



April 30, 2020

Mr. Bob Clark  
c/o 1765629 Ontario Inc.  
11 Sunvale Drive,  
Toronto, Ontario  
M9R 1Z4

**Dear Mr. Clark**

**Re: Traffic Impact Assessment for the Phase 1 of St. Antoine  
Residential Development, City of Cornwall**

### **Principal Findings and Recommendations**

As requested, Tranplan Associates has completed the traffic related assessment for the Phase 1 of the proposed St. Antonine Residential Development. The following are principal findings from the study and recommendations with respect to the proposed Phase 1 development.

- The full built-out of Phase 1 of the development (by 2030) is forecast to produce 46 two-way vehicle trips (12 in, 34 out) during the AM peak hour and 57 two-way vehicle trips (35 in, 22 out) during the PM peak hour.
- When the site traffic is added to the forecast 2030 background traffic volumes at McConnell Avenue/St. Antoine Street intersection, the site traffic will add approximately six additional seconds of delay to the critical westbound movement producing 95<sup>th</sup> percentile queue length of approximately two vehicles (additional queue of one vehicle).
- The intersection capacity analysis indicated that mitigation measures are not required at the McConnell Avenue/St. Antoine Street intersection to accommodate the proposed Phase 1 traffic. However, for planning purposes, the study is suggesting the following to be implemented during the short-term to accommodate eventual build-out of the study area beyond Phase 1:



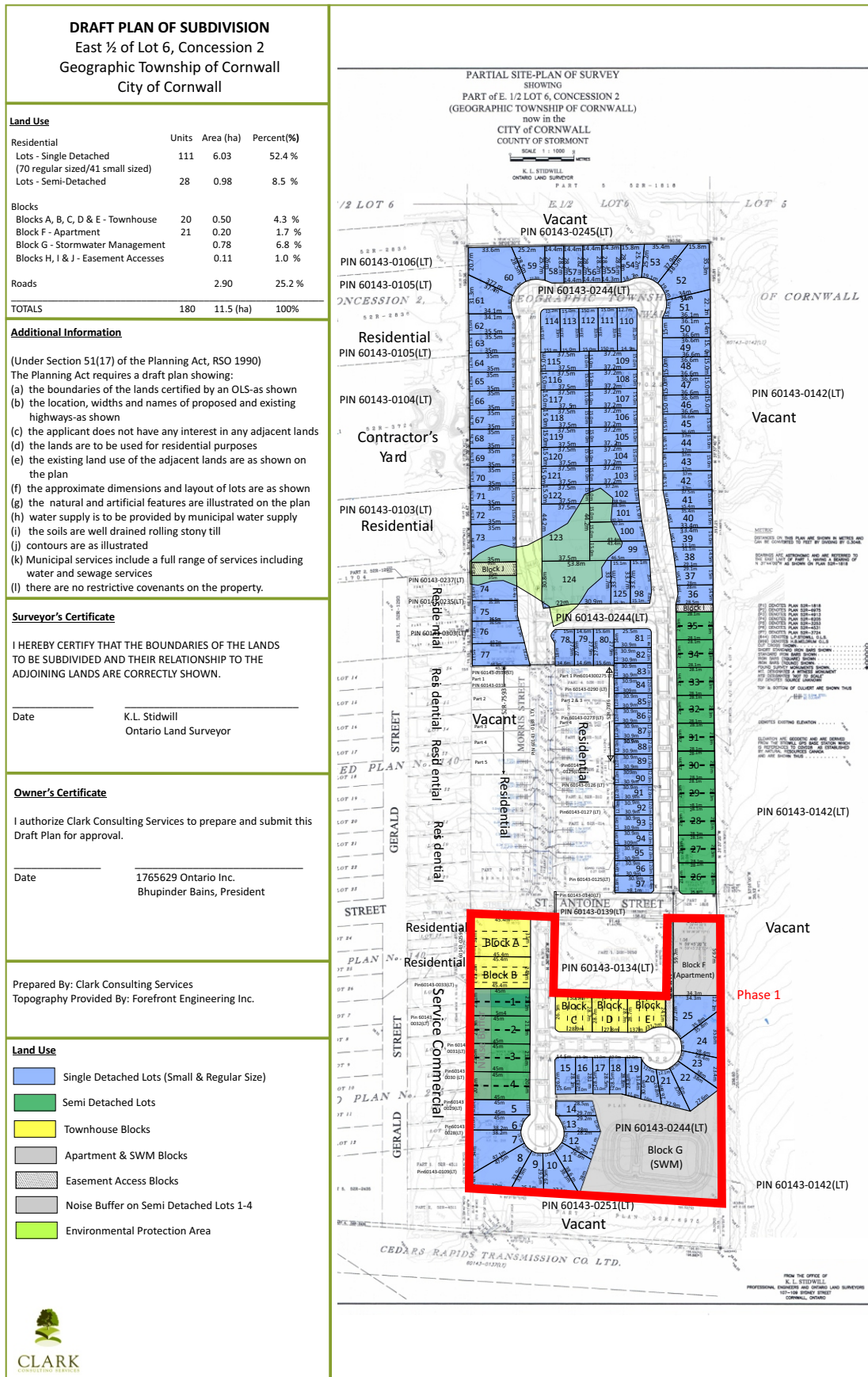
- Install Intersection Warning Sign (Wa-13) with flashing amber mount for greater visibility of the intersection (see **Appendix B**).
- Provide a dedicated northbound left turn lane on Old McConnell Avenue at St. Antoine Street for additional queuing storage for vehicles requiring left turns onto McConnell Avenue from St. Antoine Street while allowing the right turning vehicles to advance (see **Appendix C**).

## **1. Introduction**

Tranplan Associates is pleased to present the results of the Phase 1 of the proposed St. Antoine Residential Development in the City of Cornwall. This report is an addendum/update to the traffic impact study originally completed in April 2017. The proposed development is now proceeding the planning applications to construct the Phase 1 of the development (see **Exhibit 1.1 – Proposed Site Plan**).

This addendum/update report has been prepared for use by the study team to assist in the planning and design of the Phase 1 of the development plan. This report provides detailed set of intersection capacity analysis of traffic conditions based on Phase 1 site traffic volumes and update of the future planning horizons based on the assumed build-out of the Phase 1 to 2025 and five years after the Phase 1 build-out to 2030. The resulting traffic volumes provided to the study for the study intersections and update of the study analyses and the study findings.

# EXHIBIT 1.1: PROPOSED PHASE 1 SITE PLAN





## 2.0 Traffic Forecasts

### 2.1 Background Traffic

Background traffic is defined as all traffic within the study area that is not related to the proposed development. For the purposes of this study, the existing traffic volumes were projected ahead to full build-out at 2025 and 2030 future planning horizon based on an average growth rate of 1.0% per annum for the traffic passing through on McConnell Avenue (see **Exhibit 2.1**).

### 2.2 Phase 1 Traffic Generation

The Phase 1 will consist of the following:

- 21 single family dwelling units
- 8 semi-detached dwelling units
- 20 row housing units (townhouse type)
- 27 units in a medium-rise apartment

Forecasts of future site generated traffic volumes were developed using the trip generation relationships taken from the current Institute of Transportation Engineers (ITE) *Trip Generation Manual*<sup>2</sup>. The ITE land uses *Single-Family Detached Housing (LU 210)* and *Multi-Family Housing Low Rise (LU 220)* and *Medium Rise (LU 221)* were used.

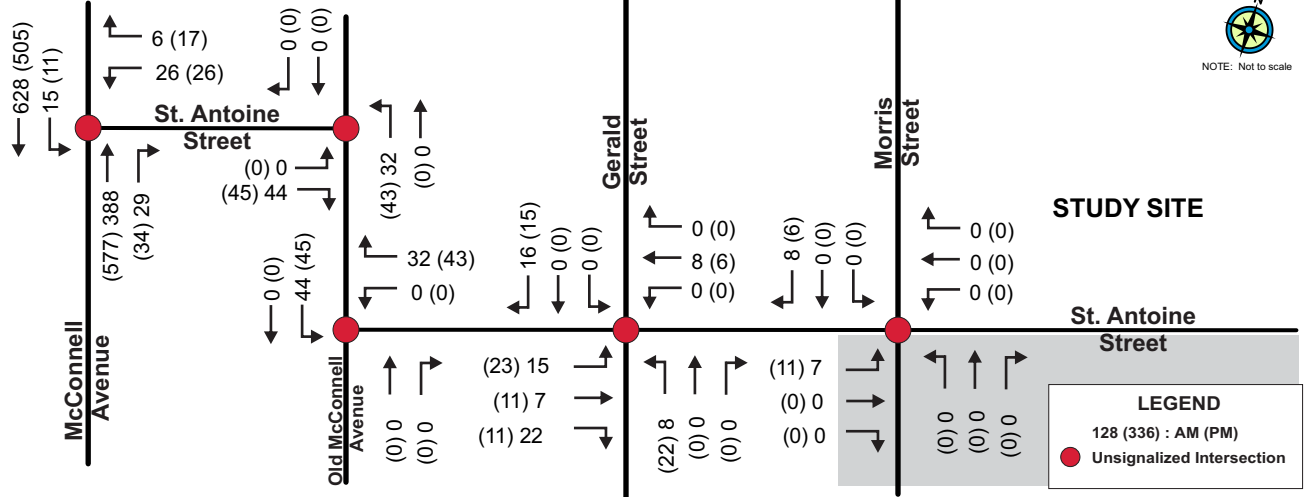
The forecast peak hour vehicular trip generation by the Phase 1 of the St. Antoine Residents is provided in **Table 2.1** and illustrated in **Exhibit 2.2** and **Exhibit 2.3**.

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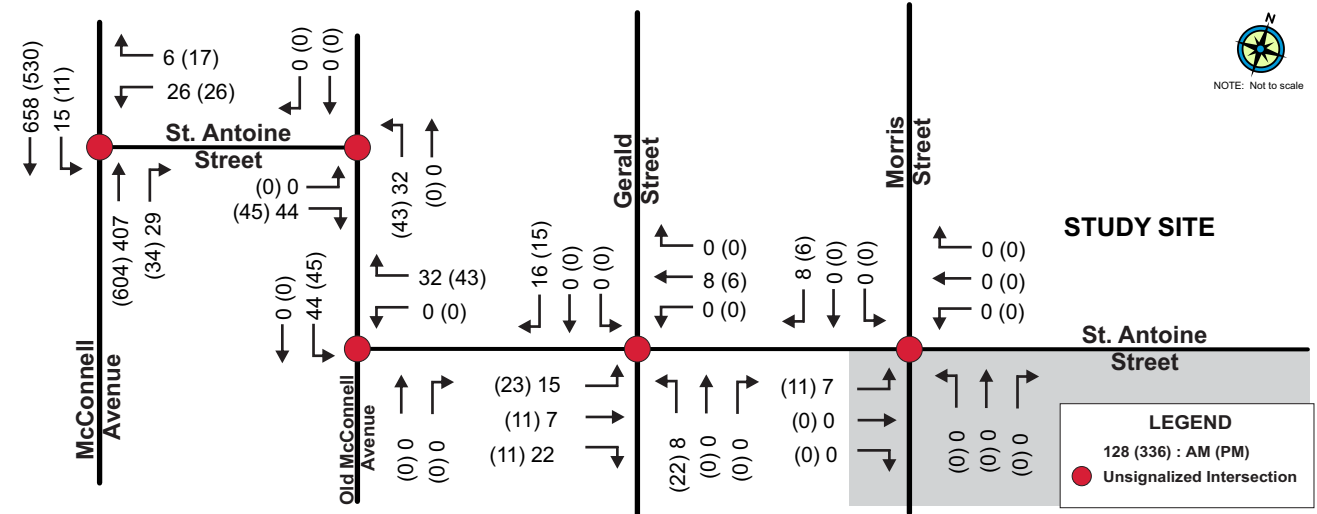
2 The Institute of Transportation Engineers, based in the United States, is an international association for traffic engineers and transportation planners. The organization publishes a number of handbooks and manuals, including the Trip Generation Manual which is based on American and Canadian experience. Tenth edition of this publication was used.

# EXHIBIT 2.1: BACKGROUND TRAFFIC VOLUMES

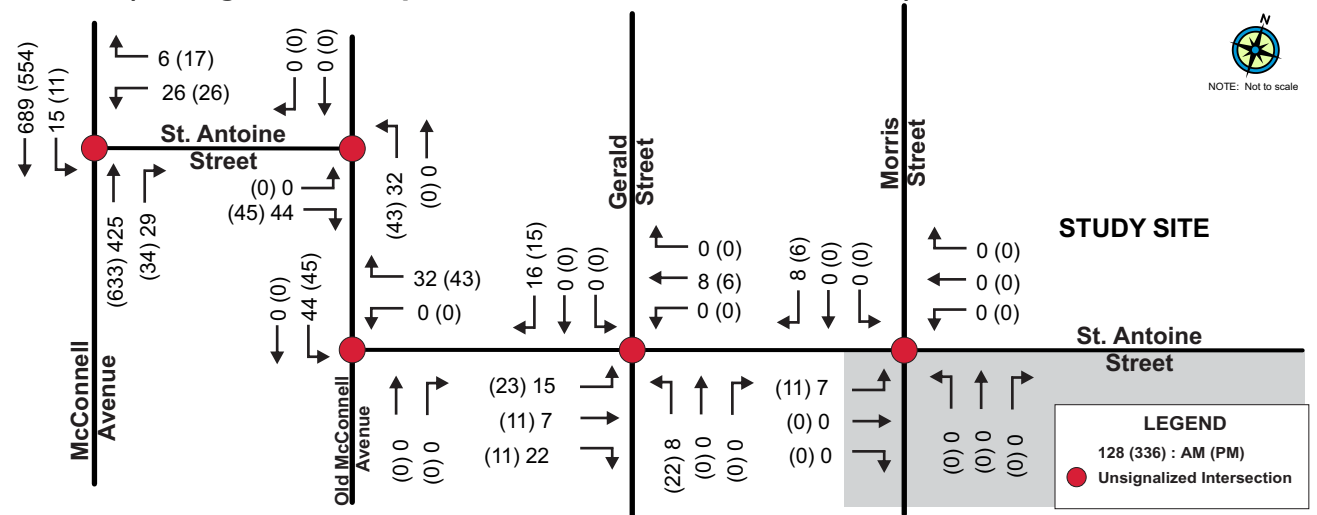
## a) Existing (2020) Traffic Volumes



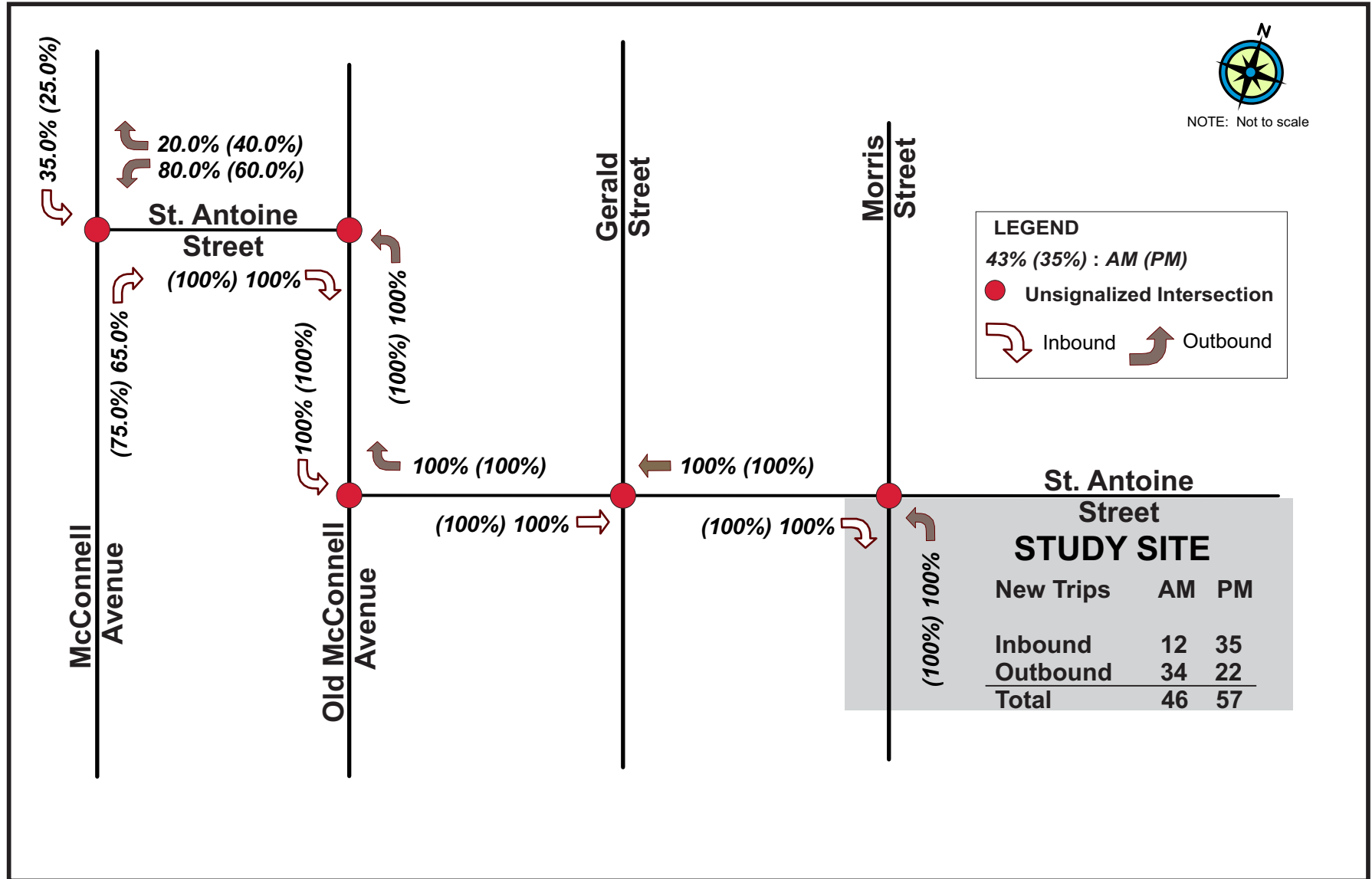
## b) 2025 Background Traffic Volumes (1.0% growth rate per annum on McConnell Avenue)



## c) 2030 Background Traffic Volumes (1.0% growth rate per annum on McConnell Avenue)

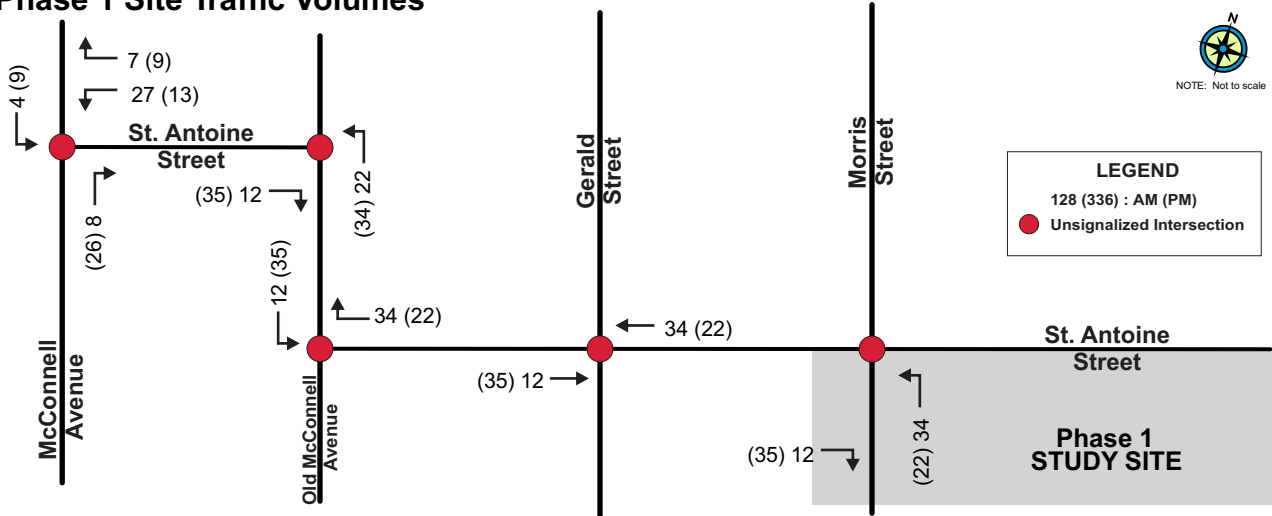


## EXHIBIT 3.1: SITE TRAFFIC DISTRIBUTION

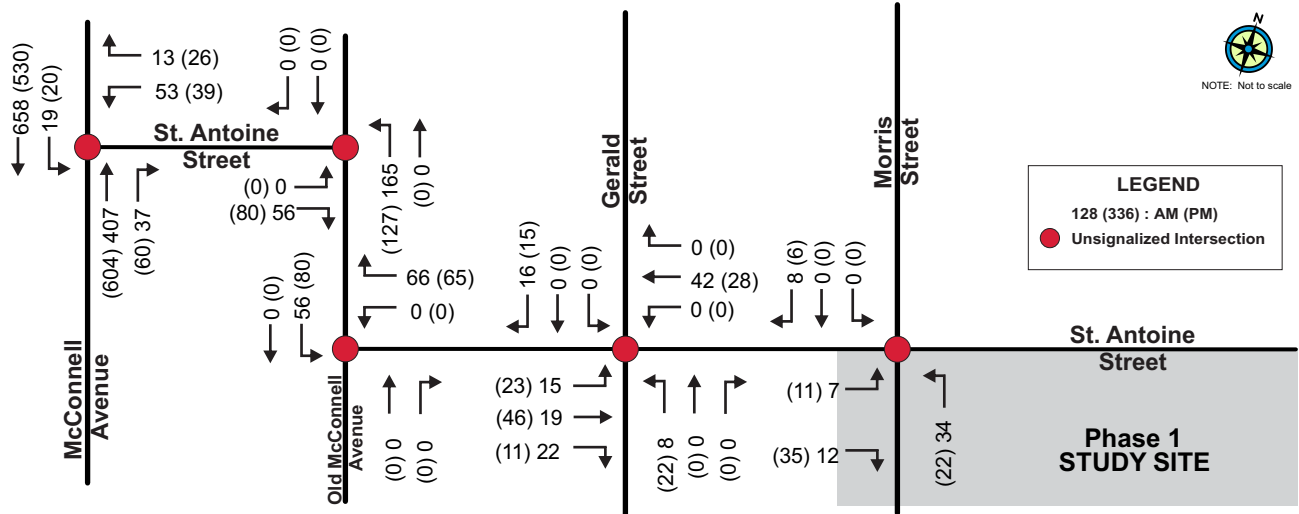


# EXHIBIT 3.2: SITE TRAFFIC VOLUMES

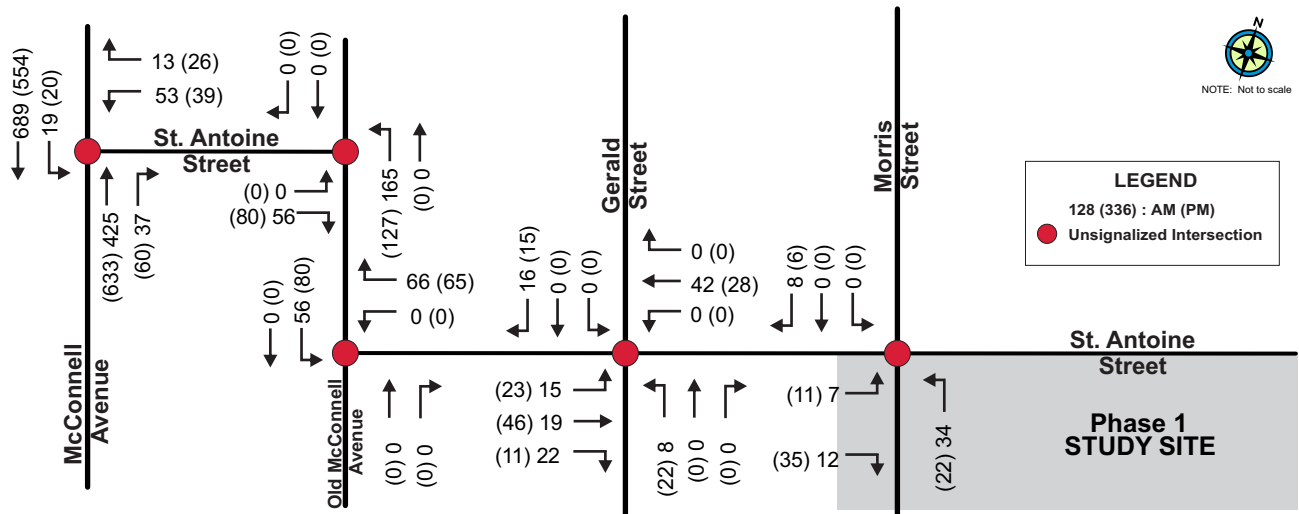
## a) Phase 1 Site Traffic Volumes



## b) 2025 Total Traffic Volumes



## c) 2030 Total Traffic Volumes







**Table 2.1: Projected Phase 1 Site Trip Generation**

| LAND USE                                                                                          | WEEKDAY AM PEAK HOUR                                                                                                          |               |           |           | WEEKDAY PM PEAK HOUR                                                                                                          |               |           |           |
|---------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|-----------|-------------------------------------------------------------------------------------------------------------------------------|---------------|-----------|-----------|
|                                                                                                   | Trip Generation Rate<br>(ITE Trip Generation Manual -<br>10 <sup>th</sup> Edition)                                            | Vehicle Trips |           |           | Trip Generation Rate<br>(ITE Trip Generation Manual -<br>10 <sup>th</sup> Edition)                                            | Vehicle Trips |           |           |
|                                                                                                   |                                                                                                                               | Total         | In        | Out       |                                                                                                                               | Total         | In        | Out       |
| <b>Single Detached:</b><br><b>21 Units Singles</b><br><b>8 Units Semis</b><br>(ITE Land Use #210) | <u>Trips Per Dwelling Units</u><br>$\ln(T) = 0.71(X) + 4.80$<br>where<br>T = vehicle trips<br>X = number of dwelling units    | 25            | 25%       | 75%       | <u>Trips Per Dwelling Units</u><br>$\ln(T) = 0.96\ln(X) + 0.20$<br>where<br>T = vehicle trips<br>X = number of dwelling units | 31            | 63%       | 37%       |
| <b>Row Houses</b><br><b>- 20 Units</b><br>(ITE Land Use #220)                                     | <u>Trips Per Dwelling Units</u><br>$(T) = 0.56(X)$<br>where<br>T = vehicle trips<br>X = number of dwelling units              | 11            | 28%       | 72%       | <u>Trips Per Dwelling Units</u><br>$(T) = 0.67(X)$<br>where<br>T = vehicle trips<br>X = number of dwelling units              | 13            | 59%       | 41%       |
| <b>Apartment</b><br><b>- 27 Units</b><br>(ITE Land Use #221)                                      | <u>Trips Per Dwelling Units</u><br>$\ln(T) = 0.98\ln(X) - 0.98$<br>where<br>T = vehicle trips<br>X = number of dwelling units | 9             | 26%       | 84%       | <u>Trips Per Dwelling Units</u><br>$\ln(T) = 0.96\ln(X) - 0.63$<br>where<br>T = vehicle trips<br>X = number of dwelling units | 13            | 61%       | 39%       |
| <b>Phase 1 Total Trips</b>                                                                        |                                                                                                                               | <b>46</b>     | <b>12</b> | <b>34</b> |                                                                                                                               | <b>57</b>     | <b>35</b> | <b>22</b> |

\*Total may not add up due to rounding

### 3.0 ANALYSIS OF PROJECTED TRAFFIC VOLUMES

Detailed intersection capacity analyses of conditions in 2025 and 2030 with and without the proposed development was carried out using *Trafficware Traffic Signal Timing Software -Synchro Version 9.0*. The results are summarized in **Table 3.1** Summary of Intersection Analysis, and detailed reports from the analysis are contained in **Appendix A** *Intersection Capacity Analyses*.

#### 3.1 Future Background Traffic Analysis

Under the 2025 and 2030 background conditions, all movements at the study intersections are forecast to continue to maintain current very good LOS "A" with minimum delay during AM and PM peak hours. The only exception is the westbound (outbound) movement at McConnell Avenue/St. Antoine Street intersection which is forecast to operate (under the "worst" conditions – 2030 AM Peak Hour) at LOS "D" with delay of



# Table 3.1: Summary of Intersection Capacity Analysis

| Intersection                                  | 2025 Future Background |       |            |      |         |       |            |      | 2025 Total Conditions |       |            |      |         |       |            |      |
|-----------------------------------------------|------------------------|-------|------------|------|---------|-------|------------|------|-----------------------|-------|------------|------|---------|-------|------------|------|
|                                               | AM Peak                |       |            |      | PM Peak |       |            |      | AM Peak               |       |            |      | PM Peak |       |            |      |
| McConnell Ave & St. Antoine Street (TWSC)     | LOS                    | Delay | 95th Queue | v/c  | LOS     | Delay | 95th Queue | v/c  | LOS                   | Delay | 95th Queue | v/c  | LOS     | Delay | 95th Queue | v/c  |
| WB-LR                                         | C                      | 23.6  | 4.2        | 0.15 | C       | 24.0  | 5.7        | 0.20 | D                     | 28.7  | 10.7       | 0.32 | D       | 28.1  | 10.2       | 0.31 |
| NB-TR                                         | A                      | 0.0   | 0.0        | 0.28 | A       | 0.0   | 0.0        | 0.41 | A                     | 0.0   | 0.0        | 0.28 | A       | 0.0   | 0.0        | 0.43 |
| SB-L                                          | A                      | 8.4   | 0.4        | 0.02 | A       | 9.2   | 0.3        | 0.01 | A                     | 8.5   | 0.5        | 0.02 | A       | 9.3   | 0.6        | 0.03 |
| SB-T                                          | A                      | 0.0   | 0.0        | 0.42 | A       | 0.0   | 0.0        | 0.34 | A                     | 0.0   | 0.0        | 0.42 | A       | 0.0   | 0.0        | 0.34 |
| Old McConnell Ave & St. Antoine Street (TWSC) | LOS                    | Delay | 95th Queue | v/c  | LOS     | Delay | 95th Queue | v/c  | LOS                   | Delay | 95th Queue | v/c  | LOS     | Delay | 95th Queue | v/c  |
| WB-LR                                         | A                      | 8.5   | 0.8        | 0.03 | A       | 8.5   | 1.1        | 0.04 | A                     | 8.6   | 1.7        | 0.07 | A       | 8.6   | 1.7        | 0.07 |
| NB-TR                                         | A                      | 0.0   | 0.0        | 0.00 | A       | 0.0   | 0.0        | 0.00 | A                     | 0.0   | 0.0        | 0.00 | A       | 0.0   | 0.0        | 0.00 |
| SB-LT                                         | A                      | 7.1   | 0.7        | 0.03 | A       | 7.1   | 0.7        | 0.03 | A                     | 7.2   | 0.9        | 0.04 | A       | 7.3   | 1.4        | 0.05 |
| Old McConnell Ave & St. Antoine Street (TWSC) | LOS                    | Delay | 95th Queue | v/c  | LOS     | Delay | 95th Queue | v/c  | LOS                   | Delay | 95th Queue | v/c  | LOS     | Delay | 95th Queue | v/c  |
| EB-LR                                         | A                      | 0.2   | 0.0        | 0.00 | A       | 0.2   | 0.0        | 0.00 | A                     | 0.1   | 0.0        | 0.00 | A       | 0.0   | 0.0        | 0.00 |
| NB-LT                                         | A                      | 8.8   | 0.9        | 0.04 | A       | 8.9   | 1.2        | 0.05 | A                     | 9.0   | 5.0        | 0.08 | A       | 9.1   | 2.0        | 0.08 |
| SB-TR                                         | A                      | 8.8   | 0.1        | 0.00 | A       | 8.8   | 0.1        | 0.00 | A                     | 8.8   | 0.1        | 0.00 | A       | 8.9   | 0.1        | 0.00 |
| Gerald Street & St. Antoine Street (TWSC)     | LOS                    | Delay | 95th Queue | v/c  | LOS     | Delay | 95th Queue | v/c  | LOS                   | Delay | 95th Queue | v/c  | LOS     | Delay | 95th Queue | v/c  |
| EB-LTR                                        | A                      | 2.5   | 0.2        | 0.01 | A       | 3.8   | 0.4        | 0.02 | A                     | 2.0   | 0.2        | 0.01 | A       | 2.2   | 0.4        | 0.02 |
| WB-LTR                                        | A                      | 0.7   | 0.0        | 0.00 | A       | 0.8   | 0.0        | 0.00 | A                     | 0.2   | 0.0        | 0.00 | A       | 0.2   | 0.0        | 0.00 |
| NB-LTR                                        | A                      | 9.1   | 0.3        | 0.01 | A       | 9.3   | 0.7        | 0.03 | A                     | 9.4   | 0.3        | 0.01 | A       | 9.7   | 0.8        | 0.03 |
| SB-LTR                                        | A                      | 8.5   | 0.4        | 0.02 | A       | 8.5   | 0.4        | 0.02 | A                     | 8.7   | 0.5        | 0.02 | A       | 8.6   | 0.4        | 0.02 |
| Morris Street & St. Antoine Street (TWSC)     | LOS                    | Delay | 95th Queue | v/c  | LOS     | Delay | 95th Queue | v/c  | LOS                   | Delay | 95th Queue | v/c  | LOS     | Delay | 95th Queue | v/c  |
| EB-LTR                                        | A                      | 7.2   | 0.1        | 0.00 | A       | 7.2   | 0.2        | 0.01 | A                     | 2.8   | 0.1        | 0.01 | A       | 1.8   | 0.2        | 0.03 |
| WB-LTR                                        | A                      | 0.0   | 0.0        | 0.00 | A       | 0.0   | 0.0        | 0.00 | A                     | 0.0   | 0.0        | 0.00 | A       | 0.2   | 0.0        | 0.00 |
| NB-LTR                                        | A                      | 0.0   | 0.0        | 0.00 | A       | 0.0   | 0.0        | 0.00 | A                     | 8.9   | 1.0        | 0.04 | A       | 8.9   | 0.6        | 0.04 |
| SB-LTR                                        | A                      | 8.3   | 0.2        | 0.01 | A       | 8.3   | 0.1        | 0.01 | A                     | 8.3   | 0.2        | 0.01 | A       | 8.3   | 0.2        | 0.03 |
| Intersection                                  | 2030 Future Background |       |            |      |         |       |            |      | 2030 Total Conditions |       |            |      |         |       |            |      |
|                                               | AM Peak                |       |            |      | PM Peak |       |            |      | AM Peak               |       |            |      | PM Peak |       |            |      |
| McConnell Ave & St. Antoine Street (TWSC)     | LOS                    | Delay | 95th Queue | v/c  | LOS     | Delay | 95th Queue | v/c  | LOS                   | Delay | 95th Queue | v/c  | LOS     | Delay | 95th Queue | v/c  |
| WB-LR                                         | D                      | 25.2  | 4.6        | 0.16 | D       | 25.8  | 6.2        | 0.21 | D                     | 31.4  | 11.8       | 0.35 | D       | 30.6  | 11.2       | 0.33 |
| NB-TR                                         | A                      | 0.0   | 0.0        | 0.29 | A       | 0.0   | 0.0        | 0.43 | A                     | 0.0   | 0.0        | 0.30 | A       | 0.0   | 0.0        | 0.44 |
| SB-L                                          | A                      | 8.5   | 0.4        | 0.02 | A       | 9.3   | 0.3        | 0.01 | A                     | 8.5   | 0.5        | 0.02 | A       | 9.4   | 0.6        | 0.03 |
| SB-T                                          | A                      | 0.0   | 0.0        | 0.44 | A       | 0.0   | 0.0        | 0.35 | A                     | 0.0   | 0.0        | 0.44 | A       | 0.0   | 0.0        | 0.35 |
| Old McConnell Ave & St. Antoine Street (TWSC) | LOS                    | Delay | 95th Queue | v/c  | LOS     | Delay | 95th Queue | v/c  | LOS                   | Delay | 95th Queue | v/c  | LOS     | Delay | 95th Queue | v/c  |
| WB-LR                                         | A                      | 8.5   | 0.8        | 0.03 | A       | 8.5   | 1.1        | 0.04 | A                     | 8.6   | 1.7        | 0.07 | A       | 8.6   | 1.7        | 0.07 |
| NB-TR                                         | A                      | 0.0   | 0.0        | 0.00 | A       | 0.0   | 0.0        | 0.00 | A                     | 0.0   | 0.0        | 0.00 | A       | 0.0   | 0.0        | 0.00 |
| SB-LT                                         | A                      | 7.1   | 0.7        | 0.03 | A       | 7.1   | 0.7        | 0.03 | A                     | 7.2   | 0.9        | 0.04 | A       | 7.3   | 1.4        | 0.05 |
| Old McConnell Ave & St. Antoine Street (TWSC) | LOS                    | Delay | 95th Queue | v/c  | LOS     | Delay | 95th Queue | v/c  | LOS                   | Delay | 95th Queue | v/c  | LOS     | Delay | 95th Queue | v/c  |
| EB-LR                                         | A                      | 0.2   | 0.0        | 0.00 | A       | 0.2   | 0.0        | 0.00 | A                     | 0.1   | 0.0        | 0.00 | A       | 0.0   | 0.0        | 0.00 |
| NB-LT                                         | A                      | 8.8   | 0.9        | 0.04 | A       | 8.9   | 1.2        | 0.05 | A                     | 9.0   | 5.0        | 0.08 | A       | 9.1   | 2.0        | 0.08 |
| SB-TR                                         | A                      | 8.8   | 0.1        | 0.00 | A       | 8.8   | 0.1        | 0.00 | A                     | 8.8   | 0.1        | 0.00 | A       | 8.9   | 0.1        | 0.00 |
| Gerald Street & St. Antoine Street (TWSC)     | LOS                    | Delay | 95th Queue | v/c  | LOS     | Delay | 95th Queue | v/c  | LOS                   | Delay | 95th Queue | v/c  | LOS     | Delay | 95th Queue | v/c  |
| EB-LTR                                        | A                      | 2.5   | 0.2        | 0.01 | A       | 3.8   | 0.4        | 0.02 | A                     | 2.0   | 0.2        | 0.01 | A       | 2.2   | 0.4        | 0.02 |
| WB-LTR                                        | A                      | 0.7   | 0.0        | 0.00 | A       | 0.8   | 0.0        | 0.00 | A                     | 0.2   | 0.0        | 0.00 | A       | 0.2   | 0.0        | 0.00 |
| NB-LTR                                        | A                      | 9.1   | 0.3        | 0.01 | A       | 9.3   | 0.7        | 0.03 | A                     | 9.4   | 0.3        | 0.01 | A       | 9.7   | 0.8        | 0.03 |
| SB-LTR                                        | A                      | 8.5   | 0.4        | 0.02 | A       | 8.5   | 0.4        | 0.02 | A                     | 8.7   | 0.5        | 0.02 | A       | 8.6   | 0.4        | 0.02 |
| Morris Street & St. Antoine Street (TWSC)     | LOS                    | Delay | 95th Queue | v/c  | LOS     | Delay | 95th Queue | v/c  | LOS                   | Delay | 95th Queue | v/c  | LOS     | Delay | 95th Queue | v/c  |
| EB-LTR                                        | A                      | 7.2   | 0.1        | 0.00 | A       | 7.2   | 0.2        | 0.01 | A                     | 2.8   | 0.1        | 0.01 | A       | 1.8   | 0.2        | 0.03 |
| WB-LTR                                        | A                      | 0.0   | 0.0        | 0.00 | A       | 0.0   | 0.0        | 0.00 | A                     | 0.0   | 0.0        | 0.00 | A       | 0.2   | 0.0        | 0.00 |
| NB-LTR                                        | A                      | 0.0   | 0.0        | 0.00 | A       | 0.0   | 0.0        | 0.00 | A                     | 8.9   | 1.0        | 0.04 | A       | 8.9   | 0.6        | 0.04 |
| SB-LTR                                        | A                      | 8.3   | 0.2        | 0.01 | A       | 8.3   | 0.1        | 0.01 | A                     | 8.3   | 0.2        | 0.01 | A       | 8.3   | 0.2        | 0.03 |

\* Delay in seconds and 95th percentile queue in metres, as provided in the Synchro 9, HCM 2000 worksheet



approximately 25 seconds and 95<sup>th</sup> percentile queue length of approximately one vehicle (4.6 m) and volume to capacity (v/c) ratio at 0.16 during the 2030 AM peak hour.

In assessing the three principal components of intersection measures of effectiveness (MOE's - delay, queue length and v/c ratio) of the critical movement at the McConnell Avenue/St. Antoine Street intersection, it can be concluded that there will be sufficient capacity in the existing study road network to accommodate growth in the background traffic.

### **3.2 Future Total Traffic Analysis**

With the Phase 1 site traffic added to the 2025 and 2030 background conditions, all movements at the study intersections are forecast to continue to maintain current very good LOS "A" with minimum delay during AM and PM peak hours. The only exception continues to be the westbound (outbound) movement at McConnell Avenue/St. Antoine Street intersection which is forecast to operate (under the "worst" conditions) at LOS "D" with delay of approximately 31 seconds and 95<sup>th</sup> percentile queue length of approximately two vehicles (11.8 m) and the v/c ratio at 0.35 during the 2030 AM peak hour. It indicates that site traffic adds approximately six seconds of delay to the critical westbound movement at McConnell Avenue/St. Antoine Street intersection and another vehicle would be waiting in queue to join the McConnell Avenue traffic stream.

However, in assessing the three principal components of intersection measures of effectiveness (MOE's - delay, queue length and v/c ratio) of the critical movement at the McConnell Avenue/St. Antoine Street intersection, it can be concluded that there will be sufficient capacity in the existing study road network to accommodate the future Phase 1 site traffic.



### 3.3 Options for Improving LOS at McConnell Avenue/St. Antoine Street intersection

The intersection capacity analysis indicated that mitigation measures are not required at the McConnell Avenue/St. Antoine Street intersection to accommodate the proposed Phase 1 traffic within the ten-year planning horizon to 2030. Furthermore, based on current economic forecasts, it is likely that the full build-out of the study area will be well beyond the 2030 planning horizon. However, for planning purposes, the following short-term and long-term mitigation measures are suggested for implementation to accommodate eventual build-out of the study area.

#### Short-Term

- Intersection Warning Sign (Wa-13) with flashing amber mount for greater visibility of the intersection (see **Appendix B**, for a sketch of approximate location of the placement of the signs).
- Improve side traffic queue and storage with minimum geometric improvements and re-alignment of St. Antoine Street by providing a dedicated northbound left turn lane on Old McConnell Avenue at St. Antoine Street. This will allow additional queuing storage for vehicles requiring left turns onto McConnell Avenue from St. Antoine Street while allowing the right turning vehicles to advance (see **Appendix C**, for a sketch of the proposed left turn lane on Old McConnell Avenue).

#### Long-Term

- Keep monitoring the traffic patterns - it is likely that the full build-out of the study area will take many years to develop; deal with the incremental growth and deterioration of Level of Service as each phase/new development comes on stream.
- Additional outlet road connection from study area – provide alternate exit to City arterial road network, by way of new streets and future developments in the adjacent development area (to



north and to east) to provide additional connection for the study area traffic to access the City road network.

- Plan for future ultimate intersection when the residential development on the west side of McConnell Avenue comes on stream. The future ultimate intersection design should consider lining up the west side development access with St. Antoine Street (or vice versa) for ultimate intersection control from the existing Two-Way-Stop-Control (TWSC) to a Signalized intersection or to a Roundabout. The two options, signals vs roundabout, should be weighed side by side to determine the most suitable option for the intersection.

Please do not hesitate to call if you have any questions.

Yours truly,

A handwritten signature in black ink, appearing to read 'SW Im'.

Seo-Woon (Swan) Im, B.E.S.  
Senior Transportation Planner

# TECHNICAL APPENDIX

# APPENDIX A: Intersection Analyses Summaries



| Movement                          | WBL                                                                               | WBR  | NBT                                                                               | NBR                  | SBL                                                                               | SBT                                                                               |
|-----------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Lane Configurations               |  |      |  |                      |  |  |
| Traffic Volume (veh/h)            | 26                                                                                | 6    | 407                                                                               | 29                   | 15                                                                                | 658                                                                               |
| Future Volume (Veh/h)             | 26                                                                                | 6    | 407                                                                               | 29                   | 15                                                                                | 658                                                                               |
| Sign Control                      | Stop                                                                              |      | Free                                                                              |                      | Free                                                                              |                                                                                   |
| Grade                             | 0%                                                                                |      | 0%                                                                                |                      | 0%                                                                                |                                                                                   |
| Peak Hour Factor                  | 0.92                                                                              | 0.92 | 0.92                                                                              | 0.92                 | 0.92                                                                              | 0.92                                                                              |
| Hourly flow rate (vph)            | 28                                                                                | 7    | 442                                                                               | 32                   | 16                                                                                | 715                                                                               |
| Pedestrians                       |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                   |
| Lane Width (m)                    |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                   |
| Walking Speed (m/s)               |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                   |
| Percent Blockage                  |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                   |
| Right turn flare (veh)            |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                   |
| Median type                       |                                                                                   |      | None                                                                              |                      | None                                                                              |                                                                                   |
| Median storage veh                |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                   |
| Upstream signal (m)               |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                   |
| pX, platoon unblocked             |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                   |
| vC, conflicting volume            | 1205                                                                              | 458  |                                                                                   |                      | 474                                                                               |                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                   |
| vC2, stage 2 conf vol             |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                   |
| vCu, unblocked vol                | 1205                                                                              | 458  |                                                                                   |                      | 474                                                                               |                                                                                   |
| tC, single (s)                    | 6.4                                                                               | 6.2  |                                                                                   |                      | 4.2                                                                               |                                                                                   |
| tC, 2 stage (s)                   |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                   |
| tF (s)                            | 3.5                                                                               | 3.3  |                                                                                   |                      | 2.3                                                                               |                                                                                   |
| p0 queue free %                   | 86                                                                                | 99   |                                                                                   |                      | 98                                                                                |                                                                                   |
| cM capacity (veh/h)               | 198                                                                               | 599  |                                                                                   |                      | 1062                                                                              |                                                                                   |
| Direction, Lane #                 | WB 1                                                                              | NB 1 | SB 1                                                                              | SB 2                 |                                                                                   |                                                                                   |
| Volume Total                      | 35                                                                                | 474  | 16                                                                                | 715                  |                                                                                   |                                                                                   |
| Volume Left                       | 28                                                                                | 0    | 16                                                                                | 0                    |                                                                                   |                                                                                   |
| Volume Right                      | 7                                                                                 | 32   | 0                                                                                 | 0                    |                                                                                   |                                                                                   |
| cSH                               | 229                                                                               | 1700 | 1062                                                                              | 1700                 |                                                                                   |                                                                                   |
| Volume to Capacity                | 0.15                                                                              | 0.28 | 0.02                                                                              | 0.42                 |                                                                                   |                                                                                   |
| Queue Length 95th (m)             | 4.2                                                                               | 0.0  | 0.4                                                                               | 0.0                  |                                                                                   |                                                                                   |
| Control Delay (s)                 | 23.6                                                                              | 0.0  | 8.4                                                                               | 0.0                  |                                                                                   |                                                                                   |
| Lane LOS                          | C                                                                                 |      | A                                                                                 |                      |                                                                                   |                                                                                   |
| Approach Delay (s)                | 23.6                                                                              | 0.0  | 0.2                                                                               |                      |                                                                                   |                                                                                   |
| Approach LOS                      | C                                                                                 |      |                                                                                   |                      |                                                                                   |                                                                                   |
| Intersection Summary              |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                   |
| Average Delay                     |                                                                                   |      | 0.8                                                                               |                      |                                                                                   |                                                                                   |
| Intersection Capacity Utilization |                                                                                   |      | 44.6%                                                                             | ICU Level of Service | A                                                                                 |                                                                                   |
| Analysis Period (min)             |                                                                                   |      | 15                                                                                |                      |                                                                                   |                                                                                   |



St. Antoine Subdivision, Phase 1  
4: Old McConnell Avenue & St. Antoine Street

Future (2025) Background Traffic Volume  
AM Peak Hour

|                                   |  |  |  |  |  |  |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                          | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations               |  |                                                                                   |  |                                                                                   |                                                                                   |  |
| Traffic Volume (veh/h)            | 1                                                                                 | 32                                                                                | 1                                                                                 | 1                                                                                 | 44                                                                                | 1                                                                                 |
| Future Volume (Veh/h)             | 1                                                                                 | 32                                                                                | 1                                                                                 | 1                                                                                 | 44                                                                                | 1                                                                                 |
| Sign Control                      | Stop                                                                              |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |
| Grade                             | 0%                                                                                |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Hourly flow rate (vph)            | 1                                                                                 | 35                                                                                | 1                                                                                 | 1                                                                                 | 48                                                                                | 1                                                                                 |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Median type                       |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   | None                                                                              |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC, conflicting volume            | 98                                                                                | 2                                                                                 |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vCu, unblocked vol                | 98                                                                                | 2                                                                                 |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |
| tC, single (s)                    | 6.4                                                                               | 6.2                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| tF (s)                            | 3.5                                                                               | 3.3                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |
| p0 queue free %                   | 100                                                                               | 97                                                                                |                                                                                   |                                                                                   | 97                                                                                |                                                                                   |
| cM capacity (veh/h)               | 874                                                                               | 1083                                                                              |                                                                                   |                                                                                   | 1620                                                                              |                                                                                   |
| Direction, Lane #                 | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume Total                      | 36                                                                                | 2                                                                                 | 49                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Volume Left                       | 1                                                                                 | 0                                                                                 | 48                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Volume Right                      | 35                                                                                | 1                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| cSH                               | 1076                                                                              | 1700                                                                              | 1620                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume to Capacity                | 0.03                                                                              | 0.00                                                                              | 0.03                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Queue Length 95th (m)             | 0.8                                                                               | 0.0                                                                               | 0.7                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Control Delay (s)                 | 8.5                                                                               | 0.0                                                                               | 7.1                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Lane LOS                          | A                                                                                 |                                                                                   | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Approach Delay (s)                | 8.5                                                                               | 0.0                                                                               | 7.1                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Approach LOS                      | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| <b>Intersection Summary</b>       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Average Delay                     |                                                                                   | 7.5                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Capacity Utilization |                                                                                   | 19.2%                                                                             |                                                                                   | ICU Level of Service                                                              |                                                                                   | A                                                                                 |
| Analysis Period (min)             |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |



| Movement                          | EBL                                                                               | EBR  | NBL   | NBT                                                                               | SBT                                                                               | SBR  |
|-----------------------------------|-----------------------------------------------------------------------------------|------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations               |  |      |       |  |  |      |
| Traffic Volume (veh/h)            | 1                                                                                 | 44   | 32    | 1                                                                                 | 1                                                                                 | 1    |
| Future Volume (Veh/h)             | 1                                                                                 | 44   | 32    | 1                                                                                 | 1                                                                                 | 1    |
| Sign Control                      | Free                                                                              |      |       | Stop                                                                              | Stop                                                                              |      |
| Grade                             | 0%                                                                                |      |       | 0%                                                                                | 0%                                                                                |      |
| Peak Hour Factor                  | 0.92                                                                              | 0.92 | 0.92  | 0.92                                                                              | 0.92                                                                              | 0.92 |
| Hourly flow rate (vph)            | 1                                                                                 | 48   | 35    | 1                                                                                 | 1                                                                                 | 1    |
| Pedestrians                       |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Lane Width (m)                    |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Walking Speed (m/s)               |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Percent Blockage                  |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Right turn flare (veh)            |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Median type                       | None                                                                              |      |       |                                                                                   |                                                                                   |      |
| Median storage veh                |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Upstream signal (m)               |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| pX, platoon unblocked             |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| vC, conflicting volume            | 0                                                                                 |      | 28    | 26                                                                                | 50                                                                                | 0    |
| vC1, stage 1 conf vol             |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| vC2, stage 2 conf vol             |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| vCu, unblocked vol                | 0                                                                                 |      | 28    | 26                                                                                | 50                                                                                | 0    |
| tC, single (s)                    | 4.1                                                                               |      | 7.1   | 6.5                                                                               | 6.5                                                                               | 6.2  |
| tC, 2 stage (s)                   |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| tF (s)                            | 2.2                                                                               |      | 3.5   | 4.0                                                                               | 4.0                                                                               | 3.3  |
| p0 queue free %                   | 100                                                                               |      | 96    | 100                                                                               | 100                                                                               | 100  |
| cM capacity (veh/h)               | 1623                                                                              |      | 980   | 867                                                                               | 841                                                                               | 1085 |
| Direction, Lane #                 | EB 1                                                                              | NB 1 | SB 1  |                                                                                   |                                                                                   |      |
| Volume Total                      | 49                                                                                | 36   | 2     |                                                                                   |                                                                                   |      |
| Volume Left                       | 1                                                                                 | 35   | 0     |                                                                                   |                                                                                   |      |
| Volume Right                      | 48                                                                                | 0    | 1     |                                                                                   |                                                                                   |      |
| cSH                               | 1623                                                                              | 976  | 947   |                                                                                   |                                                                                   |      |
| Volume to Capacity                | 0.00                                                                              | 0.04 | 0.00  |                                                                                   |                                                                                   |      |
| Queue Length 95th (m)             | 0.0                                                                               | 0.9  | 0.1   |                                                                                   |                                                                                   |      |
| Control Delay (s)                 | 0.2                                                                               | 8.8  | 8.8   |                                                                                   |                                                                                   |      |
| Lane LOS                          | A                                                                                 | A    | A     |                                                                                   |                                                                                   |      |
| Approach Delay (s)                | 0.2                                                                               | 8.8  | 8.8   |                                                                                   |                                                                                   |      |
| Approach LOS                      |                                                                                   | A    | A     |                                                                                   |                                                                                   |      |
| Intersection Summary              |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Average Delay                     |                                                                                   |      | 3.9   |                                                                                   |                                                                                   |      |
| Intersection Capacity Utilization |                                                                                   |      | 18.5% | ICU Level of Service                                                              |                                                                                   | A    |
| Analysis Period (min)             |                                                                                   |      | 15    |                                                                                   |                                                                                   |      |

St. Antoine Subdivision, Phase 1  
9: Gerald Street/Gerard Street & St. Antoine Street

Future (2025) Background Traffic Volume  
AM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                    |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)            | 15                                                                                | 7                                                                                 | 22                                                                                | 1                                                                                 | 8                                                                                 | 1                                                                                 | 8                                                                                  | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 16                                                                                  |
| Future Volume (Veh/h)             | 15                                                                                | 7                                                                                 | 22                                                                                | 1                                                                                 | 8                                                                                 | 1                                                                                 | 8                                                                                  | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 16                                                                                  |
| Sign Control                      |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |                                                                                   |                                                                                    | Stop                                                                                |                                                                                     |                                                                                     | Stop                                                                                |                                                                                     |
| Grade                             |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                    | 0%                                                                                  |                                                                                     |                                                                                     | 0%                                                                                  |                                                                                     |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Hourly flow rate (vph)            | 16                                                                                | 8                                                                                 | 24                                                                                | 1                                                                                 | 9                                                                                 | 1                                                                                 | 9                                                                                  | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 17                                                                                  |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median type                       | None                                                                              |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC, conflicting volume            | 10                                                                                |                                                                                   |                                                                                   | 32                                                                                |                                                                                   |                                                                                   | 81                                                                                 | 64                                                                                  | 20                                                                                  | 65                                                                                  | 76                                                                                  | 10                                                                                  |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vCu, unblocked vol                | 10                                                                                |                                                                                   |                                                                                   | 32                                                                                |                                                                                   |                                                                                   | 81                                                                                 | 64                                                                                  | 20                                                                                  | 65                                                                                  | 76                                                                                  | 10                                                                                  |
| tC, single (s)                    | 4.1                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |                                                                                   | 7.1                                                                                | 6.5                                                                                 | 6.2                                                                                 | 7.1                                                                                 | 6.5                                                                                 | 6.2                                                                                 |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| tF (s)                            | 2.2                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |                                                                                   | 3.5                                                                                | 4.0                                                                                 | 3.3                                                                                 | 3.5                                                                                 | 4.0                                                                                 | 3.3                                                                                 |
| p0 queue free %                   | 99                                                                                |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |                                                                                   | 99                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 98                                                                                  |
| cM capacity (veh/h)               | 1610                                                                              |                                                                                   |                                                                                   | 1580                                                                              |                                                                                   |                                                                                   | 884                                                                                | 818                                                                                 | 1058                                                                                | 920                                                                                 | 806                                                                                 | 1072                                                                                |
| Direction, Lane #                 | EB 1                                                                              | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Total                      | 48                                                                                | 11                                                                                | 11                                                                                | 19                                                                                |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Left                       | 16                                                                                | 1                                                                                 | 9                                                                                 | 1                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Right                      | 24                                                                                | 1                                                                                 | 1                                                                                 | 17                                                                                |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| cSH                               | 1610                                                                              | 1580                                                                              | 891                                                                               | 1045                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume to Capacity                | 0.01                                                                              | 0.00                                                                              | 0.01                                                                              | 0.02                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Queue Length 95th (m)             | 0.2                                                                               | 0.0                                                                               | 0.3                                                                               | 0.4                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Delay (s)                 | 2.5                                                                               | 0.7                                                                               | 9.1                                                                               | 8.5                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane LOS                          | A                                                                                 | A                                                                                 | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach Delay (s)                | 2.5                                                                               | 0.7                                                                               | 9.1                                                                               | 8.5                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach LOS                      |                                                                                   |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Average Delay                     |                                                                                   |                                                                                   | 4.4                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 16.5%                                                                             |                                                                                   | ICU Level of Service                                                              |                                                                                   |                                                                                    |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

St. Antoine Subdivision, Phase 1  
12: Morris Street & St. Antoine Street

Future (2025) Background Traffic Volume

AM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                    |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)            | 7                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 8                                                                                   |
| Future Volume (Veh/h)             | 7                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 8                                                                                   |
| Sign Control                      |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |                                                                                   |                                                                                    | Stop                                                                                |                                                                                     |                                                                                     | Stop                                                                                |                                                                                     |
| Grade                             |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                    | 0%                                                                                  |                                                                                     |                                                                                     | 0%                                                                                  |                                                                                     |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Hourly flow rate (vph)            | 8                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 9                                                                                   |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median type                       | None                                                                              |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC, conflicting volume            | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 25                                                                                 | 16                                                                                  | 0                                                                                   | 16                                                                                  | 16                                                                                  | 0                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vCu, unblocked vol                | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 25                                                                                 | 16                                                                                  | 0                                                                                   | 16                                                                                  | 16                                                                                  | 0                                                                                   |
| tC, single (s)                    | 4.1                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |                                                                                   | 7.1                                                                                | 6.5                                                                                 | 6.2                                                                                 | 7.1                                                                                 | 6.5                                                                                 | 6.2                                                                                 |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| tF (s)                            | 2.2                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |                                                                                   | 3.5                                                                                | 4.0                                                                                 | 3.3                                                                                 | 3.5                                                                                 | 4.0                                                                                 | 3.3                                                                                 |
| p0 queue free %                   | 100                                                                               |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |                                                                                   | 100                                                                                | 100                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 99                                                                                  |
| cM capacity (veh/h)               | 1623                                                                              |                                                                                   |                                                                                   | 1623                                                                              |                                                                                   |                                                                                   | 974                                                                                | 874                                                                                 | 1085                                                                                | 995                                                                                 | 874                                                                                 | 1085                                                                                |
| Direction, Lane #                 | EB 1                                                                              | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Total                      | 8                                                                                 | 0                                                                                 | 0                                                                                 | 9                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Left                       | 8                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Right                      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 9                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| cSH                               | 1623                                                                              | 1700                                                                              | 1700                                                                              | 1085                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume to Capacity                | 0.00                                                                              | 0.00                                                                              | 0.00                                                                              | 0.01                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Queue Length 95th (m)             | 0.1                                                                               | 0.0                                                                               | 0.0                                                                               | 0.2                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Delay (s)                 | 7.2                                                                               | 0.0                                                                               | 0.0                                                                               | 8.3                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane LOS                          | A                                                                                 |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach Delay (s)                | 7.2                                                                               | 0.0                                                                               | 0.0                                                                               | 8.3                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach LOS                      |                                                                                   |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Average Delay                     |                                                                                   |                                                                                   |                                                                                   | 7.8                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization |                                                                                   |                                                                                   |                                                                                   | 13.3%                                                                             | ICU Level of Service                                                              |                                                                                   |                                                                                    |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min)             |                                                                                   |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |



| Movement                          | WBL                                                                               | WBR  | NBT                                                                               | NBR  | SBL                                                                               | SBT                                                                                |
|-----------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Lane Configurations               |  |      |  |      |  |  |
| Traffic Volume (veh/h)            | 26                                                                                | 17   | 605                                                                               | 34   | 11                                                                                | 530                                                                                |
| Future Volume (Veh/h)             | 26                                                                                | 17   | 605                                                                               | 34   | 11                                                                                | 530                                                                                |
| Sign Control                      | Stop                                                                              |      | Free                                                                              |      | Free                                                                              |                                                                                    |
| Grade                             | 0%                                                                                |      | 0%                                                                                |      | 0%                                                                                |                                                                                    |
| Peak Hour Factor                  | 0.92                                                                              | 0.92 | 0.92                                                                              | 0.92 | 0.92                                                                              | 0.92                                                                               |
| Hourly flow rate (vph)            | 28                                                                                | 18   | 658                                                                               | 37   | 12                                                                                | 576                                                                                |
| Pedestrians                       |                                                                                   |      |                                                                                   |      |                                                                                   |                                                                                    |
| Lane Width (m)                    |                                                                                   |      |                                                                                   |      |                                                                                   |                                                                                    |
| Walking Speed (m/s)               |                                                                                   |      |                                                                                   |      |                                                                                   |                                                                                    |
| Percent Blockage                  |                                                                                   |      |                                                                                   |      |                                                                                   |                                                                                    |
| Right turn flare (veh)            |                                                                                   |      |                                                                                   |      |                                                                                   |                                                                                    |
| Median type                       |                                                                                   |      | None                                                                              |      | None                                                                              |                                                                                    |
| Median storage veh                |                                                                                   |      |                                                                                   |      |                                                                                   |                                                                                    |
| Upstream signal (m)               |                                                                                   |      |                                                                                   |      |                                                                                   |                                                                                    |
| pX, platoon unblocked             |                                                                                   |      |                                                                                   |      |                                                                                   |                                                                                    |
| vC, conflicting volume            | 1276                                                                              | 676  |                                                                                   |      | 695                                                                               |                                                                                    |
| vC1, stage 1 conf vol             |                                                                                   |      |                                                                                   |      |                                                                                   |                                                                                    |
| vC2, stage 2 conf vol             |                                                                                   |      |                                                                                   |      |                                                                                   |                                                                                    |
| vCu, unblocked vol                | 1276                                                                              | 676  |                                                                                   |      | 695                                                                               |                                                                                    |
| tC, single (s)                    | 6.4                                                                               | 6.2  |                                                                                   |      | 4.2                                                                               |                                                                                    |
| tC, 2 stage (s)                   |                                                                                   |      |                                                                                   |      |                                                                                   |                                                                                    |
| tF (s)                            | 3.5                                                                               | 3.3  |                                                                                   |      | 2.3                                                                               |                                                                                    |
| p0 queue free %                   | 84                                                                                | 96   |                                                                                   |      | 99                                                                                |                                                                                    |
| cM capacity (veh/h)               | 180                                                                               | 450  |                                                                                   |      | 878                                                                               |                                                                                    |
| Direction, Lane #                 | WB 1                                                                              | NB 1 | SB 1                                                                              | SB 2 |                                                                                   |                                                                                    |
| Volume Total                      | 46                                                                                | 695  | 12                                                                                | 576  |                                                                                   |                                                                                    |
| Volume Left                       | 28                                                                                | 0    | 12                                                                                | 0    |                                                                                   |                                                                                    |
| Volume Right                      | 18                                                                                | 37   | 0                                                                                 | 0    |                                                                                   |                                                                                    |
| cSH                               | 235                                                                               | 1700 | 878                                                                               | 1700 |                                                                                   |                                                                                    |
| Volume to Capacity                | 0.20                                                                              | 0.41 | 0.01                                                                              | 0.34 |                                                                                   |                                                                                    |
| Queue Length 95th (m)             | 5.7                                                                               | 0.0  | 0.3                                                                               | 0.0  |                                                                                   |                                                                                    |
| Control Delay (s)                 | 24.0                                                                              | 0.0  | 9.2                                                                               | 0.0  |                                                                                   |                                                                                    |
| Lane LOS                          | C                                                                                 |      | A                                                                                 |      |                                                                                   |                                                                                    |
| Approach Delay (s)                | 24.0                                                                              | 0.0  | 0.2                                                                               |      |                                                                                   |                                                                                    |
| Approach LOS                      | C                                                                                 |      |                                                                                   |      |                                                                                   |                                                                                    |
| Intersection Summary              |                                                                                   |      |                                                                                   |      |                                                                                   |                                                                                    |
| Average Delay                     |                                                                                   |      | 0.9                                                                               |      |                                                                                   |                                                                                    |
| Intersection Capacity Utilization |                                                                                   |      | 43.9%                                                                             |      | ICU Level of Service                                                              | A                                                                                  |
| Analysis Period (min)             |                                                                                   |      | 15                                                                                |      |                                                                                   |                                                                                    |

St. Antoine Subdivision Phase 1  
4: Old McConnell Avenue & St. Antoine Street

Future (2025) Background Traffic Volume  
PM Peak Hour

|                                   |  |  |  |  |  |  |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                          | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations               |  |                                                                                   |  |                                                                                   |                                                                                   |  |
| Traffic Volume (veh/h)            | 1                                                                                 | 43                                                                                | 1                                                                                 | 1                                                                                 | 45                                                                                | 1                                                                                 |
| Future Volume (Veh/h)             | 1                                                                                 | 43                                                                                | 1                                                                                 | 1                                                                                 | 45                                                                                | 1                                                                                 |
| Sign Control                      | Stop                                                                              |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |
| Grade                             | 0%                                                                                |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Hourly flow rate (vph)            | 1                                                                                 | 47                                                                                | 1                                                                                 | 1                                                                                 | 49                                                                                | 1                                                                                 |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Median type                       |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   | None                                                                              |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC, conflicting volume            | 100                                                                               | 2                                                                                 |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vCu, unblocked vol                | 100                                                                               | 2                                                                                 |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |
| tC, single (s)                    | 6.4                                                                               | 6.2                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| tF (s)                            | 3.5                                                                               | 3.3                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |
| p0 queue free %                   | 100                                                                               | 96                                                                                |                                                                                   |                                                                                   | 97                                                                                |                                                                                   |
| cM capacity (veh/h)               | 871                                                                               | 1083                                                                              |                                                                                   |                                                                                   | 1620                                                                              |                                                                                   |
| Direction, Lane #                 | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume Total                      | 48                                                                                | 2                                                                                 | 50                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Volume Left                       | 1                                                                                 | 0                                                                                 | 49                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Volume Right                      | 47                                                                                | 1                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| cSH                               | 1077                                                                              | 1700                                                                              | 1620                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume to Capacity                | 0.04                                                                              | 0.00                                                                              | 0.03                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Queue Length 95th (m)             | 1.1                                                                               | 0.0                                                                               | 0.7                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Control Delay (s)                 | 8.5                                                                               | 0.0                                                                               | 7.1                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Lane LOS                          | A                                                                                 |                                                                                   | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Approach Delay (s)                | 8.5                                                                               | 0.0                                                                               | 7.1                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Approach LOS                      | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| <b>Intersection Summary</b>       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Average Delay                     |                                                                                   | 7.7                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Capacity Utilization |                                                                                   | 19.2%                                                                             |                                                                                   | ICU Level of Service                                                              |                                                                                   | A                                                                                 |
| Analysis Period (min)             |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

St. Antoine Subdivision Phase 1  
5: Old McConnell Avenue & St. Antoine Street (North)

Future (2025) Background Traffic Volume

PM Peak Hour



| Movement                          | EBL                                                                               | EBR  | NBL   | NBT                                                                               | SBT                                                                               | SBR  |
|-----------------------------------|-----------------------------------------------------------------------------------|------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations               |  |      |       |  |  |      |
| Traffic Volume (veh/h)            | 1                                                                                 | 45   | 43    | 1                                                                                 | 1                                                                                 | 1    |
| Future Volume (Veh/h)             | 1                                                                                 | 45   | 43    | 1                                                                                 | 1                                                                                 | 1    |
| Sign Control                      | Free                                                                              |      |       | Stop                                                                              | Stop                                                                              |      |
| Grade                             | 0%                                                                                |      |       | 0%                                                                                | 0%                                                                                |      |
| Peak Hour Factor                  | 0.92                                                                              | 0.92 | 0.92  | 0.92                                                                              | 0.92                                                                              | 0.92 |
| Hourly flow rate (vph)            | 1                                                                                 | 49   | 47    | 1                                                                                 | 1                                                                                 | 1    |
| Pedestrians                       |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Lane Width (m)                    |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Walking Speed (m/s)               |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Percent Blockage                  |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Right turn flare (veh)            |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Median type                       | None                                                                              |      |       |                                                                                   |                                                                                   |      |
| Median storage veh                |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Upstream signal (m)               |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| pX, platoon unblocked             |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| vC, conflicting volume            | 0                                                                                 |      | 28    | 26                                                                                | 51                                                                                | 0    |
| vC1, stage 1 conf vol             |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| vC2, stage 2 conf vol             |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| vCu, unblocked vol                | 0                                                                                 |      | 28    | 26                                                                                | 51                                                                                | 0    |
| tC, single (s)                    | 4.1                                                                               |      | 7.1   | 6.5                                                                               | 6.5                                                                               | 6.2  |
| tC, 2 stage (s)                   |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| tF (s)                            | 2.2                                                                               |      | 3.5   | 4.0                                                                               | 4.0                                                                               | 3.3  |
| p0 queue free %                   | 100                                                                               |      | 95    | 100                                                                               | 100                                                                               | 100  |
| cM capacity (veh/h)               | 1623                                                                              |      | 979   | 866                                                                               | 840                                                                               | 1085 |
| Direction, Lane #                 | EB 1                                                                              | NB 1 | SB 1  |                                                                                   |                                                                                   |      |
| Volume Total                      | 50                                                                                | 48   | 2     |                                                                                   |                                                                                   |      |
| Volume Left                       | 1                                                                                 | 47   | 0     |                                                                                   |                                                                                   |      |
| Volume Right                      | 49                                                                                | 0    | 1     |                                                                                   |                                                                                   |      |
| cSH                               | 1623                                                                              | 977  | 947   |                                                                                   |                                                                                   |      |
| Volume to Capacity                | 0.00                                                                              | 0.05 | 0.00  |                                                                                   |                                                                                   |      |
| Queue Length 95th (m)             | 0.0                                                                               | 1.2  | 0.1   |                                                                                   |                                                                                   |      |
| Control Delay (s)                 | 0.1                                                                               | 8.9  | 8.8   |                                                                                   |                                                                                   |      |
| Lane LOS                          | A                                                                                 | A    | A     |                                                                                   |                                                                                   |      |
| Approach Delay (s)                | 0.1                                                                               | 8.9  | 8.8   |                                                                                   |                                                                                   |      |
| Approach LOS                      |                                                                                   | A    | A     |                                                                                   |                                                                                   |      |
| Intersection Summary              |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Average Delay                     |                                                                                   |      | 4.5   |                                                                                   |                                                                                   |      |
| Intersection Capacity Utilization |                                                                                   |      | 19.1% |                                                                                   | ICU Level of Service                                                              |      |
| Analysis Period (min)             |                                                                                   |      | 15    |                                                                                   | A                                                                                 |      |

St. Antoine Subdivision Phase 1  
9: Gerald Street/Gerard Street & St. Antoine Street

Future (2025) Background Traffic Volume  
PM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                    |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)            | 23                                                                                | 11                                                                                | 11                                                                                | 1                                                                                 | 6                                                                                 | 1                                                                                 | 22                                                                                 | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 15                                                                                  |
| Future Volume (Veh/h)             | 23                                                                                | 11                                                                                | 11                                                                                | 1                                                                                 | 6                                                                                 | 1                                                                                 | 22                                                                                 | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 15                                                                                  |
| Sign Control                      |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |                                                                                   |                                                                                    | Stop                                                                                |                                                                                     |                                                                                     | Stop                                                                                |                                                                                     |
| Grade                             |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                    | 0%                                                                                  |                                                                                     |                                                                                     | 0%                                                                                  |                                                                                     |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Hourly flow rate (vph)            | 25                                                                                | 12                                                                                | 12                                                                                | 1                                                                                 | 7                                                                                 | 1                                                                                 | 24                                                                                 | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 16                                                                                  |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median type                       | None                                                                              |                                                                                   |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC, conflicting volume            | 8                                                                                 |                                                                                   |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 94                                                                                 | 78                                                                                  | 18                                                                                  | 79                                                                                  | 84                                                                                  | 8                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vCu, unblocked vol                | 8                                                                                 |                                                                                   |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 94                                                                                 | 78                                                                                  | 18                                                                                  | 79                                                                                  | 84                                                                                  | 8                                                                                   |
| tC, single (s)                    | 4.1                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |                                                                                   | 7.1                                                                                | 6.5                                                                                 | 6.2                                                                                 | 7.1                                                                                 | 6.5                                                                                 | 6.2                                                                                 |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| tF (s)                            | 2.2                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |                                                                                   | 3.5                                                                                | 4.0                                                                                 | 3.3                                                                                 | 3.5                                                                                 | 4.0                                                                                 | 3.3                                                                                 |
| p0 queue free %                   | 98                                                                                |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |                                                                                   | 97                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 99                                                                                  |
| cM capacity (veh/h)               | 1612                                                                              |                                                                                   |                                                                                   | 1591                                                                              |                                                                                   |                                                                                   | 864                                                                                | 799                                                                                 | 1061                                                                                | 897                                                                                 | 794                                                                                 | 1075                                                                                |
| Direction, Lane #                 | EB 1                                                                              | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Total                      | 49                                                                                | 9                                                                                 | 26                                                                                | 18                                                                                |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Left                       | 25                                                                                | 1                                                                                 | 24                                                                                | 1                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Right                      | 12                                                                                | 1                                                                                 | 1                                                                                 | 16                                                                                |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| cSH                               | 1612                                                                              | 1591                                                                              | 868                                                                               | 1043                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume to Capacity                | 0.02                                                                              | 0.00                                                                              | 0.03                                                                              | 0.02                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Queue Length 95th (m)             | 0.4                                                                               | 0.0                                                                               | 0.7                                                                               | 0.4                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Delay (s)                 | 3.8                                                                               | 0.8                                                                               | 9.3                                                                               | 8.5                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane LOS                          | A                                                                                 | A                                                                                 | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach Delay (s)                | 3.8                                                                               | 0.8                                                                               | 9.3                                                                               | 8.5                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach LOS                      |                                                                                   |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Average Delay                     |                                                                                   |                                                                                   | 5.7                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 22.0%                                                                             | ICU Level of Service                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |



St. Antoine Subdivision Phase 1  
12: Morris Street & St. Antoine Street

Future (2025) Background Traffic Volume

PM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                    |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)            | 11                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 6                                                                                   |
| Future Volume (Veh/h)             | 11                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 6                                                                                   |
| Sign Control                      |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |                                                                                   |                                                                                    | Stop                                                                                |                                                                                     |                                                                                     | Stop                                                                                |                                                                                     |
| Grade                             |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                    | 0%                                                                                  |                                                                                     |                                                                                     | 0%                                                                                  |                                                                                     |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Hourly flow rate (vph)            | 12                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 7                                                                                   |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median type                       | None                                                                              |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC, conflicting volume            | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 31                                                                                 | 24                                                                                  | 0                                                                                   | 24                                                                                  | 24                                                                                  | 0                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vCu, unblocked vol                | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 31                                                                                 | 24                                                                                  | 0                                                                                   | 24                                                                                  | 24                                                                                  | 0                                                                                   |
| tC, single (s)                    | 4.1                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |                                                                                   | 7.1                                                                                | 6.5                                                                                 | 6.2                                                                                 | 7.1                                                                                 | 6.5                                                                                 | 6.2                                                                                 |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| tF (s)                            | 2.2                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |                                                                                   | 3.5                                                                                | 4.0                                                                                 | 3.3                                                                                 | 3.5                                                                                 | 4.0                                                                                 | 3.3                                                                                 |
| p0 queue free %                   | 99                                                                                |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |                                                                                   | 100                                                                                | 100                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 99                                                                                  |
| cM capacity (veh/h)               | 1623                                                                              |                                                                                   |                                                                                   | 1623                                                                              |                                                                                   |                                                                                   | 965                                                                                | 863                                                                                 | 1085                                                                                | 982                                                                                 | 863                                                                                 | 1085                                                                                |
| Direction, Lane #                 | EB 1                                                                              | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Total                      | 12                                                                                | 0                                                                                 | 0                                                                                 | 7                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Left                       | 12                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Right                      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 7                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| cSH                               | 1623                                                                              | 1700                                                                              | 1700                                                                              | 1085                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume to Capacity                | 0.01                                                                              | 0.00                                                                              | 0.00                                                                              | 0.01                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Queue Length 95th (m)             | 0.2                                                                               | 0.0                                                                               | 0.0                                                                               | 0.2                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Delay (s)                 | 7.2                                                                               | 0.0                                                                               | 0.0                                                                               | 8.3                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane LOS                          | A                                                                                 |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach Delay (s)                | 7.2                                                                               | 0.0                                                                               | 0.0                                                                               | 8.3                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach LOS                      |                                                                                   |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Average Delay                     |                                                                                   |                                                                                   | 7.6                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 13.3%                                                                             | ICU Level of Service                                                              |                                                                                   |                                                                                   |                                                                                    | A                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |



| Movement                          | WBL                                                                               | WBR  | NBT                                                                               | NBR                  | SBL                                                                               | SBT                                                                                |
|-----------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Lane Configurations               |  |      |  |                      |  |  |
| Traffic Volume (veh/h)            | 26                                                                                | 6    | 425                                                                               | 29                   | 15                                                                                | 689                                                                                |
| Future Volume (Veh/h)             | 26                                                                                | 6    | 425                                                                               | 29                   | 15                                                                                | 689                                                                                |
| Sign Control                      | Stop                                                                              |      | Free                                                                              |                      | Free                                                                              |                                                                                    |
| Grade                             | 0%                                                                                |      | 0%                                                                                |                      | 0%                                                                                |                                                                                    |
| Peak Hour Factor                  | 0.92                                                                              | 0.92 | 0.92                                                                              | 0.92                 | 0.92                                                                              | 0.92                                                                               |
| Hourly flow rate (vph)            | 28                                                                                | 7    | 462                                                                               | 32                   | 16                                                                                | 749                                                                                |
| Pedestrians                       |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Lane Width (m)                    |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Walking Speed (m/s)               |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Percent Blockage                  |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Right turn flare (veh)            |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Median type                       |                                                                                   |      | None                                                                              |                      | None                                                                              |                                                                                    |
| Median storage veh                |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Upstream signal (m)               |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| pX, platoon unblocked             |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| vC, conflicting volume            | 1259                                                                              | 478  |                                                                                   |                      | 494                                                                               |                                                                                    |
| vC1, stage 1 conf vol             |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| vC2, stage 2 conf vol             |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| vCu, unblocked vol                | 1259                                                                              | 478  |                                                                                   |                      | 494                                                                               |                                                                                    |
| tC, single (s)                    | 6.4                                                                               | 6.2  |                                                                                   |                      | 4.2                                                                               |                                                                                    |
| tC, 2 stage (s)                   |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| tF (s)                            | 3.5                                                                               | 3.3  |                                                                                   |                      | 2.3                                                                               |                                                                                    |
| p0 queue free %                   | 85                                                                                | 99   |                                                                                   |                      | 98                                                                                |                                                                                    |
| cM capacity (veh/h)               | 184                                                                               | 583  |                                                                                   |                      | 1044                                                                              |                                                                                    |
| Direction, Lane #                 | WB 1                                                                              | NB 1 | SB 1                                                                              | SB 2                 |                                                                                   |                                                                                    |
| Volume Total                      | 35                                                                                | 494  | 16                                                                                | 749                  |                                                                                   |                                                                                    |
| Volume Left                       | 28                                                                                | 0    | 16                                                                                | 0                    |                                                                                   |                                                                                    |
| Volume Right                      | 7                                                                                 | 32   | 0                                                                                 | 0                    |                                                                                   |                                                                                    |
| cSH                               | 213                                                                               | 1700 | 1044                                                                              | 1700                 |                                                                                   |                                                                                    |
| Volume to Capacity                | 0.16                                                                              | 0.29 | 0.02                                                                              | 0.44                 |                                                                                   |                                                                                    |
| Queue Length 95th (m)             | 4.6                                                                               | 0.0  | 0.4                                                                               | 0.0                  |                                                                                   |                                                                                    |
| Control Delay (s)                 | 25.2                                                                              | 0.0  | 8.5                                                                               | 0.0                  |                                                                                   |                                                                                    |
| Lane LOS                          | D                                                                                 |      | A                                                                                 |                      |                                                                                   |                                                                                    |
| Approach Delay (s)                | 25.2                                                                              | 0.0  | 0.2                                                                               |                      |                                                                                   |                                                                                    |
| Approach LOS                      | D                                                                                 |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Intersection Summary              |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Average Delay                     |                                                                                   |      | 0.8                                                                               |                      |                                                                                   |                                                                                    |
| Intersection Capacity Utilization |                                                                                   |      | 46.3%                                                                             | ICU Level of Service | A                                                                                 |                                                                                    |
| Analysis Period (min)             |                                                                                   |      | 15                                                                                |                      |                                                                                   |                                                                                    |

St. Antoine Subdivision, Phase 1  
4: Old McConnell Avenue & St. Antoine Street

Future (2030) Background Traffic Volume  
AM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--|--|--|
|                                   |  |  |  |  |  |  |  |  |  |
| Movement                          | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |  |  |  |
| Lane Configurations               |  |                                                                                   |  |                                                                                   |                                                                                   |  |  |  |  |
| Traffic Volume (veh/h)            | 1                                                                                 | 32                                                                                | 1                                                                                 | 1                                                                                 | 44                                                                                | 1                                                                                 |  |  |  |
| Future Volume (Veh/h)             | 1                                                                                 | 32                                                                                | 1                                                                                 | 1                                                                                 | 44                                                                                | 1                                                                                 |  |  |  |
| Sign Control                      | Stop                                                                              |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |  |  |  |
| Grade                             | 0%                                                                                |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |  |  |  |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |  |  |  |
| Hourly flow rate (vph)            | 1                                                                                 | 35                                                                                | 1                                                                                 | 1                                                                                 | 48                                                                                | 1                                                                                 |  |  |  |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Median type                       |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   | None                                                                              |  |  |  |
| Median storage veh)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| vC, conflicting volume            | 98                                                                                | 2                                                                                 |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |  |  |  |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| vCu, unblocked vol                | 98                                                                                | 2                                                                                 |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |  |  |  |
| tC, single (s)                    | 6.4                                                                               | 6.2                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |  |  |  |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| tF (s)                            | 3.5                                                                               | 3.3                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |  |  |  |
| p0 queue free %                   | 100                                                                               | 97                                                                                |                                                                                   |                                                                                   | 97                                                                                |                                                                                   |  |  |  |
| cM capacity (veh/h)               | 874                                                                               | 1083                                                                              |                                                                                   |                                                                                   | 1620                                                                              |                                                                                   |  |  |  |
| Direction, Lane #                 | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Volume Total                      | 36                                                                                | 2                                                                                 | 49                                                                                |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Volume Left                       | 1                                                                                 | 0                                                                                 | 48                                                                                |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Volume Right                      | 35                                                                                | 1                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| cSH                               | 1076                                                                              | 1700                                                                              | 1620                                                                              |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Volume to Capacity                | 0.03                                                                              | 0.00                                                                              | 0.03                                                                              |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Queue Length 95th (m)             | 0.8                                                                               | 0.0                                                                               | 0.7                                                                               |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Control Delay (s)                 | 8.5                                                                               | 0.0                                                                               | 7.1                                                                               |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Lane LOS                          | A                                                                                 |                                                                                   | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Approach Delay (s)                | 8.5                                                                               | 0.0                                                                               | 7.1                                                                               |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Approach LOS                      | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Average Delay                     |                                                                                   | 7.5                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |
| Intersection Capacity Utilization |                                                                                   | 19.2%                                                                             | ICU Level of Service                                                              | A                                                                                 |                                                                                   |                                                                                   |  |  |  |
| Analysis Period (min)             |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |  |  |  |



| Movement                          | EBL  | EBR  | NBL   | NBT                  | SBT  | SBR  |
|-----------------------------------|------|------|-------|----------------------|------|------|
| Lane Configurations               | W    |      |       | W                    | W    |      |
| Traffic Volume (veh/h)            | 1    | 44   | 32    | 1                    | 1    | 1    |
| Future Volume (Veh/h)             | 1    | 44   | 32    | 1                    | 1    | 1    |
| Sign Control                      | Free |      |       | Stop                 | Stop |      |
| Grade                             | 0%   |      |       | 0%                   | 0%   |      |
| Peak Hour Factor                  | 0.92 | 0.92 | 0.92  | 0.92                 | 0.92 | 0.92 |
| Hourly flow rate (vph)            | 1    | 48   | 35    | 1                    | 1    | 1    |
| Pedestrians                       |      |      |       |                      |      |      |
| Lane Width (m)                    |      |      |       |                      |      |      |
| Walking Speed (m/s)               |      |      |       |                      |      |      |
| Percent Blockage                  |      |      |       |                      |      |      |
| Right turn flare (veh)            |      |      |       |                      |      |      |
| Median type                       | None |      |       |                      |      |      |
| Median storage veh)               |      |      |       |                      |      |      |
| Upstream signal (m)               |      |      |       |                      |      |      |
| pX, platoon unblocked             |      |      |       |                      |      |      |
| vC, conflicting volume            | 0    |      | 28    | 26                   | 50   | 0    |
| vC1, stage 1 conf vol             |      |      |       |                      |      |      |
| vC2, stage 2 conf vol             |      |      |       |                      |      |      |
| vCu, unblocked vol                | 0    |      | 28    | 26                   | 50   | 0    |
| tC, single (s)                    | 4.1  |      | 7.1   | 6.5                  | 6.5  | 6.2  |
| tC, 2 stage (s)                   |      |      |       |                      |      |      |
| tF (s)                            | 2.2  |      | 3.5   | 4.0                  | 4.0  | 3.3  |
| p0 queue free %                   | 100  |      | 96    | 100                  | 100  | 100  |
| cM capacity (veh/h)               | 1623 |      | 980   | 867                  | 841  | 1085 |
| Direction, Lane #                 | EB 1 | NB 1 | SB 1  |                      |      |      |
| Volume Total                      | 49   | 36   | 2     |                      |      |      |
| Volume Left                       | 1    | 35   | 0     |                      |      |      |
| Volume Right                      | 48   | 0    | 1     |                      |      |      |
| cSH                               | 1623 | 976  | 947   |                      |      |      |
| Volume to Capacity                | 0.00 | 0.04 | 0.00  |                      |      |      |
| Queue Length 95th (m)             | 0.0  | 0.9  | 0.1   |                      |      |      |
| Control Delay (s)                 | 0.2  | 8.8  | 8.8   |                      |      |      |
| Lane LOS                          | A    | A    | A     |                      |      |      |
| Approach Delay (s)                | 0.2  | 8.8  | 8.8   |                      |      |      |
| Approach LOS                      |      | A    | A     |                      |      |      |
| Intersection Summary              |      |      |       |                      |      |      |
| Average Delay                     |      |      | 3.9   |                      |      |      |
| Intersection Capacity Utilization |      |      | 18.5% | ICU Level of Service | A    |      |
| Analysis Period (min)             |      |      | 15    |                      |      |      |

## St. Antoine Subdivision, Phase 1

## Future (2030) Background Traffic Volume

## 9: Gerald Street/Gerard Street &amp; St. Antoine Street

AM Peak Hour

|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                    |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)            | 15                                                                                | 7                                                                                 | 22                                                                                | 1                                                                                 | 8                                                                                 | 1                                                                                 | 8                                                                                  | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 16                                                                                  |
| Future Volume (Veh/h)             | 15                                                                                | 7                                                                                 | 22                                                                                | 1                                                                                 | 8                                                                                 | 1                                                                                 | 8                                                                                  | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 16                                                                                  |
| Sign Control                      |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |                                                                                   |                                                                                    | Stop                                                                                |                                                                                     |                                                                                     | Stop                                                                                |                                                                                     |
| Grade                             |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                    | 0%                                                                                  |                                                                                     |                                                                                     | 0%                                                                                  |                                                                                     |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Hourly flow rate (vph)            | 16                                                                                | 8                                                                                 | 24                                                                                | 1                                                                                 | 9                                                                                 | 1                                                                                 | 9                                                                                  | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 17                                                                                  |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median type                       |                                                                                   | None                                                                              |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC, conflicting volume            | 10                                                                                |                                                                                   |                                                                                   | 32                                                                                |                                                                                   |                                                                                   | 81                                                                                 | 64                                                                                  | 20                                                                                  | 65                                                                                  | 76                                                                                  | 10                                                                                  |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vCu, unblocked vol                | 10                                                                                |                                                                                   |                                                                                   | 32                                                                                |                                                                                   |                                                                                   | 81                                                                                 | 64                                                                                  | 20                                                                                  | 65                                                                                  | 76                                                                                  | 10                                                                                  |
| tC, single (s)                    | 4.1                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |                                                                                   | 7.1                                                                                | 6.5                                                                                 | 6.2                                                                                 | 7.1                                                                                 | 6.5                                                                                 | 6.2                                                                                 |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| tF (s)                            | 2.2                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |                                                                                   | 3.5                                                                                | 4.0                                                                                 | 3.3                                                                                 | 3.5                                                                                 | 4.0                                                                                 | 3.3                                                                                 |
| p0 queue free %                   | 99                                                                                |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |                                                                                   | 99                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 98                                                                                  |
| cM capacity (veh/h)               | 1610                                                                              |                                                                                   |                                                                                   | 1580                                                                              |                                                                                   |                                                                                   | 884                                                                                | 818                                                                                 | 1058                                                                                | 920                                                                                 | 806                                                                                 | 1072                                                                                |
| Direction, Lane #                 | EB 1                                                                              | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Total                      | 48                                                                                | 11                                                                                | 11                                                                                | 19                                                                                |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Left                       | 16                                                                                | 1                                                                                 | 9                                                                                 | 1                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Right                      | 24                                                                                | 1                                                                                 | 1                                                                                 | 17                                                                                |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| cSH                               | 1610                                                                              | 1580                                                                              | 891                                                                               | 1045                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume to Capacity                | 0.01                                                                              | 0.00                                                                              | 0.01                                                                              | 0.02                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Queue Length 95th (m)             | 0.2                                                                               | 0.0                                                                               | 0.3                                                                               | 0.4                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Delay (s)                 | 2.5                                                                               | 0.7                                                                               | 9.1                                                                               | 8.5                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane LOS                          | A                                                                                 | A                                                                                 | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach Delay (s)                | 2.5                                                                               | 0.7                                                                               | 9.1                                                                               | 8.5                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach LOS                      |                                                                                   |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Average Delay                     |                                                                                   |                                                                                   | 4.4                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 16.5%                                                                             |                                                                                   | ICU Level of Service                                                              |                                                                                   |                                                                                    |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

St. Antoine Subdivision, Phase 1  
12: Morris Street & St. Antoine Street

Future (2030) Background Traffic Volume  
AM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                    |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)            | 7                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 8                                                                                   |
| Future Volume (Veh/h)             | 7                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 8                                                                                   |
| Sign Control                      | Free                                                                              |                                                                                   |                                                                                   |                                                                                   | Free                                                                              |                                                                                   |                                                                                    |                                                                                     | Stop                                                                                |                                                                                     | Stop                                                                                |                                                                                     |
| Grade                             | 0%                                                                                |                                                                                   |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                    |                                                                                     | 0%                                                                                  |                                                                                     | 0%                                                                                  |                                                                                     |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Hourly flow rate (vph)            | 8                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 9                                                                                   |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median type                       | None                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   | None                                                                               |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC, conflicting volume            | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 25                                                                                 | 16                                                                                  | 0                                                                                   | 16                                                                                  | 16                                                                                  | 0                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vCu, unblocked vol                | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 25                                                                                 | 16                                                                                  | 0                                                                                   | 16                                                                                  | 16                                                                                  | 0                                                                                   |
| tC, single (s)                    | 4.1                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |                                                                                   | 7.1                                                                                | 6.5                                                                                 | 6.2                                                                                 | 7.1                                                                                 | 6.5                                                                                 | 6.2                                                                                 |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| tF (s)                            | 2.2                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |                                                                                   | 3.5                                                                                | 4.0                                                                                 | 3.3                                                                                 | 3.5                                                                                 | 4.0                                                                                 | 3.3                                                                                 |
| p0 queue free %                   | 100                                                                               |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |                                                                                   | 100                                                                                | 100                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 99                                                                                  |
| cM capacity (veh/h)               | 1623                                                                              |                                                                                   |                                                                                   | 1623                                                                              |                                                                                   |                                                                                   | 974                                                                                | 874                                                                                 | 1085                                                                                | 995                                                                                 | 874                                                                                 | 1085                                                                                |
| Direction, Lane #                 | EB 1                                                                              | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Total                      | 8                                                                                 | 0                                                                                 | 0                                                                                 | 9                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Left                       | 8                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Right                      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 9                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| cSH                               | 1623                                                                              | 1700                                                                              | 1700                                                                              | 1085                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume to Capacity                | 0.00                                                                              | 0.00                                                                              | 0.00                                                                              | 0.01                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Queue Length 95th (m)             | 0.1                                                                               | 0.0                                                                               | 0.0                                                                               | 0.2                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Delay (s)                 | 7.2                                                                               | 0.0                                                                               | 0.0                                                                               | 8.3                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane LOS                          | A                                                                                 |                                                                                   |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach Delay (s)                | 7.2                                                                               | 0.0                                                                               | 0.0                                                                               | 8.3                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach LOS                      |                                                                                   |                                                                                   |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Average Delay                     |                                                                                   |                                                                                   |                                                                                   | 7.8                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization |                                                                                   |                                                                                   |                                                                                   | 13.3%                                                                             | ICU Level of Service                                                              |                                                                                   |                                                                                    |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min)             |                                                                                   |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |



| Movement                          | WBL  | WBR  | NBT   | NBR                  | SBL  | SBT  |
|-----------------------------------|------|------|-------|----------------------|------|------|
| Lane Configurations               |      |      |       |                      |      |      |
| Traffic Volume (veh/h)            | 26   | 17   | 633   | 34                   | 11   | 554  |
| Future Volume (Veh/h)             | 26   | 17   | 633   | 34                   | 11   | 554  |
| Sign Control                      | Stop |      | Free  |                      | Free |      |
| Grade                             | 0%   |      | 0%    |                      | 0%   |      |
| Peak Hour Factor                  | 0.92 | 0.92 | 0.92  | 0.92                 | 0.92 | 0.92 |
| Hourly flow rate (vph)            | 28   | 18   | 688   | 37                   | 12   | 602  |
| Pedestrians                       |      |      |       |                      |      |      |
| Lane Width (m)                    |      |      |       |                      |      |      |
| Walking Speed (m/s)               |      |      |       |                      |      |      |
| Percent Blockage                  |      |      |       |                      |      |      |
| Right turn flare (veh)            |      |      |       |                      |      |      |
| Median type                       |      |      | None  |                      | None |      |
| Median storage veh                |      |      |       |                      |      |      |
| Upstream signal (m)               |      |      |       |                      |      |      |
| pX, platoon unblocked             |      |      |       |                      |      |      |
| vC, conflicting volume            | 1332 | 706  |       |                      | 725  |      |
| vC1, stage 1 conf vol             |      |      |       |                      |      |      |
| vC2, stage 2 conf vol             |      |      |       |                      |      |      |
| vCu, unblocked vol                | 1332 | 706  |       |                      | 725  |      |
| tC, single (s)                    | 6.4  | 6.2  |       |                      | 4.2  |      |
| tC, 2 stage (s)                   |      |      |       |                      |      |      |
| tF (s)                            | 3.5  | 3.3  |       |                      | 2.3  |      |
| p0 queue free %                   | 83   | 96   |       |                      | 99   |      |
| cM capacity (veh/h)               | 166  | 432  |       |                      | 855  |      |
| Direction, Lane #                 | WB 1 | NB 1 | SB 1  | SB 2                 |      |      |
| Volume Total                      | 46   | 725  | 12    | 602                  |      |      |
| Volume Left                       | 28   | 0    | 12    | 0                    |      |      |
| Volume Right                      | 18   | 37   | 0     | 0                    |      |      |
| cSH                               | 219  | 1700 | 855   | 1700                 |      |      |
| Volume to Capacity                | 0.21 | 0.43 | 0.01  | 0.35                 |      |      |
| Queue Length 95th (m)             | 6.2  | 0.0  | 0.3   | 0.0                  |      |      |
| Control Delay (s)                 | 25.8 | 0.0  | 9.3   | 0.0                  |      |      |
| Lane LOS                          | D    |      | A     |                      |      |      |
| Approach Delay (s)                | 25.8 | 0.0  | 0.2   |                      |      |      |
| Approach LOS                      | D    |      |       |                      |      |      |
| Intersection Summary              |      |      |       |                      |      |      |
| Average Delay                     |      |      | 0.9   |                      |      |      |
| Intersection Capacity Utilization |      |      | 45.4% | ICU Level of Service | A    |      |
| Analysis Period (min)             |      |      | 15    |                      |      |      |

St. Antoine Subdivision Phase 1  
4: Old McConnell Avenue & St. Antoine Street

Future (2030) Background Traffic Volume  
PM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |
| Movement                          | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations               |  |                                                                                   |  |                                                                                   |                                                                                   |  |
| Traffic Volume (veh/h)            | 1                                                                                 | 43                                                                                | 1                                                                                 | 1                                                                                 | 45                                                                                | 1                                                                                 |
| Future Volume (Veh/h)             | 1                                                                                 | 43                                                                                | 1                                                                                 | 1                                                                                 | 45                                                                                | 1                                                                                 |
| Sign Control                      | Stop                                                                              |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |
| Grade                             | 0%                                                                                |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Hourly flow rate (vph)            | 1                                                                                 | 47                                                                                | 1                                                                                 | 1                                                                                 | 49                                                                                | 1                                                                                 |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Median type                       |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   | None                                                                              |
| Median storage veh                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC, conflicting volume            | 100                                                                               | 2                                                                                 |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vCu, unblocked vol                | 100                                                                               | 2                                                                                 |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |
| tC, single (s)                    | 6.4                                                                               | 6.2                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| tF (s)                            | 3.5                                                                               | 3.3                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |
| p0 queue free %                   | 100                                                                               | 96                                                                                |                                                                                   |                                                                                   | 97                                                                                |                                                                                   |
| cM capacity (veh/h)               | 871                                                                               | 1083                                                                              |                                                                                   |                                                                                   | 1620                                                                              |                                                                                   |
| Direction, Lane #                 | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume Total                      | 48                                                                                | 2                                                                                 | 50                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Volume Left                       | 1                                                                                 | 0                                                                                 | 49                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Volume Right                      | 47                                                                                | 1                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| cSH                               | 1077                                                                              | 1700                                                                              | 1620                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume to Capacity                | 0.04                                                                              | 0.00                                                                              | 0.03                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Queue Length 95th (m)             | 1.1                                                                               | 0.0                                                                               | 0.7                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Control Delay (s)                 | 8.5                                                                               | 0.0                                                                               | 7.1                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Lane LOS                          | A                                                                                 |                                                                                   | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Approach Delay (s)                | 8.5                                                                               | 0.0                                                                               | 7.1                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Approach LOS                      | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Average Delay                     |                                                                                   | 7.7                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Capacity Utilization |                                                                                   | 19.2%                                                                             |                                                                                   | ICU Level of Service                                                              |                                                                                   | A                                                                                 |
| Analysis Period (min)             |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |





| Movement                          | EBL                                                                               | EBR  | NBL   | NBT                                                                               | SBT                                                                               | SBR  |
|-----------------------------------|-----------------------------------------------------------------------------------|------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations               |  |      |       |  |  |      |
| Traffic Volume (veh/h)            | 1                                                                                 | 45   | 43    | 1                                                                                 | 1                                                                                 | 1    |
| Future Volume (Veh/h)             | 1                                                                                 | 45   | 43    | 1                                                                                 | 1                                                                                 | 1    |
| Sign Control                      | Free                                                                              |      |       | Stop                                                                              | Stop                                                                              |      |
| Grade                             | 0%                                                                                |      |       | 0%                                                                                | 0%                                                                                |      |
| Peak Hour Factor                  | 0.92                                                                              | 0.92 | 0.92  | 0.92                                                                              | 0.92                                                                              | 0.92 |
| Hourly flow rate (vph)            | 1                                                                                 | 49   | 47    | 1                                                                                 | 1                                                                                 | 1    |
| Pedestrians                       |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Lane Width (m)                    |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Walking Speed (m/s)               |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Percent Blockage                  |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Right turn flare (veh)            |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Median type                       | None                                                                              |      |       |                                                                                   |                                                                                   |      |
| Median storage veh                |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Upstream signal (m)               |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| pX, platoon unblocked             |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| vC, conflicting volume            | 0                                                                                 |      | 28    | 26                                                                                | 51                                                                                | 0    |
| vC1, stage 1 conf vol             |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| vC2, stage 2 conf vol             |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| vCu, unblocked vol                | 0                                                                                 |      | 28    | 26                                                                                | 51                                                                                | 0    |
| tC, single (s)                    | 4.1                                                                               |      | 7.1   | 6.5                                                                               | 6.5                                                                               | 6.2  |
| tC, 2 stage (s)                   |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| tF (s)                            | 2.2                                                                               |      | 3.5   | 4.0                                                                               | 4.0                                                                               | 3.3  |
| p0 queue free %                   | 100                                                                               |      | 95    | 100                                                                               | 100                                                                               | 100  |
| cM capacity (veh/h)               | 1623                                                                              |      | 979   | 866                                                                               | 840                                                                               | 1085 |
| Direction, Lane #                 | EB 1                                                                              | NB 1 | SB 1  |                                                                                   |                                                                                   |      |
| Volume Total                      | 50                                                                                | 48   | 2     |                                                                                   |                                                                                   |      |
| Volume Left                       | 1                                                                                 | 47   | 0     |                                                                                   |                                                                                   |      |
| Volume Right                      | 49                                                                                | 0    | 1     |                                                                                   |                                                                                   |      |
| cSH                               | 1623                                                                              | 977  | 947   |                                                                                   |                                                                                   |      |
| Volume to Capacity                | 0.00                                                                              | 0.05 | 0.00  |                                                                                   |                                                                                   |      |
| Queue Length 95th (m)             | 0.0                                                                               | 1.2  | 0.1   |                                                                                   |                                                                                   |      |
| Control Delay (s)                 | 0.1                                                                               | 8.9  | 8.8   |                                                                                   |                                                                                   |      |
| Lane LOS                          | A                                                                                 | A    | A     |                                                                                   |                                                                                   |      |
| Approach Delay (s)                | 0.1                                                                               | 8.9  | 8.8   |                                                                                   |                                                                                   |      |
| Approach LOS                      |                                                                                   | A    | A     |                                                                                   |                                                                                   |      |
| Intersection Summary              |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Average Delay                     |                                                                                   |      | 4.5   |                                                                                   |                                                                                   |      |
| Intersection Capacity Utilization |                                                                                   |      | 19.1% | ICU Level of Service                                                              |                                                                                   | A    |
| Analysis Period (min)             |                                                                                   |      | 15    |                                                                                   |                                                                                   |      |

St. Antoine Subdivision Phase 1  
9: Gerald Street/Gerard Street & St. Antoine Street

Future (2030) Background Traffic Volume  
PM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                    |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)            | 23                                                                                | 11                                                                                | 11                                                                                | 1                                                                                 | 6                                                                                 | 1                                                                                 | 22                                                                                 | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 15                                                                                  |
| Future Volume (Veh/h)             | 23                                                                                | 11                                                                                | 11                                                                                | 1                                                                                 | 6                                                                                 | 1                                                                                 | 22                                                                                 | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 15                                                                                  |
| Sign Control                      |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |                                                                                   |                                                                                    | Stop                                                                                |                                                                                     |                                                                                     | Stop                                                                                |                                                                                     |
| Grade                             |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                    | 0%                                                                                  |                                                                                     |                                                                                     | 0%                                                                                  |                                                                                     |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Hourly flow rate (vph)            | 25                                                                                | 12                                                                                | 12                                                                                | 1                                                                                 | 7                                                                                 | 1                                                                                 | 24                                                                                 | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 16                                                                                  |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median type                       | None                                                                              |                                                                                   |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC, conflicting volume            | 8                                                                                 |                                                                                   |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 94                                                                                 | 78                                                                                  | 18                                                                                  | 79                                                                                  | 84                                                                                  | 8                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vCu, unblocked vol                | 8                                                                                 |                                                                                   |                                                                                   | 24                                                                                |                                                                                   |                                                                                   | 94                                                                                 | 78                                                                                  | 18                                                                                  | 79                                                                                  | 84                                                                                  | 8                                                                                   |
| tC, single (s)                    | 4.1                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |                                                                                   | 7.1                                                                                | 6.5                                                                                 | 6.2                                                                                 | 7.1                                                                                 | 6.5                                                                                 | 6.2                                                                                 |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| tF (s)                            | 2.2                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |                                                                                   | 3.5                                                                                | 4.0                                                                                 | 3.3                                                                                 | 3.5                                                                                 | 4.0                                                                                 | 3.3                                                                                 |
| p0 queue free %                   | 98                                                                                |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |                                                                                   | 97                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 99                                                                                  |
| cM capacity (veh/h)               | 1612                                                                              |                                                                                   |                                                                                   | 1591                                                                              |                                                                                   |                                                                                   | 864                                                                                | 799                                                                                 | 1061                                                                                | 897                                                                                 | 794                                                                                 | 1075                                                                                |
| Direction, Lane #                 | EB 1                                                                              | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Total                      | 49                                                                                | 9                                                                                 | 26                                                                                | 18                                                                                |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Left                       | 25                                                                                | 1                                                                                 | 24                                                                                | 1                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Right                      | 12                                                                                | 1                                                                                 | 1                                                                                 | 16                                                                                |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| cSH                               | 1612                                                                              | 1591                                                                              | 868                                                                               | 1043                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume to Capacity                | 0.02                                                                              | 0.00                                                                              | 0.03                                                                              | 0.02                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Queue Length 95th (m)             | 0.4                                                                               | 0.0                                                                               | 0.7                                                                               | 0.4                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Delay (s)                 | 3.8                                                                               | 0.8                                                                               | 9.3                                                                               | 8.5                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane LOS                          | A                                                                                 | A                                                                                 | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach Delay (s)                | 3.8                                                                               | 0.8                                                                               | 9.3                                                                               | 8.5                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach LOS                      |                                                                                   |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Average Delay                     |                                                                                   |                                                                                   | 5.7                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 22.0%                                                                             |                                                                                   | ICU Level of Service                                                              |                                                                                   |                                                                                    |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

St. Antoine Subdivision Phase 1  
12: Morris Street & St. Antoine Street

Future (2030) Background Traffic Volume

PM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                    |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)            | 11                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 6                                                                                   |
| Future Volume (Veh/h)             | 11                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 6                                                                                   |
| Sign Control                      |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |                                                                                   |                                                                                    | Stop                                                                                |                                                                                     |                                                                                     | Stop                                                                                |                                                                                     |
| Grade                             |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                    | 0%                                                                                  |                                                                                     |                                                                                     | 0%                                                                                  |                                                                                     |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Hourly flow rate (vph)            | 12                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                 | 0                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 7                                                                                   |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median type                       | None                                                                              |                                                                                   |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC, conflicting volume            | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 31                                                                                 | 24                                                                                  | 0                                                                                   | 24                                                                                  | 24                                                                                  | 0                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vCu, unblocked vol                | 0                                                                                 |                                                                                   |                                                                                   | 0                                                                                 |                                                                                   |                                                                                   | 31                                                                                 | 24                                                                                  | 0                                                                                   | 24                                                                                  | 24                                                                                  | 0                                                                                   |
| tC, single (s)                    | 4.1                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |                                                                                   | 7.1                                                                                | 6.5                                                                                 | 6.2                                                                                 | 7.1                                                                                 | 6.5                                                                                 | 6.2                                                                                 |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| tF (s)                            | 2.2                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |                                                                                   | 3.5                                                                                | 4.0                                                                                 | 3.3                                                                                 | 3.5                                                                                 | 4.0                                                                                 | 3.3                                                                                 |
| p0 queue free %                   | 99                                                                                |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |                                                                                   | 100                                                                                | 100                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 99                                                                                  |
| cM capacity (veh/h)               | 1623                                                                              |                                                                                   |                                                                                   | 1623                                                                              |                                                                                   |                                                                                   | 965                                                                                | 863                                                                                 | 1085                                                                                | 982                                                                                 | 863                                                                                 | 1085                                                                                |
| Direction, Lane #                 | EB 1                                                                              | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Total                      | 12                                                                                | 0                                                                                 | 0                                                                                 | 7                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Left                       | 12                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Right                      | 0                                                                                 | 0                                                                                 | 0                                                                                 | 7                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| cSH                               | 1623                                                                              | 1700                                                                              | 1700                                                                              | 1085                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume to Capacity                | 0.01                                                                              | 0.00                                                                              | 0.00                                                                              | 0.01                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Queue Length 95th (m)             | 0.2                                                                               | 0.0                                                                               | 0.0                                                                               | 0.2                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Delay (s)                 | 7.2                                                                               | 0.0                                                                               | 0.0                                                                               | 8.3                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane LOS                          | A                                                                                 |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach Delay (s)                | 7.2                                                                               | 0.0                                                                               | 0.0                                                                               | 8.3                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach LOS                      |                                                                                   |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Average Delay                     |                                                                                   |                                                                                   | 7.6                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 13.3%                                                                             | ICU Level of Service                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |



| Movement                          | WBL                                                                               | WBR  | NBT                                                                               | NBR                  | SBL                                                                               | SBT                                                                                |
|-----------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Lane Configurations               |  |      |  |                      |  |  |
| Traffic Volume (veh/h)            | 53                                                                                | 13   | 407                                                                               | 37                   | 19                                                                                | 658                                                                                |
| Future Volume (Veh/h)             | 53                                                                                | 13   | 407                                                                               | 37                   | 19                                                                                | 658                                                                                |
| Sign Control                      | Stop                                                                              |      | Free                                                                              |                      | Free                                                                              |                                                                                    |
| Grade                             | 0%                                                                                |      | 0%                                                                                |                      | 0%                                                                                |                                                                                    |
| Peak Hour Factor                  | 0.92                                                                              | 0.92 | 0.92                                                                              | 0.92                 | 0.92                                                                              | 0.92                                                                               |
| Hourly flow rate (vph)            | 58                                                                                | 14   | 442                                                                               | 40                   | 21                                                                                | 715                                                                                |
| Pedestrians                       |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Lane Width (m)                    |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Walking Speed (m/s)               |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Percent Blockage                  |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Right turn flare (veh)            |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Median type                       |                                                                                   |      | None                                                                              |                      | None                                                                              |                                                                                    |
| Median storage veh                |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Upstream signal (m)               |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| pX, platoon unblocked             |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| vC, conflicting volume            | 1219                                                                              | 462  |                                                                                   |                      | 482                                                                               |                                                                                    |
| vC1, stage 1 conf vol             |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| vC2, stage 2 conf vol             |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| vCu, unblocked vol                | 1219                                                                              | 462  |                                                                                   |                      | 482                                                                               |                                                                                    |
| tC, single (s)                    | 6.4                                                                               | 6.2  |                                                                                   |                      | 4.2                                                                               |                                                                                    |
| tC, 2 stage (s)                   |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| tF (s)                            | 3.5                                                                               | 3.3  |                                                                                   |                      | 2.3                                                                               |                                                                                    |
| p0 queue free %                   | 70                                                                                | 98   |                                                                                   |                      | 98                                                                                |                                                                                    |
| cM capacity (veh/h)               | 193                                                                               | 596  |                                                                                   |                      | 1055                                                                              |                                                                                    |
| Direction, Lane #                 | WB 1                                                                              | NB 1 | SB 1                                                                              | SB 2                 |                                                                                   |                                                                                    |
| Volume Total                      | 72                                                                                | 482  | 21                                                                                | 715                  |                                                                                   |                                                                                    |
| Volume Left                       | 58                                                                                | 0    | 21                                                                                | 0                    |                                                                                   |                                                                                    |
| Volume Right                      | 14                                                                                | 40   | 0                                                                                 | 0                    |                                                                                   |                                                                                    |
| cSH                               | 223                                                                               | 1700 | 1055                                                                              | 1700                 |                                                                                   |                                                                                    |
| Volume to Capacity                | 0.32                                                                              | 0.28 | 0.02                                                                              | 0.42                 |                                                                                   |                                                                                    |
| Queue Length 95th (m)             | 10.7                                                                              | 0.0  | 0.5                                                                               | 0.0                  |                                                                                   |                                                                                    |
| Control Delay (s)                 | 28.7                                                                              | 0.0  | 8.5                                                                               | 0.0                  |                                                                                   |                                                                                    |
| Lane LOS                          | D                                                                                 |      | A                                                                                 |                      |                                                                                   |                                                                                    |
| Approach Delay (s)                | 28.7                                                                              | 0.0  | 0.2                                                                               |                      |                                                                                   |                                                                                    |
| Approach LOS                      | D                                                                                 |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Intersection Summary              |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Average Delay                     |                                                                                   |      | 1.7                                                                               |                      |                                                                                   |                                                                                    |
| Intersection Capacity Utilization |                                                                                   |      | 45.0%                                                                             | ICU Level of Service | A                                                                                 |                                                                                    |
| Analysis Period (min)             |                                                                                   |      | 15                                                                                |                      |                                                                                   |                                                                                    |

St. Antoine Subdivision Phase 1  
4: Old McConnell Avenue & St. Antoine Street

Future (2025) Total Traffic Volume  
AM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |
| Movement                          | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations               |  |                                                                                   |  |                                                                                   |                                                                                   |  |
| Traffic Volume (veh/h)            | 1                                                                                 | 66                                                                                | 1                                                                                 | 1                                                                                 | 56                                                                                | 1                                                                                 |
| Future Volume (Veh/h)             | 1                                                                                 | 66                                                                                | 1                                                                                 | 1                                                                                 | 56                                                                                | 1                                                                                 |
| Sign Control                      | Stop                                                                              |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |
| Grade                             | 0%                                                                                |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Hourly flow rate (vph)            | 1                                                                                 | 72                                                                                | 1                                                                                 | 1                                                                                 | 61                                                                                | 1                                                                                 |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Median type                       |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   | None                                                                              |
| Median storage veh                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC, conflicting volume            | 124                                                                               | 2                                                                                 |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vCu, unblocked vol                | 124                                                                               | 2                                                                                 |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |
| tC, single (s)                    | 6.4                                                                               | 6.2                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| tF (s)                            | 3.5                                                                               | 3.3                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |
| p0 queue free %                   | 100                                                                               | 93                                                                                |                                                                                   |                                                                                   | 96                                                                                |                                                                                   |
| cM capacity (veh/h)               | 838                                                                               | 1083                                                                              |                                                                                   |                                                                                   | 1620                                                                              |                                                                                   |
| Direction, Lane #                 | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume Total                      | 73                                                                                | 2                                                                                 | 62                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Volume Left                       | 1                                                                                 | 0                                                                                 | 61                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Volume Right                      | 72                                                                                | 1                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| cSH                               | 1079                                                                              | 1700                                                                              | 1620                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume to Capacity                | 0.07                                                                              | 0.00                                                                              | 0.04                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Queue Length 95th (m)             | 1.7                                                                               | 0.0                                                                               | 0.9                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Control Delay (s)                 | 8.6                                                                               | 0.0                                                                               | 7.2                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Lane LOS                          | A                                                                                 |                                                                                   | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Approach Delay (s)                | 8.6                                                                               | 0.0                                                                               | 7.2                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Approach LOS                      | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Average Delay                     |                                                                                   | 7.8                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Capacity Utilization |                                                                                   | 20.6%                                                                             | ICU Level of Service                                                              | A                                                                                 |                                                                                   |                                                                                   |
| Analysis Period (min)             |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

St. Antoine Subdivision Phase 1  
5: Old McConnell Avenue & St. Antoine Street (North)

Future (2025) Total Traffic Volume  
AM Peak Hour



| Movement                          | EBL                                                                               | EBR  | NBL   | NBT                                                                               | SBT                                                                               | SBR  |
|-----------------------------------|-----------------------------------------------------------------------------------|------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations               |  |      |       |  |  |      |
| Traffic Volume (veh/h)            | 1                                                                                 | 56   | 66    | 1                                                                                 | 1                                                                                 | 1    |
| Future Volume (Veh/h)             | 1                                                                                 | 56   | 66    | 1                                                                                 | 1                                                                                 | 1    |
| Sign Control                      | Free                                                                              |      |       | Stop                                                                              | Stop                                                                              |      |
| Grade                             | 0%                                                                                |      |       | 0%                                                                                | 0%                                                                                |      |
| Peak Hour Factor                  | 0.92                                                                              | 0.92 | 0.92  | 0.92                                                                              | 0.92                                                                              | 0.92 |
| Hourly flow rate (vph)            | 1                                                                                 | 61   | 72    | 1                                                                                 | 1                                                                                 | 1    |
| Pedestrians                       |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Lane Width (m)                    |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Walking Speed (m/s)               |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Percent Blockage                  |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Right turn flare (veh)            |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Median type                       | None                                                                              |      |       |                                                                                   |                                                                                   |      |
| Median storage veh                |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Upstream signal (m)               |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| pX, platoon unblocked             |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| vC, conflicting volume            | 0                                                                                 |      | 34    | 32                                                                                | 63                                                                                | 0    |
| vC1, stage 1 conf vol             |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| vC2, stage 2 conf vol             |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| vCu, unblocked vol                | 0                                                                                 |      | 34    | 32                                                                                | 63                                                                                | 0    |
| tC, single (s)                    | 4.1                                                                               |      | 7.1   | 6.5                                                                               | 6.5                                                                               | 6.2  |
| tC, 2 stage (s)                   |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| tF (s)                            | 2.2                                                                               |      | 3.5   | 4.0                                                                               | 4.0                                                                               | 3.3  |
| p0 queue free %                   | 100                                                                               |      | 93    | 100                                                                               | 100                                                                               | 100  |
| cM capacity (veh/h)               | 1623                                                                              |      | 970   | 860                                                                               | 827                                                                               | 1085 |
| Direction, Lane #                 | EB 1                                                                              | NB 1 | SB 1  |                                                                                   |                                                                                   |      |
| Volume Total                      | 62                                                                                | 73   | 2     |                                                                                   |                                                                                   |      |
| Volume Left                       | 1                                                                                 | 72   | 0     |                                                                                   |                                                                                   |      |
| Volume Right                      | 61                                                                                | 0    | 1     |                                                                                   |                                                                                   |      |
| cSH                               | 1623                                                                              | 969  | 939   |                                                                                   |                                                                                   |      |
| Volume to Capacity                | 0.00                                                                              | 0.08 | 0.00  |                                                                                   |                                                                                   |      |
| Queue Length 95th (m)             | 0.0                                                                               | 2.0  | 0.1   |                                                                                   |                                                                                   |      |
| Control Delay (s)                 | 0.1                                                                               | 9.0  | 8.8   |                                                                                   |                                                                                   |      |
| Lane LOS                          | A                                                                                 | A    | A     |                                                                                   |                                                                                   |      |
| Approach Delay (s)                | 0.1                                                                               | 9.0  | 8.8   |                                                                                   |                                                                                   |      |
| Approach LOS                      |                                                                                   | A    | A     |                                                                                   |                                                                                   |      |
| Intersection Summary              |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Average Delay                     |                                                                                   |      | 5.0   |                                                                                   |                                                                                   |      |
| Intersection Capacity Utilization |                                                                                   |      | 20.6% | ICU Level of Service                                                              |                                                                                   | A    |
| Analysis Period (min)             |                                                                                   |      | 15    |                                                                                   |                                                                                   |      |

St. Antoine Subdivision Phase 1  
9: Gerald Street/Gerard Street & St. Antoine Street

Future (2025) Total Traffic Volume  
AM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                     |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)            | 15                                                                                | 19                                                                                | 22                                                                                | 1                                                                                 | 42                                                                                | 1                                                                                 | 8                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 16                                                                                  |
| Future Volume (Veh/h)             | 15                                                                                | 19                                                                                | 22                                                                                | 1                                                                                 | 42                                                                                | 1                                                                                 | 8                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 16                                                                                  |
| Sign Control                      |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |                                                                                   |                                                                                     | Stop                                                                                |                                                                                     |                                                                                     | Stop                                                                                |                                                                                     |
| Grade                             |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                     | 0%                                                                                  |                                                                                     |                                                                                     | 0%                                                                                  |                                                                                     |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Hourly flow rate (vph)            | 16                                                                                | 21                                                                                | 24                                                                                | 1                                                                                 | 46                                                                                | 1                                                                                 | 9                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 17                                                                                  |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median type                       | None                                                                              |                                                                                   |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC, conflicting volume            | 47                                                                                |                                                                                   |                                                                                   | 45                                                                                |                                                                                   |                                                                                   | 131                                                                                 | 114                                                                                 | 33                                                                                  | 115                                                                                 | 126                                                                                 | 46                                                                                  |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vCu, unblocked vol                | 47                                                                                |                                                                                   |                                                                                   | 45                                                                                |                                                                                   |                                                                                   | 131                                                                                 | 114                                                                                 | 33                                                                                  | 115                                                                                 | 126                                                                                 | 46                                                                                  |
| tC, single (s)                    | 4.1                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |                                                                                   | 7.1                                                                                 | 6.5                                                                                 | 6.2                                                                                 | 7.1                                                                                 | 6.5                                                                                 | 6.2                                                                                 |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| tF (s)                            | 2.2                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |                                                                                   | 3.5                                                                                 | 4.0                                                                                 | 3.3                                                                                 | 3.5                                                                                 | 4.0                                                                                 | 3.3                                                                                 |
| p0 queue free %                   | 99                                                                                |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |                                                                                   | 99                                                                                  | 100                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 98                                                                                  |
| cM capacity (veh/h)               | 1560                                                                              |                                                                                   |                                                                                   | 1563                                                                              |                                                                                   |                                                                                   | 820                                                                                 | 768                                                                                 | 1041                                                                                | 853                                                                                 | 757                                                                                 | 1023                                                                                |
| Direction, Lane #                 | EB 1                                                                              | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Total                      | 61                                                                                | 48                                                                                | 11                                                                                | 19                                                                                |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Left                       | 16                                                                                | 1                                                                                 | 9                                                                                 | 1                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Right                      | 24                                                                                | 1                                                                                 | 1                                                                                 | 17                                                                                |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| cSH                               | 1560                                                                              | 1563                                                                              | 831                                                                               | 994                                                                               |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume to Capacity                | 0.01                                                                              | 0.00                                                                              | 0.01                                                                              | 0.02                                                                              |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Queue Length 95th (m)             | 0.2                                                                               | 0.0                                                                               | 0.3                                                                               | 0.5                                                                               |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Delay (s)                 | 2.0                                                                               | 0.2                                                                               | 9.4                                                                               | 8.7                                                                               |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane LOS                          | A                                                                                 | A                                                                                 | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach Delay (s)                | 2.0                                                                               | 0.2                                                                               | 9.4                                                                               | 8.7                                                                               |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach LOS                      |                                                                                   |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Average Delay                     |                                                                                   |                                                                                   | 2.9                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 20.3%                                                                             | ICU Level of Service                                                              |                                                                                   |                                                                                   |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

St. Antoine Subdivision Phase 1  
12: Morris Street & St. Antoine Street

Future (2025) Total Traffic Volume  
AM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                 | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                     |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)            | 7                                                                                 | 0                                                                                 | 12                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 34                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 8                                                                                   |
| Future Volume (Veh/h)             | 7                                                                                 | 0                                                                                 | 12                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 34                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 8                                                                                   |
| Sign Control                      | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Stop                                                                                |                                                                                     |                                                                                     | Stop                                                                                |                                                                                     |                                                                                     |
| Grade                             | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                  |                                                                                     |                                                                                     | 0%                                                                                  |                                                                                     |                                                                                     |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Hourly flow rate (vph)            | 8                                                                                 | 0                                                                                 | 13                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 37                                                                                  | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 9                                                                                   |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median type                       | None                                                                              |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC, conflicting volume            | 0                                                                                 |                                                                                   |                                                                                   | 13                                                                                |                                                                                   |                                                                                   | 32                                                                                  | 22                                                                                  | 6                                                                                   | 22                                                                                  | 29                                                                                  | 0                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vCu, unblocked vol                | 0                                                                                 |                                                                                   |                                                                                   | 13                                                                                |                                                                                   |                                                                                   | 32                                                                                  | 22                                                                                  | 6                                                                                   | 22                                                                                  | 29                                                                                  | 0                                                                                   |
| tC, single (s)                    | 4.1                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |                                                                                   | 7.1                                                                                 | 6.5                                                                                 | 6.2                                                                                 | 7.1                                                                                 | 6.5                                                                                 | 6.2                                                                                 |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| tF (s)                            | 2.2                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |                                                                                   | 3.5                                                                                 | 4.0                                                                                 | 3.3                                                                                 | 3.5                                                                                 | 4.0                                                                                 | 3.3                                                                                 |
| p0 queue free %                   | 100                                                                               |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |                                                                                   | 96                                                                                  | 100                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 99                                                                                  |
| cM capacity (veh/h)               | 1623                                                                              |                                                                                   |                                                                                   | 1606                                                                              |                                                                                   |                                                                                   | 965                                                                                 | 867                                                                                 | 1076                                                                                | 986                                                                                 | 860                                                                                 | 1085                                                                                |
| Direction, Lane #                 | EB 1                                                                              | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Total                      | 21                                                                                | 0                                                                                 | 37                                                                                | 9                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Left                       | 8                                                                                 | 0                                                                                 | 37                                                                                | 0                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Right                      | 13                                                                                | 0                                                                                 | 0                                                                                 | 9                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| cSH                               | 1623                                                                              | 1700                                                                              | 965                                                                               | 1085                                                                              |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume to Capacity                | 0.00                                                                              | 0.00                                                                              | 0.04                                                                              | 0.01                                                                              |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Queue Length 95th (m)             | 0.1                                                                               | 0.0                                                                               | 1.0                                                                               | 0.2                                                                               |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Delay (s)                 | 2.8                                                                               | 0.0                                                                               | 8.9                                                                               | 8.3                                                                               |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane LOS                          | A                                                                                 |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach Delay (s)                | 2.8                                                                               | 0.0                                                                               | 8.9                                                                               | 8.3                                                                               |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach LOS                      |                                                                                   |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Average Delay                     |                                                                                   |                                                                                   |                                                                                   | 6.9                                                                               |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization |                                                                                   |                                                                                   |                                                                                   | 18.6%                                                                             | ICU Level of Service                                                              |                                                                                   |                                                                                     |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min)             |                                                                                   |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |





| Movement                          | WBL                                                                               | WBR  | NBT                                                                               | NBR                  | SBL                                                                               | SBT                                                                                |
|-----------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Lane Configurations               |  |      |  |                      |  |  |
| Traffic Volume (veh/h)            | 39                                                                                | 26   | 605                                                                               | 60                   | 20                                                                                | 530                                                                                |
| Future Volume (Veh/h)             | 39                                                                                | 26   | 605                                                                               | 60                   | 20                                                                                | 530                                                                                |
| Sign Control                      | Stop                                                                              |      | Free                                                                              |                      | Free                                                                              |                                                                                    |
| Grade                             | 0%                                                                                |      | 0%                                                                                |                      | 0%                                                                                |                                                                                    |
| Peak Hour Factor                  | 0.92                                                                              | 0.92 | 0.92                                                                              | 0.92                 | 0.92                                                                              | 0.92                                                                               |
| Hourly flow rate (vph)            | 42                                                                                | 28   | 658                                                                               | 65                   | 22                                                                                | 576                                                                                |
| Pedestrians                       |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Lane Width (m)                    |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Walking Speed (m/s)               |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Percent Blockage                  |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Right turn flare (veh)            |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Median type                       |                                                                                   |      | None                                                                              |                      | None                                                                              |                                                                                    |
| Median storage veh                |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Upstream signal (m)               |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| pX, platoon unblocked             |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| vC, conflicting volume            | 1310                                                                              | 690  |                                                                                   |                      | 723                                                                               |                                                                                    |
| vC1, stage 1 conf vol             |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| vC2, stage 2 conf vol             |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| vCu, unblocked vol                | 1310                                                                              | 690  |                                                                                   |                      | 723                                                                               |                                                                                    |
| tC, single (s)                    | 6.4                                                                               | 6.2  |                                                                                   |                      | 4.2                                                                               |                                                                                    |
| tC, 2 stage (s)                   |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| tF (s)                            | 3.5                                                                               | 3.3  |                                                                                   |                      | 2.3                                                                               |                                                                                    |
| p0 queue free %                   | 75                                                                                | 94   |                                                                                   |                      | 97                                                                                |                                                                                    |
| cM capacity (veh/h)               | 169                                                                               | 441  |                                                                                   |                      | 857                                                                               |                                                                                    |
| Direction, Lane #                 | WB 1                                                                              | NB 1 | SB 1                                                                              | SB 2                 |                                                                                   |                                                                                    |
| Volume Total                      | 70                                                                                | 723  | 22                                                                                | 576                  |                                                                                   |                                                                                    |
| Volume Left                       | 42                                                                                | 0    | 22                                                                                | 0                    |                                                                                   |                                                                                    |
| Volume Right                      | 28                                                                                | 65   | 0                                                                                 | 0                    |                                                                                   |                                                                                    |
| cSH                               | 225                                                                               | 1700 | 857                                                                               | 1700                 |                                                                                   |                                                                                    |
| Volume to Capacity                | 0.31                                                                              | 0.43 | 0.03                                                                              | 0.34                 |                                                                                   |                                                                                    |
| Queue Length 95th (m)             | 10.2                                                                              | 0.0  | 0.6                                                                               | 0.0                  |                                                                                   |                                                                                    |
| Control Delay (s)                 | 28.1                                                                              | 0.0  | 9.3                                                                               | 0.0                  |                                                                                   |                                                                                    |
| Lane LOS                          | D                                                                                 |      | A                                                                                 |                      |                                                                                   |                                                                                    |
| Approach Delay (s)                | 28.1                                                                              | 0.0  | 0.3                                                                               |                      |                                                                                   |                                                                                    |
| Approach LOS                      | D                                                                                 |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Intersection Summary              |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Average Delay                     |                                                                                   |      | 1.6                                                                               |                      |                                                                                   |                                                                                    |
| Intersection Capacity Utilization |                                                                                   |      | 45.9%                                                                             | ICU Level of Service | A                                                                                 |                                                                                    |
| Analysis Period (min)             |                                                                                   |      | 15                                                                                |                      |                                                                                   |                                                                                    |

St. Antoine Subdivision Phase 1  
4: Old McConnell Avenue & St. Antoine Street

Future (2025) Total Traffic Volume  
PM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |
| Movement                          | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations               |  |                                                                                   |  |                                                                                   |                                                                                   |  |
| Traffic Volume (veh/h)            | 1                                                                                 | 65                                                                                | 1                                                                                 | 1                                                                                 | 80                                                                                | 1                                                                                 |
| Future Volume (Veh/h)             | 1                                                                                 | 65                                                                                | 1                                                                                 | 1                                                                                 | 80                                                                                | 1                                                                                 |
| Sign Control                      | Stop                                                                              |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |
| Grade                             | 0%                                                                                |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Hourly flow rate (vph)            | 1                                                                                 | 71                                                                                | 1                                                                                 | 1                                                                                 | 87                                                                                | 1                                                                                 |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Median type                       |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   | None                                                                              |
| Median storage veh                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC, conflicting volume            | 176                                                                               | 2                                                                                 |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vCu, unblocked vol                | 176                                                                               | 2                                                                                 |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |
| tC, single (s)                    | 6.4                                                                               | 6.2                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| tF (s)                            | 3.5                                                                               | 3.3                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |
| p0 queue free %                   | 100                                                                               | 93                                                                                |                                                                                   |                                                                                   | 95                                                                                |                                                                                   |
| cM capacity (veh/h)               | 770                                                                               | 1083                                                                              |                                                                                   |                                                                                   | 1620                                                                              |                                                                                   |
| Direction, Lane #                 | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume Total                      | 72                                                                                | 2                                                                                 | 88                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Volume Left                       | 1                                                                                 | 0                                                                                 | 87                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Volume Right                      | 71                                                                                | 1                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| cSH                               | 1077                                                                              | 1700                                                                              | 1620                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume to Capacity                | 0.07                                                                              | 0.00                                                                              | 0.05                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Queue Length 95th (m)             | 1.7                                                                               | 0.0                                                                               | 1.4                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Control Delay (s)                 | 8.6                                                                               | 0.0                                                                               | 7.3                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Lane LOS                          | A                                                                                 |                                                                                   | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Approach Delay (s)                | 8.6                                                                               | 0.0                                                                               | 7.3                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Approach LOS                      | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Average Delay                     |                                                                                   | 7.8                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Capacity Utilization |                                                                                   | 21.9%                                                                             | ICU Level of Service                                                              | A                                                                                 |                                                                                   |                                                                                   |
| Analysis Period (min)             |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

St. Antoine Subdivision Phase 1  
5: Old McConnell Avenue & St. Antoine Street (North)

Future (2025) Total Traffic Volume  
PM Peak Hour



| Movement                          | EBL                                                                               | EBR  | NBL  | NBT                                                                               | SBT                                                                               | SBR  |
|-----------------------------------|-----------------------------------------------------------------------------------|------|------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations               |  |      |      |  |  |      |
| Traffic Volume (veh/h)            | 1                                                                                 | 80   | 65   | 1                                                                                 | 1                                                                                 | 1    |
| Future Volume (Veh/h)             | 1                                                                                 | 80   | 65   | 1                                                                                 | 1                                                                                 | 1    |
| Sign Control                      | Free                                                                              |      |      | Stop                                                                              | Stop                                                                              |      |
| Grade                             | 0%                                                                                |      |      | 0%                                                                                | 0%                                                                                |      |
| Peak Hour Factor                  | 0.92                                                                              | 0.92 | 0.92 | 0.92                                                                              | 0.92                                                                              | 0.92 |
| Hourly flow rate (vph)            | 1                                                                                 | 87   | 71   | 1                                                                                 | 1                                                                                 | 1    |
| Pedestrians                       |                                                                                   |      |      |                                                                                   |                                                                                   |      |
| Lane Width (m)                    |                                                                                   |      |      |                                                                                   |                                                                                   |      |
| Walking Speed (m/s)               |                                                                                   |      |      |                                                                                   |                                                                                   |      |
| Percent Blockage                  |                                                                                   |      |      |                                                                                   |                                                                                   |      |
| Right turn flare (veh)            |                                                                                   |      |      |                                                                                   |                                                                                   |      |
| Median type                       | None                                                                              |      |      |                                                                                   |                                                                                   |      |
| Median storage veh                |                                                                                   |      |      |                                                                                   |                                                                                   |      |
| Upstream signal (m)               |                                                                                   |      |      |                                                                                   |                                                                                   |      |
| pX, platoon unblocked             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
| vC, conflicting volume            | 0                                                                                 |      | 47   | 46                                                                                | 89                                                                                | 0    |
| vC1, stage 1 conf vol             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
| vC2, stage 2 conf vol             |                                                                                   |      |      |                                                                                   |                                                                                   |      |
| vCu, unblocked vol                | 0                                                                                 |      | 47   | 46                                                                                | 89                                                                                | 0    |
| tC, single (s)                    | 4.1                                                                               |      | 7.1  | 6.5                                                                               | 6.5                                                                               | 6.2  |
| tC, 2 stage (s)                   |                                                                                   |      |      |                                                                                   |                                                                                   |      |
| tF (s)                            | 2.2                                                                               |      | 3.5  | 4.0                                                                               | 4.0                                                                               | 3.3  |
| p0 queue free %                   | 100                                                                               |      | 93   | 100                                                                               | 100                                                                               | 100  |
| cM capacity (veh/h)               | 1623                                                                              |      | 952  | 846                                                                               | 801                                                                               | 1085 |
| Direction, Lane #                 | EB 1                                                                              | NB 1 | SB 1 |                                                                                   |                                                                                   |      |
| Volume Total                      | 88                                                                                | 72   | 2    |                                                                                   |                                                                                   |      |
| Volume Left                       | 1                                                                                 | 71   | 0    |                                                                                   |                                                                                   |      |
| Volume Right                      | 87                                                                                | 0    | 1    |                                                                                   |                                                                                   |      |
| cSH                               | 1623                                                                              | 950  | 921  |                                                                                   |                                                                                   |      |
| Volume to Capacity                | 0.00                                                                              | 0.08 | 0.00 |                                                                                   |                                                                                   |      |
| Queue Length 95th (m)             | 0.0                                                                               | 2.0  | 0.1  |                                                                                   |                                                                                   |      |
| Control Delay (s)                 | 0.1                                                                               | 9.1  | 8.9  |                                                                                   |                                                                                   |      |
| Lane LOS                          | A                                                                                 | A    | A    |                                                                                   |                                                                                   |      |
| Approach Delay (s)                | 0.1                                                                               | 9.1  | 8.9  |                                                                                   |                                                                                   |      |
| Approach LOS                      |                                                                                   | A    | A    |                                                                                   |                                                                                   |      |
| Intersection Summary              |                                                                                   |      |      |                                                                                   |                                                                                   |      |
| Average Delay                     | 4.2                                                                               |      |      |                                                                                   |                                                                                   |      |
| Intersection Capacity Utilization | 22.0%                                                                             |      |      | ICU Level of Service                                                              |                                                                                   | A    |
| Analysis Period (min)             | 15                                                                                |      |      |                                                                                   |                                                                                   |      |

St. Antoine Subdivision Phase 1  
9: Gerald Street/Gerard Street & St. Antoine Street

Future (2025) Total Traffic Volume  
PM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                    |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)            | 23                                                                                | 46                                                                                | 11                                                                                | 1                                                                                 | 28                                                                                | 1                                                                                 | 22                                                                                 | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 15                                                                                  |
| Future Volume (Veh/h)             | 23                                                                                | 46                                                                                | 11                                                                                | 1                                                                                 | 28                                                                                | 1                                                                                 | 22                                                                                 | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 15                                                                                  |
| Sign Control                      |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |                                                                                   |                                                                                    | Stop                                                                                |                                                                                     |                                                                                     | Stop                                                                                |                                                                                     |
| Grade                             |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                    | 0%                                                                                  |                                                                                     |                                                                                     | 0%                                                                                  |                                                                                     |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Hourly flow rate (vph)            | 25                                                                                | 50                                                                                | 12                                                                                | 1                                                                                 | 30                                                                                | 1                                                                                 | 24                                                                                 | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 16                                                                                  |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median type                       | None                                                                              |                                                                                   |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC, conflicting volume            | 31                                                                                |                                                                                   |                                                                                   | 62                                                                                |                                                                                   |                                                                                   | 155                                                                                | 139                                                                                 | 56                                                                                  | 140                                                                                 | 144                                                                                 | 30                                                                                  |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vCu, unblocked vol                | 31                                                                                |                                                                                   |                                                                                   | 62                                                                                |                                                                                   |                                                                                   | 155                                                                                | 139                                                                                 | 56                                                                                  | 140                                                                                 | 144                                                                                 | 30                                                                                  |
| tC, single (s)                    | 4.1                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |                                                                                   | 7.1                                                                                | 6.5                                                                                 | 6.2                                                                                 | 7.1                                                                                 | 6.5                                                                                 | 6.2                                                                                 |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| tF (s)                            | 2.2                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |                                                                                   | 3.5                                                                                | 4.0                                                                                 | 3.3                                                                                 | 3.5                                                                                 | 4.0                                                                                 | 3.3                                                                                 |
| p0 queue free %                   | 98                                                                                |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |                                                                                   | 97                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 98                                                                                  |
| cM capacity (veh/h)               | 1582                                                                              |                                                                                   |                                                                                   | 1541                                                                              |                                                                                   |                                                                                   | 788                                                                                | 740                                                                                 | 1011                                                                                | 818                                                                                 | 734                                                                                 | 1044                                                                                |
| Direction, Lane #                 | EB 1                                                                              | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Total                      | 87                                                                                | 32                                                                                | 26                                                                                | 18                                                                                |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Left                       | 25                                                                                | 1                                                                                 | 24                                                                                | 1                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Right                      | 12                                                                                | 1                                                                                 | 1                                                                                 | 16                                                                                |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| cSH                               | 1582                                                                              | 1541                                                                              | 793                                                                               | 1005                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume to Capacity                | 0.02                                                                              | 0.00                                                                              | 0.03                                                                              | 0.02                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Queue Length 95th (m)             | 0.4                                                                               | 0.0                                                                               | 0.8                                                                               | 0.4                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Delay (s)                 | 2.2                                                                               | 0.2                                                                               | 9.7                                                                               | 8.6                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane LOS                          | A                                                                                 | A                                                                                 | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach Delay (s)                | 2.2                                                                               | 0.2                                                                               | 9.7                                                                               | 8.6                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach LOS                      |                                                                                   |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Average Delay                     |                                                                                   |                                                                                   | 3.7                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization |                                                                                   |                                                                                   | 25.7%                                                                             |                                                                                   | ICU Level of Service                                                              |                                                                                   |                                                                                    |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min)             |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

St. Antoine Subdivision Phase 1  
12: Morris Street & St. Antoine Street

Future (2025) Total Traffic Volume  
PM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                    |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)            | 11                                                                                | 0                                                                                 | 35                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 22                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 6                                                                                   |
| Future Volume (Veh/h)             | 11                                                                                | 0                                                                                 | 35                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 22                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 6                                                                                   |
| Sign Control                      |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |                                                                                   |                                                                                    | Stop                                                                                |                                                                                     |                                                                                     | Stop                                                                                |                                                                                     |
| Grade                             |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                    | 0%                                                                                  |                                                                                     |                                                                                     | 0%                                                                                  |                                                                                     |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Hourly flow rate (vph)            | 12                                                                                | 0                                                                                 | 38                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 24                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 7                                                                                   |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median type                       | None                                                                              |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC, conflicting volume            | 0                                                                                 |                                                                                   |                                                                                   | 38                                                                                |                                                                                   |                                                                                   | 50                                                                                 | 43                                                                                  | 19                                                                                  | 43                                                                                  | 62                                                                                  | 0                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vCu, unblocked vol                | 0                                                                                 |                                                                                   |                                                                                   | 38                                                                                |                                                                                   |                                                                                   | 50                                                                                 | 43                                                                                  | 19                                                                                  | 43                                                                                  | 62                                                                                  | 0                                                                                   |
| tC, single (s)                    | 4.1                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |                                                                                   | 7.1                                                                                | 6.5                                                                                 | 6.2                                                                                 | 7.1                                                                                 | 6.5                                                                                 | 6.2                                                                                 |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| tF (s)                            | 2.2                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |                                                                                   | 3.5                                                                                | 4.0                                                                                 | 3.3                                                                                 | 3.5                                                                                 | 4.0                                                                                 | 3.3                                                                                 |
| p0 queue free %                   | 99                                                                                |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |                                                                                   | 97                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 99                                                                                  |
| cM capacity (veh/h)               | 1623                                                                              |                                                                                   |                                                                                   | 1572                                                                              |                                                                                   |                                                                                   | 938                                                                                | 843                                                                                 | 1059                                                                                | 954                                                                                 | 823                                                                                 | 1085                                                                                |
| Direction, Lane #                 | EB 1                                                                              | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Total                      | 50                                                                                | 0                                                                                 | 24                                                                                | 7                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Left                       | 12                                                                                | 0                                                                                 | 24                                                                                | 0                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Right                      | 38                                                                                | 0                                                                                 | 0                                                                                 | 7                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| cSH                               | 1623                                                                              | 1700                                                                              | 938                                                                               | 1085                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume to Capacity                | 0.01                                                                              | 0.00                                                                              | 0.03                                                                              | 0.01                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Queue Length 95th (m)             | 0.2                                                                               | 0.0                                                                               | 0.6                                                                               | 0.2                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Delay (s)                 | 1.8                                                                               | 0.0                                                                               | 8.9                                                                               | 8.3                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane LOS                          | A                                                                                 |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach Delay (s)                | 1.8                                                                               | 0.0                                                                               | 8.9                                                                               | 8.3                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach LOS                      |                                                                                   |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Average Delay                     |                                                                                   |                                                                                   |                                                                                   | 4.5                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization |                                                                                   |                                                                                   |                                                                                   | 17.9%                                                                             | ICU Level of Service                                                              |                                                                                   |                                                                                    |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min)             |                                                                                   |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |



| Movement                          | WBL                                                                               | WBR  | NBT                                                                               | NBR                  | SBL                                                                               | SBT                                                                                |
|-----------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Lane Configurations               |  |      |  |                      |  |  |
| Traffic Volume (veh/h)            | 53                                                                                | 13   | 425                                                                               | 37                   | 19                                                                                | 689                                                                                |
| Future Volume (Veh/h)             | 53                                                                                | 13   | 425                                                                               | 37                   | 19                                                                                | 689                                                                                |
| Sign Control                      | Stop                                                                              |      | Free                                                                              |                      | Free                                                                              |                                                                                    |
| Grade                             | 0%                                                                                |      | 0%                                                                                |                      | 0%                                                                                |                                                                                    |
| Peak Hour Factor                  | 0.92                                                                              | 0.92 | 0.92                                                                              | 0.92                 | 0.92                                                                              | 0.92                                                                               |
| Hourly flow rate (vph)            | 58                                                                                | 14   | 462                                                                               | 40                   | 21                                                                                | 749                                                                                |
| Pedestrians                       |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Lane Width (m)                    |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Walking Speed (m/s)               |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Percent Blockage                  |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Right turn flare (veh)            |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Median type                       |                                                                                   |      | None                                                                              |                      | None                                                                              |                                                                                    |
| Median storage veh                |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Upstream signal (m)               |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| pX, platoon unblocked             |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| vC, conflicting volume            | 1273                                                                              | 482  |                                                                                   |                      | 502                                                                               |                                                                                    |
| vC1, stage 1 conf vol             |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| vC2, stage 2 conf vol             |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| vCu, unblocked vol                | 1273                                                                              | 482  |                                                                                   |                      | 502                                                                               |                                                                                    |
| tC, single (s)                    | 6.4                                                                               | 6.2  |                                                                                   |                      | 4.2                                                                               |                                                                                    |
| tC, 2 stage (s)                   |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| tF (s)                            | 3.5                                                                               | 3.3  |                                                                                   |                      | 2.3                                                                               |                                                                                    |
| p0 queue free %                   | 68                                                                                | 98   |                                                                                   |                      | 98                                                                                |                                                                                    |
| cM capacity (veh/h)               | 179                                                                               | 580  |                                                                                   |                      | 1037                                                                              |                                                                                    |
| Direction, Lane #                 | WB 1                                                                              | NB 1 | SB 1                                                                              | SB 2                 |                                                                                   |                                                                                    |
| Volume Total                      | 72                                                                                | 502  | 21                                                                                | 749                  |                                                                                   |                                                                                    |
| Volume Left                       | 58                                                                                | 0    | 21                                                                                | 0                    |                                                                                   |                                                                                    |
| Volume Right                      | 14                                                                                | 40   | 0                                                                                 | 0                    |                                                                                   |                                                                                    |
| cSH                               | 207                                                                               | 1700 | 1037                                                                              | 1700                 |                                                                                   |                                                                                    |
| Volume to Capacity                | 0.35                                                                              | 0.30 | 0.02                                                                              | 0.44                 |                                                                                   |                                                                                    |
| Queue Length 95th (m)             | 11.8                                                                              | 0.0  | 0.5                                                                               | 0.0                  |                                                                                   |                                                                                    |
| Control Delay (s)                 | 31.4                                                                              | 0.0  | 8.5                                                                               | 0.0                  |                                                                                   |                                                                                    |
| Lane LOS                          | D                                                                                 |      | A                                                                                 |                      |                                                                                   |                                                                                    |
| Approach Delay (s)                | 31.4                                                                              | 0.0  | 0.2                                                                               |                      |                                                                                   |                                                                                    |
| Approach LOS                      | D                                                                                 |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Intersection Summary              |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Average Delay                     |                                                                                   |      | 1.8                                                                               |                      |                                                                                   |                                                                                    |
| Intersection Capacity Utilization |                                                                                   |      | 46.7%                                                                             | ICU Level of Service | A                                                                                 |                                                                                    |
| Analysis Period (min)             |                                                                                   |      | 15                                                                                |                      |                                                                                   |                                                                                    |

St. Antoine Subdivision Phase 1  
4: Old McConnell Avenue & St. Antoine Street

Future (2030) Total Traffic Volume  
AM Peak Hour

|                                   |  |  |  |  |  |  |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                          | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations               |  |                                                                                   |  |                                                                                   |                                                                                   |  |
| Traffic Volume (veh/h)            | 1                                                                                 | 66                                                                                | 1                                                                                 | 1                                                                                 | 56                                                                                | 1                                                                                 |
| Future Volume (Veh/h)             | 1                                                                                 | 66                                                                                | 1                                                                                 | 1                                                                                 | 56                                                                                | 1                                                                                 |
| Sign Control                      | Stop                                                                              |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |
| Grade                             | 0%                                                                                |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Hourly flow rate (vph)            | 1                                                                                 | 72                                                                                | 1                                                                                 | 1                                                                                 | 61                                                                                | 1                                                                                 |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Median type                       |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   | None                                                                              |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC, conflicting volume            | 124                                                                               | 2                                                                                 |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vCu, unblocked vol                | 124                                                                               | 2                                                                                 |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |
| tC, single (s)                    | 6.4                                                                               | 6.2                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| tF (s)                            | 3.5                                                                               | 3.3                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |
| p0 queue free %                   | 100                                                                               | 93                                                                                |                                                                                   |                                                                                   | 96                                                                                |                                                                                   |
| cM capacity (veh/h)               | 838                                                                               | 1083                                                                              |                                                                                   |                                                                                   | 1620                                                                              |                                                                                   |
| Direction, Lane #                 | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume Total                      | 73                                                                                | 2                                                                                 | 62                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Volume Left                       | 1                                                                                 | 0                                                                                 | 61                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Volume Right                      | 72                                                                                | 1                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| cSH                               | 1079                                                                              | 1700                                                                              | 1620                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume to Capacity                | 0.07                                                                              | 0.00                                                                              | 0.04                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Queue Length 95th (m)             | 1.7                                                                               | 0.0                                                                               | 0.9                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Control Delay (s)                 | 8.6                                                                               | 0.0                                                                               | 7.2                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Lane LOS                          | A                                                                                 |                                                                                   | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Approach Delay (s)                | 8.6                                                                               | 0.0                                                                               | 7.2                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Approach LOS                      | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| <b>Intersection Summary</b>       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Average Delay                     |                                                                                   | 7.8                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Capacity Utilization |                                                                                   | 20.6%                                                                             |                                                                                   | ICU Level of Service                                                              |                                                                                   | A                                                                                 |
| Analysis Period (min)             |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

St. Antoine Subdivision Phase 1  
5: Old McConnell Avenue & St. Antoine Street (North)

Future (2030) Total Traffic Volume  
AM Peak Hour



| Movement                          | EBL                                                                               | EBR  | NBL   | NBT                                                                               | SBT                                                                               | SBR  |
|-----------------------------------|-----------------------------------------------------------------------------------|------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations               |  |      |       |  |  |      |
| Traffic Volume (veh/h)            | 1                                                                                 | 56   | 66    | 1                                                                                 | 1                                                                                 | 1    |
| Future Volume (Veh/h)             | 1                                                                                 | 56   | 66    | 1                                                                                 | 1                                                                                 | 1    |
| Sign Control                      | Free                                                                              |      |       | Stop                                                                              | Stop                                                                              |      |
| Grade                             | 0%                                                                                |      |       | 0%                                                                                | 0%                                                                                |      |
| Peak Hour Factor                  | 0.92                                                                              | 0.92 | 0.92  | 0.92                                                                              | 0.92                                                                              | 0.92 |
| Hourly flow rate (vph)            | 1                                                                                 | 61   | 72    | 1                                                                                 | 1                                                                                 | 1    |
| Pedestrians                       |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Lane Width (m)                    |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Walking Speed (m/s)               |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Percent Blockage                  |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Right turn flare (veh)            |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Median type                       | None                                                                              |      |       |                                                                                   |                                                                                   |      |
| Median storage veh                |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Upstream signal (m)               |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| pX, platoon unblocked             |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| vC, conflicting volume            | 0                                                                                 |      | 34    | 32                                                                                | 63                                                                                | 0    |
| vC1, stage 1 conf vol             |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| vC2, stage 2 conf vol             |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| vCu, unblocked vol                | 0                                                                                 |      | 34    | 32                                                                                | 63                                                                                | 0    |
| tC, single (s)                    | 4.1                                                                               |      | 7.1   | 6.5                                                                               | 6.5                                                                               | 6.2  |
| tC, 2 stage (s)                   |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| tF (s)                            | 2.2                                                                               |      | 3.5   | 4.0                                                                               | 4.0                                                                               | 3.3  |
| p0 queue free %                   | 100                                                                               |      | 93    | 100                                                                               | 100                                                                               | 100  |
| cM capacity (veh/h)               | 1623                                                                              |      | 970   | 860                                                                               | 827                                                                               | 1085 |
| Direction, Lane #                 | EB 1                                                                              | NB 1 | SB 1  |                                                                                   |                                                                                   |      |
| Volume Total                      | 62                                                                                | 73   | 2     |                                                                                   |                                                                                   |      |
| Volume Left                       | 1                                                                                 | 72   | 0     |                                                                                   |                                                                                   |      |
| Volume Right                      | 61                                                                                | 0    | 1     |                                                                                   |                                                                                   |      |
| cSH                               | 1623                                                                              | 969  | 939   |                                                                                   |                                                                                   |      |
| Volume to Capacity                | 0.00                                                                              | 0.08 | 0.00  |                                                                                   |                                                                                   |      |
| Queue Length 95th (m)             | 0.0                                                                               | 2.0  | 0.1   |                                                                                   |                                                                                   |      |
| Control Delay (s)                 | 0.1                                                                               | 9.0  | 8.8   |                                                                                   |                                                                                   |      |
| Lane LOS                          | A                                                                                 | A    | A     |                                                                                   |                                                                                   |      |
| Approach Delay (s)                | 0.1                                                                               | 9.0  | 8.8   |                                                                                   |                                                                                   |      |
| Approach LOS                      |                                                                                   | A    | A     |                                                                                   |                                                                                   |      |
| Intersection Summary              |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Average Delay                     |                                                                                   |      | 5.0   |                                                                                   |                                                                                   |      |
| Intersection Capacity Utilization |                                                                                   |      | 20.6% | ICU Level of Service                                                              |                                                                                   | A    |
| Analysis Period (min)             |                                                                                   |      | 15    |                                                                                   |                                                                                   |      |



St. Antoine Subdivision Phase 1  
9: Gerald Street/Gerard Street & St. Antoine Street

Future (2030) Total Traffic Volume  
AM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                    |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)            | 15                                                                                | 19                                                                                | 22                                                                                | 1                                                                                 | 42                                                                                | 1                                                                                 | 8                                                                                  | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 16                                                                                  |
| Future Volume (Veh/h)             | 15                                                                                | 19                                                                                | 22                                                                                | 1                                                                                 | 42                                                                                | 1                                                                                 | 8                                                                                  | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 16                                                                                  |
| Sign Control                      |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |                                                                                   |                                                                                    | Stop                                                                                |                                                                                     |                                                                                     | Stop                                                                                |                                                                                     |
| Grade                             |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                    | 0%                                                                                  |                                                                                     |                                                                                     | 0%                                                                                  |                                                                                     |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Hourly flow rate (vph)            | 16                                                                                | 21                                                                                | 24                                                                                | 1                                                                                 | 46                                                                                | 1                                                                                 | 9                                                                                  | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 17                                                                                  |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median type                       | None                                                                              |                                                                                   |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC, conflicting volume            | 47                                                                                |                                                                                   |                                                                                   | 45                                                                                |                                                                                   |                                                                                   | 131                                                                                | 114                                                                                 | 33                                                                                  | 115                                                                                 | 126                                                                                 | 46                                                                                  |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vCu, unblocked vol                | 47                                                                                |                                                                                   |                                                                                   | 45                                                                                |                                                                                   |                                                                                   | 131                                                                                | 114                                                                                 | 33                                                                                  | 115                                                                                 | 126                                                                                 | 46                                                                                  |
| tC, single (s)                    | 4.1                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |                                                                                   | 7.1                                                                                | 6.5                                                                                 | 6.2                                                                                 | 7.1                                                                                 | 6.5                                                                                 | 6.2                                                                                 |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| tF (s)                            | 2.2                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |                                                                                   | 3.5                                                                                | 4.0                                                                                 | 3.3                                                                                 | 3.5                                                                                 | 4.0                                                                                 | 3.3                                                                                 |
| p0 queue free %                   | 99                                                                                |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |                                                                                   | 99                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 98                                                                                  |
| cM capacity (veh/h)               | 1560                                                                              |                                                                                   |                                                                                   | 1563                                                                              |                                                                                   |                                                                                   | 820                                                                                | 768                                                                                 | 1041                                                                                | 853                                                                                 | 757                                                                                 | 1023                                                                                |
| Direction, Lane #                 | EB 1                                                                              | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Total                      | 61                                                                                | 48                                                                                | 11                                                                                | 19                                                                                |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Left                       | 16                                                                                | 1                                                                                 | 9                                                                                 | 1                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Right                      | 24                                                                                | 1                                                                                 | 1                                                                                 | 17                                                                                |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| cSH                               | 1560                                                                              | 1563                                                                              | 831                                                                               | 994                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume to Capacity                | 0.01                                                                              | 0.00                                                                              | 0.01                                                                              | 0.02                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Queue Length 95th (m)             | 0.2                                                                               | 0.0                                                                               | 0.3                                                                               | 0.5                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Delay (s)                 | 2.0                                                                               | 0.2                                                                               | 9.4                                                                               | 8.7                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane LOS                          | A                                                                                 | A                                                                                 | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach Delay (s)                | 2.0                                                                               | 0.2                                                                               | 9.4                                                                               | 8.7                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach LOS                      |                                                                                   |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Average Delay                     | 2.9                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization | 20.3%                                                                             |                                                                                   |                                                                                   | ICU Level of Service                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min)             | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

St. Antoine Subdivision Phase 1  
12: Morris Street & St. Antoine Street

Future (2030) Total Traffic Volume  
AM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                    |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)            | 7                                                                                 | 0                                                                                 | 12                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 34                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 8                                                                                   |
| Future Volume (Veh/h)             | 7                                                                                 | 0                                                                                 | 12                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 34                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 8                                                                                   |
| Sign Control                      | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Stop                                                                               |                                                                                     |                                                                                     | Stop                                                                                |                                                                                     |                                                                                     |
| Grade                             | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                 |                                                                                     |                                                                                     | 0%                                                                                  |                                                                                     |                                                                                     |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Hourly flow rate (vph)            | 8                                                                                 | 0                                                                                 | 13                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 37                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 9                                                                                   |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median type                       | None                                                                              |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC, conflicting volume            | 0                                                                                 |                                                                                   |                                                                                   | 13                                                                                |                                                                                   |                                                                                   | 32                                                                                 | 22                                                                                  | 6                                                                                   | 22                                                                                  | 29                                                                                  | 0                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vCu, unblocked vol                | 0                                                                                 |                                                                                   |                                                                                   | 13                                                                                |                                                                                   |                                                                                   | 32                                                                                 | 22                                                                                  | 6                                                                                   | 22                                                                                  | 29                                                                                  | 0                                                                                   |
| tC, single (s)                    | 4.1                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |                                                                                   | 7.1                                                                                | 6.5                                                                                 | 6.2                                                                                 | 7.1                                                                                 | 6.5                                                                                 | 6.2                                                                                 |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| tF (s)                            | 2.2                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |                                                                                   | 3.5                                                                                | 4.0                                                                                 | 3.3                                                                                 | 3.5                                                                                 | 4.0                                                                                 | 3.3                                                                                 |
| p0 queue free %                   | 100                                                                               |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |                                                                                   | 96                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 99                                                                                  |
| cM capacity (veh/h)               | 1623                                                                              |                                                                                   |                                                                                   | 1606                                                                              |                                                                                   |                                                                                   | 965                                                                                | 867                                                                                 | 1076                                                                                | 986                                                                                 | 860                                                                                 | 1085                                                                                |
| Direction, Lane #                 | EB 1                                                                              | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Total                      | 21                                                                                | 0                                                                                 | 37                                                                                | 9                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Left                       | 8                                                                                 | 0                                                                                 | 37                                                                                | 0                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Right                      | 13                                                                                | 0                                                                                 | 0                                                                                 | 9                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| cSH                               | 1623                                                                              | 1700                                                                              | 965                                                                               | 1085                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume to Capacity                | 0.00                                                                              | 0.00                                                                              | 0.04                                                                              | 0.01                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Queue Length 95th (m)             | 0.1                                                                               | 0.0                                                                               | 1.0                                                                               | 0.2                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Delay (s)                 | 2.8                                                                               | 0.0                                                                               | 8.9                                                                               | 8.3                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane LOS                          | A                                                                                 |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach Delay (s)                | 2.8                                                                               | 0.0                                                                               | 8.9                                                                               | 8.3                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach LOS                      |                                                                                   |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Average Delay                     | 6.9                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization | 18.6%                                                                             |                                                                                   |                                                                                   | ICU Level of Service                                                              |                                                                                   |                                                                                   | A                                                                                  |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min)             | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |



| Movement                          | WBL                                                                               | WBR  | NBT                                                                               | NBR                  | SBL                                                                               | SBT                                                                                |
|-----------------------------------|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Lane Configurations               |  |      |  |                      |  |  |
| Traffic Volume (veh/h)            | 39                                                                                | 26   | 633                                                                               | 60                   | 20                                                                                | 554                                                                                |
| Future Volume (Veh/h)             | 39                                                                                | 26   | 633                                                                               | 60                   | 20                                                                                | 554                                                                                |
| Sign Control                      | Stop                                                                              |      | Free                                                                              |                      | Free                                                                              |                                                                                    |
| Grade                             | 0%                                                                                |      | 0%                                                                                |                      | 0%                                                                                |                                                                                    |
| Peak Hour Factor                  | 0.92                                                                              | 0.92 | 0.92                                                                              | 0.92                 | 0.92                                                                              | 0.92                                                                               |
| Hourly flow rate (vph)            | 42                                                                                | 28   | 688                                                                               | 65                   | 22                                                                                | 602                                                                                |
| Pedestrians                       |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Lane Width (m)                    |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Walking Speed (m/s)               |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Percent Blockage                  |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Right turn flare (veh)            |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Median type                       |                                                                                   |      | None                                                                              |                      | None                                                                              |                                                                                    |
| Median storage veh                |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Upstream signal (m)               |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| pX, platoon unblocked             |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| vC, conflicting volume            | 1366                                                                              | 720  |                                                                                   |                      | 753                                                                               |                                                                                    |
| vC1, stage 1 conf vol             |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| vC2, stage 2 conf vol             |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| vCu, unblocked vol                | 1366                                                                              | 720  |                                                                                   |                      | 753                                                                               |                                                                                    |
| tC, single (s)                    | 6.4                                                                               | 6.2  |                                                                                   |                      | 4.2                                                                               |                                                                                    |
| tC, 2 stage (s)                   |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| tF (s)                            | 3.5                                                                               | 3.3  |                                                                                   |                      | 2.3                                                                               |                                                                                    |
| p0 queue free %                   | 73                                                                                | 93   |                                                                                   |                      | 97                                                                                |                                                                                    |
| cM capacity (veh/h)               | 156                                                                               | 424  |                                                                                   |                      | 835                                                                               |                                                                                    |
| Direction, Lane #                 | WB 1                                                                              | NB 1 | SB 1                                                                              | SB 2                 |                                                                                   |                                                                                    |
| Volume Total                      | 70                                                                                | 753  | 22                                                                                | 602                  |                                                                                   |                                                                                    |
| Volume Left                       | 42                                                                                | 0    | 22                                                                                | 0                    |                                                                                   |                                                                                    |
| Volume Right                      | 28                                                                                | 65   | 0                                                                                 | 0                    |                                                                                   |                                                                                    |
| cSH                               | 209                                                                               | 1700 | 835                                                                               | 1700                 |                                                                                   |                                                                                    |
| Volume to Capacity                | 0.33                                                                              | 0.44 | 0.03                                                                              | 0.35                 |                                                                                   |                                                                                    |
| Queue Length 95th (m)             | 11.2                                                                              | 0.0  | 0.6                                                                               | 0.0                  |                                                                                   |                                                                                    |
| Control Delay (s)                 | 30.6                                                                              | 0.0  | 9.4                                                                               | 0.0                  |                                                                                   |                                                                                    |
| Lane LOS                          | D                                                                                 |      | A                                                                                 |                      |                                                                                   |                                                                                    |
| Approach Delay (s)                | 30.6                                                                              | 0.0  | 0.3                                                                               |                      |                                                                                   |                                                                                    |
| Approach LOS                      | D                                                                                 |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Intersection Summary              |                                                                                   |      |                                                                                   |                      |                                                                                   |                                                                                    |
| Average Delay                     |                                                                                   |      | 1.6                                                                               |                      |                                                                                   |                                                                                    |
| Intersection Capacity Utilization |                                                                                   |      | 47.4%                                                                             | ICU Level of Service | A                                                                                 |                                                                                    |
| Analysis Period (min)             |                                                                                   |      | 15                                                                                |                      |                                                                                   |                                                                                    |

St. Antoine Subdivision Phase 1  
4: Old McConnell Avenue & St. Antoine Street

Future (2030) Total Traffic Volume  
PM Peak Hour

|                                   |  |  |  |  |  |  |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Movement                          | WBL                                                                               | WBR                                                                               | NBT                                                                               | NBR                                                                               | SBL                                                                               | SBT                                                                               |
| Lane Configurations               |  |                                                                                   |  |                                                                                   |                                                                                   |  |
| Traffic Volume (veh/h)            | 1                                                                                 | 65                                                                                | 1                                                                                 | 1                                                                                 | 80                                                                                | 1                                                                                 |
| Future Volume (Veh/h)             | 1                                                                                 | 65                                                                                | 1                                                                                 | 1                                                                                 | 80                                                                                | 1                                                                                 |
| Sign Control                      | Stop                                                                              |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |
| Grade                             | 0%                                                                                |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              |
| Hourly flow rate (vph)            | 1                                                                                 | 71                                                                                | 1                                                                                 | 1                                                                                 | 87                                                                                | 1                                                                                 |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Median type                       |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   | None                                                                              |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC, conflicting volume            | 176                                                                               | 2                                                                                 |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| vCu, unblocked vol                | 176                                                                               | 2                                                                                 |                                                                                   |                                                                                   | 2                                                                                 |                                                                                   |
| tC, single (s)                    | 6.4                                                                               | 6.2                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| tF (s)                            | 3.5                                                                               | 3.3                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |
| p0 queue free %                   | 100                                                                               | 93                                                                                |                                                                                   |                                                                                   | 95                                                                                |                                                                                   |
| cM capacity (veh/h)               | 770                                                                               | 1083                                                                              |                                                                                   |                                                                                   | 1620                                                                              |                                                                                   |
| Direction, Lane #                 | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume Total                      | 72                                                                                | 2                                                                                 | 88                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Volume Left                       | 1                                                                                 | 0                                                                                 | 87                                                                                |                                                                                   |                                                                                   |                                                                                   |
| Volume Right                      | 71                                                                                | 1                                                                                 | 0                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| cSH                               | 1077                                                                              | 1700                                                                              | 1620                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Volume to Capacity                | 0.07                                                                              | 0.00                                                                              | 0.05                                                                              |                                                                                   |                                                                                   |                                                                                   |
| Queue Length 95th (m)             | 1.7                                                                               | 0.0                                                                               | 1.4                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Control Delay (s)                 | 8.6                                                                               | 0.0                                                                               | 7.3                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Lane LOS                          | A                                                                                 |                                                                                   | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |
| Approach Delay (s)                | 8.6                                                                               | 0.0                                                                               | 7.3                                                                               |                                                                                   |                                                                                   |                                                                                   |
| Approach LOS                      | A                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| <b>Intersection Summary</b>       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Average Delay                     |                                                                                   | 7.8                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
| Intersection Capacity Utilization |                                                                                   | 21.9%                                                                             |                                                                                   | ICU Level of Service                                                              |                                                                                   | A                                                                                 |
| Analysis Period (min)             |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |

St. Antoine Subdivision Phase 1  
5: Old McConnell Avenue & St. Antoine Street (North)

Future (2030) Total Traffic Volume  
PM Peak Hour



| Movement                          | EBL                                                                               | EBR  | NBL   | NBT                                                                               | SBT                                                                               | SBR  |
|-----------------------------------|-----------------------------------------------------------------------------------|------|-------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------|
| Lane Configurations               |  |      |       |  |  |      |
| Traffic Volume (veh/h)            | 1                                                                                 | 80   | 65    | 1                                                                                 | 1                                                                                 | 1    |
| Future Volume (Veh/h)             | 1                                                                                 | 80   | 65    | 1                                                                                 | 1                                                                                 | 1    |
| Sign Control                      | Free                                                                              |      |       | Stop                                                                              | Stop                                                                              |      |
| Grade                             | 0%                                                                                |      |       | 0%                                                                                | 0%                                                                                |      |
| Peak Hour Factor                  | 0.92                                                                              | 0.92 | 0.92  | 0.92                                                                              | 0.92                                                                              | 0.92 |
| Hourly flow rate (vph)            | 1                                                                                 | 87   | 71    | 1                                                                                 | 1                                                                                 | 1    |
| Pedestrians                       |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Lane Width (m)                    |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Walking Speed (m/s)               |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Percent Blockage                  |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Right turn flare (veh)            |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Median type                       | None                                                                              |      |       |                                                                                   |                                                                                   |      |
| Median storage veh                |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Upstream signal (m)               |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| pX, platoon unblocked             |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| vC, conflicting volume            | 0                                                                                 |      | 47    | 46                                                                                | 89                                                                                | 0    |
| vC1, stage 1 conf vol             |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| vC2, stage 2 conf vol             |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| vCu, unblocked vol                | 0                                                                                 |      | 47    | 46                                                                                | 89                                                                                | 0    |
| tC, single (s)                    | 4.1                                                                               |      | 7.1   | 6.5                                                                               | 6.5                                                                               | 6.2  |
| tC, 2 stage (s)                   |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| tF (s)                            | 2.2                                                                               |      | 3.5   | 4.0                                                                               | 4.0                                                                               | 3.3  |
| p0 queue free %                   | 100                                                                               |      | 93    | 100                                                                               | 100                                                                               | 100  |
| cM capacity (veh/h)               | 1623                                                                              |      | 952   | 846                                                                               | 801                                                                               | 1085 |
| Direction, Lane #                 | EB 1                                                                              | NB 1 | SB 1  |                                                                                   |                                                                                   |      |
| Volume Total                      | 88                                                                                | 72   | 2     |                                                                                   |                                                                                   |      |
| Volume Left                       | 1                                                                                 | 71   | 0     |                                                                                   |                                                                                   |      |
| Volume Right                      | 87                                                                                | 0    | 1     |                                                                                   |                                                                                   |      |
| cSH                               | 1623                                                                              | 950  | 921   |                                                                                   |                                                                                   |      |
| Volume to Capacity                | 0.00                                                                              | 0.08 | 0.00  |                                                                                   |                                                                                   |      |
| Queue Length 95th (m)             | 0.0                                                                               | 2.0  | 0.1   |                                                                                   |                                                                                   |      |
| Control Delay (s)                 | 0.1                                                                               | 9.1  | 8.9   |                                                                                   |                                                                                   |      |
| Lane LOS                          | A                                                                                 | A    | A     |                                                                                   |                                                                                   |      |
| Approach Delay (s)                | 0.1                                                                               | 9.1  | 8.9   |                                                                                   |                                                                                   |      |
| Approach LOS                      |                                                                                   | A    | A     |                                                                                   |                                                                                   |      |
| Intersection Summary              |                                                                                   |      |       |                                                                                   |                                                                                   |      |
| Average Delay                     |                                                                                   |      | 4.2   |                                                                                   |                                                                                   |      |
| Intersection Capacity Utilization |                                                                                   |      | 22.0% | ICU Level of Service                                                              |                                                                                   | A    |
| Analysis Period (min)             |                                                                                   |      | 15    |                                                                                   |                                                                                   |      |

St. Antoine Subdivision Phase 1  
9: Gerald Street/Gerard Street & St. Antoine Street

Future (2030) Total Traffic Volume  
PM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                    |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)            | 23                                                                                | 46                                                                                | 11                                                                                | 1                                                                                 | 28                                                                                | 1                                                                                 | 22                                                                                 | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 15                                                                                  |
| Future Volume (Veh/h)             | 23                                                                                | 46                                                                                | 11                                                                                | 1                                                                                 | 28                                                                                | 1                                                                                 | 22                                                                                 | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 15                                                                                  |
| Sign Control                      |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |                                                                                   |                                                                                    | Stop                                                                                |                                                                                     |                                                                                     | Stop                                                                                |                                                                                     |
| Grade                             |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                    | 0%                                                                                  |                                                                                     |                                                                                     | 0%                                                                                  |                                                                                     |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Hourly flow rate (vph)            | 25                                                                                | 50                                                                                | 12                                                                                | 1                                                                                 | 30                                                                                | 1                                                                                 | 24                                                                                 | 1                                                                                   | 1                                                                                   | 1                                                                                   | 1                                                                                   | 16                                                                                  |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median type                       | None                                                                              |                                                                                   |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC, conflicting volume            | 31                                                                                |                                                                                   |                                                                                   | 62                                                                                |                                                                                   |                                                                                   | 155                                                                                | 139                                                                                 | 56                                                                                  | 140                                                                                 | 144                                                                                 | 30                                                                                  |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vCu, unblocked vol                | 31                                                                                |                                                                                   |                                                                                   | 62                                                                                |                                                                                   |                                                                                   | 155                                                                                | 139                                                                                 | 56                                                                                  | 140                                                                                 | 144                                                                                 | 30                                                                                  |
| tC, single (s)                    | 4.1                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |                                                                                   | 7.1                                                                                | 6.5                                                                                 | 6.2                                                                                 | 7.1                                                                                 | 6.5                                                                                 | 6.2                                                                                 |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| tF (s)                            | 2.2                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |                                                                                   | 3.5                                                                                | 4.0                                                                                 | 3.3                                                                                 | 3.5                                                                                 | 4.0                                                                                 | 3.3                                                                                 |
| p0 queue free %                   | 98                                                                                |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |                                                                                   | 97                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 98                                                                                  |
| cM capacity (veh/h)               | 1582                                                                              |                                                                                   |                                                                                   | 1541                                                                              |                                                                                   |                                                                                   | 788                                                                                | 740                                                                                 | 1011                                                                                | 818                                                                                 | 734                                                                                 | 1044                                                                                |
| Direction, Lane #                 | EB 1                                                                              | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Total                      | 87                                                                                | 32                                                                                | 26                                                                                | 18                                                                                |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Left                       | 25                                                                                | 1                                                                                 | 24                                                                                | 1                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Right                      | 12                                                                                | 1                                                                                 | 1                                                                                 | 16                                                                                |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| cSH                               | 1582                                                                              | 1541                                                                              | 793                                                                               | 1005                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume to Capacity                | 0.02                                                                              | 0.00                                                                              | 0.03                                                                              | 0.02                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Queue Length 95th (m)             | 0.4                                                                               | 0.0                                                                               | 0.8                                                                               | 0.4                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Delay (s)                 | 2.2                                                                               | 0.2                                                                               | 9.7                                                                               | 8.6                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane LOS                          | A                                                                                 | A                                                                                 | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach Delay (s)                | 2.2                                                                               | 0.2                                                                               | 9.7                                                                               | 8.6                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach LOS                      |                                                                                   |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Average Delay                     | 3.7                                                                               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization | 25.7%                                                                             |                                                                                   |                                                                                   | ICU Level of Service                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min)             | 15                                                                                |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

St. Antoine Subdivision Phase 1  
12: Morris Street & St. Antoine Street

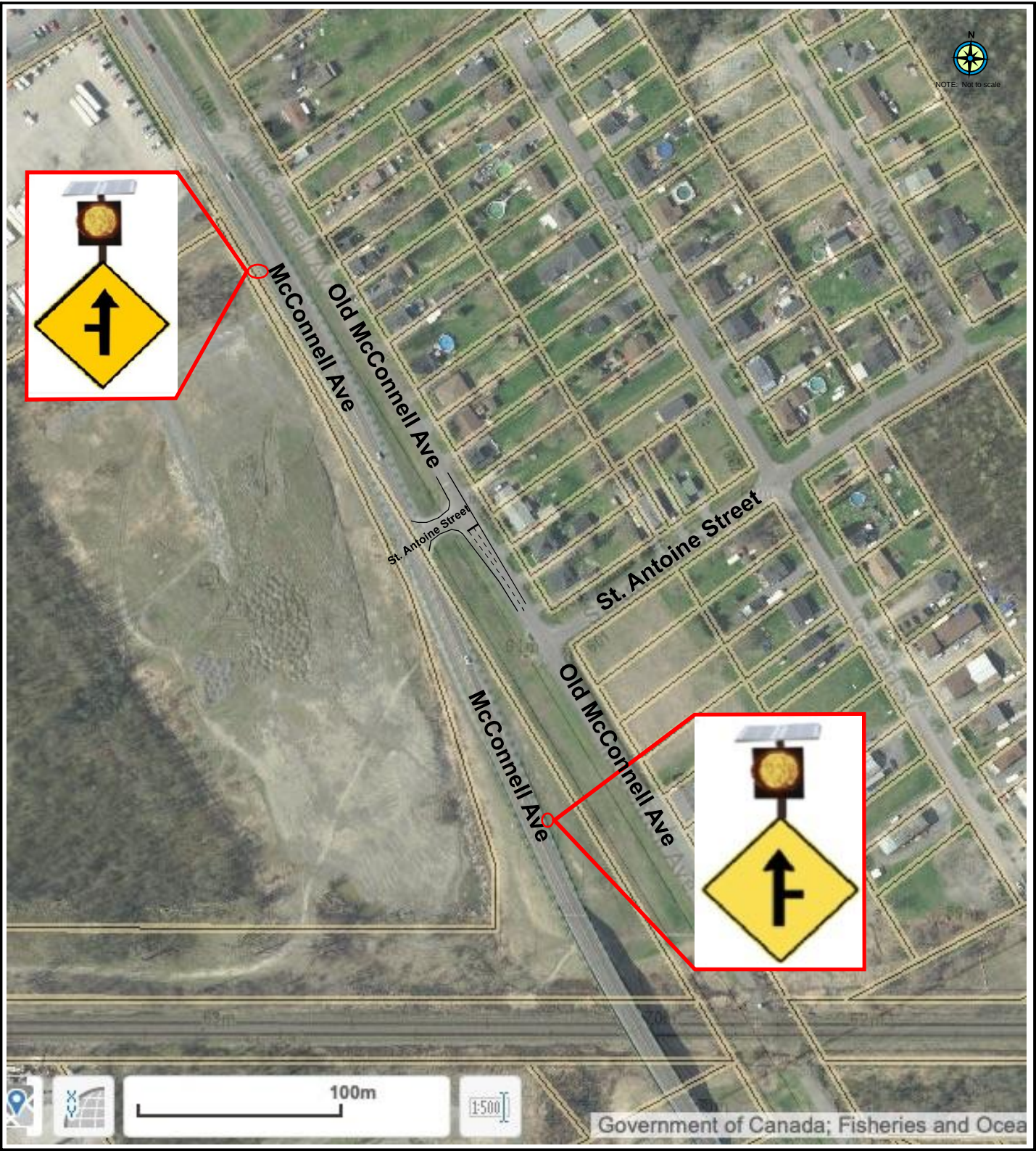
Future (2030) Total Traffic Volume  
PM Peak Hour

|                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
|-----------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                                   |  |  |  |  |  |  |  |  |  |  |  |  |
| Movement                          | EBL                                                                               | EBT                                                                               | EBR                                                                               | WBL                                                                               | WBT                                                                               | WBR                                                                               | NBL                                                                                | NBT                                                                                 | NBR                                                                                 | SBL                                                                                 | SBT                                                                                 | SBR                                                                                 |
| Lane Configurations               |                                                                                   |  |                                                                                   |                                                                                   |  |                                                                                   |                                                                                    |  |                                                                                     |                                                                                     |  |                                                                                     |
| Traffic Volume (veh/h)            | 11                                                                                | 0                                                                                 | 35                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 22                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 6                                                                                   |
| Future Volume (Veh/h)             | 11                                                                                | 0                                                                                 | 35                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 22                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 6                                                                                   |
| Sign Control                      |                                                                                   | Free                                                                              |                                                                                   |                                                                                   | Free                                                                              |                                                                                   |                                                                                    | Stop                                                                                |                                                                                     |                                                                                     | Stop                                                                                |                                                                                     |
| Grade                             |                                                                                   | 0%                                                                                |                                                                                   |                                                                                   | 0%                                                                                |                                                                                   |                                                                                    | 0%                                                                                  |                                                                                     |                                                                                     | 0%                                                                                  |                                                                                     |
| Peak Hour Factor                  | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                              | 0.92                                                                               | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                | 0.92                                                                                |
| Hourly flow rate (vph)            | 12                                                                                | 0                                                                                 | 38                                                                                | 0                                                                                 | 0                                                                                 | 0                                                                                 | 24                                                                                 | 0                                                                                   | 0                                                                                   | 0                                                                                   | 0                                                                                   | 7                                                                                   |
| Pedestrians                       |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane Width (m)                    |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Walking Speed (m/s)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Percent Blockage                  |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Right turn flare (veh)            |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median type                       | None                                                                              |                                                                                   |                                                                                   | None                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Median storage (veh)              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Upstream signal (m)               |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| pX, platoon unblocked             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC, conflicting volume            | 0                                                                                 |                                                                                   |                                                                                   | 38                                                                                |                                                                                   |                                                                                   | 50                                                                                 | 43                                                                                  | 19                                                                                  | 43                                                                                  | 62                                                                                  | 0                                                                                   |
| vC1, stage 1 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vC2, stage 2 conf vol             |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| vCu, unblocked vol                | 0                                                                                 |                                                                                   |                                                                                   | 38                                                                                |                                                                                   |                                                                                   | 50                                                                                 | 43                                                                                  | 19                                                                                  | 43                                                                                  | 62                                                                                  | 0                                                                                   |
| tC, single (s)                    | 4.1                                                                               |                                                                                   |                                                                                   | 4.1                                                                               |                                                                                   |                                                                                   | 7.1                                                                                | 6.5                                                                                 | 6.2                                                                                 | 7.1                                                                                 | 6.5                                                                                 | 6.2                                                                                 |
| tC, 2 stage (s)                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| tF (s)                            | 2.2                                                                               |                                                                                   |                                                                                   | 2.2                                                                               |                                                                                   |                                                                                   | 3.5                                                                                | 4.0                                                                                 | 3.3                                                                                 | 3.5                                                                                 | 4.0                                                                                 | 3.3                                                                                 |
| p0 queue free %                   | 99                                                                                |                                                                                   |                                                                                   | 100                                                                               |                                                                                   |                                                                                   | 97                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 100                                                                                 | 99                                                                                  |
| cM capacity (veh/h)               | 1623                                                                              |                                                                                   |                                                                                   | 1572                                                                              |                                                                                   |                                                                                   | 938                                                                                | 843                                                                                 | 1059                                                                                | 954                                                                                 | 823                                                                                 | 1085                                                                                |
| Direction, Lane #                 | EB 1                                                                              | WB 1                                                                              | NB 1                                                                              | SB 1                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Total                      | 50                                                                                | 0                                                                                 | 24                                                                                | 7                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Left                       | 12                                                                                | 0                                                                                 | 24                                                                                | 0                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume Right                      | 38                                                                                | 0                                                                                 | 0                                                                                 | 7                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| cSH                               | 1623                                                                              | 1700                                                                              | 938                                                                               | 1085                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Volume to Capacity                | 0.01                                                                              | 0.00                                                                              | 0.03                                                                              | 0.01                                                                              |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Queue Length 95th (m)             | 0.2                                                                               | 0.0                                                                               | 0.6                                                                               | 0.2                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Control Delay (s)                 | 1.8                                                                               | 0.0                                                                               | 8.9                                                                               | 8.3                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Lane LOS                          | A                                                                                 |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach Delay (s)                | 1.8                                                                               | 0.0                                                                               | 8.9                                                                               | 8.3                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Approach LOS                      |                                                                                   |                                                                                   | A                                                                                 | A                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Summary              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Average Delay                     |                                                                                   |                                                                                   |                                                                                   | 4.5                                                                               |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |
| Intersection Capacity Utilization |                                                                                   |                                                                                   |                                                                                   | 17.9%                                                                             | ICU Level of Service                                                              |                                                                                   |                                                                                    |                                                                                     | A                                                                                   |                                                                                     |                                                                                     |                                                                                     |
| Analysis Period (min)             |                                                                                   |                                                                                   |                                                                                   | 15                                                                                |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |

## APPENDIX B: Intersection Warning Sign (Wa-13) and Placement Locations



Approximate Placement Locations of the Flashing Beacon with Wa-13 Sign



### 3. Intersection Warning Signs

Intersection warning signs alert motorists to intersections where they may encounter hazards, including the presence of the intersections themselves, merging traffic and changes in right-of-way control.

Unexpected or unseen intersections may present a hazard to through and turning traffic. The hazard is most serious if the intersection has an uncontrolled right-of-way, or is hidden. Even controlled intersections, however, typically require driver caution. In addition, intersection warning signs are used at merge locations and at intersections where right-of-way control is being changed.

Uncontrolled and controlled intersection signs are most often needed on rural roads. In urban locations, widespread application of right-of-way control devices such as STOP signs and traffic signals, and the typically close spacing between intersections, may make the use of these types of intersection warning signs impractical or redundant.

#### INTERSECTION Sign (Uncontrolled)



|                         |                                                           |
|-------------------------|-----------------------------------------------------------|
| <b>We-11</b>            | 60 cm x 60 cm                                             |
| <b>Font</b>             | N/A                                                       |
| <b>Colour</b>           | Legend & Border – Black<br>Background – Yellow Reflective |
| <b>Minimum Sheeting</b> | Type I                                                    |

#### INTERSECTION Sign (Uncontrolled)



|                         |                                                           |
|-------------------------|-----------------------------------------------------------|
| <b>We-12</b>            | 60 cm x 60 cm                                             |
| <b>Font</b>             | N/A                                                       |
| <b>Colour</b>           | Legend & Border – Black<br>Background – Yellow Reflective |
| <b>Minimum Sheeting</b> | Type I                                                    |

#### INTERSECTION Sign (Uncontrolled)



|                         |                                                           |
|-------------------------|-----------------------------------------------------------|
| <b>We-13</b>            | 60 cm x 60 cm                                             |
| <b>Font</b>             | N/A                                                       |
| <b>Colour</b>           | Legend & Border – Black<br>Background – Yellow Reflective |
| <b>Minimum Sheeting</b> | Type I                                                    |



**T-INTERSECTION Sign (Uncontrolled)**

|                     |                                                           |
|---------------------|-----------------------------------------------------------|
| Wa-14               | 60 cm x 60 cm                                             |
| Font                | N/A                                                       |
| Colour              | Legend & Border – Black<br>Background – Yellow Reflective |
| Minimum<br>Sheeting | Type I                                                    |

**Y-INTERSECTION Sign (Uncontrolled)**

|                     |                                                           |
|---------------------|-----------------------------------------------------------|
| Wa-15               | 60 cm x 60 cm                                             |
| Font                | N/A                                                       |
| Colour              | Legend & Border – Black<br>Background – Yellow Reflective |
| Minimum<br>Sheeting | Type I                                                    |

**Purpose and Background**

Uncontrolled intersection signs are used to warn drivers of an approaching intersection where neither road has a designated right-of-way. Normal right-of-way rules apply, namely, drivers yield to vehicles on their right, except where vehicles are already in the intersection. Caution is required at these intersections, so drivers must be made aware of their presence.

On intersection signs, lines or curves are used to represent the intersection layout and the intersecting angle of the crossing roadway. An arrowhead at the end of a line or curve symbolizes right-of-way. Absence of arrowheads on the uncontrolled intersection signs therefore indicates that neither of the intersecting roadways has the right-of-way.

**Sign Types**

The **standard size INTERSECTION sign (uncontrolled) (Wa-11)** indicates an uncontrolled intersection where a road crosses the road on which the sign appears.

The **standard size INTERSECTION sign (uncontrolled) (Wa-12)** indicates an uncontrolled intersection where a road approaching from one side at a non-perpendicular angle meets the road on which the sign appears.

The **standard size INTERSECTION sign (uncontrolled) (Wa-13)** indicates an uncontrolled intersection where a perpendicular side road approaching from one side meets the road on which the sign appears.

The **standard size T-INTERSECTION sign (uncontrolled) (Wa-14)** indicates an uncontrolled intersection where a road crosses the termination point of the road on which the sign appears.

The **standard size Y-INTERSECTION sign (uncontrolled) (Wa-15)** indicates a Y-shaped intersection, where traffic approaches from the stem of the “Y” and continues along one branch of the “Y”. The side road is represented by the other branch of the “Y”.

### Guidelines for Use

Uncontrolled intersection signs must not be used:

- On approaches to intersections under stop or yield control. (The STOP AHEAD sign (Wb-1) or YIELD AHEAD sign (Wb-1A) must be used where drivers need to be alerted to the presence of an intersection under stop or yield control.)
- To warn of hidden private driveways or entrances.

The Y-INTERSECTION sign must not be used at intersections channelized by traffic islands, or where junction signs or turn markers are present. In these situations, the context and signing are sufficient to alert motorists to the presence of an intersection. Also, at channelized intersections, traffic does not enter, but can only exit, the main road via the right branch of the “Y”.

A left and/or inverted version of the Wa-12 or Wa-13 should be used where appropriate to represent the actual intersection layout.

Where an intersection occurs along a forward or reverse curve, an adapted intersection sign must be used. The adapted sign design is based on the applicable turn/curve warning sign (Wa-1 to Wa-5), without the arrowhead on the turn/curve symbol, and with one or more side strokes added to indicate a side road entering.

Where one or more of the curves included under a WINDING ROAD sign (Wa-6) contains an uncontrolled intersection, an individual turn/curve

warning sign, adapted to be an uncontrolled intersection sign, must be posted. The WINDING ROAD sign indicates a symbolic configuration only, and is not precise enough to represent to drivers the actual location of the uncontrolled intersection.

In situations where the intersection configuration varies significantly from what is symbolized on the sign options discussed above, signs should be created with new symbols to represent actual intersection layouts. In such cases, roads must be represented as lines **without** arrowheads, to indicate uncontrolled right-of-way on both intersecting roads.

Uncontrolled intersection warning signs are not required on local residential streets, including streets within sub-divisions.

For more information on turn/curve warning signs, see Section 2 (Roadway Alignment Signs). For more information about STOP AHEAD and YIELD AHEAD signs, see Section 6 (Traffic Regulations Ahead Signs). Information on right-of-way control and STOP and YIELD signs can be found in Book 5 (Regulatory Signs).

### Location Criteria

The location criteria for uncontrolled intersection signs are as described for warning signs in Section 1.5 (Location), and as described for signs in general, in Book 1b, Section 12 (Sign Position). No exceptional location criteria are noted.

### Special Considerations

For further details on right-of-way rules at an intersection not controlled by a STOP or YIELD sign or traffic signal, refer to the Highway Traffic Act, Section 135 (R.S.O. 1990).

## APPENDIX C: General Sketch of the Left Turn Lane on Old McConnell Avenue

Sketch of Left Turn Lane on Old McConnell Avenue at St. Antoine Street

