0.15	0.81		0.96	0.78		0.78	1.07	
						Approach LOS	C			D			D			F		
						Queue Length (in metres)	#46.3	38.5		11.3	66.8		#244.5	183.5		#73.7	#168.3	
				2405	PM	Volumes (vph)	133	151	507	24	250	272	575	1136	50	232	614	215
						V/C Ratio By Movement	0.8	0.66		0.15	0.81		0.92	0.79		0.78	1.03	
						Approach LOS	C			D			D			E		
						Queue Length (in metres)	#49.2	39.1		11.3	64.5		#222.1	185.9		#74.9	#163.8	
				2406	PM	Volumes (vph)	124	145	512	24	261	261	597	1122	50	227	602	217
						V/C Ratio By Movement	0.51	0.6		0.1	0.73		2.01	0.7		2.13	0.78	
						Approach LOS	B			C			F			F		
						Queue Length (in metres)	24.8	45.7		7.1	53.3		#250.2	123.2		#97.1	90	

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
5	7129	Boudreau Rd & Sturgeon Rd	Signalized	1400	PM	Volumes (vph)	179	1042	173	14	1500	0	104	25	4	0	13	210
						V/C Ratio By Movement	0.69	0.59		0.05	0.89		0.42	0.09		0.04		0.47
						Approach LOS	B			C			C			A		
						Queue Length (in metres)	m27.2	m#105.1		3.8	#250.8		26.1	8.9		5.5		14.5
				2400	PM	Volumes (vph)	253	1173	229	89	1556	0	418	35	11	0	26	415
						V/C Ratio By Movement	0.77	1.09		0.37	1.49		0.95	0.08		0.04		0.54
						Approach LOS	E			F			E			A		
						Queue Length (in metres)	m28.8	m#120.2		15.1	#270.8		#133.6	11.7		8.7		20.5
				2401	PM	Volumes (vph)	405	981	228	19	1263	0	620	36	11	0	10	651
						V/C Ratio By Movement	1.4	0.8		0.12	1.16		1.23	0.07		0.02		1.19
						Approach LOS	F			F			F			F		
						Queue Length (in metres)	#195.3	#202.6		6.6	#256.8		#280.3	14.3		6.9		#239.9
				2402	PM	Volumes (vph)	251	1316	231	67	2751	0	412	20	12	0	24	392
						V/C Ratio By Movement	1.54	0.87		0.66	1.69		1.2	0.07		0.05		0.82
						Approach LOS	E			F			F			D		
						Queue Length (in metres)	m#69.1	m69.0		#40.7	#610.8		#200.3	12.4		12.2		#124.5
				2403	PM	Volumes (vph)	253	1173	228	103	1563	0	425	35	13	0	24	402
						V/C Ratio By Movement	1.06	0.88		0.63	1.06		1.08	0.09		0.05		0.73
						Approach LOS	D			F			F			C		
						Queue Length (in metres)	m39.7	m161.2		#32.4	#288.7		#194.5	16.4		11.5		102.8
				2404	PM	Volumes (vph)	253	1178	227	78	1574	0	432	35	9	0	25	397
						V/C Ratio By Movement	1.07	0.85		0.5	1.08		1.09	0.08		0.05		0.71
						Approach LOS	D			F			F			C		
						Queue Length (in metres)	m40.7	m161.4		20.4	#293.8		#197.9	15.9		11.8		99.9
				2405	PM	Volumes (vph)	254	1183	239	20	1644	0	556	34	5	0	11	425
						V/C Ratio By Movement	1.28	0.92		0.13	1.2		1.21	0.06		0.03		0.97
						Approach LOS	E			F			F			E		
						Queue Length (in metres)	#128.1	#253.0		6.3	#327.4		#253.0	13.9		7.6		#151.7
				2406	PM	Volumes (vph)	255	1166	235	44	1597	0	326	36	14	0	19	380
						V/C Ratio By Movement	0.85	0.91		0.2	1.3		0.83	0.1		0.04		0.66
						Approach LOS	C			F			D			B		
						Queue Length (in metres)	m#36.0	m88.1		8.8	#246.0		#88.2	12.2		7.1		56.9

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
6	8217	Boudreau Rd & Hebert Rd	Signalized	1400	PM	Volumes (vph)		686	32	67	1061		378		279			
						V/C Ratio By Movement		0.41		0.16	0.5			0.82				
						Approach LOS		B			A			C				
						Queue Length (in metres)		61.1		9	70.3			60.7				
				2400	PM	Volumes (vph)		977	22	27	1451		374		181			
						V/C Ratio By Movement		0.51		0.08	0.68			0.77				
						Approach LOS		B			B			C				
						Queue Length (in metres)		90.6		4.5	116			57.8				
				2401	PM	Volumes (vph)		1086	23	25	1262		166		189			
						V/C Ratio By Movement		0.46		0.07	0.49			0.7				
						Approach LOS		A			A			C				
						Queue Length (in metres)		97.7		3.8	84.1			36.3				
				2402	PM	Volumes (vph)		967	21	28	1427		402		163			
						V/C Ratio By Movement		0.48		0.09	0.63			0.82				
						Approach LOS		B			B			D				
						Queue Length (in metres)		103.8		5.6	140.1			86.2				
				2403	PM	Volumes (vph)	973	22	23	1441		374		181				
						V/C Ratio By Movement	0.48		0.07	0.63		0.82						
						Approach LOS		B			B			D				
						Queue Length (in metres)	102.7		4.8	139		83.4						
				2404	PM	Volumes (vph)		980	22	26	1471		373		180			
						V/C Ratio By Movement		0.51		0.08	0.69			0.77				
						Approach LOS		B			B			C				
						Queue Length (in metres)		91		4.5	118.9			57.6				
				2405	PM	Volumes (vph)		978	24	27	1437		375		182			
						V/C Ratio By Movement		0.48		0.08	0.63			0.82				
						Approach LOS		B			B			D				
						Queue Length (in metres)		103.5		5.4	138.2			83.7				
				2406	PM	Volumes (vph)		967	23	30	1445		373		179			
						V/C Ratio By Movement		0.53		0.09	0.68			0.77				
						Approach LOS		B			B			C				
						Queue Length (in metres)		89.5		5	115.2			57.5				

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
7	7121	Giroux Rd & Hogan Rd	Signalized	1400	PM	Volumes (vph)	0	425			273	72				33		14
						V/C Ratio By Movement	0.25			0.21						0.06		0.03
						Approach LOS	B			A						B		
						Queue Length (in metres)	26.7			19.5						9.9		3.9
				2400	PM	Volumes (vph)	1	448			310	59				28		78
						V/C Ratio By Movement	0	0.26		0.23						0.05		0.15
						Approach LOS	B			B						A		
						Queue Length (in metres)	0.7	28.2		29.9						8.7		9.1
				2401	PM	Volumes (vph)	401	119			160	132				29		164
						V/C Ratio By Movement	0.61	0.06		0.27						0.06		0.31
						Approach LOS	B			B						A		
						Queue Length (in metres)	55.7	8.4		22.7						10.7		14.5
				2402	PM	Volumes (vph)	0	447			308	57				28		79
						V/C Ratio By Movement	0.27			0.22						0.05		0.14
						Approach LOS	B			A						A		
						Queue Length (in metres)	29.5			22.7						8.4		8.9
				2403	PM	Volumes (vph)	1	453			309	57				28		79
						V/C Ratio By Movement	0	0.27		0.24						0.05		0.14
						Approach LOS	B			B						A		
						Queue Length (in metres)	0.7	30		30.9						8.4		8.9
				2404	PM	Volumes (vph)	256	443			340	119				29		185
						V/C Ratio By Movement	0.5	0.25		0.39						0.06		0.32
						Approach LOS	B			B						A		
						Queue Length (in metres)	35.6	29.5		45.6						10.3		14.8
				2405	PM	Volumes (vph)	312	459			317	126				28		163
						V/C Ratio By Movement	0.56	0.24		0.37						0.06		0.3
						Approach LOS	B			B						A		
						Queue Length (in metres)	41.3	28.6		43.2						10.1		14.4
				2406	PM	Volumes (vph)	72	547			293	88				28		85
						V/C Ratio By Movement	0.15	0.33		0.31						0.05		0.15
						Approach LOS	B			B						A		
						Queue Length (in metres)	11.4	36.6		31.8						8.4		9.1

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
8	7532	LeCLair Way & Sir Winston churchill Ave	Signalized	1400	PM	Volumes (vph)	229	77			103	205				41		545
						V/C Ratio By Movement	0.25	0.06		0.08		0.29				0.03		0.6
						Approach LOS	A			A						A		
						Queue Length (in metres)	12.6	5.1		6.3		9.3				m3.3		26.1
				2400	PM	Volumes (vph)	259	88			63	305				42		671
						V/C Ratio By Movement	0.27	0.07		0.05		0.4				0.03		0.68
						Approach LOS	A			A						B		
						Queue Length (in metres)	14	5.6		4.3		11.2				m3.8		53.2
				2401	PM	Volumes (vph)	97	79			127	242				52		129
						V/C Ratio By Movement	0.21	0.06		0.19		0.49				0.04		0.19
						Approach LOS	B			B						A		
						Queue Length (in metres)	10.6	5.3		11.6		14.8				4.6		8.7
				2402	PM	Volumes (vph)	215	279			291	690				7		642
						V/C Ratio By Movement	0.53	0.19		0.38		0.79				0.01		0.76
						Approach LOS	B			B						B		
						Queue Length (in metres)	23.4	15.5		23.8		24.3				1.4		#78.4
				2403	PM	Volumes (vph)	260	89			64	305				42		664
						V/C Ratio By Movement	0.58	0.06		0.1		0.57				0.03		0.68
						Approach LOS	C			A						A		
						Queue Length (in metres)	25	6.1		7.2		16.8				4		18.5
				2404	PM	Volumes (vph)	259	88			119	249				43		661
						V/C Ratio By Movement	0.58	0.06		0.18		0.51				0.03		0.67
						Approach LOS	C			B						A		
						Queue Length (in metres)	24.8	6		11.4		15.3				4.1		18.4
				2405	PM	Volumes (vph)	258	62			117	252				69		486
						V/C Ratio By Movement	0.52	0.04		0.18		0.51				0.06		0.57
						Approach LOS	C			B						A		
						Queue Length (in metres)	24.1	4.4		11.2		15.5				5.9		16.6
				2406	PM	Volumes (vph)	253	80			162	207				50		796
						V/C Ratio By Movement	0.3	0.06		0.12		0.29				0.04		0.86
						Approach LOS	A			A						C		
						Queue Length (in metres)	14.1	5.2		9.1		9.3				m4.3		#92.6

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
9	7683	LeCLair Way & Riel Drive	Signalized	1400	PM	Volumes (vph)	265	302	0	0	642	5	0	0	0	4	0	154
						V/C Ratio By Movement	0.77	0.35		0.74		0.01				0.01		0.2
						Approach LOS	B			C						A		
						Queue Length (in metres)	m20.6	m10.5			62.6	0				2.5		
				2400	PM	Volumes (vph)	955	343	0	0	734	24	0	0	0	5	0	334
						V/C Ratio By Movement	3.08	0.4		0.85		0.05				0.01		0.44
						Approach LOS	F			C						A		
						Queue Length (in metres)	m#99.2	m7.6		#81.9		0				2.9		0
				2401	PM	Volumes (vph)	850	172	0	0	448	24	0	0	0	5	0	524
						V/C Ratio By Movement	0.96	0.1		0.66		0.05				0.03		0.62
						Approach LOS	D			C						A		
						Queue Length (in metres)	#128.2	12.8		52.8		0				4.1		14.5
				2402	PM	Volumes (vph)	728	459	0	0	883	51	0	0	0	35	0	262
						V/C Ratio By Movement	0.92	0.24		0.94		0.09				0.26		0.33
						Approach LOS	C			D						A		
						Queue Length (in metres)	#111.5	31.6		#135.3		0				16.6		0
				2403	PM	Volumes (vph)	999	344	0	0	728	4	0	0	0	5	0	335
						V/C Ratio By Movement	0.96	0.17		0.92		0.01				0.03		0.41
						Approach LOS	D			D						A		
						Queue Length (in metres)	#153.5	23.7		#119.2		0				4.3		0
				2404	PM	Volumes (vph)	973	342	0	0	780	24	0	0	0	6	0	329
						V/C Ratio By Movement	0.95	0.17		0.94		0.05				0.05		0.41
						Approach LOS	D			D						A		
						Queue Length (in metres)	#149.8	23.3		#127.4		0				5.6		0
				2405	PM	Volumes (vph)	950	314	0	0	603	0	0	0	0	6	0	492
						V/C Ratio By Movement	1.12	0.17		0.77						0.04		0.6
						Approach LOS	E			C						A		
						Queue Length (in metres)	#148.4	22		#79.1						4.9		12
				2406	PM	Volumes (vph)	903	329	0	0	960	24	0	0	0	4	0	358
						V/C Ratio By Movement	3.71	0.38		1.11		0.05				0.01		0.47
						Approach LOS	F			F						A		
						Queue Length (in metres)	m#91.9	m6.3		#121.3		0				2.5		1.5

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
10	6035	Levasseur Rd & Heritage Way	Signalized	1400	PM	Volumes (vph)	1	106	24	126	232	4	0	36	138	1	37	0
						V/C Ratio By Movement	0.16			0.52			0.08		0.28	0.08		
						Approach LOS	B			C			A			B		
						Queue Length (in metres)	12.6			36.1			10.5		12.2	10.9		
				2400	PM	Volumes (vph)	2	105	45	124	257	28	4	36	136	7	42	1
						V/C Ratio By Movement	0.18			0.58			0.09		0.28	0.11		
						Approach LOS	B			C			A			B		
						Queue Length (in metres)	13.1			40.2			11.3		12.2	13.4		
				2401	PM	Volumes (vph)	2	55	42	160	65	22	4	36	103	5	42	1
						V/C Ratio By Movement	0.14			0.42			0.05		0.13	0.06		
						Approach LOS	A			B			A			A		
						Queue Length (in metres)	6			15.7			5.2		5.5	5.9		
				2402	PM	Volumes (vph)	3	137	15	66	252	36	4	37	45	1	41	1
						V/C Ratio By Movement	0.18			0.44			0.05		0.06	0.05		
						Approach LOS	A			B			A			A		
						Queue Length (in metres)	8.6			18			5		3.4	5.1		
				2403	PM	Volumes (vph)	2	99	42	115	254	24	4	36	134	6	42	1
						V/C Ratio By Movement	0.16			0.5			0.05		0.18	0.06		
						Approach LOS	A			B			A			A		
						Queue Length (in metres)	7.1			20.8			5.3		6.4	6.2		
				2404	PM	Volumes (vph)	2	65	43	112	256	27	4	37	110	5	42	1
						V/C Ratio By Movement	0.13			0.5			0.05		0.15	0.06		
						Approach LOS	A			B			A			A		
						Queue Length (in metres)	5.6			20.6			5.3		5.8	6		
				2405	PM	Volumes (vph)	1	59	41	101	276	23	4	37	110	6	41	3
						V/C Ratio By Movement	0.12			0.53			0.05		0.15	0.07		
						Approach LOS	A			B			A			A		
						Queue Length (in metres)	5.8			24			6		6.4	6.9		
				2406	PM	Volumes (vph)	2	66	40	201	260	8	4	36	82	3	43	1
						V/C Ratio By Movement	0.13			0.69			0.09		0.18		0.1	
						Approach LOS	B			C			A			B		
						Queue Length (in metres)	9.6			47.7				11.3	8.7	12.7		

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
11	6037	Levasseur Rd & Hudson Rd	Signalized	1400	PM	Volumes (vph)	0	160	0	158	437	95	0	20	29	61	60	29
						V/C Ratio By Movement		0.12			0.64			0.03	0.05		0.22	0.05
						Approach LOS		A			B			A			A	
						Queue Length (in metres)		8.9			37.6			4	3.3		16.2	3.1
				2400	PM	Volumes (vph)	0	120	0	215	486	330	0	45	28	176	92	35
						V/C Ratio By Movement		0.09			0.88			0.07	0.05		0.54	0.05
						Approach LOS		A			C			A			B	
						Queue Length (in metres)		7.1			#72.8			6.9	3.1		37.6	3.6
				2401	PM	Volumes (vph)	0	110	0	223	307	329	0	44	28	177	85	50
						V/C Ratio By Movement		0.09			0.78			0.06	0.04	0.34	0.13	0.07
						Approach LOS		B			B			A			B	
						Queue Length (in metres)		7.7			44.9			9.4	3.4	31.8	16.6	6
				2402	PM	Volumes (vph)	0	61	0	190	441	332	0	44	28	176	59	25
						V/C Ratio By Movement		0.05			0.83			0.06	0.04	0.34	0.09	0.04
						Approach LOS		A			B			A			B	
						Queue Length (in metres)		4.3			#53.3			6.8	3.1	22.5	8.9	2.5
				2403	PM	Volumes (vph)	0	120	0	229	471	331	0	45	28	176	78	34
						V/C Ratio By Movement		0.08			0.83			0.07	0.05	0.37	0.13	0.06
						Approach LOS		A			B			A			B	
						Queue Length (in metres)		7.2			60.7			9	4.3	29.6	14.7	4.7
				2404	PM	Volumes (vph)	0	121	0	224	470	338	0	45	28	176	82	35
						V/C Ratio By Movement		0.09			0.83			0.07	0.05	0.37	0.14	0.06
						Approach LOS		A			B			A			B	
						Queue Length (in metres)		7.3			60.1			9	4.3	29.6	15.1	4.8
				2405	PM	Volumes (vph)	0	110	0	229	464	339	0	46	28	176	78	47
						V/C Ratio By Movement		0.08			0.83			0.07	0.05	0.4	0.14	0.08
						Approach LOS		A			B			B			B	
						Queue Length (in metres)		7.2			64.7			10.4	3.6	33.6	16.7	6.2
				2406	PM	Volumes (vph)	0	123	0	224	530	325	0	42	28	176	82	48
						V/C Ratio By Movement		0.09			0.93			0.06	0.05	0.52		0.07
						Approach LOS		A			C			A			B	
						Queue Length (in metres)		7.3			#80.1			6.6	3.1	36.3		4.5

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
12	7135	Levasseur Rd & Sir Winston churchill Ave	Signalized	1400	PM	Volumes (vph)	10	127	16	200	32	0	0	206	4	0	295	23
						V/C Ratio By Movement		0.13		0.45	0.05			0.16			0.25	
						Approach LOS		B			B			A			A	
						Queue Length (in metres)		14.1		27	5.5			3.6			15.6	
				2400	PM	Volumes (vph)	141	109	18	200	60	1	4	456	43	0	465	11
						V/C Ratio By Movement		0.26		0.51	0.09		0.01	0.38			0.37	
						Approach LOS		B			B			A			B	
						Queue Length (in metres)		m16.0		28.8	8.5		m0.3	8.2			23.8	
				2401	PM	Volumes (vph)	68	96	14	0	68	2	4	289	2	0	118	156
						V/C Ratio By Movement		0.25			0.15		0.01	0.15			0.15	
						Approach LOS		B			B			A			A	
						Queue Length (in metres)		9.9			9.8		1	9.5			5.7	
				2402	PM	Volumes (vph)	5	112	13	200	56	1	6	684	43	0	413	15
						V/C Ratio By Movement		0.15		0.63	0.12		0.01	0.43			0.27	
						Approach LOS		B			C			A			A	
						Queue Length (in metres)		10.8		39.6	12.1		1.9	38			32.3	
				2403	PM	Volumes (vph)	137	108	21	200	58	1	4	444	36	0	462	11
						V/C Ratio By Movement		0.32		0.63	0.11		0.01	0.32			0.32	
						Approach LOS		B			B			A			A	
						Queue Length (in metres)		13.6		28.8	8.3		1.5	23.4			23.7	
				2404	PM	Volumes (vph)	139	106	17	200	60	1	4	453	4	0	465	12
						V/C Ratio By Movement		0.32		0.63	0.11		0.01	0.3			0.32	
						Approach LOS		B			B			A			A	
						Queue Length (in metres)		13.6		28.6	8.5		1.5	23			23.8	
				2405	PM	Volumes (vph)	147	94	19	200	81	2	4	451	8	0	333	104
						V/C Ratio By Movement		0.32		0.63	0.15		0.01	0.31			0.29	
						Approach LOS		B			B			A			A	
						Queue Length (in metres)		13.5		28.6	10.8		1.5	23			18.1	
				2406	PM	Volumes (vph)	20	107	16	200	64	1	4	378	0	0	537	19
						V/C Ratio By Movement		0.12		0.45	0.1		0.01	0.29			0.43	
						Approach LOS		B			B			A			B	
						Queue Length (in metres)		m8.1		26.9	9.1		m0.2	5.8			28	

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
13	7136	Levasseur Rd & Gervais Rd	Signalized	1400	PM	Volumes (vph)	174		76				331	477			213	359
						V/C Ratio By Movement	0.58						0.48	0.19		0.34		
						Approach LOS	D						A			A		
						Queue Length (in metres)	36.2						44.5	28.5		45.8		
				2400	PM	Volumes (vph)	142		182				574	392			147	458
						V/C Ratio By Movement	0.63						0.72	0.15		0.44		
						Approach LOS	C						B			A		
						Queue Length (in metres)	30.3						130.2	23.3		36.7		
				2401	PM	Volumes (vph)	132		183				570	395			146	289
						V/C Ratio By Movement	0.51						1.53	0.17		0.31		
						Approach LOS	B						F			A		
						Queue Length (in metres)	19.1						#214.3	25		23.2		
				2402	PM	Volumes (vph)	83		182				573	393			147	391
						V/C Ratio By Movement	0.54						0.88	0.15		0.42		
						Approach LOS	B						C			B		
						Queue Length (in metres)	21.3						177.4	23.3		37		
				2403	PM	Volumes (vph)	143		182				573	393			147	459
						V/C Ratio By Movement	0.69						0.77	0.15		0.45		
						Approach LOS	C						B			A		
						Queue Length (in metres)	26.2						87.4	11.8		32		
				2404	PM	Volumes (vph)	143		182				570	395			147	461
						V/C Ratio By Movement	0.52						0.82	0.17		0.47		
						Approach LOS	B						B			A		
						Queue Length (in metres)	20.1						#144.7	25		28.1		
				2405	PM	Volumes (vph)	132		182				570	396			147	462
						V/C Ratio By Movement	0.5						1.53	0.17		0.41		
						Approach LOS	B						F			A		
						Queue Length (in metres)	19.1						#214.3	25.1		25.4		
				2406	PM	Volumes (vph)	144		182				588	377			147	491
						V/C Ratio By Movement	0.64						0.75	0.15		0.47		
						Approach LOS	C						B			B		
						Queue Length (in metres)	30.8						140.9	22.4		42.7		

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
14	7138	Levasseur Rd & Riel Dr	Signalized	1400	PM	Volumes (vph)				23		32		137	172	9	117	
						V/C Ratio By Movement				0.09			0.43			0.03	0.17	
						Approach LOS				A			A			A		
						Queue Length (in metres)				4.7			22.7			2.5	14.4	
				2400	PM	Volumes (vph)				52		24		396	263	34	551	
						V/C Ratio By Movement				0.12			0.94			0.22	0.8	
						Approach LOS				A			D			C		
						Queue Length (in metres)				2.7			#109.9			7.3	#89.5	
				2401	PM	Volumes (vph)				206		23		398	172	24	602	
						V/C Ratio By Movement				0.6			0.57			0.07	0.59	
						Approach LOS				C			A			B		
						Queue Length (in metres)				36.1			68.3			4.5	78.2	
				2402	PM	Volumes (vph)				49		29		424	110	20	586	
						V/C Ratio By Movement				0.24			0.4			0.04	0.43	
						Approach LOS				B			A			A		
						Queue Length (in metres)				13.2			41.6			2.5	49.8	
				2403	PM	Volumes (vph)				51		23		419	264	34	552	
						V/C Ratio By Movement				0.3			0.51			0.07	0.39	
						Approach LOS				B			A			A		
						Queue Length (in metres)				14.7			57.2			3.6	43.1	
				2404	PM	Volumes (vph)				52		24		414	262	35	544	
						V/C Ratio By Movement				0.26			0.51			0.07	0.39	
						Approach LOS				B			A			A		
						Queue Length (in metres)				15.1			56.9			3.8	42.8	
				2405	PM	Volumes (vph)				166		23		378	266	24	608	
						V/C Ratio By Movement				0.53			0.58			0.07	0.53	
						Approach LOS				C			A			A		
						Queue Length (in metres)				30			73.1			4.1	71.7	
				2406	PM	Volumes (vph)				64		24		487	127	34	567	
						V/C Ratio By Movement				0.14			0.9			0.22	0.83	
						Approach LOS				A			C			C		
						Queue Length (in metres)				4.3			#103.5			7.3	#93.1	

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
15	6348	Perron Street & St Anne Street	Signalized	1400	PM	Volumes (vph)	85	247	0	9	9	135	0	616	7	28	387	76
						V/C Ratio By Movement	0.27			0.12			0.81		0.01	0.24	0.51	0.11
						Approach LOS	B			A			D			C		
						Queue Length (in metres)	36.1			7.3			180.2		1.5	12.3	96.2	8.8
				2400	PM	Volumes (vph)	103	810	0	62	692	55	0	780	16	9	488	252
						V/C Ratio By Movement	0.97			0.78			1.02		0.02	0.15	0.64	0.35
						Approach LOS	D			C			E			C		
						Queue Length (in metres)	#160.5			112.1			#280.5		3.7	5.8	128.5	39.7
				2401	PM	Volumes (vph)	101	808	0	67	695	55	0	562	19	5	254	255
						V/C Ratio By Movement	0.92			0.77			0.84		0.03	0.04	0.38	0.4
						Approach LOS	C			B			C			B		
						Queue Length (in metres)	#92.3			63.2			#118.6		2.5	2.3	39.7	28.4
				2402	PM	Volumes (vph)	100	845	0	59	684	66	0	771	27	10	469	255
						V/C Ratio By Movement	1.02			0.8			1.05		0.04	0.1	0.64	0.37
						Approach LOS	E			C			E			B		
						Queue Length (in metres)	#117.5			#77.5			#194.3		4.2	4.2	84.5	30.7
				2403	PM	Volumes (vph)	98	813	0	62	693	59	0	785	16	10	490	251
						V/C Ratio By Movement	1.02			0.83			1.02		0.02	0.12	0.64	0.36
						Approach LOS	E			C			E			B		
						Queue Length (in metres)	#127.6			#99.1			#215.9		2.5	4.6	96.8	33
				2404	PM	Volumes (vph)	108	808	0	62	673	64	0	774	20	8	481	271
						V/C Ratio By Movement	1			0.79			1.02		0.03	0.11	0.63	0.38
						Approach LOS	E			C			E			B		
						Queue Length (in metres)	#140.0			93.9			#235.2		4	4.4	105.9	38.4
				2405	PM	Volumes (vph)	101	821	0	65	705	52	0	784	17	4	507	246
						V/C Ratio By Movement	1.08			0.89			1.06		0.03	0.03	0.68	0.36
						Approach LOS	E			C			E			B		
						Queue Length (in metres)	#105.2			#85.1			#174.0		1.9	1.8	80.9	27.7
				2406	PM	Volumes (vph)	94	747	0	59	689	53	0	720	18	11	468	253
						V/C Ratio By Movement	0.92			0.77			0.91		0.03	0.18	0.59	0.35
						Approach LOS	D			C			D			C		
						Queue Length (in metres)	#144.3			111.8			#240.0		4.3	6.8	117.3	40.1

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
17	6596	Poirier Ave/Corriveau Ave & Campbell Ave	Signalized	1400	PM	Volumes (vph)	0	146	132	14	537	0	346	200	86	0	0	167
						V/C Ratio By Movement	0.13			0.39			0.71	0.2		0.12		
						Approach LOS	A			C			C			A		
						Queue Length (in metres)	12.6			59.5			106.5	25.1		4.4		
				2400	PM	Volumes (vph)	0	157	69	0	633	0	291	201	102	0	0	309
						V/C Ratio By Movement	0.1		0.1	0.42			0.72	0.21		0.24		
						Approach LOS	B			C			C			B		
						Queue Length (in metres)	17.7		8	68.5			95	24.7		21.6		
				2401	PM	Volumes (vph)	0	146	132	14	537	0	346	200	86	0	0	167
						V/C Ratio By Movement	0.1		0.18	0.39			0.71	0.2		0.12		
						Approach LOS	B			C			C			A		
						Queue Length (in metres)	16.6		10.9	59.4			106.5	25.1		4.4		
				2402	PM	Volumes (vph)	0	153	86	1	628	0	291	203	110	0	0	274
						V/C Ratio By Movement	0.17		0.19	0.74			0.54	0.18		0.18		
						Approach LOS	B			C			A			A		
						Queue Length (in metres)	13.6		8.6	52.8			44.3	11.6		12.4		
				2403	PM	Volumes (vph)	0	158	69	1	633	0	290	201	107	0	0	295
						V/C Ratio By Movement	0.16		0.14	0.66			0.64	0.2		0.22		
						Approach LOS	A			B			B			A		
						Queue Length (in metres)	10.6		6.2	40.2			#57.0	12.1		12.8		
				2404	PM	Volumes (vph)	0	158	69	1	629	0	291	201	98	0	0	316
						V/C Ratio By Movement	0.16		0.14	0.65			0.66	0.2		0.23		
						Approach LOS	A			B			B			A		
						Queue Length (in metres)	10.6		6.2	39.9			#58.2	12		r		
				2405	PM	Volumes (vph)	0	159	69	1	626	0	292	201	108	0	0	318
						V/C Ratio By Movement	0.16		0.14	0.65			0.66	0.2		0.23		
						Approach LOS	A			B			B			A		
						Queue Length (in metres)	10.7		6.2	39.6			#58.6	12.2		13.8		
				2406	PM	Volumes (vph)	0	154	69	1	632	0	290	201	106	0	0	285
						V/C Ratio By Movement	0.14		0.13	0.59			0.53	0.17		0.18		
						Approach LOS	B			C			B			A		
						Queue Length (in metres)	21.6		10	86.5			69.1	18.5		19.5		

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
18	7397	Ray gibbon Drive & LeClair Way	Signalized	1400	PM	Volumes (vph)	0	0	0	355	0	442	0	836	399	169	474	0
						V/C Ratio By Movement				0.82	0.58		0.96		0.59	1.67	1.04	
						Approach LOS				C			C			F		
						Queue Length (in metres)				m39.3	m65.7		#99.9		19.9	#72.6	#130.1	
				2400	PM	Volumes (vph)	0	0	0	513	0	555	0	974	765	533	593	0
						V/C Ratio By Movement				0.61	0.73		1.12		0.81	5.26	1.3	
						Approach LOS				C			E			F		
						Queue Length (in metres)				m50.6	m71.4		#123.8		#47.1	#198.0	#171.3	
				2401	PM	Volumes (vph)	0	0	0	305	0	667	0	710	521	501	580	0
						V/C Ratio By Movement				0.36	0.9		0.81		0.67	0.88	0.29	
						Approach LOS				C			C			C		
						Queue Length (in metres)				32.6	85.8		#124.3		31.8	#176.7	51.7	
				2402	PM	Volumes (vph)	0	0	0	511	0	634	0	925	459	728	433	0
						V/C Ratio By Movement				0.78	0.86		0.94		0.64	1.06	0.35	
						Approach LOS				D			D			E		
						Queue Length (in metres)				94.6	82.7		#226.2		56.6	#367.2	90.1	
				2403	PM	Volumes (vph)	0	0	0	513	0	549	0	1005	815	529	592	0
						V/C Ratio By Movement				0.78	0.83		0.86		0.92	0.91	0.48	
						Approach LOS				D			D			C		
						Queue Length (in metres)				94	77.2		#207.7		#207.7	#233.4	122	
				2404	AM	Volumes (vph)	0	0	0	513	0	597	0	935	781	534	591	0
						V/C Ratio By Movement				0.62	0.96		1.27		0.89	1.36	0.51	
						Approach LOS				D			F			F		
						Queue Length (in metres)				95.8	96.8		#494.0		#235.1	#305.5	134.4	
				2405	PM	Volumes (vph)	0	0	0	513	0	582	0	977	795	469	574	0
						V/C Ratio By Movement				0.46	0.92		1.52		0.87	1.69	0.61	
						Approach LOS				C			F			F		
						Queue Length (in metres)				55	#150.9		#394.7		#147.3	#209.4	130.9	
				2406	PM	Volumes (vph)	0	0	0	505	0	812	0	1276	676	556	598	0
						V/C Ratio By Movement				0.54	1.13		1.08		0.8	1.23	0.29	
						Approach LOS				E			E			F		
						Queue Length (in metres)				93.8	#297.9		#298.9		124.5	#294.2	54.7	

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SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
19	7514	Ray gibbon Drive & Meadowview Drive	Signalized	1400	PM	Volumes (vph)	1	32	44	233	36	15	44	924	321	9	474	6
						V/C Ratio By Movement	0	0.12		0.49	0.08		0.22	1.38	0.42	0.06	0.7	
						Approach LOS	A			B			F			B		
						Queue Length (in metres)	0.7	7.8		31.9	6.9		8.7	#178.4	11.9	2.8	#66.1	
				2400	PM	Volumes (vph)	1	60	18	296	52	149	38	897	644	174	863	0
						V/C Ratio By Movement	0	0.12		0.63	0.33		0.25	1.34	0.67	1.17	1.25	
						Approach LOS	A			B			F			F		
						Queue Length (in metres)	0.7	9.6		#44.8	22		8.4	#172.2	16.5	#50.3	#162.9	
				2401	PM	Volumes (vph)	20	62	16	291	51	183	36	937	458	293	680	14
						V/C Ratio By Movement	0.13	0.2		1.06	0.52		0.09	0.42	0.4	1.02	0.31	
						Approach LOS	C			E			A			C		
						Queue Length (in metres)	11.3	27.1		#135.0	45		6.6	60.5	9.9	#132.2	40.7	
				2402	PM	Volumes (vph)	0	59	18	324	50	148	38	907	663	172	870	0
						V/C Ratio By Movement	0.18			1.04	0.42		0.21	0.98	0.62	0.94	0.87	
						Approach LOS	C			E			C			D		
						Queue Length (in metres)	27.4			#154.8	41.4		7.2	#328.8	27.2	#77.0	#295.6	
				2403	PM	Volumes (vph)	1	60	17	293	53	149	37	900	667	174	862	0
						V/C Ratio By Movement	0.01	0.2		1.06	0.46		0.19	0.78	0.56	1	0.75	
						Approach LOS	C			E			B			C		
						Queue Length (in metres)	1.6	24.5		#125.7	36.8		7.8	183.9	11.2	#45.8	163.9	
				2404	PM	Volumes (vph)	1	60	18	297	52	134	40	1017	523	267	862	0
						V/C Ratio By Movement	0.01	0.22		1.18	0.47		0.16	1.07	0.5	1.16	0.78	
						Approach LOS	C			F			D			D		
						Queue Length (in metres)	1.6	27.8		#144.4	41.7		5.9	#358.0	15.3	#117.0	228.6	
				2405	PM	Volumes (vph)	1	63	16	255	56	162	32	1084	495	272	825	14
						V/C Ratio By Movement	0.01	0.27		1.23	0.62		0.11	0.86	0.41	2.18	0.66	
						Approach LOS	D			F			B			F		
						Queue Length (in metres)	1.7	29.8		#131.1	53		5.2	251.8	8	#132.8	127.5	
				2406	PM	Volumes (vph)	16	64	18	308	48	162	37	1370	734	186	885	15
						V/C Ratio By Movement	0.1	0.23		1.23	0.58		0.12	0.61	0.61	1.22	0.4	
						Approach LOS	C			F			A			C		
						Queue Length (in metres)	9	27.2		#139.7	55.8		6.3	94	17.1	#62.8	49.2	

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SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
20	8227	Ray gibbon Drive & Giroux Rd	Signalized	1400	PM	Volumes (vph)	4	0	2	224	0	3	0	281	659	5	263	0
						V/C Ratio By Movement	0.01	0		0.65	0		0.61		0.76	0.01	0.58	
						Approach LOS	B			C			B			B		
						Queue Length (in metres)	2.5	0		#53.7	0		59.8		28.1	m0.5	62.7	
				2400	PM	Volumes (vph)	183	54	172	296	13	44	35	265	747	10	569	26
						V/C Ratio By Movement	0.56	0.43		1.31	0.13		0.35	0.58	0.8	0.02	1.25	0.06
						Approach LOS	B			F			B			F		
						Queue Length (in metres)	42.6	22.7		#102.1	9.5		12.9	56.3	#42.2	m0.3	m27.8	m0.2
				2401	PM	Volumes (vph)	57	175	166	232	24	8	37	518	584	22	590	6
						V/C Ratio By Movement	0.18	0.74		0.56	0.04		0.17	0.43	0.64	0.09	0.49	0.01
						Approach LOS	C			C			A			B		
						Queue Length (in metres)	13.1	54.2		24.7	5.1		9.7	38.5	19.3	6.3	44.4	0
				2402	PM	Volumes (vph)	183	54	172	298	13	44	36	255	764	10	573	25
						V/C Ratio By Movement	0.43	0.36		0.85	0.1		0.18	0.32	0.7	0.02	0.72	0.04
						Approach LOS	A			C			A			B		
						Queue Length (in metres)	27.5	16.1		#64.6	6.5		7.1	29.1	16.2	2.6	#85.0	2.8
				2403	PM	Volumes (vph)	183	54	172	296	13	41	35	261	754	10	569	26
						V/C Ratio By Movement	0.42	0.36		0.83	0.1		0.18	0.33	0.7	0.02	0.73	0.04
						Approach LOS	A			C			A			B		
						Queue Length (in metres)	26.6	16.3		#61.8	6.1		7.3	30.9	16.8	2.7	#95.1	3.1
				2404	PM	Volumes (vph)	95	156	170	392	27	25	35	357	760	22	568	17
						V/C Ratio By Movement	0.16	0.4		0.97	0.07		0.31	0.57	0.81	0.09	0.9	0.03
						Approach LOS	A			D			B			D		
						Queue Length (in metres)	13.8	31.5		#99.5	6.5		10.9	59.1	#81.8	6.1	#124.4	2.8
				2405	PM	Volumes (vph)	73	178	165	369	25	9	36	341	870	22	577	6
						V/C Ratio By Movement	0.22	0.75		1.35	0.04		0.3	0.59	0.96	0.1	1	0.01
						Approach LOS	C			F			C			E		
						Queue Length (in metres)	15.9	56.9		#112.1	4.9		11.5	61.4	#118.1	6.7	#138.5	0
				2406	PM	Volumes (vph)	163	59	172	311	12	24	37	514	997	10	602	12
						V/C Ratio By Movement	0.58	0.58		0.77	0.05		0.16	0.4	0.92	0.04	0.46	0.02
						Approach LOS	C			D			B			B		
						Queue Length (in metres)	32.4	33.6		#40.7	4.7		9.5	37.6	#118.9	3.7	44.5	0

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SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
21	8228	Ray gibbon Drive & Villeneuve/Erin Ridge Rd East	Signalized	1400	PM	Volumes (vph)	0	72	98	164	131	0	91	0	239	0	0	0
						V/C Ratio By Movement	0.16		0.21	0.51	0.29		0.21	0.24				
						Approach LOS	B			C			A					
						Queue Length (in metres)	17.6		10.4	38.2	28.9		m5.4	1.5				
				2400	PM	Volumes (vph)	0	332	153	446	140	0	150	0	385	0	0	0
						V/C Ratio By Movement	0.73		0.31	3.19	0.31		0.35	0.47				
						Approach LOS	C			F			A					
						Queue Length (in metres)	#79.5		12.9	#156.0	30.5		m31.7	12.2				
				2401	PM	Volumes (vph)	0	235	239	372	121	0	162	0	414	0	0	0
						V/C Ratio By Movement	0.31		0.31	0.83	0.16		0.33	0.3				
						Approach LOS	A			C			A					
						Queue Length (in metres)	25.3		8.5	60.9	13.8		31.5	2.1				
				2402	PM	Volumes (vph)	0	330	155	447	138	0	151	0	373	0	0	0
						V/C Ratio By Movement	0.77		0.32	0.9	0.15		0.38	0.45				
						Approach LOS	C			C			A					
						Queue Length (in metres)	#70.2		12.4	#90.1	15.4		32.4	0				
				2403	PM	Volumes (vph)	0	332	153	445	139	0	150	0	377	0	0	0
						V/C Ratio By Movement	0.35		0.17	0.93	0.15		0.39	0.49				
						Approach LOS	A			C			A					
						Queue Length (in metres)	35.1		6.2	#112.6	14.8		35.8	8.1				
				2404	PM	Volumes (vph)	0	246	229	371	135	0	149	0	369	0	0	0
						V/C Ratio By Movement	0.32		0.3	0.83	0.18		0.31	0.42				
						Approach LOS	A			C			A					
						Queue Length (in metres)	26.6		8.3	#62.8	15.2		29	0.8				
				2405	PM	Volumes (vph)	0	236	238	360	127	0	155	0	310	0	0	0
						V/C Ratio By Movement	0.32		0.31	0.82	0.17		0.31	0.35				
						Approach LOS	A			C			A					
						Queue Length (in metres)	26.7		8.9	60.9	15.1		29.2	0				
				2406	PM	Volumes (vph)	0	316	162	455	121	0	168	0	575	0	0	0
						V/C Ratio By Movement	0.33		0.19	0.93	0.13		0.42	0.74				
						Approach LOS	A			C			B					
						Queue Length (in metres)	34.6		6.7	#115.8	13.8		39.1	#53.8				

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
22	6175	St Albert Trail & Villeneuve Rd/Erin Ridge Road East	Signalized	1400	PM	Volumes (vph)	243	149	0	0	236	104	266	1259	19	0	0	0
						V/C Ratio By Movement	1.07	0.31		0.64			0.86	0.74				
						Approach LOS	E			E			D					
						Queue Length (in metres)	#142.1	18.5		70.6			125.5	247.2				
				2400	PM	Volumes (vph)	400	120	0	0	277	245	316	1884	91	0	0	0
						V/C Ratio By Movement	2.07	0.22		0.76			0.92	1.06				
						Approach LOS	F			E			F					
						Queue Length (in metres)	#260.0	4		96.3			#168.3	#503.1				
				2401	PM	Volumes (vph)	1	147	0	0	51	175	345	1670	83	0	0	0
						V/C Ratio By Movement	0.01	0.51		0.38			0.82	0.87				
						Approach LOS	F			B			D					
						Queue Length (in metres)	m0.8	m79.2		22.3			#207.2	335.8				
				2402	PM	Volumes (vph)	402	117	0	0	291	231	300	1901	91	0	0	0
						V/C Ratio By Movement	1.42	0.21		1			1.26	1.13				
						Approach LOS	F			F			F					
						Queue Length (in metres)	#234.8	4.1		#131.7			#201.1	#501.1				
				2403	PM	Volumes (vph)	394	117	0	0	283	234	311	1879	92	0	0	0
						V/C Ratio By Movement	1.35	0.2		0.99			1.31	1.1				
						Approach LOS	F			F			F					
						Queue Length (in metres)	#223.4	3.6		#128.4			#210.2	#497.1				
				2404	PM	Volumes (vph)	0	149	0	0	227	295	204	1908	91	0	0	0
						V/C Ratio By Movement	0.5			0.8			0.81	1.01				
						Approach LOS	F			E			D					
						Queue Length (in metres)	m81.1			87.2			#125.3	#456.4				
				2405	PM	Volumes (vph)	1	147	0	0	252	299	244	1805	92	0	0	0
						V/C Ratio By Movement	0.01	0.44		0.84			0.87	0.97				
						Approach LOS	F			F			D					
						Queue Length (in metres)	m0.8	m74.2		#120.9			#150.9	#416.7				
				2406	PM	Volumes (vph)	447	120	0	0	319	121	214	1949	110	0	0	0
						V/C Ratio By Movement	1.38	0.2		0.91			1.26	1.15				
						Approach LOS	F			F			F					
						Queue Length (in metres)	#255.4	3		#111.7			#156.6	#543.8				

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SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
23	6176	St Albert Trail & Giroux / Boudreau Road	Signalized	1400	PM	Volumes (vph)	203	488	153	74	514	336	342	1171	76	300	807	194
						V/C Ratio By Movement	1.31	0.8	0.39	0.44	0.84	0.61	0.94	0.64	0.12	0.87	0.45	0.29
						Approach LOS		F			D			D			D	
						Queue Length (in metres)	#133.2	112.6	21.3	33.9	116.2	30.2	#201.3	158.2	2	138.9	93.8	17.9
				2400	PM	Volumes (vph)	232	631	159	86	598	427	348	1829	57	310	1575	216
						V/C Ratio By Movement	1.56	0.94	0.39	0.55	0.88	0.73	1.05	1.06	0.09	0.88	0.88	0.33
						Approach LOS		F			D			F			D	
						Queue Length (in metres)	#165.3	#169.2	30.5	38.4	#143.6	66.8	#206.2	#320.0	0	144.1	216.9	32.2
				2401	PM	Volumes (vph)	52	351	10	81	512	558	107	1498	70	111	1527	61
						V/C Ratio By Movement	0.25	0.39	0.02	0.3	0.54	0.94	0.74	0.71	0.1	0.76	0.72	0.09
						Approach LOS		D			D			D			D	
						Queue Length (in metres)	21.4	65	0	30.5	95.6	#183.4	#65.4	202.9	8.1	#69.5	208.4	5.1
				2402	PM	Volumes (vph)	230	639	159	86	595	445	349	1815	57	310	1580	215
						V/C Ratio By Movement	1.05	0.8	0.34	0.62	0.97	0.84	1.02	1.03	0.09	1.03	0.96	0.35
						Approach LOS		E			E			F			E	
						Queue Length (in metres)	#134.9	140.8	25.6	37.1	#156.2	#111.0	#202.6	#286.6	0	#185.7	#238.3	35.8
				2403	PM	Volumes (vph)	230	639	159	86	596	428	349	1825	57	310	1579	215
						V/C Ratio By Movement	1.05	0.8	0.34	0.62	0.97	0.81	1.02	1.03	0.09	1.03	0.96	0.35
						Approach LOS		E			E			F			E	
						Queue Length (in metres)	#134.9	140.8	25.6	37.1	#156.6	91.1	#202.6	#289.4	0	#185.7	#238.0	35.8
				2404	PM	Volumes (vph)	218	612	160	79	610	489	362	1701	62	312	1525	191
						V/C Ratio By Movement	1.02	0.75	0.33	0.55	0.98	0.9	1	0.97	0.1	1.01	0.95	0.32
						Approach LOS		E			E			E			E	
						Queue Length (in metres)	#126.3	133	22.9	34.7	#160.8	#137.4	#205.7	#258.7	0	#184.7	#230.8	32.8
				2405	PM	Volumes (vph)	201	606	160	81	608	570	351	1583	68	307	1533	212
						V/C Ratio By Movement	1	0.74	0.33	0.5	0.89	1	1	0.93	0.11	0.99	0.97	0.35
						Approach LOS		E			E			E			E	
						Queue Length (in metres)	#116.5	131.7	22.3	35	#148.0	#192.3	#201.9	225.4	0	#180.5	#235.7	35.9
				2406	PM	Volumes (vph)	242	647	160	85	546	425	346	1722	59	310	1522	219
						V/C Ratio By Movement	1.04	0.78	0.33	0.61	0.91	0.8	0.99	1.01	0.1	0.98	0.95	0.36
						Approach LOS		E			E			E			E	
						Queue Length (in metres)	#138.8	140.2	24.8	36.3	#136.2	85.5	#198.7	#270.3	0	#182.6	#229.4	36

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
24	6349	St Albert Trail & St Anne Street	Signalized	1400	PM	Volumes (vph)	344	278	26	81	58	107	74	2196	120	91	1243	289
						V/C Ratio By Movement	0.69	0.73		0.75	0.38		0.58	0.91		0.63	0.48	0.31
						Approach LOS	E			D			D			C		
						Queue Length (in metres)	69.4	134.1		49.1	22.2		44.4	#352.0		55.7	168.9	71
				2400	PM	Volumes (vph)	380	662	142	74	207	345	97	2913	37	99	1143	1100
						V/C Ratio By Movement	1.03	1.74		1.74	0.97		0.66	1.23		0.67	0.47	1.16
						Approach LOS	F			F			F			E		
						Queue Length (in metres)	#96.8	#517.8		#77.5	#117.0		55.3	#522.1		m47.9	168.1	#499.2
				2401	PM	Volumes (vph)	127	698	142	75	229	205	104	2791	150	100	1401	868
						V/C Ratio By Movement	0.22	1.4		0.72	0.41		0.86	1.59		0.99	0.78	0.95
						Approach LOS	F			D			F			E		
						Queue Length (in metres)	21.9	#493.0		#40.0	67		#76.0	#580.5		m#81.6	171.6	#272.4
				2402	PM	Volumes (vph)	376	664	147	73	182	332	85	2904	30	99	1136	1108
						V/C Ratio By Movement	0.55	1.01		1.72	0.48		1.19	1.75		1.4	0.68	1.21
						Approach LOS	F			F			F			F		
						Queue Length (in metres)	53.5	#392.7		#77.3	80.3		#77.2	#603.0		m#81.2	167.2	#477.7
				2403	PM	Volumes (vph)	380	669	142	73	206	338	98	2899	43	100	1145	1102
						V/C Ratio By Movement	0.67	1.38		0.69	0.63		1.08	1.56		0.99	0.6	1.18
						Approach LOS	F			D			F			E		
						Queue Length (in metres)	61	#474.8		#39.0	97.8		#82.7	#575.7		m#70.9	119.1	#443.7
				2404	PM	Volumes (vph)	366	679	141	76	212	353	96	2898	44	99	1141	1093
						V/C Ratio By Movement	0.78	1.02		1.8	0.61		1.35	1.75		1.4	0.68	1.22
						Approach LOS	F			F			F			F		
						Queue Length (in metres)	83.3	#399.1		#82.2	103.5		#88.3	#604.6		m#83.8	167.2	#436.5
				2405	PM	Volumes (vph)	367	698	142	73	201	189	99	2831	44	100	1173	1123
						V/C Ratio By Movement	0.57	1.23	0.26	0.69	0.48		1.09	1.46		0.99	0.59	1.17
						Approach LOS	F			D			F			F		
						Queue Length (in metres)	61	#394.2	31.7	#38.9	66.2		#83.4	#545.3		m#72.7	135.4	#549.0
				2406	PM	Volumes (vph)	375	638	143	74	192	257	100	2656	50	101	1143	1116
						V/C Ratio By Movement	0.51	0.97		1.74	0.41		1.24	1.64		1.25	0.69	1.24
						Approach LOS	F			F			F			F		
						Queue Length (in metres)	53.4	#368.1		#78.7	64		#87.9	#545.4		m#82.3	167.3	#449.8

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
25	6458	St Albert Trail & Coal Mine Road East	Signalized	1400	PM	Volumes (vph)	53	16	0	0	6	3	0	1416	104	0	0	0
						V/C Ratio By Movement	0.51			0.08			0.57		0.09			
						Approach LOS	C			E			B					
						Queue Length (in metres)	2.8			9.4			194.8		7.7			
				2400	PM	Volumes (vph)	40	91	0	0	15	185	0	2425	4	0	0	0
						V/C Ratio By Movement	0.71			0.7			1.25		0			
						Approach LOS	F			C			F					
						Queue Length (in metres)	75.4			34.1			#698.3		0			
				2401	PM	Volumes (vph)	39	31	0	0	19	21	0	1714	31	0	0	0
						V/C Ratio By Movement	0.51			0.29			0.73		0.03			
						Approach LOS	D			D			B					
						Queue Length (in metres)	9.4			20.6			288.6		0			
				2402	PM	Volumes (vph)	40	95	0	0	15	189	0	2432	3	0	0	0
						V/C Ratio By Movement	0.71			0.69			1.29		0			
						Approach LOS	F			C			F					
						Queue Length (in metres)	74.4			33.3			#685.6		0			
				2403	PM	Volumes (vph)	40	99	0	0	16	207	0	2401	5	0	0	0
						V/C Ratio By Movement	0.72			0.71			1.28		0			
						Approach LOS	F			C			F					
						Queue Length (in metres)	77.1			34.9			#679.2		0			
				2404	PM	Volumes (vph)	41	41	0	0	21	24	0	2098	3	0	0	0
						V/C Ratio By Movement	0.56			0.26			0.96		0			
						Approach LOS	D			D			D					
						Queue Length (in metres)	15.6			21.4			#508.3		0			
				2405	PM	Volumes (vph)	39	30	0	0	21	22	0	1980	22	0	0	0
						V/C Ratio By Movement	0.29			0.31			0.84		0.02			
						Approach LOS	C			D			C					
						Queue Length (in metres)	4.6			21.7			367.7		0			
				2406	PM	Volumes (vph)	40	105	0	0	1	200	0	2412	5	0	0	0
						V/C Ratio By Movement	0.25	0.64		0.67			1.22		0			
						Approach LOS	F			B			F					
						Queue Length (in metres)	17.3	63.3		28.4				#678.0	0			

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
26	6744	St Albert Trail & Gervais Rd	Signalized	1400	PM	Volumes (vph)	298	449	125	95	329	110	224	1901	488	78	1185	100
						V/C Ratio By Movement	0.83	0.74	0.32	0.47	0.74	0.34	0.81	0.79	0.53	0.59	0.47	0.14
						Approach LOS		E			E			D			D	
						Queue Length (in metres)	#76.5	99.9	12.9	27.8	76.7	8	106.8	261.9	73.6	46.3	118.5	3.2
				2400	PM	Volumes (vph)	322	393	314	76	407	79	233	2180	826	70	1602	161
						V/C Ratio By Movement	0.88	0.56	0.56	0.42	0.79	0.22	0.82	0.95	0.91	0.57	0.69	0.24
						Approach LOS		D			E			E			D	
						Queue Length (in metres)	#86.5	83.6	28.4	23.6	92	0	110.7	#357.0	#310.4	42.8	177.7	23.3
				2401	PM	Volumes (vph)	70	422	139	76	433	228	138	2241	664	70	2100	9
						V/C Ratio By Movement	0.51	0.76	0.38	0.55	0.78	0.62	0.72	0.86	0.74	0.58	0.7	0.01
						Approach LOS		E			E			D			C	
						Queue Length (in metres)	22.7	94	18.1	24.3	96.5	57.2	72.3	297.2	201.3	44.3	210.2	0
				2402	PM	Volumes (vph)	323	387	175	78	365	78	214	2140	727	70	1701	111
						V/C Ratio By Movement	0.96	0.59	0.4	0.51	0.77	0.21	0.78	0.91	0.84	0.49	0.68	0.15
						Approach LOS		E			E			E			D	
						Queue Length (in metres)	#94.5	83.5	21.2	24.5	84.7	0	103.6	#319.1	#267.3	43.3	179.6	0
				2403	PM	Volumes (vph)	325	396	295	76	403	80	231	2182	821	70	1616	154
						V/C Ratio By Movement	1.03	0.58	0.59	0.5	0.78	0.21	0.81	0.93	0.96	0.51	0.67	0.22
						Approach LOS		E			E			E			D	
						Queue Length (in metres)	#99.5	83.9	43.3	24.2	91.4	0	112.9	#326.5	#341.5	44.2	169.5	9.7
				2404	PM	Volumes (vph)	325	408	272	76	411	80	236	2227	796	70	1623	131
						V/C Ratio By Movement	1.03	0.59	0.53	0.5	0.79	0.21	0.82	0.95	0.93	0.51	0.68	0.19
						Approach LOS		E			E			E			D	
						Queue Length (in metres)	#99.5	86	28.2	24.2	93	0	115	#338.7	#324.5	44.3	172.2	3.1
				2405	PM	Volumes (vph)	322	396	319	76	408	77	237	2207	815	70	1602	175
						V/C Ratio By Movement	1.02	0.58	0.62	0.5	0.79	0.2	0.82	0.94	0.95	0.51	0.67	0.25
						Approach LOS		E			E			E			D	
						Queue Length (in metres)	#98.0	83.8	49.3	24.2	92.2	0	115.1	#333.1	#336.6	44.2	169.3	16.3
				2406	PM	Volumes (vph)	320	411	242	76	435	71	237	2053	852	70	1663	115
						V/C Ratio By Movement	1.01	0.83		0.5	0.83		0.83	0.91	1.02	0.6	1.01	
						Approach LOS		F			E			E			E	
						Queue Length (in metres)	#97.7	126.6		24.2	109.6		#151.0	279	#368.8	#63.3	#283.8	

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SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
27	6921	St Albert Trail & McKenney Ave	Signalized	1400	PM	Volumes (vph)	40	203	127	86	309	149	86	1589	544	33	1074	37
						V/C Ratio By Movement	0.27	0.51		0.21	0.86	0.36	0.61	0.61	0.55	0.37	0.45	0.04
						Approach LOS	D			E			C			C		
						Queue Length (in metres)	19.5	59		17.8	143.4	21.3	45.8	236.8	183.9	24.8	123.5	0
				2400	PM	Volumes (vph)	55	265	198	90	325	137	107	2137	788	9	1661	16
						V/C Ratio By Movement	0.36	0.65		0.26	0.86	0.32	0.66	0.78	0.77	0.13	0.74	0.02
						Approach LOS	D			E			C			D		
						Queue Length (in metres)	25.2	82.8		18.7	#158.7	18	m46.8	316.3	322.6	10.6	227.3	0
				2401	PM	Volumes (vph)	50	247	198	93	402	36	106	1723	777	9	1455	15
						V/C Ratio By Movement	0.43	0.57		0.54	0.91	0.07	0.69	0.65	0.77	0.13	0.67	0.02
						Approach LOS	D			E			C			D		
						Queue Length (in metres)	22.6	72.3		28	#192.8	0	55.5	158.9	147.8	10.7	186.5	0
				2402	PM	Volumes (vph)	52	322	201	93	322	138	107	2175	731	9	1657	16
						V/C Ratio By Movement	0.38	0.75		0.34	0.83	0.32	0.69	0.78	0.73	0.13	0.71	0.02
						Approach LOS	E			D			B			C		
						Queue Length (in metres)	25	100.4		19.7	149.8	18.2	m53.3	139.4	22.7	10.7	209.8	0
				2403	PM	Volumes (vph)	55	266	198	91	321	137	104	2121	795	9	1658	16
						V/C Ratio By Movement	0.61	0.67		0.54	0.87	0.32	0.68	0.76	0.77	0.13	0.72	0.02
						Approach LOS	E			E			D			D		
						Queue Length (in metres)	#38.5	82.6		27.6	#159.9	18.2	m48.0	314.1	292.4	10.7	210.7	0
				2404	PM	Volumes (vph)	51	266	200	87	325	137	102	2076	831	9	1605	16
						V/C Ratio By Movement	0.66	0.7		0.53	0.88	0.32	0.68	0.73	0.8	0.13	0.68	0.02
						Approach LOS	E			E			D			C		
						Queue Length (in metres)	#41.2	85.2		26.8	#166.8	18.4	m47.4	307.9	306.5	10.7	193.6	0
				2405	PM	Volumes (vph)	51	247	199	93	395	135	111	1900	812	9	1619	11
						V/C Ratio By Movement	0.44	0.59		0.54	0.92	0.29	0.79	0.71	0.8	0.13	0.72	0.01
						Approach LOS	D			E			C			D		
						Queue Length (in metres)	23.6	74.8		28	#195.4	16.7	m#64.2	173.9	#152.9	10.7	203.4	0
				2406	PM	Volumes (vph)	55	353	190	91	346	138	104	1920	719	9	1656	16
						V/C Ratio By Movement	0.4	0.74		0.32	0.84	0.3	0.71	0.7	0.73	0.13	0.73	0.02
						Approach LOS	E			D			D			D		
						Queue Length (in metres)	25.3	105.8		18.9	158.3	17.7	m55.5	286.4	0	10.7	211.9	0

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
28	6922	St Albert Trail & St Vital Ave	Signalized	1400	PM	Volumes (vph)	1	46	0	120	0	0	114	2349	0	0	1244	35
						V/C Ratio By Movement	0.01	0.2		0.73			0.69	0.5		0.42		
						Approach LOS	E			F			A			C		
						Queue Length (in metres)	2.2	27.7		63.9			m51.2	35.8		177.2		
				2400	PM	Volumes (vph)	5	127	0	157	0	0	111	3218	0	0	1913	52
						V/C Ratio By Movement	0.02	0.41		0.92			0.68	0.73		0.7		
						Approach LOS	E			F			A			D		
						Queue Length (in metres)	5.1	59.1		81.9			m35.5	m47.4		286		
				2401	PM	Volumes (vph)	10	137	0	155	0	0	125	2666	0	0	1692	70
						V/C Ratio By Movement	0.04	0.43		0.92			0.7	0.61		0.64		
						Approach LOS	E			F			B			B		
						Queue Length (in metres)	8.5	62.8		80.6			m33.8	m52.5		101.9		
				2402	PM	Volumes (vph)	9	120	0	157	0	0	117	3194	0	0	1919	48
						V/C Ratio By Movement	0.04	0.39		0.89			0.69	0.73		0.7		
						Approach LOS	E			F			B			B		
						Queue Length (in metres)	8.3	56.1		81.3			m24.4	m62.8		85.3		
				2403	PM	Volumes (vph)	6	121	0	156	0	0	120	3201	0	0	1915	48
						V/C Ratio By Movement	0.03	0.4		0.89			0.69	0.73		0.7		
						Approach LOS	E			F			C			D		
						Queue Length (in metres)	6.5	57.1		81.1			m28.6	m217.9		291.5		
				2404	PM	Volumes (vph)	12	142	0	155	0	0	114	3191	0	0	1845	62
						V/C Ratio By Movement	0.05	0.44		0.92			0.69	0.73		0.68		
						Approach LOS	E			F			B			D		
						Queue Length (in metres)	9.5	64.5		80.8			m25.9	m20.0		283.6		
				2405	PM	Volumes (vph)	12	137	0	157	0	0	121	2988	0	0	1870	59
						V/C Ratio By Movement	0.05	0.43		0.92			0.7	0.69		0.7		
						Approach LOS	E			F			B			B		
						Queue Length (in metres)	9.5	62.6		81.8			m36.8	m87.2		121.6		
				2406	PM	Volumes (vph)	3	99	0	156	0	0	115	2909	0	0	1906	47
						V/C Ratio By Movement	0.01	0.34		0.85			0.69	0.65		0.68		
						Approach LOS	E			F			A			D		
						Queue Length (in metres)	3.9	48.5		80.4			m28.1	m13.8		290.5		

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
29	7475	St Albert Trail & Villeneuve / Erin Ridge Rd West	Signalized	1400	PM	Volumes (vph)	0	316	234	0	402	0	0	0	0	77	894	173
						V/C Ratio By Movement	0.35		0.41	0.77						0.6	0.66	0.25
						Approach LOS	C			E						D		
						Queue Length (in metres)	60.3		20.8	71.7						46.2	185.2	32.3
				2400	PM	Volumes (vph)	0	505	261	1	493	0	0	0	0	15	1665	599
						V/C Ratio By Movement	0.49		0.41	0.81						0.19	1.4	0.88
						Approach LOS	C			F						F		
						Queue Length (in metres)	95.6		21.5	m93.1						13.9	#485.7	#227.2
				2401	PM	Volumes (vph)	0	36	50	12	383	0	0	0	0	112	1650	33
						V/C Ratio By Movement	0.07		0.14	0.84						0.7	1.09	0.04
						Approach LOS	C			F						F		
						Queue Length (in metres)	11.1		0	m#101.2						#81.7	#396.8	0
				2402	PM	Volumes (vph)	0	503	260	2	490	0	0	0	0	16	1667	596
						V/C Ratio By Movement	0.47		0.41	1.06						0.22	1.24	0.79
						Approach LOS	C			F						F		
						Queue Length (in metres)	95.1		36.2	m70.3						14.7	#438.0	172
				2403	PM	Volumes (vph)	0	499	265	1	493	0	0	0	0	12	1665	595
						V/C Ratio By Movement	0.45		0.4	1.06						0.17	1.26	0.8
						Approach LOS	C			F						F		
						Queue Length (in metres)	93.5		21.3	m70.3						12.4	#441.3	174.9
				2404	PM	Volumes (vph)	0	34	184	14	318	0	0	0	0	115	1644	16
						V/C Ratio By Movement	0.06		0.47	0.62						0.69	0.9	0.02
						Approach LOS	B			F						D		
						Queue Length (in metres)	10.7		29.1	m53.8						#82.6	#353.0	0
				2405	PM	Volumes (vph)	0	37	209	11	385	0	0	0	0	111	1647	33
						V/C Ratio By Movement		0.06	0.46		0.71					0.77	0.97	0.04
						Approach LOS	B			F						E		
						Queue Length (in metres)		11.2	23.6		m#80.1					#82.6	#367.4	0
				2406	PM	Volumes (vph)	0	559	280	11	423	0	0	0	0	7	1667	580
						V/C Ratio By Movement	0.49		0.43	0.97						0.1	1.19	0.75
						Approach LOS	C			F						F		
						Queue Length (in metres)	102.6		46.4	m54.9						9	#425.9	155.4

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
30	7479	St Albert Trail & Coal Mine Road West	Signalized	1400	PM	Volumes (vph)	0	66	0	6	0	0	0	0	0	3	972	45
						V/C Ratio By Movement	0.25			0.06						0.04	0.28	
						Approach LOS	E			B						A		
						Queue Length (in metres)	21.3			1.2						4.8	53.8	
				2400	PM	Volumes (vph)	0	61	0	15	0	0	0	0	0	70	2050	25
						V/C Ratio By Movement	0.17			0.12						0.58	0.63	
						Approach LOS	E			E						C		
						Queue Length (in metres)	18.8			m5.5						44.3	193.1	
				2401	PM	Volumes (vph)	0	57	0	19	0	0	0	0	0	13	1572	25
						V/C Ratio By Movement	0.21			0.16						0.17	0.46	
						Approach LOS	E			C						A		
						Queue Length (in metres)	18.4			4.7						12.9	96.7	
				2402	PM	Volumes (vph)	0	61	0	15	0	0	0	0	0	74	2048	25
						V/C Ratio By Movement	0.17			0.11						0.58	0.64	
						Approach LOS	E			E						C		
						Queue Length (in metres)	18.2			m5.3						44.4	191.4	
				2403	PM	Volumes (vph)	0	62	0	16	0	0	0	0	0	77	2044	25
						V/C Ratio By Movement	0.17			0.12						0.59	0.64	
						Approach LOS	E			E						C		
						Queue Length (in metres)	18.5			m5.6						46	193.1	
				2404	PM	Volumes (vph)	0	60	0	21	0	0	0	0	0	22	1537	25
						V/C Ratio By Movement	0.21			0.42						0.27	0.46	
						Approach LOS	E			D						B		
						Queue Length (in metres)	18.8			5						18.5	111.2	
				2405	PM	Volumes (vph)	0	57	0	21	0	0	0	0	0	12	1571	25
						V/C Ratio By Movement	0.23			0.17						0.16	0.45	
						Approach LOS	E			C						A		
						Queue Length (in metres)	19			5.1						12.2	85.5	
				2406	PM	Volumes (vph)	0	66	0	1	0	0	0	0	0	79	2042	25
						V/C Ratio By Movement	0.21			0.01						0.61	0.62	
						Approach LOS	E			E						B		
						Queue Length (in metres)	20.7			m0.3						48.4	174.3	

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
31	7590	St Albert Trail & Neil Ross Rd/Fowler Way West	Signalized	1400	PM	Volumes (vph)	0	0	1	244	0	0	0	0	0	59	764	0
						V/C Ratio By Movement			0		0.74					0.05	0.3	
						Approach LOS					B						A	
						Queue Length (in metres)			0		34					9.1	51.1	
				2400	PM	Volumes (vph)	0	68	194	619	1	0	0	0	0	63	1133	0
						V/C Ratio By Movement		0.08	0.55		1.49					0.05	0.47	
						Approach LOS		D			F						A	
						Queue Length (in metres)		13.3	56.2	#202.4	m0.0					9.9	89.9	
				2401	PM	Volumes (vph)	0	664	0	531	162	0	0	0	0	26	884	286
						V/C Ratio By Movement		0.29		1.46	0.08					0.05	0.92	0.55
						Approach LOS		C			F						E	
						Queue Length (in metres)		62.6		#176.6	2.6					15.3	#205.5	81.1
				2402	PM	Volumes (vph)	0	67	195	615	1	0	0	0	0	60	1136	0
						V/C Ratio By Movement		0.12	0.93	0.96	0					0.06	0.61	
						Approach LOS		F			D						C	
						Queue Length (in metres)		14.1	#105.4	#155.8	m0.0					17.2	162.4	
				2403	PM	Volumes (vph)	0	69	193	604	1	0	0	0	0	63	1133	0
						V/C Ratio By Movement		0.13	0.92	0.95	0					0.07	0.6	
						Approach LOS		F			D						C	
						Queue Length (in metres)		14.5	#104.0	#151.4	m0.0					17.9	161.8	
				2404	PM	Volumes (vph)	0	661	0	550	154	0	0	0	0	25	886	285
						V/C Ratio By Movement		0.32		1.51	0.08					0.05	0.82	0.5
						Approach LOS		C			F						D	
						Queue Length (in metres)		66.9		#184.7	3.5					14.2	184.9	73.5
				2405	PM	Volumes (vph)	0	662	0	542	161	0	0	0	0	27	884	286
						V/C Ratio By Movement		0.31		1.57	0.08					0.05	0.82	0.5
						Approach LOS		C			F						D	
						Queue Length (in metres)		66.3		#185.3	3					14.9	184.3	73.9
				2406	PM	Volumes (vph)	0	68	194	607	1	0	0	0	0	64	1133	0
						V/C Ratio By Movement		0.05	0.41	0.89	0					0.06	0.55	
						Approach LOS		C			C						B	
						Queue Length (in metres)		11	60.6	86	m0.0					16.3	143.8	

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
32	7747	St Albert Trail & Neil Ross Rd / Fowler Way East	Signalized	1400	PM	Volumes (vph)	0	59	0	0	244	21	0	1108	0	0	0	0
						V/C Ratio By Movement	0.14			0.32		0.1	0.43					
						Approach LOS	F			E			A					
						Queue Length (in metres)	21.3			30.6		8.9	83.7					
				2400	PM	Volumes (vph)	49	83	0	0	619	4	1	1741	0	0	0	0
						V/C Ratio By Movement	0.65	0.14		0.59		0.01	0	0.72				
						Approach LOS	E			F			B					
						Queue Length (in metres)	#41.3	13.5		72.8		0	0.6	189.8				
				2401	PM	V/C Ratio By Movement	1.42	0.18		0.18		0	0.07	1.18				
						Approach LOS	F			B			F					
						Queue Length (in metres)	#276.7	3.3		33		0	18.6	#301.9				
				2402	PM	Volumes (vph)	49	77	0	0	615	4	1	1741	0	0	0	0
						V/C Ratio By Movement	0.66	0.2		0.3		0.01	0	0.93				
						Approach LOS	E			D			D					
						Queue Length (in metres)	#40.3	12.5		56.2		0	1.1	341.8				
				2403	PM	Volumes (vph)	49	83	0	0	604	4	1	1741	0	0	0	0
						V/C Ratio By Movement	0.65	0.22		0.3		0.01	0	0.93				
						Approach LOS	E			D			D					
						Queue Length (in metres)	#39.6	13.3		55.2		0	1.1	341.8				
				2404	PM	Volumes (vph)	407	278	0	0	655	4	49	1383	0	0	0	0
						V/C Ratio By Movement	1.5	0.19		0.19		0	0.09	1.28				
						Approach LOS	F			B			F					
						Queue Length (in metres)	#278.5	3.3		36.5		0	23.6	#379.2				
				2405	PM	Volumes (vph)	411	278	0	0	664	4	39	1379	0	0	0	0
						V/C Ratio By Movement	1.52	0.19		0.19		0	0.07	1.28				
						Approach LOS	F			B			F					
						Queue Length (in metres)	#282.4	3.4		37		0	19.8	#377.7				
				2406	PM	Volumes (vph)	49	83	0	0	607	4	1	1741	0	0	0	0
						V/C Ratio By Movement	0.31	0.09		0.35		0.01	0	0.85				
						Approach LOS	D			D			C					
						Queue Length (in metres)	31.9	13.6		59.4		0	1	304				

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
33	8231	St Albert Trail & Everitt Drive West	Signalized	1400	PM	Volumes (vph)	0	0	0	15	0	0	0	0	0	4	1005	0
						V/C Ratio By Movement				0.12						0	0.33	
						Approach LOS				A						A		
						Queue Length (in metres)				0.1						0.6	32	
				2400	PM	Volumes (vph)	0	17	74	197	116	0	0	0	0	55	1874	16
						V/C Ratio By Movement	0.18			0.7	0.55					0.04	0.72	0.01
						Approach LOS	E			D						B		
						Queue Length (in metres)	16.8			50.9	24.8					8.6	214.8	1.3
				2401	PM	Volumes (vph)	0	192	131	127	113	0	0	0	0	53	1351	11
						Level of Service	0.63			0.6	0.34					0.05	0.63	0.01
						V/C Ratio By Movement	E			D						B		
						Queue Length (in metres)	42			12.5	13.8					14.4	195.1	0
				2402	PM	Volumes (vph)	16	18	74	202	116	0	0	0	0	59	1872	0
						Level of Service	0.41			0.69	0.39					0.06	0.9	
						V/C Ratio By Movement	C			F						C		
						Queue Length (in metres)	12.6			53.3	62.2					15.5	#375.6	
				2403	PM	Volumes (vph)	16	17	74	210	116	0	0	0	0	52	1862	0
						Level of Service	0.42			0.62	0.41					0.05	0.91	
						V/C Ratio By Movement	C			F						C		
						Queue Length (in metres)	12.6			54.7	65.1					14.1	#363.4	
				2404	PM	Volumes (vph)	0	146	112	100	249	0	0	0	0	53	1371	11
						Level of Service	0.49			0.55	0.79					0.05	0.69	0.01
						V/C Ratio By Movement	D			F						C		
						Queue Length (in metres)	28.9			19.2	122.8					16.8	234	0
				2405	PM	Volumes (vph)	1364	181	0	113	110	0	0	0	0	51	11	0
						Level of Service	3.23dl			1.04	0.15					0.07	0.01	
						V/C Ratio By Movement	F				F						C	
						Queue Length (in metres)	#288.2			#47.1	45.7					21.3	3.7	
				2406	PM	Volumes (vph)	16	17	74	210	116	0	0	0	0	55	1862	0
						Level of Service	0.22			0.72	0.52					0.04	0.72	
						V/C Ratio By Movement	E			F						B		
						Queue Length (in metres)	18			53.8	63.8					8.8	217.6	

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SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
34	8232	St Albert Trail & Everitt Drive East	Signalized	1400	PM	Volumes (vph)	0	4	0	0	15	0	0	1473	0	0	0	0
						V/C Ratio By Movement	0.03			0.08			0.49					
						Approach LOS	F			E			A					
						Queue Length (in metres)	3.3			5			58.3					
				2400	PM	Volumes (vph)	10	63	0	0	203	1	110	2346	194	0	0	0
						V/C Ratio By Movement	0.08	0.16		0.35			0.04	0.91	0.17			
						Approach LOS	E			E			B					
						Queue Length (in metres)	8.9	17.3		33.5			7.5	413.9	20.2			
				2401	PM	Volumes (vph)	37	208	0	0	193	0	47	1607	120	0	0	0
						Level of Service	0.35	0.64		0.21			0.31	0.68	0.11			
						V/C Ratio By Movement	D			D			B					
						Queue Length (in metres)	10.2	20.7		29.4			16.3	201.3	12.5			
				2402	PM	Volumes (vph)	10	66	0	208	0	1	110	2316	234	0	0	0
						Level of Service	0.18	0.38		2.00dl			0.47	0.96	0.21			
						V/C Ratio By Movement	F			D			C					
						Queue Length (in metres)	9.9	19.8		27.7			31.3	#491.4	24.3			
				2403	PM	Volumes (vph)	10	60	0	216	0	0	109	2331	208	0	0	0
						Level of Service	0.07	0.35		0.84			0.45	0.98	0.19			
						V/C Ratio By Movement	F			F			D					
						Queue Length (in metres)	9.7	18.5		#115.2			31	#497.6	22.3			
				2404	PM	Volumes (vph)	10	189	0	0	164	0	185	1858	119	0	0	0
						Level of Service	0.09	0.58		0.19			0.63	0.78	0.11			
						V/C Ratio By Movement	D			D			C					
						Queue Length (in metres)	5.3	24.6		25.3			47.5	280.6	14			
				2405	PM	Volumes (vph)	37	195	0	174	0	0	49	1861	131	0	0	0
						Level of Service	0.09	0.17		0.17			0.43	1.16	0.18			
						V/C Ratio By Movement	B			C			F					
						Queue Length (in metres)	m3.6	m8.7		20.6			17.3	#461.1	28.7			
				2406	PM	Volumes (vph)	10	62	0	216	0	1	110	2340	202	0	0	0
						Level of Service	0.08	0.15		1.24dl			0.04	0.91	0.17			
						V/C Ratio By Movement	E			E			B					
						Queue Length (in metres)	9.2	17.4		33.6			7.7	419.7	18.7			

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SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
35	6142	St Anne Street & Sir winston Churchill Ave	Signalized	1400	PM	Volumes (vph)	64	218	250	68	250	80	200	122	1	26	81	187
						Level of Service	0.16	0.14	0.31	0.14	0.22		0.31			0.09		0.25
						V/C Ratio By Movement	B			B			C			A		
						Queue Length (in metres)	18.3	23.6	14.2	18.5	30.2		37.4			13.4		13.1
				2400	PM	Volumes (vph)	69	1064	250	63	713	521	512	704	11	321	87	314
						Level of Service	1.12	0.71	0.31	0.64	0.84		1.48dl			5.13dl		0.44
						V/C Ratio By Movement	C			C			F			B		
						Queue Length (in metres)	#50.1	131.8	14.2	m13.4	109.7		#252.7			51		57.2
				2401	PM	Volumes (vph)	67	1103	0	41	669	513	252	627	15	326	82	311
						Level of Service	0.33	0.98		0.2	1.06		0.91	0.92		1.02	0.1	0.62
						V/C Ratio By Movement	D			E			E			D		
						Queue Length (in metres)	15.6	#171.5		10.8	#166.5		#97.3	#102.4		#124.6	13	47.9
				2402	PM	Volumes (vph)	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
						Level of Service	74	905	250	68	715	497	495	724	9	387	111	302
						V/C Ratio By Movement	0.64	0.77	0.37	0.52	1.06		0.98	0.96		1.03	0.22	0.9
						Queue Length (in metres)	D			E			E			E		
				2403	PM	Volumes (vph)	69	1047	250	64	673	567	538	664	11	323	87	318
						Level of Service	0.5	0.91	0.39	0.47	1.05		1.02	0.8		0.97	0.19	0.96
						V/C Ratio By Movement	D			E			E			E		
						Queue Length (in metres)	22.5	#204.0	35.9	21.3	#248.1		#250.3	127.2		#164.3	21.5	#121.2
				2404	PM	Volumes (vph)	70	1043	250	60	763	446	450	797	13	329	87	309
						Level of Service	0.49	0.89	0.38	0.42	1.03		0.97	1		0.98	0.16	0.84
						V/C Ratio By Movement	D			E			E			E		
						Queue Length (in metres)	21.6	#193.6	32.4	19.2	#239.1		#201.4	#175.1		#163.0	20.3	#104.1
				2405	PM	Volumes (vph)	68	1086	250	60	796	442	409	797	14	329	82	302
						Level of Service	0.33	1.08	0.4	0.29	1.21		1.26	0.97		1.22	0.11	0.66
						V/C Ratio By Movement	E			F			F			F		
						Queue Length (in metres)	16.1	#171.5	17.7	14.5	#196.5		#162.9	#127.3		#136.7	13.3	53
				2406	PM	Volumes (vph)	69	1059	250	47	687	450	368	790	12	325	78	281
						Level of Service	1.12	0.9	0.37	0.76	0.95		0.97			2.72dl		0.34
						V/C Ratio By Movement	D			D			D			B		
						Queue Length (in metres)	#50.1	#168.5	20.2	m#28.7	#179.5		#196.9			41.4		45.7

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
36	6624	Villeneuve Rd & Hogan Rd	Signalized	1400	PM	Volumes (vph)	2	408	1	160	292	12	2	0	93	10	0	2
						Level of Service		0.6			1.01			0.15			0.02	
						V/C Ratio By Movement		B			E			A			A	
						Queue Length (in metres)		50.3			#93.5			6.4			1.1	
				2400	PM	Volumes (vph)	3	808	7	211	580	16	2	0	91	11	1	3
						Level of Service		1.2			2.58			0.15			0.03	
						V/C Ratio By Movement		F			F			A			A	
						Queue Length (in metres)		#154.1			#165.0			8.7			3.2	
				2401	PM	Volumes (vph)	94		0				2	364			86	0
						Level of Service		0.3						0.29			0.07	
						V/C Ratio By Movement		B						A			A	
						Queue Length (in metres)		12.6						27.3			7	
				2402	PM	Volumes (vph)	3	795	6	215	579	16	2	0	93	11	1	3
						Level of Service		0.61			1.01			0.31			0.07	
						V/C Ratio By Movement		A			D			B			D	
						Queue Length (in metres)		109.7			#308.1			16.5			9.6	
				2403	PM	Volumes (vph)	3	799	8	214	579	16	2	0	92	11	1	3
						Level of Service		0.61			1.01			0.31			0.07	
						V/C Ratio By Movement		A			D			B			D	
						Queue Length (in metres)		111.1			#308.0			16.5			9.6	
				2404	PM	Volumes (vph)	138		0				2	360			180	14
						Level of Service		0.34						0.34			0.18	
						V/C Ratio By Movement		B						A			A	
						Queue Length (in metres)		17.4						30.3			15.3	
				2405	PM	Volumes (vph)	96		0				2	349			86	0
						Level of Service		0.3						0.28			0.07	
						V/C Ratio By Movement		B						A			A	
						Queue Length (in metres)		12.8						26.1			7	
				2406	PM	Volumes (vph)	4	959	28	110	571	15	2	0	77	11	1	3
						Level of Service		1.45			1.83			0.13			0.03	
						V/C Ratio By Movement		F			F			A			A	
						Queue Length (in metres)		#193.8			#158.4			8.6			3.2	

Table 1 - Level of Service Summary for St.Albert Network Analysis

SL.NO	Intersection Number	Intersection	Intersection Control Device	Scenario	Interval	Measure	Eastbound			Westbound			Northbound			Southbound		
							Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right

Table 1 - Arterial Level of Service Summary for St.Albert Network Analysis

Intersection	Scenario	Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (km)	Arterial Speed	Arterial LOS
NB Bellerose Drive	1400	St. Albert Trail	III	50	0.0	46.9	46.9	0.00	N/A	N/A
		St Albert Centre Acc	III	50	17.9	0.0	17.9	0.21	43.2	B
		Inglewood Drive	III	50	19.0	8.0	27.0	0.23	30.4	C
		Boudreau Road	III	50	42.0	54.0	96.0	0.53	19.9	E
		Evergreen Dr	III	50	18.5	0.0	18.5	0.22	43.2	B
		Edward Way / Oakmount Drive	III	50	41.5	0.0	41.5	0.53	45.7	B
		Total	**III**		**138.9**	**108.9**	**247.8**	**1.72**	**30.80**	**C**
	2400	St. Albert Trail	III	50	0.0	49.2	49.2	0.00	N/A	N/A
		St Albert Centre Acc	III	50	17.9	0.0	17.9	0.21	43.2	B
		Inglewood Drive	III	50	19.0	8.0	27.0	0.23	30.4	C
		Boudreau Road	III	50	42.0	162.5	204.5	0.53	9.4	F
		Evergreen Dr	III	50	18.5	0.0	18.5	0.22	43.2	B
		Edward Way / Oakmount Drive	III	50	41.5	0.0	41.5	0.53	45.7	B
		Total	**III**		**138.9**	**219.7**	**358.60**	**1.72**	**20.10**	**E**
	2401	St. Albert Trail	III	50	0.0	41.5	41.5	0.00	N/A	N/A
		St Albert Centre Acc	III	50	17.9	0.0	17.9	0.21	43.2	B
		Inglewood Drive	III	50	19.0	8.0	27.0	0.23	30.4	C
		Boudreau Road	III	50	42.0	190.4	232.4	0.53	8.3	F
		Evergreen Dr	III	50	18.5	0.0	18.5	0.22	43.2	B
		Edward Way / Oakmount Drive	III	50	41.5	0.0	41.5	0.53	45.7	B
		Total	**III**		**138.9**	**239.9**	**378.80**	**1.72**	**18.40**	**E**
	2402	St. Albert Trail	III	50	0.0	59.8	59.8	0.00	N/A	N/A
		St Albert Centre Acc	III	50	17.9	0.0	17.9	0.21	43.2	B
		Inglewood Drive	III	50	19.0	8.0	27.0	0.23	30.4	C
		Boudreau Road	III	50	42.0	205.3	247.3	0.53	7.8	F
		Evergreen Dr	III	50	18.5	0.0	18.5	0.22	43.2	B
		Edward Way / Oakmount Drive	III	50	41.5	0.0	41.5	0.53	45.7	B
		Total	**III**		**138.9**	**273.1**	**412.00**	**1.72**	**17.60**	**E**
	2403	St. Albert Trail	III	50	0.0	49.2	49.2	0.00	N/A	N/A
		St Albert Centre Acc	III	50	17.9	0.0	17.9	0.21	43.2	B
		Inglewood Drive	III	50	19.0	8.0	27.0	0.23	30.4	C
		Boudreau Road	III	50	42.0	206.9	248.9	0.53	7.7	F
		Evergreen Dr	III	50	18.5	0.0	18.5	0.22	43.2	B
		Edward Way / Oakmount Drive	III	50	41.5	0.0	41.5	0.53	45.7	B
		Total	**III**		**138.9**	**264.1**	**403.00**	**1.72**	**17.50**	**E**
	2404	St. Albert Trail	III	50	0.0	51.4	51.4	0.00	N/A	N/A
		St Albert Centre Acc	III	50	17.9	0.0	17.9	0.21	43.2	B
		Inglewood Drive	III	50	19.0	8.0	27.0	0.23	30.4	C
		Boudreau Road	III	50	42.0	190.5	232.5	0.53	8.2	F
		Evergreen Dr	III	50	18.5	0.0	18.5	0.22	43.2	B
		Edward Way / Oakmount Drive	III	50	41.5	0.0	41.5	0.53	45.7	B
		Total	**III**		**138.9**	**249.9**	**388.80**	**1.72**	**18.40**	**E**
	2405	St. Albert Trail	III	50	0.0	43.4	43.4	0.00	N/A	N/A
		St Albert Centre Acc	III	50	17.9	0.0	17.9	0.21	43.2	B
		Inglewood Drive	III	50	19.0	8.0	27.0	0.23	30.4	C
		Boudreau Road	III	50	42.0	216.9	258.9	0.53	7.4	F
		Evergreen Dr	III	50	18.5	0.0	18.5	0.22	43.2	B
		Edward Way / Oakmount Drive	III	50	41.5	0.0	41.5	0.53	45.7	B
		Total	**III**		**138.9**	**268.3**	**407.20**	**1.72**	**17.10**	**E**
	2406	St. Albert Trail	III	50	0.0	60.1	60.1	0.00	N/A	N/A
		St Albert Centre Acc	III	50	17.9	0.0	17.9	0.21	43.2	B
		Inglewood Drive	III	50	19.0	8.0	27.0	0.23	30.4	C
		Boudreau Road	III	50	42.0	200.8	242.8	0.53	7.9	F
		Evergreen Dr	III	50	18.5	0.0	18.5	0.22	43.2	B
		Edward Way / Oakmount Drive	III	50	41.5	0.0	41.5	0.53	45.7	B
		Total	**III**		**138.9**	**268.9**	**407.80**	**1.72**	**17.80**	**E**
	2407	St. Albert Trail	III	50	0.0	49.0	49.0	0.00	N/A	N/A
		St Albert Centre Acc	III	50	17.9	0.0	17.9	0.21	43.2	B
		Inglewood Drive	III	50	19.0	8.0	27.0	0.23	30.4	C
		Boudreau Road	III	50	42.0	217.9	239.1	0.53	7.4	F
		Evergreen Dr	III	50	18.5	0.0	18.5	0.22	43.2	B
		Edward Way / Oakmount Drive	III	50	41.5	0.0	41.5	0.53	45.7	B
		Total	**III**		**138.9**	**274.9**	**393.00**	**1.72**	**17.00**	**E**
	2411	St. Albert Trail	III	50	0.0	49.5	49.5	0.00	N/A	N/A
		St Albert Centre Acc	III	50	17.9	0.0	17.9	0.21	43.2	B
		Inglewood Drive	III	50	19.0	8.0	27.0	0.23	30.4	C
		Boudreau Road	III	50	42.0	218.5	239.1	0.53	7.4	F
		Evergreen Dr	III	50	18.5	0.0	18.5	0.22	43.2	B
		Edward Way / Oakmount Drive	III	50	41.5	0.0	41.5	0.53	45.7	B
		Total	**III**		**138.9**	**276.0**	**393.50**	**1.72**	**17.00**	**E**

Table 1 - Arterial Level of Service Summary for St.Albert Network Analysis

Intersection	Scenario	Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (km)	Arterial Speed	Arterial LOS
SB Bellerose Drive	1400	Edward Way / Oakmount Drive	III	50	0.0	0.0	0.0	0.00	50.0	A
		Evergreen Dr	III	50	41.5	0.0	41.5	0.53	45.7	B
		Boudreau Road	III	50	18.5	15.4	33.9	0.22	23.6	D
		Inglewood Drive	III	50	42.0	0.0	42.0	0.53	45.7	B
		Inglewood Towne Cent	III	50	19.0	0.0	19.0	0.23	43.2	B
		St Albert Trail	III	50	17.9	81.6	99.5	0.21	7.8	F
		Total	**III**		**138.9**	**97.0**	**235.9**	**1.72**	**33.30**	**C**
	2400	Edward Way / Oakmount Drive	III	50	0.0	0.0	0.0	0.00	50.0	A
		Evergreen Dr	III	50	41.5	0.0	41.5	0.53	45.7	B
		Boudreau Road	III	50	18.5	16.9	35.4	0.22	22.6	D
		Inglewood Drive	III	50	42.0	0.0	42.0	0.53	45.7	B
		Inglewood Towne Cent	III	50	19.0	0.0	19.0	0.23	43.2	B
		St Albert Trail	III	50	17.9	79.7	97.6	0.21	7.9	F
		Total	**III**		**138.9**	**96.6**	**235.5**	**1.72**	**33.30**	**C**
	2401	Edward Way / Oakmount Drive	III	50	0.0	0.0	0.0	0.00	50.0	A
		Evergreen Dr	III	50	41.5	0.0	41.5	0.53	45.7	B
		Boudreau Road	III	50	18.5	29.0	47.5	0.22	16.8	E
		Inglewood Drive	III	50	42.0	0.0	42.0	0.53	45.7	B
		Inglewood Towne Cent	III	50	19.0	0.0	19.0	0.23	43.2	B
		St Albert Trail	III	50	17.9	81.8	99.7	0.21	7.7	F
		Total	**III**		**138.9**	**110.8**	**249.7**	**1.72**	**34.85**	**C**
	2402	Edward Way / Oakmount Drive	III	50	0.0	0.0	0.0	0.00	50.0	A
		Evergreen Dr	III	50	41.5	0.0	41.5	0.53	45.7	B
		Boudreau Road	III	50	18.5	23.6	42.1	0.22	19.0	E
		Inglewood Drive	III	50	42.0	0.0	42.0	0.53	45.7	B
		Inglewood Towne Cent	III	50	19.0	0.0	19.0	0.23	43.2	B
		St Albert Trail	III	50	17.9	76.4	94.3	0.21	8.2	F
		Total	**III**		**138.9**	**100.0**	**238.9**	**1.72**	**33.00**	**C**
	2403	Edward Way / Oakmount Drive	III	50	0.0	0.0	0.0	0.00	50.0	A
		Evergreen Dr	III	50	41.5	0.0	41.5	0.53	45.7	B
		Boudreau Road	III	50	18.5	23.8	42.3	0.22	18.9	E
		Inglewood Drive	III	50	42.0	0.0	42.0	0.53	45.7	B
		Inglewood Towne Cent	III	50	19.0	0.0	19.0	0.23	43.2	B
		St Albert Trail	III	50	17.9	81.6	99.5	0.21	7.8	F
		Total	**III**		**138.9**	**105.4**	**244.3**	**1.72**	**32.50**	**C**
	2404	Edward Way / Oakmount Drive	III	50	0.0	0.0	0.0	0.00	50.0	A
		Evergreen Dr	III	50	41.5	0.0	41.5	0.53	45.7	B
		Boudreau Road	III	50	18.5	23.4	41.9	0.22	19.1	E
		Inglewood Drive	III	50	42.0	0.0	42.0	0.53	45.7	B
		Inglewood Towne Cent	III	50	19.0	0.0	19.0	0.23	43.2	B
		St Albert Trail	III	50	17.9	83.7	101.6	0.21	7.6	F
		Total	**III**		**138.9**	**107.1**	**246.0**	**1.72**	**32.30**	**C**
	2405	Edward Way / Oakmount Drive	III	50	0.0	0.0	0.0	0.00	50.0	A
		Evergreen Dr	III	50	41.5	0.0	41.5	0.53	45.7	B
		Boudreau Road	III	50	18.5	30.0	48.5	0.22	16.5	E
		Inglewood Drive	III	50	42.0	0.0	42.0	0.53	45.7	B
		Inglewood Towne Cent	III	50	19.0	0.0	19.0	0.23	43.2	B
		St Albert Trail	III	50	17.9	84.1	102.0	0.21	7.6	F
		Total	**III**		**138.9**	**114.1**	**253.0**	**1.72**	**34.78**	
	2406	Edward Way / Oakmount Drive	III	50	0.0	0.0	0.0	0.00	50.0	A
		Evergreen Dr	III	50	41.5	0.0	41.5	0.53	45.7	B
		Boudreau Road	III	50	18.5	23.6	42.1	0.22	19.0	E
		Inglewood Drive	III	50	42.0	0.0	42.0	0.53	45.7	B
		Inglewood Towne Cent	III	50	19.0	0.0	19.0	0.23	43.2	B
		St Albert Trail	III	50	17.9	75.2	93.1	0.21	8.3	F
		Total	**III**		**138.9**	**98.8**	**237.7**	**1.72**	**33.10**	**C**
	2407	Edward Way / Oakmount Drive	III	50	0.0	0.0	0.0	0.00	50.0	A
		Evergreen Dr	III	50	41.5	0.0	41.5	0.53	45.7	B
		Boudreau Road	III	50	18.5	24.3	42.8	0.22	18.7	E
		Inglewood Drive	III	50	42.0	0.0	42.0	0.53	45.7	B
		Inglewood Towne Cent	III	50	19.0	0.0	19.0	0.23	43.2	B
		St Albert Trail	III	50	17.9	87.1	105.0	0.21	7.4	F
		Total	**III**		**138.9**	**111.4**	**250.3**	**1.72**	**31.90**	**C**
	2411	Edward Way / Oakmount Drive	III	50	0.0	0.0	0.0	0.00	50.0	A
		Evergreen Dr	III	50	41.5	0.0	41.5	0.53	45.7	B
		Boudreau Road	III	50	18.5	80.0	98.5	0.22	8.1	F
		Inglewood Drive	III	50	42.0	0.0	42.0	0.53	45.7	B
		Inglewood Towne Cent	III	50	19.0	0.0	19.0	0.23	43.2	B
		St Albert Trail	III	50	17.9	76.2	94.1	0.21	8.2	F
		Total	**III**		**138.9**	**156.2**	**295.1**	**1.72**	**28.30**	**D**

Table 1 - Arterial Level of Service Summary for St.Albert Network Analysis

Intersection	Scenario	Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (km)	Arterial Speed	Arterial LOS
EB Boudreau Road	1400	St. Albert Trail	III	50	0.0	72.0	72.0	0.00	N/A	N/A
		Inglewood Drive	III	50	22.7	9.8	32.5	0.29	31.8	C
		Bellerose Drive	III	50	47.0	34.0	81.0	0.60	26.5	D
		Sturgeon Road	III	50	56.3	13.7	70.0	0.71	36.7	C
		Westwood Drive	III	50	17.8	0.0	17.8	0.21	43.2	B
		Sir Winston Churchil	III	50	43.8	33.9	77.7	0.55	25.7	D
		Forest Drive	III	50	45.7	0.0	45.7	0.58	45.6	B
		Hebert Road	III	50	29.4	13.5	42.9	0.37	31.3	C
		Akins Drive	III	50	32.0	0.0	32.0	0.41	45.7	B
		Campbell Road	III	50	30.7	28.9	59.6	0.39	23.5	D
		Curial Drive / Carnegie Drive	III	50	17.9	0.0	17.9	0.22	43.2	B
		Chatelain Drive	III	50	29.5	8.0	37.5	0.37	35.9	C
		Veness Road	III	50	17.5	12.0	29.5	0.20	24.4	D
		Total	**III**		**390.3**	**225.8**	**616.1**	**4.90**	**32.40**	**C**
	2400	St. Albert Trail	III	50	0.0	84.3	84.3	0.00	N/A	N/A
		Inglewood Drive	III	50	22.7	10.5	33.2	0.29	31.2	C
		Bellerose Drive	III	50	47.0	41.7	88.7	0.60	24.2	D
		Sturgeon Road	III	50	56.3	70.7	127.0	0.71	20.2	E
		Westwood Drive	III	50	17.8	0.0	17.8	0.21	43.2	B
		Sir Winston Churchil	III	50	43.8	40.3	84.1	0.55	23.7	D
		Forest Drive	III	50	45.7	0.0	45.7	0.58	45.6	B
		Hebert Road	III	50	29.4	12.5	41.9	0.37	32.1	C
		Akins Drive	III	50	32.0	0.0	32.0	0.41	45.7	B
		Campbell Road	III	50	30.7	32.6	63.3	0.39	22.1	E
		Curial Drive / Carnegie Drive	III	50	17.9	0.0	17.9	0.22	43.2	B
		Chatelain Drive	III	50	29.5	8.0	37.5	0.37	35.9	C
		Veness Road	III	50	17.5	12.0	29.5	0.20	24.4	D
		Total	**III**		**390.3**	**312.6**	**702.9**	**4.90**	**28.50**	**D**
	2401	St. Albert Trail	III	50	0.0	46.7	46.7	0.00	N/A	N/A
		Inglewood Drive	III	50	22.7	8.1	30.8	0.29	33.6	C
		Bellerose Drive	III	50	47.0	117.3	164.3	0.60	13.1	F
		Sturgeon Road	III	50	56.3	32.0	88.3	0.71	29.1	C
		Westwood Drive	III	50	17.8	0.0	17.8	0.21	43.3	B
		Sir Winston Churchil	III	50	43.8	63.3	107.1	0.55	18.6	E
		Forest Drive	III	50	45.7	0.0	45.7	0.58	45.6	B
		Hebert Road	III	50	29.4	8.3	37.7	0.37	35.6	C
		Akins Drive	III	50	32.0	0.0	32.0	0.41	45.7	B
		Campbell Road	III	50	30.7	79.1	109.8	0.39	12.7	F
		Curial Drive / Carnegie Drive	III	50	17.9	0.0	17.9	0.22	43.2	B
		Chatelain Drive	III	50	29.5	8.0	37.5	0.37	35.9	C
		Veness Road	III	50	17.5	12.0	29.5	0.20	24.4	D
		Total	**III**		**390.3**	**374.8**	**765.1**	**4.90**	**24.60**	**D**
	2402	St. Albert Trail	III	50	0.0	64.2	64.2	0.00	N/A	N/A
		Inglewood Drive	III	50	22.7	9.3	32.0	0.29	32.3	C
		Bellerose Drive	III	50	47.0	82.5	129.5	0.60	16.6	E
		Sturgeon Road	III	50	56.3	24.8	81.1	0.71	31.7	C
		Westwood Drive	III	50	17.8	0.0	17.8	0.21	43.2	B
		Sir Winston Churchil	III	50	43.8	98.1	141.9	0.55	14.1	F
		Forest Drive	III	50	45.7	0.0	45.7	0.58	45.6	B
		Hebert Road	III	50	29.4	13.6	43.0	0.37	31.2	C
		Akins Drive	III	50	32.0	0.0	32.0	0.41	45.7	B
		Campbell Road	III	50	30.7	56.3	87.0	0.39	16.1	E
		Curial Drive / Carnegie Drive	III	50	17.9	0.0	17.9	0.22	43.2	B
		Chatelain Drive	III	50	29.5	8.0	37.5	0.37	35.9	C
		Veness Road	III	50	17.5	12.0	29.5	0.20	24.4	D
		Total	**III**		**390.3**	**368.8**	**759.1**	**4.90**	**25.40**	**D**
	2403	St. Albert Trail	III	50	0.0	64.2	64.2	0.00	N/A	N/A
		Inglewood Drive	III	50	22.7	10.5	33.2	0.29	31.2	C
		Bellerose Drive	III	50	47.0	86.8	133.8	0.60	16.0	E
		Sturgeon Road	III	50	56.3	25.3	81.6	0.71	31.5	C
		Westwood Drive	III	50	17.8	0.0	17.8	0.21	43.2	B
		Sir Winston Churchil	III	50	43.8	77.9	121.7	0.55	16.4	E
		Forest Drive	III	50	45.7	0.0	45.7	0.58	45.6	B
		Hebert Road	III	50	29.4	13.1	42.5	0.37	31.6	C
		Akins Drive	III	50	32.0	0.0	32.0	0.41	45.7	B
		Campbell Road	III	50	30.7	53.5	84.2	0.39	16.6	E
		Curial Drive / Carnegie Drive	III	50	17.9	0.0	17.9	0.22	43.2	B
		Chatelain Drive	III	50	29.5	8.0	37.5	0.37	35.9	C
		Veness Road	III	50	17.5	12.0	29.5	0.20	24.4	D
		Total	**III**		**390.3**	**351.3**	**741.6**	**4.90**	**31.78**	**D**
	2404	St. Albert Trail	III	50	0.0	61.3	61.3	0.00	N/A	N/A
		Inglewood Drive	III	50	22.7	9.4	32.1	0.29	32.2	C
		Bellerose Drive	III	50	47.0	101.2	148.2	0.60	14.5	F
		Sturgeon Road	III	50	56.3	23.4	79.7	0.71	32.3	C
		Westwood Drive	III	50	17.8	0.0	17.8	0.21	43.2	B
		Sir Winston Churchil	III	50	43.8	94.4	138.2	0.55	14.4	F
		Forest Drive	III	50	45.7	0.0	45.7	0.58	45.6	B
		Hebert Road	III	50	29.4	12.9	42.3	0.37	31.8	C
		Akins Drive	III	50	32.0	0.0	32.0	0.41	45.7	B
		Campbell Road	III	50	30.7	56.7	87.4	0.39	16.0	E
		Curial Drive / Carnegie Drive	III	50	17.9	0.0	17.9	0.22	43.2	B
		Chatelain Drive	III	50	29.5	8.0	37.5	0.37	35.9	C
		Veness Road	III	50	17.5	12.0	29.5	0.20	24.4	D
		Total	**III**		**390.3**	**379.3**	**769.6**	**4.90**	**24.90**	**D**
	2405	St. Albert Trail	III	50	0.0	60.8	60.8	0.00	N/A	N/A
		Inglewood Drive	III	50	22.7	9.5	32.2	0.29	32.1	C
		Bellerose Drive	III	50	47.0	148.8	195.8	0.60	11.0	F
		Sturgeon Road	III	50	56.3	39.1	95.4	0.71	26.9	D
		Westwood Drive	III	50	17.8	0.0	17.8	0.21	43.3	B
		Sir Winston Churchil	III	50	43.8	80.4	124.2	0.55	16.1	E
		Forest Drive	III	50	45.7	0.0	45.7	0.58	45.6	B
		Hebert Road	III	50	29.4	13.2	42.6	0.37	31.5	C
		Akins Drive	III	50	32.0	0.0	32.0	0.41	45.7	B
		Campbell Road	III	50	30.7	55.1	85.8	0.39	16.3	E
		Curial Drive / Carnegie Drive	III	50	17.9	0.0	17.9	0.22	43.2	B
		Chatelain Drive	III	50	29.5	8.0	37.5	0.37	35.9	C
		Veness Road	III	50	17.5	12.0	29.5	0.20	24.4	D
		Total	**III**		**390.3**	**426.9**	**817.2**	**4.90**	**31.00**	**D**
	2406	St. Albert Trail	III	50	0.0	62.1	62.1	0.00	N/A	N/A
		Inglewood Drive	III	50	22.7	9.4	32.1	0.29	32.2	C
		Bellerose Drive	III	50	47.0	97.3	144.3	0.60	14.9	F
		Sturgeon Road	III	50	56.3	39.7	96.0	0.71	26.8	D
		Westwood Drive	III	50	17.8	0.0	17.8	0.21	43.2	B
		Sir Winston Churchil	III	50	43.8	32.8	76.6	0.55	26.1	D
		Forest Drive	III	50	45.7	0.0	45.7	0.58	45.6	B
		Hebert Road	III	50	29.4	12.8	42.2	0.37	31.8	C
		Akins Drive	III	50	32.0	0.0	32.0	0.41	45.7	B
		Campbell Road	III	50	30.7	52.1	82.8	0.39	16.9	E
		Curial Drive / Carnegie Drive	III	50	17.9	0.0	17.9	0.22	43.2	B
		Chatelain Drive	III	50	29.5	8.0	37.5	0.37	35.9	C
		Veness Road	III	50	17.5	12.0	29.5	0.20	24.4	D
		Total	**III**		**390.3**	**326.2**	**716.5**	**4.90**	**27.00**	**D**
	2407	St. Albert Trail	III	50	0.0	64.1	64.1	0.00	N/A	N/A
		Inglewood Drive	III	50	22.7	9.5	32.2	0.29	32.1	C
		Bellerose Drive	III	50	47.0	76.0	123.0	0.60	17.4	E
		Sturgeon Road	III	50	56.3	25.7	82.0	0.71	31.3	C
		Westwood Drive	III	50	17.8	0.0	17.8	0.21	43.2	B
		Sir Winston Churchil	III	50	43.8	80.7	124.5	0.55	16.0	E
		Forest Drive	III	50	45.7	0.0	45.7	0.58	45.6	B
		Hebert Road	III	50	29.4	13.1	42.5	0.37	31.6	C
		Akins Drive	III	50	32.0	0.0	32.0	0.41	45.7	B
		Campbell Road	III	50	30.7	53.6	84.3	0.39	16.6	E
		Curial Drive / Carnegie Drive	III	50	17.9	0.0	17.9	0.22	43.2	B
		Chatelain Drive	III	50	29.5	9.0	38.5	0.37	35.9	C
		Veness Road	III	50	17.5	12.0	29.5	0.20	24.4	D
		Total	**III**		**390.3**	**343.7**	**734.0**	**4.90**	**26.40**	**D**
	2411	St. Albert Trail	III	50	0.0	39.5	39.5	0.00	N/A	N/A
		Inglewood Drive	III	50	22.7	8.3	31.0	0.29	33.4	C
		Bellerose Drive	III	50	47.0	193.3	240.3	0.60	8.9	F
		Sturgeon Road	III	50	56.3	17.8	74.1	0.71	34.7	C
		Westwood Drive	III	50	17.8	0.0	17.8	0.21	43.3	B
		Sir Winston Churchil	III	50	43.8	58.5	102.3	0.55	19.5	E
		Forest Drive	III	50	45.7	0.0	45.7	0.58	45.6	B
		Hebert Road	III	50	29.4	10.5	39.9	0.37	33.7	C
		Akins Drive	III	50	32.0	0.0	32.0	0.41	45.7	B
		Campbell Road	III	50	30.7	60.9	91.6	0.39	15.3	F
		Curial Drive / Carnegie Drive	III	50	17.9	0.0	17.9	0.22	43.2	B
		Chatelain Drive	III	50	29.5	8.0	37.5	0.37	35.9	C
		Veness Road	III	50	17.5	12.0	29.5	0.20	24.4	D
		Total	**III**		**390.3**	**408.8**	**799.1**	**4.90**	**23.20**	**D**

Table 1 - Arterial Level of Service Summary for St.Albert Network Analysis

Intersection	Scenario	Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (km)	Arterial Speed	Arterial LOS
WB Boudreau Road	1400	Veness Road	III	50	0.0	0.0	0.0	0.00	N/A	N/A
		Chatelain Drive	III	50	17.5	0.0	17.5	0.20	41.1	B
		Curial Drive / Carnegie Drive	III	50	29.5	0.0	29.5	0.37	45.6	B
		Campbell Road	III	50	17.9	32.4	50.3	0.22	15.4	F
		Akins Drive	III	50	30.7	0.0	30.7	0.39	45.6	B
		Hebert Road	III	50	32.0	9.2	41.2	0.41	35.5	C
		Primeau Lane	III	50	29.4	0.0	29.4	0.37	45.7	B
		Sir Winston Churchil	III	50	45.7	17.5	63.2	0.58	33.0	C
		Westwood Drive	III	50	43.8	0.0	43.8	0.55	45.6	B
		Sturgeon Road	III	50	17.8	28.8	46.6	0.21	16.5	E
		Bellerose Drive	III	50	56.3	11.2	67.5	0.71	38.1	C
		Erin Ridge Drive	III	50	47.0	10.9	57.9	0.60	37.1	C
		St Albert Trail	III	50	22.7	74.4	97.1	0.29	10.7	F
		Total	**III**		**390.3**	**184.4**	**574.7**	**4.9**	**30.70**	**C**
	2400	Veness Road	III	50	0.0	0.0	0.0	0.00	N/A	N/A
		Chatelain Drive	III	50	17.5	0.0	17.5	0.20	41.1	B
		Curial Drive / Carnegie Drive	III	50	29.5	0.0	29.5	0.37	45.6	B
		Campbell Road	III	50	17.9	63.8	81.7	0.22	9.5	F
		Akins Drive	III	50	30.7	0.0	30.7	0.39	45.6	B
		Hebert Road	III	50	32.0	11.7	43.7	0.41	33.5	C
		Primeau Lane	III	50	29.4	0.0	29.4	0.37	45.7	B
		Sir Winston Churchil	III	50	45.7	20.6	66.3	0.58	31.4	C
		Westwood Drive	III	50	43.8	0.0	43.8	0.55	45.6	B
		Sturgeon Road	III	50	17.8	249.7	267.5	0.21	2.9	F
		Bellerose Drive	III	50	56.3	18.1	74.4	0.71	34.5	C
		Erin Ridge Drive	III	50	47.0	13.7	60.7	0.60	35.3	C
		St Albert Trail	III	50	22.7	75.2	97.9	0.29	10.6	F
		Total	**III**		**390.3**	**452.8**	**843.1**	**4.9**	**20.90**	**E**
	2401	Veness Road	III	50	0.0	0.0	0.0	0.00	N/A	N/A
		Chatelain Drive	III	50	17.5	0.0	17.5	0.20	41.1	B
		Curial Drive / Carnegie Drive	III	50	29.5	0.0	29.5	0.37	45.6	B
		Campbell Road	III	50	17.9	42.9	60.8	0.22	12.7	F
		Akins Drive	III	50	30.7	0.0	30.7	0.39	45.6	B
		Hebert Road	III	50	32.0	5.4	37.4	0.41	39.1	B
		Primeau Lane	III	50	29.4	0.0	29.4	0.37	45.7	B
		Sir Winston Churchil	III	50	45.7	28.6	74.3	0.58	28.1	D
		Westwood Drive	III	50	43.8	0.0	43.8	0.55	45.6	B
		Sturgeon Road	III	50	17.8	120.4	138.2	0.21	5.6	F
		Bellerose Drive	III	50	56.3	81.1	137.4	0.71	18.7	E
		Erin Ridge Drive	III	50	47.0	18.9	65.9	0.60	32.6	C
		St Albert Trail	III	50	22.7	48.8	71.5	0.29	14.5	F
		Total	**III**		**390.3**	**346.1**	**736.4**	**4.9**	**24.00**	**D**
	2402	Veness Road	III	50	0.0	0.0	0.0	0.00	N/A	N/A
		Chatelain Drive	III	50	17.5	0.0	17.5	0.20	41.1	B
		Curial Drive / Carnegie Drive	III	50	29.5	0.0	29.5	0.37	45.6	B
		Campbell Road	III	50	17.9	87.6	105.5	0.22	7.3	F
		Akins Drive	III	50	30.7	0.0	30.7	0.39	45.6	B
		Hebert Road	III	50	32.0	12.1	44.1	0.41	33.2	C
		Primeau Lane	III	50	29.4	0.0	29.4	0.37	45.7	B
		Sir Winston Churchil	III	50	45.7	35.6	81.3	0.58	25.6	D
		Westwood Drive	III	50	43.8	0.0	43.8	0.55	45.6	B
		Sturgeon Road	III	50	17.8	399.4	417.2	0.21	1.8	F
		Bellerose Drive	III	50	56.3	143.6	199.9	0.71	12.9	F
		Erin Ridge Drive	III	50	47.0	12.2	59.2	0.60	36.2	C
		St Albert Trail	III	50	22.7	92.5	115.2	0.29	9.0	F
		Total	**III**		**390.3**	**783.0**	**1173.3**	**4.9**	**15.00**	**F**
	2403	Veness Road	III	50	0.0	0.0	0.0	0.00	N/A	N/A
		Chatelain Drive	III	50	17.5	0.0	17.5	0.20	41.1	B
		Curial Drive / Carnegie Drive	III	50	29.5	0.0	29.5	0.37	45.6	B
		Campbell Road	III	50	17.9	89.2	107.1	0.22	7.2	F
		Akins Drive	III	50	30.7	0.0	30.7	0.39	45.6	B
		Hebert Road	III	50	32.0	11.7	43.7	0.41	33.5	C
		Primeau Lane	III	50	29.4	0.0	29.4	0.37	45.7	B
		Sir Winston Churchil	III	50	45.7	32.3	78.0	0.58	26.7	D
		Westwood Drive	III	50	43.8	0.0	43.8	0.55	45.6	B
		Sturgeon Road	III	50	17.8	87.4	105.2	0.21	7.3	F
		Bellerose Drive	III	50	56.3	146.8	203.1	0.71	12.7	F
		Erin Ridge Drive	III	50	47.0	13.8	60.8	0.60	35.3	C
		St Albert Trail	III	50	22.7	92.9	115.6	0.29	9.0	F
		Total	**III**		**390.3**	**474.1**	**864.4**	**4.9**	**20.40**	**E**
	2404	Veness Road	III	50	0.0	0.0	0.0	0.00	N/A	N/A
		Chatelain Drive	III	50	17.5	0.0	17.5	0.20	41.1	B
		Curial Drive / Carnegie Drive	III	50	29.5	0.0	29.5	0.37	45.6	B
		Campbell Road	III	50	17.9	103.5	121.4	0.22	6.4	F
		Akins Drive	III	50	30.7	0.0	30.7	0.39	45.6	B
		Hebert Road	III	50	32.0	12.3	44.3	0.41	33.0	C
		Primeau Lane	III	50	29.4	0.0	29.4	0.37	45.7	B
		Sir Winston Churchil	III	50	45.7	32.6	78.3	0.58	26.6	D
		Westwood Drive	III	50	43.8	0.0	43.8	0.55	45.6	B
		Sturgeon Road	III	50	17.8	90.3	108.1	0.21	7.1	F
		Bellerose Drive	III	50	56.3	155.9	212.2	0.71	12.1	F
		Erin Ridge Drive	III	50	47.0	23.2	70.2	0.60	30.6	C
		St Albert Trail	III	50	22.7	94.4	117.1	0.29	8.8	F
		Total	**III**		**390.3**	**512.2**	**902.5**	**4.9**	**19.60**	**E**
	2405	Veness Road	III	50	0.0	0.0	0.0	0.00	N/A	N/A
		Chatelain Drive	III	50	17.5	0.0	17.5	0.20	41.1	B
		Curial Drive / Carnegie Drive	III	50	29.5	0.0	29.5	0.37	45.6	B
		Campbell Road	III	50	17.9	94.0	111.9	0.22	6.9	F
		Akins Drive	III	50	30.7	0.0	30.7	0.39	45.6	B
		Hebert Road	III	50	32.0	11.7	43.7	0.41	33.5	C
		Primeau Lane	III	50	29.4	0.0	29.4	0.37	45.7	B
		Sir Winston Churchil	III	50	45.7	32.6	78.3	0.58	26.6	D
		Westwood Drive	III	50	43.8	0.0	43.8	0.55	45.6	B
		Sturgeon Road	III	50	17.8	129.2	147.0	0.21	5.2	F
		Bellerose Drive	III	50	56.3	148.8	205.1	0.71	12.5	F
		Erin Ridge Drive	III	50	47.0	22.6	69.6	0.60	30.8	C
		St Albert Trail	III	50	22.7	76.8	99.5	0.29	10.4	F
		Total	**III**		**390.3**	**515.7**	**906.0**	**4.9**	**19.50**	**E**
	2406	Veness Road	III	50	0.0	0.0	0.0	0.00	N/A	N/A
		Chatelain Drive	III	50	17.5	0.0	17.5	0.20	41.4	B
		Curial Drive / Carnegie Drive	III	50	29.5	0.0	29.5	0.37	45.6	B
		Campbell Road	III	50	17.9	89.7	107.6	0.22	7.2	F
		Akins Drive	III	50	30.7	0.0	30.7	0.39	45.6	B
		Hebert Road	III	50	32.0	12.0	44.0	0.41	33.2	C
		Primeau Lane	III	50	29.4	0.0	29.4	0.37	45.7	B
		Sir Winston Churchil	III	50	45.7	20.5	66.2	0.58	31.5	C
		Westwood Drive	III	50	43.8	0.0	43.8	0.55	45.6	B
		Sturgeon Road	III	50	17.8	219.5	237.3	0.21	3.2	F
		Bellerose Drive	III	50	56.3	136.9	193.2	0.71	13.3	F
		Erin Ridge Drive	III	50	47.0	11.7	58.7	0.60	36.6	C
		St Albert Trail	III	50	22.7	82.9	105.6	0.29	9.8	F
		Total	**III**		**390.3**	**573.2**	**963.5**	**4.9**	**18.30**	**E**
	2407	Veness Road	III	50	0.0	0.0	0.0	0.00	N/A	N/A
		Chatelain Drive	III	50	17.5	0.0	17.5	0.20	41.1	B
		Curial Drive / Carnegie Drive	III	50	29.5	0.0	29.5	0.37	45.6	B
		Campbell Road	III	50	17.9	90.8	108.7	0.22	7.1	F
		Akins Drive	III	50	30.7	0.0	30.7	0.39	45.6	B
		Hebert Road	III	50	32.0	11.6	43.6	0.41	33.5	C
		Primeau Lane	III	50	29.4	0.0	29.4	0.37	45.7	B
		Sir Winston Churchil	III	50	45.7	31.9	77.6	0.58	26.9	D
		Westwood Drive	III	50	43.8	0.0	43.8	0.55	45.6	B
		Sturgeon Road	III	50	17.8	85.4	103.2	0.21	7.5	F
		Bellerose Drive	III	50	56.3	163.5	219.8	0.71	11.7	F
		Erin Ridge Drive	III	50	47.0	23.7	70.7	0.60	30.3	C
		St Albert Trail	III	50	22.7	89.9	112.6	0.29	9.2	F
		Total	**III**		**390.3**	**496.8**	**887.1**	**4.9**	**19.90**	**E**
	2411	Veness Road	III	50	0.0	0.0	0.0	0.00	N/A	N/A
		Chatelain Drive	III	50	17.5	0.0	17.5	0.20	41.1	B
		Curial Drive / Carnegie Drive	III	50	29.5	0.0	29.5	0.37	45.6	B
		Campbell Road	III	50	17.9	38.6	56.5	0.22	13.7	F
		Akins Drive	III	50	30.7	0.0	30.7	0.39	45.6	B
		Hebert Road	III	50	32.0	6.3	38.3	0.41	38.2	C
		Primeau Lane	III	50	29.4	0.0	29.4	0.37	45.7	B
		Sir Winston Churchil	III	50	45.7	25.1	70.8	0.58	29.4	C
		Westwood Drive	III	50	43.8	0.0	43.8	0.55	45.6	B
		Sturgeon Road	III	50	17.8	72.3	90.1	0.21	8.6	F
		Bellerose Drive	III	50	56.3	29.6	85.9	0.71	29.9	C
		Erin Ridge Drive	III	50	47.0	19.3	66.3	0.60	32.4	C
		St Albert Trail	III	50	22.7	41.3	64.0	0.29	16.2	E
		Total	**III**		**390.3**	**232.5**	**622.8**	**4.9**	**28.30**	**D**

Table 1 - Arterial Level of Service Summary for St.Albert Network Analysis

Intersection	Scenario	Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (km)	Arterial Speed	Arterial LOS
NB Ray Gibbon Drive	1400	LeClair Way	III	50	0.0	48.4	48.4	0.00	N/A	N/A
		McKenney Avenue	III	50	204.5	198.1	402.6	2.84	25.4	D
		Giroux Road	III	50	94.5	28.0	122.5	1.31	38.6	B
		Villeneuve Road	III	50	150.7	6.4	157.1	2.09	47.9	B
		Total	**III**		**449.7**	**280.9**	**730.6**	**6.2**	**33.0**	**C**
	2400	LeClair Way	III	50	0.0	537.9	537.9	0.00	N/A	N/A
		McKenney Avenue	III	50	204.5	180.9	385.4	2.84	26.5	D
		Giroux Road	III	50	94.5	27.0	121.5	1.31	38.9	B
		Villeneuve Road	III	50	150.7	50.8	167.4	2.09	37.4	C
		Total	**III**		**449.7**	**796.6**	**1212.2**	**6.2**	**31.7**	**C**
	2401	LeClair Way	III	50	0.0	38.2	38.2	0.00	N/A	N/A
		McKenney Avenue	III	50	204.5	23.8	213.0	2.84	44.8	B
		Giroux Road	III	50	94.5	15.1	109.6	1.31	43.1	B
		Villeneuve Road	III	50	150.7	16.0	166.7	2.09	45.2	B
		Total	**III**		**449.7**	**93.1**	**527.5**	**6.2**	**44.6**	**B**
	2402	LeClair Way	III	50	0.0	214.2	214.2	0.00	N/A	N/A
		McKenney Avenue	III	50	204.5	38.8	255.4	2.84	42.0	B
		Giroux Road	III	50	94.5	10.0	104.5	1.31	45.2	B
		Villeneuve Road	III	50	150.7	21.3	172.0	2.09	43.8	B
		Total	**III**		**449.7**	**284.3**	**746.1**	**6.2**	**43.3**	**B**
	2403	LeClair Way	III	50	0.0	46.6	46.6	0.00	N/A	N/A
		McKenney Avenue	III	50	204.5	35.4	221.7	2.84	42.6	B
		Giroux Road	III	50	94.5	10.5	105.0	1.31	45.0	B
		Villeneuve Road	III	50	150.7	23.6	174.3	2.09	43.2	B
		Total	**III**		**449.7**	**116.1**	**547.6**	**6.2**	**43.3**	**B**
	2404	LeClair Way	III	50	0.0	165.0	165.0	0.00	N/A	N/A
		McKenney Avenue	III	50	204.5	71.1	278.6	2.84	37.1	C
		Giroux Road	III	50	94.5	19.2	113.7	1.31	41.6	B
		Villeneuve Road	III	50	150.7	16.2	166.9	2.09	45.1	B
		Total	**III**		**449.7**	**271.5**	**724.2**	**6.2**	**40.4**	**B**
	2405	LeClair Way	III	50	0.0	161.5	161.5	0.00	N/A	N/A
		McKenney Avenue	III	50	204.5	18.2	223.2	2.84	45.9	B
		Giroux Road	III	50	94.5	23.4	115.7	1.31	40.1	B
		Villeneuve Road	III	50	150.7	15.3	166.0	2.09	45.4	B
		Total	**III**		**449.7**	**218.4**	**666.4**	**6.2**	**44.4**	**B**
	2406	LeClair Way	III	50	0.0	94.3	94.3	0.00	N/A	N/A
		McKenney Avenue	III	50	204.5	27.7	232.2	2.84	44.0	B
		Giroux Road	III	50	94.5	11.9	106.4	1.31	44.4	B
		Villeneuve Road	III	50	150.8	23.8	174.6	2.09	43.1	B
		Total	**III**		**449.8**	**157.7**	**607.5**	**6.2**	**43.8**	**B**
	2407	LeClair Way	III	50	0.0	150.4	150.4	0.00	N/A	N/A
		McKenney Avenue	III	50	204.5	37.1	241.6	2.84	42.3	B
		Giroux Road	III	50	94.5	13.5	108.0	1.31	43.8	B
		Villeneuve Road	III	50	150.8	24.8	175.6	2.09	42.9	B
		Total	**III**		**449.8**	**225.8**	**675.6**	**6.2**	**42.8**	**B**
	2411	LeClair Way	III	50	0.0	131.5	131.5	0.00	N/A	N/A
		McKenney Avenue	III	50	204.5	39.9	244.4	2.84	41.8	B
		Giroux Road	III	50	94.5	12.5	107.0	1.31	44.2	B
		Villeneuve Road	III	50	150.8	16.4	167.2	2.09	45.1	B
		Total	**III**		**449.8**	**200.3**	**650.1**	**6.2**	**43.4**	**B**

Table 1 - Arterial Level of Service Summary for St.Albert Network Analysis

Intersection	Scenario	Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (km)	Arterial Speed	Arterial LOS
SB Ray Gibbon Drive	1400	Villeneuve Road	III	50	0.0	0.0	0.0	0.00	N/A	N/A
		Giroux Road	III	50	150.7	16.3	167.0	2.09	45.1	B
		McKenney Avenue	III	50	94.5	17.9	112.4	1.31	42.0	B
		LeClair Way	III	50	204.5	78.7	283.2	2.84	36.1	C
		Total	**III**		**449.7**	**112.9**	**562.6**	**6.2**	**40.0**	**B**
	2400	Villeneuve Road	III	50	0.0	0.0	0.0	0.00	N/A	N/A
		Giroux Road	III	50	150.7	153.0	303.7	2.09	24.8	D
		McKenney Avenue	III	50	94.5	143.9	238.4	1.31	19.8	E
		LeClair Way	III	50	204.5	175.3	379.8	2.84	26.9	D
		Total	**III**		**449.7**	**472.2**	**921.9**	**6.2**	**24.4**	**D**
	2401	Villeneuve Road	III	50	0.0	0.0	0.0	0.00	N/A	N/A
		Giroux Road	III	50	150.7	15.7	166.4	2.09	45.3	B
		McKenney Avenue	III	50	94.5	12.2	106.7	1.31	44.3	B
		LeClair Way	III	50	204.5	9.4	213.9	2.84	47.8	B
		Total	**III**		**449.7**	**37.3**	**487.0**	**6.2**	**46.2**	**B**
	2402	Villeneuve Road	III	50	0.0	0.0	0.0	0.00	N/A	N/A
		Giroux Road	III	50	150.7	17.4	168.1	2.09	44.8	B
		McKenney Avenue	III	50	94.5	24.4	118.9	1.31	39.7	B
		LeClair Way	III	50	204.5	11.6	216.1	2.84	47.3	B
		Total	**III**		**449.7**	**53.4**	**503.1**	**6.2**	**44.7**	**B**
	2403	Villeneuve Road	III	50	0.0	0.0	0.0	0.00	N/A	N/A
		Giroux Road	III	50	150.7	18.3	169.0	2.09	44.6	B
		McKenney Avenue	III	50	94.5	21.4	115.9	1.31	40.8	B
		LeClair Way	III	50	204.5	9.7	214.2	2.84	47.7	B
		Total	**III**		**449.7**	**49.4**	**499.1**	**6.2**	**45.0**	**B**
	2404	Villeneuve Road	III	50	0.0	0.0	0.0	0.00	N/A	N/A
		Giroux Road	III	50	150.7	38.2	188.9	2.09	39.9	B
		McKenney Avenue	III	50	94.5	23.2	117.7	1.31	40.1	B
		LeClair Way	III	50	204.5	14.5	219.0	2.84	46.7	B
		Total	**III**		**449.7**	**75.9**	**525.6**	**6.2**	**42.8**	**B**
	2405	Villeneuve Road	III	50	0.0	0.0	0.0	0.00	N/A	N/A
		Giroux Road	III	50	150.7	37.5	188.2	2.09	40.0	B
		McKenney Avenue	III	50	94.5	10.4	104.9	1.31	45.0	B
		LeClair Way	III	50	204.5	14.7	219.2	2.84	46.6	B
		Total	**III**	50	**449.7**	**62.6**	**512.3**	**6.2**	**43.9**	**B**
	2406	Villeneuve Road	III	50	0.0	0.0	0.0	0.00	N/A	N/A
		Giroux Road	III	50	150.8	12.4	163.2	2.09	46.2	B
		McKenney Avenue	III	50	94.5	13.2	107.7	1.31	43.9	B
		LeClair Way	III	50	204.5	12.1	216.6	2.84	47.2	B
		Total	**III**	50	**449.8**	**37.7**	**487.5**	**6.2**	**46.1**	**B**
	2407	Villeneuve Road	III	50	0.0	0.0	0.0	0.00	N/A	N/A
		Giroux Road	III	50	150.8	23.5	174.3	2.09	43.2	B
		McKenney Avenue	III	50	94.5	22.3	116.8	1.31	40.5	B
		LeClair Way	III	50	204.5	12.2	216.7	2.84	47.2	B
		Total	**III**	50	**449.8**	**58.0**	**507.8**	**6.2**	**44.3**	**B**
	2411	Villeneuve Road	III	50	0.0	0.0	0.0	0.00	N/A	N/A
		Giroux Road	III	50	150.8	12.8	163.6	2.09	46.1	B
		McKenney Avenue	III	50	94.5	12.2	106.7	1.31	44.3	B
		LeClair Way	III	50	204.5	12.6	217.1	2.84	47.1	B
		Total	**III**	50	**449.8**	**37.6**	**487.4**	**6.2**	**46.1**	**B**

Table 1 - Arterial Level of Service Summary for St.Albert Network Analysis

Intersection	Scenario	Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (km)	Arterial Speed	Arterial LOS
NB St Albert Trail	1400	Hebert Road	III	50	20.8	41.7	62.5	0.25	14.4	F
		Gate Avenue	III	50	28.0	3.0	31.0	0.36	41.2	B
		Sterling Street	III	50	46.1	0.0	46.1	0.58	45.6	B
		Sturgeon Road	III	50	69.9	39.1	109.0	0.97	32.0	C
		Rivercrest Crescent	III	50	40.8	3.2	44.0	0.52	42.3	B
		Bellerose Drive	III	50	23.2	25.7	48.9	0.29	21.7	E
		Inglewood Drive	III	50	46.5	0.0	46.5	0.59	45.6	B
		Boudreau Road	III	50	50.4	42.5	92.9	0.64	24.8	D
		Gateway Village Acce	III	50	23.4	0.0	23.4	0.30	N/A	N/A
		Erin Ridge Road	III	50	17.3	33.5	50.8	0.20	14.0	F
		Coalmine Road	III	50	40.7	11.0	51.7	0.52	35.9	C
		Everitt Drive N	III	50	34.2	2.1	36.3	0.43	43.0	B
		Erin Ridge Commercia	III	50	33.9	1.0	34.9	0.43	44.3	B
		Neil Ross Road	III	50	33.8	6.1	39.9	0.43	38.6	B
		Total	**III**		**509.0**	**208.9**	**717.9**	**6.5**	**31.3**	**C**
	2400	Hebert Road	III	50	20.8	60.6	81.4	0.25	11.1	F
		Gate Avenue	III	50	28.0	3.0	31.0	0.36	41.2	B
		Sterling Street	III	50	46.1	0.0	46.1	0.58	45.6	B
		Sturgeon Road	III	50	69.9	140.9	210.8	0.97	16.6	E
		Rivercrest Crescent	III	50	40.8	4.6	45.4	0.52	41.0	B
		Bellerose Drive	III	50	23.2	25.8	49.0	0.29	21.6	E
		Inglewood Drive	III	50	46.5	1.0	47.5	0.59	44.6	B
		Boudreau Road	III	50	50.4	87.1	137.5	0.64	16.7	E
		Gateway Village Acce	III	50	23.4	0.0	23.4	0.30	N/A	N/A
		Erin Ridge Road	III	50	17.3	70.9	88.2	0.20	8.1	F
		Coalmine Road	III	50	40.7	128.5	169.2	0.52	11.0	F
		Everitt Drive N	III	50	34.2	18.9	53.1	0.43	29.4	C
		Erin Ridge Commercia	III	50	33.9	1.0	34.9	0.43	44.3	B
		Neil Ross Road	III	50	33.8	13.3	47.1	0.43	32.7	C
		Total	**III**		**509.0**	**555.6**	**1064.6**	**6.5**	**21.7**	**E**
	2401	Hebert Road	III	50	20.8	35.3	56.1	0.25	16.0	E
		Gate Avenue	III	50	28.0	2.0	30.0	0.36	42.6	B
		Sterling Street	III	50	46.1	0.0	46.1	0.58	45.6	B
		Sturgeon Road	III	50	69.9	251.7	321.6	0.97	10.9	F
		Rivercrest Crescent	III	50	40.8	3.9	44.7	0.52	41.6	B
		Bellerose Drive	III	50	23.2	5.1	28.3	0.29	37.4	C
		Inglewood Drive	III	50	46.5	7.0	53.5	0.59	39.6	B
		Boudreau Road	III	50	50.4	40.5	90.9	0.64	25.3	D
		Gateway Village Acce	III	50	23.4	N/A	23.4	0.30	N/A	N/A
		Erin Ridge Road	III	50	17.3	31.1	48.4	0.20	14.7	F
		Coalmine Road	III	50	40.7	16.9	57.6	0.52	32.2	C
		Everitt Drive N	III	50	34.2	14.3	48.5	0.43	32.2	C
		Erin Ridge Commercia	III	50	33.9	1.0	34.9	0.43	44.3	B
		Neil Ross Road	III	50	33.8	138.6	172.4	0.43	8.9	F
		Total	**III**		**509.0**	**547.4**	**1056.4**	**6.5**	**21.6**	**E**
	2402	Hebert Road	III	50	20.8	42.9	63.7	0.25	14.1	F
		Gate Avenue	III	50	28.0	2.0	30.0	0.36	42.6	B
		Sterling Street	III	50	46.1	0.0	46.1	0.58	45.6	B
		Sturgeon Road	III	50	69.9	370.7	440.6	0.97	7.9	F
		Rivercrest Crescent	III	50	40.8	9.5	50.3	0.52	37.0	C
		Bellerose Drive	III	50	23.2	9.2	32.4	0.29	32.7	C
		Inglewood Drive	III	50	46.5	5.0	51.5	0.59	41.2	B
		Boudreau Road	III	50	50.4	76.4	126.8	0.64	18.1	E
		Gateway Village Acce	III	50	23.4	N/A	23.4	0.30	N/A	N/A
		Erin Ridge Road	III	50	17.3	98.1	115.4	0.20	6.2	F
		Coalmine Road	III	50	40.7	143.5	184.2	0.52	10.1	F
		Everitt Drive N	III	50	34.2	28.9	63.1	0.43	24.7	D
		Erin Ridge Commercia	III	50	33.9	1.0	34.9	0.43	44.3	B
		Neil Ross Road	III	50	33.8	40.9	74.7	0.43	20.6	E
		Total	**III**		**509.0**	**828.1**	**1337.1**	**6.5**	**17.2**	**F**
	2403	Hebert Road	III	50	20.8	45.3	66.1	0.25	24.6	D
		Gate Avenue	III	50	28.0	2.0	30.0	0.36	13.6	F
		Sterling Street	III	50	46.1	0.0	46.1	0.58	42.6	B
		Sturgeon Road	III	50	69.9	288.8	358.7	0.97	45.6	B
		Rivercrest Crescent	III	50	40.8	7.6	48.4	0.52	9.7	F
		Bellerose Drive	III	50	23.2	9.7	32.9	0.29	38.5	B
		Inglewood Drive	III	50	46.5	6.0	52.5	0.59	32.2	C
		Boudreau Road	III	50	50.4	77.9	128.3	0.64	40.4	B
		Gateway Village Acce	III	50	23.4	N/A	23.4	0.30	17.9	E
		Erin Ridge Road	III	50	17.3	85.5	102.8	0.20	6.9	F
		Coalmine Road	III	50	40.7	142.1	182.8	0.52	10.2	F
		Everitt Drive N	III	50	34.2	34.0	68.2	0.43	22.9	D
		Erin Ridge Commercia	III	50	33.9	1.0	34.9	0.43	44.3	B
		Neil Ross Road	III	50	33.8	40.4	74.2	0.43	20.8	E
		Total	**III**		**509.0**	**740.3**	**1249.3**	**6.5**	**18.5**	**E**
	2404	Hebert Road	III	50	20.8	48.2	69.0	0.25	13.0	F
		Gate Avenue	III	50	28.0	2.0	30.0	0.36	42.6	B
		Sterling Street	III	50	46.1	0.0	46.1	0.58	45.6	B
		Sturgeon Road	III	50	69.9	372.2	442.1	0.97	7.9	F
		Rivercrest Crescent	III	50	40.8	10.2	51.0	0.52	36.5	C
		Bellerose Drive	III	50	23.2	7.1	30.3	0.29	34.9	C
		Inglewood Drive	III	50	46.5	5.0	51.5	0.59	41.2	B
		Boudreau Road	III	50	50.4	64.6	115.0	0.64	20.0	E
		Gateway Village Acce	III	50	23.4	N/A	23.4	0.30	N/A	N/A
		Erin Ridge Road	III	50	17.3	51.5	68.8	0.20	10.3	F
		Coalmine Road	III	50	40.7	33.4	74.1	0.52	25.0	D
		Everitt Drive N	III	50	34.2	16.9	51.1	0.43	30.5	C
		Erin Ridge Commercia	III	50	33.9	1.0	34.9	0.43	44.3	B
		Neil Ross Road	III	50	33.8	176.5	210.3	0.43	7.3	F
		Total	**III**		**509.0**	**788.6**	**1297.6**	**6.5**	**17.7**	**E**
	2405	Hebert Road	III	50	20.8	46.8	67.6	0.25	13.3	F
		Gate Avenue	III	50	28.0	2.0	30.0	0.36	42.6	B
		Sterling Street	III	50	46.1	0.0	46.1	0.58	45.6	B
		Sturgeon Road	III	50	69.9	243.8	313.7	0.97	11.1	F
		Rivercrest Crescent	III	50	40.8	5.4	46.2	0.52	40.3	B
		Bellerose Drive	III	50	23.2	6.4	29.6	0.29	35.8	C
		Inglewood Drive	III	50	46.5	6.0	52.5	0.59	40.4	B
		Boudreau Road	III	50	50.4	59.4	109.8	0.64	20.9	E
		Gateway Village Acce	III	50	23.4	N/A	23.4	0.30	N/A	N/A
		Erin Ridge Road	III	50	17.3	44.1	61.4	0.20	11.6	F
		Coalmine Road	III	50	40.7	21.6	62.3	0.52	29.8	C
		Everitt Drive N	III	50	34.2	115.2	149.4	0.43	10.4	F
		Erin Ridge Commercia	III	50	33.9	0.0	33.9	0.43	45.6	B
		Neil Ross Road	III	50	33.8	175.2	209.0	0.43	7.4	F
		Total	**III**		**509.0**	**725.9**	**1234.9**	**6.5**	**19.2**	**E**
	2406	Hebert Road	III	50	20.8	45.0	65.8	0.25	13.7	F
		Gate Avenue	III	50	28.0	2.0	30.0	0.36	42.6	B
		Sterling Street	III	50	46.1	0.0	46.1	0.58	45.6	B
		Sturgeon Road	III	50	69.9	250.9	320.8	0.97	10.9	F
		Rivercrest Crescent	III	50	40.8	4.9	45.7	0.52	40.7	B
		Bellerose Drive	III	50	23.2	6.9	30.1	0.29	35.2	C
		Inglewood Drive	III	50	46.5	6.0	52.5	0.59	40.4	B
		Boudreau Road	III	50	50.4	73.9	124.3	0.64	18.5	E
		Gateway Village Acce	III	50	23.4	N/A	23.4	0.30	N/A	N/A
		Erin Ridge Road	III	50	17.3	97.0	114.3	0.20	6.2	F
		Coalmine Road	III	50	40.7	145.3	186.0	0.52	10.0	F
		Everitt Drive N	III	50	34.2	30.9	65.1	0.43	24.0	D
		Erin Ridge Commercia	III	50	33.9	1.0	34.9	0.43	44.3	B
		Neil Ross Road	III	50	33.8	40.5	74.3	0.43	20.8	E
		Total	**III**		**509.0**	**704.3**	**1213.3**	**6.5**	**19.2**	**E**
	2407	Hebert Road	III	50	20.8	52.8	73.6	0.25	12.2	F
		Gate Avenue	III	50	28.0	2.0	30.0	0.36	42.6	B
		Sterling Street	III	50	46.1	0.0	46.1	0.58	45.6	B
		Sturgeon Road	III	50	69.9	280.0	349.9	0.97	10.0	F
		Rivercrest Crescent	III	50	40.8	7.6	48.4	0.52	38.5	B
		Bellerose Drive	III	50	23.2	6.5	29.7	0.29	35.6	C
		Inglewood Drive	III	50	46.5	6.0	52.5	0.59	40.4	B
		Boudreau Road	III	50	50.4	77.1	127.5	0.64	18.0	E
		Gateway Village Acce	III	50	23.4	N/A	23.4	0.30	N/A	N/A
		Erin Ridge Road	III	50	17.3	40.4	57.7	0.20	12.3	F
		Coalmine Road	III	50	40.7	42.0	82.7	0.52	22.4	D
		Everitt Drive N	III	50	34.2	10.0	44.2	0.43	35.3	C
		Erin Ridge Commercia	III	50	33.9	1.0	34.9	0.43	44.3	B
		Neil Ross Road	III	50	33.8	36.0	69.8	0.43	22.1	E
		Total	**III**		**509.0**	**561.4**	**1070.4**	**6.5**	**21.7**	**E**
	2411	Hebert Road	III	50	20.8	28.9	49.7	0.25	18.1	E
		Gate Avenue	III	50	28.0	3.0	31.0	0.36	41.2	B
		Sterling Street	III	50	46.1	0.0	46.1	0.58	45.6	B
		Sturgeon Road	III	50	69.9	167.9	237.8	0.97	14.7	F
		Rivercrest Crescent	III	50	40.8	2.7	43.5	0.52	42.8	B
		Bellerose Drive	III	50	23.2	3.6	26.8	0.29	39.5	B
		Inglewood Drive	III	50	46.5	6.0	52.5	0.59	40.4	B
		Boudreau Road	III	50	50.4	46.1	96.5	0.64	23.8	D
		Gateway Village Acce	III	50	23.4	N/A	23.4	0.30	N/A	N/A
		Erin Ridge Road	III	50	17.3	21.8	39.1	0.20	18.2	E
		Coalmine Road	III	50	40.7	14.1	54.8	0.52	33.9	C
		Everitt Drive N	III	50	34.2	10.4	44.6	0.43	35.0	C
		Erin Ridge Commercia	III	50	33.9	1.0	34.9	0.43	44.3	B
		Neil Ross Road	III	50	33.8	115.2	149.0	0.43	3.3	F
		Total	**III**		**509.0**	**420.7**	**929.7**	**6.5**	**24.6**	**D**

Table 1 - Arterial Level of Service Summary for St.Albert Network Analysis

Intersection	Scenario	Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (km)	Arterial Speed	Arterial LOS
SB St Albert Trail	1400	Neil Ross Road	III	50	34.1	1.0	35.1	0.43	44.3	B
		Everitt Drive N	III	50	33.5	1.5	35.0	0.42	43.7	B
		Coalmine Road	III	50	33.9	6.0	39.9	0.43	38.8	B
		Villeneuve Road	III	50	38.7	41.7	80.4	0.49	22.0	E
		Giroux Road	III	50	35.6	37.9	73.5	0.45	22.1	E
		Lennox Drive	III	50	50.4	0.0	50.4	0.64	45.6	B
		McKenney Avenue	III	50	46.5	27.5	74.0	0.59	28.7	D
		St Vital Avenue	III	50	23.2	27.5	50.7	0.29	20.9	E
		St Anne Street	III	50	40.8	28.5	69.3	0.52	26.9	D
		Green Grove Drive	III	50	69.9	0.0	69.9	0.97	50.0	A
		Gate Avenue	III	50	46.1	0.0	46.1	0.58	45.6	B
		Gervais Road	III	50	28.0	44.2	72.2	0.36	17.7	E
		Tudor Glen Market Ac	III	50	20.8	0.0	20.8	0.25	43.3	B
		Total	**III**		**501.5**	**215.8**	**717.3**	**6.4**	**32.4**	**C**
	2400	Neil Ross Road	III	50	34.1	0.0	34.1	0.43	45.6	B
		Everitt Drive N	III	50	33.5	10.4	43.9	0.42	34.8	C
		Coalmine Road	III	50	33.9	12.7	46.6	0.43	33.2	C
		Villeneuve Road	III	50	38.7	223.9	262.6	0.49	6.7	F
		Giroux Road	III	50	35.6	52.7	88.3	0.45	18.4	E
		Lennox Drive	III	50	50.4	0.0	50.4	0.64	45.6	B
		McKenney Avenue	III	50	46.5	37.6	84.1	0.59	24.2	D
		St Vital Avenue	III	50	23.2	47.2	70.4	0.29	15.0	F
		St Anne Street	III	50	40.8	40.7	81.5	0.52	22.8	D
		Green Grove Drive	III	50	69.9	0.0	69.9	0.97	50.0	A
		Gate Avenue	III	50	46.1	0.0	46.1	0.58	45.6	B
		Gervais Road	III	50	28.0	73.8	101.8	0.36	12.6	F
		Tudor Glen Market Ac	III	50	20.8	0.0	20.8	0.25	43.3	B
		Total	**III**		**501.5**	**499.0**	**1000.5**	**6.4**	**23.5**	**D**
	2401	Neil Ross Road	III	50	34.1	0.0	34.1	0.43	45.6	B
		Everitt Drive N	III	50	33.5	18.6	52.1	0.42	29.3	C
		Coalmine Road	III	50	33.9	7.9	41.8	0.43	37.0	C
		Villeneuve Road	III	50	38.7	90.9	129.6	0.49	13.6	F
		Giroux Road	III	50	35.6	40.8	76.4	0.45	21.3	E
		Lennox Drive	III	50	50.4	0.0	50.4	0.64	45.6	B
		McKenney Avenue	III	50	46.5	36.8	83.3	0.59	25.5	D
		St Vital Avenue	III	50	23.2	10.8	34.0	0.29	31.1	C
		St Anne Street	III	50	40.8	40.8	81.6	0.52	22.8	D
		Green Grove Drive	III	50	69.9	0.0	69.9	0.97	50.0	A
		Gate Avenue	III	50	46.1	0.0	46.1	0.58	45.6	B
		Gervais Road	III	50	28.0	32.3	60.3	0.36	21.2	E
		Tudor Glen Market Ac	III	50	20.8	0.0	20.8	0.25	43.3	B
		Total	**III**		**501.5**	**278.9**	**780.4**	**6.4**	**29.9**	**C**
	2402	Neil Ross Road	III	50	34.1	1.0	35.1	0.43	44.3	B
		Everitt Drive N	III	50	33.5	31.5	65.0	0.42	23.5	D
		Coalmine Road	III	50	33.9	13.2	47.1	0.43	32.8	C
		Villeneuve Road	III	50	38.7	154.7	193.4	0.49	9.1	F
		Giroux Road	III	50	35.6	63.5	99.1	0.45	16.4	E
		Lennox Drive	III	50	50.4	0.0	50.4	0.64	45.6	B
		McKenney Avenue	III	50	46.5	34.9	81.4	0.59	26.1	D
		St Vital Avenue	III	50	23.2	12.5	35.7	0.29	29.7	C
		St Anne Street	III	50	40.8	37.6	78.4	0.52	23.7	D
		Green Grove Drive	III	50	69.9	0.0	69.9	0.97	50.0	A
		Gate Avenue	III	50	46.1	0.0	46.1	0.58	45.6	B
		Gervais Road	III	50	28.0	40.2	68.2	0.36	18.7	E
		Tudor Glen Market Ac	III	50	20.8	0.0	20.8	0.25	43.3	B
		Total	**III**		**501.5**	**389.1**	**890.6**	**6.4**	**26.3**	**D**
	2403	Neil Ross Road	III	50	34.1	1.0	35.1	0.43	44.3	B
		Everitt Drive N	III	50	33.5	34.0	67.5	0.42	22.6	D
		Coalmine Road	III	50	33.9	13.5	47.4	0.43	32.6	C
		Villeneuve Road	III	50	38.7	162.3	201.0	0.49	8.8	F
		Giroux Road	III	50	35.6	63.5	99.1	0.45	16.4	E
		Lennox Drive	III	50	50.4	0.0	50.4	0.64	45.6	B
		McKenney Avenue	III	50	46.5	35.3	81.8	0.59	25.9	D
		St Vital Avenue	III	50	23.2	10.0	33.2	0.29	31.9	C
		St Anne Street	III	50	40.8	34.5	75.3	0.52	24.7	D
		Green Grove Drive	III	50	69.9	0.0	69.9	0.97	50.0	A
		Gate Avenue	III	50	46.1	0.0	46.1	0.58	45.6	B
		Gervais Road	III	50	28.0	40.9	68.9	0.36	18.6	E
		Tudor Glen Market Ac	III	50	20.8	0.0	20.8	0.25	43.3	B
		Total	**III**		**501.5**	**395.0**	**896.5**	**6.4**	**26.1**	**D**
	2404	Neil Ross Road	III	50	34.1	2.0	36.1	0.43	43.1	B
		Everitt Drive N	III	50	33.5	24.1	57.6	0.42	26.5	D
		Coalmine Road	III	50	33.9	9.4	43.3	0.43	35.7	C
		Villeneuve Road	III	50	38.7	39.6	78.3	0.49	22.6	D
		Giroux Road	III	50	35.6	64.4	100.0	0.45	16.2	E
		Lennox Drive	III	50	50.4	0.0	50.4	0.64	45.6	B
		McKenney Avenue	III	50	46.5	32.8	79.3	0.59	26.7	D
		St Vital Avenue	III	50	23.2	11.5	34.7	0.29	30.5	C
		St Anne Street	III	50	40.8	38.6	79.4	0.52	23.4	D
		Green Grove Drive	III	50	69.9	0.0	69.9	0.97	50.0	A
		Gate Avenue	III	50	46.1	0.0	46.1	0.58	45.6	B
		Gervais Road	III	50	28.0	41.7	69.7	0.36	18.3	E
		Tudor Glen Market Ac	III	50	20.8	0.0	20.8	0.25	43.3	B
		Total	**III**		**501.5**	**264.1**	**765.6**	**6.4**	**30.4**	**C**
	2405	Neil Ross Road	III	50	34.1	0.0	34.1	0.43	45.6	B
		Everitt Drive N	III	50	33.5	26.3	59.8	0.42	25.6	D
		Coalmine Road	III	50	33.9	7.9	41.8	0.43	37.0	C
		Villeneuve Road	III	50	38.7	51.7	90.4	0.49	19.5	E
		Giroux Road	III	50	35.6	67.7	103.3	0.45	15.7	F
		Lennox Drive	III	50	50.4	0.0	50.4	0.64	45.6	B
		McKenney Avenue	III	50	46.5	36.8	83.3	0.59	25.5	D
		St Vital Avenue	III	50	23.2	12.9	36.1	0.29	29.3	C
		St Anne Street	III	50	40.8	31.8	72.6	0.52	25.6	D
		Green Grove Drive	III	50	69.9	0.0	69.9	0.97	50.0	A
		Gate Avenue	III	50	46.1	0.0	46.1	0.58	45.6	B
		Gervais Road	III	50	28.0	41.5	69.5	0.36	18.4	E
		Tudor Glen Market Ac	III	50	20.8	0.0	20.8	0.25	43.3	B
		Total	**III**		**501.5**	**276.6**	**778.1**	**6.4**	**29.9**	**C**
	2406	Neil Ross Road	III	50	34.1	1.0	35.1	0.43	44.3	B
		Everitt Drive N	III	50	33.5	31.3	64.8	0.42	23.6	D
		Coalmine Road	III	50	33.9	13.4	47.3	0.43	32.7	C
		Villeneuve Road	III	50	38.7	117.4	156.1	0.49	11.3	F
		Giroux Road	III	50	35.6	63.7	99.3	0.45	16.4	E
		Lennox Drive	III	50	50.4	0.0	50.4	0.64	45.6	B
		McKenney Avenue	III	50	46.5	36.2	82.7	0.59	25.6	D
		St Vital Avenue	III	50	23.2	9.9	33.1	0.29	32.0	C
		St Anne Street	III	50	40.8	34.1	74.9	0.52	24.8	D
		Green Grove Drive	III	50	69.9	0.0	69.9	0.97	50.0	A
		Gate Avenue	III	50	46.1	0.0	46.1	0.58	45.6	B
		Gervais Road	III	50	28.0	72.4	100.4	0.36	12.7	F
		Tudor Glen Market Ac	III	50	20.8	0.0	20.8	0.25	43.3	B
		Total	**III**		**501.5**	**379.4**	**880.9**	**6.4**	**26.6**	**D**
	2407	Neil Ross Road	III	50	34.1	1.0	35.1	0.43	44.3	B
		Everitt Drive N	III	50	33.5	15.8	49.3	0.42	31.0	C
		Coalmine Road	III	50	33.9	12.5	46.4	0.43	33.3	C
		Villeneuve Road	III	50	38.7	180.4	219.1	0.49	8.1	F
		Giroux Road	III	50	35.6	64.3	99.9	0.45	16.3	E
		Lennox Drive	III	50	50.4	0.0	50.4	0.64	45.6	B
		McKenney Avenue	III	50	46.5	34.3	80.8	0.59	26.2	D
		St Vital Avenue	III	50	23.2	12.6	35.8	0.29	29.6	C
		St Anne Street	III	50	40.8	35.6	76.4	0.52	24.4	D
		Green Grove Drive	III	50	69.9	0.0	69.9	0.97	50.0	A
		Gate Avenue	III	50	46.1	0.0	46.1	0.58	45.6	B
		Gervais Road	III	50	28.0	65.8	93.8	0.36	13.6	F
		Tudor Glen Market Ac	III	50	20.8	0.0	20.8	0.25	43.3	B
		Total	**III**		**501.5**	**422.3**	**923.8**	**6.4**	**25.4**	**D**
	2411	Neil Ross Road	III	50	34.1	1.0	35.1	0.43	44.3	B
		Everitt Drive N	III	50	33.5	17.2	50.7	0.42	30.1	C
		Coalmine Road	III	50	33.9	8.0	41.9	0.43	36.9	C
		Villeneuve Road	III	50	38.7	23.3	62.0	0.49	28.5	D
		Giroux Road	III	50	35.6	46.1	81.7	0.45	19.9	E
		Lennox Drive	III	50	50.4	0.0	50.4	0.64	45.6	B
		McKenney Avenue	III	50	46.5	37.8	84.3	0.59	25.2	D
		St Vital Avenue	III	50	23.2	8.8	32.0	0.29	33.1	C
		St Anne Street	III	50	40.8	37.5	78.3	0.52	23.8	D
		Green Grove Drive	III	50	69.9	0.0	69.9	0.97	50.0	A
		Gate Avenue	III	50	46.1	0.0	46.1	0.58	45.6	B
		Gervais Road	III	50	28.0	29.3	57.3	0.36	22.3	E
		Tudor Glen Market Ac	III	50	20.8	0.0	20.8	0.25	43.3	B
		Total	**III**		**501.5**	**209.0**	**710.5**	**6.4**	**32.7**	**C**

Table 1 - Arterial Level of Service Summary for St.Albert Network Analysis

Intersection	Scenario	Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (km)	Arterial Speed	Arterial LOS
EB Villeneuve Road	1400	Hogan Road	III	50	0.0	20.0	20.0	0.00	N/A	N/A
		Church/MDR Access	III	50	115.3	8.0	123.3	1.60	40.7	B
		St Albert Trail	III	50	44.1	46.3	90.4	0.54	23.3	D
		Total	**III**		**159.4**	**74.3**	**233.7**	**2.1**	**30.9**	**C**
	2400	Hogan Road	III	50	0.0	120.4	120.4	0.00	N/A	N/A
		Church/MDR Access	III	50	115.3	8.0	123.3	1.60	40.7	B
		St Albert Trail	III	50	44.1	45.9	90.0	0.54	23.4	D
		Total	**III**		**159.4**	**174.3**	**333.7**	**2.1**	**31.0**	**C**
	2401	Hogan Road	III	50	0.0	12.4	12.4	0.00	34.7	C
		Church/MDR Access	III	50	115.3	8.0	123.3	1.60	40.7	B
		St Albert Trail	III	50	44.1	53.4	97.5	0.54	21.7	E
		Total	**III**		**159.4**	**73.8**	**233.2**	**2.1**	**30.8**	**C**
	2402	Hogan Road	III	50	0.0	8.2	8.2	0.00	N/A	N/A
		Church/MDR Access	III	50	115.3	8.0	123.3	1.60	40.7	B
		St Albert Trail	III	50	44.1	43.9	88.0	0.54	23.9	D
		Total	III		**159.4**	**60.1**	**219.5**	**2.1**	**31.3**	**C**
	2403	Hogan Road	III	50	0.0	8.2	8.2	0.00	N/A	N/A
		Church/MDR Access	III	50	115.3	8.0	123.3	1.60	40.7	B
		St Albert Trail	III	50	44.1	43.0	87.1	0.54	24.1	D
		Total	**III**		**159.4**	**59.2**	**218.6**	**2.1**	**31.5**	**C**
	2404	Hogan Road	III	50	0.0	15.6	15.6	0.00	N/A	N/A
		Church/MDR Access	III	50	115.3	8.0	123.3	1.60	40.7	B
		St Albert Trail	III	50	44.1	52.5	96.6	0.54	21.9	E
		Total	**III**		**159.4**	**76.1**	**235.5**	**2.1**	**29.8**	**C**
	2405	Hogan Road	III	50	0.0	15.3	15.3	0.00	N/A	N/A
		Church/MDR Access	III	50	115.3	8.0	123.3	1.60	40.7	B
		St Albert Trail	III	50	44.1	50.5	94.6	0.54	22.3	E
		Total	**III**		**159.4**	**73.8**	**233.2**	**2.1**	**30.1**	**C**
	2406	Hogan Road	III	50	0.0	27.8	27.8	0.00	N/A	N/A
		Church/MDR Access	III	50	115.3	8.0	123.3	1.60	40.7	B
		St Albert Trail	III	50	44.1	43.3	87.4	0.54	24.1	D
		Total	**III**		**159.4**	**79.1**	**238.5**	**2.1**	**31.5**	**C**
	2407	Hogan Road	III	50	0.0	8.3	8.3	0.00	N/A	N/A
		Church/MDR Access	III	50	115.3	8.0	123.3	1.60	40.7	B
		St Albert Trail	III	50	44.1	39.0	83.1	0.54	25.3	D
		Total	**III**		**159.4**	**55.3**	**214.7**	**2.1**	**32.3**	**C**
	2411	Hogan Road	III	50	0.0	12.7	12.7	0.00	N/A	N/A
		Church/MDR Access	III	50	115.3	8.0	123.3	1.60	40.7	B
		St Albert Trail	III	50	44.1	56.1	100.2	0.54	21.1	E
		Total	**III**		**159.4**	**76.8**	**236.2**	**2.1**	**30.4**	**C**

Table 1 - Arterial Level of Service Summary for St.Albert Network Analysis

Intersection	Scenario	Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (km)	Arterial Speed	Arterial LOS
WB Villeneuve Road	1400	St. Albert Trail	III	50	0.0	74.6	74.6	0.00	N/A	N/A
		Church/MDR Access	III	50	44.1	19.0	63.1	0.54	39.2	B
		Hogan Road	III	50	115.3	62.9	178.2	1.60	22.4	D
		Total	**III**		**159.4**	**156.5**	**315.9**	**2.1**	**31.1**	**C**
	2400	St. Albert Trail	III	50	0.0	74.9	74.9	0.00	N/A	N/A
		Church/MDR Access	III	50	44.1	19.0	63.1	0.54	39.2	B
		Hogan Road	III	50	115.3	734.2	849.5	1.60	3.5	F
		Total	**III**		**159.4**	**828.1**	**987.5**	**2.1**	**8.6**	**F**
	2401	St. Albert Trail	III	50	0.0	118.8	118.8	0.00	N/A	N/A
		Church/MDR Access	III	50	44.1	25.0	69.1	0.54	37.2	C
		Hogan Road	III	50	115.3	22.0	137.3	1.60	33.5	C
		Total	**III**		**159.4**	**165.8**	**325.2**	**2.1**	**36.0**	**C**
	2402	St. Albert Trail	III	50	0.0	102.4	102.4	0.00	N/A	N/A
		Church/MDR Access	III	50	44.1	19.0	63.1	0.54	39.2	B
		Hogan Road	III	50	115.3	47.5	162.8	1.60	25.6	D
		Total	**III**		**159.4**	**168.9**	**328.3**	**2.1**	**33.1**	**C**
	2403	St. Albert Trail	III	50	0.0	104.2	104.2	0.00	N/A	N/A
		Church/MDR Access	III	50	44.1	19.0	63.1	0.54	39.2	B
		Hogan Road	III	50	115.3	47.8	163.1	1.60	25.5	D
		Total	**III**		**159.4**	**171.0**	**330.4**	**2.1**	**33.0**	**C**
	2404	St. Albert Trail	III	50	0.0	69.2	69.2	0.00	N/A	N/A
		Church/MDR Access	III	50	44.1	25.0	69.1	0.54	37.7	C
		Hogan Road	III	50	115.3	8.9	124.2	1.60	39.8	B
		Total	**III**		**159.4**	**103.1**	**262.5**	**2.1**	**38.2**	**C**
	2405	St. Albert Trail	III	50	0.0	73.0	73.0	0.00	N/A	N/A
		Church/MDR Access	III	50	44.1	25.0	69.1	0.54	37.7	C
		Hogan Road	III	50	115.3	14.0	129.3	1.60	37.1	C
		Total	**III**		**159.4**	**112.0**	**271.4**	**2.1**	**37.3**	**C**
	2406	St. Albert Trail	III	50	0.0	68.4	68.4	0.00	N/A	N/A
		Church/MDR Access	III	50	44.1	19.0	63.1	0.54	39.2	B
		Hogan Road	III	50	115.3	29.9	145.2	1.60	30.6	C
		Total	**III**		**159.4**	**117.3**	**276.7**	**2.1**	**35.7**	**C**
	2407	St. Albert Trail	III	50	0.0	76.3	76.3	0.00	N/A	N/A
		Church/MDR Access	III	50	44.1	19.0	63.1	0.54	39.2	B
		Hogan Road	III	50	115.3	45.9	161.2	1.60	26.0	D
		Total	**III**		**159.4**	**141.2**	**300.6**	**2.1**	**33.3**	**C**
	2411	St. Albert Trail	III	50	0.0	116.4	116.4	0.00	N/A	N/A
		Church/MDR Access	III	50	44.1	25.0	69.1	0.54	37.7	C
		Hogan Road	III	50	115.3	17.0	132.3	1.60	35.7	C
		Total	**III**		**159.4**	**158.4**	**317.8**	**2.1**	**36.8**	**C**

Table 2 - Overall Network Delay										
Scenario	**1400**	**2400**	**2401**	**2402**	**2403**	**2404**	**2405**	**2406**	**2407**	**2411**
Total Network Delay	4952.5	7660.5	5539.7	6608	5994.8	6117.9	6079.7	6029.9	5957.3	5442.2
% Improvement			27.7%	13.7%	21.7%	20.1%	20.6%	21.3%	22.2%	29.0%

Appendix D - Evaluation

Intersection Ranking Based on 5 Year Severe Collisions (Injury or Fatality)

Ranking	Intersection	Injury Collisions	Fatality Collision	Score
1	**St. Albert Trail & Giroux Rd/Boudreau Rd**	53		3
2	**St. Albert Trail & Hebert Rd/Gervais Rd**	46	1	3
3	**Boudreau Rd & Bellerose Dr**	41		3
4	**St. Albert Trail & Villeneuve/Erin Ridge Rd**	38		3
5	**Campbell Rd & Boudreau Rd**	32		3
6	**St. Albert Trail & Mckenney Ave/Bellerose Dr**	28		3
7	**Ray Gibbon Dr & Leclair Way**	25		3
8	**St. Albert Trail & St. Anne St/Sturgeon Rd**	24		3
9	**St. Albert Trail & St. Vital Ave/Rivercrest Cr**	23		3
10	**Boudreau Rd & S.W.C.A.**	18		2
11	**Hebert Rd & Boudreau Rd**	15		2
12	**Boudreau Rd & Inglewood Dr/Erin Ridge Dr**	14		2
13	**Boudreau Rd & Sturgeon Rd**	13		2
14	**Hogan Rd & Giroux Rd**	7		1
15	**Levasseur Rd & Gervais Rd/170 St**	7		1
16	**Levasseur Rd & Grandin Rd/Hudson Rd**	7		1
17	**S.W.C.A. & Grandin Rd/St. Anne St**	7		1
18	**Mckenney Ave & Ray Gibbon Dr**	6		1
19	**Levasseur Rd & S.W.C.A.**	5		1
20	**Perron St & St. Anne St**	5		1
21	**St. Albert Trail & Coal Mine Rd/Home Depot Exit**	5		1
22	**St. Albert Trail & Everitt Dr**	5		1
23	**Campbell Rd & Poirier Ave/Corriveau Ave**	4		1
24	**S.W.C.A. & Leclair Way/137 Ave**	3		1
25	**Levasseur Rd & Riel Dr**	3		1
26	**Villeneuve Rd & Ray Gibbon Dr**	3		1
27	**Villeneuve Rd & Hogan Rd/Range Rd 255**	3		1
28	**Leclair Way & Riel Dr**	2		1
29	**Giroux Rd & Ray Gibbon Dr**	2		1
30	**St. Albert Trail & Neil Ross Rd**	2		1
31	**Levasseur Rd & Graham Ave/Heritage Way**	1		1

Arterial Travel Time Rankings

	2400	2401	2402	2403	2404	2405	2406	2407	2411
	7660.5	5539.7	6608	5994.8	6117.9	6079.7	6029.9	5957.3	5442.2
		2120.8	1052.5	1665.7	1542.6	1580.8	1630.6	1703.2	2218.3
Rank			6	2	5	4	3	1	
Score			1	3	1	2	2	3	

	Corresponding Scenario	Project
1	2407 (2411)	North St. Albert Trail Upgrade

collisions

	6175: St Albert Trail#2 & Erin Ridge Road																			
2400	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	Difference
	Traffic Volume (vph)	400	120	0	0	277	245	316	1884	91	0	0	0									
	v/c Ratio	2.07	0.22			0.76		0.92	1.06					Avg delay/	80	67.5	80	0	260115	3333	78.04230423	
	Approach LOS		F			E			F					Vehicles	520	522	2291	0				
	Queue Length 95th (m)	#260.0	4			96.3		#168.3	#503.1					Total Delay	41600	35235	183280	0				
2407	6175: St Albert Trail#2 & Erin Ridge Road																			
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
	Traffic Volume (vph)	408	112	0	0	273	447	302	2011	73	0	0	0									
	v/c Ratio	1.39	0.18			1.34dr		1.32	0.88					Avg delay/	80	80	67.5	0	260255	3626	71.77468285	6.267621
	Approach LOS		F			F			E					Vehicles	520	720	2386	0				
	Queue Length 95th (m)	#235.1	3.9			#197.2		#206.4	281					Total Delay	41600	57600	161055	0				

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	6458: St Albert Trail#2 & Coalmine Road																			
2400	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
	Traffic Volume (vph)	40	91	0	0	15	185	0	2425	4	0	0	0									
	v/c Ratio	0.27	0.6			0.7			1.21	0				Avg delay/	80	27.5	80	0	210300	2760	76.19565217	
	Approach LOS		F			C			F					Vehicles	131	200	2429	0				
	Queue Length 95th (m)	17	32			34.1			#677.2	0				Total Delay	10480	5500	194320	0				
2407	6458: St Albert Trail#2 & Coalmine Road																			
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
	Traffic Volume (vph)	38	119	0	0	21	15	0	2747	20	0	0	0									
	v/c Ratio	0.22	0.67			0.27			0.97	0.02				Avg delay/	80	45	45	0	138695	2960	46.85641892	29.33923
	Approach LOS		F			D			D					Vehicles	157	36	2767	0				
	Queue Length 95th (m)	m17.9	67.8			20.6			#448.7	0				Total Delay	12560	1620	124515	0				

	7475: St Albert Trail & Villeneuve Road/Erin Ridge Road																			
2400	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
	Traffic Volume (vph)	0	505	261	1	493	0	0	0	0	15	1665	599									
	v/c Ratio		0.49	0.41		0.81					0.19	1.4	0.88	Avg delay/	27.5	80	0	80	242905	3539	68.63662051	
	Approach LOS		C			F						F		Vehicles	766	494	0	2279				
	Queue Length 95th (m)		95.6	21.5		m93.1					13.9	#485.7	#227.2	Total Delay	21065	39520	0	182320				
2407	7475: St Albert Trail & Villeneuve Road/Erin Ridge Road																			
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
	Traffic Volume (vph)	0	504	267	0	474	0	0	0	0	16	1675	610									
	v/c Ratio		0.42	0.38		0.8					0.22	1.31		Avg delay/	27.5	80	0	80	243202.5	3546	68.58502538	0.051595
	Approach LOS		C			F						F		Vehicles	771	474	0	2301				
	Queue Length 95th (m)		89.7	20.4		m51.5					14.7	#412.2		Total Delay	21202.5	37920	0	184080				

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	7479: St Albert Trail & Coalmine Road																			
2400	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
	Traffic Volume (vph)	0	61	0	15	0	0	0	0	0	70	2050	25									
	v/c Ratio		0.21			0.12					0.58	0.61		Avg delay/	67.5	67.5	0	15	37305	2221	16.79648807	
	Approach LOS		E			E						B		Vehicles	61	15	0	2145				
	Queue Length 95th (m)		19.6			m5.5					44.3	174.5		Total Delay	4117.5	1012.5	0	32175				
2407	7479: St Albert Trail & Coalmine Road																			
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
	Traffic Volume (vph)	0	61	0	21	0	0	0	0	0	96	2066	25									
	v/c Ratio		0.18			0.17					0.64	0.61		Avg delay/	67.5	27.5	0	15	37500	2269	16.52710445	0.269384
	Approach LOS		E			C						B		Vehicles	61	21	0	2187				
	Queue Length 95th (m)		18.4			3.8					54.5	168.6		Total Delay	4117.5	577.5	0	32805				

	7590: St Albert Trail/St Albert Trail#1 & Fowler Way/Neil Ross Road																			
2400	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
	Traffic Volume (vph)	0	68	194	619	1	0	0	0	0	63	1133	0									
	v/c Ratio		0.08	0.55	1.49	0					0.05	0.47		Avg delay/	45	80	0	5	67370	2078	32.42059673	
	Approach LOS		D			F						A		Vehicles	262	620	0	1196				
	Queue Length 95th (m)		13.3	56.2	#202.4	m0.0					9.9	89.9		Total Delay	11790	49600	0	5980				
	7590: St Albert Trail/St Albert Trail#1 & Fowler Way/Neil Ross Road																			

	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2407	Traffic Volume (vph)	0	50	212	721	1	0	0	0	0	25	1171	0
	v/c Ratio		0.07	0.85	0.91	0					0.03	0.5	
	Approach LOS		E			D						C	
	Queue Length 95th (m)		10.3	89.5	156.6	m0.1					11.8	131.6	

	EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
Avg delay/	67.5	45	0	27.5	83065	2180	38.10321101	-5.68261
Vehicles	262	722	0	1196				
Total Delay	17685	32490	0	32890				

	7747: St Albert Trail#2/St Albert Trail#1 & Neil Ross Road											
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2400	Traffic Volume (vph)	49	83	0	0	619	4	1	1741	0	0	0	0
	v/c Ratio	0.65	0.14			0.59	0.01	0	0.72				
	Approach LOS		E			E			B				
	Queue Length 95th (m)	#41.3	13.5			72.8	0	0.6	189.8				

	EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
Avg delay/	67.5	67.5	15	0	77092.5	2497	30.87404886	
Vehicles	132	623	1742	0				
Total Delay	8910	42052.5	26130	0				

	7747: St Albert Trail#2/St Albert Trail#1 & Neil Ross Road											
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2407	Traffic Volume (vph)	49	27	0	0	643	4	79	1741	0	0	0	0
	v/c Ratio	0.55	0.06			0.26	0.01	0.1	0.75				
	Approach LOS		D			C			D				
	Queue Length 95th (m)	33.3	4.2			46.1	0	28.8	226.9				

	EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
Avg delay/	45	27.5	45	0	103112.5	2543	40.5475816	-9.67353
Vehicles	76	647	1820	0				
Total Delay	3420	17792.5	81900	0				

	8231: St Albert Trail & Everitt Drive N											
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2400	Traffic Volume (vph)	0	17	74	197	116	0	0	0	0	55	1874	16
	v/c Ratio		0.18		0.7	0.55					0.04	0.72	0.01
	Approach LOS		E			D						B	
	Queue Length 95th (m)		16.8		50.9	24.8					8.6	214.8	1.3

	EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
Avg delay/	67.5	45	0	15	49402.5	2349	21.03128991	
Vehicles	91	313	0	1945				
Total Delay	6142.5	14085	0	29175				

	8231: St Albert Trail & Everitt Drive N											
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2407	Traffic Volume (vph)	0	14	77	95	116	0	0	0	0	72	2015	17
	v/c Ratio		0.3		0.54	0.48					0.06	0.63	0.02
	Approach LOS		C			E						B	
	Queue Length 95th (m)		8.8		17.4	65.5					16.2	174.3	0

	EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
Avg delay/	27.5	67.5	0	15	48305	2406	20.07689111	0.954399
Vehicles	91	211	0	2104				
Total Delay	2502.5	14242.5	0	31560				

	8232: St Albert Trail#2 & Everitt Drive N											
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2400	Traffic Volume (vph)	10	63	0	0	203	1	110	2346	194	0	0	0
	v/c Ratio	0.08	0.16			0.35		0.04	0.91	0.17			
	Approach LOS		E			E			B				
	Queue Length 95th (m)	8.9	17.3			33.5		7.5	413.9	20.2			

	EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
Avg delay/	67.5	67.5	15	0	58447.5	2927	19.96839768	
Vehicles	73	204	2650	0				
Total Delay	4927.5	13770	39750	0				

	8232: St Albert Trail#2 & Everitt Drive N											
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2407	Traffic Volume (vph)	10	76	0	0	101	0	109	2520	171	0	0	0
	v/c Ratio	0.15	0.41			0.15		0.51	0.69	0.15			
	Approach LOS		F			E			B				
	Queue Length 95th (m)	10.5	23.6			18.7		31	169.7	13			

	EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
Avg delay/	80	67.5	15	0	55697.5	2987	18.64663542	1.321762
Vehicles	86	101	2800	0				
Total Delay	6880	6817.5	42000	0				

	6176: St Albert Trail & Giroux Road/Boudreau Road											
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2400	Traffic Volume (vph)	232	631	159	86	598	427	348	1829	57	310	1575	216
	v/c Ratio	1.56	0.94	0.39	0.55	0.88	0.73	1.05	1.06	0.09	0.88	0.88	0.33
	Approach LOS		F			D			F			D	
	Queue Length 95th (m)	#165.3	#169.2	30.5	38.4	#143.6	66.8	#206.2	#320.0	0	144.1	216.9	32.2

	EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
Avg delay/	80	45	80	45	405020	6468	62.61904762	
Vehicles	1022	1111	2234	2101				
Total Delay	81760	49995	178720	94545				

	6176: St Albert Trail & Giroux Road/Boudreau Road											
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
2407	Traffic Volume (vph)	230	629	160	86	585	504	351	1844	58	312	1581	218
	v/c Ratio	1.07	0.79	0.34	0.62	0.96	0.95	1.01	1.03	0.09	1.04	0.96	0.35
	Approach LOS		E			E			F			E	
	Queue Length 95th (m)	#136.4	138.6	25.1	37.3	#152.6	#159.0	#202.7	#291.4	0	#188.5	#239.4	36.3

	EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
Avg delay/	67.5	67.5	80	67.5	470827.5	6558	71.79437328	-9.17533
Vehicles	1019	1175	2253	2111				
Total Delay	68782.5	79312.5	180240	142492.5				

		Total Vehicles
Total Difference	13.67252177	29075
Divided by number of intersections	1.519169085	3230.555556

Total Vehicles Average/Intersection

	Corresponding Scenario	Project
1	2407 (2411)	North St. Albert Trail Upgrade

Collision

	6175: St Albert Trail#2 & Erin Ridge Road																		
2400	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	Difference
	Traffic Volume (vph)	400	120	0	0	277	245	316	1884	91	0	0	0									
	v/c Ratio	2.07	0.22			0.76		0.92	1.06					Avg delay/	80	67.5	80	0	260115	3333	78.04230423	
	Approach LOS		F			E			F					Vehicles	520	522	2291	0				
	Queue Length 95th (m)	#260.0	4			96.3		#168.3	#503.1					Total Delay	41600	35235	183280	0				
2407	6175: St Albert Trail#2 & Erin Ridge Road																					
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
	Traffic Volume (vph)	408	112	0	0	273	447	302	2011	73	0	0	0									
	v/c Ratio	1.39	0.18			1.34dr		1.32	0.88					Avg delay/	80	80	67.5	0	260255	3626	71.77468285	6.267621
	Approach LOS		F			F			E					Vehicles	520	720	2386	0				
3	Queue Length 95th (m)	#235.1	3.9			#197.2		#206.4	281					Total Delay	41600	57600	161055	0				

	6458: St Albert Trail#2 & Coalmine Road																		
2400	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
	Traffic Volume (vph)	40	91	0	0	15	185	0	2425	4	0	0	0									
	v/c Ratio	0.27	0.6			0.7			1.21	0				Avg delay/	80	27.5	80	0	210300	2760	76.19565217	
	Approach LOS		F			C			F					Vehicles	131	200	2429	0				
	Queue Length 95th (m)	17	32			34.1			#677.2	0				Total Delay	10480	5500	194320	0				
2407	6458: St Albert Trail#2 & Coalmine Road																					
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
	Traffic Volume (vph)	38	119	0	0	21	15	0	2747	20	0	0	0									
	v/c Ratio	0.22	0.67			0.27			0.97	0.02				Avg delay/	80	45	45	0	138695	2960	46.85641892	29.33923
	Approach LOS		F			D			D					Vehicles	157	36	2767	0				
	Queue Length 95th (m)	m17.9	67.8			20.6			#448.7	0				Total Delay	12560	1620	124515	0				

	7475: St Albert Trail & Villeneuve Road/Erin Ridge Road																		
2400	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
	Traffic Volume (vph)	0	505	261	1	493	0	0	0	0	15	1665	599									
	v/c Ratio		0.49	0.41		0.81					0.19	1.4	0.88	Avg delay/	27.5	80	0	80	242905	3539	68.63662051	
	Approach LOS		C			F						F		Vehicles	766	494	0	2279				
	Queue Length 95th (m)		95.6	21.5		m93.1					13.9	#485.7	#227.2	Total Delay	21065	39520	0	182320				
2407	7475: St Albert Trail & Villeneuve Road/Erin Ridge Road																					
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
	Traffic Volume (vph)	0	504	267	0	474	0	0	0	0	16	1675	610									
	v/c Ratio		0.42	0.38		0.8					0.22	1.31		Avg delay/	27.5	80	0	80	243202.5	3546	68.58502538	0.051595
	Approach LOS		C			F						F		Vehicles	771	474	0	2301				
	Queue Length 95th (m)		89.7	20.4		m51.5					14.7	#412.2		Total Delay	21202.5	37920	0	184080				

	7479: St Albert Trail & Coalmine Road																		
2400	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
	Traffic Volume (vph)	0	61	0	15	0	0	0	0	0	70	2050	25									
	v/c Ratio		0.21			0.12					0.58	0.61		Avg delay/	67.5	67.5	0	15	37305	2221	16.79648807	
	Approach LOS		E			E						B		Vehicles	61	15	0	2145				
	Queue Length 95th (m)		19.6			m5.5					44.3	174.5		Total Delay	4117.5	1012.5	0	32175				
2407	7479: St Albert Trail & Coalmine Road																					
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
	Traffic Volume (vph)	0	61	0	21	0	0	0	0	0	96	2066	25									
	v/c Ratio		0.18			0.17					0.64	0.61		Avg delay/	67.5	27.5	0	15	37500	2269	16.52710445	0.269384
	Approach LOS		E			C						B		Vehicles	61	21	0	2187				
	Queue Length 95th (m)		18.4			3.8					54.5	168.6		Total Delay	4117.5	577.5	0	32805				

	8231: St Albert Trail & Everitt Drive N																		
2400	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
	Traffic Volume (vph)	0	17	74	197	116	0	0	0	0	55	1874	16									
	v/c Ratio		0.18		0.7	0.55					0.04	0.72	0.01	Avg delay/	67.5	45	0	15	49402.5	2349	21.03128991	
	Approach LOS		E			D						B		Vehicles	91	313	0	1945				
	Queue Length 95th (m)		16.8		50.9	24.8					8.6	214.8	1.3	Total Delay	6142.5	14085	0	29175				

	8231: St Albert Trail & Everitt Drive N																			
2407	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
	Traffic Volume (vph)	0	14	77	95	116	0	0	0	0	72	2015	17									
	v/c Ratio		0.3		0.54	0.48					0.06	0.63	0.02	Avg delay/	27.5	67.5	0	15	48305	2406	20.07689111	0.954399
	Approach LOS		C			E						B		Vehicles	91	211	0	2104				
	Queue Length 95th (m)		8.8		17.4	65.5					16.2	174.3	0	Total Delay	2502.5	14242.5	0	31560				

	8232: St Albert Trail#2 & Everitt Drive N																			
2400	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
	Traffic Volume (vph)	10	63	0	0	203	1	110	2346	194	0	0	0									
	v/c Ratio	0.08	0.16			0.35		0.04	0.91	0.17				Avg delay/	67.5	67.5	15	0	58447.5	2927	19.96839768	
	Approach LOS		E			E			B					Vehicles	73	204	2650	0				
	Queue Length 95th (m)	8.9	17.3			33.5		7.5	413.9	20.2				Total Delay	4927.5	13770	39750	0				

	8232: St Albert Trail#2 & Everitt Drive N																			
2407	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
	Traffic Volume (vph)	10	76	0	0	101	0	109	2520	171	0	0	0									
	v/c Ratio	0.15	0.41			0.15		0.51	0.69	0.15				Avg delay/	80	67.5	15	0	55697.5	2987	18.64663542	1.321762
	Approach LOS		F			E			B					Vehicles	86	101	2800	0				
	Queue Length 95th (m)	10.5	23.6			18.7		31	169.7	13				Total Delay	6880	6817.5	42000	0				

	6176: St Albert Trail & Giroux Road/Boudreau Road																			
2400	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
	Traffic Volume (vph)	232	631	159	86	598	427	348	1829	57	310	1575	216									
	v/c Ratio	1.56	0.94	0.39	0.55	0.88	0.73	1.05	1.06	0.09	0.88	0.88	0.33	Avg delay/	80	45	80	45	405020	6468	62.61904762	
	Approach LOS		F			D			F			D		Vehicles	1022	1111	2234	2101				
	Queue Length 95th (m)	#165.3	#169.2	30.5	38.4	#143.6	66.8	#206.2	#320.0	0	144.1	216.9	32.2	Total Delay	81760	49995	178720	94545				

	6176: St Albert Trail & Giroux Road/Boudreau Road																			
2407	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	
	Traffic Volume (vph)	230	629	160	86	585	504	351	1844	58	312	1581	218									
	v/c Ratio	1.07	0.79	0.34	0.62	0.96	0.95	1.01	1.03	0.09	1.04	0.96	0.35	Avg delay/	67.5	67.5	80	67.5	470827.5	6558	71.79437328	-9.17533
	Approach LOS		E			E			F			E		Vehicles	1019	1175	2253	2111				
	Queue Length 95th (m)	#136.4	138.6	25.1	37.3	#152.6	#159.0	#202.7	#291.4	0	#188.5	#239.4	36.3	Total Delay	68782.5	79312.5	180240	142492.5				

		Total Vehicles
Total Difference	29.02867	24352
Divided by number of intersections	4.146953	3478.857143

	Corresponding Scenario	Project
1	2407 (2411)	North St. Albert Trail Upgrade

2400

Collisions

	6175: St Albert Trail#2 & Erin Ridge Road												
2400	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	400	120	0	0	277	245	316	1884	91	0	0	0
	v/c Ratio	2.07	0.22			0.76		0.92	1.06				
	Approach LOS		F			E			F				
	Queue Length 95th (m)	#260.0	4			96.3		#168.3	#503.1				

Avg delay/	EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	Difference
	80	67.5	80	0	260115	3333	78.04230423	
Vehicles	520	522	2291	0				
Total Delay	41600	35235	183280	0				

	6175: St Albert Trail#2 & Erin Ridge Road												
2407	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	408	112	0	0	273	447	302	2011	73	0	0	0
	v/c Ratio	1.39	0.18			1.34dr		1.32	0.88				
	Approach LOS		F			F			E				
3	Queue Length 95th (m)	#235.1	3.9			#197.2		#206.4	281				

Avg delay/	EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	Difference
	80	80	67.5	0	260255	3626	71.77468285	6.267621
Vehicles	520	720	2386	0				
Total Delay	41600	57600	161055	0				

	6458: St Albert Trail#2 & Coalmine Road												
2400	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	40	91	0	0	15	185	0	2425	4	0	0	0
	v/c Ratio	0.27	0.6			0.7			1.21	0			
	Approach LOS		F			C			F				
	Queue Length 95th (m)	17	32			34.1			#677.2	0			

Avg delay/	EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	Difference
	80	27.5	80	0	210300	2760	76.19565217	
Vehicles	131	200	2429	0				
Total Delay	10480	5500	194320	0				

	6458: St Albert Trail#2 & Coalmine Road												
2407	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	38	119	0	0	21	15	0	2747	20	0	0	0
	v/c Ratio	0.22	0.67			0.27			0.97	0.02			
	Approach LOS		F			D			D				
	Queue Length 95th (m)	m17.9	67.8			20.6			#448.7	0			

Avg delay/	EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	Difference
	80	45	45	0	138695	2960	46.85641892	29.33923
Vehicles	157	36	2767	0				
Total Delay	12560	1620	124515	0				

	7475: St Albert Trail & Villeneuve Road/Erin Ridge Road												
2400	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	0	505	261	1	493	0	0	0	0	15	1665	599
	v/c Ratio		0.49	0.41		0.81					0.19	1.4	0.88
	Approach LOS		C			F						F	
	Queue Length 95th (m)		95.6	21.5		m93.1					13.9	#485.7	#227.2

Avg delay/	EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	Difference
	27.5	80	0	80	242905	3539	68.63662051	
Vehicles	766	494	0	2279				
Total Delay	21065	39520	0	182320				

	7475: St Albert Trail & Villeneuve Road/Erin Ridge Road												
2407	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	0	504	267	0	474	0	0	0	0	16	1675	610
	v/c Ratio		0.42	0.38		0.8					0.22	1.31	
	Approach LOS		C			F						F	
3	Queue Length 95th (m)		89.7	20.4		m51.5					14.7	#412.2	

Avg delay/	EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	Difference
	27.5	80	0	80	243202.5	3546	68.58502538	0.051595
Vehicles	771	474	0	2301				
Total Delay	21202.5	37920	0	184080				

	7479: St Albert Trail & Coalmine Road												
2400	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	0	61	0	15	0	0	0	0	0	70	2050	25
	v/c Ratio		0.21			0.12					0.58	0.61	
	Approach LOS		E			E						B	
	Queue Length 95th (m)		19.6			m5.5					44.3	174.5	

Avg delay/	EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	Difference
	67.5	67.5	0	15	37305	2221	16.79648807	
Vehicles	61	15	0	2145				
Total Delay	4117.5	1012.5	0	32175				

	7479: St Albert Trail & Coalmine Road												
2407	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	0	61	0	21	0	0	0	0	0	96	2066	25
	v/c Ratio		0.18			0.17					0.64	0.61	
	Approach LOS		E			C						B	
	Queue Length 95th (m)		18.4			3.8					54.5	168.6	

Avg delay/	EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	Difference
	67.5	27.5	0	15	37500	2269	16.52710445	0.269384
Vehicles	61	21	0	2187				
Total Delay	4117.5	577.5	0	32805				

	6176: St Albert Trail & Giroux Road/Boudreau Road												
2400	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	232	631	159	86	598	427	348	1829	57	310	1575	216
	v/c Ratio	1.56	0.94	0.39	0.55	0.88	0.73	1.05	1.06	0.09	0.88	0.88	0.33

Avg delay/	EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle	Difference
	80	45	80	45	405020	6468	62.61904762	

	Approach LOS		F			D			F			D	
	Queue Length 95th (m)	#165.3	#169.2	30.5	38.4	#143.6	66.8	#206.2	#320.0	0	144.1	216.9	32.2
2411	**6176: St Albert Trail & Giroux Road/Boudreau Road**												
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	230	629	160	86	585	504	351	1844	58	312	1581	218
	v/c Ratio	1.07	0.79	0.34	0.62	0.96	0.95	1.01	1.03	0.09	1.04	0.96	0.35
	Approach LOS		E			E			F			E	
	Queue Length 95th (m)	#136.4	138.6	25.1	37.3	#152.6	#159.0	#202.7	#291.4	0	#188.5	#239.4	36.3

Vehicles	1022	1111	2234	2101			
Total Delay	81760	49995	178720	94545			
	EB	WB	NB	SB	Total Delay	Total Vehicles	delay per vehicle
Avg delay/V	67.5	67.5	80	67.5	470827.5	6558	71.79437328
Vehicles	1019	1175	2253	2111			
Total Delay	68782.5	79312.5	180240	142492.5			

		Vehicles
Total Difference	26.75251	18959
Divided by number of intersections	5.350502	3791.8

-9.17533

2	1. (2401) 5. (2404)	Fowler Way: from Ray Gibbon Dr to St Albert Tr

Use Scenario 2404

Safety

	6175: St Albert Trail#2 & Erin Ridge Road												
2400	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	400	120	0	0	277	245	316	1884	91	0	0	0
	v/c Ratio	2.07	0.22			0.76		0.92	1.06				
	Approach LOS		F			E			F				
	Queue Length 95th (m)	#260.0	4			96.3		#168.3	#503.1				

Avg delay/	EB	WB	NB	SB	Total Delay	otal Vehicle	Delay/Vehicle	Difference
	80	67.5	80	0	260115	3333	78.04230423	
Vehicles	520	522	2291					
Total Delay	41600	35235	183280					

	6175: St Albert Trail#2 & Erin Ridge Road												
2404	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	0	149	0	0	227	295	204	1908	91	0	0	0
	v/c Ratio		0.5			0.8		0.81	1.01				
	Approach LOS		F			E			D				
	Queue Length 95th (m)		m81.1			87.2		#125.3	#456.4				

Avg delay/	EB	WB	NB	SB	Total Delay	otal Vehicle	Delay/Vehicle	Difference
	80	67.5	45	0	146290	2874	50.90118302	27.14112
Vehicles	149	522	2203					
Total Delay	11920	35235	99135					

	6176: St Albert Trail & Giroux Road/Boudreau Road												
2400	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	232	631	159	86	598	427	348	1829	57	310	1575	216
	v/c Ratio	1.56	0.94	0.39	0.55	0.88	0.73	1.05	1.06	0.09	0.88	0.88	0.33
	Approach LOS		F			D			F			D	
	Queue Length 95th (m)	#165.3	#169.2	30.5	38.4	#143.6	66.8	#206.2	#320.0	0	144.1	216.9	32.2

Avg delay/	EB	WB	NB	SB	Total Delay	otal Vehicle	Delay/Vehicle	Difference
	80	45	80	45	310475	6468	48.00170068	
Vehicles	1022	1111	2234					
Total Delay	81760	49995	178720					

	6176: St Albert Trail & Giroux Road/Boudreau Road												
2404	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	218	612	160	79	610	489	362	1701	62	312	1525	191
	v/c Ratio	1.02	0.75	0.33	0.55	0.98	0.9	1	0.97	0.1	1.01	0.95	0.32
	Approach LOS		E			E			E			E	
	Queue Length 95th (m)	#126.3	133	22.9	34.7	#160.8	#137.4	#205.7	#258.7	0	#184.7	#230.8	32.8

Avg delay/	EB	WB	NB	SB	Total Delay	otal Vehicle	Delay/Vehicle	Difference
	67.5	67.5	67.5	67.5	289777.5	6321	45.84361652	2.158084
Vehicles	990	1178	2125					
Total Delay	66825	79515	143437.5					

	6458: St Albert Trail#2 & Coalmine Road												
2400	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	40	91	0	0	15	185	0	2425	4	0	0	0
	v/c Ratio	0.27	0.6			0.7			1.21	0			
	Approach LOS		F			C			F				
	Queue Length 95th (m)	17	32			34.1			#677.2	0			

Avg delay/	EB	WB	NB	SB	Total Delay	otal Vehicle	Delay/Vehicle	Difference
	80	27.5	80	0	210300	2760	76.19565217	
Vehicles	131	200	2429					
Total Delay	10480	5500	194320					

	6458: St Albert Trail#2 & Coalmine Road												
2404	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	41	41	0	0	21	24	0	2098	3	0	0	0
	v/c Ratio	0.34	0.32			0.26			0.94	0			
	Approach LOS		D			D			C				
	Queue Length 95th (m)	9.2	9.2			21.4			#487.3	0			

Avg delay/	EB	WB	NB	SB	Total Delay	otal Vehicle	Delay/Vehicle	Difference
	45	45	27.5	0	63492.5	2228	28.49753142	47.69812
Vehicles	82	45	2101					
Total Delay	3690	2025	57777.5					

	6624: Hogan Road/Hogan Road South & Villeneuve Road (Hwy 633)/Villeneuve Road												
2400	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	3	808	7	211	580	16	2	0	91	11	1	3
	v/c Ratio		1.2			2.58			0.15			0.03	
	Approach LOS		F			F			A			A	
	Queue Length 95th (m)		#154.1			#165.0			8.7			3.2	

Avg delay/	EB	WB	NB	SB	Total Delay	otal Vehicle	Delay/Vehicle	Difference
	80	80	5	5	130540	1733	75.32602424	
Vehicles	818	807	93	15				
Total Delay	65440	64560	465	75				

	6624: Hogan Road/Hogan Road South & Villeneuve Road #1/Villeneuve Road												
2404	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	138	71	0	30	82	61	2	360	0	22	180	14
	v/c Ratio		0.52			0.36			0.38			0.24	
	Approach LOS		B			A			A			A	

Avg delay/	EB	WB	NB	SB	Total Delay	otal Vehicle	Delay/Vehicle	Difference
	15	5	5	5	6890	960	7.177083333	68.14894
Vehicles	209	173	362	216				

	Queue Length 95th (m)		26.5			16.1			42.6			24.3		Total Delay	3135	865	1810	1080					

	7475: St Albert Trail & Villeneuve Road/Erin Ridge Road																						
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	Delay/Vehicle		
2400	Traffic Volume (vph)	0	505	261	1	493	0	0	0	0	15	1665	599										
	v/c Ratio		0.49	0.41		0.81					0.19	1.4	0.88	Avg delay/	27.5	80	0	80	242905	3539	68.63662051		
	Approach LOS		C			F						F		Vehicles	766	494	0	2279					
	Queue Length 95th (m)		95.6	21.5		m93.1					13.9	#485.7	#227.2	Total Delay	21065	39520	0	182320					
	7475: St Albert Trail & Villeneuve Road/Erin Ridge Road																						
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	Delay/Vehicle		
2404	Traffic Volume (vph)	0	34	184	14	318	0	0	0	0	115	1644	16										
	v/c Ratio		0.06	0.47		0.62					0.69	0.9	0.02	Avg delay/	15	80	0	45	109705	2325	47.18494624	21.45167	
	Approach LOS		B			F						D		Vehicles	218	332	0	1775					
3	Queue Length 95th (m)		10.7	29.1		m53.8					#82.6	#353.0	0	Total Delay	3270	26560	0	79875					

	7479: St Albert Trail & Coalmine Road																						
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	Delay/Vehicle		
2400	Traffic Volume (vph)	0	61	0	15	0	0	0	0	0	70	2050	25										
	v/c Ratio		0.21			0.12					0.58	0.61		Avg delay/	67.5	67.5	0	15	37305	2221	16.79648807		
	Approach LOS		E			E						B		Vehicles	61	15	0	2145					
	Queue Length 95th (m)		19.6			m5.5					44.3	174.5		Total Delay	4117.5	1012.5	0	32175					
	7479: St Albert Trail & Coalmine Road																						
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	Delay/Vehicle		
2404	Traffic Volume (vph)	0	60	0	21	0	0	0	0	0	22	1537	25										
	v/c Ratio		0.24			0.42					0.27	0.45		Avg delay/	67.5	45	0	15	28755	1665	17.27027027	-0.47378	
	Approach LOS		E			D						B		Vehicles	60	21	0	1584					
	Queue Length 95th (m)		19.5			5					18.5	99.3		Total Delay	4050	945	0	23760					

	8231: St Albert Trail & Everitt Drive N																						
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	Delay/Vehicle		
2400	Traffic Volume (vph)	0	17	74	197	116	0	0	0	0	55	1874	16										
	v/c Ratio		0.18		0.7	0.55					0.04	0.72	0.01	Avg delay/	67.5	45	0	15	49402.5	2349	21.03128991		
	Approach LOS		E			D						B		Vehicles	91	313	0	1945					
	Queue Length 95th (m)		16.8		50.9	24.8					8.6	214.8	1.3	Total Delay	6142.5	14085	0	29175					
	8231: St Albert Trail & Everitt Drive N																						
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	Delay/Vehicle		
2404	Traffic Volume (vph)	0	146	112	100	249	0	0	0	0	53	1371	11										
	v/c Ratio		0.49		0.55	0.79					0.05	0.69	0.01	Avg delay/	45	80	0	27.5	78992.5	2042	38.68388834	-17.6526	
	Approach LOS		D			F						C		Vehicles	258	349	0	1435					
	Queue Length 95th (m)		28.9		19.2	122.8					16.8	234	0	Total Delay	11610	27920	0	39462.5					

	8232: St Albert Trail#2 & Everitt Drive N																						
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	Delay/Vehicle		
2400	Traffic Volume (vph)	10	63	0	0	203	1	110	2346	194	0	0	0										
	v/c Ratio	0.08	0.16			0.35		0.04	0.91	0.17				Avg delay/	67.5	67.5	15	0	58447.5	2927	19.96839768		
	Approach LOS		E			E			B					Vehicles	73	204	2650	0					
	Queue Length 95th (m)	8.9	17.3			33.5		7.5	413.9	20.2				Total Delay	4927.5	13770	39750	0					
	8232: St Albert Trail#2 & Everitt Drive N																						
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	Delay/Vehicle		
2404	Traffic Volume (vph)	10	189	0	0	164	0	185	1858	119	0	0	0										
	v/c Ratio	0.09	0.58			0.19		0.63	0.78	0.11				Avg delay/	45	45	27.5	0	75790	2525	30.01584158	-10.0474	
	Approach LOS		D			D			C					Vehicles	199	164	2162	0					
	Queue Length 95th (m)	5.3	24.6			25.3		47.5	280.6	14				Total Delay	8955	7380	59455	0					

		Total Vehilces
Total Difference	138.4241	20940
Divided by number of intersections	17.30301	2617.5

3	1. (2401) 7. (2406)	Ray Gibbon Drive	2406	Ray Gibbon to Giroux		

Safety

		7397: Ray Gibbon Drive#1/Ray Gibbon Drive & LeClair Way																			
		Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicl	Difference
		Traffic Volume (vph)	0	0	0	513	0	555	0	974	765	533	593	0									
		v/c Ratio				1.18	0.73			2.14	0.82	5.26	1.3		Avg delay/	0	67.5	80	80	211210	3933	53.70201	
		Approach LOS					E			F			F		Vehicles	0	1068	1739					
3	2400	Queue Length 95th (m)				m#134.7	m71.4			#298.4	#68.1	#198.0	#171.3		Total Delay	0	72090	139120					
		7397: Ray Gibbon Drive#1/Ray Gibbon Drive & LeClair Way																			
		Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
		Traffic Volume (vph)	0	0	0	505	0	812	0	1276	676	556	598	0									
		v/c Ratio				0.54	1.13			1.08	0.8	1.23	0.29		Avg delay/	0	67.5	67.5	80	220657.5	4423	49.88865	3.813358
		Approach LOS					E			E			F		Vehicles	0	1317	1952					
	2406	Queue Length 95th (m)				93.8	#297.9			#298.9	124.5	#294.2	54.7		Total Delay	0	88897.5	131760					
		7514: Ray Gibbon Drive & McKenney Avenue																			
		Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
		Traffic Volume (vph)	1	60	18	296	52	149	38	897	644	174	863	0									
		v/c Ratio	0	0.12		0.63	0.33		0.25	1.34	0.67	1.17	1.25		Avg delay/	5	15	80	80	134170	3192	42.03321	
		Approach LOS		A			B			F			F		Vehicles	79	497	1579					
	2400	Queue Length 95th (m)	0.7	9.6		#44.8	22		8.4	#172.2	16.5	#50.3	#162.9		Total Delay	395	7455	126320					
		7514: Ray Gibbon Drive & McKenney Avenue																			
		Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
		Traffic Volume (vph)	16	64	18	308	48	162	37	1370	734	186	885	15									
		v/c Ratio	0.07	0.19		0.98	0.43		0.12	0.89	0.73	0.86	0.51		Avg delay/	27.5	45	27.5	15	84882.5	3843	22.08756	19.94565
		Approach LOS		C			D			C			B		Vehicles	98	518	2141					
	2406	Queue Length 95th (m)	7	20.6		#105.5	30.1		5.7	#157.9	51.7	#55.4	71.2		Total Delay	2695	23310	58877.5					
		8227: Ray Gibbon Drive & Giroux Road#1/Giroux Road																			
		Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
		Traffic Volume (vph)	183	54	172	296	13	44	35	265	747	10	569	26									
		v/c Ratio	0.56	0.43		1.31	0.13		0.35	0.58	0.8	0.02	1.25	0.06	Avg delay/	15	80	15	80	50080	2414	20.74565	
		Approach LOS		B			F			B			F		Vehicles	409	353	1047					
	2400	Queue Length 95th (m)	42.6	22.7		#102.1	9.5		12.9	56.3	#42.2	4.6	#162.9	0	Total Delay	6135	28240	15705					
		8227: Ray Gibbon Drive & Giroux Road#1/Giroux Road																			
		Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
		Traffic Volume (vph)	163	59	172	311	12	24	37	514	997	10	602	12									
		v/c Ratio	0.7	0.58		0.79	0.06		0.12	0.31	0.88	0.03	0.36	0.02	Avg delay/	27.5	45	15	15	49670	2913	17.05115	3.6945
		Approach LOS		C			D			B			B		Vehicles	394	347	1548					
	2406	Queue Length 95th (m)	46.2	34.1		#49.3	6.9		9.1	38.2	#155.1	3.6	45.2	0	Total Delay	10835	15615	23220					

		Vehicles
Total	27.4535	11179
Divided by number of intersections	9.151168	3726.333

3	1. (2401) 7. (2406)	Ray Gibbon Drive	2406	Ray Gibbon to Fowler		

Safety

7397: Ray Gibbon Drive#1/Ray Gibbon Drive & LeClair Way																				
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicl	Difference
	Traffic Volume (vph)	0	0	0	513	0	555	0	974	765	533	593	0									
	v/c Ratio				1.18	0.73			2.14	0.82	5.26	1.3		Avg delay/	0	67.5	80	80	211210	3933	53.70201	
	Approach LOS					E			F			F		Vehicles	0	1068	1739					
3 2400	Queue Length 95th (m)				m#134.7	m71.4			#298.4	#68.1	#198.0	#171.3		Total Delay	0	72090	139120					

7397: Ray Gibbon Drive#1/Ray Gibbon Drive & LeClair Way																				
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
	Traffic Volume (vph)	0	0	0	505	0	812	0	1276	676	556	598	0									
	v/c Ratio				0.54	1.13			1.08	0.8	1.23	0.29		Avg delay/	0	67.5	67.5	80	220657.5	4423	49.88865	3.813358
	Approach LOS					E			E			F		Vehicles	0	1317	1952					
2406	Queue Length 95th (m)				93.8	#297.9			#298.9	124.5	#294.2	54.7		Total Delay	0	88897.5	131760					

7514: Ray Gibbon Drive & McKenney Avenue																				
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
	Traffic Volume (vph)	1	60	18	296	52	149	38	897	644	174	863	0									
	v/c Ratio	0	0.12		0.63	0.33		0.25	1.34	0.67	1.17	1.25		Avg delay/	5	15	80	80	134170	3192	42.03321	
	Approach LOS		A			B			F			F		Vehicles	79	497	1579					
2400	Queue Length 95th (m)	0.7	9.6		#44.8	22		8.4	#172.2	16.5	#50.3	#162.9		Total Delay	395	7455	126320					

7514: Ray Gibbon Drive & McKenney Avenue																				
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
	Traffic Volume (vph)	16	64	18	308	48	162	37	1370	734	186	885	15									
	v/c Ratio	0.07	0.19		0.98	0.43		0.12	0.89	0.73	0.86	0.51		Avg delay/	27.5	45	27.5	15	84882.5	3843	22.08756	19.94565
	Approach LOS		C			D			C			B		Vehicles	98	518	2141					
2406	Queue Length 95th (m)	7	20.6		#105.5	30.1		5.7	#157.9	51.7	#55.4	71.2		Total Delay	2695	23310	58877.5					

8227: Ray Gibbon Drive & Giroux Road#1/Giroux Road																				
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
	Traffic Volume (vph)	183	54	172	296	13	44	35	265	747	10	569	26									
	v/c Ratio	0.56	0.43		1.31	0.13		0.35	0.58	0.8	0.02	1.25	0.06	Avg delay/	15	80	15	80	50080	2414	20.74565	
	Approach LOS		B			F			B			F		Vehicles	409	353	1047					
2400	Queue Length 95th (m)	42.6	22.7		#102.1	9.5		12.9	56.3	#42.2	4.6	#162.9	0	Total Delay	6135	28240	15705					

8227: Ray Gibbon Drive & Giroux Road#1/Giroux Road																				
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
	Traffic Volume (vph)	163	59	172	311	12	24	37	514	997	10	602	12									
	v/c Ratio	0.7	0.58		0.79	0.06		0.12	0.31	0.88	0.03	0.36	0.02	Avg delay/	27.5	45	15	15	49670	2913	17.05115	3.6945
	Approach LOS		C			D			B			B		Vehicles	394	347	1548					
2406	Queue Length 95th (m)	46.2	34.1		#49.3	6.9		9.1	38.2	#155.1	3.6	45.2	0	Total Delay	10835	15615	23220					

8228: Ray Gibbon Drive/Ray Gibbon Drive#1 & Villeneuve Road (Hwy 633)																				
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
	Traffic Volume (vph)	0	246	229	371	135	0	149	0	369	0	0	0									
	v/c Ratio		0.32	0.3	0.83	0.18		0.31	0.42					Avg delay/	5	27.5	5	0	18880	1499	12.59506	
	Approach LOS		A			C			A					Vehicles	475	506	518					
2404	Queue Length 95th (m)		26.6	8.3	#62.8	15.2		29	0.8					Total Delay	2375	13915	2590					

8228: Ray Gibbon Drive/Ray Gibbon Drive#1 & Villeneuve Road (Hwy 633)																				
	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
	Traffic Volume (vph)	0	235	239	372	121	0	162	0	414	0	0	0									
	v/c Ratio		0.31	0.31	0.83	0.16		0.33	0.3					Avg delay/	5	27.5	5	0	18807.5	1543	12.18892	0.406146

	Approach LOS		A			C			A					Vehicles	474	493	576			
2401	Queue Length 95th (m)		25.3	8.5	60.9	13.8		31.5	2.1					Total Delay	2370	13557.5	2880			

		Vehicles
Total	27.85965	12722
Divided by number of intersections	6.964913	3180.5

3	1. (2401) 7. (2406)	Ray Gibbon Drive	2406	Ray Gibbon to Fowler		

Safety

7397: Ray Gibbon Drive#1/Ray Gibbon Drive & LeClair Way

	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	0	0	0	513	0	555	0	974	765	533	593	0
	v/c Ratio				1.18	0.73			2.14	0.82	5.26	1.3	
	Approach LOS					E			F			F	
3 2400	Queue Length 95th (m)				m#134.7	m71.4			#298.4	#68.1	#198.0	#171.3	

	EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicl	Difference
Avg delay/	0	67.5	80	80	211210	3933	53.70201	
Vehicles	0	1068	1739					
Total Delay	0	72090	139120					

7397: Ray Gibbon Drive#1/Ray Gibbon Drive & LeClair Way

	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	0	0	0	505	0	812	0	1276	676	556	598	0
	v/c Ratio				0.54	1.13			1.08	0.8	1.23	0.29	
	Approach LOS					E			E			F	
2406	Queue Length 95th (m)				93.8	#297.9			#298.9	124.5	#294.2	54.7	

	EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
Avg delay/	0	67.5	67.5	80	220657.5	4423	49.88865	3.813358
Vehicles	0	1317	1952					
Total Delay	0	88897.5	131760					

7514: Ray Gibbon Drive & McKenney Avenue

	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	1	60	18	296	52	149	38	897	644	174	863	0
	v/c Ratio	0	0.12		0.63	0.33		0.25	1.34	0.67	1.17	1.25	
	Approach LOS		A			B			F			F	
2400	Queue Length 95th (m)	0.7	9.6		#44.8	22		8.4	#172.2	16.5	#50.3	#162.9	

	EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
Avg delay/	5	15	80	80	134170	3192	42.03321	
Vehicles	79	497	1579					
Total Delay	395	7455	126320					

7514: Ray Gibbon Drive & McKenney Avenue

	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	16	64	18	308	48	162	37	1370	734	186	885	15
	v/c Ratio	0.07	0.19		0.98	0.43		0.12	0.89	0.73	0.86	0.51	
	Approach LOS		C			D			C			B	
2406	Queue Length 95th (m)	7	20.6		#105.5	30.1		5.7	#157.9	51.7	#55.4	71.2	

	EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
Avg delay/	27.5	45	27.5	15	84882.5	3843	22.08756	19.94565
Vehicles	98	518	2141					
Total Delay	2695	23310	58877.5					

		Vehicles
Total	23.759	8266
Divided by number of intersections	11.8795	4133

3. (2402)	Boudreau Rd @ Campbell Rd Intersection

Safety Boudreau Campbell

		6595: Campbell Road & Boudreau Road																				
		Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicl Difference
		Traffic Volume (vph)	57	620	345	45	889	1	1081	578	266	0	215	41								
		v/c Ratio	0.2	0.7	0.24	0.15	1.01	0	2.25	0.42	0.35		0.26	0.09	Avg delay/	27.5	67.5	80	27.5	245217.5	4138	59.25991
		Approach LOS		C			E			F			C		Vehicles	1022	935	1925				
	2400	Queue Length 95th (m)	12.6	74.1	0	10.6	#130.8	0	#405.8	52.5	14.1		26.5	0	Total Delay	28105	63112.5	154000				
		6595: Campbell Road & Boudreau Road																				
		Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle
		Traffic Volume (vph)	56	615	336	72	894	1	1058	594	253	0	232	48								
		v/c Ratio	0.49	0.74	0.23	0.48	1.03	0	1.27	0.31	0.27		0.66	0.21	Avg delay/	45	80	80	67.5	275075	4159	66.1397
		Approach LOS		D			F			F			E		Vehicles	1007	967	1905				
3	2402	Queue Length 95th (m)	25.3	126.8	0	30.6	#227.0	0	#505.4	60.6	26.4		54.9	5.3	Total Delay	45315	77360	152400				

Total	-6.87979	4159
Divided by number of intersections	-6.87979	4159

4. (2403)	LeClair Way at Riel Drive Intersection

Safety

7683: Site Access 2/Riel Drive & LeClair Way

	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	955	343	0	0	734	24	0	0	0	5	0	334
	v/c Ratio	3.08	0.4			0.85	0.05				0.01		0.44
	Approach LOS		F			C						A	
2400	Queue Length 95th (m)	m#97.5	m7.4			#81.9	0				2.9		0

	EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicl	Difference
Avg delay/	80	27.5	0	5	124685	2395	52.06054	
Vehicles	1298	758	0					
Total Delay	103840	20845	0					

7683: Site Access 2/Riel Drive & LeClair Way

	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	999	344	0	0	728	4	0	0	0	5	0	335
	v/c Ratio	0.96	0.17			0.92	0.01				0.03		0.41
	Approach LOS		D			D						A	
3 2403	Queue Length 95th (m)	#153.5	23.7			#119.2	0				4.3		0

	EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
Avg delay/	45	45	0	5	93375	2415	38.6646	13.39595
Vehicles	1343	732	0					
Total Delay	60435	32940	0					

7397: Ray Gibbon Drive#1/Ray Gibbon Drive & LeClair Way

	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	0	0	0	513	0	555	0	974	765	533	593	0
	v/c Ratio				1.18	0.73			2.14	0.82	5.26	1.3	
	Approach LOS					E			F			F	
2400	Queue Length 95th (m)				m#134.7	m71.4			#298.4	#68.1	#198.0	#171.3	

	EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
Avg delay/	0	67.5	80	80	211210	3933	53.70201	
Vehicles	0	1068	1739					
Total Delay	0	72090	139120					

7397: Ray Gibbon Drive#1/Ray Gibbon Drive & LeClair Way

	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	Traffic Volume (vph)	0	0	0	513	0	549	0	1005	815	529	592	0
	v/c Ratio				0.78	0.83			0.86	0.92	0.91	0.48	
	Approach LOS					D			D			C	
2403	Queue Length 95th (m)				94	77.2			#207.7	#207.7	#233.4	122	

	EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
Avg delay/	0	45	45	27.5	129690	4003	32.3982	21.30381
Vehicles	0	1062	1820					
Total Delay	0	47790	81900					

	Vehicles
Total	34.69975 6418
Divided by number of intersections	17.34988 3209

3. (2402)	St Albert Tr @ Hebert Rd Intersection

St. Albert Trail and Hebert

Safety

		6744: St Albert Trail & Gervais Road/Hebert Road																			
		Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicl	Difference
		Traffic Volume (vph)	322	393	314	76	407	79	233	2180	826	70	1602	161									
		v/c Ratio	0.88	0.86		0.42	0.81		0.85	1	0.94	0.57	1.02		Avg delay/	67.5	67.5	67.5	67.5	326025	6663	48.93066	
		Approach LOS		E			E			E			E		Vehicles	1029	562	3239					
	2400	Queue Length 95th (m)	#86.5	132.7		23.6	104.3		#120.0	#378.0	#319.3	42.8	#320.8		Total Delay	69457.5	37935	218632.5					
		6744: St Albert Trail & Gervais Road/Hebert Road																			
		Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
		Traffic Volume (vph)	323	387	175	78	365	78	214	2140	727	70	1701	111									
		v/c Ratio	0.96	0.59	0.4	0.51	0.77	0.21	0.78	0.91	0.84	0.49	0.68	0.15	Avg delay/	67.5	67.5	67.5	45	302872.5	6369	47.55417	1.376493
		Approach LOS		E			E			E			D		Vehicles	885	521	3081					
3	2402	Queue Length 95th (m)	#94.5	83.5	21.2	24.5	84.7	0	103.6	#319.1	#267.3	43.3	179.6	0	Total Delay	59737.5	35167.5	207967.5					

	Vehicles	
Total	1.376493	6369
Divided by number of intersections	1.376493	6369

1. (2405)	Bellerose Dr: from Oakmont Dr to City Limit

Bellerose and Oakmont Drive
Bellerose and Erin Ridge Drive

Safety

		6871: Bellerose Drive & Boudreau Road																			
		Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicl	Difference
		Traffic Volume (vph)	213	830	28	440	1364	585	88	736	420	554	295	117									
		v/c Ratio	2.67	0.9		1.78	0.94	0.72	0.4	1.28		2.25	0.32		Avg delay/	80	80	80	80	376320	5670	66.37037	
		Approach LOS		F			F			F			F		Vehicles	1071	2389	1244					
	2400	Queue Length 95th (m)	#100.9	#116.5		m#85.9	m49.8	m11.8	28.3	#179.3		#219.7	36.9		Total Delay	85680	191120	99520					
		6871: Bellerose Drive & Boudreau Road																			
		Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
		Traffic Volume (vph)	198	867	27	569	1490	565	75	714	425	534	279	113									
		v/c Ratio	1.41	1.19		1.52	1.22	0.82	0.26	1.38		1.55	0.31		Avg delay/	80	80	80	80	394400	5856	67.34973	-0.97936
		Approach LOS		F			F			F			F		Vehicles	1092	2624	1214					
3	2405	Queue Length 95th (m)	#136.1	#250.8		#351.4	#393.3	176.4	26.1	#324.7		#335.4	59.9		Total Delay	87360	209920	97120					

		Vehicles
Total	-0.97936	5856
Divided by number of intersections	-0.97936	5856

7. (2405)	Giroux Rd Twinning to Ray Gibbon Drive

Giroux and Hogan

Safety

		7121: Giroux Road & Hogan Road											
		Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
		Traffic Volume (vph)	1	448			310	59				28		78
		v/c Ratio	0	0.26			0.23					0.05		0.15
		Approach LOS		B			B					A		
	2400	Queue Length 95th (m)	0.7	28.2			29.9					8.7		9.1

	EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicl	Difference
Avg delay/	15	15	0	0	12270	924	13.27922	
Vehicles	449	369	0					
Total Delay	6735	5535	0					

		7121: Giroux Road & Hogan Road											
		Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
		Traffic Volume (vph)	312	459			317	126				28		163
		v/c Ratio	0.59	0.26			0.41					0.06		0.29
		Approach LOS		B			B					A		
1	2405	Queue Length 95th (m)	41.9	29			43					9.3		13.7

	EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
Avg delay/	15	15	0	0	18210	1405	12.96085	0.318367
Vehicles	771	443	0					
Total Delay	11565	6645	0					

		8227: Ray Gibbon Drive & Giroux Road#1/Giroux Road											
		Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
		Traffic Volume (vph)	183	54	172	296	13	44	35	265	747	10	569	26
		v/c Ratio	0.56	0.43		1.31	0.13		0.35	0.58	0.8	0.02	1.25	0.06
		Approach LOS		B			F			B			F	
	2400	Queue Length 95th (m)	42.6	22.7		#102.1	9.5		12.9	56.3	#42.2	4.6	#162.9	0

	EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
Avg delay/	15	80	15	80	50080	2414	20.74565	
Vehicles	409	353	1047					
Total Delay	6135	28240	15705					

		8227: Ray Gibbon Drive & Giroux Road#1/Giroux Road											
		Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
		Traffic Volume (vph)	73	178	165	369	25	9	36	341	870	22	577	6
		v/c Ratio	0.28	0.95		0.93	0.04		0.39	0.5	0.88	0.08	0.85	0.01
		Approach LOS		E			E			B			D	
1	2405	Queue Length 95th (m)	25.3	#115.9		#125.0	7.2		16.2	76.6	#140.5	8.1	#165.1	0

	EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
Avg delay/	67.5	67.5	15	45	73987.5	2671	27.7003	-6.95465
Vehicles	416	403	1247					
Total Delay	28080	27202.5	18705					

		Vehicles
Total	-6.63628	4076
Divided by number of intersections	-3.31814	2038

1. (2405)	McKenney Ave Twinning to Ray Gibbon Drive

McKenny and RGD 7514

Safety

		7514: Ray Gibbon Drive & McKenney Avenue												
		Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
		Traffic Volume (vph)	1	60	18	296	52	149	38	897	644	174	863	0
		v/c Ratio	0	0.12		0.63	0.33		0.25	1.34	0.67	1.17	1.25	
		Approach LOS		A			B			F			F	
	2400	Queue Length 95th (m)	0.7	9.6		#44.8	22		8.4	#172.2	16.5	#50.3	#162.9	
		7514: Ray Gibbon Drive & McKenney Avenue												
		Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
		Traffic Volume (vph)	1	63	16	255	56	162	32	1084	495	272	825	14
		v/c Ratio	0.01	0.27		1.28	0.66		0.11	0.84	0.4	1.86	0.64	
1	2405	Queue Length 95th (m)	2	36.6		#160.5	71.4		5.7	280.7	8.1	#145.4	146.7	

	EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicl	Difference
Avg delay/	5	15	80	80	134170	3192	42.03321	
Vehicles	79	497	1579					
Total Delay	395	7455	126320					

	EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	
Avg delay/	45	80	15	80	65605	3275	20.03206	22.00115
Vehicles	80	473	1611					
Total Delay	3600	37840	24165					

		Vehicles
Total	22.00115	3275
Divided by number of intersections	22.00115	3275

11	3. (2402)	137th Avenue Anthony Henday Ramps

Safety

Safety is 1 because it is most likely to add traffic

7683: Site Access 2/Riel Drive & LeClair Way												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	955	343	0	0	734	24	0	0	0	5	0	334
v/c Ratio	3.08	0.4			0.85	0.05				0.01		0.44
Approach LOS		F			C						A	
2400 Queue Length 95th (m)	m#97.5	m7.4			#81.9	0				2.9		0

	EB	WB	NB	SB	Total Delay	otal Vehicl	elay/Vehicl	Difference
Avg delay/	80	27.5	0	5	124685	2395	52.06054	
Vehicles	1298	758	0					
Total Delay	103840	20845	0					

7683: Site Access 2/Riel Drive & LeClair Way												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	728	459	0	0	883	51	0	0	0	35	0	262
v/c Ratio	0.92	0.24			0.94	0.09				0.26		0.33
Approach LOS		C			D						A	
2402 Queue Length 95th (m)	#111.5	31.6			#135.3	0				16.6		0

	EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	Difference
Avg delay/	27.5	45	0	5	74672.5	2418	30.88193	21.17862
Vehicles	1187	934	0					
Total Delay	32642.5	42030	0					

7532: LeClair Way/137 Avenue & Sir Winston Churchill Avenue												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	259	88			63	305				42		671
v/c Ratio	0.27	0.07			0.05	0.4				0.03		0.68
Approach LOS		A			A					B		
2400 Queue Length 95th (m)	14	5.6			4.3	11.2				m3.8		53.2

	EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	Difference
Avg delay/	5	5	0	0	3575	1428	2.503501	
Vehicles	347	368	0					
Total Delay	1735	1840	0					

7532: LeClair Way/137 Avenue & Sir Winston Churchill Avenue												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	215	279			291	690				7		642
v/c Ratio	0.53	0.19			0.38	0.79				0.01		0.76
Approach LOS		B			B					B		
2402 Queue Length 95th (m)	23.4	15.5			23.8	24.3				1.4		#78.4

	EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	Difference
Avg delay/	15	15	0	0	22125	2124	10.41667	-7.91317
Vehicles	494	981	0					
Total Delay	7410	14715	0					

7136: 170 Street/Gervais Road & Levasseur Road												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	142		182				574	392			147	458
v/c Ratio	0.63						0.72	0.15			0.44	
Approach LOS	C							B			A	
2400 Queue Length 95th (m)	30.3						130.2	23.3			36.7	

	EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	Difference
Avg delay/	0	0	15	5	14490	1895	7.646438	
Vehicles	324	0	966					
Total Delay	0	0	14490					

7136: 170 Street/Gervais Road & Levasseur Road												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	83		182				573	393			147	391
v/c Ratio	0.54						0.69	0.15			0.39	
Approach LOS	B							B			A	
2402 Queue Length 95th (m)	21.3						120	23.3			36.1	

	EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	Difference
Avg delay/	0	0	15	5	14490	1769	8.191068	-0.54463
Vehicles	265	0	966					
Total Delay	0	0	14490					

7397: Ray Gibbon Drive#1/Ray Gibbon Drive & LeClair Way												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	0	0	513	0	555	0	974	765	533	593	0
v/c Ratio				1.18	0.73			2.14	0.82	5.26	1.3	
Approach LOS					E			F			F	
2400 Queue Length 95th (m)				m#134.7	m71.4			#298.4	#68.1	#198.0	#171.3	

	EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	Difference
Avg delay/	0	67.5	80	80	211210	3933	53.70201	
Vehicles	0	1068	1739					
Total Delay	0	72090	139120					

7397: Ray Gibbon Drive#1/Ray Gibbon Drive & LeClair Way												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Volume (vph)	0	0	0	511	0	634	0	925	459	728	433	0

	EB	WB	NB	SB	Total Delay	otal Vehicle	elay/Vehicle	Difference

		v/c Ratio				0.64	0.96			1.38	0.64	1.53	0.37		Avg delay/	0	45	80	80	162245	3690	43.96883	9.733174
		Approach LOS					D			F			F		Vehicles	0	1145	1384					
2	2402	Queue Length 95th (m)				96.4	#181.6			#510.4	103.2	#422.1	86.3		Total Delay	0	51525	110720					

		Vehicles
Total	22.45399	10001
Divided by number of intersections	5.613498	2500.25