# 3745 St. Joseph Boulevard 

Transportation Impact Assessment Report

March 2024

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

## TIA Reports

Individuals submitting TIA reports will be responsible for all aspects of development-related transportation assessment and reporting, and undertaking such work, in accordance and compliance with the City of Ottawa's Official Plan, the Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines and 2023 amendments.

Please note that the Certification is only required for the submission of a TIA. The Screening can be undertaken by a non-certified individual for the purpose of identifying if a TIA is needed or not.

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

## CERTIFICATION

I have reviewed and have a sound understanding of the objectives, needs and requirements of the City of Ottawa's Official Plan, Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines; (Update effective July 2023)

I have a sound knowledge of industry standard practice with respect to the preparation of transportation impact assessment reports, including multi modal level of service review;

I have substantial experience (more than 5 years) in undertaking and delivering transportation impact studies (analysis, reporting and geometric design) with strong background knowledge in transportation planning, engineering or traffic operations; and


I am either a licensed or registered ${ }^{1}$ professional in good standing, whose field of expertise

is either transportation engineering
$\square$ or transportation planning.

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


# 3745 St. Joseph Boulevard 

# Transportation Impact Assessment Report 

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March 7, 2024

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## TRANSPORTATION IMPACT ASSESSMENT REPORT

Parsons has been retained by 13890767 CANADA INC. to prepare a TIA in support of a Zoning By-Law Amendment (ZBLA) and Official Plan Amendment (OPA) Application for a six-story mixed-use building. This document follows the TIA process as outlined in the City of Ottawa Transportation Impact Assessment (TIA) Guidelines (2017). The following report represents Step 5 - Transportation Impact Assessment Report. The Screening Form has been provided in Appendix A.

### 1.0 SCREENING FORM

The Screening Form confirmed the need for a TIA Report based on the Trip Generation and Safety triggers. The Trip Generation trigger was met as the development is anticipated to generate more than 60 person trips during peak hours. The Safety trigger was met following a review of collisions history in the study area.

### 2.0SCOPING REPORT

### 2.1. Existing and Planned Conditions

### 2.1.1. Proposed Development

The proposed development is located at the municipal address of 3745 St. Joseph Blvd. Currently, there are no existing buildings on the site, however there is temporary fencing along the perimeter and the site topography slopes down from St. Joseph Boulevard.

According to Schedule B8 of the City of Ottawa's Official Plan, the site is designated as "Mixed Industrial". The subject land is currently zoned as a Light Industrial Zone IL H(21) and will need to be rezoned to Light Industrial Exception Zone to permit the use of the proposed hotel. The proposed development is expected to be completed in one-phase, with a buildout year of 2025.

The development is anticipated to consist of a six-storey mixed-use building with approximately 61 hotel units and $880 \mathrm{~m}^{2}\left(9,500 \mathrm{ft}^{2}\right)$ of commercial area. The proposed uses will primarily consist of a hotel that will occupy the top four-storeys; varying types of amenities such as a café, gym, co-working space etc. for the first twostoreys; and a two-level underground parking garage resulting in a total of 77 parking spaces. The parking garage access point will be located on the north side of the building.


Figure 2: Proposed Site Plan (March, 2024)


### 2.1.2. Existing Conditions

## Area Road Network

The following roads were included in the TIA. Description for each road within the study area has been provided below.

St. Joseph Boulevard is an east-west municipal arterial road that extends from Trim Road in the east as a continuation of Old Montreal Road to Ottawa Road 174 in the west and forms the southern site boundary. The roadway consists of a two-way four-lane divided urban cross-section and a posted speed limit of $60 \mathrm{~km} / \mathrm{h}$.

Trim Road is a north-south municipal arterial road that extends from Ottawa Road 174 in the north to Smith $\mathrm{Rd} /$ Colonial Rd in the south. The roadway typically operates as a two-way four-lane divided urban cross-section with a posted speed limit of $60 \mathrm{~km} / \mathrm{h}$.

Taylor Creek Drive is a municipal collector road that extends from St. Joseph Blvd in the south to Trim Rd in the east. The roadway operates as a two-way two-lane cross-section with an assumed speed limit of $50 \mathrm{~km} / \mathrm{h}$.

Dairy Drive is a municipal local road that extends from Trim Rd in the west to Old Montreal in the east. The roadway operates as a two-way two-lane undivided cross-section with an assumed speed limit of $50 \mathrm{~km} / \mathrm{h}$.

## Existing Study Area Intersections

## Taylor Creek/St. Joseph

The Taylor Creek/St. Joseph intersection is a threelegged " $T$ " intersection with STOP-control on the southbound approach. The eastbound approach consists of two through-lanes and a dedicated leftturn lane, while the westbound approach consists of two through-lanes. Along St. Joseph there are sidewalks on both sides of the road that are accompanied by curb-side bike lanes. Along Taylor Creek there is one sidewalk located on the east side of the street.


## Trim/St. Joseph

The Trim/St. Joseph intersection is a four-legged twolane roundabout. The eastbound and westbound approaches consist of one through lane, one through/left-turn lane and one channelized right-turn lane. The northbound and southbound approaches consist of one through/left-turn lane and one through/right-turn lane. All approaches contain MUP's that later split into combinations of sidewalks and dedicated bike lanes.

## Trim/Dairy

The Trim/Dairy-Taylor Creek intersection is a fourlegged roundabout. The eastbound and westbound approach consists of a single shared-movement lane. The northbound and southbound approaches consist of one through/right-turn lane and one through/left-turn lane. Eastbound egress has been recently modified to provide two lanes.


## Existing Driveways to Adjacent Developments

One new access is proposed for the development and will be located along St. Joseph Blvd. Within 200m of the proposed site access, there are 14 adjacent driveways as shown in Figure 3. Eight of the driveways are located on the north side of St. Joseph Blvd, where six are located east of the site and two immediately to the west. These driveways are for several small businesses consisting primarily of single commercial units and a small business plaza. The other six driveways are located on the south side of St. Joseph Blvd, all of which are located to the west of the proposed development and are for four residential units.

Figure 3: Adjacent Driveways within 200m of Site Access


## Existing Area Traffic Management Measures

Existing area traffic management measures within the study area include zebra crosswalks at Trim/St. Joseph intersection and curb-side bike lanes along both St. Joseph Blvd and Trim Rd.

## Pedestrian/Cycling Network

The active transportation network facilities for pedestrians and cyclists are illustrated in Figure 4. As shown, sidewalk facilities are provided throughout the study area, including both sides of St. Joseph Blvd and Trim Rd. Curbside bike lanes are provided for St. Joseph Blvd and Trim Rd in both directions but merge into Multi-use Pathways (MUP) upon nearing the St. Joseph/Trim intersection. It should be noted that the eastbound and westbound approaches merge into MUPs significantly further away, approximately 80 m from the intersection. According to the 2013 City of Ottawa Transportation Master Plan (TMP), both St. Joseph Blvd and Trim Rd are designated as cycling spine routes.


## Transit Network

Due to the current circumstances regarding COVID-19, some bus services may have been altered by OC Transpo to operate on a different schedule. The following description of OC Transpo routes within the study area reflect the current bus operations (April 2023):

- Route \#39 (Blair \& N Rideau <-> Millennium): identified by OC Transpo as a "Rapid Route", this route operates all day, 7 days a week. The nearest bus stops to the site are at the intersections of St. Joseph/ Taylor Creek and St. Joseph/Trim.
- Route \#221 (Blair <-> Cumberland): identified by OC Transpo as a "Connexion Route", this route operates during weekday peak-periods exclusively. The nearest bus stops to the site are at the intersections of Old Montreal/Trim.
The transit network for the study area is illustrated in Figure 5 and the transit route maps are provided in Appendix B. See Figure 6 for an illustration of the bus stop locations near the proposed development.

Figure 5: Area Transit Network


Figure 6: Bus Stop Locations


## Peak Hour Travel Demands

The existing peak hour traffic volumes at the intersections within the study area were obtained from the City of Ottawa for the following intersections:

- St. Joseph/Old Montreal/Trim - Conducted Thursday, May 16, 2019
- St. Joseph/Taylor Creek - Conducted Wednesday, August 28, 2019
- Trim/Dairy/Taylor Creek - Conducted Wednesday, October 09, 2019

The traffic volumes at study area intersections are illustrated in Figure 7, with raw traffic count data provided in Appendix C. No adjustments such as traffic growth have been applied to the traffic volumes given the study area context in a well-established neighborhood and since there has been an insignificant growth over the previous years. Existing active transportations (pedestrian and cyclist) volumes at study area intersections have not been provided due to the high passenger vehicle mode share of the study area.

Figure 7: Existing Peak Hour Traffic Volumes


## Existing Road Safety Conditions

A five-year collision history data (2017-2021, inclusive) was requested and obtained from the City of Ottawa for all intersections and road segments within the study area. It was determined that a total of 152 collisions have occurred between St. Joseph/Taylor Creek and St. Joseph/Old Montreal/Trim, while there were no reported collisions at the intersection of Dairy/Taylor Creek/Trim. Of the 152 collisions, 25 resulted from rear ends, 1 from turning movements, 59 from sideswipes, 55 from angled collisions, 1 from approaching, 8 from Single Vehicle (Other) and 3 from "other". Furthermore, 134 ( $88 \%$ ) collisions representing the majority of collisions, resulted in property damage only, while 18 (12\%) resulted in non-fatal injuries. The source collision data provided by the City of Ottawa and detailed analysis results are provided in Appendix D.

A standard unit of measure for assessing collisions at an intersection is based on the number of collisions per million entering vehicles (MEV). Intersections with a ratio of 1.0 Collisions/MEV or greater are considered to be at a higher risk for collisions. Based on the City of Ottawa TIA Guidelines (2017), a collision pattern is characterized as a sequence of more than six collisions of the same impact type occurring for a specific movement within a five-year period. At signalized intersections within the study area, reported collisions have historically taken place at a rate of:

- 0.17 Collisions/MEV at the intersection of St. Joseph Blvd/Taylor Creek Dr. Only 3 collisions occurred at this intersection in the five-year period and no collision patterns were observed.
- 2.80 Collisions/MEV at the intersection of St. Joseph Blvd-Old/Montreal Rd/Trim Rd. A total of 149 collisions occurred at this intersection in the five-year period. It is noted that $49 \%$ (29) of the sideswipe collisions occurred in the northbound direction.
- There were 0 collisions along St. Joseph Blvd between Taylor Creek Dr and Trim Rd where the proposed development is located.

With regards to active transportation (i.e. walking and biking) related collisions, the following collisions are documented out of the total 152 collisions in the study area:

- Only 1 collision involved between pedestrians and bicycles in the study area which resulted in a nonfatal injury.


### 2.1.3. Planned Conditions

### 2.1.3.1. Future Transportation Network Changes

## The Orléans Corridor Secondary Plan Study

The Orleans Corridor Secondary Plan study was completed in July 2022 with the goal of accommodating the growth of a diverse population with varying needs, many of whom will be located near the new LRT 0-Train system. The plan looks to create a mixed-use, pedestrian-oriented, and complete livable community. As shown in Figure 8, the OCSP spans a wide area along the Queensway Corridor bounded by Jeanne-d'Arc Blvd in the east, Trim Rd in the west, Jeanne-d'Arc Blvd in the north, and St. Joseph Blvd in the south.


According to the OCSP, the St. Joseph Blvd Concept Plan will guide the transformation of the road right-of-way into a pedestrian-oriented main street that will primarily contain buildings with commercial uses at-grade level and residential or office uses above. The plan includes interim measures for shorter-term and relatively low-cost improvements.

These improvements will prioritize the utility of active transportation facilities and are outlined below:

- Vehicle travel lane reduction to accommodate more space for active transportation facilities, bus facilities, and other public realm improvements.
- Separated cycling facilities.
- Public realm improvements such as trees, pedestrian-scale lighting, transit shelters, bicycle racks, newspaper boxes, waste and recycling receptacles, and benches
- Work towards the elimination of bus bays


## Trim Road LRT Station

The existing transit station located southeast of Trim Rd/Ottawa Regional Rd 174 is currently being converted to an LRT station as part of the O-Train East extension and is expected to be completed by early 2025. Additionally, there is a Park \& Ride that will remain once the station is completed and is not expected to generate any additional trips. The station is approximately 750 m away from the site.

In addition to the new LRT station, the City's TMP and OCSP outlines other active transportation improvements such as:

- Provide a MUP through 881 Taylor Creek Drive that will connect with the west sidewalk of Trim Rd to a future sidewalk along the northeast side of Taylor Creek Dr.
- Provide a MUP linking Trim Rd and 3535/3545 St. Joseph Blvd with a further connection to Taylor Creek Dr.

However, during this site plan application, the MUP was deemed no longer required.

### 2.1.3.2. Other Area Developments

## 3277 St. Joseph Blvd

Hillside Commons Inc. is proposing two nine-storey residential buildings containing a total of 273 dwelling units and 186 vehicle parking spaces within a multi-level parking garage. The Transportation Impact Assessment (prepared by Novatech) projected an increase of 111 person trips during morning peak hours and 112 person trips during afternoon peak hour. The proposed development is expected to be completed in a single phase with a buildout year of 2024 .

## 1015 Dairy Drive

LRL Associates Ltd. Is proposing the development of a restoration and storage facility with a gross floor area of $114,431 \mathrm{ft}^{2}$. It should be noted that the SPC application was submitted in 2013 and the development was anticipated to be built out by 2015. As of today, there are no recent updates. The Transportation Brief (prepared by D.J. Halpenny \& Associates Ltd.) projected an increase of total person trips up to 50 during the morning and afternoon peak hours.

## 1296 \& 1400 Old Montreal

Tamarack Corp. is proposing the development of a new subdivision containing 454 townhome unit and 304 single detached units. The Transportation Impact Assessment (prepared by CGH Inc.) projected an increase in vehicle traffic up to 340 veh/h with total person trips up to 1471 during the morning and afternoon peak hours. The proposed developments anticipated buildout year is 2027.

### 2.2. Study Area and Time Periods

For the purposes of this report, the proposed development has an expected buildout year of 2025. The development trip generation is not anticipated to exceed 60 person trips given its shared mixed-use nature. Therefore, a buildout analysis is considered suitable for this TIA with a proposed limited study area as illustrated in Figure 9.

- Taylor Creek/St. Joseph
- Trim/Dairy-Taylor Creek
- Trim/St. Joseph-Old Montreal

Figure 9: Study Area


### 2.3. Exemption Review

The following modules/elements of the TIA process are recommended to be exempt based on the City's TIA guidelines, the current ZBLA/OPA process, and the current site plan arrangement. Module 4.5 has been included due to the proposed parking strategy.

Table 1: Exemptions Review Summary

| Module | Element | Table 1: Exemptions Review Summary <br> Exemption Consideration |
| :--- | :--- | :--- |
| 4.6 Neighbourhood <br> Traffic Management | All | Typically only required for when the development relies on local or <br> collector road for access and total volumes exceed ATM capacity <br> thresholds. |
| 4.8 Network Concept | All | Only required when the development exceeds the 60 person trips |
| 4.8 Intersection <br> Design | All | Only required when the development exceeds the 60 person trips |

### 3.0 FORECASTING REPORT

### 3.1. Development Generated Travel Demand

### 3.1.1. Trip Generation and mode shares

Note that this development does meet the trip generation, however given the site context, is anticipated to have a negligible impact on the surrounding transportation network. This section has been included to reaffirm the limited vehicle traffic increase to the local area transportation network.

As previously mentioned in Section 2.1, the anticipated land uses for the development will primarily consist of a hotel, while the other uses are likely to include a pharmacy, café, gym, adult day program, small office space, restaurant, and potentially a clinic. These uses are expected to be open to the public, but uses such as the café, gym and restaurant are likely to be frequented by patrons and employees that are already on-site. As a result of the mixed-use nature of the proposed development, it is expected there will be significant internal trips. Additionally, amenities such as the gym and café are anticipated to produce a negligible number of external trips due to the predominant use of hotel patrons. The adult day program is expected to operate outside of peak hours. As a result, these land-uses are expected to have a negligible impact on the overall trips generated during the peak commuter hours and will be considered as having no additional trip implications in this analysis.

Table 2: Mode Shares

|  | Mode Share |  |  |  |  | Justification |
| :--- | :---: | :---: | :---: | :---: | :---: | :--- |
|  | EXISTING - <br> COMMERCIAL |  |  |  |  |  |
| EXISTING - RESIDENTIAL | PROPOSED |  |  |  |  |  |  |
| Auto Driver | $77 \%$ | $71 \%$ | $47 \%$ | $51 \%$ | $55 \%$ | Decreased due to proximity to rapid transit. |
| Auto <br> Passenger | $14 \%$ | $20 \%$ | $15 \%$ | $19 \%$ | $18 \%$ | Similar to existing mode shares for commercial <br> and residential. |
| Transit | $3 \%$ | $2 \%$ | $29 \%$ | $24 \%$ | $20 \%$ | Increased transit share due to nearby LRT Phase <br> 2 extension at Trim Road. |
| Cycling | $0 \%$ | $1 \%$ | $1 \%$ | $1 \%$ | $2 \%$ | Negligible change in active modes. Increase of <br> walking trips can be considered accounted for in <br> the transit mode share. |
| Pedestrian | $6 \%$ | $5 \%$ | $9 \%$ | $6 \%$ | $5 \%$ |  |
| Total | $\mathbf{1 0 0 \%}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{1 0 0 \%}$ | $\mathbf{1 0 0 \%}$ |  |

The mode share percentages shown in Table 2 were determined based on the 2011 TRANS OD Survey (Orleans district) and were adjusted to accommodate an expected increase in transit use due to the addition of the new Trim station as part of the LRT Phase 2 extension. It should be noted that the proposed afternoon mode share
percentages were used for the site generated trips for both morning and afternoon peak hours due to the higher auto driver mode share percentage, representing the worst-case scenario.

The appropriate trip generation rates for the effective commercial land-uses were obtained from the ITE Trip Generation Manual (11 th Edition). The manual provides the peak hour rates for the morning (7:00am - 9:00am) and afternoon (4:00pm - 6:00pm) for the hotel, pharmacy, small office, and high turnover sit down restaurant land-uses as shown below in Table 3.

Table 3: Proposed Development Trip Rates

| Land Use |  | Data <br> Source | Trip Rate |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | AM PEAK | PM PEAK |
| Hotel |  |  | ITE 310 | T $=0.59$ (du) | T = 0.76(du) |
| Comme | macy) | ITE 880 | $\mathrm{T}=3.76$ (x) | $\mathrm{T}=10.89$ (x) |
| Comme | (Small Office) | ITE 712 | $\mathrm{T}=2.14(\mathrm{x})$ | $\mathrm{T}=2.76$ (x) |
| High Tu | wn Restaurant | ITE 932 | $\mathrm{T}=12.25$ (x) | $\mathrm{T}=11.58$ (x) |
| Notes: | 1.28 factor to transit and no <br> T = Average V <br> du = Dwelling <br> x = Gross Floo | American es of less th | to occupancy values 10\% | ately 1.15 and combined |

The total number of person trips per hour generated by the proposed development are multiplied by a factor of 1.28 , as per TIA standards, to account for typical North American auto occupancy values of approximately 1.15 and combined transit and non-motorized modal shares of less than $10 \%$. The resulting total person trips per hour are summarized in Table 4. Note that the GFA for the relevant land-uses are estimated and should future site plan revisions result in a review of changes in GFA, it is expected there will be a negligible impact on total site generated trips due to the size and nature of the development.

Table 4: Peak Hour Person Trips

| Land Use | Data Source | Units | AM Peak (Person Trips/hr) |  |  | PM Peak (Person Trips/hr) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | IN | OUT | TOTAL |  | OUT | TOTAL |
| Hotel | ITE 310 | 61 du | 20 | 16 | 36 | 23 | 23 | 46 |
| Commercial 1 (Pharmacy) | ITE 880 | $900 \mathrm{ft}^{2}$ | 1 | 2 | 3 | 4 | 6 | 10 |
| Commercial 5 and 6 (Small Office) | ITE 712 | 3,800 ft ${ }^{2}$ | 6 | 2 | 8 | 3 | 8 | 11 |
| High Tumover Sit Down Restaurant | ITE 932 | 1,400 ft ${ }^{2}$ | 8 | 9 | 17 | 8 | 8 | 16 |
|  |  | Total | 35 | 29 | 64 | 38 | 45 | 83 |

As shown in the Table 4, the proposed development is anticipated to generate a total of 64 and 83 new person trips during morning and afternoon peak hours, respectively.

## Pass-by Trips

Due to the mixed-share nature, location of the development, low non-motorized mode share percentages, and the significant internal trips, it is anticipated the volume of pass-by trips will be considerably low. Additionally, the following uses were further justified for not considering pass-by trips:

- The hotel and small office space are expected to have longer stays,
- The café use does not have a drive-through and there are no posted ITE pass-by rates,
- There remains uncertainty regarding the space usage currently assumed to be a pharmacy.

As a result, the only use that will be considered for pass-by rates will be the high turnover restaurant. A pass-by rate of $40 \%$ was determined based on the average of posted 2021 ITE pass-by rates. See Table 5 for the high turnover restaurant pass-by trips and mode share breakdown.

Table 5: High Turnover Sit Down Restaurant Trips Mode Share Breakdown

| Travel Mode | Mode Share | AM Peak (Person Trips/hr) |  |  | PM Peak (Person Trips/hr) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | IN | OUT | TOTAL | IN | OUT | TOTAL |
| Auto Driver | 55\% | 5 | 5 | 10 | 5 | 5 | 10 |
| Auto Passenger | 18\% | 2 | 2 | 4 | 2 | 2 | 4 |
| Transit | 20\% | 1 | 2 | 3 | 1 | 1 | 2 |
| Non-motorized | 7\% | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Person Trips | 100\% | 8 | 9 | 17 | 8 | 8 | 16 |
| Less Pass-by (40\%) |  | -2 | -2 | -4 | -2 | -2 | -4 |
| Total 'New' High Tumover Sit Down Restaurant Auto Trips |  | 3 | 3 | 6 | 3 | 3 | 6 |

Based on the proposed mode share in Table 2, Table 6 summarizes the total trips generated by the proposed development for the hotel, pharmacy, small office and sit-down restaurant components.

Table 6: Total Site Peak Hour Trips Mode Share Breakdown

| Travel Mode | Mode Share | AM Peak (Person Trips/hr) |  |  | PM Peak (Person Trips/hr) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | IN | OUT | TOTAL | IN | OUT | TOTAL |
| Auto Driver | 55\% | 20 | 16 | 36 | 21 | 25 | 46 |
| Auto Passenger | 18\% | 6 | 6 | 12 | 7 | 8 | 15 |
| Transit | 20\% | 7 | 5 | 12 | 8 | 9 | 17 |
| Non-motorized | 7\% | 2 | 2 | 4 | 2 | 3 | 5 |
| Total Person Trips | 100\% | 35 | 29 | 64 | 38 | 45 | 83 |
| Pass By Trip Reduction | - | -2 | -2 | -4 | -2 | -2 | -4 |
| Total 'New' Auto Trips |  | 18 | 14 | 32 | 19 | 23 | 42 |

Based on the results provided in Table 6, the proposed future development is anticipated to generate a total of 64 and 83 person trips, and 32 and 42 'new' vehicle trips external to the development during the morning and afternoon peak hours, respectively.

### 3.1.2. Trip Distribution and Assignment

As determined in Section 3.1.1, the anticipated number of vehicle trips generated by the proposed development are very minimal. Nevertheless, based on the 2011 OD Survey (Orleans district) and the location of adjacent arterial roadways and neighborhoods, the distribution of site-generated traffic volumes was estimated as follows:

- $10 \%$ to/from the east via OR174 and Old Montreal Road.
- $65 \%$ to/from the west via St. Joseph Blvd and OR174.
- $25 \%$ to/from the south via Trim Road.

Note that traffic was not distributed or assigned to/from the north, as the Ottawa River forms a natural barrier north of the OR174. See Figure 10 for the assignment of 'new' auto trips generated by the site.

Figure 10: Site Generated Traffic with Pass-By Trips


### 3.2. Background Network Traffic

### 3.2.1. Transportation Network Plans

Refer to Section 2.1.3

### 3.2.2. Background Growth

Considering the location of the proposed development and the limited significance and number of nearby developments, traffic volumes within the study area are not expected to increase significantly by the buildout year of 2025 . However, to accommodate the potential for future growth and anticipated increases in residential units in the surrounding area after 2025, a conservative short-term 3\% background growth rate was applied to the traffic network. This growth rate is based on the TIA prepared by Novatech for 3277 St. Joseph Blvd (Section 2.1.3.2) and will also account for any unexpected developments that are constructed within the scope of this study. For the following years after 2025, a smaller long-term growth rate would be considered more suitable. The 2025 build-out year background traffic volumes are illustrated in Figure 11 below.

Figure 11: Background 2025 Traffic Volumes - AM(PM) Peak Hour


### 3.3. Demand Rationalization

Since this site is expected to generate very low vehicle trips during the morning and afternoon peak hours it is anticipated that the additional trips will have negligible impact on the vehicle operations along the study area intersections. No demand rationalization is proposed for the site trip generation or surrounding background traffic.

Figure 12: 2025 Total Traffic Volumes


### 4.0 ANALYSIS

### 4.1. Development Design

### 4.1.1. Design for Sustainable Modes

The proposed development is consistent with the City of Ottawa's Urban Design Guidelines and transportation policies. The site provides direct access to St. Joseph Boulevard, connecting to the future Trim Road LRT station. Bicycle parking is to be offered at the front and rear of the building adjacent. Solid surfaces of well-draining material will connect the front door to the sidewalk on St. Joseph, and from the rear of the site to the sidewalk.

As described in Section 4.5, the proponent proposes offering pre-paid Presto cards to employees to encourage the use of transit, while paid parking will be considered as an additional measure to reduce auto dependency. The site provides a variety of amenities to reduce the overall dependency for patrons and employees to leave the site for mid-day trips.

The site proposes a significant shared parking strategy to minimize the auto requirement for the site.
Vehicle parking spaces will be provided in a two-level underground parking garage with parking aisles that are proposed to be 6.0 m wide to accommodate two-way traffic in two-lanes. Site access is provided to St. Joseph Blvd. will facilitate heavy vehicle circulation of the site.

## Location of Transit Facilities

There are two existing bus stops for Route \#39 approximately 200m east from the site access along St. Joseph just east of the Trim/St. Joseph roundabout. The westbound and eastbound bus stops are located on the north and south side of St. Joseph Blvd, respectively, both of which are equidistant from the Trim/St. Joseph
roundabout. From the front entrance of the proposed development, the north and south side stops are an approximate 120 m and 410 m walk, respectively.

As previously mentioned in Section 2.1.3.2, the new Trim station will be located an approximate direct distance of 700 m away from the site. This will result in an approximate 1 km walk from the front doors of the development to the Trim station entrance by walking east down St. Joseph Blvd, then north up Trim Rd. Refer to Figure 13 below for an illustration of the walking paths to the previously mentioned transit facilities.

Figure 13: Pedestrian and Cycling Paths


## Pedestrian/Cycling Routes and Facilities

The site will provide concrete sidewalks and pathways from the entrances connecting to existing pedestrian facilities along St. Joseph Blvd. A MUP is no longer planned adjacent to the site.

St. Joseph Blvd and Trim Rd are both denominated as cycling spine routes, with unidirectional curbside bike lanes on both sides of each road along the relevant segments. As previously mentioned in Section 2.1.2, on all approaches for both the Trim/Dairy and Trim/St. Joseph roundabouts, the concrete sidewalks and bike lanes merge into MUPs within the intersections.

### 4.1.2. Circulation and Access

The garbage pickup area for the development will be located at the bottom of the site ramp just outside of the parking garage entrance. Waste bins will be rolled from the garbage area for pick-up by employees. The garbage trucks can access this area by conducting a three-point turn, where the truck will proceed north past the parking garage access, reverse into the parking garage access, then make a left turn and continue south towards St. Joseph Boulevard. Delivery and waste trucks are not required to reverse on the on-site ramp or onto St. Joseph Blvd. Truck turning templates have been provided in Appendix E.

For patrons, a drop off area is proposed at the front of the site on the east side of the internal driveway. This would provide a barrier-free short term parking stall when required.

### 4.2. Parking

Figure 8 illustrates the location of the proposed development with respect to Schedule A from the Orleans Corridor Secondary Plan. As per the vehicular parking policies of the OCSP Section 4.11(1), there is no minimum vehicle parking space rate for developments located within the Secondary Plan Boundary on Schedule A Designation Plan.

However, the following parking analysis reflects the minimum number of parking rates and spaces based on the City of Ottawa Zoning By-Law. The site is located in Area C: Suburban on Schedule 1A, and is not within a 600 m walk to any rapid transit station within Schedule 2A or B.

Figure 14: Extract from Schedule A - Orleans Corridor Secondary Plan


Table 7 summarizes the minimum vehicle parking rates from Part 4, Parking, Queueing and Loading Provisions parking by-law, referenced from Tables 101, 102, and 111A. Table 7 indicates the base parking rates for both vehicles and bicycles and the minimum required spaces before and after consideration of the shared parking revisions. It should be noted that the commercial 6 (co-working space), atrium/multi-purpose space, and commercial 4 (Gym space) were excluded from the parking review since they are considered a shared-use of the hotel.

Table 7: Required Vehicle and Bicycle Parking Spaces

| Land Use | Units (unit or $\mathrm{m}^{2}$ ) | Vehicles |  |  | Bicycles |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Base Rate | Min Required Spaces | Min Required Spaces After Shared Parking | Base Rate | Min required Spaces |
| Hotel (N44) | 61 | 1/unit | 61 | 61 | $1 / 1500 \mathrm{~m}^{2}$ | 1.7 |
| Retail Store (N51) | $81 \mathrm{~m}^{2}$ | 4/100 m² | 3 |  | 1/250 m² | 0.3 |
| Restaurant - Take out (N77) | $82 \mathrm{~m}^{2}$ | 5.0/100 m² | 4 |  | 1/250 m² | 0.3 |
| Retail Store (N51) | $94 \mathrm{~m}^{2}$ | $3.4 / 100 \mathrm{~m}^{2}$ | 3 | 21 | 1/250 m² | 0.4 |
| Office (N51) | $85 \mathrm{~m}^{2}$ | 2.4/100 m² | 2 |  | 1/250 m² | 0.3 |
| Restaurant - Full Service (N76) | 112 m² | 10/100 m² | 11 |  | 1/250 m² | 0.5 |
| Day Program | $208 \mathrm{~m}^{2}$ | 3.4/100 m ${ }^{2}$ | 7 | 7 | 1/250 m² | 0.8 |
| Total |  |  | 91 | 89 |  | 4 |

Table 8 indicates the number of parking spaces permitted to be shared by land use. The number of spaces were calculated by referencing Table 104 in the Shared Parking Provisions, which permits certain percentages of shared parking dependent on time of day and land use. It is noted that the hotel, co-working space, gym, and adult day program are not eligible for shared parking.

Table 8: Available Shared Parking Space Requirements based on Table 104

| Land Use | Land use (Tabl e 104) | II <br> Weekday <br> - Morning | III Weekday - Noon | IV <br> Weekday <br> Afternoon | V <br> Weekday <br> - Evening | VI <br> Saturday1 <br> - Morning | VII Saturday1 - Noon | VIII Saturday1 Afternoon | IX Saturday1 - Evening |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Retail Store (N51) | c) | 2.4 | 2.6 | 2.8 | 2.4 | 1.9 | 2.9 | 3.2 | 1.6 |
| Restaurant Take out (N77) | d) | 1.2 | 3.7 | 2.5 | 4.1 | 1.2 | 3.3 | 2.1 | 4.1 |
| $\begin{gathered} \text { Retail Store } \\ \text { (N51) } \\ \hline \end{gathered}$ | a) | 3.2 | 2.9 | 3.2 | 0.5 | 0.6 | 0.6 | 0.3 | 0.2 |
| Office (N51) | a) | 2.0 | 1.8 | 2.0 | 0.3 | 0.4 | 0.4 | 0.2 | 0.1 |
| Restaurant Full Service (N76) | d) | 3.4 | 10.1 | 6.7 | 11.2 | 3.4 | 9.0 | 5.6 | 11.2 |
| Total |  | 12 | 21 | 17 | 19 | 8 | 16 | 11 | 17 |

As shown above in Table 7, the minimum required spaces for vehicles including shared parking is 89 spaces and the minimum required bicycle spaces is 4 . A total of 77 vehicle parking spaces will be provided on the site, 76 of which will be provide in the underground parking lot. Parking level 1 will provide 19 vehicle parking spaces, level 2 will provide 32 vehicle parking spaces, and level 3 will provide 25 vehicle parking spaces. Additionally, 1 space will be located at the front of the building. Finally, 20 outdoor covered bicycle parking spaces will be provided, exceeding the minimum required spaces highlighted in Table 7.

### 4.3. Boundary Street Design

Multi-Modal Level of Service (MMLOS) analysis was conducted for the site frontage, St. Joseph Boulevard, based on the City of Ottawa's MMLOS Analysis Guidelines.

St. Joseph Boulevard is an arterial road that consists of the following features within the study area:

- 2 vehicle travel lanes in each direction,
- Approximately 2.0 m wide sidewalks and no boulevard on both sides of the road,
- 2.0 m unidirectional painted bike lanes without buffers,
- Less than 3000 average daily curb lane traffic,
- No on-street parking,
- No transit facilities,
- Posted speed limit of $60 \mathrm{~km} / \mathrm{h}$,
- Approximately 3.5 m wide lane,

The multi-modal level of service analysis for St. Joseph Blvd is summarized in Table 9, with detailed analysis provided in Appendix F. The table also identifies the target LOS, based on the land-use designation and road classification of the development site and the boundary streets. The Transportation Master Plan (TMP) of the City of Ottawa identifies the land-use designation of the development site as a General Urban Area. The road classifications of each of the boundary streets were noted in the descriptions of features above.

Table 9: MMLOS - Boundary Road Analysis

| Road Segment | Level of Service |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pedestrian (PLOS) |  |  |  |  |  |  |  | Bicycle (BLOS) |  | Transit (TLOS) | Truck (TkLOS) |
|  | PLOS | Target | BLOS | Target | TLOS | Target | TkLOS | Target |  |  |  |  |
| St. Joseph <br> Boulevard | B | C | E | C | D | D | A | D |  |  |  |  |

As shown in Table 9, the Bicycle LOS minimum desirable target is not met along St. Joseph Blvd. This LOS rating is largely due to the higher operating speeds of $70 \mathrm{~km} / \mathrm{h}$ for a bike lane not adjacent to a parking lane.

### 4.4. Access Intersection Design

### 4.4.1. Location and Design of Access

There will be one direct access for the proposed development that will be located on the north side of St. Joseph Blvd, at the south-west end of the property approximately 35 m east of the adjacent site access ( 3735 St . Joseph). The access will continue as an internal driveway to the entrance of the underground parking garage located at the rear of the proposed development (see Figure 2). The access will have STOP control for vehicles exiting the site onto St. Joseph and there are no signalized intersections are near the proposed development access.

The Transportation Association of Canada's (TAC) Geometric Design Guide for Canadian Roads, Chapter 8 (Access), was reviewed for the clear throat length provided by the proposed development access was determined to be sufficient. Figure 15 illustrates the available clear throat length is approximately 7.0 m , measured from the end of the site access curb return to the nearest conflict (the mid-point of the curb return to the barrier-free drop off area).

Per TAC Table 8.9.3, the suggested minimum clear throat length to an arterial road for a motel (<150 rooms) is 25 m and a general office $\left(<5,000 \mathrm{~m}^{2}\right)$ is 15 m . Given the forecasted site traffic volumes, the proposed TDM measures and infrastructure design, and the desire to allow a form of short-term parking fronting the site, the 7.0 m length is considered a reasonable clear throat length. This distance would allow for a single vehicle to
safely enter the site without hindering St. Joseph Blvd. traffic, while queues on site can be safely managed given the distance between the access and the ramp to the underground parking.

Figure 15: Clear Throat Length of Proposed Site Access


Figure 15 illustrates the arrangement discussed with City staff. The parking stall was extended to allow vehicles additional maneuvering room when reversing. A speed hump has also been provided to reduce vehicle speeds in the drive aisle. A raised crosswalk was considered, but due to site drainage restrictions, is considered cost prohibitive to extend catch basins to achieve proper drainage.

Additionally, the Private Approach By-Law requirements of the City of Ottawa were reviewed, with the following noted:

- As required, the width of the proposed development access does not exceed 9 m . The access will be 9.0 m at the streetline and 6.0 m at the property line.
- As required, given the proposed number of parking spaces, the distance between the proposed access and the nearest adjacent intersecting street line (i.e., Trim Rd) is approximately 300 m .
- The distance between the proposed access and the adjacent property line is approximately 0.90 m . While this is below the desired 3.0 m distance, the proposed site access arrangement maximizes its distance from the adjacent Trim/St. Joseph roundabout while maintaining adequate sight lines and not creating an undue traffic hazard.
- The grade of the private approach is to not exceed $2 \%$ within the private property for a distance of 9.0 m to the curb line.

Therefore, the access is design is in conformance with the City of Ottawa Private Approach By-law 2003-447. The access is to be constructed per City of Ottawa Standard Detail SC 7.1.

### 4.5. Transportation Demand Management

### 1.1.1. Context for TDM

Based on the type of mixed-use non-residential of development, it is assumed that a variety of trip purposes will take place during commuter and off-peak periods. Employees to the hotel can arrive at various times of the day, depending on future shift changes. Hotel patrons can also frequent the site at various days. The office uses are anticipated to have typical morning and afternoon commuter hours, while the restaurant and gym will be open for business most days. Sections 3.1.1 and 3.1.2 describe how many trips are anticipated per travel mode and anticipates the likely locations that they will travel to and from based on the OD-Survey 2011 for Ottawa. The site is located approximately a 900m walk to the future Trim LRT Station.
The Orleans Corridor Secondary Plan (OCSP) notes that new development is to plan and design to prioritize sustainable transportation.

### 1.1.2. Need and Opportunity

Given that the development is predominantly located within 1 km or less of rapid transit, it is expected that TDM measures be utilized to promote sustainable active and transit mode shares. Such measures are described in more detail in Section 4.5 .3 below but can include reduced parking such as amending the zoning by-law to 'Area Z' as discussed in Section 4.2 and safe and efficient connectivity to public transit as described in Section 4.7.

### 1.1.3. TDM Program

The TDM Infrastructure and TDM Measures Checklists for the residential land use have been provided in Appendix G. The proposed measures for each respective checklist are provided below.

## Proposed measures identified in the TDM Measures Checklist are:

- Provide hotel employees a transit fare incentive in the form of a pre-paid Presto card to encourage transit use.
- Display local area maps with walking/cycling access routes and key destinations at major entrances,
- Display relevant transit schedules and route maps at entrances,
- Provide online links from the hotel webpage to OC Transpo information,
- Register the hotel site on OttawaRideMatch.com,
- Provide a muti-modal travel option information package to employees, and make available to hotel patrons,
- Provide on-site amenities such as a café, restaurant, pharmacy and gym to reduce the need for mid-day errands.
- Explore the option to charge for parking.


## Proposed measures identified in the TDM-supportive Development Design and Infrastructure Checklist are:

- Locate building close to the street, and do not locate parking areas between the street and building,
- Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations,
- Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort,
- Through direct connections to St. Joseph Blvd., direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible,
- Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks,
- Make sidewalks and open space areas easily accessible through features such as gradual grade transition, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps,
- Provide safe, direct and attractive walking routes from building entrances to nearby transit stops,
- Ensure that walking routes to transit stops are secure and lighted wherever possible,
- Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails,
- Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible,
- Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well- used areas,
- Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50\% of spaces are vertical spaces; and that parking racks are securely anchored,
- Where more than 50 bicycle parking spaces are provided for a single residential building, locate at least $25 \%$ of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers,
- Provide secure bicycle parking spaces equivalent to at least the number of units at condominiums or multi- family residential developments,
- Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for.


### 4.6. Neighbourhood Traffic Management

## Exempt - see Table 1.

### 4.7. Transit

Referring to Section 3.1.1, the site is expected to generate a total of 12 and 17 transit person trips for the morning and afternoon peak hours, respectively. The mode shares used for the trip generation analysis accounted for the expected increase of transit use with the addition of the new Trim station in the near future. Due to the overall low transit volumes generated by the site for both morning and afternoon peak hours, with the majority of trips likely to utilize the Trim LRT, it is anticipated there will be little impact on the existing transit network and will not require any further analysis.

### 4.8. Review of Network Concept

## Exempt - see Table 1.

### 4.9. Intersection Design

### 4.9.1. Intersection control

Exempt - see Table 1.

### 4.9.2. Intersection design

Exempt - see Table 1.

### 5.0 FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

Based on the results summarized herein, the following transportation related conclusions are offered:

## Proposed Development

- 13890767 CANADA INC is proposing a mixed-use development at the municipal address of 3745 St. Joseph Blvd. The development is assumed to be constructed by the year 2025 and will be built in a single phase.
- The development will consist of a six-storey mixed-use building with approximately 61 hotel units, $880 \mathrm{~m}^{2}$ of commercial area, and a $475 \mathrm{~m}^{2}$ rooftop amenity area. The proposed uses will primarily consist of a hotel that will occupy the top four-storeys and varying types of amenities such as a café, gym, co-working space etc. for the first two-storeys.
- The minimum required parking by-law requirements are not met by a small margin. However, the OCSP has no minimum parking requirements for new developments located within the plans boundary. Additionally, TDM measures have been proposed to leverage the sites close proximity to transit and bike parking minimums were also exceeded to encourage active travel.
- One site access will be provided on the south boundary of the site along the north side of St. Joseph Blvd. The proposed access will provide a full movement driveway off St. Joseph with a STOP control for exiting vehicles. The access location and design were found to meet the requirements of the City of Ottawa's Private Approach By-Law and TAC Guidelines.
- The development is anticipated to generate up to approximately 83 person trips during peak hours, which includes 42 new vehicle trips, 15 passenger trips, 17 transit trips, and 4 non-motorized (walking and cycling) trips.
- A suite of TDM measures will be adopted by the proponent for the purpose of encouraging sustainable modes of transportation, such as walking, cycling and transit. This includes displaying multi-modal travel information for walking, providing a transit-fare incentive to employees, and investigating unbundling parking costs from monthly rent.


## Existing and Future Background Conditions

- MMLOS analysis for St. Joseph Blvd was conducted and the existing conditions are expected to remain the same to future conditions for the scope of this study. The analysis indicates that the pedestrian, transit, and truck all meet the minimum desirable targets with the exception of the bicycle LOS, failing to meet the desirable BLOS target of C.
- After reviewing the TRANS model from the Orleans district and TIA's prepared for other developments, a $3 \%$ annual growth rate was applied to the entirety of the existing network at the buildout year of 2025.
- Overall, there are no existing safety concerns along the proposed development frontage and study area intersections. As a result, no safety mitigation measures were considered.
- A MUP is no longer required by the City of Ottawa along the east boundary of the site.


## Projected Conditions

- Through a review of adjacent development applications, a 3\% annual growth rate was applied to background traffic to reflect growth in future adjacent subdivisions, to and from the future Trim Road LRT park and ride, and any unforeseen developments.
- In total projected 2025 conditions, traffic operations are anticipated to operate similar to the existing conditions, considering the low number of trips generated by the site.
- No roadway modifications were recommended within the study area to support the proposed development.
Based on the proposed land use, the site context, the low traffic volumes anticipated to be generated by the proposed development and the analysis conducted, the proposed development will have minimal impact to the study area and is recommended to proceed from a transportation perspective.


## Appendix A:

Screening Form, Site Plan, and Parsons Response Letter to City Comments

|  | Project Number | 478426-01000 |
| :--- | :---: | :---: |
| Results of Screening | Yes/No |  |
| Development Satisfies the Trip Generation Trigger | No |  |
| Development Satisfies the Location Trigger | Yes |  |
| Development Satisfies the Safety Trigger | No |  |


| Module 1.1 - Description of Proposed Development |  |
| :--- | :--- |
| Municipal Address | 3745 St. Joseph Boulevard |
| Description of location | Greenfield site located north of St. Joseph Blvd and 300m west of <br> the Trim Road/St. Joseph Blvd.-Old Montreal Road roundabout. |
| Land Use | Hotel |
| Development Size | 58,000 sq.ft. / 5,388 m2 |
| Number of Accesses and Locations | One full movement access to St. Joseph Blvd. |
| Development Phasing | One phase |
| Buildout Year | 2025 |
| Sketch Plan / Site Plan | See attached |


| Module 1.2 - Trip Generation Trigger |  |  |
| :--- | :---: | :--- |
| Land Use Type | Lodging - Hotel (33) |  |
| Development Size | 60 | Rooms |
| Trip Generation Trigger Met? | No |  |

60 hotel rooms is forecast to generate 28 vehicle trips in the morning peak hour and 36 trips in the afternoon peak hour. Therefore forecast person trips are below the 50 person-trips in the peak hour threshold to meet the trip generation trigger

| Module 1.3-Location Triggers |  |  |
| :--- | :--- | :--- |
| Development Proposes a new driveway to a boundary street | Yes |  |
| that is designated as part of the City's Transit Priority, Rapid |  | St. Joseph is a Spine Route |
| Transit, or Spine Bicycle Networks (See Sheet 3) | No |  |
| Development is in a Design Priority Area (DPA) or Transit-  <br> oriented Development (TOD) zone. (See Sheet 3) Yes <br> Location Trigger Met?  $\mathbf{l}$ |  |  |


| Module 1.4 - Safety Triggers |  |  |  |
| :--- | :--- | :--- | :--- |
| Posted Speed Limit on any boundary road <br> Horizontal / Vertical Curvature on a boundary street limits <br> sight lines at a proposed driveway | No |  |  |
| A proposed driveway is within the area of influence of an <br> adjacent traffic signal or roundabout (i.e. within 300 m of <br> intersection in rural conditions, or within 150 m of <br> intersection in urban/ suburban conditions) or within auxiliary <br> lanes of an intersection; | No | No0m to Trim/St. Joseph Roundabout |  |
| A proposed driveway makes use of an existing median break |  |  |  |
| that serves an existing site |  |  |  |
| There is a documented history of traffic operations or safety |  |  |  |
| concerns on the boundary streets within 500 m of the |  |  |  |
| development |  |  |  |
| The development includes a drive-thru facility | No | No Not to our current knowledge |  |
| Safety Trigger Met? | No |  |  |

## SIIE PLAN KEYNOTES:



2] AIR conotroner NiEGHBour)

5) New frie hyorant Location
6) Bicrcle farkin soox 500 mm (20 SPACES Total)







6 March 2024

City of Ottawa
Development Review Services
110 Laurier Avenue West
Ottawa, ON K1P 1J1

## Attention: Shoma Murshid

Dear Shoma:

## Re: 3745 St. Joseph Boulevard TIA Report Comment and Response Form

This comment and response form has been prepared to address the Transportation Engineering comments received on March $1^{\text {st }}, 2024$, with corresponding responses from Parsons.

## GENERAL COMMENTS

1. The spill over parking is to be removed from the TIA.

Noted. Section removed.
2. Please also include the turning movement diagram and update section 4.1.2. [I had earlier told Parsons I was ok with just the attached pdf. However, I realize now that the TIA includes the old turning movement (Appendix E) and the garbage pick-up information on 4.1.2 is not applicable with the changes]. If this is private garbage pickup-I would like to make sure that the garbage truck is not backing on to St Joseph. They need to demonstrate with the turning template that they can make the turn within the site- as backing on to St Joseph will not be supported. Please revise.

TIA updated with the most recent site plan and turning movements. It is confirmed that garbage vehicles will not need to reverse onto St. Joseph.

## Appendix B:

Transit Route Maps

MILLENNIUM
BLAIR LA CITÉ

## Rapide

## 7 days a week / 7 jours par semaine

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



元

MILLENNIUM

[^0]Station
Peak periods / Périodes de pointe
Park \& Ride / Parc-o-bus

Future route after 0-Train Line 1 is open
Trajet du circuit après l'ouverture de la Ligne 1 de l'0-Train

Lost and Found / Objets perdus...... 613-563-4011
Security / Sécurité . ...................... 613-741-2478

## (221) <br> CUMBERLAND <br> BLAIR

## Connexion

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



Future route after $\mathbf{0}$-Train Line 1 is open
Trajet du circuit après l'ouverture de la Ligne 1 de l'0-Train

## Appendix C:

Traffic Data

## Transportation Services - Traffic Services

Turning Movement Count - Study Results

## ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD

| Survey Date: Thursday, May 16, 2019 | Wo No: | 40749 |
| :--- | :--- | :---: |
| Start Time: 07:00 | Device: | Miovision |

## Full Study Diagram



## Transportation Services - Traffic Services

Turning Movement Count - Study Results

## ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD

| Survey Date: Thursday, May 16, 2019 | WO No: | 40749 |
| :---: | :--- | :---: |
| Start Time: $07: 00$ | Device: | Miovision |

## Full Study Peak Hour Diagram



## Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD

Survey Date: Thursday, May 16, 2019
Start Time: 07:00

WO No: 40749
Device: Miovision


Comments

## Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD

Survey Date: Thursday, May 16, 2019
Start Time: 07:00

WO No: 40749
Device: Miovision


Comments

Transportation Services - Traffic Services
Turning Movement Count - Peak Hour Diagram

## ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD

Survey Date: Thursday, May 16, 2019
Start Time: 07:00

WO No: 40749
Device: Miovision


Comments

## Transportation Services - Traffic Services

Turning Movement Count - Study Results

## ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD

Survey Date: Thursday, May 16, 2019
Start Time: 07:00

WO No:
Device:

40749
Miovision

Full Study Summary (8 HR Standard)
Survey Date: Thursday, May 16, 2019

| Northbound: | 4 | Southbound: | 17 |
| :---: | :--- | :--- | :--- |
| Eastbound: | 0 | Westbound: | 0 |

AADT Factor
Eastbound: 0 Westbound: 0

|  | TRIM RD |  |  |  |  |  |  |  | ST. JOSEPH BLVD/OLD MONTREAL RD |  |  |  |  |  |  |  |  | $\begin{aligned} & \text { STR } \\ & \text { TOT } \end{aligned}$ | $\begin{gathered} \text { Grand } \\ \text { Total } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Northbound |  |  | Southbound |  |  |  |  | Eastbound |  |  |  |  | Westbound |  |  | $\begin{aligned} & \text { WB } \\ & \text { TOT } \end{aligned}$ |  |  |
| Period | LT | ST | RT | $\begin{array}{r} \text { NB } \\ \text { TOT } \\ \hline \end{array}$ | LT | ST | RT | $\begin{array}{r} \text { SB } \\ \text { TOT } \\ \hline \end{array}$ | $\begin{aligned} & \text { STR } \\ & \text { TOT } \end{aligned}$ | LT | ST | RT | $\begin{array}{r} \text { EB } \\ \text { TOT } \\ \hline \end{array}$ | LT | ST | RT |  |  |  |
| 07:00 08:00 | 182 | 931 | 58 | 1171 | 91 | 358 | 36 | 485 | 1656 | 62 | 12 | 49 | 123 | 134 | 193 | 222 | 549 | 672 | 2328 |
| 08:00 09:00 | 193 | 764 | 78 | 1035 | 102 | 316 | 41 | 459 | 1494 | 53 | 19 | 78 | 150 | 118 | 113 | 182 | 413 | 563 | 2057 |
| 09:00 10:00 | 162 | 567 | 69 | 798 | 134 | 265 | 27 | 426 | 1224 | 51 | 11 | 76 | 138 | 105 | 70 | 117 | 292 | 430 | 1654 |
| 11:30 12:30 | 111 | 463 | 92 | 666 | 134 | 387 | 46 | 567 | 1233 | 50 | 40 | 138 | 228 | 110 | 92 | 128 | 330 | 558 | 1791 |
| 12:30 13:30 | 112 | 362 | 79 | 553 | 122 | 464 | 47 | 633 | 1186 | 52 | 46 | 114 | 212 | 81 | 85 | 106 | 272 | 484 | 1670 |
| 15:00 16:00 | 114 | 446 | 112 | 672 | 289 | 867 | 48 | 1204 | 1876 | 90 | 28 | 184 | 302 | 115 | 85 | 100 | 300 | 602 | 2478 |
| 16:00 17:00 | 151 | 402 | 141 | 694 | 319 | 1191 | 46 | 1556 | 2250 | 63 | 134 | 252 | 449 | 146 | 71 | 97 | 314 | 763 | 3013 |
| 17:00 18:00 | 119 | 495 | 121 | 735 | 311 | 1021 | 58 | 1390 | 2125 | 73 | 84 | 217 | 374 | 88 | 95 | 114 | 297 | 671 | 2796 |
| Sub Total | 1144 | 4430 | 750 | 6324 | 1502 | 4869 | 349 | 6720 | 13044 | 494 | 374 | 1108 | 1976 | 897 | 804 | 1066 | 2767 | 4743 | 17787 |
| U Turns |  |  |  | 4 |  |  |  | 17 | 21 |  |  |  | 0 |  |  |  | 0 | 0 | 21 |
| Total | 1144 | 4430 | 750 | 6328 | 1502 | 4869 | 349 | 6737 | 13065 | 494 | 374 | 1108 | 1976 | 897 | 804 | 1066 | 2767 | 4743 | 17808 |
| EQ 12 Hr | 1590 | 6158 | 1042 | 8796 | 2088 | 6768 | 485 | 9364 | 18160 | 687 | 520 | 1540 | 2747 | 1247 | 1118 | 1482 | 3846 | 6593 | 24753 |

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


| AVG 24Hr | 1875 | 7260 | 1229 | 10370 | 2461 | 10452 | 749 | 11041 | 21411 | 810 | 613 | 1816 | 3238 | 1470 | 1318 | 1748 | 4534 | 7774 | 29184 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Note: These volumes are calculated by multiplying the Average Daily 12 hr . totals by 12 to 24 expansion factor. |  |  |  |  |  |  |  |  |  |  |  |  |  | 1.31 |  |  |  |  |  |

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

## ( (Ottawa <br> Transportation Services - Traffic Services <br> Turning Movement Count - Study Results ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD

Survey Date: Thursday, May 16, 2019 Start Time: 07:00

WO No:
Device:

## Full Study 15 Minute Increments

TRIM RD
Northbound
Southbound

| Time | Period | LT | ST | RT | $\begin{gathered} \mathrm{N} \\ \mathrm{TOT} \end{gathered}$ | LT | ST | RT | $\begin{gathered} \mathrm{s} \\ \text { TOT } \\ \hline \end{gathered}$ | $\begin{aligned} & \text { STR } \\ & \text { TOT } \\ & \hline \end{aligned}$ | LT | ST | RT | $\begin{gathered} \mathrm{E} \\ \text { TOT } \\ \hline \end{gathered}$ | LT | ST | RT | $\begin{gathered} w \\ \text { TOT } \\ \hline \end{gathered}$ | $\begin{aligned} & \text { STR } \\ & \text { TOT } \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Grand } \\ \text { Total } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 07:00 | 07:15 | 43 | 258 | 8 | 309 | 20 | 63 | 8 | 91 | 400 | 10 | 2 | 11 | 23 | 20 | 44 | 70 | 134 | 157 | 557 |
| 07:15 | 07:30 | 28 | 221 | 15 | 264 | 22 | 82 | 8 | 112 | 376 | 8 | 5 | 5 | 18 | 29 | 57 | 60 | 146 | 164 | 540 |
| 07:30 | 07:45 | 55 | 219 | 9 | 284 | 27 | 103 | 7 | 142 | 426 | 25 | 0 | 15 | 40 | 42 | 51 | 50 | 143 | 183 | 609 |
| 07:45 | 08:00 | 56 | 233 | 26 | 315 | 22 | 110 | 13 | 145 | 460 | 19 | 5 | 18 | 42 | 43 | 41 | 42 | 126 | 168 | 628 |
| 08:00 | 08:15 | 55 | 226 | 13 | 295 | 26 | 73 | 15 | 114 | 409 | 7 | 9 | 26 | 42 | 25 | 25 | 58 | 108 | 150 | 559 |
| 08:15 | 08:30 | 51 | 212 | 22 | 286 | 28 | 86 | 10 | 25 | 411 | 19 | 0 | 19 | 38 | 32 | 31 | 40 | 103 | 141 | 552 |
| 08:30 | 08:45 | 47 | 181 | 20 | 248 | 25 | 71 | 9 | 105 | 353 | 13 | 7 | 17 | 37 | 34 | 20 | 45 | 99 | 136 | 489 |
| 08:45 | 09:00 | 40 | 145 | 23 | 209 | 23 | 86 | 7 | 116 | 325 | 14 | 3 | 16 | 33 | 27 | 37 | 39 | 103 | 136 | 461 |
| 09:00 | 09:15 | 47 | 170 | 22 | 239 | 36 | 73 | 6 | 120 | 359 | 12 | 0 | 19 | 31 | 30 | 17 | 27 | 74 | 105 | 464 |
| 09:15 | 09:30 | 37 | 139 | 20 | 196 | 31 | 71 | 7 | 109 | 305 | 12 | 3 | 18 | 33 | 26 | 23 | 41 | 90 | 123 | 428 |
| 09:30 | 09:45 | 38 | 127 | 11 | 176 | 34 | 59 | 5 | 99 | 275 | 13 | 3 | 17 | 33 | 25 | 19 | 25 | 69 | 102 | 377 |
| 09:45 | 10:00 | 40 | 131 | 16 | 187 | 33 | 62 | 9 | 104 | 291 | 14 | 5 | 22 | 41 | 24 | 11 | 24 | 59 | 100 | 391 |
| 11:30 | 11:45 | 25 | 129 | 15 | 69 | 43 | 91 | 4 | 138 | 307 | 12 | 18 | 37 | 67 | 24 | 27 | 29 | 80 | 147 | 454 |
| 11:45 | 12:00 | 31 | 106 | 18 | 155 | 24 | 101 | 11 | 137 | 292 | 13 | 4 | 33 | 50 | 28 | 16 | 38 | 82 | 132 | 424 |
| 12:00 | 12:15 | 26 | 113 | 32 | 171 | 33 | 85 | 16 | 134 | 305 | 10 | 11 | 36 | 57 | 28 | 22 | 31 | 81 | 138 | 443 |
| 12:15 | 12:30 | 29 | 115 | 27 | 171 | 34 | 110 | 15 | 159 | 330 | 15 | 7 | 32 | 54 | 30 | 27 | 30 | 87 | 141 | 471 |
| 12:30 | 12:45 | 26 | 90 | 18 | 134 | 30 | 114 | 8 | 152 | 286 | 13 | 14 | 29 | 56 | 28 | 22 | 26 | 76 | 132 | 418 |
| 12:45 | 13:00 | 29 | 96 | 18 | 143 | 32 | 113 | 12 | 157 | 300 | 10 | 15 | 30 | 55 | 23 | 31 | 23 | 77 | 132 | 432 |
| 13:00 | 13:15 | 37 | 92 | 25 | 154 | 30 | 114 | 16 | 160 | 314 | 19 | 5 | 27 | 51 | 13 | 15 | 33 | 61 | 112 | 426 |
| 13:15 | 13:30 | 20 | 84 | 18 | 122 | 30 | 123 | 11 | 164 | 286 | 10 | 12 | 28 | 50 | 17 | 17 | 24 | 58 | 108 | 394 |
| 15:00 | 15:15 | 25 | 114 | 25 | 164 | 60 | 186 | 12 | 258 | 422 | 21 | 7 | 46 | 74 | 31 | 17 | 26 | 74 | 148 | 570 |
| 15:15 | 15:30 | 30 | 103 | 22 | 155 | 68 | 219 | 16 | 303 | 458 | 22 | 5 | 42 | 69 | 31 | 16 | 25 | 72 | 141 | 599 |
| 15:30 | 15:45 | 31 | 113 | 38 | 182 | 77 | 222 | 4 | 303 | 485 | 20 | 8 | 51 | 79 | 28 | 33 | 31 | 92 | 171 | 656 |
| 15 | 16:00 | 28 | 116 | 27 | 171 | 84 | 240 | 16 | 341 | 512 | 27 | 8 | 45 | 80 | 25 | 19 | 18 | 62 | 142 | 654 |
| 16:00 | 16:15 | 33 | 85 | 41 | 159 | 86 | 277 | 10 | 373 | 532 | 16 | 33 | 70 | 119 | 40 | 12 | 21 | 73 | 192 | 724 |
| 16:15 | 16:30 | 37 | 108 | 38 | 183 | 80 | 273 | 10 | 363 | 546 | 18 | 27 | 54 | 99 | 42 | 17 | 17 | 76 | 175 | 721 |
| 16:30 | 16:45 | 39 | 106 | 33 | 178 | 75 | 305 | 14 | 394 | 572 | 12 | 32 | 78 | 122 | 34 | 25 | 28 | 87 | 209 | 781 |
| 16:45 | 17:00 | 42 | 103 | 29 | 174 | 78 | 336 | 12 | 426 | 600 | 17 | 42 | 50 | 109 | 30 | 17 | 31 | 78 | 187 | 787 |
| 17:00 | 17:15 | 27 | 106 | 30 | 163 | 93 | 265 | 17 | 375 | 538 | 18 | 33 | 59 | 110 | 25 | 27 | 37 | 89 | 199 | 737 |
| 17:15 | 17:30 | 37 | 117 | 37 | 191 | 75 | 242 | 9 | 327 | 518 | 14 | 25 | 62 | 101 | 23 | 21 | 41 | 85 | 186 | 704 |
| 17:30 | 17:45 | 26 | 139 | 32 | 197 | 72 | 287 | 17 | 376 | 573 | 18 | 17 | 56 | 91 | 13 | 24 | 19 | 56 | 147 | 720 |
| 17:45 | 18:00 | 29 | 133 | 22 | 184 | 71 | 227 | 15 | 315 | 499 | 23 | 9 | 40 | 72 | 27 | 23 | 17 | 67 | 139 | 638 |
| Total: |  | 1144 | 4430 | 750 | 6328 | 1502 | 4869 | 349 | 6737 | 13065 | 494 | 374 | 1108 | 1976 | 897 | 804 | 1066 | 2767 | 4743 | 17,808 |

Note: U-Turns are included in Totals.

Transportation Services - Traffic Services
Turning Movement Count - Study Results ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD

## Survey Date: Thursday, May 16, 2019

Start Time: 07:00
WO No:
40749
Device: Miovision

Full Study Cyclist Volume
TRIM RD

| Time Period |  | Northbound | Southbound | Street Total | Eastbound | Westbound | Street Total | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 07:00 | 07:15 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 07:15 | 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 | 07:45 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 07:45 | 08:00 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 08:00 | 08:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 | 08:30 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 08:30 | 08:45 | 1 | 1 | 2 | 1 | 0 | 1 | 3 |
| 08:45 | 09:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:00 | 09:15 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 09:15 | 09:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:30 | 09:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:45 | 10:00 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 11:30 | 11:45 | 0 | 3 | 3 | 0 | 0 | 0 | 3 |
| 11:45 | 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | 13:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 13:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:00 | 15:15 | 1 | 1 | 2 | 0 | 0 | 0 | 2 |
| 15:15 | 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 15:45 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 15:45 | 16:00 | 2 | 1 | 3 | 0 | 0 | 0 | 3 |
| 16:00 | 16:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:15 | 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 16:45 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 16:45 | 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 17:15 | 0 | 3 | 3 | 2 | 0 | 2 | 5 |
| 17:15 | 17:30 | 0 | 5 | 5 | 0 | 0 | 0 | 5 |
| 17:30 | 17:45 | 4 | 0 | 4 | 0 | 0 | 0 | 4 |
| 17:45 | 18:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total |  | 12 | 17 | 29 | 4 | 0 | 4 | 33 |

# Transportation Services - Traffic Services 

## Turning Movement Count - Study Results

 ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD| Survey Date: Thursday, May 16, 2019 | Wo No: | 40749 |
| :---: | :---: | :---: |
| Start Time: $07: 00$ | Device: | Miovision |

Full Study Pedestrian Volume<br>TRIM RD<br>\section*{ST. JOSEPH BLVD/OLD MONTREAL RD}

| Time Period |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NB Approach <br> (E or W Crossing) | SB Approach <br> (E or W Crossing) | Total | EB Approach <br> (N or S Crossing) | WB Approach <br> (N or S Crossing) | Total | Grand Total |


| 07:00 07:15 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 07:15 07:30 | 0 | 0 | 0 | 2 | 0 | 2 | 2 |
| 07:30 07:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:45 08:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00 08:15 | 1 | 0 | 1 | 1 | 1 | 2 | 3 |
| 08:15 08:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:30 08:45 | 0 | 1 | 1 | 1 | 2 | 3 | 4 |
| 08:45 09:00 | 0 | 2 | 2 | 0 | 0 | 0 | 2 |
| 09:00 09:15 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 09:15 09:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:30 09:45 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 09:45 10:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 11:45 | 0 | 1 | 1 | 0 | 3 | 3 | 4 |
| 11:45 12:00 | 0 | 0 | 0 | 8 | 1 | 9 | 9 |
| 12:00 12:15 | 0 | 0 | 0 | 1 | 1 | 2 | 2 |
| 12:15 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 12:45 | 0 | 0 | 0 | 7 | 0 | 7 | 7 |
| 12:45 13:00 | 0 | 0 | 0 | 0 | 2 | 2 | 2 |
| 13:00 13:15 | 0 | 0 | 0 | 2 | 0 | 2 | 2 |
| 13:15 13:30 | 0 | 0 | 0 | 2 | 1 | 3 | 3 |
| 15:00 15:15 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 15:15 15:30 | 0 | 1 | 1 | 0 | 1 | 1 | 2 |
| 15:30 15:45 | 0 | 0 | 0 | 0 | 2 | 2 | 2 |
| 15:45 16:00 | 0 | 1 | 1 | 0 | 4 | 4 | 5 |
| 16:00 16:15 | 1 | 0 | 1 | 3 | 0 | 3 | 4 |
| 16:15 16:30 | 0 | 0 | 0 | 4 | 1 | 5 | 5 |
| 16:30 16:45 | 0 | 0 | 0 | 2 | 0 | 2 | 2 |
| 16:45 17:00 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 17:00 17:15 | 0 | 0 | 0 | 1 | 1 | 2 | 2 |
| 17:15 17:30 | 1 | 0 | 1 | 1 | 1 | 2 | 3 |
| 17:30 17:45 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 17:45 18:00 | 1 | 0 | 1 | 1 | 1 | 2 | 3 |
| Total .......... | 6 | 9 | 15 | 37 | 22 | 59 | 74 |

## (()ttawa <br> Transportation Services - Traffic Services <br> Turning Movement Count - Study Results ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD

Survey Date: Thursday, May 16, 2019
Start Time: 07:00
wo No:
Device:
40749
Miovision

## Full Study Heavy Vehicles

TRIM RD
Northbound

| Time | Period | LT | ST | RT | $\begin{gathered} \mathrm{N} \\ \text { TOT } \\ \hline \end{gathered}$ | LT | ST | RT | $\begin{gathered} \mathbf{s} \\ \text { TOT } \\ \hline \end{gathered}$ | $\begin{aligned} & \text { STR } \\ & \text { TOT } \\ & \hline \end{aligned}$ | LT | ST | RT | $\begin{gathered} \mathrm{E} \\ \mathrm{TOT} \\ \hline \end{gathered}$ | LT | ST | RT | $\begin{gathered} w \\ \text { TOT } \\ \hline \end{gathered}$ | $\begin{aligned} & \text { STR } \\ & \text { TOT } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Grand } \\ & \text { Total } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 07:00 | 07:15 | 1 | 2 | 0 | 12 | 0 | 7 | 2 | 13 | 25 | 0 | 0 | 2 | 5 | 0 | 0 | 2 | 2 | 7 | 16 |
| 07:15 | 07:30 | 0 | 6 | 2 | 19 | 4 | 8 | 1 | 21 | 40 | 0 | 0 | 1 | 4 | 2 | 2 | 2 | 12 | 16 | 28 |
| 07:30 | 07:45 | 1 | 5 | 1 | 24 | 0 | 9 | 0 | 16 | 40 | 0 | 0 | 2 | 3 | 4 | 0 | 2 | 7 | 10 | 25 |
| 07:45 | 08:00 | 1 | 4 | 1 | 13 | 1 | 6 | 0 | 11 | 24 | 0 | 1 | 1 | 4 | 0 | 1 | 0 | 4 | 8 | 16 |
| 08:00 | 08:15 | 1 | 4 | 3 | 17 | 3 | 5 | 2 | 16 | 33 | 1 | 0 | 1 | 5 | 1 | 0 | 1 | 8 | 13 | 23 |
| 08:15 | 08:30 | 1 | 1 | 2 | 12 | 2 | 4 | 0 | 8 | 20 | 0 | 0 | 2 | 3 | 0 | 0 | 1 | 5 | 8 | 14 |
| 08:30 | 08:45 | 3 | 0 | 1 | 9 | 4 | 1 | 1 | 13 | 22 | 1 | 1 | 2 | 9 | 2 | 1 | 6 | 15 | 24 | 23 |
| 08:45 | 09:00 | 2 | 2 | 0 | 11 | 0 | 2 | 1 | 7 | 18 | 0 | 0 | 1 | 4 | 2 | 0 | 2 | 4 | 8 | 13 |
| 09:00 | 09:15 | 3 | 8 | 3 | 23 | 5 | 6 | 0 | 21 | 44 | 0 | 0 | 2 | 5 | 1 | 0 | 2 | 11 | 16 | 30 |
| 09:15 | 09:30 | 1 | 2 | 1 | 15 | 2 | 8 | 0 | 14 | 29 | 0 | 0 | 0 | 1 | 3 | 0 | 2 | 8 | 9 | 19 |
| 09:30 | 09:45 | 2 | 5 | 0 | 14 | 2 | 3 | 1 | 15 | 29 | 1 | 0 | 2 | 6 | 2 | 0 | 1 | 5 | 11 | 20 |
| 09:45 | 10:00 | 1 | 1 | 0 | 6 | 3 | 2 | 1 | 9 | 15 | 0 | 0 | 2 | 4 | 0 | 0 | 2 | 5 | 9 | 12 |
| 11:30 | 11:45 | 1 | 7 | 3 | 19 | 4 | 3 | 0 | 17 | 36 | 0 | 2 | 3 | 7 | 2 | 1 | 3 | 15 | 22 | 29 |
| 11:45 | 12:00 | 0 | 6 | 1 | 13 | 0 | 4 | 0 | 16 | 29 | 0 | 0 | 2 | 3 | 0 | 1 | 4 | 6 | 9 | 19 |
| 12:00 | 12:15 | 1 | 5 | 1 | 12 | 0 | 4 | 0 | 10 | 22 | 1 | 2 | 1 | 6 | 0 | 1 | 0 | 4 | 10 | 16 |
| 12:15 | 12:30 | 0 | 3 | 1 | 9 | 1 | 3 | 1 | 10 | 19 | 0 | 1 | 2 | 4 | 0 | 0 | 2 | 5 | 9 | 14 |
| 12:30 | 12:45 | 1 | 2 | 0 | 6 | 3 | 3 | 1 | 13 | 19 | 2 | 0 | 0 | 5 | 0 | 1 | 2 | 6 | 11 | 15 |
| 12:45 | 13:00 | 1 | 3 | 1 | 12 | 3 | 6 | 0 | 13 | 25 | 0 | 2 | 1 | 4 | 0 | 0 | 1 | 7 | 11 | 18 |
| 13:00 | 13:15 | 3 | 1 | 1 | 12 | 3 | 5 | 0 | 12 | 24 | 1 | 0 | 1 | 5 | 1 | 0 | 2 | 7 | 12 | 18 |
| 13:15 | 13:30 | 1 | 2 | 1 | 9 | 2 | 5 | 0 | 12 | 21 | 0 | 0 | 0 | 3 | 0 | 2 | 3 | 8 | 11 | 16 |
| 15:00 | 15:15 | 1 | 6 | 1 | 17 | 2 | 6 | 0 | 15 | 32 | 0 | 0 | 2 | 3 | 1 | 0 | 1 | 5 | 8 | 20 |
| 15:15 | 15:30 | 0 | 4 | 1 | 10 | 1 | 3 | 0 | 12 | 22 | 0 | 0 | 1 | 4 | 1 | 3 | 4 | 10 | 14 | 18 |
| 15:30 | 15:45 | 1 | 5 | 0 | 13 | 2 | 6 | 0 | 15 | 28 | 0 | 1 | 1 | 3 | 0 | 0 | 2 | 5 | 8 | 18 |
| 15:45 | 16:00 | 2 | 3 | 2 | 12 | 2 | 4 | 0 | 12 | 24 | 0 | 0 | 1 | 3 | 0 | 0 | 1 | 5 | 8 | 16 |
| 16:00 | 16:15 | 2 | 4 | 1 | 16 | 2 | 8 | 0 | 15 | 31 | 1 | 3 | 1 | 8 | 0 | 1 | 0 | 7 | 15 | 23 |
| 16:15 | 16:30 | 1 | 7 | 1 | 16 | 2 | 5 | 2 | 16 | 32 | 0 | 2 | 1 | 7 | 1 | 1 | 0 | 7 | 14 | 23 |
| 16:30 | 16:45 | 1 | 4 | 1 | 12 | 0 | 5 | 0 | 10 | 22 | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 4 | 13 |
| 16:45 | 17:00 | 1 | 2 | 0 | 10 | 4 | 5 | 0 | 14 | 24 | 1 | 0 | 1 | 4 | 1 | 1 | 2 | 8 | 12 | 18 |
| 17:00 | 17:15 | 0 | 1 | 0 | 3 | 1 | 1 | 0 | 3 | 6 | 0 | 3 | 0 | 3 | 1 | 0 | 0 | 5 | 8 | 7 |
| 17:15 | 17:30 | 1 | 5 | 0 | 10 | 1 | 4 | 0 | 14 | 24 | 0 | 0 | 0 | 2 | 0 | 1 | 2 | 4 | 6 | 15 |
| 17:30 | 17:45 | 1 | 6 | 0 | 10 | 0 | 2 | 0 | 8 | 18 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 2 | 10 |
| 17:45 | 18:00 | 0 | 7 | 0 | 9 | 1 | 1 | 0 | 13 | 22 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 2 | 12 |
| Total: | None | 36 | 123 | 30 | 405 | 60 | 144 | 13 | 414 | 819 | 9 | 18 | 38 | 131 | 26 | 17 | 53 | 204 | 335 | 577 |

## Transportation Services - Traffic Services

Turning Movement Count - Study Results ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD

| Survey Date: Thursday, May 16, 2019 | WO No: | 40749 |
| ---: | :--- | :---: |
| Start Time: | $07: 00$ | Device: |

Full Study 15 Minute U-Turn Total
TRIM RD
Time Period

| 07:00 | 07:15 | 0 | 0 | 0 | 0 | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 07:15 | 07:30 | 0 | 0 | 0 | 0 | 0 |
| 07:30 | 07:45 | 1 | 5 | 0 | 0 | 6 |
| 07:45 | 08:00 | 0 | 0 | 0 | 0 | 0 |
| 08:00 | 08:15 | 1 | 0 | 0 | 0 | 1 |
| 08:15 | 08:30 | 1 | 1 | 0 | 0 | 2 |
| 08:30 | 08:45 | 0 | 0 | 0 | 0 | 0 |
| 08:45 | 09:00 | 1 | 0 | 0 | 0 | 1 |
| 09:00 | 09:15 | 0 | 5 | 0 | 0 | 5 |
| 09:15 | 09:30 | 0 | 0 | 0 | 0 | 0 |
| 09:30 | 09:45 | 0 | 1 | 0 | 0 | 1 |
| 09:45 | 10:00 | 0 | 0 | 0 | 0 | 0 |
| 11:30 | 11:45 | 0 | 0 | 0 | 0 | 0 |
| 11:45 | 12:00 | 0 | 1 | 0 | 0 | 1 |
| 12:00 | 12:15 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 12:30 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 12:45 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 13:00 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | 13:15 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 13:30 | 0 | 0 | 0 | 0 | 0 |
| 15:00 | 15:15 | 0 | 0 | 0 | 0 | 0 |
| 15:15 | 15:30 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 15:45 | 0 | 0 | 0 | 0 | 0 |
| 15:45 | 16:00 | 0 | 1 | 0 | 0 | 1 |
| 16:00 | 16:15 | 0 | 0 | 0 | 0 | 0 |
| 16:15 | 16:30 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 16:45 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 17:00 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 17:15 | 0 | 0 | 0 | 0 | 0 |
| 17:15 | 17:30 | 0 | 1 | 0 | 0 | 1 |
| 17:30 | 17:45 | 0 | 0 | 0 | 0 | 0 |
| 17:45 | 18:00 | 0 | 2 | 0 | 0 | 2 |
| Total |  | 4 | 17 | 0 | 0 | 21 |

Turning Movement Count - Study Results
ST. JOSEPH BLVD @ TAYLOR CREEK DR

| Survey Date: Wednesday, August 28, 2019 | WO No: | 38745 |
| :--- | :--- | :---: |
| Start Time: $07: 00$ | Device: | Miovision |

Full Study Diagram


Turning Movement Count - Study Results
ST. JOSEPH BLVD @ TAYLOR CREEK DR

WO No:
38745
Device:
Miovision

## Full Study Peak Hour Diagram



Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## ST. JOSEPH BLVD @ TAYLOR CREEK DR

Survey Date: Wednesday, August 28, 2019
Start Time: 07:00

WO No: 38745
Device: Miovision


Comments

Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## ST. JOSEPH BLVD @ TAYLOR CREEK DR

Survey Date: Wednesday, August 28, 2019
Start Time: 07:00

WO No: 38745
Device: Miovision


Comments

Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## ST. JOSEPH BLVD @ TAYLOR CREEK DR

Survey Date: Wednesday, August 28, 2019
Start Time: 07:00

WO No: 38745
Device: Miovision


Comments

## Transportation Services - Traffic Services

Turning Movement Count - Study Results
ST. JOSEPH BLVD @ TAYLOR CREEK DR
Survey Date: Wednesday, August 28, 2019
Start Time: 07:00

Full Study Summary (8 HR Standard)
Survey Date: Wednesday, August 28, 2019
AADT Factor
Northbound: 0
Southbound: 0
90
TAYLOR CREEK DR

| Period |  |  |  |  | , |  |  |  |  |  |  |  |  |  |  |  |  | $\begin{aligned} & \text { STR } \\ & \text { TOT } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Northbound |  |  | Southbound |  |  |  |  | Eastbound |  |  |  |  | Westbound |  |  | $\begin{aligned} & \text { WB } \\ & \text { TOT } \end{aligned}$ |  | Grand Total |
|  | LT | ST | RT | $\begin{gathered} \text { NB } \\ \text { TOT } \end{gathered}$ | LT | ST | RT | $\begin{array}{r} \text { SB } \\ \text { TOT } \end{array}$ | $\begin{aligned} & \text { STR } \\ & \text { TOT } \end{aligned}$ | LT | ST | RT | $\begin{array}{r} \text { EB } \\ \text { TOT } \end{array}$ | LT | ST | RT |  |  |  |
| 07:00 08:00 | 0 | 0 | 0 | 0 | 7 | 0 | 53 | 60 | 60 | 99 | 104 | 0 | 203 | 0 | 326 | 36 | 362 | 565 | 625 |
| 08:00 09:00 | 0 | 0 | 0 | 0 | 19 | 0 | 58 | 77 | 77 | 135 | 125 | 0 | 260 | 0 | 241 | 51 | 292 | 552 | 629 |
| 09:00 10:00 | 0 | 0 | 0 | 0 | 27 | 0 | 64 | 91 | 91 | 82 | 147 | 0 | 229 | 0 | 200 | 37 | 237 | 466 | 557 |
| 11:30 12:30 | 0 | 0 | 0 | 0 | 35 | 0 | 112 | 147 | 147 | 85 | 226 | 0 | 311 | 0 | 200 | 43 | 243 | 554 | 701 |
| 12:30 13:30 | 0 | 0 | 0 | 0 | 22 | 0 | 83 | 105 | 105 | 112 | 217 | 0 | 329 | 0 | 223 | 36 | 259 | 588 | 693 |
| 15:00 16:00 | 0 | 0 | 0 | 0 | 35 | 0 | 121 | 156 | 156 | 95 | 335 | 0 | 430 | 0 | 191 | 22 | 213 | 643 | 799 |
| 16:00 17:00 | 0 | 0 | 0 | 0 | 34 | 0 | 198 | 232 | 232 | 104 | 350 | 0 | 454 | 0 | 243 | 27 | 270 | 724 | 956 |
| 17:00 18:00 | 0 | 0 | 0 | 0 | 41 | 0 | 166 | 207 | 207 | 78 | 366 | 0 | 444 | 0 | 225 | 24 | 249 | 693 | 900 |
| Sub Total | 0 | 0 | 0 | 0 | 220 | 0 | 855 | 1075 | 1075 | 790 | 1870 | 0 | 2660 | 0 | 1849 | 276 | 2125 | 4785 | 5860 |
| U Turns |  |  |  | 0 |  |  |  | 0 | 0 |  |  |  | 0 |  |  |  | 1 | 1 | 1 |
| Total | 0 | 0 | 0 | 0 | 220 | 0 | 855 | 1075 | 1075 | 790 | 1870 | 0 | 2660 | 0 | 1849 | 276 | 2126 | 4786 | 5861 |
| EQ 12Hr | 0 | 0 | 0 | 0 | 306 | 0 | 1188 | 1494 | 1494 | 1098 | 2599 | 0 | 3697 | 0 | 2570 | 384 | 2955 | 6653 | 8147 |

Note: These values are calculated by multiplying the totals by the appropriate expansion factor. $\mathbf{1 . 3 9}$


| AVG 24Hr | 0 | 0 | 0 | 0 | 360 | 0 | 1835 | 1762 | 1762 | 1294 | 3064 | 0 | 4358 | 0 | 3030 | 453 | 3485 | 7844 | 9605 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor. $\mathbf{1 . 3 1}$
Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

# Transportation Services - Traffic Services 

Turning Movement Count - Study Results
ST. JOSEPH BLVD @ TAYLOR CREEK DR

## Survey Date: Wednesday, August 28, 2019

Start Time: 07:00

## WO No:

Device:

38745
Miovision

## Full Study 15 Minute Increments

TAYLOR CREEK DR
Northbound
Southbound ST. JOSEPH BLVD

| Time Period |  | Northbound |  |  | Southbound |  |  |  |  | Eastbound |  |  |  |  | Westbound |  |  | $\begin{gathered} \text { w } \\ \text { TOT } \end{gathered}$ | $\begin{aligned} & \text { STR } \\ & \text { TOT } \end{aligned}$ | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | LT | ST | RT | $\begin{gathered} \mathrm{N} \\ \text { TOT } \end{gathered}$ | LT | ST | RT | $\begin{gathered} \mathbf{S} \\ \text { TOT } \end{gathered}$ | $\begin{aligned} & \text { STR } \\ & \text { TOT } \end{aligned}$ | LT | ST | RT | $\begin{gathered} \text { E } \\ \text { TOT } \end{gathered}$ | LT | ST | RT |  |  |  |
| 07:00 | 07:15 | 0 | 0 | 0 | 0 | 1 | 0 | 5 | 6 | 6 | 16 | 23 | 0 | 39 | 0 | 79 | 4 | 83 | 122 | 128 |
| 07:15 | 07:30 | 0 | 0 | 0 | 0 | 1 | 0 | 23 | 24 | 24 | 20 | 23 | 0 | 43 | 0 | 83 | 11 | 94 | 137 | 161 |
| 07:30 | 07:45 | 0 | 0 | 0 | 0 | 2 | 0 | 7 | 9 | 9 | 27 | 23 | 0 | 50 | 0 | 90 | 7 | 97 | 147 | 156 |
| 07:45 | 08:00 | 0 | 0 | 0 | 0 | 3 | 0 | 18 | 21 | 21 | 36 | 35 | 0 | 71 | 0 | 74 | 14 | 88 | 159 | 180 |
| 08:00 | 08:15 | 0 | 0 | 0 | 0 | 3 | 0 | 11 | 14 | 14 | 29 | 31 | 0 | 60 | 0 | 60 | 13 | 73 | 133 | 147 |
| 08:15 | 08:30 | 0 | 0 | 0 | 0 | 5 | 0 | 18 | 23 | 23 | 34 | 35 | 0 | 69 | 0 | 69 | 12 | 81 | 150 | 173 |
| 08:30 | 08:45 | 0 | 0 | 0 | 0 | 6 | 0 | 13 | 19 | 19 | 32 | 31 | 0 | 63 | 0 | 53 | 14 | 67 | 130 | 149 |
| 08:45 | 09:00 | 0 | 0 | 0 | 0 | 5 | 0 | 16 | 21 | 21 | 40 | 28 | 0 | 68 | 0 | 59 | 12 | 71 | 139 | 160 |
| 09:00 | 09:15 | 0 | 0 | 0 | 0 | 4 | 0 | 15 | 19 | 19 | 29 | 35 | 0 | 64 | 0 | 61 | 14 | 75 | 139 | 158 |
| 09:15 | 09:30 | 0 | 0 | 0 | 0 | 5 | 0 | 16 | 21 | 21 | 18 | 33 | 0 | 51 | 0 | 43 | 7 | 50 | 101 | 122 |
| 09:30 | 09:45 | 0 | 0 | 0 | 0 | 5 | 0 | 19 | 24 | 24 | 17 | 38 | 0 | 55 | 0 | 45 | 8 | 53 | 108 | 132 |
| 09:45 | 10:00 | 0 | 0 | 0 | 0 | 13 | 0 | 14 | 27 | 27 | 18 | 41 | 0 | 59 | 0 | 51 | 8 | 59 | 118 | 145 |
| 11:30 | 11:45 | 0 | 0 | 0 | 0 | 5 | 0 | 20 | 25 | 25 | 17 | 52 | 0 | 69 | 0 | 51 | 6 | 57 | 126 | 151 |
| 11:45 | 12:00 | 0 | 0 | 0 | 0 | 11 | 0 | 29 | 40 | 40 | 22 | 53 | 0 | 75 | 0 | 54 | 10 | 64 | 139 | 179 |
| 12:00 | 12:15 | 0 | 0 | 0 | 0 | 10 | 0 | 42 | 52 | 52 | 24 | 61 | 0 | 85 | 0 | 50 | 8 | 58 | 143 | 195 |
| 12:15 | 12:30 | 0 | 0 | 0 | 0 | 9 | 0 | 21 | 30 | 30 | 22 | 60 | 0 | 82 | 0 | 45 | 19 | 65 | 147 | 177 |
| 12:30 | 12:45 | 0 | 0 | 0 | 0 | 2 | 0 | 29 | 31 | 31 | 34 | 66 | 0 | 100 | 0 | 63 | 5 | 68 | 168 | 199 |
| 12:45 | 13:00 | 0 | 0 | 0 | 0 | 5 | 0 | 15 | 20 | 20 | 34 | 42 | 0 | 76 | 0 | 50 | 12 | 62 | 138 | 158 |
| 13:00 | 13:15 | 0 | 0 | 0 | 0 | 8 | 0 | 17 | 25 | 25 | 22 | 59 | 0 | 81 | 0 | 56 | 4 | 60 | 141 | 166 |
| 13:15 | 13:30 | 0 | 0 | 0 | 0 | 7 | 0 | 22 | 29 | 29 | 22 | 50 | 0 | 72 | 0 | 54 | 15 | 69 | 141 | 170 |
| 15:00 | 15:15 | 0 | 0 | 0 | 0 | 7 | 0 | 29 | 36 | 36 | 13 | 86 | 0 | 99 | 0 | 49 | 6 | 55 | 154 | 190 |
| 15:15 | 15:30 | 0 | 0 | 0 | 0 | 8 | 0 | 28 | 36 | 36 | 29 | 86 | 0 | 115 | 0 | 39 | 5 | 44 | 159 | 195 |
| 15:30 | 15:45 | 0 | 0 | 0 | 0 | 9 | 0 | 22 | 31 | 31 | 29 | 85 | 0 | 114 | 0 | 49 | 3 | 52 | 166 | 197 |
| 15:45 | 16:00 | 0 | 0 | 0 | 0 | 11 | 0 | 42 | 53 | 53 | 24 | 78 | 0 | 102 | 0 | 54 | 8 | 62 | 164 | 217 |
| 16:00 | 16:15 | 0 | 0 | 0 | 0 | 7 | 0 | 60 | 67 | 67 | 27 | 95 | 0 | 122 | 0 | 66 | 7 | 73 | 195 | 262 |
| 16:15 | 16:30 | 0 | 0 | 0 | 0 | 12 | 0 | 40 | 52 | 52 | 25 | 84 | 0 | 109 | 0 | 64 | 6 | 70 | 179 | 231 |
| 16:30 | 16:45 | 0 | 0 | 0 | 0 | 5 | 0 | 50 | 55 | 55 | 29 | 89 | 0 | 118 | 0 | 55 | 8 | 63 | 181 | 236 |
| 16:45 | 17:00 | 0 | 0 | 0 | 0 | 10 | 0 | 48 | 58 | 58 | 23 | 82 | 0 | 105 | 0 | 58 | 6 | 64 | 169 | 227 |
| 17:00 | 17:15 | 0 | 0 | 0 | 0 | 17 | 0 | 54 | 71 | 71 | 19 | 107 | 0 | 126 | 0 | 60 | 5 | 65 | 191 | 262 |
| 17:15 | 17:30 | 0 | 0 | 0 | 0 | 6 | 0 | 47 | 53 | 53 | 23 | 92 | 0 | 115 | 0 | 51 | 11 | 62 | 177 | 230 |
| 17:30 | 17:45 | 0 | 0 | 0 | 0 | 15 | 0 | 38 | 53 | 53 | 20 | 89 | 0 | 109 | 0 | 44 | 2 | 46 | 155 | 208 |
| 17:45 | 18:00 | 0 | 0 | 0 | 0 | 3 | 0 | 27 | 30 | 30 | 16 | 78 | 0 | 94 | 0 | 70 | 6 | 76 | 170 | 200 |
| Total: |  | 0 | 0 | 0 | 0 | 220 | 0 | 855 | 1075 | 1075 | 790 | 1870 | 0 | 2660 | 0 | 1849 | 276 | 2126 | 4786 | 5,861 |

Note: U-Turns are included in Totals.

## Transportation Services - Traffic Services

Turning Movement Count - Study Results ST. JOSEPH BLVD @ TAYLOR CREEK DR

| Survey Date: Wednesday, August 28, 2019 | WO No: | 38745 |
| :---: | :---: | :---: |
| Start Time: $07: 00$ | Device: | Miovision |


| Time Period |  | TAYLOR CREEK DR |  |  | ST. JOSEPH BLVD |  |  | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Northbound | Southbound | Street Total | Eastbound | Westbound | Street Total |  |
| 07:00 | 07:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 | 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 | 07:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:45 | 08:00 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 08:00 | 08:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 | 08:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:30 | 08:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:45 | 09:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:00 | 09:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:15 | 09:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:30 | 09:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:45 | 10:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 | 11:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 | 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | 13:15 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 13:15 | 13:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:00 | 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:15 | 15:30 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 15:30 | 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:45 | 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:00 | 16:15 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 16:15 | 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 17:15 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 17:15 | 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:30 | 17:45 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 17:45 | 18:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total |  | 0 | 2 | 2 | 1 | 3 | 4 | 6 |

Turning Movement Count - Study Results ST. JOSEPH BLVD @ TAYLOR CREEK DR

| Survey Date: Wednesday, August 28, 2019 | Wo No: | 38745 |
| :--- | :---: | :---: |
| Start Time: $07: 00$ | Device: | Miovision |

## Full Study Pedestrian Volume

TAYLOR CREEK DR
ST. JOSEPH BLVD

| Time Period |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | NB Approach <br> (E or W Crossing) | SB Approach <br> (E or W Crossing) | Total | EB Approach <br> (N or S Crossing) | WB Approach <br> (N or S Crossing) | Total | Grand Total |


| 07:00 07:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 07:15 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 07:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:45 08:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00 08:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 08:30 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 08:30 08:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:45 09:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:00 09:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:15 09:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:30 09:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:45 10:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 11:45 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 11:45 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:00 13:15 | 0 | 2 | 2 | 0 | 0 | 0 | 2 |
| 13:15 13:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:00 15:15 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 15:15 15:30 | 0 | 0 | 0 | 0 | 2 | 2 | 2 |
| 15:30 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15:45 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:00 16:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:15 16:30 | 0 | 1 | 1 | 0 | 1 | 1 | 2 |
| 16:30 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:45 17:00 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 17:00 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:15 17:30 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 17:30 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:45 18:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total .......... | 0 | 7 | 7 | 0 | 4 | 4 | 11 |

# Transportation Services - Traffic Services 

Turning Movement Count - Study Results ST. JOSEPH BLVD @ TAYLOR CREEK DR

Survey Date: Wednesday, August 28, 2019
Start Time: 07:00

## WO No:

Device:

## Full Study Heavy Vehicles

## TAYLOR CREEK DR

## Northbound

Southbound
ST. JOSEPH BLVD
Eastbound
Westbound

| Time Period |  | LT | ST | RT | $\begin{gathered} \mathrm{N} \\ \text { TOT } \end{gathered}$ | LT | ST | RT | $\begin{gathered} \mathrm{S} \\ \text { TOT } \end{gathered}$ | $\begin{aligned} & \text { STR } \\ & \text { TOT } \end{aligned}$ | LT | ST | RT | $\begin{gathered} \text { E } \\ \text { TOT } \end{gathered}$ | LT | ST | RT | $\begin{gathered} \text { w } \\ \text { TOT } \end{gathered}$ | $\begin{aligned} & \text { STR } \\ & \text { TOT } \end{aligned}$ | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 07:00 | 07:15 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 |
| 07:15 | 07:30 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 3 | 2 |
| 07:30 | 07:45 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 3 | 3 |
| 07:45 | 08:00 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 5 | 5 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 1 | 5 | 5 |
| 08:00 | 08:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 3 | 0 | 5 | 0 | 2 | 1 | 6 | 11 | 6 |
| 08:15 | 08:30 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 3 | 0 | 4 | 0 | 1 | 0 | 5 | 9 | 5 |
| 08:30 | 08:45 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 2 | 0 | 2 | 1 | 5 | 7 | 5 |
| 08:45 | 09:00 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 3 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 3 | 3 |
| 09:00 | 09:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 2 | 4 | 0 | 7 | 0 | 1 | 1 | 6 | 13 | 8 |
| 09:15 | 09:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 1 | 0 | 3 | 6 | 3 |
| 09:30 | 09:45 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 4 | 4 | 1 | 2 | 0 | 4 | 0 | 0 | 1 | 4 | 8 | 6 |
| 09:45 | 10:00 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 2 | 1 | 0 | 0 | 2 | 0 | 1 | 0 | 2 | 4 | 3 |
| 11:30 | 11:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 4 | 0 | 2 | 1 | 5 | 9 | 5 |
| 11:45 | 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 7 | 7 | 1 | 2 | 0 | 10 | 0 | 2 | 1 | 5 | 15 | 11 |
| 12:00 | 12:15 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 7 | 7 | 2 | 1 | 0 | 7 | 0 | 2 | 1 | 6 | 13 | 10 |
| 12:15 | 12:30 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 4 | 4 | 2 | 2 | 0 | 6 | 0 | 1 | 0 | 4 | 10 | 7 |
| 12:30 | 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 4 | 4 | 1 | 4 | 0 | 9 | 0 | 2 | 1 | 7 | 16 | 10 |
| 12:45 | 13:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 3 | 0 | 2 | 0 | 2 | 5 | 3 |
| 13:00 | 13:15 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 6 | 6 | 1 | 0 | 0 | 4 | 0 | 1 | 1 | 4 | 8 | 7 |
| 13:15 | 13:30 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 3 | 3 | 0 | 1 | 0 | 6 | 0 | 3 | 0 | 5 | 11 | 7 |
| 15:00 | 15:15 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 3 | 1 | 2 | 0 | 4 | 0 | 1 | 1 | 5 | 9 | 6 |
| 15:15 | 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 1 |
| 15:30 | 15:45 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 3 | 1 | 1 | 0 | 5 | 0 | 3 | 1 | 6 | 11 | 7 |
| 15:45 | 16:00 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 3 | 3 |
| 16:00 | 16:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 2 | 0 | 3 | 0 | 0 | 1 | 3 | 6 | 4 |
| 16:15 | 16:30 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 5 | 5 | 1 | 0 | 0 | 2 | 0 | 0 | 2 | 3 | 5 | 5 |
| 16:30 | 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 3 | 0 | 1 | 1 | 4 | 7 | 4 |
| 16:45 | 17:00 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 17:00 | 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| 17:15 | 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 |
| 17:30 | 17:45 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 |
| 17:45 | 18:00 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 2 |
| Total: | None | 0 | 0 | 0 | 0 | 23 | 0 | 20 | 85 | 85 | 21 | 35 | 0 | 104 | 0 | 28 | 21 | 107 | 211 | 148 |

## Transportation Services - Traffic Services

Turning Movement Count - Study Results ST. JOSEPH BLVD @ TAYLOR CREEK DR

| Survey Date: Wednesday, August 28, 2019 | WO No: | 38745 |
| ---: | :--- | :---: |
| Start Time: | $07: 00$ | Device: |

Full Study 15 Minute U-Turn Total
TAYLOR CREEK DR

Time Period

| Northbound | Southbound | Eastbound <br> U-Turn Total | Westbound <br> U-Turn Total |
| :--- | :---: | :---: | :---: |
| U-Turn Total | U-Turn Total |  |  |

Total

| 07:00 | 07:15 | 0 | 0 | 0 | 0 | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 07:15 | 07:30 | 0 | 0 | 0 | 0 | 0 |
| 07:30 | 07:45 | 0 | 0 | 0 | 0 | 0 |
| 07:45 | 08:00 | 0 | 0 | 0 | 0 | 0 |
| 08:00 | 08:15 | 0 | 0 | 0 | 0 | 0 |
| 08:15 | 08:30 | 0 | 0 | 0 | 0 | 0 |
| 08:30 | 08:45 | 0 | 0 | 0 | 0 | 0 |
| 08:45 | 09:00 | 0 | 0 | 0 | 0 | 0 |
| 09:00 | 09:15 | 0 | 0 | 0 | 0 | 0 |
| 09:15 | 09:30 | 0 | 0 | 0 | 0 | 0 |
| 09:30 | 09:45 | 0 | 0 | 0 | 0 | 0 |
| 09:45 | 10:00 | 0 | 0 | 0 | 0 | 0 |
| 11:30 | 11:45 | 0 | 0 | 0 | 0 | 0 |
| 11:45 | 12:00 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 12:15 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 12:30 | 0 | 0 | 0 | 1 | 1 |
| 12:30 | 12:45 | 0 | 0 | 0 | 0 | 0 |
| 12:45 | 13:00 | 0 | 0 | 0 | 0 | 0 |
| 13:00 | 13:15 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 13:30 | 0 | 0 | 0 | 0 | 0 |
| 15:00 | 15:15 | 0 | 0 | 0 | 0 | 0 |
| 15:15 | 15:30 | 0 | 0 | 0 | 0 | 0 |
| 15:30 | 15:45 | 0 | 0 | 0 | 0 | 0 |
| 15:45 | 16:00 | 0 | 0 | 0 | 0 | 0 |
| 16:00 | 16:15 | 0 | 0 | 0 | 0 | 0 |
| 16:15 | 16:30 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 16:45 | 0 | 0 | 0 | 0 | 0 |
| 16:45 | 17:00 | 0 | 0 | 0 | 0 | 0 |
| 17:00 | 17:15 | 0 | 0 | 0 | 0 | 0 |
| 17:15 | 17:30 | 0 | 0 | 0 | 0 | 0 |
| 17:30 | 17:45 | 0 | 0 | 0 | 0 | 0 |
| 17:45 | 18:00 | 0 | 0 | 0 | 0 | 0 |
| Total |  | 0 | 0 | 0 | 1 | 1 |

Turning Movement Count - Study Results
TRIM RD @ DAIRY DR/TAYLOR CREEK DR

| Survey Date: Wednesday, October 09, 2019 | WO No: | 40916 |
| :--- | :--- | :---: |
| Start Time: $07: 00$ | Device: | Miovision |

Full Study Diagram


Transportation Services - Traffic Services
Turning Movement Count - Study Results
TRIM RD @ DAIRY DR/TAYLOR CREEK DR

| Survey Date: Wednesday, October 09, 2019 | WO No: | 40916 |
| :---: | :---: | :---: |
| Start Time: | $07: 00$ | Device: |

## Full Study Peak Hour Diagram



## Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## TRIM RD @ DAIRY DR/TAYLOR CREEK DR

Survey Date: Wednesday, October 09, 2019
Start Time: 07:00

WO No: 40916
Device: Miovision


Comments

## Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## TRIM RD @ DAIRY DR/TAYLOR CREEK DR

Survey Date: Wednesday, October 09, 2019
Start Time: 07:00

WO No: 40916
Device: Miovision


Comments

## Transportation Services - Traffic Services

## Turning Movement Count - Peak Hour Diagram

## TRIM RD @ DAIRY DR/TAYLOR CREEK DR

Survey Date: Wednesday, October 09, 2019
Start Time: 07:00

WO No: 40916
Device: Miovision


Comments

## Transportation Services - Traffic Services

## Turning Movement Count - Study Results

## TRIM RD @ DAIRY DR/TAYLOR CREEK DR

Survey Date: Wednesday, October 09, 2019
Start Time: 07:00
wo No:
Device:

40916
Miovision

## Full Study Summary (8 HR Standard)

Survey Date: Wednesday, October 09, 2019
Northbound: 91 Southbound:
114
AADT Factor
Southbound: 114
90

| Period | TRIM RD |  |  |  |  |  |  |  | DAIRY DR/TAYLOR CREEK DR |  |  |  |  |  |  |  |  | $\begin{aligned} & \text { STR } \\ & \text { TOT } \end{aligned}$ | $\begin{gathered} \text { Grand } \\ \text { Total } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Northbound |  |  | Southbound |  |  |  | $\begin{array}{r} \text { SB } \\ \text { TOT } \\ \hline \end{array}$ | $\begin{aligned} & \text { STR } \\ & \text { TOT } \end{aligned}$ | Eastbound |  |  | $\begin{gathered} \text { EB } \\ \text { TOT } \\ \hline \end{gathered}$ | Westbound |  |  | $\begin{aligned} & \text { WB } \\ & \text { TOT } \end{aligned}$ |  |  |
|  | LT | ST | RT | $\begin{array}{r} \text { NB } \\ \text { TOT } \\ \hline \end{array}$ | LT | ST | RT |  |  | LT | ST | RT |  | LT | ST | RT |  |  |  |
| 07:00 08:00 | 157 | 835 | 121 | 1113 | 55 | 359 | 130 | 544 | 1657 | 126 | 0 | 17 | 143 | 23 | 1 | 32 | 56 | 199 | 1856 |
| 08:00 09:00 | 138 | 774 | 49 | 961 | 56 | 368 | 111 | 535 | 1496 | 144 | 0 | 41 | 185 | 26 | 6 | 40 | 72 | 257 | 1753 |
| 09:00 10:00 | 111 | 638 | 21 | 770 | 30 | 326 | 92 | 448 | 1218 | 90 | 4 | 18 | 112 | 35 | 2 | 32 | 69 | 181 | 1399 |
| 11:30 12:30 | 82 | 461 | 18 | 561 | 34 | 429 | 105 | 568 | 1129 | 111 | 6 | 39 | 156 | 40 | 4 | 20 | 64 | 220 | 1349 |
| 12:30 13:30 | 67 | 425 | 17 | 509 | 50 | 421 | 101 | 572 | 1081 | 105 | 3 | 57 | 165 | 32 | 3 | 16 | 51 | 216 | 1297 |
| 15:00 16:00 | 58 | 454 | 14 | 526 | 54 | 1027 | 106 | 1187 | 1713 | 95 | 4 | 76 | 175 | 75 | 1 | 49 | 125 | 300 | 2013 |
| 16:00 17:00 | 73 | 499 | 13 | 585 | 47 | 1218 | 141 | 1406 | 1991 | 100 | 0 | 112 | 212 | 162 | 15 | 32 | 209 | 421 | 2412 |
| 17:00 18:00 | 96 | 499 | 10 | 605 | 63 | 1041 | 104 | 1208 | 1813 | 113 | 2 | 91 | 206 | 188 | 3 | 23 | 214 | 420 | 2233 |
| Sub Total | 782 | 4585 | 263 | 5630 | 389 | 5189 | 890 | 6468 | 12098 | 884 | 19 | 451 | 1354 | 581 | 35 | 244 | 860 | 2214 | 14312 |
| U Turns |  |  |  | 91 |  |  |  | 114 | 205 |  |  |  | 0 |  |  |  | 0 | 0 | 205 |
| Total | 782 | 4585 | 263 | 5721 | 389 | 5189 | 890 | 6582 | 12303 | 884 | 19 | 451 | 1354 | 581 | 35 | 244 | 860 | 2214 | 14517 |
| EQ 12Hr | 1087 | 6373 | 366 | 7952 | 541 | 7213 | 1237 | 9149 | 17101 | 1229 | 26 | 627 | 1882 | 808 | 49 | 339 | 1195 | 3077 | 20179 |

$\begin{array}{lll}\text { Note: } \text { These values are calculated by multiplying the totals by the appropriate expansion factor. } & \mathbf{1 . 3 9}\end{array}$

| AVG 12Hr | 978 | 5736 | 329 | 7157 | 487 | 8504 | 1459 | 8234 | 15391 | 1106 | 23 | 564 | 1694 | 727 | 44 | 305 | 1076 | 2769 | 18161 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Note: These volumes are calculated by multiplying the Equivalent 12 hr . totals by the AADT factor. . 90 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Note: These volumes are calculated by multiplying the Average Daily 12 hr . totals by 12 to 24 expansion factor. $\mathbf{1 . 3 1}$
Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.

# Transportation Services - Traffic Services 

Turning Movement Count - Study Results
TRIM RD @ DAIRY DR/TAYLOR CREEK DR
Survey Date: Wednesday, October 09, 2019
Start Time: 07:00

## WO No:

Device:

40916
Miovision

## Full Study 15 Minute Increments

TRIM RD
Northbound Southbound

| Time Period |  | LT | ST | RT | $\begin{gathered} \mathrm{N} \\ \mathrm{TOT} \end{gathered}$ | LT | ST | RT | $\begin{gathered} \mathrm{S} \\ \text { TOT } \end{gathered}$ | $\begin{aligned} & \text { STR } \\ & \text { TOT } \end{aligned}$ | LT | ST | RT | $\begin{gathered} \text { E } \\ \text { TOT } \end{gathered}$ | LT | ST | RT | $\begin{gathered} \text { w } \\ \text { TOT } \end{gathered}$ | $\begin{aligned} & \text { STR } \\ & \text { TOT } \end{aligned}$ | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 07:00 | 07:15 | 45 | 232 | 25 | 304 | 12 | 55 | 31 | 109 | 413 | 34 | 0 | 4 | 38 | 4 | 1 | 13 | 18 | 56 | 469 |
| 07:15 | 07:30 | 43 | 222 | 33 | 300 | 13 | 98 | 42 | 162 | 462 | 29 | 0 | 6 | 35 | 4 | 0 | 7 | 11 | 46 | 508 |
| 07:30 | 07:45 | 34 | 193 | 34 | 264 | 14 | 93 | 26 | 141 | 405 | 31 | 0 | 3 | 34 | 8 | 0 | 7 | 15 | 49 | 454 |
| 07:45 | 08:00 | 35 | 188 | 29 | 256 | 16 | 113 | 31 | 166 | 422 | 32 | 0 | 4 | 36 | 7 | 0 | 5 | 12 | 48 | 470 |
| 08:00 | 08:15 | 29 | 190 | 17 | 240 | 16 | 94 | 24 | 143 | 383 | 26 | 0 | 10 | 36 | 7 | 2 | 4 | 13 | 49 | 432 |
| 08:15 | 08:30 | 29 | 211 | 16 | 256 | 18 | 102 | 27 | 148 | 404 | 40 | 0 | 8 | 48 | 5 | 2 | 10 | 17 | 65 | 469 |
| 08:30 | 08:45 | 48 | 194 | 8 | 256 | 11 | 80 | 32 | 127 | 383 | 39 | 0 | 11 | 50 | 7 | 2 | 12 | 21 | 71 | 454 |
| 08:45 | 09:00 | 32 | 179 | 8 | 224 | 11 | 92 | 28 | 137 | 361 | 39 | 0 | 12 | 51 | 7 | 0 | 14 | 21 | 72 | 433 |
| 09:00 | 09:15 | 28 | 169 | 11 | 218 | 4 | 95 | 18 | 118 | 336 | 16 | 0 | 5 | 21 | 10 | 0 | 8 | 18 | 39 | 375 |
| 09:15 | 09:30 | 30 | 155 | 5 | 193 | 8 | 73 | 26 | 108 | 301 | 26 | 4 | 4 | 34 | 7 | 1 | 12 | 20 | 54 | 355 |
| 09:30 | 09:45 | 22 | 168 | 3 | 196 | 6 | 84 | 21 | 115 | 311 | 23 | 0 | 1 | 24 | 5 | 0 | 5 | 10 | 34 | 345 |
| 09:45 | 10:00 | 31 | 146 | 2 | 184 | 12 | 74 | 27 | 113 | 297 | 25 | 0 | 8 | 33 | 13 | 1 | 7 | 21 | 54 | 351 |
| 11:30 | 11:45 | 20 | 118 | 7 | 146 | 9 | 105 | 35 | 149 | 295 | 30 | 2 | 9 | 41 | 15 | 0 | 2 | 17 | 58 | 353 |
| 11:45 | 12:00 | 24 | 105 | 4 | 133 | 11 | 109 | 27 | 148 | 281 | 29 | 0 | 7 | 36 | 8 | 1 | 4 | 13 | 49 | 330 |
| 12:00 | 12:15 | 16 | 117 | 5 | 143 | 6 | 109 | 28 | 144 | 287 | 25 | 1 | 11 | 37 | 8 | 3 | 9 | 20 | 57 | 344 |
| 12:15 | 12:30 | 22 | 121 | 2 | 150 | 8 | 106 | 15 | 129 | 279 | 27 | 3 | 12 | 42 | 9 | 0 | 5 | 14 | 56 | 335 |
| 12:30 | 12:45 | 18 | 122 | 4 | 145 | 8 | 109 | 29 | 148 | 293 | 18 | 0 | 16 | 34 | 14 | 0 | 8 | 22 | 56 | 349 |
| 12:45 | 13:00 | 19 | 114 | 4 | 142 | 16 | 110 | 27 | 153 | 295 | 25 | 0 | 15 | 40 | 6 | 1 | 1 | 8 | 48 | 343 |
| 13:00 | 13:15 | 16 | 85 | 6 | 107 | 18 | 91 | 22 | 131 | 238 | 39 | 0 | 16 | 55 | 7 | 1 | 7 | 15 | 70 | 308 |
| 13:15 | 13:30 | 14 | 104 | 3 | 123 | 8 | 111 | 23 | 142 | 265 | 23 | 3 | 10 | 36 | 5 | 1 | 0 | 6 | 42 | 307 |
| 15:00 | 15:15 | 12 | 121 | 1 | 139 | 12 | 195 | 22 | 231 | 370 | 24 | 0 | 19 | 43 | 17 | 0 | 16 | 33 | 76 | 446 |
| 15:15 | 15:30 | 12 | 114 | 7 | 138 | 10 | 264 | 22 | 298 | 436 | 34 | 2 | 19 | 55 | 13 | 1 | 14 | 28 | 83 | 519 |
| 15:30 | 15:45 | 12 | 116 | 3 | 132 | 9 | 251 | 27 | 296 | 428 | 18 | 0 | 15 | 33 | 16 | 0 | 11 | 27 | 60 | 488 |
| 15:45 | 16:00 | 22 | 103 | 3 | 130 | 23 | 317 | 35 | 375 | 505 | 19 | 2 | 23 | 44 | 29 | 0 | 8 | 37 | 81 | 586 |
| 16:00 | 16:15 | 16 | 105 | 5 | 126 | 9 | 295 | 39 | 349 | 475 | 28 | 0 | 33 | 61 | 36 | 0 | 6 | 42 | 103 | 578 |
| 16:15 | 16:30 | 18 | 124 | 2 | 144 | 10 | 320 | 36 | 369 | 513 | 29 | 0 | 9 | 38 | 32 | 7 | 7 | 46 | 84 | 597 |
| 16:30 | 16:45 | 15 | 148 | 2 | 168 | 13 | 308 | 35 | 363 | 531 | 20 | 0 | 34 | 54 | 47 | 2 | 10 | 59 | 113 | 644 |
| 16:45 | 17:00 | 24 | 122 | 4 | 150 | 15 | 295 | 31 | 347 | 497 | 23 | 0 | 36 | 59 | 47 | 6 | 9 | 62 | 121 | 618 |
| 17:00 | 17:15 | 15 | 127 | 4 | 149 | 21 | 271 | 22 | 318 | 467 | 31 | 0 | 32 | 63 | 58 | 0 | 5 | 63 | 126 | 593 |
| 17:15 | 17:30 | 22 | 118 | 4 | 144 | 17 | 281 | 27 | 329 | 473 | 25 | 0 | 16 | 41 | 58 | 2 | 8 | 68 | 109 | 582 |
| 17:30 | 17:45 | 17 | 126 | 0 | 144 | 11 | 274 | 30 | 319 | 463 | 27 | 0 | 25 | 52 | 43 | 0 | 5 | 48 | 100 | 563 |
| 17:45 | 18:00 | 42 | 128 | 2 | 177 | 14 | 215 | 25 | 257 | 434 | 30 | 2 | 18 | 50 | 29 | 1 | 5 | 35 | 85 | 519 |
| Total: |  | 782 | 4585 | 263 | 5721\| | 389 | 5189 | 890 | 6582 | 12303 | 884 | 19 | 451 | 1354 | 581 | 35 | 244 | 860 | 2214 | 14,517 |

Note: U-Turns are included in Totals.

## Transportation Services - Traffic Services

## Turning Movement Count - Study Results TRIM RD @ DAIRY DR/TAYLOR CREEK DR

\section*{Survey Date: Wednesday, October 09, 2019 <br> Start Time: 07:00 <br> | WO No: | 40916 |
| :--- | :---: |
| Device: | Miovision |}

Full Study Cyclist Volume
TRIM RD

| Time P | Period | Northbound | Southbound | Street Total | Eastbound | Westbound | Street Total | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 07:00 | 07:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 | 07:30 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 07:30 | 07:45 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 07:45 | 08:00 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 08:00 | 08:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 | 08:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:30 | 08:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:45 | 09:00 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 09:00 | 09:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:15 | 09:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:30 | 09:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 09:45 | 10:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 | 11:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 | 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 | 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 | 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 | 12:45 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 12:45 | 13:00 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 13:00 | 13:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 13:30 | 2 | 2 | 4 | 0 | 0 | 0 | 4 |
| 15:00 | 15:15 | 1 | 2 | 3 | 0 | 0 | 0 | 3 |
| 15:15 | 15:30 | 4 | 2 | 6 | 0 | 2 | 2 | 8 |
| 15:30 | 15:45 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 15:45 | 16:00 | 1 | 1 | 2 | 0 | 0 | 0 | 2 |
| 16:00 | 16:15 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 16:15 | 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:30 | 16:45 | 1 | 1 | 2 | 0 | 0 | 0 | 2 |
| 16:45 | 17:00 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 17:00 | 17:15 | 0 | 6 | 6 | 0 | 0 | 0 | 6 |
| 17:15 | 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:30 | 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:45 | 18:00 | 1 | 1 | 2 | 0 | 0 | 0 | 2 |
| Total |  | 14 | 19 | 33 | 1 | 2 | 3 | 36 |

# Transportation Services - Traffic Services 

## Turning Movement Count - Study Results

TRIM RD @ DAIRY DR/TAYLOR CREEK DR

| Survey Date: Wednesday, October 09, 2019 | Wo No: | 40916 |
| :---: | :---: | :---: |
| Start Time: $07: 00$ | Device: | Miovision |

## Full Study Pedestrian Volume <br> TRIM RD <br> DAIRY DR/TAYLOR CREEK DR

| Time Period |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | NB Approach <br> (E or W Crossing) | SB Approach <br> (E or W Crossing) | Total | EB Approach <br> (N or S Crossing) | WB Approach <br> (N or S Crossing) | Total |


| 07:00 07:15 | 0 | 1 | 1 | 3 | 0 | 3 | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 07:15 07:30 | 3 | 0 | 3 | 0 | 0 | 0 | 3 |
| 07:30 07:45 | 0 | 2 | 2 | 2 | 1 | 3 | 5 |
| 07:45 08:00 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 08:00 08:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 08:30 | 0 | 0 | 0 | 0 | 2 | 2 | 2 |
| 08:30 08:45 | 3 | 0 | 3 | 2 | 3 | 5 | 8 |
| 08:45 09:00 | 0 | 3 | 3 | 0 | 4 | 4 | 7 |
| 09:00 09:15 | 0 | 2 | 2 | 1 | 1 | 2 | 4 |
| 09:15 09:30 | 0 | 0 | 0 | 0 | 2 | 2 | 2 |
| 09:30 09:45 | 0 | 0 | 0 | 1 | 2 | 3 | 3 |
| 09:45 10:00 | 0 | 1 | 1 | 0 | 1 | 1 | 2 |
| 11:30 11:45 | 1 | 0 | 1 | 1 | 1 | 2 | 3 |
| 11:45 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 12:15 | 1 | 0 | 1 | 0 | 3 | 3 | 4 |
| 12:15 12:30 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 12:30 12:45 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 12:45 13:00 | 2 | 1 | 3 | 0 | 1 | 1 | 4 |
| 13:00 13:15 | 3 | 1 | 4 | 0 | 2 | 2 | 6 |
| 13:15 13:30 | 0 | 0 | 0 | 0 | 4 | 4 | 4 |
| 15:00 15:15 | 3 | 2 | 5 | 1 | 2 | 3 | 8 |
| 15:15 15:30 | 0 | 1 | 1 | 1 | 5 | 6 | 7 |
| 15:30 15:45 | 0 | 0 | 0 | 2 | 2 | 4 | 4 |
| 15:45 16:00 | 1 | 2 | 3 | 1 | 2 | 3 | 6 |
| 16:00 16:15 | 0 | 3 | 3 | 0 | 1 | 1 | 4 |
| 16:15 16:30 | 4 | 3 | 7 | 3 | 1 | 4 | 11 |
| 16:30 16:45 | 0 | 6 | 6 | 5 | 1 | 6 | 12 |
| 16:45 17:00 | 0 | 4 | 4 | 4 | 3 | 7 | 11 |
| 17:00 17:15 | 0 | 2 | 2 | 1 | 3 | 4 | 6 |
| 17:15 17:30 | 1 | 3 | 4 | 5 | 1 | 6 | 10 |
| 17:30 17:45 | 0 | 2 | 2 | 1 | 0 | 1 | 3 |
| 17:45 18:00 | 0 | 1 | 1 | 1 | 6 | 7 | 8 |
| Total .......... | 22 | 41 | 63 | 36 | 55 | 91 | 154 |

# Transportation Services - Traffic Services 

## Turning Movement Count - Study Results <br> TRIM RD @ DAIRY DR/TAYLOR CREEK DR

Survey Date: Wednesday, October 09, 2019
Start Time: 07:00

WO No:
Device:
Device.


Full Study Heavy Vehicles
TRIM RD

## Northbound

## Southbound



## Transportation Services - Traffic Services

Turning Movement Count - Study Results
TRIM RD @ DAIRY DR/TAYLOR CREEK DR

| Survey Date: Wednesday, October 09, 2019 | WO No: | 40916 |
| :---: | :---: | :---: |
| Start Time: $07: 00$ | Device: | Miovision |

Full Study 15 Minute U-Turn Total TRIM RD

DAIRY DR/TAYLOR CREEK DR
$\begin{array}{llllll}\text { Time Period } & \begin{array}{c}\text { Northbound } \\ \text { U-Turn Total }\end{array} & \begin{array}{l}\text { Southbound } \\ \text { U-Turn Total }\end{array} & \begin{array}{c}\text { Eastbound } \\ \text { U-Turn Total }\end{array} & \begin{array}{c}\text { Westbound } \\ \text { U-Turn Total }\end{array} & \text { Total }\end{array}$

| 07:00 | 07:15 | 2 | 11 | 0 | 0 | 13 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 07:15 | 07:30 | 2 | 9 | 0 | 0 | 11 |
| 07:30 | 07:45 | 3 | 8 | 0 | 0 | 11 |
| 07:45 | 08:00 | 4 | 6 | 0 | 0 | 10 |
| 08:00 | 08:15 | 4 | 9 | 0 | 0 | 13 |
| 08:15 | 08:30 | 0 | 1 | 0 | 0 | 1 |
| 08:30 | 08:45 | 6 | 4 | 0 | 0 | 10 |
| 08:45 | 09:00 | 5 | 6 | 0 | 0 | 11 |
| 09:00 | 09:15 | 10 | 1 | 0 | 0 | 11 |
| 09:15 | 09:30 | 3 | 1 | 0 | 0 | 4 |
| 09:30 | 09:45 | 3 | 4 | 0 | 0 | 7 |
| 09:45 | 10:00 | 5 | 0 | 0 | 0 | 5 |
| 11:30 | 11:45 | 1 | 0 | 0 | 0 | 1 |
| 11:45 | 12:00 | 0 | 1 | 0 | 0 | 1 |
| 12:00 | 12:15 | 5 | 1 | 0 | 0 | 6 |
| 12:15 | 12:30 | 5 | 0 | 0 | 0 | 5 |
| 12:30 | 12:45 | 1 | 2 | 0 | 0 | 3 |
| 12:45 | 13:00 | 5 | 0 | 0 | 0 | 5 |
| 13:00 | 13:15 | 0 | 0 | 0 | 0 | 0 |
| 13:15 | 13:30 | 2 | 0 | 0 | 0 | 2 |
| 15:00 | 15:15 | 5 | 2 | 0 | 0 | 7 |
| 15:15 | 15:30 | 5 | 2 | 0 | 0 | 7 |
| 15:30 | 15:45 | 1 | 9 | 0 | 0 | 10 |
| 15:45 | 16:00 | 2 | 0 | 0 | 0 | 2 |
| 16:00 | 16:15 | 0 | 6 | 0 | 0 | 6 |
| 16:15 | 16:30 | 0 | 3 | 0 | 0 | 3 |
| 16:30 | 16:45 | 3 | 7 | 0 | 0 | 10 |
| 16:45 | 17:00 | 0 | 6 | 0 | 0 | 6 |
| 17:00 | 17:15 | 3 | 4 | 0 | 0 | 7 |
| 17:15 | 17:30 | 0 | 4 | 0 | 0 | 4 |
| 17:30 | 17:45 | 1 | 4 | 0 | 0 | 5 |
| 17:45 | 18:00 | 5 | 3 | 0 | 0 | 8 |
| Total |  | 91 | 114 | 0 | 0 | 205 |

## Appendix D:

Total Area

| Classification of <br> Accident | Rear End | Turning <br> Movement | Sideswipe | Angle | Approaching | SMV other | SMV <br> unattended <br> vehicle | Other | Total |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| P.D. only | 20 | 1 | 55 | 49 | 1 | 7 | 0 | 1 | 13 |
| Non-fatal injury | 5 | 0 | 4 | 6 | 0 | 1 | 0 | 2 | 18 |
| Non-reportable | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | $\mathbf{2 5}$ | $\mathbf{1}$ | $\mathbf{5 9}$ | $\mathbf{5 5}$ | $\mathbf{1}$ | $\mathbf{8}$ | $\mathbf{0}$ | $\mathbf{0}$ | $\mathbf{0}$ |

## ST. JOSEPH BLVD/TAYLOR CREEK DR

| Years | Total \# <br> Collisions | 24 Hr AADT <br> Veh Volume | Days | Collisions/MEV |
| :---: | :---: | :---: | :---: | :---: |
| $2017-2021$ | 3 | 9,605 | 1825 | $\mathbf{0 . 1 7}$ |


| Classification of Accident | Rear End | Turning Movement | Sideswipe | Angle | Approaching | SMV other | SMV unattended vehicle | Other | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| P.D. only | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Non-fatal injury | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Non-reportable | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 3 |
|  | 0\% | 33\% | 0\% | 33\% | 0\% | 0\% | 0\% | 33\% |  |

## ST. JOSEPH BLVD/OLD MONTREAL RD/TRIM RD

| Years | Total \# <br> Collisions | 24 Hr AADT <br> Veh Volume | Days | Collisions/MEV |
| :---: | :---: | :---: | :---: | :---: |
| $2017-2021$ | 149 | 29,184 | 1825 | $\mathbf{2 . 8 0}$ |


| Classification of Accident | Rear End | Turning Movement | Sideswipe | Angle | Approaching | SMV other | SMV unattended vehicle | Other | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| P.D. only | 20 | 0 | 55 | 49 | 1 | 7 | 0 | 0 | 132 |
| Non-fatal injury | 5 | 0 | 4 | 5 | 0 | 1 | 0 | 2 | 17 |
| Non-reportable | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 25 | 0 | 59 | 54 | 1 | 8 | 0 | 2 | 149 |
|  | 17\% | 0\% | 40\% | 36\% | 1\% | 5\% | 0\% | 1\% |  |

Transportation Services - Traffic Services
Collision Details Report - Public Version
From: January 1, 2017 To: December 31, 2021
Location: ST. JOSEPH BLVD @ TAYLOR CREEK DR
Traffic Control: Stop sign
Total Collisions: 3

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuv | Vehicle type | First Event | No. Ped |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2019-Nov-15, Fri, 10:22 | Clear | Angle | Non-fatal injury | Wet | South <br> West | Turning left Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2020-Feb-10, Mon,10:00 | Clear | Other | P.D. only | Packed snow | West <br> South | Turning right <br> Going ahead | Automobile, station wagon <br> Automobile, station wagon | Skidding/sliding <br> Other motor vehicle | 0 |
| 2020-Jul-29, Wed,07:25 | Clear | Turning movement | P.D. only | Dry | East <br> West | Turning left Going ahead | Pick-up truck Unknown | Other motor vehicle Other motor vehicle | 0 |

Location: ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD
Traffic Control: Roundabout
Total Collisions: 149

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuve | Vehicle type | First Event | No. Ped |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2017-Jan-23, Mon,14:27 | Clear | Angle | P.D. only | Dry | North East | Going ahead Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2017-Jan-30, Mon,19:30 | Clear | Sideswipe | P.D. only | Dry | West <br> West | Changing lanes Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2017-Feb-12, Sun,17:19 | Snow | SMV other | P.D. only | Packed snow | North | Going ahead | Automobile, station wagon | Ran off road | 0 |
| 2017-Feb-13, Mon,14:36 | Clear | Sideswipe | P.D. only | Loose snow | West <br> West | Going ahead Going ahead | Pick-up truck <br> Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2017-Feb-24, Fri,21:30 | Rain | Sideswipe | P.D. only | Wet | North <br> North | Going ahead Going ahead | Pick-up truck <br> Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2017-Mar-12, Sun,09:43 | Clear | Sideswipe | P.D. only | Dry | West <br> West | Going ahead <br> Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2017-Mar-17, Fri,13:01 | Clear | Sideswipe | P.D. only | Dry | North <br> North | Going ahead Going ahead | Delivery van <br> Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |

Transportation Services - Traffic Services
Collision Details Report - Public Version
From: January 1, 2017 To: December 31, 2021
Location: ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD


Transportation Services - Traffic Services
Collision Details Report - Public Version
From: January 1, 2017 To: December 31, 2021
Location: ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD


Transportation Services - Traffic Services
Collision Details Report - Public Version
From: January 1, 2017 To: December 31, 2021
Location: ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD


Transportation Services - Traffic Services
Collision Details Report - Public Version
From: January 1, 2017 To: December 31, 2021
Location: ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD

| Traffic Control: Round | ut |  |  |  |  |  | ions: | 149 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | V Vehicle type | First Event | No. Ped |
| 2018-Apr-23, Mon,11:25 | Clear | Angle | P.D. only | Dry | West <br> South | Merging <br> Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2018-May-24, Thu,16:40 | Clear | Angle | Non-fatal injury | Dry | East <br> South | Merging Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2018-Jun-28, Thu,11:45 | Clear | Sideswipe | P.D. only | Dry | North <br> North | Going ahead Going ahead | Automobile, station wagon Pick-up truck | Other motor vehicle Other motor vehicle | 0 |
| 2018-Jul-20, Fri, 11:55 | Clear | Angle | P.D. only | Dry | East <br> South | Going ahead Going ahead | Automobile, station wagon <br> Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2018-Jul-21, Sat,09:33 | Clear | Angle | P.D. only | Dry | South East | Unknown <br> Going ahead | Unknown <br> Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2018-Jul-21, Sat, 15:30 | Clear | Sideswipe | P.D. only | Dry | North <br> North | Unknown <br> Unknown | Automobile, station wagon Automobile, station wagon | Other motor vehicle Other motor vehicle | 0 |
| 2018-Aug-01, Wed,17:00 | Clear | Sideswipe | P.D. only | Dry | South <br> South | Going ahead <br> Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2018-Aug-31, Fri, 13:30 | Clear | Sideswipe | P.D. only | Dry | West <br> West | Going ahead Going ahead | Automobile, station wagon <br> Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2018-Sep-16, Sun, 18:03 | Clear | Angle | P.D. only | Dry | East <br> South | Going ahead <br> Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2018-Sep-29, Sat, 10:30 | Clear | Angle | P.D. only | Dry | West <br> South | Going ahead Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2018-Oct-16, Tue,14:31 | Clear | Sideswipe | Non-fatal injury | Dry | West <br> West | Going ahead <br> Going ahead | Automobile, station wagon <br> Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2018-Oct-26, Fri, 16:22 | Clear | Angle | Non-fatal injury | Dry | East <br> South | Merging <br> Going ahead | School bus <br> Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |

Transportation Services - Traffic Services
Collision Details Report - Public Version
From: January 1, 2017 To: December 31, 2021

| Location: ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD Traffic Control: Roundabout |  |  |  |  | Total Collisions: 149 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | r Vehicle type | First Event | No. Ped |
| 2018-Oct-27, Sat,09:45 | Rain | Sideswipe | P.D. only | Wet | West <br> West | Changing lanes Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2018-Nov-06, Tue,13:00 | Rain | Angle | P.D. only | Wet | South <br> West | Going ahead Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle Other motor vehicle | 0 |
| 2018-Dec-04, Tue,14:00 | Clear | Rear end | P.D. only | Dry | East <br> East | Slowing or stopping Unknown | Pick-up truck <br> Automobile, station wagon | Other motor vehicle Other motor vehicle | 0 |
| 2018-Dec-10, Mon,19:15 | Clear | Sideswipe | P.D. only | Dry | East <br> East | Going ahead Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2018-Dec-11, Tue,11:11 | Freezing Rain | SMV other | P.D. only | Ice | North | Going ahead | Automobile, station wagon | Skidding/sliding | 0 |
| 2019-Jan-07, Mon,17:26 | Snow | Sideswipe | P.D. only | Wet | West <br> West | Going ahead Going ahead | Unknown <br> Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2019-Jan-22, Tue,06:45 | Clear | Rear end | P.D. only | Ice | North <br> North | Slowing or stopping Going ahead | Pick-up truck <br> Automobile, station wagon | Other motor vehicle Other motor vehicle | 0 |
| 2019-Jan-22, Tue,07:52 | Clear | Rear end | P.D. only | Packed snow | North <br> North | Going ahead Stopped | Automobile, station wagon <br> Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2019-Feb-04, Mon,16:34 | Freezing Rain | Angle | P.D. only | Slush | West <br> North | Merging Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2019-Feb-14, Thu,11:50 | Clear | Sideswipe | P.D. only | Wet | North <br> North | Merging Going ahead | Truck - closed <br> Automobile, station wagon | Other motor vehicle Other motor vehicle | 0 |
| 2019-Feb-14, Thu,12:40 | Clear | Angle | P.D. only | Dry | South <br> West | Merging Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle Other motor vehicle | 0 |
| 2019-Feb-26, Tue,15:30 | Clear | Rear end | P.D. only | Dry | East <br> East | Turning right Turning right | Unknown Pick-up truck | Other motor vehicle <br> Other motor vehicle | 0 |

Transportation Services - Traffic Services
Collision Details Report - Public Version
From: January 1, 2017 To: December 31, 2021
Location: ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD
Traffic Control: Roundabout
Total Collisions: 149

| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver Vehicle type |  | First Event | No. Ped |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2019-Mar-14, Thu,12:20 | Clear | Sideswipe | P.D. only | Ice | North | Unknown | Automobile, station wagon | Other motor vehicle | 0 |
|  |  |  |  |  | North | Unknown | Automobile, station wagon | Other motor vehicle |  |
| 2019-Mar-15, Fri, 15:00 | Clear | Rear end | P.D. only | Wet | East | Turning right | Automobile, station wagon | Other motor vehicle | 0 |
|  |  |  |  |  | East | Turning right | Automobile, station wagon | Other motor vehicle |  |
| 2019-Mar-30, Sat, 18:50 | Clear | Sideswipe | P.D. only | Dry | South | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
|  |  |  |  |  | South | Going ahead | Automobile, station wagon | Other motor vehicle |  |
| 2019-Apr-09, Tue,06:45 | Snow | Other | Non-fatal injury | Loose snow | North | Slowing or stopping Automobile, station wagon |  | Skidding/sliding | 0 |
|  |  |  |  |  | North | Going ahead | Automobile, station wagon | Other motor vehicle |  |
| 2019-Apr-09, Tue,14:20 | Snow | Sideswipe | P.D. only | Loose snow | East | Unknown | Unknown | Other motor vehicle | 0 |
|  |  |  |  |  | East | Going ahead | School bus | Other motor vehicle |  |
| 2019-Apr-27, Sat,20:00 | Clear | SMV other | Non-fatal injury | Dry | North | Slowing or stopping Motorcycle |  | Skidding/sliding | 0 |
| 2019-May-15, Wed,14:13 | Rain | Sideswipe | P.D. only | Wet | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
|  |  |  |  |  | North | Going ahead | Automobile, station wagon | Other motor vehicle |  |
| 2019-May-25, Sat, 12:20 | Rain | Sideswipe | P.D. only | Wet | North | Changing lanes | Automobile, station wagon | Other motor vehicle | 0 |
|  |  |  |  |  | North | Going ahead | Automobile, station wagon | Other motor vehicle |  |
| 2019-May-27, Mon,17:59 | Clear | Angle | P.D. only | Dry | West | Merging | Automobile, station wagon | Other motor vehicle | 0 |
|  |  |  |  |  | North | Going ahead | Pick-up truck | Other motor vehicle |  |
| 2019-May-29, Wed,07:45 | Clear | Rear end | P.D. only | Dry | East | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
|  |  |  |  |  | East | Stopped | Automobile, station wagon | Other motor vehicle |  |
| 2019-Jun-10, Mon,14:36 | Clear | Sideswipe | Non-fatal injury | Dry | West | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
|  |  |  |  |  | West | Going ahead | Passenger van | Other motor vehicle |  |
| 2019-Jun-10, Mon, 19:00 | Clear | Sideswipe | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Other motor vehicle | 0 |
|  |  |  |  |  | North | Going ahead | Pick-up truck | Other motor vehicle |  |

Transportation Services - Traffic Services
Collision Details Report - Public Version
From: January 1, 2017 To: December 31, 2021
Location: ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD


Transportation Services - Traffic Services
Collision Details Report - Public Version
From: January 1, 2017 To: December 31, 2021

| Location: ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD Traffic Control: Roundabout |  |  |  |  | Total Collisions: 149 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | r Vehicle type | First Event | No. Ped |
| 2019-Nov-04, Mon,18:15 | Clear | Sideswipe | P.D. only | Dry | North <br> North | Going ahead Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2019-Nov-13, Wed, 10:28 | Clear | Sideswipe | P.D. only | Dry | East <br> East | Changing lanes Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle Other motor vehicle | 0 |
| 2019-Nov-19, Tue, 17:17 | Clear | Rear end | P.D. only | Dry | South <br> South | Going ahead Slowing or stoppin | Delivery van <br> Automobile, station wagon | Other motor vehicle Other motor vehicle | 0 |
| 2019-Nov-20, Wed, 17:30 | Clear | Sideswipe | P.D. only | Dry | North <br> North | Going ahead Going ahead | Automobile, station wagon Passenger van | Other motor vehicle <br> Other motor vehicle | 0 |
| 2019-Nov-25, Mon,18:25 | Clear | SMV other | P.D. only | Dry | North | Going ahead | Automobile, station wagon | Ran off road | 0 |
| 2019-Dec-13, Fri,07:55 | Clear | Angle | P.D. only | Dry | West <br> North | Merging <br> Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2020-Jan-08, Wed, 18:30 | Clear | Sideswipe | P.D. only | Dry | North <br> North | Unknown Going ahead | Unknown <br> Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2020-Jan-15, Wed, 18:55 | Clear | Angle | Non-fatal injury | Wet | South <br> West | Merging Going ahead | Pick-up truck <br> Automobile, station wagon | Other motor vehicle Other motor vehicle | 0 |
| 2020-Jan-18, Sat,20:00 | Snow | Angle | P.D. only | Packed snow | East <br> South | Going ahead <br> Going ahead | Pick-up truck <br> Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2020-Mar-31, Tue,14:31 | Clear | Sideswipe | P.D. only | Dry | West <br> West | Changing lanes Going ahead | Pick-up truck Pick-up truck | Other motor vehicle Other motor vehicle | 0 |
| 2020-May-20, Wed, 14:30 | Clear | Sideswipe | P.D. only | Dry | South <br> South | Going ahead Going ahead | Pick-up truck <br> Pick-up truck | Other motor vehicle <br> Other motor vehicle | 0 |
| 2020-Jun-14, Sun,11:35 | Clear | Rear end | Non-fatal injury | Dry | North <br> North | Slowing or stopping Stopped | Pick-up truck <br> Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |

Transportation Services - Traffic Services
Collision Details Report - Public Version
From: January 1, 2017 To: December 31, 2021
Location: ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD

| Traffic Control: Rour | ut |  |  |  |  |  | Total Collisions: | 149 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuve | Vehicle type | First Event | No. Ped |
| 2020-Jun-20, Sat, 15:11 | Clear | Angle | P.D. only | Dry | South <br> West | Going ahead Going ahead | Pick-up truck <br> Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2020-Jun-27, Sat, 12:42 | Clear | Sideswipe | P.D. only | Dry | West <br> West | Going ahead <br> Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2020-Jul-27, Mon,12:14 | Clear | Angle | P.D. only | Dry | East <br> South | Merging Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle Other motor vehicle | 0 |
| 2020-Aug-13, Thu,21:00 | Clear | Angle | Non-fatal injury | Dry | East <br> South | Merging <br> Going ahead | Automobile, station wagon Bicycle | Cyclist <br> Other motor vehicle | 0 |
| 2020-Aug-17, Mon, 17:08 | Clear | Other | Non-fatal injury | Dry | North <br> South | Going ahead Going ahead | Automobile, station wagon Passenger van | Pole (utility, power) <br> Pole (utility, power) | 0 |
| 2020-Aug-30, Sun,14:45 | Clear | Angle | P.D. only | Dry | North <br> East | Merging Going ahead | Pick-up truck <br> Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2020-Sep-10, Thu, 15:45 | Clear | Rear end | P.D. only | Dry | South <br> South | Slowing or stopping Slowing or stopping | Pick-up truck <br> Pick-up truck | Other motor vehicle <br> Other motor vehicle | 0 |
| 2020-Sep-14, Mon,08:20 | Clear | Sideswipe | P.D. only | Dry | North <br> North | Going ahead Going ahead | Unknown Pick-up truck | Other motor vehicle Other motor vehicle | 0 |
| 2020-Sep-26, Sat,15:45 | Clear | Angle | P.D. only | Dry | South <br> West | Merging <br> Going ahead | Automobile, station wagon Pick-up truck | Other motor vehicle <br> Other motor vehicle | 0 |
| 2020-Oct-19, Mon,16:05 | Rain | Sideswipe | P.D. only | Wet | East <br> East | Going ahead <br> Going ahead | Automobile, station wagon Pick-up truck | Other motor vehicle Other motor vehicle | 0 |
| 2020-Oct-23, Fri,08:35 | Clear | Angle | P.D. only | Dry | East <br> South | Merging <br> Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2020-Oct-30, Fri, 16:45 | Clear | Angle | P.D. only | Dry | West <br> South | Going ahead Going ahead | Delivery van <br> Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |

Transportation Services - Traffic Services
Collision Details Report - Public Version
From: January 1, 2017 To: December 31, 2021
Location: ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD

| T | ndabout |  |  |  |  |  | ota | 14 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuver | $r$ Vehicle type | First Event | No. Ped |
| 2020-Nov-07, Sat, 13:15 | Clear | Angle | P.D. only | Dry | South East | Going ahead Going ahead | Unknown <br> Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2020-Nov-16, Mon, 16:57 | Clear | Angle | P.D. only | Dry | East <br> South | Merging <br> Slowing or stopping | Automobile, station wagon g Automobile, station wagon | Other motor vehicle Other motor vehicle | 0 |
| 2021-Feb-04, Thu,07:20 | Clear | Angle | P.D. only | Dry | North <br> East | Merging <br> Going ahead | Passenger van <br> Pick-up truck | Other motor vehicle <br> Other motor vehicle | 0 |
| 2021-Feb-18, Thu, 21:41 | Clear | Angle | P.D. only | Dry | West <br> North | Going ahead Going ahead | Automobile, station wagon <br> Pick-up truck | Other motor vehicle <br> Other motor vehicle | 0 |
| 2021-Mar-16, Tue,14:36 | Clear | SMV other | P.D. only | Dry | North | Going ahead | Truck - tank | Ran off road | 0 |
| 2021-Mar-16, Tue,17:00 | Clear | Sideswipe | P.D. only | Dry | East <br> East | Going ahead Going ahead | Automobile, station wagon Delivery van | Other motor vehicle Other motor vehicle | 0 |
| 2021-Apr-10, Sat, 16:40 | Clear | Angle | P.D. only | Dry | North East | Merging Going ahead | Automobile, station wagon Pick-up truck | Other motor vehicle <br> Other motor vehicle | 0 |
| 2021-Apr-24, Sat, 14:40 | Clear | Sideswipe | P.D. only | Dry | South <br> South | Changing lanes Going ahead | Pick-up truck <br> Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2021-May-08, Sat, 14:40 | Clear | Sideswipe | P.D. only | Dry | North <br> North | Going ahead <br> Going ahead | Automobile, station wagon Passenger van | Other motor vehicle <br> Other motor vehicle | 0 |
| 2021-Jun-10, Thu, 18:30 | Clear | Rear end | P.D. only | Dry | East <br> East | Slowing or stopping Stopped | g Pick-up truck <br> Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2021-Jun-13, Sun,15:15 | Clear | SMV other | P.D. only | Dry | West | Going ahead | Motorcycle | Skidding/sliding | 0 |
| 2021-Jun-14, Mon,09:44 | Clear | Sideswipe | P.D. only | Dry | North <br> North | Going ahead Going ahead | Automobile, station wagon Pick-up truck | Other motor vehicle <br> Other motor vehicle | 0 |
| 2021-Jun-27, Sun,12:45 | Clear | Angle | P.D. only | Dry | East <br> South | Going ahead <br> Going ahead | Pick-up truck <br> Pick-up truck | Other motor vehicle <br> Other motor vehicle | 0 |

Transportation Services - Traffic Services
Collision Details Report - Public Version
From: January 1, 2017 To: December 31, 2021
Location: ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD


Transportation Services - Traffic Services
Collision Details Report - Public Version
From: January 1, 2017 To: December 31, 2021

| Location: ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD Traffic Control: Roundabout |  |  |  |  | Total Collisions: 149 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
| Date/Day/Time | Environment | Impact Type | Classification | Surface Cond'n | Veh. Dir | Vehicle Manoeuv | Vehicle type | First Event | No. Ped |
| 2021-Sep-25, Sat, 19:30 | Clear | Sideswipe | Non-fatal injury | Dry | North North | Going ahead Going ahead | Pick-up truck <br> Automobile, station wagon | Other motor vehicle Other motor vehicle | 0 |
| 2021-Oct-12, Tue,09:30 | Clear | Sideswipe | P.D. only | Dry | South <br> South | Going ahead Unknown | Pick-up truck Pick-up truck | Other motor vehicle Other motor vehicle | 0 |
| 2021-Oct-24, Sun, 13:35 | Clear | Sideswipe | P.D. only | Dry | East <br> East | Going ahead <br> Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2021-Nov-07, Sun,13:27 | Clear | Rear end | P.D. only | Dry | East <br> East | Merging <br> Stopped | Automobile, station wagon School bus | Other motor vehicle Other motor vehicle | 0 |
| 2021-Nov-11, Thu,15:15 | Clear | Angle | P.D. only | Dry | West <br> North | Merging <br> Stopped | Automobile, station wagon Automobile, station wagon | Other motor vehicle <br> Other motor vehicle | 0 |
| 2021-Nov-27, Sat, 12:55 | Clear | Angle | P.D. only | Dry | West <br> South | Going ahead Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle Other motor vehicle | 0 |
| 2021-Dec-03, Fri,18:10 | Clear | Sideswipe | P.D. only | Dry | South <br> South | Going ahead <br> Going ahead | Pick-up truck <br> Pick-up truck | Other motor vehicle <br> Other motor vehicle | 0 |
| 2021-Dec-08, Wed, 14:10 | Snow | Sideswipe | P.D. only | Loose snow | North North | Going ahead Going ahead | Automobile, station wagon Automobile, station wagon | Other motor vehicle Other motor vehicle | 0 |
| 2021-Dec-24, Fri,16:45 | Snow | Angle | P.D. only | Loose snow | South <br> West | Going ahead Going ahead | Pick-up truck <br> Automobile, station wagon | Other motor vehicle Other motor vehicle | 0 |

## Appendix E:

Truck Turning Templates


## Appendix F:

MMLOS Analysis

Multi-Modal Level of Service - Segments Form

| Consultant Scenario Comments | Parsons <br> Existing and Future |  | Project Date | $8426-01000$ <br> nay 52023 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | loseph Blvd (Exis | Section | Section | Section | Section | Section | Section | Section | Section |
| SEGMENTS |  | Street A | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 든©0000 | Sidewalk Width Boulevard Width | B | $\begin{gathered} \geq 2 \mathrm{~m} \\ 0.5-2 \mathrm{~m} \end{gathered}$ |  |  |  |  |  |  |  |  |
|  | Avg Daily Curb Lane Traffic Volume |  | $\leq 3000$ |  |  |  |  |  |  |  |  |
|  | Operating Speed On-Street Parking |  | $\begin{gathered} >60 \mathrm{~km} / \mathrm{h} \\ \mathrm{no} \end{gathered}$ |  |  |  |  |  |  |  |  |
|  | Exposure to Traffic PLoS |  | B | - | - | - | - | - | - | - | - |
|  | Effective Sidewalk Width |  | 2.0 m |  |  |  |  |  |  |  |  |
|  | Pedestrian Volume |  | $250 \mathrm{ped} / \mathrm{hr}$ |  |  |  |  |  |  |  |  |
|  | Crowding PLoS |  | B | - | - | - | - | - | - | - | - |
|  | Level of Service |  | B | - | - | - | - | - | - | - | - |
| $$ | Type of Cycling Facility | $E$ | Curbside Bike Lane |  |  |  |  |  |  |  |  |
|  | Number of Travel Lanes |  | $\begin{aligned} & \hline 2 \text { ea. dir. (no } \\ & \text { median) } \end{aligned}$ |  |  |  |  |  |  |  |  |
|  | Operating Speed |  | $>70 \mathrm{~km} / \mathrm{h}$ |  |  |  |  |  |  |  |  |
|  | \# of Lanes \& Operating Speed LoS |  | E | - | - | - | - | - | - | - | - |
|  | Bike Lane (+ Parking Lane) Width |  | $\geq 1.5$ to <1.8 m |  |  |  |  |  |  |  |  |
|  | Bike Lane Width LoS |  | B | - | - | - | - | - | - | - | - |
|  | Bike Lane Blockages |  | Rare |  |  |  |  |  |  |  |  |
|  | Blockage LoS |  | A | - | - | - | - | - | - | - | - |
|  | Median Refuge Width (no median $=<1.8 \mathrm{~m}$ ) |  | < 1.8 m refuge |  |  |  |  |  |  |  |  |
|  | No. of Lanes at Unsignalized Crossing |  | 4-5 lanes |  |  |  |  |  |  |  |  |
|  | Sidestreet Operating Speed |  | $>50$ to $60 \mathrm{~km} / \mathrm{h}$ |  |  |  |  |  |  |  |  |
|  | Unsignalized Crossing - Lowest LoS |  | D | - | - | - | - | - | - | - | - |
|  | Level of Service |  | E | - | - | - | - | - | - | - | - |
|  | Facility Type | D | Mixed Traffic |  |  |  |  |  |  |  |  |
|  | Friction or Ratio Transit:Posted Speed |  | Vt/Vp $\geq 0.8$ |  |  |  |  |  |  |  |  |
|  | Level of Service |  | D | - | - | - | - | - | - | - | - |
| $\begin{aligned} & \text { 들 } \\ & \text { 른 } \end{aligned}$ | Truck Lane Width | A | $\leq 3.5 \mathrm{~m}$ |  |  |  |  |  |  |  |  |
|  | Travel Lanes per Direction |  | >1 |  |  |  |  |  |  |  |  |
|  | Level of Service |  | A | - | - | - | - | - | - | - | - |

## Appendix G:

TDM Measures and Infrastructures Design Checklist

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

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


$\left.$| TDM-supportive design \& infrastructure measures: |
| :--- | :--- | :--- | :--- |
| Non-residential developments |$\quad$|  |
| :---: |
| add descriptions, explanations |
| or plan/drawing references | \right\rvert\,

REQUIRED 1.2.2 Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible (see Official Plan policy 4.3.12)

|  | TDM-supportive design \& infrastructure measures: |  | Check if completed $\boldsymbol{\&}$ add descriptions, explanations or plan/drawing |
| :---: | :---: | :---: | :---: |
| REQUIRED | $1.2 .3$ | Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks (see Official Plan policy 4.3.10) | Sidewalks are of a smooth, well-drained walking surface and separate for vehicle areas. |
| REQUIRED | 1.2.4 | Make sidewalks and open space areas easily accessible through features such as gradual grade transition, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps (see Official Plan policy 4.3.10) | Top floor amenity space and front entrance is accessed through building |
| REQUIRED | $1.2 .5$ | Include adequately spaced inter-block/street cycling and pedestrian connections to facilitate travel by active transportation. Provide links to the existing or planned network of public sidewalks, multi-use pathways and on- road cycle routes. Where public sidewalks and multi-use pathways intersect with roads, consider providing traffic control devices to give priority to cyclists and pedestrians (see Official Plan policy 4.3.11) | The future 3.0 m MUP will provide connectivity through the site to St. Joseph and the future Trim Road Station |
| BASIC | 1.2.6 | Provide safe, direct and attractive walking routes from building entrances to nearby transit stops | Front door connects directly to St. Joseph. |
|  |  |  | Lighting to be provided at east face of building to illuminate future MUP. |
| BASIC | $1.2 .7$ | Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible | Front door connects directly to St. Joseph. |
|  |  |  | Lighting to be provided at east face of building to illuminate future MUP. |
| BASIC | 1.2 .8 | Design roads used for access or circulation by cyclists using a target operating speed of no more than 30 $\mathrm{km} / \mathrm{h}$, or provide a separated cycling facility | $\square \mathrm{N} / \mathrm{A}$ |


|  | 1.3 | Amenities for walking \& cycling |  |
| :--- | :--- | :--- | :--- |
| BASIC | 1.3.1Provide lighting, landscaping and benches along <br> walking and cycling routes between building entrances <br> and streets, sidewalks and trails | a <br> through the site to St. Joseph and <br> provide connectivity |  |
| BASIC will |  |  |  |
| 1.3.2Provide wayfinding signage for site access (where <br> required, e.g. when multiple buildings or entrances Trim Road Station <br> exist) and egress (where warranted, such as when <br> directions to reach transit stops/stations, trails or other <br> common destinations are not obvious) | N/A |  |  |

TDM-supportive design \& infrastructure measures: Non-residential developments

Check if completed \& add descriptions, explanations or plan/drawing references

## 2. WALKING \& CYCLING: END-OF-TRIP FACILITIES

### 2.1 Bicycle parking

REQUIRED
2.1.1 Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible (see Official Plan policy 4.3.6)

REQUIRED
2.1.2 Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or wellused areas (see Zoning By-law Section 111)

REQUIRED
2.1.3 Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than $50 \%$ of spaces are vertical spaces; and that parking racks are securely anchored (see Zoning By-law Section 111)
2.1.5 Provide bicycle parking spaces equivalent to the expected number of commuter and customer/visitor cyclists, plus an additional buffer (e.g. 25 percent extra) to encourage other cyclists and ensure adequate capacity in peak cycling season

### 2.2 Secure bicycle parking

2.2.1 Where more than 50 bicycle parking spaces are provided for a single office building, locate at least $25 \%$ of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers (see Zoning By-law Section 111)
2.2.2 Provide secure bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met)

### 2.3 Shower \& change facilities

2.3.1 Provide shower and change facilities for the use of active commuters
2.3.2 In addition to shower and change facilities, provide dedicated lockers, grooming stations, drying racks and laundry facilities for the use of active commuters

Bicycle parking provided at front and rear of building
,
20 bicycle stalls provided which exceeds the Zoning By-Law


All spaces are horizontal spaces.

20 bicycle stalls can accommodate the combined transit and nonmotorized trips.Less than 50 spaces are provided.

### 2.4 Bicycle repair station

BETTER 2.4.1 Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)

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


|  | TDM-supportive design \& infrastructure measures: Non-residential developments |  | Check if completed \& add descriptions, explanations or plan/drawing references |
| :---: | :---: | :---: | :---: |
|  | 6. | PARKING |  |
|  | 6.1 | Number of parking spaces |  |
| REQUIRED | 6.1.1 | Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for | Parking incorporates shared provisions and targets zoning minimums. |
| BASIC | 6.1.2 | Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking | $\square$ |
| BASIC | 6.1.3 | Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly (see Zoning By-law Section 104) | 】 Parking incorporates shared provisions and targets zoning minimums. |
| better | $6.1 .4$ | Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking (see Zoning By-law Section 111) | $\square$ |
|  | 6.2 | Separate long-term \& short-term parking areas |  |
| better | $6.2 .1$ | Separate short-term and long-term parking areas using signage or physical barriers, to permit access controls and simplify enforcement (i.e. to discourage employees from parking in visitor spaces, and vice versa) | $\square$ |
|  | 7. | OTHER |  |
|  | 7.1 | On-site amenities to minimize off-site trips |  |
| BETTER | 7.1.1 | Provide on-site amenities to minimize mid-day or mid-commute errands | $\boxed{\text { Restaurant, café and gym }}$ are on site. Site is adjacent to a commercial plaza. |

## TDM Measures Checklist:

Non-Residential Developments (office, institutional, retail or industrial)


|  | TDM measures：Non－residential developments | Check if proposed \＆ add descriptions |
| :---: | :---: | :---: |
|  | 3．TRANSIT |  |
|  | 3．1 Transit information |  |
| BASIC | 3．1．1 Display relevant transit schedules and route maps at entrances | 区 Signs／maps to be installed in lobby． |
| BASIC | 3．1．2 Provide online links to OC Transpo and STO information | 凹 To be included on the hotel website． |
| BETTER | 3．1．3 Provide real－time arrival information display at entrances | $\square$ |
|  | 3．2 Transit fare incentives |  |
|  | Commuter travel |  |
| better | 3．2．1 Offer preloaded PRESTO cards to encourage commuters to use transit | 区 These would be provided to employees． |
| BETTER | 3．2．2 Subsidize or reimburse monthly transit pass purchases by employees | $\square$ |
|  | Visitor travel |  |
| better | 3．2．3 Arrange inclusion of same－day transit fare in price of tickets（e．g．for festivals，concerts，games） | $\square$ |
|  | 3．3 Enhanced public transit service |  |
|  | Commuter travel |  |
| better | 3．3．1 Contract with OC Transpo to provide enhanced transit services（e．g．for shift changes，weekends） | $\square$ |
|  | Visitor travel |  |
| better | 3．3．2 Contract with OC Transpo to provide enhanced transit services（e．g．for festivals，concerts，games） | $\square$ |
|  | 3．4 Private transit service |  |
|  | Commuter travel |  |
| better | 3．4．1 Provide shuttle service when OC Transpo cannot offer sufficient quality or capacity to serve demand（e．g．for shift changes，weekends） | $\square$ |
|  | Visitor travel |  |
| better | 3．4．2 Provide shuttle service when OC Transpo cannot offer sufficient quality or capacity to serve demand（e．g．for festivals，concerts，games） | $\square$ |


|  | TDM measures：Non－residential developments | Check if proposed \＆ add descriptions |
| :---: | :---: | :---: |
| 4．RIDESHARING |  |  |
| 4．1 Ridematching service |  |  |
| Commuter travel |  |  |
| BASIC | 4．1．1 Provide a dedicated ridematching portal at OttawaRideMatch．com | 区 Proponent intends to register hotel． |
| 4．2 Carpool parking price incentives |  |  |
| Commuter travel |  |  |
| better | 4．2．1 Provide discounts on parking costs for registered carpools | $\square$ |
| 4．3 Vanpool service |  |  |
| Commuter travel |  |  |
| BETTER | 4．3．1 Provide a vanpooling service for long－distance commuters | $\square$ |
| 5．CARSHARING \＆BIKESHARING |  |  |
| 5．1 Bikeshare stations \＆memberships |  |  |
| BETTER | 5．1．1 Contract with provider to install on－site bikeshare station for use by commuters and visitors | $\square$ |
|  | Commuter travel |  |
| BETTER | 5．1．2 Provide employees with bikeshare memberships for local business travel | $\square$ |
|  | 5．2 Carshare vehicles \＆memberships |  |
|  | Commuter travel |  |
| BETTER | 5．2．1 Contract with provider to install on－site carshare vehicles and promote their use by tenants | $\square$ |
| BETTER | 5．2．2 Provide employees with carshare memberships for local business travel | $\square$ |
|  | 6．PARKING |  |
|  | 6．1 Priced parking |  |
|  | Commuter travel |  |
| BAsIC | 6．1．1 Charge for long－term parking（daily，weekly，monthly） | 区 Recommended to consider charging for parking． |
| BASIC | 6．1．2 Unbundle parking cost from lease rates at multi－tenant sites | $\square$ |
|  | Visitor travel |  |
| BETTER | 6．1．3 Charge for short－term parking（hourly） | 区Recommended to consider charging for parking． |


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


[^0]:    Millennium
    S. GISĖLE LALONDE

