

October 2017

# 386 Richmond Road Mixed Use Development

## Transportation Impact Assessment Report

Prepared for:  
**Nrml Group Inc.**

# **386 Richmond Road Mixed Use Development**

## **Transportation Impact Assessment Report**

prepared for:  
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184 Rideau Street  
Ottawa, ON  
K1N 5X6  
C/O Roca Homes

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October 19, 2017

476478-01000

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# TRANSPORTATION IMPACT ASSESSMENT REPORT

## 1. DESCRIPTION OF PROPOSED DEVELOPMENT

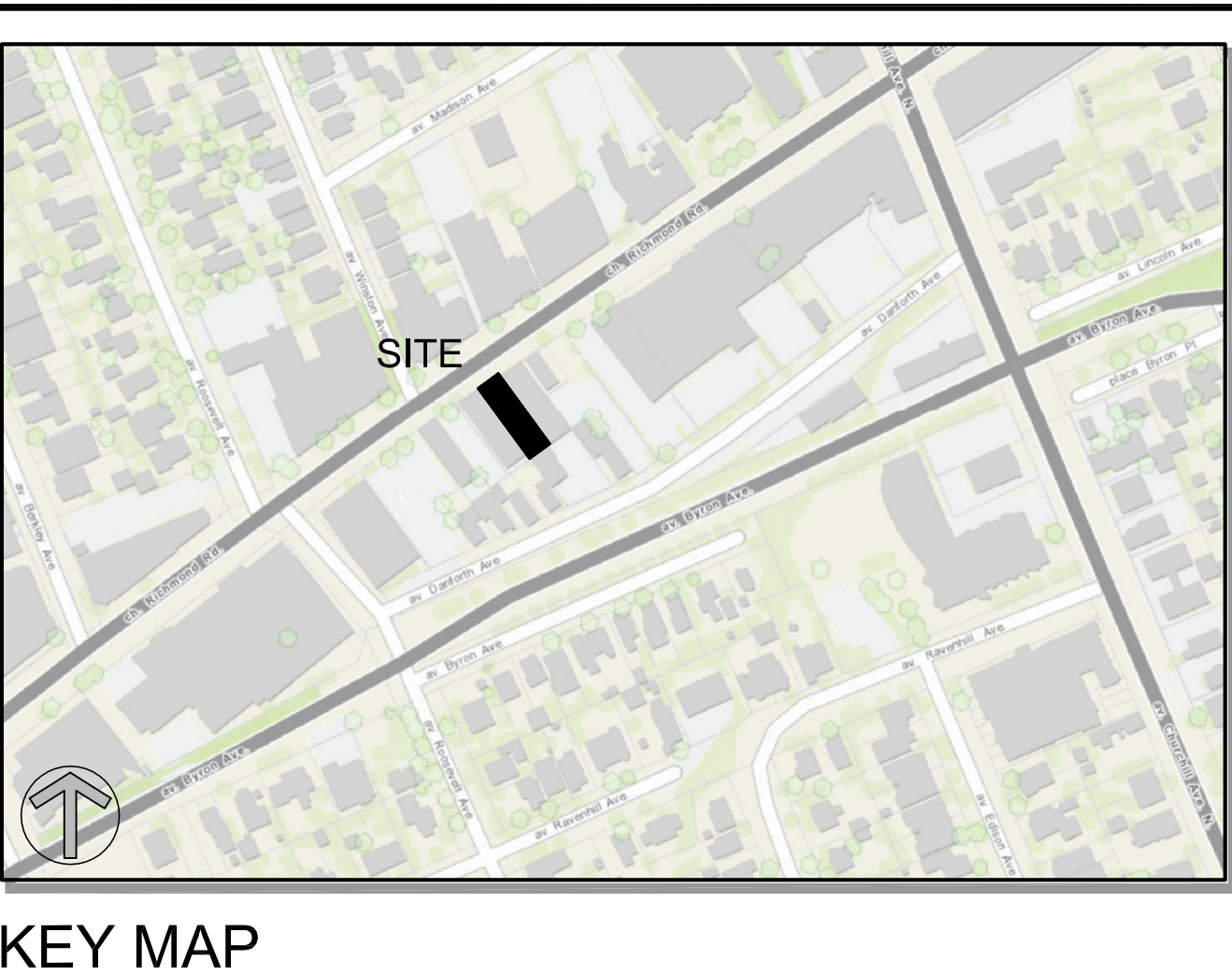
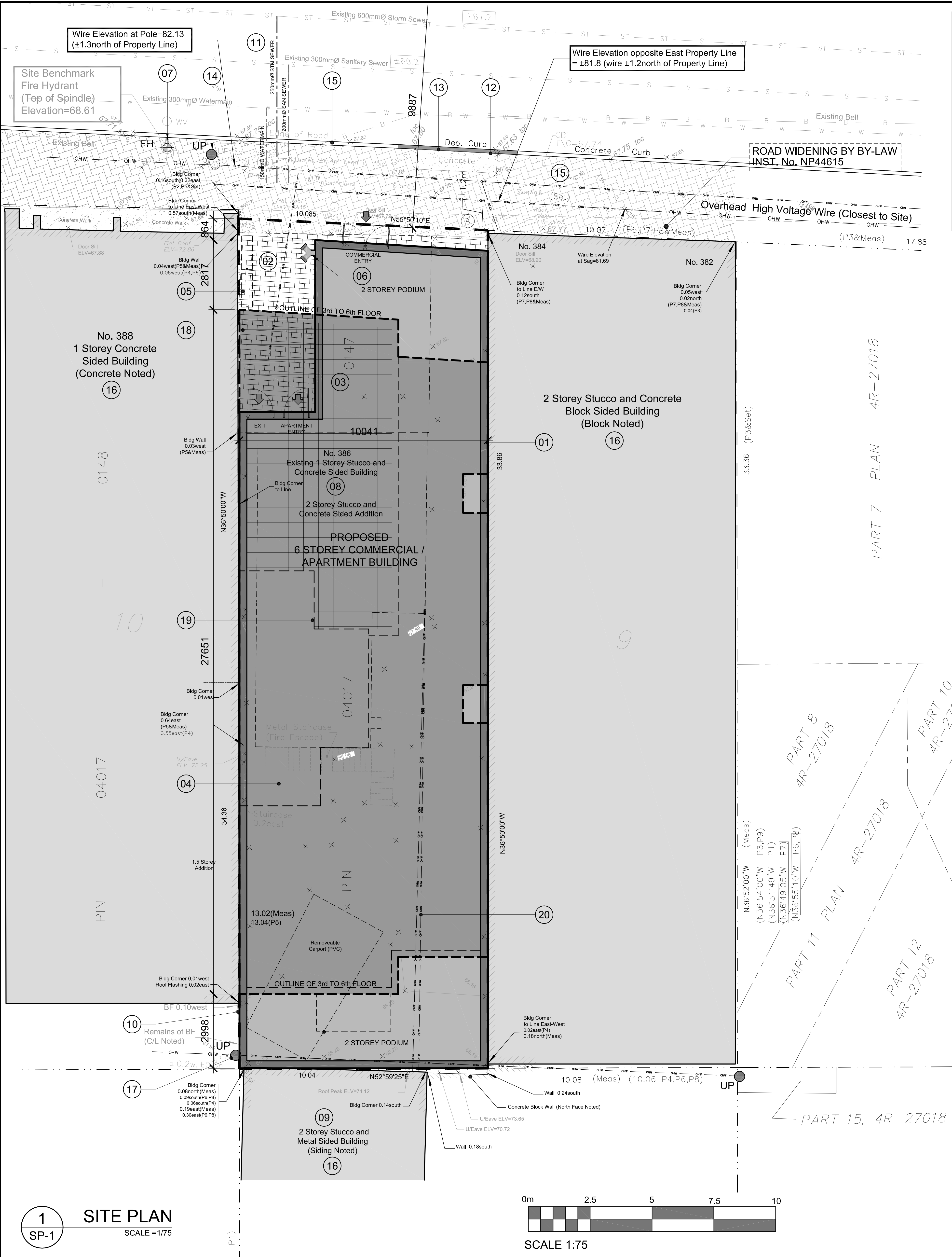
### 1.1. PROPOSED DEVELOPMENT

A six-storey building with approximately 16 residential apartment units, 230 square metres of office space, and 230 square metres of ground floor retail is being proposed along the south side of Richmond Road, east of Roosevelt Avenue. No vehicle access is proposed for the subject development. No parking will be provided on site. The estimated date of occupancy is 2020, with one planned phase of development. The lot currently contains an unoccupied single storey commercial building. The site's local context is depicted as Figure 1, the Ground Floor Site Plan is depicted as Figure 2. The subject mixed-use development was examined using the TIA Screening Form (see Appendix A). Using this form, it was determined that the proposed development would not meet the Trip Generation Trigger. However, both the Location Trigger and the Safety Trigger were met. This study has been prepared accordingly.

Figure 1: Local Context







1

PROPERTY LINE

2

CONCRETE UNIT PAVERS

3

PRIVATE ROOF TOP PATIOS WITH METAL FRAMED GLASS RAILINGS

4

GARBAGE / RECYCLING AREA WITHIN BUILDING ON FIRST LEVEL

5

BICYCLE PARKING SPACES

6

SIAMESE CONNECTION

7

EXISTING FIRE HYDRANT

8

OUTLINE OF PRIVATE TERRACE ABOVE

9

EXISTING BUILDING TO BE REMOVED

10

EXISTING BOARD FENCE TO BE REMOVED

11

PROPOSED LOCATION OF UNDERGROUND UTILITIES

12

EXISTING DEPRESSED CURB AND WALK TO BE REMOVED

13

NEW CONCRETE CURB AND UNIT PAVERS TO CITY OF OTTAWA STANDARDS

14

EXISTING UTILITY POLE WITH HIGH VOLTAGE WIRES

15

EXISTING UNIT PAVES SIDEWALK WITH STREET CURB

16

EXISTING ADJACENT COMMERCIAL BUILDING

17

RELOCATE EXISTING UTILITY POLE AND WIRES

18

BUILDING OVERHAND

19

OUTLINE OF 7th LEVEL ROOF ACCESS

20

EXISTING HYDRO / UTILITY WIRE TO BE REMOVED

21

22

23

24

25

DRAWING NOTES

1

PROPERTY LINE

2

CONCRETE UNIT PAVERS

3

PRIVATE ROOF TOP PATIOS WITH METAL FRAMED GLASS RAILINGS

4

GARBAGE / RECYCLING AREA WITHIN BUILDING ON FIRST LEVEL

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19

OUTLINE OF 7th LEVEL ROOF ACCESS

20

EXISTING HYDRO / UTILITY WIRE TO BE REMOVED

21

22

23

24

25

SITE PLAN SYMBOLS

CONCRETE UNIT PAVERS SURFACE

ROOF TOP PATIO

EXISTING CITY SIDEWALK

EXISTING ADJACENT BUILDINGS

BIKE SPACE

ACCESS DOOR

PROPERTY LINE

PROJECT INFORMATION

ZONING BY-LAW 2008-250

TM H(24)

SITE AREA

343.1 sq. m.  
3,893 sq. ft.

BUILDING HEIGHT - TM14 H(17)

24.0 m.

AMENITY AREA PER UNIT

6.0 sq. m.

PROJECT STATISTICS

BUILDING HEIGHT - TM14 H(17)

21.4 m.

AMENITY SPACE

PRIVATE BALCONY = 30.0 sq. m.  
COMMUNAL EXTERIOR = 75.0 sq. m.  
EXTERIOR AT GRADE = 0 sq. m.  
TOTAL = 105 sq. m.

GROSS BUILDING FLOOR AREA

(OTTAWA ZONING DEFINITION)

LOWER LEVEL

0.0 sq. m.  
0.00 sq. ft.

GROUND FLOOR

231.0 sq. m.  
2,486 sq. ft.

2nd FLOOR

228.9 sq. m.  
2,464 sq. ft.

3rd to 6th FLOOR

4 x 185.7 sq. m.  
4 x 1,999 sq. ft.  
742.8 sq. m.  
7,996 sq. ft.

TOTAL AREA ABOVE GRADE

1,202.7 sq. m.  
12,946 sq. ft.

UNIT STATISTICS

STUDIO UNIT

12

1 BEDROOM UNIT

4

2 BEDROOM UNIT

0

TOTAL

16

COMMERCIAL RETAIL

459.9 sq. m.  
4,950 sq. ft.

CAR PARKING

REQUIRED

RESIDENCE

- 0.5 per DWELLING UNIT AFTER 12 UNITS

2

VISITOR

- 0.1 per DWELLING UNIT AFTER 12 UNITS

0

RETAIL

- 1.25 PER 100 m<sup>2</sup> of GFA  
- NOT REQUIRED ON THE GROUND FLOOR FOR THE 1st 500 m<sup>2</sup> of GFA

0

TOTAL

2

PROVIDED

RESIDENCE

- 0.5 per DWELLING UNIT AFTER 12 UNITS

0

VISITOR

- 0.1 per DWELLING UNIT AFTER 12 UNITS

0

RETAIL

- 1.25 PER 100 m<sup>2</sup> of GFA  
- NOT REQUIRED ON THE GROUND FLOOR FOR THE 1st 500 m<sup>2</sup> of GFA

0

TOTAL

0

BICYCLE PARKING

REQUIRED

- 0.5 PER UNIT (16 UNITS)

8

- 1.0 PER 250 m<sup>2</sup> of GFA

2

PROVIDED

INTERIOR

8

EXTERIOR

2

NOTATION SYMBOLS:

00

INDICATES DRAWING NOTES, LISTED ON EACH SHEET.

00

INDICATES ASSEMBLY TYPE: REFER TO TYPICAL ASSEMBLIES SCHEDULE.

00

INDICATES WINDOW TYPE: REFER TO WINDOW ELEVATIONS AND DETAILS ON A800 SERIES.

000

INDICATES DOOR TYPE: REFER TO DOOR SCHEDULE AND DETAILS ON A800 SERIES.

00

DETAIL NUMBER

00

TITLE

00

SCALE

00

DETAIL REFERENCE PAGE

00

DETAIL CROSS REFERENCE PAGE

SURVEYOR

Farley, Smith & Denis Surveying Ltd.

Ontario Land Surveyors

190 Colonnade Road,

Ottawa, Ontario K2E 7J5

Tel.: (613) 727-8226

Fax: (613) 727-1826

E-Mail: radenis@bellnet.ca

LEGAL DESCRIPTION

TOPOGRAPHIC PLAN OF SURVEY OF

PART OF LOT 9

(SOUTH RICHMOND ROAD)

REGISTERED PLAN 204

CITY OF OTTAWA

URBAN PLANNER

FoTenn Consultants Inc.

223 McLeod Street

Ottawa, ON Canada, K2P 0Z8

Tel.: (613) 730-5709

Fax: (613) 730-1136

E-Mail: mcelligott@fotenn.com

PROPERTY OWNER

NRML Clothing Inc.

184 Rideau Street

Ottawa, ON, K1N 5X6

CIVIL ENGINEER

D.B Grey Engineering Inc.

700 Long Point Circle

Ottawa, ON K1T 4E9

Tel.: (613) 425-8044

Fax: (613)

Email: d.gray@dbgrayengineering.com

PROJECT BUILDER

Roca Homes

24 George Street West,

Ottawa ON, K1S 3J2

Tel.: (613) 422.3737 Cell: (613) 851-7823

Fax: (613) 422.6837

E-Mail: Roberto@rocahomes.ca

ARCHITECT:

RODERICK LAHEY

ARCHITECT INC

56 Beech Street, Ottawa, Ontario K1S 3J6

t.613.724.9932 f.613.724.1209 www.rodericklahey.ca

PROJECT TITLE:

386 RICHMOND ROAD

OTTAWA

ONTARIO

SHEET TITLE:

SITE PLAN

DRAWN:

RV

CHECKED:

C.M.

SCALE:

1:75

SHEET No.

SP-1

PROJECT No.

1643

PAPER SIZE: ISO\_B1\_(707.00\_x\_1000.00\_MM) PLOT DATE: Tuesday, September 26, 2017 PLOT SCALE: 1:1 PEN STYLE: 0-RLA-MASTER-100%.ctb F:\2017\1725 - 386 Richmond\01\_Design Development\1725 SP-1 Site Plan Aug18.dwg



## 2. EXISTING CONDITIONS

### 2.1. AREA ROAD NETWORK

**Richmond Road** is an east-west arterial roadway, which extends from Baseline Road in the west to Island Park Road in the east, where Richmond Road becomes Wellington Street. Within the study area, its cross-section consists of a single travel lane in each direction and an unposted speed limit of 50 km/h. On street parking is provided on both sides of Richmond Road within the Study Area.

### 2.2. PEDESTRIAN/CYCLING NETWORK

According to the City's 2013 Official Cycling Plan (OCP), Richmond Road is classified as a "Suggested Route". Within the Study Area, no formal cycling facilities are currently provided and cyclists would operate in mixed traffic.

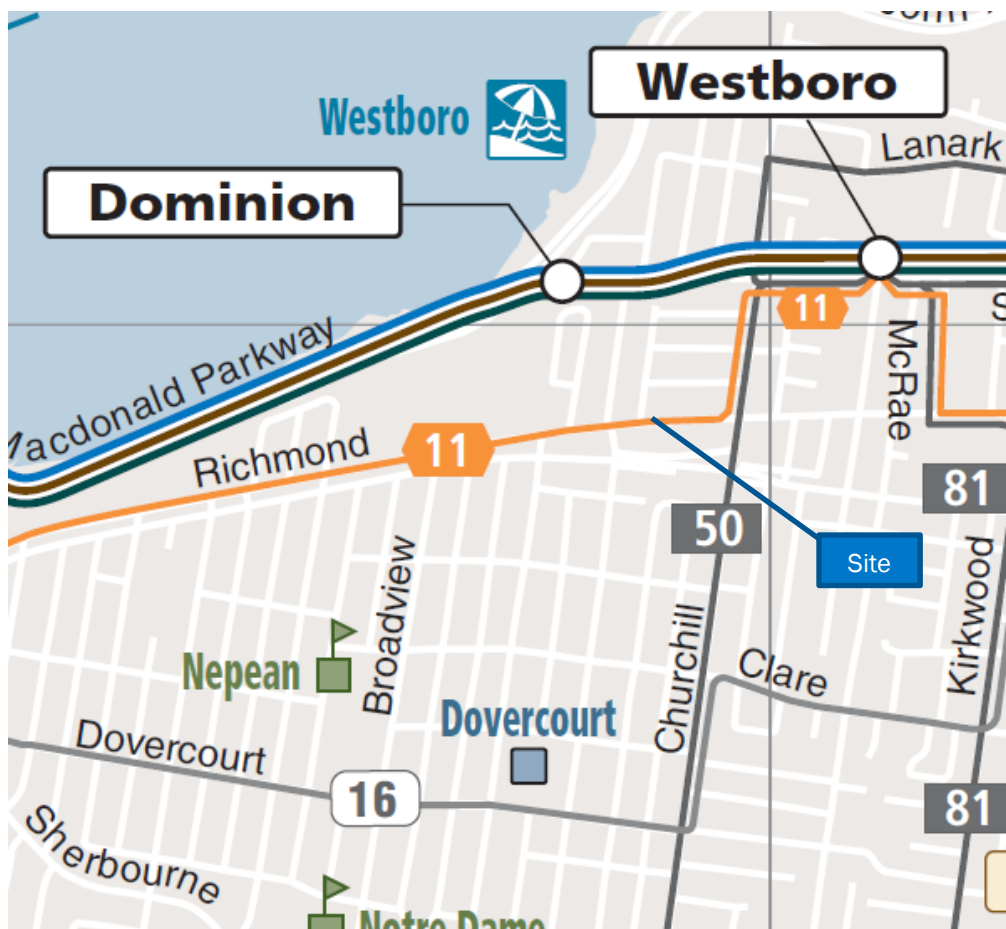
Curbside sidewalks are provided along both sides of Richmond Road with crosswalks at the signalized and unsignalized intersections within the Study Area.

### 2.3. TRANSIT NETWORK

OC Transpo service is currently provided along Richmond Road with bus stops provided near the site for Local Route #11.

Rapid transit is located approximately 400m north of the site via the Future Dominion LRT Station.

Figure 3: Area Transit Network



## 2.4. EXISTING ROAD SAFETY CONDITIONS

Collision history for study area roads (2011 to 2016, inclusive) was obtained from the City of Ottawa. The recorded collisions involved (82%) of property damage only and (18%) non-fatal injuries, indicating low impact speeds. Over the five-year period, 87 collisions were observed along Richmond Road between the intersections of Churchill Avenue and Roosevelt Avenue. The primary causes of collisions cited by police include single vehicle - other (23%), sideswipe (20%), angle (20%), rear end (18%), turning movement (10%), single vehicle - unattended vehicle (8%), and approaching (1%).

It was noted that out of the 87 collisions, 10 involved Municipal Buses, 6 involved a pedestrian and 1 involved a cyclist.

Based on the available data, there does not appear to be any prevailing safety issues for midblock Richmond Road between the intersections of Churchill Avenue and Roosevelt Avenue. Appendix B contains the collision reports.

## 3. PLANNED CONDITIONS

### 3.1. PLANNED STUDY AREA TRANSPORTATION NETWORK CHANGES

A notable transportation network change within the study area is the Phase I construction of the east-west LRT, which is the conversion of the City's existing BRT corridor to LRT between the current Blair transit station and the Tunney's Pasture station which includes a tunnel through the City's Downtown. Currently, this phase of construction is underway and is expected to be completed by 2019.

Phase II of the LRT construction, which will extend the City's LRT further east, west and south (further improving transit within the vicinity of the site), is expected to begin by 2019 and be completed by 2024. The following Figure 4 illustrates the planned Phases I and II of the future Confederation/Trillium Lines. As mentioned previously, the subject development is located approximately 400 m from the future Dominion LRT Station.

Figure 4: Planned LRT Phase II



## 3.2. OTHER AREA DEVELOPMENTS

The City of Ottawa's Development Applications website has been reviewed to determine if there are any ongoing development applications that are within the Study Area. Through this review, it was determined that the property at 371 Richmond Road, on the north side of the road, approximately 50m east of the subject development, has an open application. The file date is August 8, 2014, with a status update of October 30, 2014. The Transportation Brief for 371 Richmond Road was reviewed. As per the conclusions of the 371 Richmond Road Transportation Brief, that development is anticipated to produce a negligible increase in peak hour traffic.

## 4. DEVELOPMENT-GENERATED TRAFFIC

### 4.1. TRIP GENERATION RATES

Appropriate trip generation rates for the proposed development of approximately 16 apartment units and 230m<sup>2</sup> of retail commercial space and 230m<sup>2</sup> office space were obtained from the 9th Edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual, which are summarized in Table 1. Average rates were used based on the land use codes and the small size of the developments.

Table 1: ITE Vehicle Trip Generation Rates

Land Use	Data Source	Trip Rates	
		AM Peak	PM Peak
Apartment	ITE 220	0.51	0.62
General Office Building	ITE 710	1.56	1.49
Shopping Centre	ITE 820	0.96	3.71
Notes: T = Average Vehicle Trip Ends X = Residential units			

As ITE trip generation surveys only record vehicle trips, adjustment factors were applied to attain estimates of person trips for the proposed development. This approach is considered appropriate within the industry for more urban developments.

To convert ITE vehicle trip rates to person trips, an auto occupancy factor and a non-auto trip factor were applied to the ITE vehicle trip rates. Our review of available literature suggests that a combined factor of approximately 1.28 is considered reasonable 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%. As such, the person trip generation for the proposed site is summarized in Table 2.

Table 2: Modified Person Trip Generation Rates

Land Use	Units / GFA	AM Peak (Person Trips/h)			PM Peak (Person Trips/h)		
		In	Out	Total	In	Out	Total
Apartment	16 d.u.	2	9	11	8	5	13
General Office Building	2,476 ft <sup>2</sup>	4	1	5	0	5	5
Shopping Centre	2,476 ft <sup>2</sup>	1	2	3	5	7	12
Total Person Trips		7	12	19	13	17	30
Note: 1.28 factor 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 mode share targets for the development have been summarized in Table 3 below.



Table 3: Mode Share Targets for the Development

Travel Mode	Mode Share Target	Rationale
Auto Driver	0%	See rationale below
Auto Passenger	0%	See rationale below
Transit	75%	See rationale below
Walking	10%	See rationale below
Cycling	15%	See rationale below

The modes shares presented in Table 3 have been estimated based on local knowledge, the proposed development context, as well as the proximity to the future Dominion LRT Station (approximately 400m north of the subject site).

Using the mode share and total person trips, both documented above, the person trips by mode were estimated. The person trips shown in Table 2 for the proposed site were reduced by modal share values for the 2019 scenario, with the total site-generated traffic summarized in Table 4.

Table 4: Total Site Trip Generation

Travel Mode	Mode Share	AM Peak (Person Trips/hr)			PM Peak (Person Trips/hr)		
		In	Out	Total	In	Out	Total
Auto Driver	0%	0	0	0	0	0	0
Auto Passenger	0%	0	0	0	0	0	0
Transit	75%	6	9	15	10	13	23
Non-motorized	25%	1	3	4	3	4	7
Total Person Trips	100%	7	12	19	13	17	30
Total 'New' Auto Trips		0	0	0	0	0	0

As shown in Table 4, no 'new' two-way vehicle trips are anticipated as a result of the proposed development.

## 5. DEVELOPMENT DESIGN

### 5.1. DESIGN FOR SUSTAINABLE MODES

#### 5.1.1. BICYCLE PARKING

The proposed development includes 10 bicycle parking spaces including eight interior spaces and two exterior spaces.

#### 5.1.2. PEDESTRIAN ROUTES AND FACILITIES

The building will have at-grade accesses directly on to Richmond Road providing access directly to the sidewalk. No internal walkways or site circulation is required.

#### 5.1.3. LOCATION OF TRANSIT FACILITIES

As documented in Figure 5 below, the subject site is approximately 530m walking distance from the Dominion Future LRT Station. Additionally, there are eastbound and westbound transit stops located 80m and 60m to the east of the site, respectively.

Figure 1: Transit Distance





## 6. PARKING

### 6.1. PARKING SUPPLY

#### 6.1.1. AUTO PARKING

The proposed mixed-use development would have limited parking requirements, per the zoning for the site. Table 5 summarizes the parking requirements and the proposed parking supply, as per the information provided on the Site Plan.

Table 5: Required vs. Proposed Vehicle Parking

Land Use	Required	Provided
Residential	2	0
Visitor (Residential Visitor)	0	0
Retail	0	0

As shown in the table above the proposed site requires two parking spaces per the zoning by-law, but the site is not proposed to have any parking. This variance from the zoning requirement is justified by the site location and the access to transit including adjacent bus stations to the west of the site, and the close proximity of the Future Dominion LRT Station. Additionally, as detailed further below, the site will provide adequate bicycle parking to serve the site, further encouraging the use of active mode transportation. When a parking spot is required, on-street parking is provided curbside in front of the proposed development. The on-street parking usage has been reviewed in the recent Westboro Local Area Parking Study Update, March 2017. This study documented the parking utilization along Richmond Road in the Study Area. The Parking Study considered two sections, east of Tweedsmuir and west of Tweedsmuir. The proposed development is within the west of Tweedsmuir segment of the report. The Parking Study determined that the parking along Richmond Road is at or exceeding the practical capacity (85% of spaces occupied) during the Weekday Midday and Evening; Saturday Morning, Midday, and Afternoon; Sunday Morning, Midday, and Afternoon. During all other periods, the parking utilization rate was 50% or more. Despite this it is still appropriate to permit the proposed parking variance. To provide on-site parking would require a site access onto Richmond Road, eliminating adjacent on-street parking. This would reduce the available parking on Richmond Road. Additionally, the subject site will promote the use of transit and active modes transportation, rather than relying on single occupant vehicles. This is due to the proximity to transit, the provision of on-site bicycle parking, and the sidewalks along both sides of Richmond Road.

#### 6.1.2. BICYCLE PARKING

The proposed mixed-use development is planned to provide the required bicycle parking. Table 6 summarizes the parking requirements and the proposed parking supply, as per the information provided on the Site Plan.

Table 6: Required vs. Proposed Bicycle Parking

Land Use	Required	Provided
Residential	8	8
Retail	2	2

The required bicycle parking will be provided through a combination of interior and exterior bicycle parking, with eight interior and two exterior bicycle parking spaces.

## 7. BOUNDARY STREET DESIGN

### 7.1. COMPLETE STREETS DESIGN

---

Available Complete Streets Designs for the subject segment of Richmond Road were requested from the City of Ottawa. The following reply was received in response to this request.

*The key element that is often lacking for a Complete Street that is in a Traditional Main Street environment, like this segment of Richmond Road, is a dedicated space for cyclists. While Complete Streets do not always require cycling facilities depending on context, this one would because (a) there already are many people regularly doing utilitarian cycling in the neighbourhood and (b) there are multiple destinations along the Westboro Village strip along Richmond that attract people that use bikes.*

*In addition to being a designated Spine Route in the Ottawa Cycling Plan (OCP) it should be noted that Richmond Road west of Churchill carries the highest class of cycling designation within the Plan, that of Crosstown Bikeway #2, where there only are 8 crosstown bikeways in the entire cycling network.*

*The OCP's 'Cycling Facility Selector Tool' would point to either a bike lane or cycle track as the appropriate facility based on traffic volumes and 85th percentile speed. However, it is not clear that this will be possible due to limited ROW and other priorities for the space (in particular on-street parking). The only way cyclists could be properly accommodated would be if on-street parking is removed from one or both sides of Richmond, or if buildings could be set back from the road. The latter is highly unlikely given the existing built form and number of buildings with front façades close to the curb line. It therefore makes the most sense to plan for cycling along this strip as a single large scale project that would address the issue of on-street parking along the entire segment – implying it is premature to design a cycling facility at only one address along this particular strip. If the proposed redevelopment covered the better part of a city block our response would be different.*

*The applicant would therefore not be required to accommodate the complete street concept at this location, despite the supportive policy.*

As a result, there is nothing further to consider for Section 4.3 and there is no need to complete an MMLOS for the Richmond Road segment adjacent to the proposed site.



## 8. CONCLUSIONS

Based on the foregoing analysis of the proposed site, the following transportation related conclusions are offered:

- a) The subject mixed-use development was examined using the TIA Screening Form (see Appendix A). Using this form, it was determined that the proposed development would not meet the Trip Generation Trigger. However, both the Location Trigger and the Safety Trigger were met. This study has been prepared accordingly.
- b) Transit service is located near the site along Richmond Road, less than 100m to the west of the site. Additionally, the Future Dominion LRT Station is approximately 530m (walking distance) from the proposed site.
- c) Collision data reveals that there were a small number of pedestrian and cyclist involved collisions. Vehicle collisions were primarily property damage only, indicating that collisions along this corridor are occurring at low speeds.
- d) Based on the site location, access to transit, and active modes facilities, the proposed site is anticipated to have a 0% vehicle mode share. This is further supported by the proposed site configuration, which will not provide any on-site parking.
- e) It is anticipated that this site will have a 75% transit mode share and a 25% active modes share. This equates to 15 and 23 AM and PM peak hour transit trips, respectively. Additionally, 4 AM and 7 PM peak hour active modes trips are projected to be generated by the proposed development.
- f) The zoning requirements for the proposed site require two vehicle parking spaces and 10 bicycle parking spaces. It is proposed that the site will have eight interior bicycle parking spaces and two exterior bicycle parking spaces. However, there will be no vehicle parking provided on site. As per the Westboro Local Area Parking Study the parking along Richmond Road is utilized at its practical capacity. However, to provide on-site parking would necessitate creating an access from the site onto Richmond Road, eliminating on street parking along the frontage of the site, and therefore the net number of parking spaces would not change. It is therefore appropriate to allow a variance in the required parking for this site.
- g) Richmond Road is a Traditional Main Street and a dedicated space for cyclist would be beneficial to this corridor. However, given the existing built form along Richmond Road and the presence of on street parking, a dedicated space for cyclists would require a single large-scale project addressing cycling along the entire segment. Based on the information provided by the City of Ottawa, no modifications to the adjacent roadway are required to support the Complete Streets concept at this location.

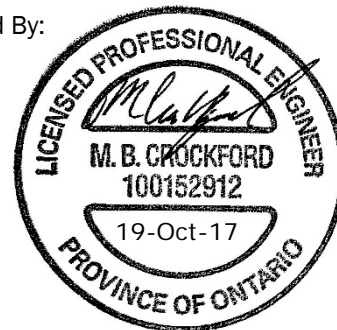
The proposed development will encourage use of the Future LRT, via the Dominion LRT Station, and will promote a shift away from car-oriented transportation towards active and transit modes. The new auto trips resulting from the proposed development can be accommodated by the Study Area road network. Considering the foregoing, this site is recommended to be approved, from a transportation perspective.

Prepared By:



Matthew Mantle, EIT  
Transportation Analyst

Reviewed By:



Mark Crockford, P. Eng.  
Transportation Engineer

# Appendix A

TIA Screening Form

---



City of Ottawa 2017 TIA Guidelines  
TIA Screening Form

Date 8/21/2016  
Project 386 Richmond Road  
Project Number

Results of Screening	Yes/No
Development Satisfies the Trip Generation Trigger	No
Development Satisfies the Location Trigger	Yes
Development Satisfies the Safety Trigger	Yes

Module 1.1 - Description of Proposed Development	
Municipal Address	386 Richmond Road
Description of location	PLAN 204 W PT LOT 9 RICHMOND;S
Land Use	Mixed Use (Residential, Retail, Office)
Development Size	~1,500 sq. m.
Number of Accesses and Locations	Street level Pedestrian Access (no vehicle access)
Development Phasing	N/A
Buildout Year	~2019
Sketch Plan / Site Plan	See attached

Module 1.2 - Trip Generation Trigger		
Land Use Type	Townhomes or Apartments	
Development Size	17	Units
Trip Generation Trigger Met?	No	

Note: Mixed Use Development. See attached for additional calculations.

Module 1.3 - Location Triggers	
Development Proposes a new driveway to a boundary street that is designated as part of the City's Transit Priority, Rapid Transit, or Spine Bicycle Networks	Yes
Development is in a Design Priority Area (DPA) or Transit-oriented Development (TOD) zone.	Yes
Location Trigger Met?	Yes

Module 1.4 - Safety Triggers		
Posted Speed Limit on any boundary road	<60	km/h
Horizontal / Vertical Curvature on a boundary street limits sight lines at a proposed driveway	No	
A proposed driveway is 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) or within auxiliary lanes of an intersection;	Yes	
A proposed driveway makes use of an existing median break that serves an existing site	No	
There is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development	No	
The development includes a drive-thru facility	No	
Safety Trigger Met?	Yes	

Table 2: Trip Generation Trigger

Land Use Type	Minimum Development Size	Units	Subject Development Size	Percent of Min Development Size
Single-Family Homes	40	Units		
Townhomes or Apartments	90	Units	17	19%
Office	3500	sq. m	250	7%
Industrial	5000	sq. m		
Fast-food Restaurant or Coffee Shop	100	sq. m		
Destination Retail	1000	sq. m	300	30%
Gas Station or Convenience Market	75	sq. m		
Total %				56%

The combination of the three uses when compared to the minimum trigger for each land meet 56% of the trip generation trigger. Therefore the Trip Generation Trigger is not met.



## **TIA Plan Reports**

On 14 June 2017, the Council of the City of Ottawa adopted new Transportation Impact Assessment (TIA) Guidelines. In adopting the guidelines, Council established a requirement for those preparing and delivering transportation impact assessments and reports to sign a letter of certification.

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

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

### **CERTIFICATION**

1. I have reviewed and have a sound understanding of the objectives, needs and requirements of the City of Ottawa's Official Plan, Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines;
2. I have a sound knowledge of industry standard practice with respect to the preparation of transportation impact assessment reports, including multi modal level of service review;
3. I have substantial experience (more than 5 years) in undertaking and delivering transportation impact studies (analysis, reporting and geometric design) with strong background knowledge in transportation planning, engineering or traffic operations; and
4. I am either a licensed<sup>1</sup> or registered<sup>2</sup> professional in good standing, whose field of expertise [check ☒ appropriate field(s)] is either transportation engineering ☐ or transportation planning ☐.

**1,2 License of registration body that oversees the profession is required to have a code of conduct and ethics guidelines that will ensure appropriate conduct and representation for transportation planning and/or transportation engineering works.**

City Of Ottawa  
Infrastructure Services and Community  
Sustainability  
Planning and Growth Management  
110 Laurier Avenue West, 4th fl.  
Ottawa, ON K1P 1J1  
Tel. : 613-580-2424  
Fax: 613-560-6006

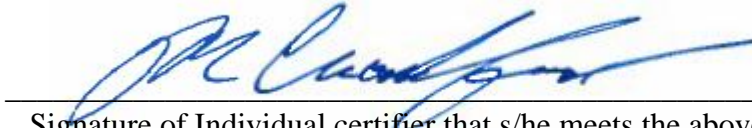
Ville d'Ottawa  
Services d'infrastructure et Viabilité des  
collectivités  
Urbanisme et Gestion de la croissance  
110, avenue Laurier Ouest  
Ottawa (Ontario) K1P 1J1  
Tél. : 613-580-2424  
Télécopieur: 613-560-6006



Dated at Markham this 18 day of October, 2017.  
(City)

Name: Mark Crockford  
(Please Print)

Professional Title: Professional Engineer

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

<b>Office Contact Information (Please Print)</b>
Address: 625 Cochrane Drive, Suite 500
City / Postal Code: L3R 9R9
Telephone / Extension: 1 905.943.0406
E-Mail Address: Mark.Crockford@Parsons.com

## Appendix B

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Collision Data

**Total Area**

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	Single Vehicle (other)	Single vehicle (Unattended vehicle)	Other	Total
P.D. only	14	6	16	14	1	13	7	0	71
Non-fatal injury	2	3	1	3	0	7	0	0	16
Non reportable	0	0	0	0	0	0	0	0	0
Total	16	9	17	17	1	20	7	0	87
	#4 or 18%	#5 or 10%	#2 or 20%	#2 or 20%	#7 or 1%	#1 or 23%	#6 or 8%	#8 or 0%	

82%  
18%  
0%  
100%

**CHURCHILL AVE, RICHMOND RD to Midblock**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days	Collisions/MEV
2011-2015	19		1826	n/a

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	Single Vehicle (other)	Single vehicle (Unattended vehicle)	Other	Total
P.D. only	1	1	4	3	0	8	0	0	17
Non-fatal injury	0	0	1	0	0	1	0	0	2
Non reportable	0	0	0	0	0	0	0	0	0
Total	1	1	5	3	0	9	0	0	19
	5%	5%	26%	16%	0%	47%	0%	0%	

89%  
11%  
0%  
100%

**ROOSEVELT AVE & WINSTON AVE, RICHMOND RD to Midblock**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days	Collisions/MEV
2011-2015	15		1826	n/a

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	Single Vehicle (other)	Single vehicle (Unattended vehicle)	Other	Total
P.D. only	4	1	2	0	1	0	6	0	14
Non-fatal injury	1	0	0	0	0	0	0	0	1
Non reportable	0	0	0	0	0	0	0	0	0
Total	5	1	2	0	1	0	6	0	15
	33%	7%	13%	0%	7%	0%	40%	0%	

93%  
7%  
0%  
100%

**CHURCHILL AVE/RICHMOND RD**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days	Collisions/MEV
2011-2015	44		1826	n/a

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	Single Vehicle (other)	Single vehicle (Unattended vehicle)	Other	Total
P.D. only	7	3	9	9	0	4	1	0	33
Non-fatal injury	1	2	0	3	0	5	0	0	11
Non reportable	0	0	0	0	0	0	0	0	0
Total	8	5	9	12	0	9	1	0	44
	18%	11%	20%	27%	0%	20%	2%	0%	

75%  
25%  
0%  
100%

**ROOSEVELT AVE/RICHMOND RD**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days	Collisions/MEV
2011-2015	5		1826	n/a

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	Single Vehicle (other)	Single vehicle (Unattended vehicle)	Other	Total
P.D. only	1	1	0	2	0	1	0	0	5
Non-fatal injury	0	0	0	0	0	0	0	0	0
Non reportable	0	0	0	0	0	0	0	0	0
Total	1	1	0	2	0	1	0	0	5
	20%	20%	0%	40%	0%	20%	0%	0%	

100%  
0%  
0%  
100%

**WINSTON /RICHMOND RD**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days	Collisions/MEV
2011-2015	4		1826	n/a

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	Single Vehicle (other)	Single vehicle (Unattended vehicle)	Other	Total
P.D. only	1	0	1	0	0	0	0	0	2
Non-fatal injury	0	1	0	0	0	1	0	0	2
Non reportable	0	0	0	0	0	0	0	0	0
Total	1	1	1	0	0	1	0	0	4
	25%	25%	25%	0%	0%	25%	0%	0%	

50%  
50%  
0%  
100%





# City Operations - Transportation Services

## Collision Details Report - Public Version

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

**Location:** CHURCHILL AVE @ RICHMOND RD

**Traffic Control:** Traffic signal

**Total Collisions:** 14

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2014-Feb-26, Wed,14:52	Clear	Angle	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle	
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2014-May-01, Thu,19:54	Clear	SMV other	Non-fatal injury	Dry	East	Turning left	Pick-up truck	Pedestrian	1
2014-Jun-13, Fri,06:47	Rain	Angle	P.D. only	Wet	East	Going ahead	Automobile, station wagon	Other motor vehicle	
					North	Going ahead	Pick-up truck	Other motor vehicle	
2014-Oct-06, Mon,00:46	Clear	Angle	P.D. only	Dry	South	Going ahead	Unknown	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2014-Oct-20, Mon,09:40	Clear	Sideswipe	P.D. only	Dry	North	Going ahead	Construction equipment	Other motor vehicle	
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2015-Jan-16, Fri,10:39	Clear	Angle	P.D. only	Slush	West	Pulling away from shoulder or curb	Automobile, station wagon	Other motor vehicle	
					North	Turning left	Automobile, station wagon	Other motor vehicle	

2015-Jun-18, Thu,09:14	Clear	Sideswipe	P.D. only	Dry	South	Turning right	Truck - tank	Other motor vehicle
					South	Turning right	Automobile, station wagon	Other motor vehicle
2015-Feb-26, Thu,17:03	Clear	Angle	P.D. only	Wet	East	Going ahead	Automobile, station wagon	Other motor vehicle
					South	Going ahead	Pick-up truck	Other motor vehicle
2015-Jan-31, Sat,20:21	Snow	Turning movement	P.D. only	Loose snow	East	Turning left	Automobile, station wagon	Other motor vehicle
					West	Going ahead	Automobile, station wagon	Other motor vehicle
2015-Apr-11, Sat,12:34	Clear	Sideswipe	P.D. only	Dry	West	Changing lanes	Automobile, station wagon	Other motor vehicle
					West	Turning left	Pick-up truck	Other motor vehicle
2015-Jul-24, Fri,14:25	Clear	Rear end	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle
					East	Stopped	Truck and trailer	Other motor vehicle
2015-Jan-25, Sun,14:02	Clear	Rear end	Non-fatal injury	Dry	East	Turning left	Pick-up truck	Other motor vehicle
					East	Turning left	Automobile, station wagon	Other motor vehicle
					East	Turning left	Automobile, station wagon	Other motor vehicle
2015-Nov-19, Thu,10:56	Clear	Rear end	P.D. only	Wet	West	Unknown	Unknown	Other motor vehicle
					West	Stopped	Pick-up truck	Other motor vehicle

2015-Oct-03, Sat,11:00	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	Pick-up truck	Other motor vehicle
					West	Stopped	Pick-up truck	Other motor vehicle

**Location:** RICHMOND RD btwn ROOSEVELT AVE & ROOSEVELT 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
2014-Feb-08, Sat,18:48	Clear	SMV unattended vehicle	P.D. only	Wet	East	Going ahead	Automobile, station wagon	Unattended vehicle	
2014-Nov-27, Thu,10:09	Clear	Turning movement	Non-fatal injury	Dry	East	Making "U" turn	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	

**Location:** RICHMOND RD btwn ROOSEVELT AVE & WINSTON AVE

**Traffic Control:** No control

**Total Collisions:** 3

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Nov-03, Tue,16:00	Clear	SMV unattended vehicle	P.D. only	Dry	Unknown	Unknown	Unknown	Unattended vehicle	
2015-Aug-04, Tue,13:30	Clear	Rear end	P.D. only	Dry	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Pick-up truck	Other motor vehicle	
2015-Dec-31, Thu,09:47	Clear	Approaching	P.D. only	Wet	East	Going ahead	Pick-up truck	Other motor vehicle	
					West	Going ahead	Municipal transit bus	Other motor vehicle	



**Location:** RICHMOND RD btwn WINSTON AVE & CHURCHILL AVE N

**Traffic Control:** No control

**Total Collisions:** 12

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2014-Feb-06, Thu,14:44	Clear	Rear end	P.D. only	Dry	West	Going ahead	Pick-up truck	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2014-Mar-03, Mon,11:00	Clear	Sideswipe	P.D. only	Dry	West	Pulling away from shoulder or curb	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2014-Apr-05, Sat,13:40	Clear	Rear end	P.D. only	Dry	West	Unknown	Unknown	Other motor vehicle	
					West	Going ahead	Unknown	Other motor vehicle	
2014-Mar-28, Fri,17:16	Rain	SMV unattended vehicle	P.D. only	Wet	West	Pulling onto shoulder or toward curb	Municipal transit bus	Unattended vehicle	
2014-Apr-09, Wed,16:30	Clear	SMV unattended vehicle	P.D. only	Dry	Unknown	Unknown	Unknown	Unattended vehicle	
2014-Jul-08, Tue,13:15	Clear	Rear end	Non-fatal injury	Dry	West	Going ahead	Pick-up truck	Other motor vehicle	
					West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
2014-Nov-16, Sun,01:18	Clear	SMV unattended vehicle	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Unattended vehicle	
2015-Apr-28, Tue,22:10	Clear	SMV unattended vehicle	P.D. only	Dry	Unknown	Unknown	Unknown	Unattended vehicle	

2015-Jan-10, Sat,21:30	Snow	SMV unattended vehicle	P.D. only	Slush	West	Unknown	Unknown	Unattended vehicle
2014-Dec-21, Sun,16:07	Clear	Sideswipe	P.D. only	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle
					East	Slowing or stopping	Automobile, station wagon	Other motor vehicle
2014-Dec-12, Fri,14:20	Clear	Turning movement	P.D. only	Dry	West	Making "U" turn	Pick-up truck	Other motor vehicle
					East	Going ahead	Automobile, station wagon	Other motor vehicle
2015-Sep-11, Fri,12:00	Clear	Rear end	P.D. only	Dry	West	Stopped	Automobile, station wagon	Other motor vehicle
					West	Stopped	Automobile, station wagon	Other motor vehicle

**Location:** ROOSEVELT AVE @ RICHMOND 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
2014-Jun-29, Sun,10:07	Clear	SMV other	Non-fatal injury	Dry	East	Going ahead	Automobile, station wagon	Pedestrian	1
2015-Nov-07, Sat,18:34	Clear	Turning movement	Non-fatal injury	Dry	West	Turning right	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Municipal transit bus	Other motor vehicle	

# Collision Main Detail Summary

OnTRAC Reporting System

FROM: 2011-01-01 TO: 2014-01-01

## CHURCHILL AVE & RICHMOND RD

Former Municipality: Ottawa

Traffic Control: Traffic signal

Number of Collisions: 29

	DATE	DAY	TIME	ENV	LIGHT	IMPACT TYPE	CLASS	DIR	SURFACE COND'N	VEHICLE MANOEUVRE	VEHICLE TYPE	FIRST EVENT	No. PED
1	2011-04-21	Thu	12:45	Clear	Daylight	Sideswipe	P.D. only	V1 W	Dry	Turning left	Automobile, station	Other motor vehicle	0
								V2 W	Dry	Slowing or	Automobile, station	Other motor vehicle	
2	2011-05-17	Tue	23:58	Rain	Dark	Angle	P.D. only	V1 N	Wet	Going ahead	Automobile, station	Other motor vehicle	0
								V2 W	Wet	Turning left	Automobile, station	Other motor vehicle	
3	2011-05-18	We	13:20	Clear	Daylight	Single vehicle	P.D. only	V1 S	Dry	Turning right	Municipal transit bus	Unattended vehicle	0
4	2011-06-08	We	08:57	Clear	Daylight	Single vehicle	Non-fatal	V1 S	Dry	Going ahead	Pick-up truck	Pedestrian	1
5	2011-07-11	Mo	18:10	Unknow	Daylight	Turning	Non	V1 W	Unknown	Turning right	Automobile, station	Cyclist	0
								V2 W	Unknown	Going ahead	Bicycle	Other motor vehicle	
6	2011-07-15	Fri	23:51	Clear	Dark	Turning	P.D. only	V1 E	Dry	Turning left	Automobile, station	Other motor vehicle	0
								V2 W	Dry	Going ahead	Passenger van	Other motor vehicle	
7	2011-08-16	Tue	18:42	Clear	Daylight	Angle	Non-fatal	V1 E	Dry	Going ahead	Automobile, station	Other motor vehicle	0
								V2 N	Dry	Going ahead	Automobile, station	Other motor vehicle	
8	2011-11-11	Fri	09:59	Clear	Daylight	Rear end	P.D. only	V1 E	Dry	Changing lanes	Automobile, station	Other motor vehicle	0
								V2 E	Dry	Stopped	Pick-up truck	Other motor vehicle	
9	2011-11-27	Sun	18:18	Clear	Dark	Single vehicle	Non-fatal	V1 W	Wet	Turning left	Automobile, station	Pedestrian	1
10	2011-12-20	Tue	12:00	Clear	Daylight	Rear end	P.D. only	V1 E	Dry	Overtaking	Automobile, station	Other motor vehicle	0
								V2 E	Dry	Stopped	Pick-up truck	Other motor vehicle	
11	2012-03-03	Sat	13:06	Clear	Daylight	Angle	Non	V1 N	Wet	Turning left	Fire vehicle	Other motor vehicle	0
								V2 E	Wet	Turning left	Automobile, station	Other motor vehicle	
12	2012-03-23	Fri	08:30	Clear	Daylight	Single vehicle	Non-fatal	V1 E	Dry	Turning left	Pick-up truck	Pedestrian	1
13	2012-04-29	Sun	15:37	Clear	Daylight	Angle	P.D. only	V1 S	Dry	Pulling away	Automobile, station	Other motor vehicle	0
								V2 W	Dry	Turning left	Pick-up truck	Other motor vehicle	

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

Monday, September 18, 2017

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## Collision Main Detail Summary

OnTRAC Reporting System

FROM: 2011-01-01 TO: 2014-01-01

14	2012-07-30	Mo	06:39	Clear	Daylight	Angle	Non-fatal	V1 W	Dry	Going ahead	Automobile, station	Other motor vehicle	0
								V2 N	Dry	Going ahead	Automobile, station	Other motor vehicle	
15	2012-08-31	Fri	12:10	Rain	Daylight	Turning	P.D. only	V1 E	Wet	Making U-Turn	Automobile, station	Other motor vehicle	0
								V2 E	Wet	Turning left	Automobile, station	Other motor vehicle	
								V3 E	Wet	Going ahead	Pick-up truck	Other motor vehicle	
16	2012-09-18	Tue	12:25	Rain	Daylight	Rear end	P.D. only	V1 E	Wet	Turning left	Truck - other	Other motor vehicle	0
								V2 E	Wet	Turning left	Automobile, station	Other motor vehicle	
17	2012-10-15	Mo	10:08	Clear	Daylight	Sideswipe	P.D. only	V1 S	Dry	Going ahead	Automobile, station	Other motor vehicle	0
								V2 S	Dry	Going ahead	Automobile, station	Other motor vehicle	
18	2012-12-14	Fri	07:04	Clear	Dawn	Sideswipe	P.D. only	V1 S	Wet	Overtaking	Automobile, station	Other motor vehicle	0
								V2 S	Unknown	Going ahead	Truck and trailer	Other motor vehicle	
19	2012-12-19	We	18:50	Clear	Dark	Single vehicle	P.D. only	V1 S	Dry	Turning right	Municipal transit bus	Unattended vehicle	0
20	2012-12-30	Sun	01:21	Snow	Dark	Angle	P.D. only	V1 W	Loose snow	Slowing or	Pick-up truck	Skidding/Sliding	0
								V2 S	Slush	Going ahead	Automobile, station	Other motor vehicle	
21	2013-01-17	Thu	16:33	Clear	Daylight	Single vehicle	P.D. only	V1 S	Dry	Turning right	Municipal transit bus	Unattended vehicle	0
22	2013-02-16	Sat	10:33	Clear	Daylight	Single vehicle	Non-fatal	V1 N	Dry	Turning right	Municipal transit bus	Pedestrian	1
23	2013-04-06	Sat	11:44	Clear	Daylight	Rear end	P.D. only	V1 E	Dry	Going ahead	Unknown	Other motor vehicle	0
								V2 E	Dry	Going ahead	Automobile, station	Other motor vehicle	
24	2013-06-13	Thu	13:00	Clear	Daylight	Angle	P.D. only	V1 S	Dry	Turning right	Automobile, station	Other motor vehicle	0
								V2 E	Dry	Turning left	Automobile, station	Other motor vehicle	
25	2013-06-13	Thu	14:30	Clear	Daylight	Rear end	P.D. only	V1 S	Dry	Slowing or	Pick-up truck	Other motor vehicle	0
								V2 S	Dry	Stopped	Automobile, station	Other motor vehicle	
26	2013-06-17	Mo	18:52	Clear	Daylight	Sideswipe	P.D. only	V1 E	Dry	Merging	Automobile, station	Other motor vehicle	0
								V2 E	Dry	Turning left	Municipal transit bus	Other motor vehicle	
27	2013-07-28	Sun	12:50	Clear	Daylight	Single vehicle	P.D. only	V1 S	Dry	Turning right	Municipal transit bus	Unattended vehicle	0
28	2013-08-28	We	15:34	Clear	Daylight	Sideswipe	P.D. only	V1 S	Dry	Merging	Pick-up truck	Other motor vehicle	0
								V2 S	Dry	Going ahead	Pick-up truck	Other motor vehicle	

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

Monday, September 18, 2017

Page 2 of 5

# Collision Main Detail Summary

OnTRAC Reporting System

FROM: 2011-01-01 TO: 2014-01-01

29	2013-09-24	Tue	11:51	Clear	Daylight	Sideswipe	P.D. only	V1 E V2 E	Dry Dry	Pulling away Going ahead	Automobile, station Automobile, station	Other motor vehicle Other motor vehicle	0
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## RICHMOND RD, CHURCHILL AVE to WINSTON AVE

Former Municipality: Ottawa

Traffic Control: No control

Number of Collisions: 19

	DATE	DAY	TIME	ENV	LIGHT	IMPACT TYPE	CLASS	DIR	SURFACE COND'N	VEHICLE MANOEUVRE	VEHICLE TYPE	FIRST EVENT	No. PED
30	2011-04-08	Fri	18:10	Clear	Daylight	Single vehicle	Non	V1 W	Dry	Going ahead	Municipal transit bus	Unattended vehicle	0
31	2011-07-28	Thu	14:45	Clear	Daylight	Sideswipe	Non-fatal	V1 W V2 W	Dry Dry	Going ahead Going ahead	Automobile, station Bicycle	Cyclist Other motor vehicle	0
32	2011-10-02	Sun	00:59	Rain	Dark	Single vehicle	P.D. only	V1 W	Wet	Reversing	Pick-up truck	Ran off road	0
33	2011-10-11	Tue	15:40	Clear	Daylight	Single vehicle	P.D. only	V1 E	Dry	Reversing	Pick-up truck	Unattended vehicle	0
34	2011-12-12	Mo	14:28	Clear	Daylight	Single vehicle	P.D. only	V1 W	Dry	Pulling onto	Municipal transit bus	Unattended vehicle	0
35	2012-01-13	Fri	12:55	Snow	Daylight	Sideswipe	P.D. only	V1 E V2 E	Packed snow Packed snow	Overtaking Stopped	Automobile, station Automobile, station	Other motor vehicle Other motor vehicle	0
36	2012-02-10	Fri	13:27	Clear	Daylight	Sideswipe	P.D. only	V1 E V2 E	Dry Dry	Going ahead Pulling away	Pick-up truck Automobile, station	Other motor vehicle Other motor vehicle	0
37	2012-02-25	Sat	17:30	Clear	Dark	Angle	P.D. only	V1 N V2 E	Wet Wet	Turning right Going ahead	Automobile, station Automobile, station	Other motor vehicle Other motor vehicle	0
38	2012-03-28	We	21:07	Clear	Dark	Angle	P.D. only	V1 N V2 E	Dry Dry	Going ahead Going ahead	Automobile, station Automobile, station	Other motor vehicle Other motor vehicle	0
39	2012-07-31	Tue	07:57	Clear	Daylight	Rear end	P.D. only	V1 E V2 E	Dry Dry	Going ahead Slowing or	Automobile, station Automobile, station	Other motor vehicle Other motor vehicle	0
40	2012-10-19	Fri	12:00	Clear	Daylight	Single vehicle	P.D. only	V1 U	Dry	Unknown	Automobile, station	Unattended vehicle	0
COMMENTS: EXACT LOCATION UNKNOWN													
41	2012-12-08	Sat	17:48	Clear	Dark	Sideswipe	P.D. only	V1 E V2 E	Dry Dry	Pulling away Going ahead	Automobile, station Automobile, station	Other motor vehicle Other motor vehicle	0
42	2012-12-15	Sat	13:18	Clear	Daylight	Single vehicle	P.D. only	V1 W	Dry	Going ahead	Automobile, station	Unattended vehicle	0

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

Monday, September 18, 2017

## Collision Main Detail Summary

OnTRAC Reporting System

FROM: 2011-01-01 TO: 2014-01-01

43	2013-06-26	We	18:00	Clear	Daylight	Single vehicle	P.D. only	V1 E	Dry	Turning right	Automobile, station	Unattended vehicle	0
44	2013-07-10	We	07:10	Clear	Daylight	Sideswipe	P.D. only	V1 W	Dry	Merging	Automobile, station	Other motor vehicle	0
								V2 W	Unknown	Going ahead	Pick-up truck	Other motor vehicle	
45	2013-07-30	Tue	16:37	Clear	Daylight	Turning	P.D. only	V1 W	Dry	Turning right	Pick-up truck	Other motor vehicle	0
								V2 W	Dry	Stopped	Municipal transit bus	Other motor vehicle	
46	2013-08-23	Fri	19:30	Clear	Daylight	Angle	P.D. only	V1 W	Dry	Reversing	Pick-up truck	Other motor vehicle	0
								V2 N	Dry	Going ahead	Automobile, station	Other motor vehicle	
47	2013-08-24	Sat	13:45	Clear	Daylight	Single vehicle	P.D. only	V1 W	Dry	Reversing	Police vehicle	Unattended vehicle	0
48	2013-08-31	Sat	13:57	Clear	Daylight	Single vehicle	P.D. only	V1 U	Dry	Unknown	Unknown	Unattended vehicle	0

### RICHMOND RD & ROOSEVELT AVE

Former Municipality: Ottawa

Traffic Control: Traffic signal

Number of Collisions: 5

	DATE	DAY	TIME	ENV	LIGHT	IMPACT TYPE	CLASS	DIR	SURFACE COND'N	VEHICLE MANOEUVRE	VEHICLE TYPE	FIRST EVENT	No. PED
49	2011-01-05	We	08:30	Clear	Daylight	Angle	P.D. only	V1 E	Loose snow	Going ahead	Unknown	Other motor vehicle	0
								V2 N	Loose snow	Turning right	Passenger van	Other motor vehicle	
50	2011-05-16	Mo	18:22	Rain	Daylight	Rear end	P.D. only	V1 W	Wet	Slowing or	Pick-up truck	Skidding/Sliding	0
								V2 W	Wet	Slowing or	Automobile, station	Other motor vehicle	
51	2011-07-11	Mo	11:48	Clear	Daylight	Single vehicle	P.D. only	V1 S	Dry	Going ahead	Truck - open	Pole (utility, tower)	0
52	2012-03-23	Fri	11:39	Clear	Daylight	Turning	P.D. only	V1 N	Dry	Going ahead	Automobile, station	Other motor vehicle	0
								V2 N	Dry	Turning right	Truck - dump	Other motor vehicle	
53	2013-12-25	We	12:25	Clear	Daylight	Angle	P.D. only	V1 E	Ice	Going ahead	Automobile, station	Other motor vehicle	0
								V2 N	Dry	Turning left	Automobile, station	Other motor vehicle	

### RICHMOND RD, WINSTON to WINSTON AVE

Former Municipality: Ottawa

Traffic Control: No control

Number of Collisions: 2

	DATE	DAY	TIME	ENV	LIGHT	IMPACT TYPE	CLASS	DIR	SURFACE COND'N	VEHICLE MANOEUVRE	VEHICLE TYPE	FIRST EVENT	No. PED
54	2011-07-25	Mo	10:46	Clear	Daylight	Rear end	P.D. only	V1 E	Wet	Slowing or	Automobile, station	Skidding/Sliding	0
								V2 E	Wet	Slowing or	Passenger van	Other motor vehicle	

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

Monday, September 18, 2017

## Collision Main Detail Summary

OnTRAC Reporting System

FROM: 2011-01-01 TO: 2014-01-01

55	2012-01-30	Mo	09:55	Clear	Daylight	Sideswipe	P.D. only	V1 E	Dry	Going ahead	Automobile, station	Other motor vehicle	0
								V2 E	Dry	Stopped	Pick-up truck	Other motor vehicle	

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

Monday, September 18, 2017

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