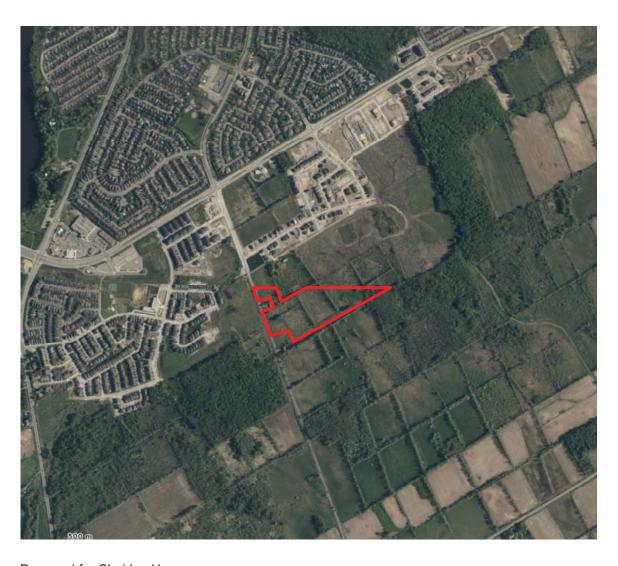


Transportation Impact Assessment - Step 1 & 2: TIA Screening & Scoping

4725 Spratt Road





Prepared for Claridge Homes by IBI Group November 21, 2018

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November 2018 ii

1 Introduction

IBI Group (IBI) was retained by Claridge Homes to undertake a Transportation Impact Assessment (TIA) in support of a Draft Plan of Subdivision application for a proposed residential development to be located at 4725 Spratt Road, Ottawa.

In accordance with the City of Ottawa's Transportation Impact Assessment Guidelines, published in June 2017, the following report is divided into four major components:

- Screening Prior to the commencement of a TIA, an initial assessment of the proposed development is undertaken to establish the need for a comprehensive review of the site based on three triggers: Trip Generation, Location and Safety.
- Scoping This component of the TIA report describes both the existing and planned
 conditions in the vicinity of the development and defines such study parameters as the
 study area, analysis periods and horizon years of the development. It also provides an
 opportunity to identify any scope exemptions that would eliminate elements of scope
 described in the TIA Guidelines but not relevant to the development proposal, based on
 consultation with City staff.
- Forecasting The Forecasting component of the TIA is intended to review both the
 development-generated travel demand and the background network travel demand, and
 provides an opportunity to rationalize this demand to ensure projections are within the
 capacity constraints of the transportation network.
- Analysis This component documents the results of any analyses undertaken to
 ensure that the transportation related features of the proposed development are in
 conformance with prescribed technical standards and that its impacts on the
 transportation network are both sustainable and effectively managed. It also identifies a
 development strategy to ensure that what is being proposed is aligned with the City of
 Ottawa's city-building objectives.

Throughout the development of a TIA report, each of the four study components above are submitted in draft form to the City of Ottawa and undergo a review by a designated Transportation Project Manager. Any comments received are addressed to the satisfaction of the City's Transportation Project Manager before proceeding with subsequent components of the study.

Dependent on the findings of this report, the complete submission of this Transportation Impact Assessment may also require Functional Design Drawings of recommended roadway improvements to support a Roadway Modification Application (RMA). The submission may also require a post-development Monitoring Plan to track performance of the planned TIA Strategy. The need for these two elements will be confirmed through the analysis undertaken for this report.

2 TIA Screening

An initial screening was completed to confirm the need for a Transportation Impact Assessment by reviewing the following three triggers:

• **Trip Generation**: Based on the magnitude of the proposed development, the site is expected to generate traffic in the order of 200 new two-way vehicular trips during weekday peak hours. With consideration of the proposed land use and the documented

modal share for the local area, the proposed development is expected to exceed the 60 person trip threshold during the weekday peak hours and therefore the Trip Generation trigger is satisfied.

- Location: The proposed development will not be accessed from a boundary street that is designated as part of the City's Transit Priority, Rapid Transit or Spine Bicycle network, however the site is located within 600m of a future rapid transit station and therefore is in a Transit-Oriented Development Zone per the Riverside South Community Design Plan. The Location trigger is therefore satisfied
- **Safety**: Boundary street conditions were reviewed to determine if there is an elevated potential for safety concerns adjacent the site. As the proposed development will access Spratt Road, an arterial roadway with a posted speed limit of 80 km/h, there may be potential for safety concerns and therefore the Safety trigger is satisfied.

As the proposed development meets the Trip Generation, Location and Safety triggers, the need to undertake a Transportation Impact Assessment is confirmed.

A copy of the Screening Form is provided in **Appendix A**.

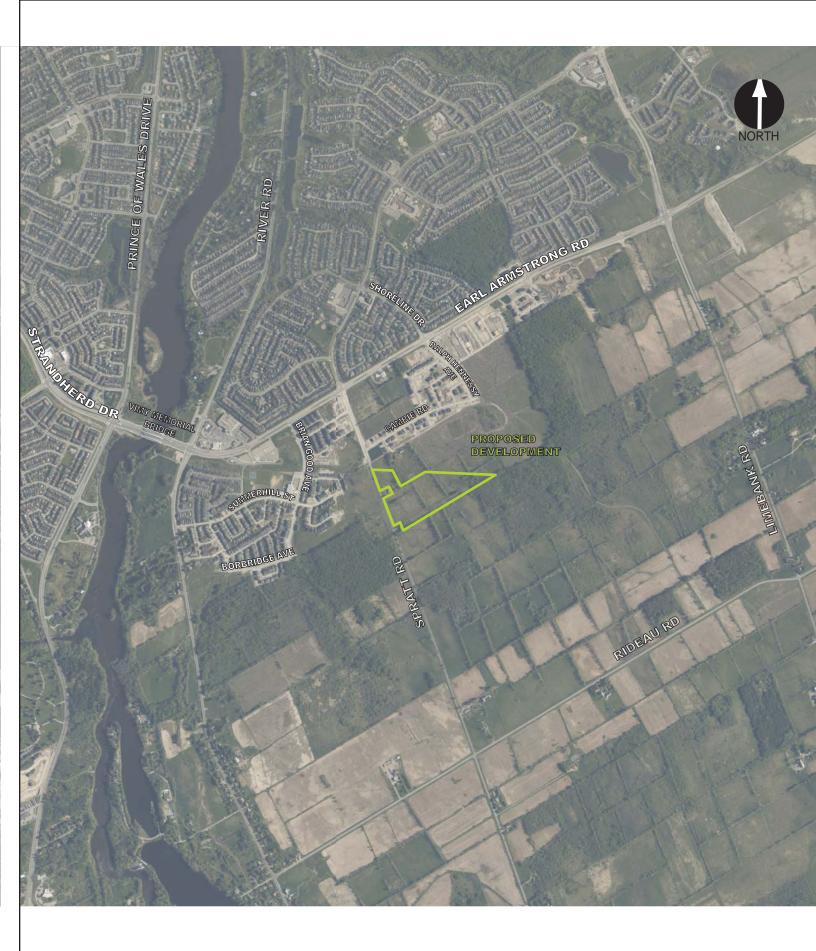
3 Project Scoping

3.1 Description of Proposed Development

3.1.1 Site Location

The proposed development is located at 4725 Spratt Road in the community of Riverside South, approximately 500 metres south of Earl Armstrong Road. The property is approximately 9.6 hectares in size, and is bounded by Spratt Road to the west, a future Bus Rapid Transit (BRT) corridor to the north, and undeveloped greenfield land to the east and south.

The site location and its surrounding context is illustrated in **Exhibit 1**.



3.1.2 Land Use Details

The proposed development will consist of residential townhomes and is expected to be constructed in a single phase. The full build-out and occupancy of the development is expected by 2021.

Table 1 summarizes the proposed land uses and densities.

Table 1 - Land Use Statistics

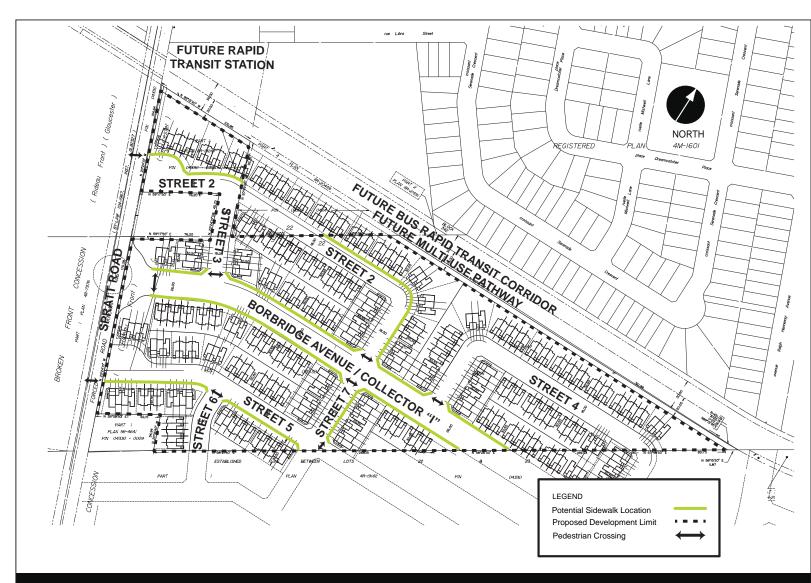
LAND USE	SIZE (# OF UNITS)	
Townhomes	278	

3.1.3 Site Layout

The development will be served primarily by a two-lane urban collector road with a 26m right-of-way (ROW) that bisects the development. This collector road, referred to herein as Borbridge/Collector 'I', will ultimately become part of Borbridge Avenue upon its easterly extension beyond Spratt Road. The configuration of the site provides only one access to the adjacent road network.

The layout of the internal road network has been configured as a modified grid to maximize mobility within the development as well as provide connectivity to adjacent pedestrian and cycling facilities. To promote the use of active forms of transportation, concrete sidewalks will be provided along both sides of the Collector road and on one side of most local roads. Internal roadways have been designed to discourage high vehicular speeds and provide high pedestrian connectivity within the site. The Draft Plan also provisions for connectivity to adjacent pedestrian and cycling facilities within the surrounding area, particularly the future rapid transit station to be located near the northeast corner of the site and the future multi-use path proposed along the southern edge of the reserved rapid transit corridor to the immediate north of the site. No specific bicycle facilities are planned for Collector 'I'/ Borbridge through the site.

The Draft Plan for the proposed development is illustrated in **Exhibit 2**. The location and configuration of on-site pedestrian facilities will be established through the Draft Plan of Subdivision approvals process.





Project No. 118404 Date: November 2018 Scale:



3.2 Existing Conditions

3.2.1 Existing Road Network

3.2.1.1 Roadways

The proposed development is bound by the following street:

Spratt Road is a two-lane, north-south major collector road with a ROW of 26m that
extends from Limebank Road to Mitch Owens Road. North of Earl Armstrong Road,
Spratt Road has an urban cross-section and a posted speed limit of 60 km/h.
Approximately 350 metres south of Earl Armstrong Road at Cambie Road, Spratt road
transitions from an urbanized to a rural cross-section with a posted speed limit of 80
km/h.

Other streets within the vicinity of the proposed development are as follows:

- Earl Armstrong Road is designated as an urban arterial road with a 44.5m ROW in the City of Ottawa Official Plan. Earl Armstrong Road is oriented east-west and extends from River Road in the west to High Road in the east. Further west, across the Vimy Memorial Bridge, Earl Armstrong Road becomes Strandherd Drive, which is also designated as an urban arterial road with a similar ROW. Earl Armstrong Road has a four-lane urban cross-section from the Riverview Park and Ride to just east of Limebank Road. To the west of the Riverview Park and Ride, two additional exclusive bus lanes are provided crossing the Rideau River. The posted speed limit on Earl Armstrong Road is 80km/h to the east of the Riverview Park and Ride station.
- Borbridge Avenue is a two-lane collector road with a ROW of 26m that presently extends from Southbridge Street to Brian Good Avenue. Borbridge Avenue will ultimately extend from River Road to Bowesville Road as development proceeds in the area. The existing portion of Borbridge Avenue has an urban cross-section and an unposted speed limit of 50 km/h.
- Cambie Road is an east-west, two-lane urban local road with a ROW of 20m that provides access to the Riverside South Phase 8/13 communities and has an unposted speed limit of 50km/h.

3.2.1.2 Intersections

The following existing intersections have the greatest potential to be impacted by the proposed development:

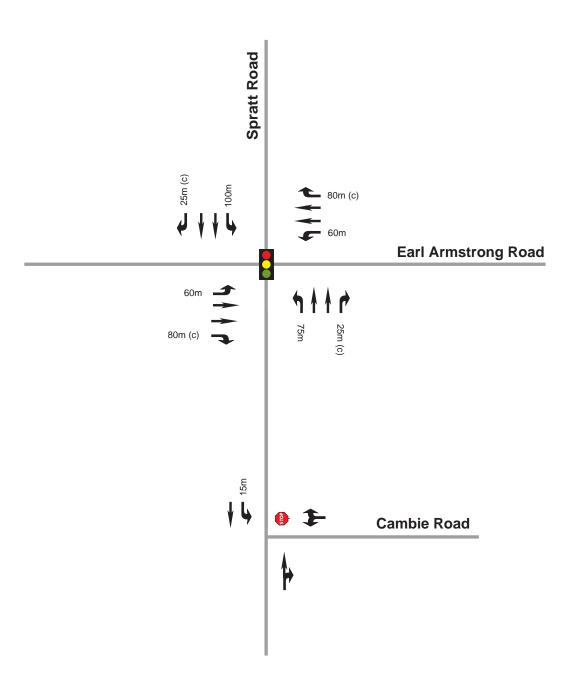
- Earl Armstrong Road and Spratt Road
- Spratt Road and Cambie Road

The intersection control and lane configurations of each intersection are shown in Exhibit 3.

3.2.1.3 Traffic Management Measures

There are currently no existing traffic management or traffic calming measures on the boundary streets within the vicinity of the proposed development.





LEGEND

↑ ↑ ↑ Travel Lanes and Permitted Movements

Signalized Control

(c) Channelization

Auxiliary Storage Length (in metres)
Does not include Taper Length



3.2.1.4 Existing Traffic Volumes

As the proposed development will comprise of residential land uses, the weekday peak hour traffic conditions will be most affected by the associated increase in traffic. Weekday morning and afternoon peak hour turning movement counts were therefore obtained from the City of Ottawa at the following intersections within close proximity to the site, and supplemented with field counts where necessary:

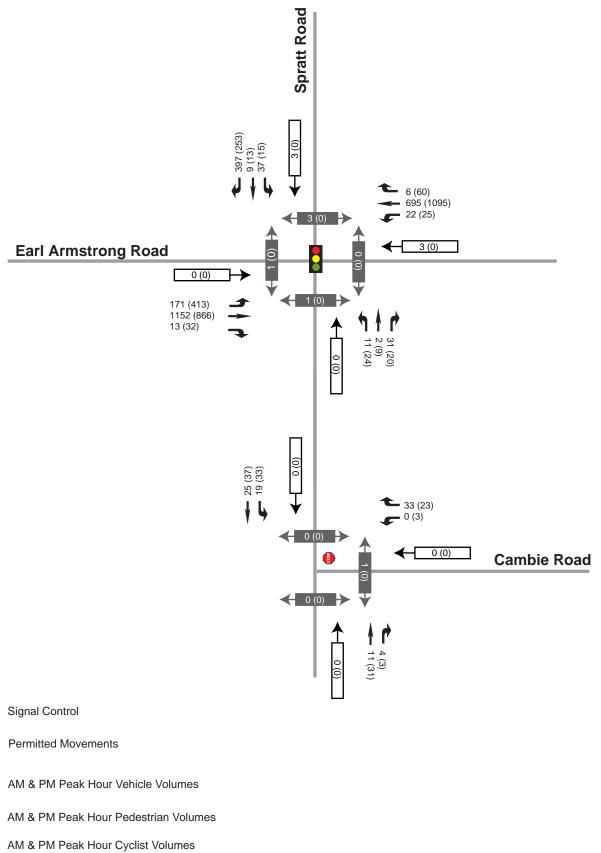
- Earl Armstrong Road and Spratt Road (City of Ottawa, August 2015)
- Earl Armstrong Road and Brian Good Avenue (City of Ottawa, September 2017)
- Earl Armstrong Road and Shoreline Drive / Ralph Hennessy Avenue (City of Ottawa, September 2017)
- Spratt Road and Cambie Road Side Street Traffic Only (IBI Group, August 2017)

A growth rate was applied to the above noted turning movement count data to approximate existing (2018) traffic volumes. Justification of background growth rates is discussed further in the Forecasting section of this TIA.

Due to the temporary closure of River Road from Earl Armstrong Road to Rideau Road and the resulting detour of traffic onto Spratt Road (effective from September to December, 2018), the collection of more recent traffic data could not be undertaken as the recorded volumes would not be representative of typical conditions. Since there are minimal access driveways along Earl Armstrong Road between Brian Good Avenue and Ralph Hennessy Avenue, these traffic volumes were balanced through at the Earl Armstrong Road and Spratt Road intersection where appropriate.

Peak hour traffic volumes representative of existing conditions are shown in **Exhibit 4**. Traffic count data is provided in **Appendix B**.







XXX (XXX) XXX (XXX)

LEGEND

3.2.2 Existing Bicycle and Pedestrian Facilities

Exclusive cycling lanes and concrete sidewalks are currently provided on both sides of Earl Armstrong Road both to the east and west of Spratt Road. Along Spratt Road, concrete sidewalks and exclusive on-street bicycle lanes are provided on both sides of the road between Earl Armstrong and Cambie Road.

3.2.3 Existing Transit Facilities and Service

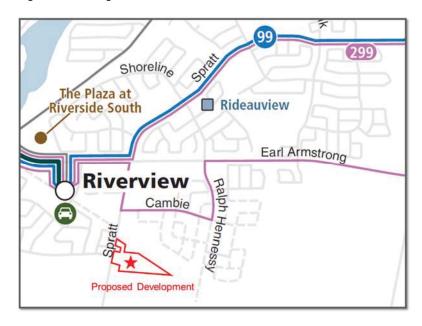
The following transit routes, operated by OC Transpo, exist within the vicinity of the site:

- Route #94 provides regular, all-day service between Millennium Station and the Riverview Park & Ride and operates on a 15-minute headway. On weekends, service frequency is reduced to every 30 minutes.
- Route #99 provides regular, all-day service between South Keys station and Barrhaven Centre. During weekday peak periods, service is extended to Lebreton Station and the route operates on a 15-minute headway. On weekends, frequency is reduced to 30 minutes.
- Route #198 provides weekday peak period service between South Keys station and the Riverview Park and Ride. This route does not operate on weekends.
- Route #278 provides weekday peak period service between Earl Armstrong/Limebank and Mackenzie King Station and operates on a 15-minute headway.
- Route #299 provides weekday peak period service between the village of Manotick and Lebreton Station.

The nearest bus stops to the proposed development are presently located at the intersection of Spratt/Cambie, approximately 300 metres north of the proposed Spratt/Borbridge intersection, providing access to Route #278. All other routes in the area are accessed via bus stops at the intersection of Spratt/Earl Armstrong or via the Riverside Park & Ride approximately one kilometer away.

The existing transit network within the vicinity of the proposed development is illustrated in **Figure 1**. Transit service maps for the individual routes above are provided in **Appendix C**.

Figure 1 - Existing Transit Service



The Riverview Park & Ride, completed in August 2010, contains approximately 400 parking spaces and is located approximately one kilometer northwest of the proposed development on Earl Armstrong Road. Each of the transit routes described above can be accessed via this station. Exclusive transit lanes are provided on Earl Armstrong Road between the Riverview Park & Ride and the adjacent community of Barrhaven via the Vimy Memorial Bridge. The Riverview Park & Ride station is shown below in **Figure 2**.

THE PLAZA

EARTH ARMS TROUG Greenback

Bartinater

Townson

Townso

Figure 2 - Riverview Transit Station and Park & Ride

Source: OC Transpo

3.2.4 Collision History

A review of historical collision data has been reviewed for the road network surrounding the proposed development. The TIA Guidelines require a safety review if at least six collisions for any one movement or of a discernible pattern, over a five year period have occurred. **Table 2** summarizes all reported collisions between January 1, 2013 and January 1, 2018.

Table 2 - Reported Collisions within Vicinity of Proposed Development

LOCATION	# OF REPORTED COLLISIONS	RE-OCCURING EVENTS
Earl Armstrong & Spratt	28	 Eastbound/Westbound Turning Movement Collision: 16 similar events Southbound Rear End Collision: 7 similar events
Earl Armstrong Road - River to Spratt	6	Westbound Single Motor Vehicle Collision: 2 similar events
Spratt Road - Earl Armstrong to Rideau	1	No Similar Events

Based on the collision history noted above, the intersection of Earl Armstrong Road and Spratt Road warrants further analysis which will be reviewed in subsequent sections of this report.

Detailed collision records are provided in **Appendix D**.

3.3 Planned Conditions

3.3.1 Transportation Network

3.3.1.1 Future Road Network Projects

The 2013 Transportation Master Plan (TMP) outlines future road network modifications required in the 2031 'Affordable Network'. The following projects were noted that may have an impact on area traffic within the vicinity of the site:

- **Earl Armstrong Road** Planned widening from two to four lanes between Limebank Road and Bowesville Road (Phase 3: 2026-2031)
- Prince of Wales Drive Planned widening from two to four lanes between Merivale Road and West Hunt Club Road (Phase 3: 2026-2031)

The Development Charges Amendment Background Study: Transit and Roads and Related Services (March 24, 2017) identifies that the Earl Armstrong Road widening is planned for implementation between 2030 and 2031, and that the Prince of Wales Drive widening would occur sometime between 2026 and 2031.

Figure 3 illustrates the planned changes to the arterial road network projects in the broader area, as per the TMP Affordable Plan. It should also be noted that Prince of Wales Drive has recently undergone intersection modifications and coordinated network modifications from approximately 480m north of Strandherd Drive to West Hunt Club Road. These road modifications were substantially completed in mid-December 2017.

Phase 1 (2014 - 2019) Widening Phase 1 (2014 - 2019) New Road

Phase 2 (2020 - 2025) Widening Phase 2 (2020 - 2025) New Road

Phase 3 (2026 - 2031) Widening Phase 3 (2026 - 2031) New Road

Figure 3 - Future Road Network Projects

Source: 2013 Transportation Master Plan – Map 11 '2031 Affordable Network'

The Riverside South Community Design Plan (CDP) identifies two major east-west collector roads to the south of the planned rapid transit corridor. As indicated in **Figure 4** below, Collector 'I' represents Borbridge Avenue which will ultimately extend from River Road to Bowesville Road, and serve as the primary access for the proposed development. Collector 'J', also referred to as Solarium Avenue, will provide a connection between River Road and Limebank Road further to the south.

The CDP also indicates that Brian Good Avenue will be extended south to Rideau Road, as indicated by a dashed line in **Figure 4** below, between River Road and Spratt Road.

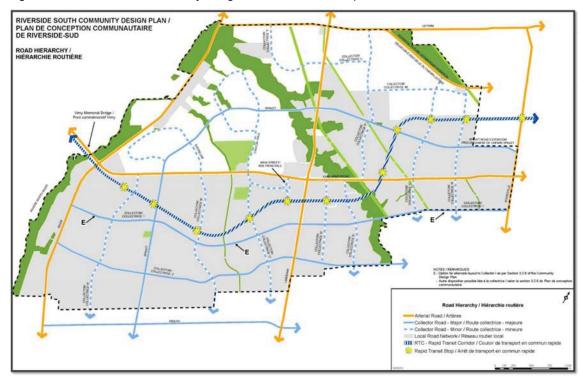


Figure 4 - Riverside South Community Design Plan - Network Concept

Source: Riverside South Community Design Plan

3.3.1.2 Future Transit Facilities and Services

The 2013 TMP outlines the future rapid transit and transit priority (RTTP) network. The following projects were noted in the 'Affordable RTTP Network' that may have a future impact on study area traffic:

- O-Train Trillium Line South Extension of the O-Train from Greenboro Station to Limebank, including new stations at Gladstone, Walkley, South Keys, Leitrim and Earl Armstrong / Bowesville, and a spur line to the Airport, including a new station at Uplands. Based on the Trillium Line LRT Extension Environmental Project Report (EPR) Addendum (September, 2018), there have been notable changes to the planned extension of the Trillium Line since the publication of the TMP. These changes include:
 - The location of the Bowesville Station has been moved further south near Earl Armstrong Road
 - o The Trillium Line terminus has been extended to Limebank Road.
 - Crossings of Earl Armstrong Road, Bowesville Road and Limebank Road will be grade-separated.

The City is targeting the completion of the O-Train extension to Riverside South by 2021.

Chapman Mills/ Strandherd Drive/ Earl Armstrong Road Transit Priority Corridor The corridor is expected to be upgraded with transit signal priority and queue jump lanes
between the Barrhaven Town Centre Station and Bowesville Station. There is presently
no specific timing available for the implementation of this project.

Figure 5 shows the transit infrastructure projects in the vicinity of the proposed development that are part of the 2031 Affordable Network. Note that the figure below does not account for the changes to the Trillium Line LRT Extension described in the EPR Addendum.

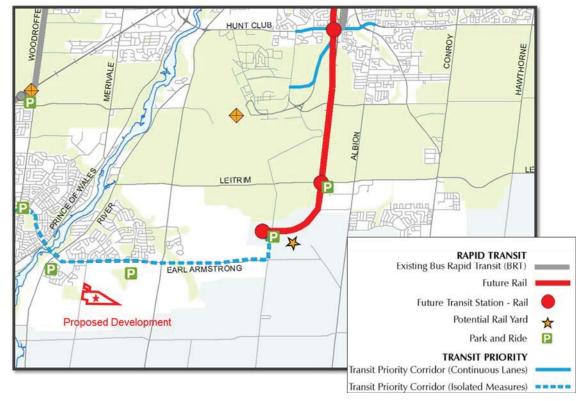


Figure 5 - Future 'Affordable RTTP Network Projects'

Source: 2013 Transportation Master Plan – Map 5 '2031 Affordable Network'

As shown previously in **Figure 4**, the Riverside South CDP identifies the eventual construction of a Rapid Transit Corridor immediately to the north of the proposed development, connecting the Riverside Park and Ride with the future O-Train terminus at Limebank Road. The implementation of this corridor, however, is presently not expected within the horizon year of this study.

3.3.1.3 Future Cycling and Pedestrian Facilities

The Transportation Master Plan (TMP) designates Earl Armstrong Road as a "Spine" or "Citywide Cycling Route, which forms part of a system linking the commercial, employment, institutional, residential and educational nodes throughout the City of Ottawa. Spratt Road is identified as a "Local Route" in the Ultimate Cycling Network, and Borbridge Avenue will provide concrete sidewalks on both sides of the road.

The Riverside South CDP provides further detail on proposed active transportation facilities within the area, including a multi-use pathway along the proposed Rapid Transit corridor. Furthermore, it shows Earl Armstrong Road, Spratt Road and Solarium Avenue south of the proposed development as being part of the "Primary Pedestrian – Cycling Network".

The planned cycling and pedestrian network indicated in the CDP is shown below in Figure 6.

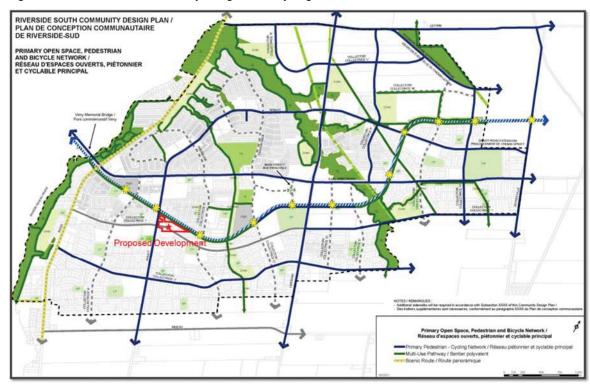


Figure 6 - Riverside South Community Design Plan - Cycling and Pedestrian Network

Source: Riverside South Community Design Plan

3.3.2 Future Adjacent Developments

The City of Ottawa Transportation Impact Assessment (TIA) Guidelines specify that all significant developments proposed within the surrounding area which are likely to occur within the study's horizon year must be identified and taken into consideration in the development of future background traffic projections.

There are 13 known developments of significance in the vicinity of the proposed development that are either in the development application approval process, have already been approved and in pre-construction, or are currently under construction. For these developments, all unoccupied units are accounted for in the development of background traffic volumes using consistent trip generation assumptions. Traffic generated by occupied units is assumed to have been captured in the existing traffic data.

All adjacent developments have been summarized in **Table 3**, and their approximate locations in relation to the proposed development are shown in **Exhibit 5**. Development buildout/ occupancy is based on a site visit conducted by IBI staff on September 9, 2018.

Table 3 - Adjacent Developments

DEVELOPMENT	LAND USE	SIZE	NOT BUILT/ OCCUPIED	BUILD-OUT
Claridge Phase 2	Single Family Residential	268 units	268 units	2021
(Sub-Phase 1)	Townhome	172 units	172 units	2021
Claridge Phase 2	Single Family Residential	78 units	78 units	2026
(Sub-Phase 2)	Townhome	237 units	237 units	2026
	Single Family Residential	176 units	23 units	2019
Phase 8 (RSDC)	Townhome	256 units	22 units	2019
(1.020)	Stacked Townhome	146 units	0	Complete
	Single Family Residential	414 units	10 units	2019
Phase 9 South (RSDC)	Townhome	760 units	0	Complete
(11020)	Stacked Townhome	181 units	0	Complete
Phase 9 North	Shopping Centre	101,000 sqft	101,000 sqft	2019
(RSDC)	Stacked Townhome	94 units	13 units	2019
Phase 9 Southeast	Single Family Residential	22 units	22 units	2019
(Urbandale)	Townhome	114 units	114 units	2019
Phase 13	Single Family Residential	282 units	264 units	2019
(RSDC)	Townhome	190 units	190 units	2019
Urbandale Phase 15	Single Family Residential	215 units	215 units	2021
(Sub-Phase 1)	Townhome	373 units	373 units	2021
Urbandale Phase 15	Single Family Residential	293 units	293 units	2026
(Sub Phases 2 & 3)	Townhome	192 units	192 units	2026
Block K	Stacked Townhomes	43 units	43 units	2023
(RSDC)	Shopping Centre	143,000 sqft	143,000 sqft	2023
673 River Road	Single Family Residential	234 units	234 units	2029
(Cardel Homes)	Townhome	260 units	260 units	2029
879 River Road (Richcraft)	Townhome	117 units	117 units	2019
750 River Road (Urbandale)	Single-Family Residential	55 units	55 units	2021

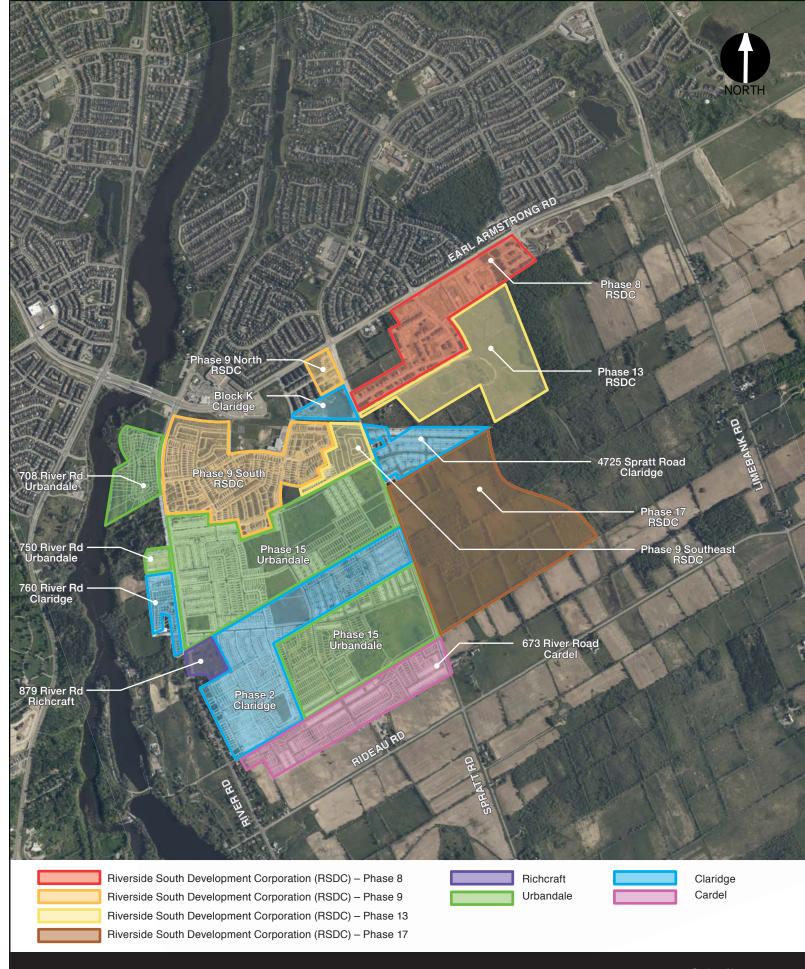
760 River Road (Claridge)	Single Family Residential	55 units	55 units	2021
	Townhome	55 units	55 units	2021
708 River Road (Urbandale)	Single Family Residential	80 units	80 units	2021
Phase 17 – 4775 &	Single Family Residential	206 units	1030 units	2021
4875 Spratt Road	Townhome	103 units	515 units	2021
(RSDC) ¹	Apartment	34 units	172 units	2021
Phase 17 – 4775 &	Single Family Residential	1030 units	1030 units	2026
4875 Spratt Road	Townhome	515 units	515 units	2026
(RSDC) ¹	Apartment	172 units	172 units	2026

Notes:

Occupancy rates are based on a site visit conducted by IBI Group staff on September 9, 2018.

RSDC stands for Riverside South Development Corporation

¹ Preliminary unit count based on residential density targets specified on page 16 of the Riverside South Community Design Plan (2016). It is assumed that this development will be completed in five phases, with 20% of units built and occupied by 2021 and full buildout by 2026.





Project No: 118404 Date: November 2018 Scale:

3.3.3 Network Concept Screenline

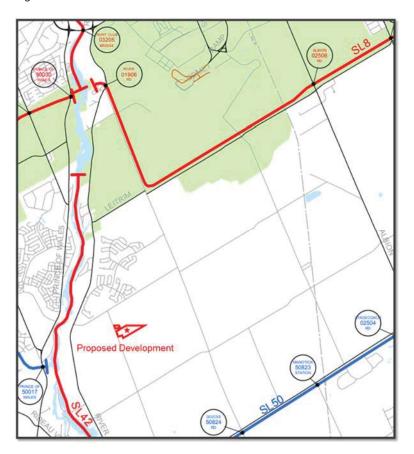
A screenline is a predetermined boundary between areas of major traffic generation that captures all significant points of entry from one area to another to compare crossing demand with the available roadway capacity. Screenlines are typically located along geographical barriers such as rivers, rail lines or within the greenbelt. To capture existing flow and model future demand, count stations are established at each crossing point along the screenline.

The nearest strategic planning screenlines adjacent to the development have been considered in the screenline analysis:

- SL8 Leitrim This is the nearest east/west screenline to the north of the study area. It is located just north of Leitrim Road and runs from east of Hawthorne Road to just east of Limebank Road, transitioning to a north/south screenline travelling east of Limebank Road before terminating at the intersection of Limebank and River Road. This screenline has three crossing points immediately north of Leitrim Road at Hawthorne Road, Bank Street and Albion Road, as well as an additional crossing point at River Road where Limebank Road transitions to Riverside Drive.
- SL42 Rideau River (Manotick) This is the nearest north/south screenline to the study area, and it is located along the Rideau River from just south of Mitch Owens Road to just north of Leitrim Road. It has two crossing points: the Vimy Memorial Bridge and the Manotick Bridge.

SL8 and SL42 are shown in **Figure 7**, as determined from the City of Ottawa's Road Network Development Report (2013), a supporting document to the 2013 Transportation Master Plan (TMP).

Figure 7 - Screenlines



3.4 Study Area

Based on a review of the information presented thus far, a study area bound by Earl Armstrong Road to the north, Spratt Road to the west and the southern limit of the proposed development will provide a sufficient assessment of the development's impact on the adjacent transportation network.

The following intersections will therefore be assessed for vehicular capacity as part of this study:

- Earl Armstrong Road and Spratt Road
- Spratt Road and Cambie Road
- Spratt Road and Borbridge/ Collector 'I' (future intersection)

Multi-modal Level of Service will be conducted for all signalized intersections within the study area described above, as well as Spratt Road between Earl Armstrong and Borbridge Avenue, and Borbridge/ Collector 'I' within the limits of the proposed development.

3.5 Time Periods

As the proposed development will consist of residential land uses, traffic generated during the weekday morning and afternoon peak hours are expected to result in the most significant impact to traffic operations on the adjacent network.

3.6 Horizon Years

The following future horizons will be assessed in this study:

- Year 2021 Full Buildout/Occupancy
- Year 2026 Full Buildout/ Occupancy plus 5 years

3.7 Exemptions Review

The TIA Guidelines provide exemption considerations for elements of the Design Review and Network Impact components. **Table 4** summarizes the TIA modules that are not applicable to this study.

Table 4 - Exemptions Review

TIA MODULE	ELEMENT	EXEMPTION CONISDERATIONS	REQUIRED
DESIGN REVIEW 4.1 Development Design	4.1.2 Circulation and Access	Only required for site plans	X
	4.1.3 New Street Networks	Only required for plans of subdivision	✓
4.2 Parking	4.2.1 Parking Supply	Only required for site plans	X
	4.2.2 Spillover Parking	Only required for site plans where parking supply is 15% below unconstrained demand	X
NETWORK IMPAC	T COMPONENT		
4.5 Transportation Demand Management	All Elements	 Not required for site plans expected to have fewer than 60 employees and/or students on location at any given time 	✓
4.6 Neighbourhood Traffic Management	4.6.1 Adjacent Neighbourhoods	Only required when the development relies on local or collector streets for access and total volumes exceed ATM capacity thresholds	✓
4.8 Network Concept	n/a	Only required when proposed development generates more than 200 person-trips during the peak hour in excess of the equivalent volume permitted by established zoning	✓

Appendix A – Screening Form



City of Ottawa 2017 TIA Guidelines Screening Form

1. Description of Proposed Development

Municipal Address	4725 Spratt Road
Description of Location	Riverside South community – east of Spratt Road and south of the future Bus Rapid Transit (BRT) corridor
Land Use Classification	Residential Townhomes
Development Size (units)	278
Development Size (m²)	_
Number of Accesses and Locations	One access off of Spratt Road
Phase of Development	Single Phase
Buildout Year	2021

If available, please attach a sketch of the development or site plan to this form.

2. Trip Generation Trigger

Considering the Development's Land Use type and Size (as filled out in the previous section), please refer to the Trip Generation Trigger checks below.

Land Use Type	Minimum Development Size
Single-family homes	40 units
Townhomes or apartments	90 units
Office	3,500 m ²
Industrial	5,000 m ²
Fast-food restaurant or coffee shop	100 m ²
Destination retail	1,000 m ²
Gas station or convenience market	75 m²

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

Based on the results above, the Trip Generation Trigger was satisfied.



3. Location Triggers

	Yes	No
Does the development propose a new driveway to a boundary street that is designated as part of the City's Transit Priority, Rapid Transit or Spine Bicycle Networks?		✓
Is the development in a Design Priority Area (DPA) or Transit-oriented Development (TOD) zone?*		✓

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

Based on the results above, the Location Trigger was **NOT** satisfied.

4. Safety Triggers

	Yes	No
Are posted speed limits on a boundary street are 80 km/hr or greater?	\checkmark	
Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway?		✓
Is the proposed driveway within the area of influence of an adjacent traffic signal or roundabout (i.e. within 300 m of intersection in rural conditions, or within 150 m of intersection in urban/ suburban conditions)?		✓
Is the proposed driveway within auxiliary lanes of an intersection?		\checkmark
Does the proposed driveway make use of an existing median break that serves an existing site?		✓
Is there is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development?		✓
Does the development include a drive-thru facility?		✓

Based on the results above, the Safety Trigger was satisfied.



5. Summary

	Yes	No
Does the development satisfy the Trip Generation Trigger?	✓	
Does the development satisfy the Location Trigger?		\checkmark
Does the development satisfy the Safety Trigger?	✓	

One or more of the triggers was satisfied. Therefore, the TIA Study must continue into the next stage (Scoping).

Appendix B – Traffic Data



Turning Movement Count - 15 Minute Summary Report

EARL ARMSTRONG RD @ SPRATT RD

Survey Date: Monday, August 17, 2015

Total Observed U-Turns

	Northbound				Soi	uthbour	nd			Eas	stbound			Westbound						
Time F	Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00		1	1	5	7	7	0	56	63	70	15	137	1	153	4	74	3	81	234	304
07:15	07:30	1	0	4	5	9	2	62	73	78	18	176	3	197	3	99	1	103	300	378
07:30	07:45	2	0	2	4	4	1	52	57	61	18	157	2	177	1	96	2	99	276	337
07:45	08:00	0	0	6	6	8	3	71	82	88	25	135	0	160	6	110	1	117	277	365
08:00	08:15	2	2	7	11	14	3	67	84	95	28	128	3	159	5	117	2	124	283	378
08:15	08:30	2	2	6	10	12	1	67	80	90	25	133	1	159	5	104	4	113	272	362
08:30	08:45	2	1	2	5	6	1	53	60	65	24	140	0	164	4	97	2	103	267	332
08:45	09:00	3	1	1	5	18	1	51	70	75	30	90	4	124	4	97	3	104	228	303
09:00	09:15	3	1	3	7	6	4	61	71	78	30	93	2	125	3	66	3	72	197	275
09:15	09:30	1	3	1	5	6	0	63	69	74	30	77	2	109	4	79	1	84	193	267
09:30	09:45	1	0	1	2	4	2	58	64	66	28	67	3	98	7	70	4	81	179	245
09:45	10:00	6	0	8	14	10	0	47	57	71	24	56	2	82	4	60	2	66	148	219
11:30	11:45	0	1	1	2	5	1	41	47	49	43	75	1	119	3	59	2	64	183	232
11:45	12:00	2	1	0	3	4	4	46	54	57	34	74	1	110	1	71	1	73	183	240
12:00	12:15	3	2	4	9	4	3	45	52	61	31	75	7	113	5	55	4	64	177	238
12:15	12:30	0	2	0	2	4	3	32	39	41	17	41	2	60	3	83	3	89	149	190
12:30	12:45	4	0	1	5	4	5	53	62	67	24	73	1	98	7	53	1	61	159	226
12:45	13:00	3	2	3	8	9	4	56	69	77	46	69	0	115	2	61	0	63	178	255
13:00	13:15	1	4	2	7	6	1	45	52	59	36	83	3	122	3	65	4	72	194	253
13:15	13:30	3	2	0	5	3	4	44	51	56	31	60	2	93	1	66	2	69	162	218
15:00	15:15	3	1	3	7	2	2	32	36	43	29	89	0	118	3	81	9	93	211	254
15:15	15:30	4	3	2	9	7	2	40	49	58	58	88	2	148	4	111	10	125	273	331
15:30	15:45	4	1	4	9	2	0	44	46	55	49	122	1	172	2	108	7	117	289	344
15:45	16:00	1	2	7	10	3	5	74	82	92	57	161	3	221	4	129	6	139	360	452
16:00	16:15	6	1	4	11	7	6	49	62	73	59	123	2	184	4	131	10	145	329	402
16:15	16:30	1	1	1	3	5	7	76	88	91	41	100	1	142	4	169	11	184	326	417
16:30	16:45	5	1	3	9	0	4	59	63	72	93	167	1	261	3	156	13	172	433	505
16:45	17:00	1	1	1	3	4	1	67	72	75	66	145	2	213	2	176	15	193	406	481
17:00	17:15	3	3	5	11	4	4	54	62	73	83	150	2	235	0	172	7	179	414	487
17:15	17:30	2	4	2	8	6	4	53	63	71	74	136	1	211	1	168	5	174	385	456
17:30		1	1	2	4	3	2	60	65	69	77	144	5	226	2	163	13	178	404	473
17:45	18:00	2	0	2	4	6	0	40	46	50	61	130	6	197	4	138	13	155	352	402
TOTAL	.:	73	44	93	210	192	80	1718	1990	2200	1304	3494	66	4865	108	3284	16	4 35	56 8421	10621

Note: U-Turns are included in Totals.

Comment:

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Turning Movement Count - Cyclist Volume Report

Work Order 35250

EARL ARMSTRONG RD @ SPRATT RD

Count Date: Monday, August 17, 2015 Start Time: 07:00

Time Period	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00 08:00	0	4	4	0	2	2	6
08:00 09:00	0	1	1	2	2	4	5
09:00 10:00	0	1	1	2	0	2	3
11:30 12:30	0	1	1	0	4	4	5
12:30 13:30	0	2	2	0	1	1	3
15:00 16:00	1	1	2	0	0	0	2
16:00 17:00	0	1	1	0	6	6	7
17:00 18:00	0	2	2	0	0	0	2
Total	1	13	14	4	15	19	33

Comment:



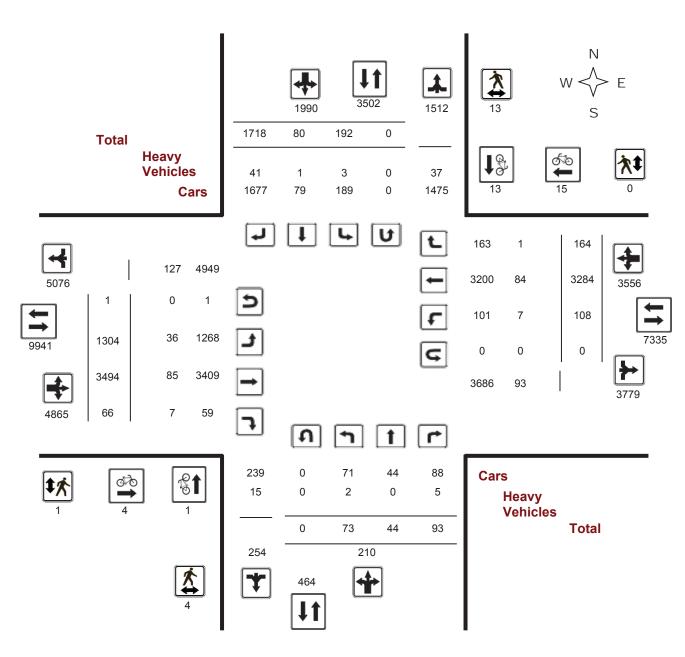
Turning Movement Count - Full Study Diagram

EARL ARMSTRONG RD @ SPRATT RD

Survey Date: Monday, August 17, 2015 WO#: 35250

Device: Jamar Technologies,

Inc



Comments

2017-Aug-10 Page 1 of 1



W.O. 35250

Turning Movement Count - Heavy Vehicle Report

EARL ARMSTRONG RD @ SPRATT RD

Survey Date: Monday, August 17, 2015

	1	Northb	ound		(Southb	ound	_			Eastbo	ound		١	Westbo	ound				
Time P	eriod	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	08:00	0	0	1	1	0	0	5	5	6	8	7	1	16	1	18	0	19	35	41
08:00	09:00	1	0	0	1	1	0	5	6	7	5	8	1	14	0	15	0	15	29	36
09:00	10:00	0	0	3	3	1	0	4	5	8	4	11	3	18	0	14	0	14	32	40
11:30	12:30	1	0	0	1	1	0	5	6	7	3	12	0	15	3	5	0	8	23	30
12:30	13:30	0	0	1	1	0	1	6	7	8	7	9	2	18	1	15	0	16	34	42
15:00	16:00	0	0	0	0	0	0	8	8	8	5	16	0	21	2	8	0	10	31	39
16:00	17:00	0	0	0	0	0	0	5	5	5	2	10	0	12	0	5	0	5	17	22
17:00	18:00	0	0	0	0	0	0	3	3	3	2	12	0	14	0	4	1	5	19	22
Sub T	otal	2	0	5	7	3	1	41	45	52	36	85	7	128	7	84	1	92	220	272
U-Turns	s (Heav	y Veh	nicles)		0				0	0				0				0	0	0
Tot	al	2	0	5	0	3	1	41	45	52	36	85	7	128	7	84	1	92	220	272

Heavy Vehicles include Buses, Single-Unit Trucks and Articulated Trucks. Further, they ARE included in the Turning Movement Count Summary.

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Work Order 35250

Turning Movement Count - Pedestrian Volume Report

EARL ARMSTRONG RD @ SPRATT RD

Count Date	e: Monday, Aug	Start Time:	07:00				
Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	0	0	0	0	0	0
07:15 07:30	0	1	1	0	0	0	1
07:30 07:45	1	0	1	0	0	0	1
07:45 08:00	0	1	1	0	0	0	1
07:00 08:00	1	2	3	0	0	0	3
08:00 08:15	0	1	1	1	0	1	2
08:15 08:30	0	1	1	0	0	0	1
08:30 08:45	1	2	3	0	0	0	3
08:45 09:00	0	0	0	0	0	0	0
08:00 09:00	1	4	5	1	0	1	6
09:00 09:15	2	1	3	0	0	0	3
09:15 09:30	0	0	0	0	0	0	0
09:30 09:45	0	1	1	0	0	0	1
09:45 10:00	0	0	0	0	0	0	0
09:00 10:00	2	2	4	0	0	0	4
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
11:30 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	1	1	0	0	0	1
12:30 13:30	0	1	1	0	0	0	1
15:00 15:15	0	0	0	0	0	0	0
15:15 15:30	0	0	0	0	0	0	0
15:30 15:45	0	0	0	0	0	0	0
15:45 16:00	0	1	1	0	0	0	1
15:00 16:00	0	1	1	0	0	0	1
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	0	0	0	0	0	0
16:45 17:00	0	0	0	0	0	0	0
16:00 17:00	0	0	0	0	0	0	0
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	1	1	0	0	0	1
17:45 18:00	0	1	1	0	0	0	1
17:00 18:00	0	3	3	0	0	0	3
Total	4	13	17		0	-	18

Comment:

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Work Order

35250

Turning Movement Count - Full Study Summary Report

EARL ARMSTRONG RD @ SPRATT RD

Survey Date: Monday, August 17, 2015

Total Observed U-Turns

AADT Factor

Northbound: 0 Eastbound: 1 Southbound: 0
Westbound: 0

1.00

Full Study

	N	orthbo	ound		S	outhb	ound				Eastbo	ound			Westb	ound			
Period	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Tota
07:00 08:00	4	1	17	22	28	6	241	275	297	76	605	6	687	14	379	7	400	1087	1384
08:00 09:00	9	6	16	31	50	6	238	294	325	107	491	8	606	18	415	11	444	1050	1375
09:00 10:00	11	4	13	28	26	6	229	261	289	112	293	9	414	18	275	10	303	717	1006
11:30 12:30	5	6	5	16	17	11	164	192	208	125	265	11	401	12	268	10	290	691	899
12:30 13:30	11	8	6	25	22	14	198	234	259	137	285	6	428	13	245	7	265	693	952
15:00 16:00	12	7	16	35	14	9	190	213	248	193	460	6	659	13	429	32	474	1133	1381
16:00 17:00	13	4	9	26	16	18	251	285	311	259	535	6	800	13	632	49	694	1494	1805
17:00 18:00	8	8	11	27	19	10	207	236	263	295	560	14	869	7	641	38	686	1555	1818
Sub Total	73	44	93	210	192	80	1718	1990	2200	1304	3494	66	4864	108	3284	164	3556	8420	10620
U Turns				0				0	0				1				0	1	1
Total	73	44	93	210	192	80	1718	1990	2200	1304	3494	66	4865	108	3284	164	3556	8421	10621
EQ 12Hr	101	61	129	292	267	111	2388	2766	3058	1813	4857	92	6762	150	4565	228	4943	11705	14763
Note: These v	alues are	e calcul	ated by	multiply	ing the	totals b	y the ap	opropriat	e expans	sion fac	tor.		1	1.39					
AVG 12Hr	101	61	129	292	267	111	2388	2766	3058	1813	4857	92	6762	150	4565	228	4943	11705	14763
Note: These v	olumes a	are calc	ulated	by multip	olying th	e Equiv	/alent 1	2 hr. tota	ls by the	AADT	factor.			1.00					
AVG 24Hr	133	80	169	382	350	146	3128	3624	4006	2374	6362	120	8859	197	5980	299	6475	15334	19340
Note: These v	olumes a	are calc	ulated	by multip	olying th	e Aver	age Dail	y 12 hr.	totals by	12 to 2	4 expans	sion fac	tor.	1.31					

Comments:

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

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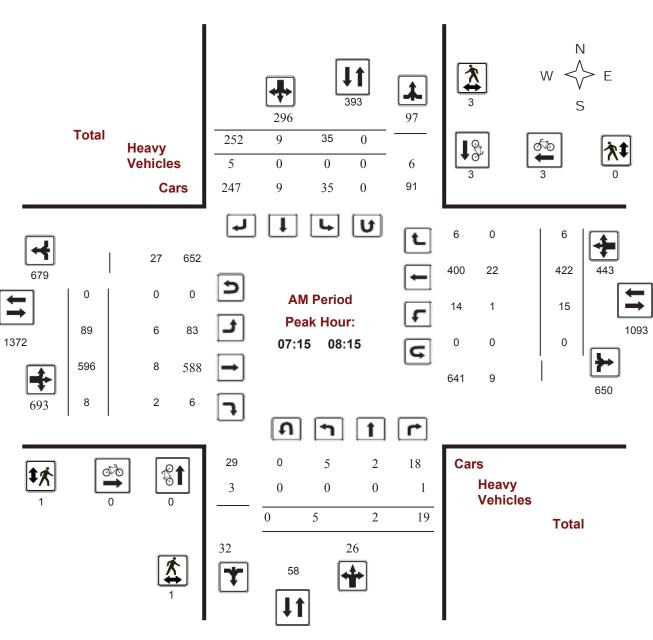


Turning Movement Count - Full Study Peak Hour Diagram

EARL ARMSTRONG RD @ SPRATT RD

Survey Date: Monday, August 17, 2015 WO No: 35250
Start Time: 07:00 Device: Jamar

Technologies, Inc



Comments

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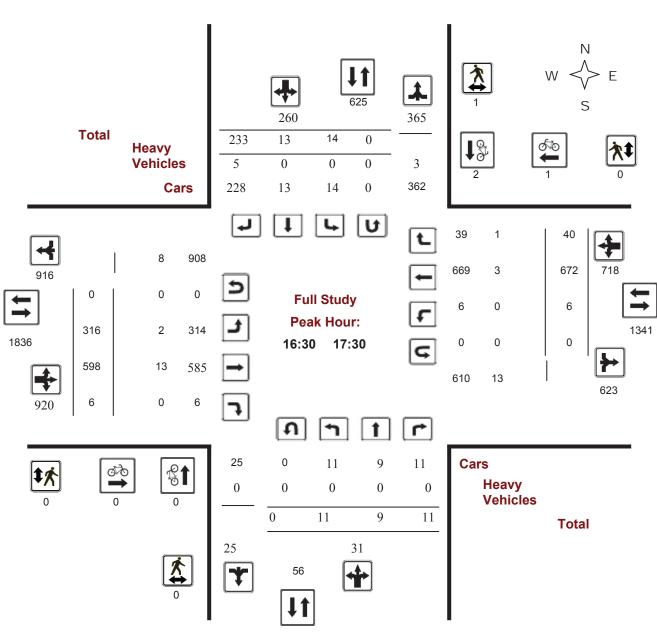


Turning Movement Count - Full Study Peak Hour Diagram

EARL ARMSTRONG RD @ SPRATT RD

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Comments

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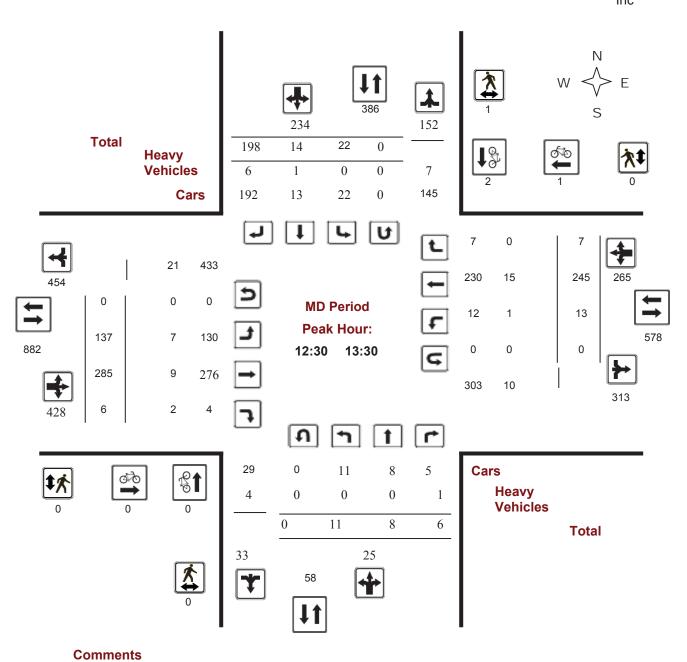


Turning Movement Count - Full Study Peak Hour Diagram

EARL ARMSTRONG RD @ SPRATT RD

Survey Date: Monday, August 17, 2015 WO No: 35250
Start Time: 07:00 Device: Jamar

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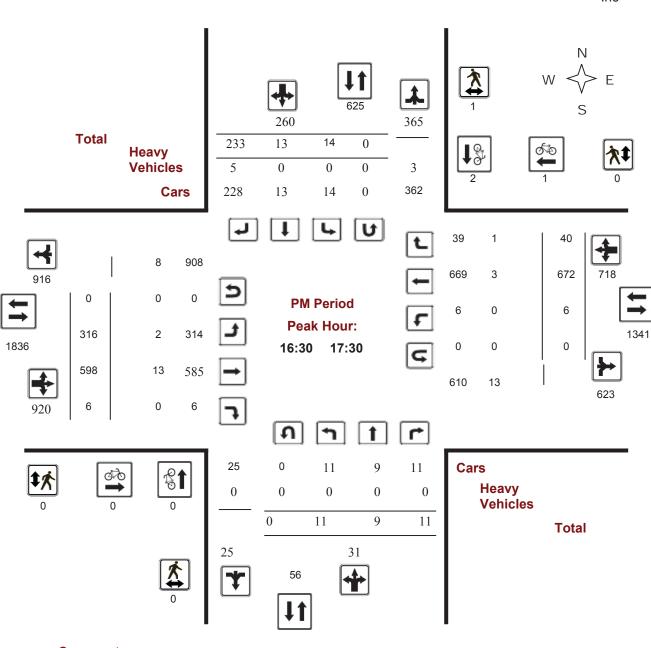


Turning Movement Count - Full Study Peak Hour Diagram

EARL ARMSTRONG RD @ SPRATT RD

Survey Date: Monday, August 17, 2015 WO No: 35250
Start Time: 07:00 Device: Jamar

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Comments

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Turning Movement Count - 15 Min U-Turn Total Report

EARL ARMSTRONG RD @ SPRATT RD

Survey Date	: Me	onday, August 17	, 2015			
Time P	eriod	Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound 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	1	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	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
Tot	al	0	0	1	0	1

Survey Date: Thursday Weather: Di	August 17 2017			_
NB (South Leg) Street Name: SB (North Leg) Street Name:	Spratt Spratt	EB (West Leg) Street Name: WB (East Leg) Street Name:	Cambie	IB
Start Time (AM Peak): 7:00 End Time (AM Peak): 10:00		The AM Peak Hour is from <u>7:00 AM</u> to <u>8:00 AM</u>	AADT Factor:	0.9

								Turni	ng Mo	veme	nt Cou	nt - 15	Minu	te Vel	nicle Su	ımmaı	ry Repo	ort (Al	M Peal	k)				
ime Period		,	Spratt Vorthbound					Spratt Southboun	d		N/S STREET			0 Eastbound					Cambie Westbound	i		E/W STREET	Grand	1 Hour Traffic Volumes (All Scenarios)
illie Fellou					NB TOTAL					SB TOTAL	TOTAL				U-Turns	EB TOTAL	LT				WB TOTAL	TOTAL	TOTAL	1 Hour Hame volumes (All Scenarios)
:00 7:15			2		2	22				22	24					0			19		19	19	43	
:15 7:30			1		1	13				13	14					0			5		5	5	19	H
30 7:45			1		1	22				22	23					0			6		6	6	29	
45 8:00			1		1	10				10	11					0			7		7	7	18	4 00
00 8:15			1		1	8				8	9					0			9		9	9	18	3 7
15 8:30			2		2	7				7	9					0			9		9	9	18	6 71
30 8:45					0	5				5	5					0			17		17	17	22	
:45 9:00			1		1	6				6	7					0	1		5		6	6	13	
00 9:15					0	7				7	7					0			7		7	7	14	
:15 9:30			1		1	15				15	16					0			5		5	5	21	
30 9:45					0	11				11	11					0	3		15		18	18	29	
45 10:00			2		2	9				9	11					0			11		11	11	22	
TOTAL:	0	0	12	0	12	135	0	0	0	135	147	0	0	0	0	0	4	0	115	0	119	119	266	

The Mid-day Peak Hour is from 11:30 AM to 12:30 PM

						Τι	ırning	Move	ement (Count	- 15 M	inute	Vehicl	le Sum	ımary l	Report	(Mid-	Day P	eak)					
Time Period			Spratt Northbound					Spratt Southbou			N/S STREET			0 Eastboun					Cambie Westboun			E/W STREET	Grand	1 Hour Traffic Volumes (All
Time Periou				U-Turns	NB TOTAL				U-Turns	SB TOTAL	TOTAL		ST	RT	U-Turns	EB TOTAL			RT	U-Turns	WB TOTAL	TOTAL	TOTAL	Scenarios)
11:30 11:45					0	14				14	14					0			12		12	12	26	
11:45 12:00					0	11				11	11					0	1		11		12	12	23	8
12:00 12:15					0	14				14	14					0			19		19	19	33	90
12:15 12:30			2		2	7				7	9					0			9		9	9	18	ō
12:30 12:45					0	10				10	10					0			6		6	6	16	
12:45 13:00			1		1	8				8	9					0	2		10		12	12	21	
13:00 13:15					0	14				14	14					0	1		10		11	11	25	7
13:15 13:30					0	11				11	11					0			4		4	4	15	
TOTAL:	0	0	3	0	3	89	0	0	0	89	92	0	0	0	0	0	4	0	81	0	85	85	177	

The PM Peak Hour is from 3:45 PM to 4:45 PM

						Turni	ing Mc	veme	nt Cou	nt - 15	Minu	ite Vel	nicle Su	ımma	ry Rep	ort (PI	M Pea	k)				
Time Period		Spratt Northbound				Spratt Southboun			N/S STR			0 Eastbound					Cambie Westbound			E/W STR	Grand	1 Hour Traffic Volumes
Time Feriou	ιī		U-Turns	NB TOTAL	LT	RT	U-Turns	SB TOTAL	TOTAL			RT		EB TOTAL					WB TOTAL	TOTAL	TOTAL	(All Scenarios)
15:00 15:15				0	8			8	8					0			8		8	8	16	
15:15 15:30		1		1	3			3	4					0			11		11	11	15	5
15:30 15:45		2		2	5			5	7					0			3		3	3	10	5 5
15:45 16:00				0	6			6	6					0	1		7		8	8	14	
16:00 16:15				0	4			4	4					0	1		13		14	14	18	o J
16:15 16:30		1		1	11			11	12					0	1		14		15	15	27	- J
16:30 16:45		1		1	4			4	5					0	1		8		9	9	14	64
16:45 17:00				0	7			7	7					0	1		6		7	7	14	4 4
17:00 17:15		1		1	5			5	6					0			3		3	3	9	_ 4 -
17:15 17:30				0	5			5	5					0			2		2	2	7	42
17:30 17:45				0	8			8	8					0			4		4	4	12	4
17:45 18:00				0	6			6	6					0	2		5		7	7	13	

Survey Date:	Thursday	August	17	2017
Weather:	Dry			

NB (South Leg) Street Name: Spratt

Start Time (AM Peak): 7:00 End Time (AM Peak): 10:00
 EB (West Leg) Street Name:
 0

 WB (East Leg) Street Name:
 Cambie

IBI

		Turning Movement Count - 15	Minute I	Pedestrian Volume Report (AM F	Peak)		
Time Period	Spratt	Spratt	N/S		Cambie	E/W STREET	Grand
Time Period	NB Approach (East or West Crossing)	SB Approach (East or West Crossing)	STREET TOTAL	EB Approach (North or South Crossing)	WB Approach (North or South Crossing)	TOTAL	TOTAL
7:00 7:15			0			0	0
7:15 7:30			0	1		1	1
7:30 7:45			0			0	0
7:45 8:00			0			0	0
8:00 8:15			0			0	0
8:15 8:30			0			0	0
8:30 8:45			0		1	1	1
8:45 9:00			0	1		1	1
9:00 9:15			0			0	0
9:15 9:30			0	1	1	2	2
9:30 9:45			0	1		1	1
9:45 10:00			0			0	0
TOTAL	^	^	•			_	

 Start Time (MD Peak):
 11:30

 End Time (MD Peak):
 13:30

	Τι	ırning Movement Count - 15 M	inute Ped	destrian Volume Report (Mid-Da	y Peak)		
Time Period	Spratt	Spratt	N/S		Cambie	E/W	Grand
Time Period	NB Approach (East or West Crossing)	SB Approach (East or West Crossing)	STREET TOTAL	EB Approach (North or South Crossing)	WB Approach (North or South Crossing)	STREET TOTAL	TOTAL
11:30 11:45			0		1	1	1
11:45 12:00			0			0	0
12:00 12:15			0		1	1	1
12:15 12:30			0			0	0
12:30 12:45			0			0	0
12:45 13:00			0	1		1	1
13:00 13:15			0			0	0
13:15 13:30			0		1	1	1
TOTAL:	0	0	0	1	3	4	4

Start Time (PM Peak): 15:00
End Time (PM Peak): 18:00

		Turning Movement Count - 15	Minute P	edestrian Volume Report (PM F	Peak)		
Time Period	Spratt	Spratt	N/S STREET		Cambie	E/W STREET	Grand
Time Period	NB Approach (East or West Crossing)	SB Approach (East or West Crossing)	TOTAL	EB Approach (North or South Crossing)	WB Approach (North or South Crossing)	TOTAL	TOTAL
15:00 15:15			0			0	0
15:15 15:30			0			0	0
15:30 15:45			0			0	0
15:45 16:00			0			0	0
16:00 16:15			0			0	0
16:15 16:30			0			0	0
16:30 16:45			0			0	0
16:45 17:00			0			0	0
17:00 17:15			0			0	0
17:15 17:30			0			0	0
17:30 17:45			0			0	0
17:45 18:00			0			0	0
TOTAL:	0	0	0	0	0	0	0

Survey Date:	Thursday	August	17	2017
Weather:	Dry			
NB (South Leg) Street Nam	ie:		Spratt	
SB (North Leg) Street Nam	e:		Spratt	
Start Time (AM Peak):	7:00			
End Time (AM Peak):	10:00			

IBI

	Tu	rning Movement Coun		Cyclist Volume Report (AM Peak)		
Time Period	Spratt	Spratt	N/S STREET		Cambie	E/W STREET	Grand
Tille Fellou	Northbound	Southbound	Total	Eastbound	Westbound	TOTAL	TOTAL
7:00 7:15			0			0	0
7:15 7:30			0			0	0
7:30 7:45			0			0	0
7:45 8:00			0			0	0
8:00 8:15			0			0	0
8:15 8:30			0			0	0
8:30 8:45			0			0	0
8:45 9:00			0			0	0
9:00 9:15			0			0	0
9:15 9:30		1	1			0	1
9:30 9:45		1	1			0	1
0.45 10.00	4		2				

 Start Time (MD Peak):
 11:30

 End Time (MD Peak):
 13:30

	Turnir	g Movement Count -	15 Minute Cycl	ist Volume Report (M	id-Day Peak)		
Time Period	Spratt Northbound	Spratt Southbound	N/S STREET Total	0 Eastbound	Cambie Westbound	E/W STREET TOTAL	Grand TOTAL
11:30 11:45			0			0	0
11:45 12:00	3	1	4			0	4
12:00 12:15			0			0	0
12:15 12:30			0			0	0
12:30 12:45			0			0	0
12:45 13:00			0			0	0
13:00 13:15	1		1			0	1
13:15 13:30	1		1			0	1
TOTAL:	5	1	6	0	n	0	6

 Start Time (PM Peak):
 15:00

 End Time (PM Peak):
 18:00

	Turr	ning Movement Cou	nt - 15 Minute Cy	clist Volume Report (PM Peak)		
Time Period	Spratt Northbound	Spratt Southbound	N/S STREET Total	0 Eastbound	Cambie Westbound	E/W STREET TOTAL	Grand TOTAL
15:00 15:15			0			0	0
15:15 15:30			0			0	0
15:30 15:45			0			0	0
15:45 16:00			0			0	0
16:00 16:15			0			0	0
16:15 16:30			0			0	0
16:30 16:45			0			0	0
16:45 17:00			0			0	0
17:00 17:15			0			0	0
17:15 17:30			0			0	0
17:30 17:45			0			0	0
17:45 18:00			0			0	0
TOTAL:	0	0	0	0	0	0	0

Survey Date:	Thursday	August	17	2017
Monthor	Dnr			

NB (South Leg) Street Name: SB (North Leg) Street Name:

Start Time (AM Peak): End Time (AM Peak):

EB (West Leg) Street Name: WB (East Leg) Street Name:

IBI

Turning Movement Count - 15 Minute Heavy Vehicle Report (AM Peak) N/S STREET Total 7:00 7:15 7:30 7:45 7:45 7:45 7:45 8:00 8:00 8:15 8:15 8:30 8:30 8:45 9:00 9:15 9:15 9:30 9:30 9:45 9:45 10:00 TOTAL: 0 2 2 3 3 3 0 2 2 1 0 0 0 0 0 0 1 1 0 0 1 0 0 0 0 1 0 0 0 2 0 0 0 1 1 1 0 0 2 1 0 0 0 0 0

Start Time (MD Peak): End Time (MD Peak):

						Turnir	ng Mov	ement	Count	t - 15 N	/linute	Heavy	Vehicle	e Repo	rt (Mid	-Day P	eak)						
Time Period			Spratt Northbound					Spratt Southboun			N/S STREET			0 Eastbound					Cambie Westboun			E/W STREET	Grand
Time Period			RT	U-Turns	NB TOTAL				U-Turns	SB TOTAL	Total			RT	U-Turns	EB TOTAL		ST		U-Turns	WB TOTAL	TOTAL	TOTAL
11:30 11:45					0					0	0					0			2		2	2	2
11:45 12:00					0	1				1	1					0			1		1	1	2
12:00 12:15					0	2				2	2					0					0	0	2
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	1				1	1					0					0	0	1
13:00 13:15					0	1				1	1					0					0	0	1
13:15 13:30					0					0	0					0					0	0	0
TOTAL:	0	0	0	0	0	5	0	0	0	5	5	0	0	0	0	0	0	0	3	0	3	3	8

 Start Time (PM Peak):
 15:00

 End Time (PM Peak):
 18:00

						Tur	ning N	lovem	ent Cou	unt - 1	5 Minu	te Hea	vy Veh	icle Re	port (P	'M Pea	k)						
Time Period			Spratt Northbound					Spratt Southboun	d		N/S STREET			0 Eastbound					Cambie Westbound	1		E/W STREET	Grand
Time Periou			RT	U-Turns	NB TOTAL				U-Turns	SB TOTAL	TOTAL					EB TOTAL		ST			WB TOTAL	TOTAL	TOTAL
15:00 15:15					0	1				1	1					0				,	0	0	1
15:15 15:30			1		1	1				1	2					0			1		1	1	3
15:30 15:45			1		1	1				1	2					0					0	0	2
15:45 16:00					0					0	0					0			1		1	1	1
16:00 16:15					0					0	0					0			1		1	1	1
16:15 16:30					0					0	0					0			1		1	1	1
16:30 16:45					0					0	0					0			1		1	1	1
16:45 17:00					0					0	0					0					0	0	0
17:00 17:15			1		1					0	1					0			1		1	1	2
17:15 17:30					0					0	0					0					0	0	0
17:30 17:45					0	2				2	2					0					0	0	2
17:45 18:00					0					0	0					0					0	0	0
TOTAL	n	0	2	n	2		n	n	n			n	n	n	n	0	0	n	6	n	-	- 6	1/1

 Survey Date:
 Thursday
 August
 17
 2017

 Weather:
 Dry

TURNING MOVEMENT COUNT SUMMARY - ALL MODES

AADT FACTOR: 0.9



		Τι	rning Movement Count - Full	Study S	Summary Report (Pedestrians)			
		Spratt	Spratt	N/S		Cambie	E/W	Grand
Time	Period	NB Approach (East or West Crossing)		TOTAL			TOTAL	
7:00	8:00	0	0	0	1	0	1	1
8:00	9:00	0	0	0	1	1	2	2
9:00	10:00	0	0	0	2	3	5	5
11:30	12:30	0	0	0	0	2	2	2
12:30	13:30	0	0	0	1	1	2	2
15:00	16:00	0	0	0	0	0	0	0
16:00	17:00	0	22	22	0	0	0	22
17:00	18:00	0	0	0	0	0	0	0
TO	TAL:	0	22	22	5	7	12	34

			Turning Movement Count - Fu	ıll Stud	y Summary Report (Cyclists)			
Time P		Spratt		N/S STREET		Camble	E/W STREET	Grand
Time P	eriod			TOTAL			TOTAL	
7:00	8:00	0	0	0	0	0	0	0
8:00	9:00	0	0	0	0	0	0	0
9:00	10:00	1	3	4	0	0	0	4
11:30	12:30	3	1	4	0	0	0	4
12:30	13:30	2	0	2	0	0	0	2
15:00	16:00	0	0	0	0	0	0	0
16:00	17:00	0	0	0	0	0	0	0
17:00	18:00	0	0	0	0	0	0	0

						Tur	ning N	lovem	nent C	ount -	Full St	udy Sı	ımmar	y Rep	ort (H	eavy Ve	ehicles	5)						
				Spratt					Spratt			N/S			0					Camble			E/W	
-t	Period			forthbound					Southbour	ıd		STREET			Eastbound					Westboung			STREET	Grand
	renou					NB TOTAL				U-Turns	SB TOTAL	TOTAL					EB TOTAL	LT				WB TOTAL	TOTAL	TOTAL
7:00	8:00	0	0	1	0	1	4	0	0	0	4	5	0	0	0	0	0	0	0	6	0	6	6	11
8:00	9:00	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	4	0	4	4	5
9:00	10:00	0	0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	2
11:30	12:30	0	0	0	0	0	3	0	0	0	3	3	0	0	0	0	0	0	0	3	0	3	3	6
12:30	13:30	0	0	0	0	0	2	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	2
15:00	16:00	0	0	2	0	2	3	0	0	0	3	5	0	0	0	0	0	0	0	2	0	2	2	7
16:00	17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3	3
17:00	18:00	0	0	1	0	1	2	0	0	0	2	3	0	0	0	0	0	0	0	1	0	1	1	4

Appendix C – OC Transpo Routes

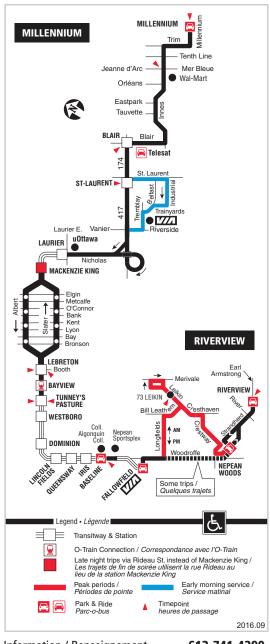
November 2018 25



94 MILLENNIUM RIVERVIEW

7 days a week / 7 jours par semaine

All day service Service toute la journée



Effective / En vigueur Sept. 4 sept. 2016



7 days a week / 7 jours par semaine



2010.04



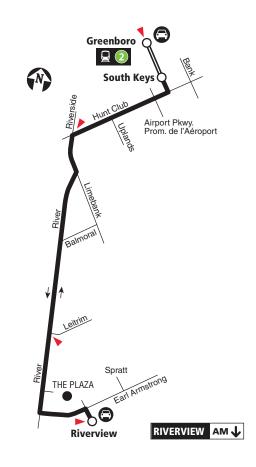


Local

Monday to Friday / Lundi au vendredi

Peak periods only Périodes de pointe seulement

GREENBORO PM ↑

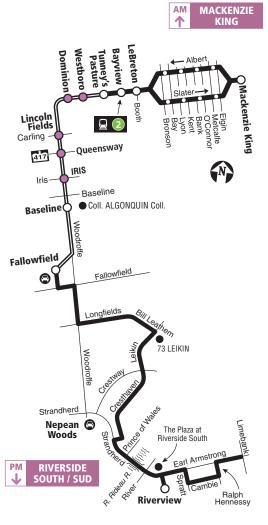






Monday to Friday / Lundi au vendredi

Peak periods only Périodes de pointe seulement



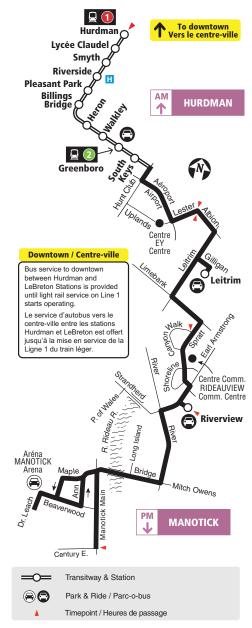


2017.12



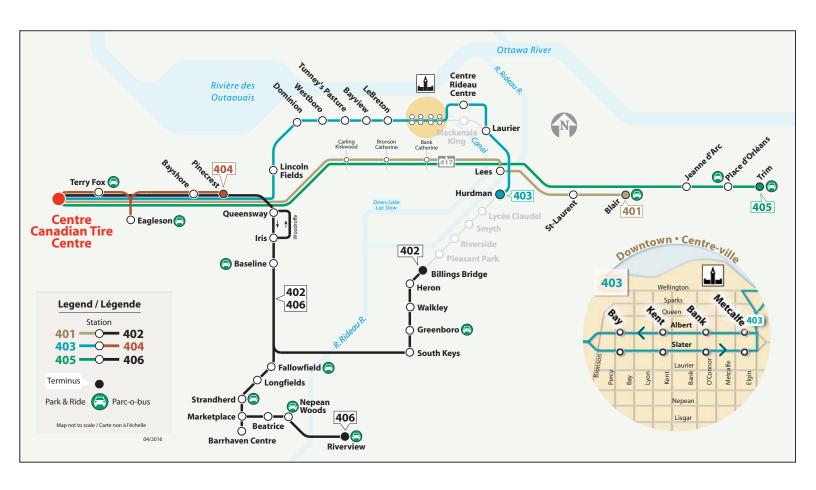


Monday to Friday / Lundi au vendredi



2018.0





Appendix D - Collision Data

November 2018 26



City Operations - Transportation Services

Collision Details Report - Public Version

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

tion: BRIAN GOOD AVE @ EARL ARMSTRONG RD

Traffic Control: Stop sign Total Collisions: 4

Trainic Control. Cto	p oigii						i otai ot	////JIO//J	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Aug-26, Wed,23:48	Clear	Angle	Non-fatal injury	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2015-Oct-11, Sun,11:48	Clear	Angle	Non-fatal injury	Dry	North	Turning left	Pick-up truck	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Mar-21, Tue,17:25	Clear	Angle	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Municipal transit bus	Other motor vehicle	
	_								
2017-Mar-24, Fri,16:40	Snow	Turning movement	Non-fatal injury	Wet	West	Turning left	Pick-up truck	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
					North	Going ahead	Pick-up truck	Other motor vehicle	

Location: EARL ARMSTRONG RD @ PARK N RIDE/295 E OF RIVER RD

Traffic Control: Traffic signal Total Collisions: 2

	Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver Vehicle type	First Event	No. Ped
--	---------------	-------------	-------------	----------------	-------------------	----------	--------------------------------	-------------	---------

Monday, September 17, 2018 Page 1 of 19

2015-Sep-17, Thu,12:12	Clear	Rear end	Non-fatal injury	Dry	East	Going ahead	Pick-up truck	Other motor vehicle
					East	Stopped	Automobile, station wagon	Other motor vehicle
2017-Jan-20, Fri,07:08	Clear	Turning movement	Non-fatal injury	Wet	East	Turning left	Automobile, station wagon	Other motor vehicle
					West	Going ahead	Automobile, station wagon	Other motor vehicle

Location: EARL ARMSTRONG RD @ RIVER RD

Traffic Control: Traffic signal Total Collisions: 61

Traffic Control: Tra	ffic signal						Total C	ollisions: 61	
Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	r Vehicle type	First Event	No. Ped
2014-Feb-05, Wed,16:55	Snow	Angle	P.D. only	Loose snow	North	Slowing or stopping	g Pick-up truck	Other motor vehicle	
					West	Turning left	Passenger van	Other motor vehicle	
2014-Mar-27, Thu,07:45	Clear	Rear end	Non-reportable	Dry	North	Turning right	Passenger van	Other motor vehicle	
					North	Turning right	Passenger van	Other motor vehicle	
2014-Jul-18, Fri,21:01	Clear	Angle	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	
					North	Going ahead	Pick-up truck	Other motor vehicle	
2014-Aug-19, Tue,19:51	Clear	SMV other	Non-fatal injury	Dry	North	Turning left	Motorcycle	Debris on road	
2014-Nov-07, Fri,09:31	Rain	Sideswipe	P.D. only	Wet	East	Changing lanes	Automobile, station wagon	Other motor vehicle	
					East	Turning left	Automobile, station wagon	Other motor vehicle	

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2014-Nov-07, Fri,20:10	Clear	Rear end	P.D. only	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle
					South	Turning right	Pick-up truck	Other motor vehicle
2014-Oct-25, Sat,14:08	Rain	Rear end	P.D. only	Wet	North	Turning left	Automobile,	Other motor
2014-001-23, 081, 14.00	raiii	rtear end	T.D. Offiny	VVGt	NOIUI	running leit	station wagon	vehicle
					North	Turning left	Automobile, station wagon	Other motor vehicle
					North	Turning left	Automobile, station wagon	Other motor vehicle
2014-Nov-15, Sat,10:48	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile,	Other motor
			·	•		•	station wagon	vehicle
					East	Slowing or stopping	g Pick-up truck	Other motor vehicle
2014-Dec-20, Sat,19:39	Clear	Rear end	Non-fatal injury	Dry	South	Turning right	Passenger van	Other motor vehicle
					South	Turning right	Automobile, station wagon	Other motor vehicle
2015-Mar-31, Tue,15:32	Clear	Rear end	Non-fatal injury	Dry	South	Turning right	Automobile,	Other motor
2013-Wal-31, Tue, 13.32	Cleal	Real ellu	Non-latal injury	ыу	South	running right	station wagon	vehicle
					South	Turning right	Pick-up truck	Other motor vehicle
2015-Feb-08, Sun,10:30	Snow	Rear end	P.D. only	Packed snow	South	Turning right	Automobile, station wagon	Other motor vehicle
					South	Turning right	Automobile, station wagon	Other motor vehicle
2015-Jun-25, Thu,16:01	Clear	Rear end	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle
					North	Turning right	Automobile, station wagon	Other motor vehicle

Monday, September 17, 2018 Page 3 of 19

2015-Oct-01, Thu,14:39	Clear	Rear end	Non-fatal injury	Dry	South	Slowing or stopping	g Passenger van	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2015-May-01, Fri,07:12	Clear	Rear end	P.D. only	Dry	South	Turning right	Pick-up truck	Other motor vehicle	
					South	Turning right	Automobile, station wagon	Other motor vehicle	
2015-Feb-13, Fri,07:30	Clear	Rear end	P.D. only	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	
					East	Turning left	Pick-up truck	Other motor vehicle	
2015-Feb-26, Thu,15:30	Clear	Rear end	P.D. only	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	
					South	Turning right	Automobile, station wagon	Other motor vehicle	
2015-Jul-27, Mon,16:03	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Motor home	Other motor vehicle	
					East	Going ahead	Municipal transit bus	Other motor vehicle	
2015-Jun-09, Tue,16:13	Clear	Rear end	P.D. only	Wet	West	Turning right	Passenger van	Other motor vehicle	
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2015-Aug-12, Wed,08:25	Clear	Rear end	P.D. only	Dry	East	Turning left	Pick-up truck	Other motor vehicle	
					East	Turning left	Automobile, station wagon	Other motor vehicle	
2015-Aug-11, Tue,16:17	Clear	Rear end	P.D. only	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	
Monday, September	17, 2018						Station wagon	YOUNG	Page 4 of 19

Monday, September 17, 2018 Page 4 of 19

					South	Turning right	Automobile, station wagon	Other motor vehicle	
2015-Feb-12, Thu,12:53	Snow	Rear end	P.D. only	Loose snow	South	Turning right	Automobile, station wagon	Other motor vehicle	
					South	Turning right	Pick-up truck	Other motor vehicle	
2016-Jun-01, Wed,08:14	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Pick-up truck	Other motor vehicle	
2016-Jun-10, Fri,16:02	Clear	Rear end	Non-fatal injury	Dry	East	Turning right	Pick-up truck	Other motor vehicle	
					East	Turning right	Automobile, station wagon	Other motor vehicle	
2015-Oct-20, Tue,15:00	Clear	Rear end	P.D. only	Dry	South	Turning right	Pick-up truck	Other motor vehicle	
					South	Turning right	Automobile, station wagon	Other motor vehicle	
2015-Sep-08, Tue,12:00	Clear	Rear end	P.D. only	Dry	South	Slowing or stoppin	g Pick-up truck	Other motor vehicle	
					South	Slowing or stopping	g Pick-up truck	Other motor vehicle	
2015-Sep-30, Wed,13:00	Clear	SMV other	Non-fatal injury	Dry	East	Turning left	Automobile, station wagon	Pedestrian	1
2015-Dec-04, Fri,16:57	Clear	Rear end	Non-fatal injury	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle	
					North	Turning right	Automobile, station wagon	Other motor vehicle	

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2015-Oct-24, Sat,21:30	Rain	Rear end	P.D. only	Wet	North	Turning left	Automobile, station wagon	Other motor vehicle	
					North	Turning left	Pick-up truck	Other motor vehicle	
2015-Dec-05, Sat,11:49	Clear	Rear end	P.D. only	Dry	South	Slowing or stoppin	g Automobile, station wagon	Other motor vehicle	
					South	Slowing or stoppin	-	Other motor vehicle	
2016-Jan-14, Thu,17:11	Clear	Rear end	P.D. only	Slush	North	Turning right	Passenger van	Other motor vehicle	
					North	Turning right	Automobile, station wagon	Other motor vehicle	
2016-Mar-27, Sun,13:20	Clear	Rear end	P.D. only	Dry	South	Turning right	Pick-up truck	Other motor vehicle	
					South	Turning right	Automobile, station wagon	Other motor vehicle	
2016-Sep-15, Thu,19:37	Clear	Angle	Non-fatal injury	Dry	South	Turning right	Automobile, station wagon	Cyclist	
					West	Going ahead	Bicycle	Other motor vehicle	
2016-Nov-16, Wed,17:39	Clear	Rear end	Non-fatal injury	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle	
					South	Turning right	Automobile, station wagon	Other motor vehicle	
2016-Apr-09, Sat,16:30	Clear	Rear end	P.D. only	Dry	West	Turning right	Pick-up truck	Other motor vehicle	
					West	Turning right	Automobile, station wagon	Other motor vehicle	
2016-Jul-29, Fri,07:37	Clear	Turning movement	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	
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					East	Turning left	Automobile, station wagon	Other motor vehicle
2016-Sep-22, Thu,15:14	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle
					West	Stopped	Automobile, station wagon	Other motor vehicle
2017-Jan-09, Mon,11:36	Clear	Rear end	P.D. only	Dry	East	Turning right	Passenger van	Other motor vehicle
					East	Turning right	Pick-up truck	Other motor vehicle
2017-Sep-01, Fri,16:00	Clear	Angle	Non-fatal injury	Dry	East	Going ahead	Bicycle	Other motor vehicle
					South	Turning right	Unknown	Cyclist
2017-Feb-14, Tue,20:42	Snow	Turning movement	Non-fatal injury	Loose snow	East	Turning left	Pick-up truck	Other motor vehicle
					West	Going ahead	Automobile, station wagon	Skidding/sliding
					South	Stopped	Passenger van	Other motor vehicle
2017-Jan-23, Mon,15:50	Clear	Rear end	Non-fatal injury	Dry	South	Turning right	Passenger van	Other motor vehicle
					South	Turning right	Automobile, station wagon	Other motor vehicle
2017-Feb-16, Thu,10:58	Snow	Rear end	Non-fatal injury	Wet	South	Turning right	School bus	Other motor vehicle
					South	Turning right	Automobile, station wagon	Other motor vehicle
2017-Mar-01, Wed,17:52	Clear	Rear end	P.D. only	Wet	South	Turning right	Automobile, station wagon	Other motor vehicle

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					South	0 0	Automobile, station wagon	Other motor vehicle	
2016-Nov-04, Fri,11:12	Clear	Rear end	P.D. only	Dry	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Pick-up truck	Other motor vehicle	
2016-Nov-24, Thu,11:30	Clear	Sideswipe	P.D. only	Wet	East		Automobile, station wagon	Other motor vehicle	
					East	Going ahead	Pick-up truck	Other motor vehicle	
2016-Nov-18, Fri,22:31	Fog, mist, smoke dust	, Angle	Non-fatal injury	Wet	South	Turning left	Pick-up truck	Other motor vehicle	
					East		Automobile, station wagon	Other motor vehicle	
2017-Mar-11, Sat,19:34	Clear	Other	P.D. only	Dry	West	Reversing	Passenger van	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2017-May-19, Fri,12:30	Clear	Rear end	P.D. only	Dry	North		Automobile, station wagon	Other motor vehicle	
					North		Automobile, station wagon	Other motor vehicle	
2017-May-23, Tue,18:16	Clear	Rear end	P.D. only	Dry	East		Automobile, station wagon	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2017-May-30, Tue,16:23	Clear	Rear end	P.D. only	Dry	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
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2017-Jun-21, Wed,17:52	Clear	Rear end	P.D. only	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle
					South	Turning right	Pick-up truck	Other motor vehicle
2017-Jun-26, Mon,15:30	Clear	Rear end	Non-fatal injury	Dry	South	Turning right	Automobile, station wagon	Other motor vehicle
					South	Turning right	Passenger van	Other motor vehicle
2017-Sep-12, Tue,16:22	Clear	Rear end	Non-fatal injury	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle
					North	Turning right	Automobile, station wagon	Other motor vehicle
2017-Jul-19, Wed,11:30	Clear	Rear end	P.D. only	Dry	South	Turning right	Passenger van	Other motor vehicle
					South	Turning right	Pick-up truck	Other motor vehicle
2017-Aug-16, Wed,10:45	Clear	Rear end	P.D. only	Wet	North	Turning right	Automobile, station wagon	Other motor vehicle
					North	Turning right	Automobile, station wagon	Other motor vehicle
2017-Sep-22, Fri,17:08	Clear	Rear end	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle
					South	Stopped	Automobile, station wagon	Other motor vehicle
2017-Nov-25, Sat,10:32	Rain	Turning movement	P.D. only	Wet	West	Turning left	Automobile, station wagon	Other motor vehicle
					East	Going ahead	Pick-up truck	Other motor vehicle

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2017-Nov-29, Wed,16:45	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	Pick-up truck	Other motor vehicle
					West	Slowing or stopping Passenger van		Other motor vehicle
2017-Sep-28, Thu,07:17	Clear	Rear end	P.D. only	Dry	South		Automobile, station wagon	Other motor vehicle
					South	Slowing or stopping	Automobile, station wagon	Other motor vehicle
2013-Mar-06, Wed,14:44	Clear	SMV other	Non-fatal injury	Wet	North	Turning right	Truck - dump	Rollover
2013-Feb-17, Sun,14:08	Clear	Rear end	Non-fatal injury	Dry	West	•	Automobile, station wagon	Other motor vehicle
					West		Automobile, station wagon	Other motor vehicle
2013-Jun-27, Thu,10:31	Clear	Rear end	P.D. only	Dry	South	Going ahead	Delivery van	Other motor vehicle
					South		Automobile, station wagon	Other motor vehicle

Location: EARL ARMSTRONG RD @ SPRATT RD

Traffic Control: Traffic signal Total Collisions: 28

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	er Vehicle type	First Event	No. Ped
2014-Apr-04, Fri,10:30	Clear	SMV other	P.D. only	Dry	East	Turning left	Pick-up truck	Ran off road	
2014-Oct-30, Thu,18:39	Clear	Rear end	P.D. only	Dry	South	Turning right	Pick-up truck	Other motor vehicle	
					South	Turning right	Pick-up truck	Other motor vehicle	
2014-Jan-03, Fri,11:15	Snow	Turning movement	P.D. only	Ice	East	Turning left	Automobile, station wagon	Other motor vehicle	

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					West	Going ahead	Pick-up truck	Other motor vehicle
2014-May-27, Tue,09:20	Clear	Rear end	P.D. only	Dry	South	Turning right	Pick-up truck	Other motor vehicle
					South	Turning right	Passenger van	Other motor vehicle
2015-Feb-12, Thu,20:30	Clear	Angle	P.D. only	Loose snow	South	Turning right	Automobile, station wagon	Other motor vehicle
					West	Going ahead	Automobile, station wagon	Other motor vehicle
2014-Dec-16, Tue,08:54	Clear	Turning movement	Non-fatal injury	Dry	East	Turning left	Pick-up truck	Other motor vehicle
					West	Going ahead	Automobile, station wagon	Other motor vehicle
2014-Jul-04, Fri,18:09	Clear	Turning movement	Non-fatal injury	Dry	East	Turning left	Pick-up truck	Other motor vehicle
					West	Going ahead	Automobile, station wagon	Other motor vehicle
2015-May-19, Tue,16:21	Clear	Turning movement	Non-fatal injury	Dry	West	Going ahead	Pick-up truck	Other motor vehicle
					East	Turning left	Passenger van	Other motor vehicle
2015-May-28, Thu,08:30	Clear	Turning movement	Non-fatal injury	Dry	West	Turning left	Pick-up truck	Other motor vehicle
					East	Going ahead	Passenger van	Other motor vehicle
2015-Sep-17, Thu,14:25	Clear	Rear end	P.D. only	Dry	East	Slowing or stoppin	g Pick-up truck	Other motor vehicle
					East	Stopped	Passenger van	Other motor vehicle

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2016-Feb-18, Thu,13:46	Clear	Turning movement	Non-fatal injury	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle	
					East	Going ahead	Truck - open	Other motor vehicle	
2016-May-10, Tue,07:30	Clear	Turning movement	Non-fatal injury	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Delivery van	Other motor vehicle	
2016-Oct-26, Wed,20:00	Clear	Turning movement	P.D. only	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Jan-05, Thu,15:55	Clear	Turning movement	Non-fatal injury	Wet	West	Turning left	Automobile, station wagon	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Nov-09, Wed,08:03	Clear	Turning movement	P.D. only	Dry	East	Turning left	Pick-up truck	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-Dec-21, Wed,17:45	Clear	Turning movement	P.D. only	Wet	East	Turning left	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Jan-26, Thu,07:40	Rain	Rear end	Non-fatal injury	Wet	South	Turning right	Automobile, station wagon	Other motor vehicle	
					South	Turning right	Automobile, station wagon	Other motor vehicle	
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2017-Mar-21, Tue,18:44	Clear	Turning movement	P.D. only	Dry	East	Turning left	Unknown	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Apr-06, Thu,08:00	Clear	Rear end	Non-fatal injury	Wet	South	Turning right	Pick-up truck	Other motor vehicle	
					South	Turning right	Passenger van	Other motor vehicle	
2017-Oct-28, Sat,22:05	Rain	Turning movement	P.D. only	Wet	East	Turning left	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Aug-01, Tue,16:55	Clear	Angle	Non-fatal injury	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Aug-09, Wed,18:00	Clear	Rear end	P.D. only	Dry	West	Going ahead	Pick-up truck	Other motor vehicle	
					West	Stopped	Pick-up truck	Other motor vehicle	
2017-Nov-24, Fri,18:25	Clear	Turning movement	Non-fatal injury	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Dec-15, Fri,17:30	Snow	Rear end	P.D. only	Loose snow	South	Turning right	Automobile, station wagon	Other motor vehicle	
					South	Turning right	Automobile, station wagon	Other motor vehicle	
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2013-Feb-28, Thu,08:02	Snow	Angle	Non-fatal injury	Packed snow	West	Going ahead	Automobile, station wagon	Other motor vehicle
					North	Turning left	Pick-up truck	Other motor vehicle
2013-Nov-14, Thu,18:03	Clear	Turning movement	P.D. only	Dry	North	Turning left	Pick-up truck	Other motor vehicle
					South	Going ahead	Automobile, station wagon	Other motor vehicle
2013-Nov-01, Fri,01:30	Clear	SMV other	P.D. only	Wet	East	Turning left	Automobile, station wagon	Curb
2013-Nov-17, Sun,13:27	Clear	Turning movement	P.D. only	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle
					West	Going ahead	Automobile, station wagon	Other motor vehicle

Location: EARL ARMSTRONG RD btwn RIVER RD & SPRATT RD

Traffic Control: No control

Total Collisions: 6

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	er Vehicle type	First Event	No. Ped
2016-Feb-06, Sat,18:29	Clear	Rear end	Non-fatal injury	Dry	East	Slowing or stoppin	g Pick-up truck	Other motor vehicle	
					East	Stopped	Pick-up truck	Other motor vehicle	
2015-Nov-27, Fri,17:14	Rain	SMV other	Non-fatal injury	Wet	West	Going ahead	Automobile, station wagon	Pedestrian	1
2017-Jan-09, Mon,10:21	Clear	SMV other	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Snowbank/drift	
2017-Jan-18, Wed,08:00	Clear	Turning movement	P.D. only	Loose snow	West	Turning right	Pick-up truck	Other motor vehicle	

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					West	Turning right	Automobile, station wagon	Other motor vehicle
2017-Jun-13, Tue,18:32	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle
					East	Going ahead	Pick-up truck	Other motor vehicle
2017-Nov-28, Tue,18:08	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle
					West	Slowing or stopping	g Pick-up truck	Other motor vehicle

Location: NICOLLS ISLAND RD @ RIVER RD

Traffic Control: Stop sign Total Collisions: 2

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	r Vehicle type	First Event	No. Ped
2015-Feb-26, Thu,13:46	Clear	Rear end	P.D. only	Ice	North	Going ahead	Pick-up truck	Other motor vehicle	
					North	Turning left	Pick-up truck	Other motor vehicle	
2015-Jun-25, Thu,11:28	Clear	Angle	P.D. only	Dry	East	Turning left	Automobile, station wagon	Other motor vehicle	
					South	Going ahead	Truck - dump	Other motor vehicle	

Location: RIDEAU RD @ SPRATT RD

Traffic Control: Stop sign Total Collisions: 1

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	er Vehicle type	First Event	No. Ped
2018-Mar-01, Thu,13:00	Clear	SMV other	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Ran off road	

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Location: RIVER RD @ 175 N OF EARL ARMSTRONG/LOBLAWS SC

Traffic Control: Traffic signal Total Collisions: 1

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver Veh	ehicle type	First Event	No. Ped
2013-Sep-06, Fri,10:25	Clear	SMV other	Non-fatal injury	Dry	West	. 5	utomobile, ation wagon	Curb	

Location: RIVER RD @ RIDEAU RD

Traffic Control: Stop sign Total Collisions: 1

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Aug-24, Wed,22:55	Clear	Angle	Non-fatal injury	Dry	West	•	Automobile, station wagon	Other motor vehicle	
					South	· ·	Automobile, station wagon	Other motor vehicle	

Location: RIVER RD @ SOUTH GOWER BOUNDARY RD

Traffic Control: Stop sign Total Collisions: 1

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	er Vehicle type	First Event	No. Ped
2017-Nov-27, Mon,06:57	Clear	Angle	P.D. only	Dry	West	Turning left	Pick-up truck	Other motor vehicle	
					North	Going ahead	Pick-up truck	Other motor vehicle	

Location: RIVER RD @ SUMMERHILL ST

Traffic Control: Stop sign Total Collisions: 2

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	er Vehicle type	First Event	No. Ped
2014-Dec-07, Sun,14:25	Clear	Rear end	Non-fatal injury	Dry	West	Slowing or stoppin	g Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2014-Jan-25, Sat,12:39	Clear	Rear end	Non-fatal injury	Wet	South	Going ahead	Automobile, station wagon	Other motor vehicle	

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South Turning left

Pick-up truck

Other motor vehicle

Location: RIVER RD btwn EARL ARMSTRONG RD & 175 N OF EARL ARMSTRONG/LOBLAWS SC

Traffic Control: No control Total Collisions: 2

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	r Vehicle type	First Event	No. Ped
2013-Jun-13, Thu,21:35	Clear	SMV other	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Animal - wild	
2013-Jan-30, Wed,09:36	Clear	Sideswipe	P.D. only	Wet	North	Going ahead	Automobile, station wagon	Other motor vehicle	
					North	Going ahead	Truck - dump	Other motor vehicle	

Location: RIVER RD btwn EARL ARMSTRONG RD & NICOLLS ISLAND RD

Traffic Control: No control Total Collisions: 8

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	r Vehicle type	First Event	No. Ped
2014-Mar-12, Wed,16:39	Snow	Approaching	P.D. only	Loose snow	South	Going ahead	Automobile, station wagon	Skidding/sliding	
					North	Going ahead	Pick-up truck	Other motor vehicle	
2014-Mar-13, Thu,08:25	Clear	Approaching	Non-fatal injury	Packed snow	South	Slowing or stopping	g Automobile, station wagon	Other motor vehicle	
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2014-Aug-14, Thu,11:51	Clear	SMV other	P.D. only	Dry	South	Going ahead	Truck - dump	Other	
2014-Aug-14, Thu,11:51	Clear	SMV other	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other	
2015-Feb-02, Mon,12:47	Clear	Rear end	P.D. only	Loose snow	North	Going ahead	Truck - open	Other motor vehicle	

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					North	Stopped	Pick-up truck	Other motor vehicle
2016-Aug-02, Tue,15:21	Clear	Other	P.D. only	Dry	South	Reversing	Farm tractor	Other motor vehicle
					South	Turning left	Automobile, station wagon	Other
2016-Jan-01, Fri,02:33	Snow	SMV other	P.D. only	Wet	South	Going ahead	Automobile, station wagon	Skidding/sliding
2017-Dec-29, Fri,23:58	Clear	SMV other	P.D. only	Ice	West	Going ahead	Pick-up truck	Skidding/sliding

Location: RIVER RD btwn MULLIGAN ST & LEITRIM RD

Traffic Control: No control Total Collisions: 2

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	er Vehicle type	First Event	No. Ped
2017-Aug-04, Fri,09:02	Clear	Rear end	P.D. only	Dry	North	Slowing or stoppin	g Automobile, station wagon	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2018-May-09, Wed,02:42	? Clear	SMV other	Non-fatal injury	Dry	South	Going ahead	Automobile, station wagon	Ditch	

Location: RIVER RD btwn NICOLLS ISLAND RD & RIDEAU RD

Traffic Control: No control

Total Collisions: 1

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	er Vehicle type	First Event	No. Ped
2015-Apr-18, Sat,13:00	Clear	SMV other	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Ditch	

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Location: SPRATT RD btwn CANYON WALK DR & HOLLOW TRAIL GT

Traffic Control: No control

Total Collisions: 1

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuve	er Vehicle type	First Event	No. Ped
2017-Sep-18, Mon,17:03	Clear	SMV unattended vehicle	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Unattended vehicle	

Location: SPRATT RD btwn CANYON WALK DR & OWLS CABIN AVE

Traffic Control: No control Total Collisions: 2

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Feb-03, Wed,09:05	Freezing Rain	Angle	P.D. only	Slush	South	Turning left	Automobile, station wagon	Other motor vehicle	
					East	Going ahead	Passenger van	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2016-May-30, Mon,16:42	Clear	Approaching	Non-fatal injury	Dry	East	Going ahead	Pick-up truck	Other motor vehicle	
					West	Going ahead	Pick-up truck	Other motor vehicle	

Location: SPRATT RD btwn EARL ARMSTRONG RD & RIDEAU RD

Traffic Control: No control Total Collisions: 1

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver Ve	ehicle type	First Event	No. Ped
2013-Feb-14, Thu,20:16	Snow	SMV other	P.D. only	Wet	North	J	utomobile, ation wagon	Ran off road	

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