Clause 2 in Report No. 11 of Committee of the Whole was adopted, without amendment, by the Council of The Regional Municipality of York at its meeting held on June 25, 2015.

2

Annual Traffic Safety Report

Committee of the Whole recommends adoption of the following recommendations contained in the report dated May 21, 2015 from the Commissioner of Transportation Services:

1. Recommendations

It is recommended that:

1. Staff evaluate the effectiveness of Community Safety Zones at reducing operating speeds in school areas and report back to Council in 2016.
2. Council approve (in principle) an increase in the 2017 Transportation Services operating budget of $1,000,000 annually, beginning in 2017 (to be offset through recovery of fine revenue by Court Services), for expansion of the Red Light Camera Program to add up to 20 new locations, subject to the 2016 budget process.
3. The Regional Clerk circulate this report to the local municipalities and to York Regional Police.

2. Purpose

This report provides information on the safety performance of Regional roads, including updates on Community Safety Zones and the Red Light Camera Program.

3. Background

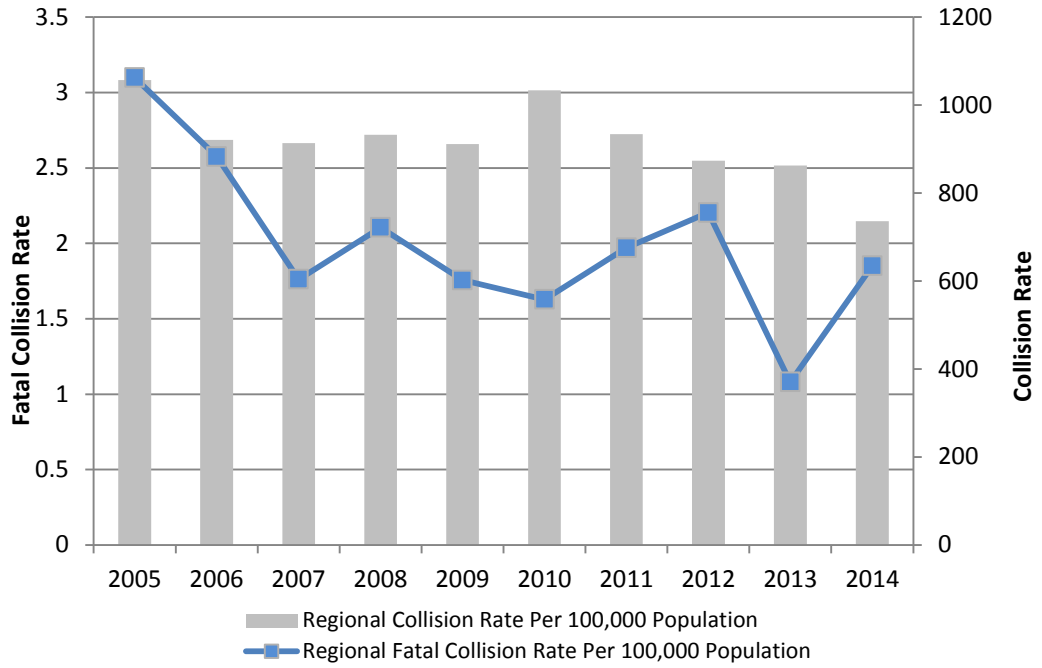
The Region continues to enhance safety performance monitoring on Regional roads

Transportation Services works in partnership with York Regional Police to collect and assess data related to motor vehicle collisions on Regional roads. Collision data is the primary source of information analyzed along with other data such as traffic volume, weather and population. In the last few years, the Region has been refining data collection tools and processes in addition to reporting the data in the Traffic Safety Status Report. First published in 2014, the Traffic Safety Status Report provides a detailed breakdown of the safety performance of Regional roads, based on collision statistics (Attachment 1).

Over the past decade, the collision rate has been steadily decreasing in the Region

A review of the Region's collision statistics shows a 10-year low in the collision rate in 2014, however, the number of fatal collisions has increased from 12 to 21 when compared to 2013 (see Figure 1). In looking at the ten year data, the 2014 fatality rate, although increased from 2013, has generally decreased since 2005. The total collision rates have been generally decreasing since 2010.

Figure 1
Regional Collision Rate Statistics



There are a number of safety initiatives which have been implemented to improve safety performance

The collision rate in any community is influenced by many factors including advancements in vehicle safety, weather conditions, number and type of road users, level of driver skill and road network design factors. Traffic safety performance is also influenced by initiatives which have been implemented to target behaviours that have negative impacts. These initiatives include:

- Revising speed limits on Regional roads
- Introducing Community Safety Zones to reduce speeds in school areas
- Installing red light cameras at 20 intersections
- Reviewing signal timing plans and providing additional pedestrian crossing time at signalized intersections
- Implementing safety campaigns to enhance awareness for issues affecting pedestrian safety and to raise awareness on the impacts of distracted driving
- Increasing awareness of pedestrians at intersections by installing zebra markings
- Installing reflective backboards on traffic signals to improve visibility at night and during power outages

These initiatives assist in lower operating speeds and increasing road user awareness on Regional roads. This can reduce the number and severity of collisions.

4. Analysis and Options

Initial studies indicate that Community Safety Zones may not be effective in reducing operating speeds in school areas

Council designated Community Safety Zones on Regional roads adjacent to all schools in 2012, which increased the number of Community Safety Zones beyond the original number, which met the proposed warrant criteria. Since that time, 57 Community Safety Zones have been established, covering approximately 50 kilometres of Regional roads. Currently, all schools on a Regional road are eligible for a Community Safety Zone, including elementary, secondary and private schools, regardless of size or whether students walk or are driven to school. Community Safety Zones are reviewed annually to ensure any new or relocated schools are included.

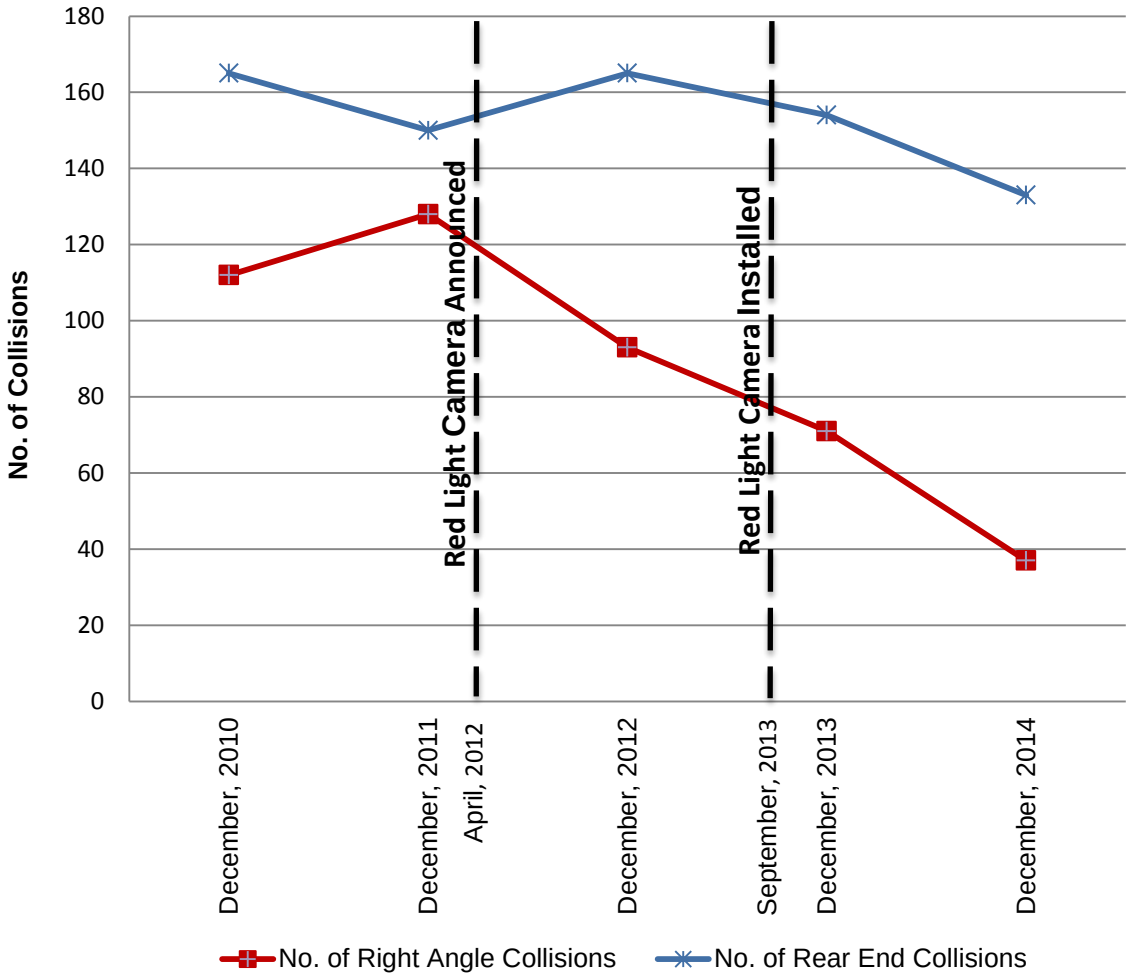
Further studies will be undertaken for Community Safety Zones with results and recommendations reported to Council in 2016

Speed surveys were completed for nine different Community Safety Zones in 2014. The results show nominal reductions in operating speeds compared to pre-Community Safety Zone conditions. Based on preliminary results, local Municipal and Regional staff are concerned that motorists are disregarding Community Safety Zones due to the use in school areas that have minimal school activity. The original implementation plan included a number of criteria to determine whether a school warranted a Community Safety Zone, such as pedestrian volumes and the size of the school. As such, there is a need to further evaluate the effectiveness of the Community Safety Zones. Staff will report back to Council in 2016 with recommendations for the Community Safety Zone Policy.

Red light cameras have proven to be successful in reducing right angle collisions

Since the fall of 2013, red light cameras have been operational at 20 intersections on Regional roads. The results indicate that right angle collisions were reduced by 48 per cent over a year since implementation. Experience in other jurisdictions suggests that over time, a right angle collision reduction of 25 to 30 per cent is more likely. A 25 to 30 per cent reduction is still significant and meets the objectives of the program. Figure 2 illustrates collision statistics before and after activation of red light cameras at 20 intersections.

Figure 2
Collision Statistics at Red Light Camera Locations



Given the success of the Red Light Camera Program to date, adding up to 20 new locations is recommended for 2017

As a requirement to establish the Red Light Camera Program, York Region executed agreements with the Province, City of Toronto and the red light camera contractor (Traffipax) for supply, installation, operation and maintenance of the red light camera systems. The current operating contract expires at the end of 2016. The Province, City of Toronto, and all other municipalities, including the Region, that have the Red Light Camera Program, are working together to award a new contract through a tender process by September 2015. The new contractor should be in place by the end of 2015 to ensure the successful proponent has sufficient time to implement new camera locations to be operational for the start of 2017.

Staff recommend the Region expand the Program due to its success in reducing right angle collisions. With over 800 signalized intersections on Regional roads, Staff recommend the Region install red light cameras at up to 20 additional locations in 2017. The total number of red light camera sites (40) starting in 2017 will represent approximately five per cent of all signalized intersections on Regional roads. This is in line with ratios in other municipalities and regions that participate in the Red Light Camera Program in Ontario.

Link to key Council-approved plans

This report aligns with the 2015-2019 Strategic Plan priority area to provide responsible and efficient public service.

5. Financial Implications

The Red Light Camera Program is cost recoverable

In 2014, 8,600 tickets were issued in York Region. As a result, Court Services collected over $1.5 million in fine revenue. Although less than initially anticipated, fine revenue covered the costs for Transportation Services to administer the program and Court Services to manage enforcement. The 2014 Transportation Services costs to administer the Red Light Camera Program were $800,000.

The Red Light Camera Program appears as an operating cost under Transportation Services with no revenue offset. Fine revenue is recorded under Court Services.

Expansion of the Red Light Camera Program requires an increase in the Transportation Services operating budget

The additional cost to Transportation Services to expand the Red Light Camera Program starting in 2017 is $1 million per year. It is anticipated that this additional cost will continue to be offset by an increase in fine revenue under Court Services; however, the current financial model requires an increase to the 2017 Roads operating budget. This funding commitment needs to be made now to be included in the joint tender process.

There are options to augment the Red Light Camera Program without significantly increasing operating costs

Although the Red Light Camera Program has thus far shown to be successful, the current financial model requires an increase to the Transportation Services Roads operating budget. Since fine revenues are currently allocated to Court Services budget, the Roads operating budget must shoulder the financial burden to deliver the program. If an increase to the Roads operating budget is not approved, one option is to continue to increase the benefits of the Program by relocating 10 of the existing 20 cameras from lower collision intersections to higher risk intersections. This option would require some additional costs. Another option is to leave the cameras in their current locations. This option would maintain the current collision reductions but likely won't derive any additional reductions in red light running.

6. Local Municipal Impact

Staff will continue to work with local municipalities and York Regional Police to promote traffic safety. In addition, Regional staff will engage our partners in the review of Community Safety Zones in school areas.

7. Conclusion

In collaboration with York Regional Police and local municipal partners, the Region will continue to identify trends and implement initiatives to improve safety on the Regional road network. Traffic safety performance data for the Region is summarized in the Traffic Safety Status Report. Overall collision rates in 2014 represented a 10-year low. Regional safety programs including Community Safety Zones and the Red Light Camera Program help increase road user awareness on Regional roads and reduce the number and severity of collisions.

For more information on this report, please contact Brian Titherington, Director, Roads and Traffic Operations Branch at ext. 75901.

The Senior Management Group has reviewed this report.

May 21, 2015

Attachments (1)

6121601

Accessible formats or communication supports are available upon request

Attachment 1

York Region

Traffic Safety Status Report 2012 to 2014

What's inside ...

COLLISION STATISTICS, MAPS

Table of Contents

York Region

Introduction

The Traffic Safety Status Report is produced by the Transportation Services Department. The purpose of this report is to provide an understanding of road safety trends on York Region roads. In addition, this report supports the planning and execution of coordinated law enforcement, road safety improvements, and public education campaigns for travellers in York Region.

Collision data is analyzed to identify issues for specific locations as well as trends which may be indicative of larger issues. The collision data used in the preparation of this report primarily includes data collected for the years 2012 to 2014. Using motor vehicle collision reports, available through York Regional Police, these data contain information on collisions that occur on York Region roads only. The collision data does not include collisions that occur on local municipal roadways, as these reports are managed by the individual municipalities in York Region.

York Region 2014 Collision Clock

Executive Summary

Auto drivers made over 3.26 million daily vehicle trips on the Regional road network between 2012 and 2014. During this time, a general overview of collision statistics on Regional roads confirmed that collisions most frequently occurred on Fridays from the months of October to January, and during the evening rush hour (4 p.m. to 6 p.m.).

The most common collisions are rear-end collisions at signalized intersections. The majority of high collision intersections in York Region are situated on high volume roads, such as Highway 7, Rutherford Road, Major Mackenzie Drive and Yonge Street. Collisions are a result of numerous factors, which are often interconnected and unique to specific events.

York Region is committed to making road safety a priority. In partnership with York Regional Police, York Region has many ongoing safety initiatives to influence driver behaviours and reduce collisions. These initiatives include the following:

- **Creating pedestrian accessible intersections:** Increasing pedestrian crossing times, installing pedestrian countdown signals, implementing zebra crosswalks
- **Enhancing opportunities for cyclists:** Designing and constructing new cycling facilities, implementing safe cycling campaigns and safe cycling educational courses
- **Increasing awareness for distracted driving:** Launching a pedestrian safety campaign, in partnership with York Regional Police, to enhance awareness on distracted driving and pedestrians
- **Implementing road safety reviews:** Undertaking road safety audits to identify safety issues and develop location specific solutions
- **Improving winter driving conditions:** Using new state of the art snow plows to ensure timely winter maintenance response to changing road conditions
- **Implementing Red Light Camera program:** Operating red light cameras at 20 Regional intersections to mitigate red light running
- **Promoting awareness for impaired driving:** Implementing Mothers Against Drunk Driving campaign, in partnership with York Regional Police, to stop impaired driving
- **Reducing operating speeds:** Introducing Community Safety Zones, installing radar speed boards, and applying speed limit revisions

The following table is a comparison of collision data between the years 2012, 2013 and 2014.

Statistics	2012	2013	2014
Number of Collisions	9515	9581	8350
Number of Fatal Collisions	24	12	21
Number of Injury Collisions	2310	2295	2262
Number of Collisions Involving Pedestrians	157	160	164
Number of Collisions Involving Cyclists	90	104	107
Collision Rate Per 100,000 Population	873.7	862.8	736.4
Fatal Collision Rate Per 100,000 Population	2.2	1.1	1.9
Day with Highest Number of Collisions	Friday	Friday	Friday
Month with Highest Number of Collisions	October	September	January
Period of Time with the Highest Number of Collisions	3 p.m. to 7 p.m.	3 p.m. to 7 p.m.	3 p.m. to 7 p.m.
Most Common Collision Type	Rear End	Rear End	Rear End
Most Frequently Recorded Improper Driving Action	Following Too Close	Following Too Close	Following Too Close
Number of Red Light Running Collisions	337	330	376
Location with the Highest Number of Collisions	Highway 7 at Weston Road	Highway 7 at Weston Road	Highway 7 at Jane Street
Percentage of Speed Related Collisions	3.8%	4.9%	6.6%
Percentage of Aggressive Driving Related Collisions	32.3%	36.5%	38.6%
Percentage of Distracted Driving Related Collisions	14.6%	15.0%	14.3%
Percentage of Alcohol Related Collisions	1.8%	1.6%	1.9%
Percentage of Collisions Occurring at Intersections	74.1%	84.2%	77.6%
Percentage of Collisions Occurring during Winter Driving Condition	5.0%	7.5%	10.6%
Number of Winter Events	71	76	75

2012 to 2014 York Region Collision Statistics Highlights

- Between 2012 and 2014, York Region population grew by two per cent annually
- A review of the Region's collision statistics shows a 10-year low in vehicle collisions in 2014
- Between 2012 and 2014, collisions have decreased by 12 per cent and injury collisions decreased by five per cent
- Property damage only collisions account for 75 per cent of all collisions while injury and fatal collisions account for 25 per cent of all collisions

Collision Frequency and Severity

Since 2010, the total number of collisions has decreased despite the fact that volume of traffic continues to increase each year. The 2014 statistics show the total number of collisions decreased by approximately 13 per cent as compared to 2013.

Between 2006 and 2009, statistics show a relatively consistent trend in the total number of collisions, increasing by approximately three per cent annually. This is consistent with the annual population growth of three per cent. There was an unusual spike in 2010 where total collisions increased by approximately 16 per cent.

Collision Frequency, Between 2005 and 2014

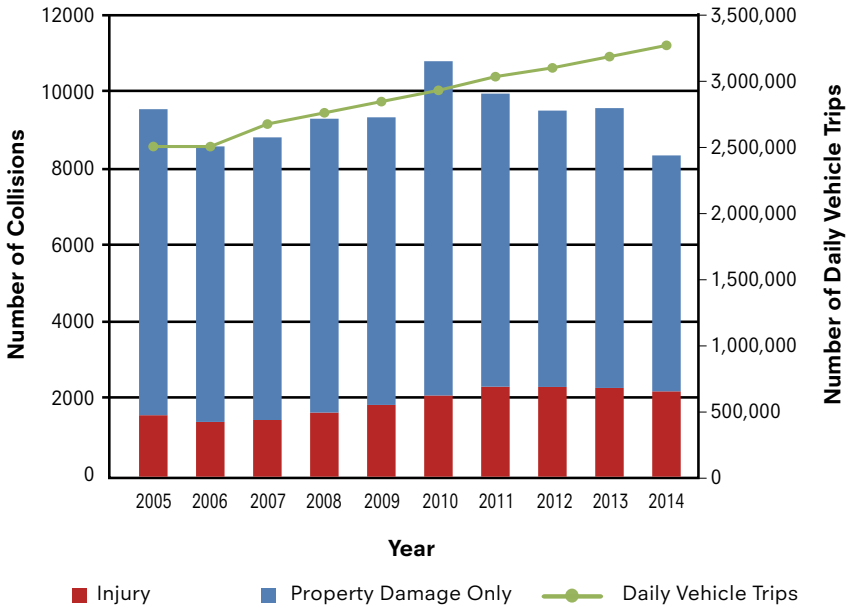
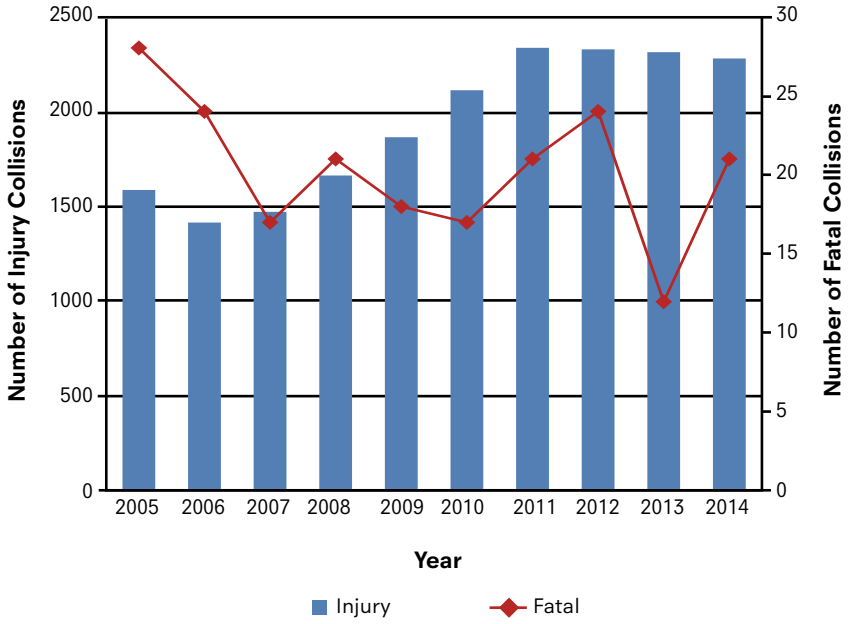


Photo: Several pedestrians walking across a zebra crossing.

The Region experienced a 10-year low in fatal collisions in 2013, with a total of 12 fatalities. There were 21 fatalities in 2014, which is more comparable with pre-2013 data. The 2014 fatal collision locations map is shown on Page 8. Between 2005 and 2014, injury collisions have increased by approximately 40 per cent, while fatal collisions have fluctuated.

Injury and Fatal Collision Frequency, Between 2005 and 2014



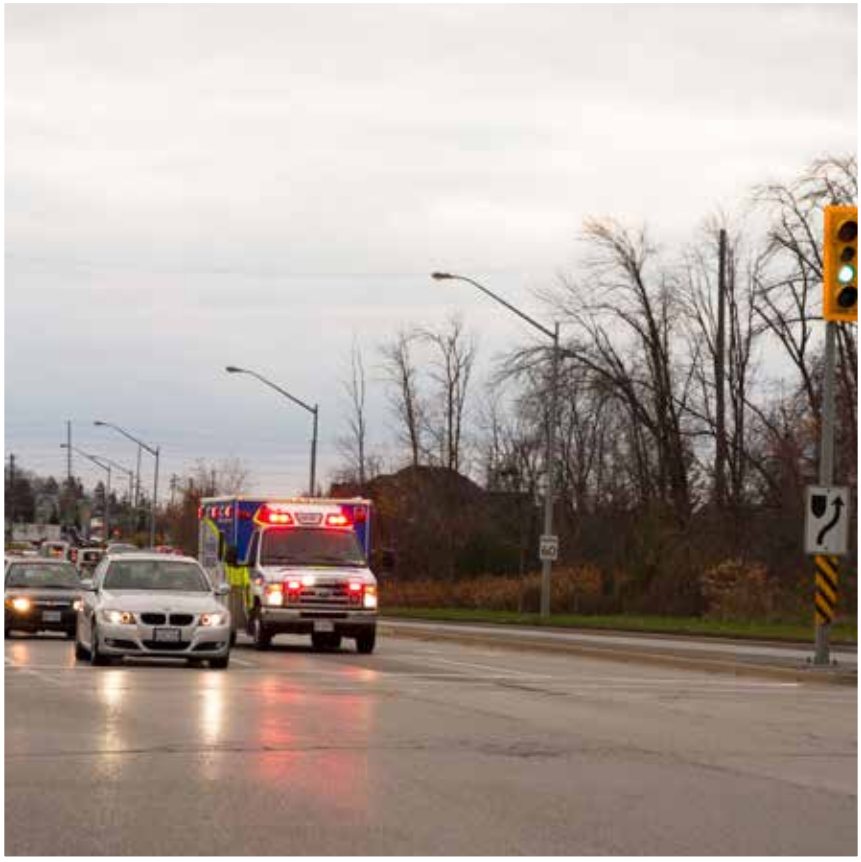
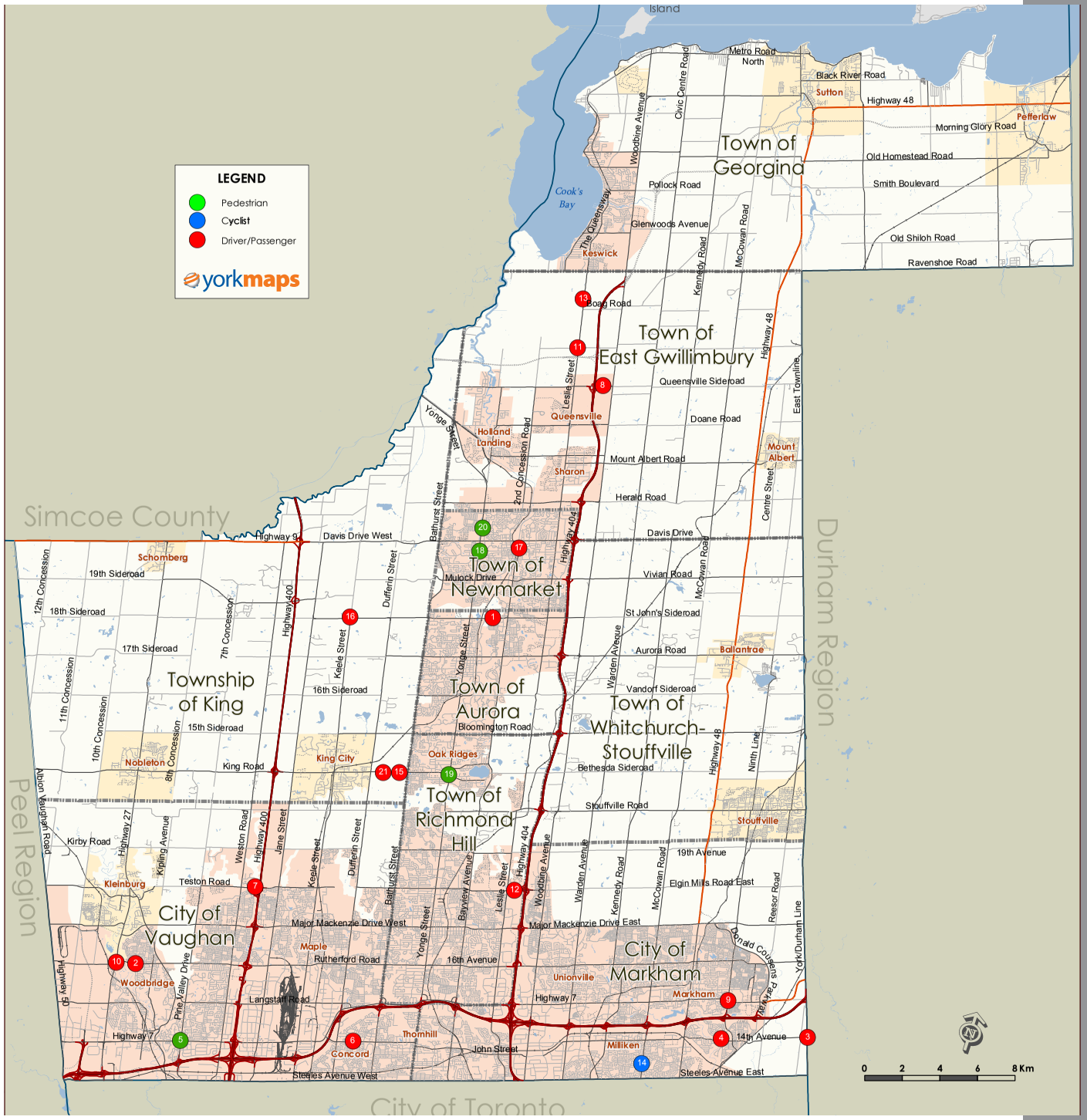


Photo: Ambulance and other traffic at traffic signals on Rutherford Road in the City of Vaughan.

- **York Region experienced a 10-year low in fatal collisions in 2013, with a total of 12 fatalities**
- **The number of fatal collisions has fluctuated over the past decade**
- **Of the 21 fatalities in 2014, four fatal collisions involved pedestrians and one involved a cyclist**



2014 Fatal Collision Locations Map

1 St. John's Sideroad and Pinnacle Trial (January 20)

2 Rutherford Road and Napa Valley Avenue (January 29)

3 York Durham line and 14th Avenue (February 10)

4 14th Avenue and Legacy Court (March 12)

5 Highway 7 and Pine Valley Drive (March 14)

6 Centre Street and Carl Tennen Street (April 13)

7 Cityview Boulevard and Teston Road (May 24)

8 Queensville Sideroad west of Woodbine Avenue (June 14)

9 Highway 7 and Ninth Line (June 26)

10 Rutherford Road and Highway 27 (July 31)

11 Leslie Street and Holborn Road (August 3)

12 Elgin Mill Road between Leslie Street and Highway 404 (August 28)

13 Leslie Street north of Boag Road (September 4)

14 McCowan Road at Coleraine Avenue/ Devonshire Avenue (September 5)

15 870 King Road (September 5)

16 Keele Street and Lloydtown Aurora Road (October 27)

17 61 Prospect Street (November 6)

18 Yonge Street north of Eagle Street (November 9)

19 Yonge Street south of Bond Crescent (November 15)

20 Yonge Street and Dawson Manor Boulevard (November 16)

21 King Road west of Bathurst Street (November 16)

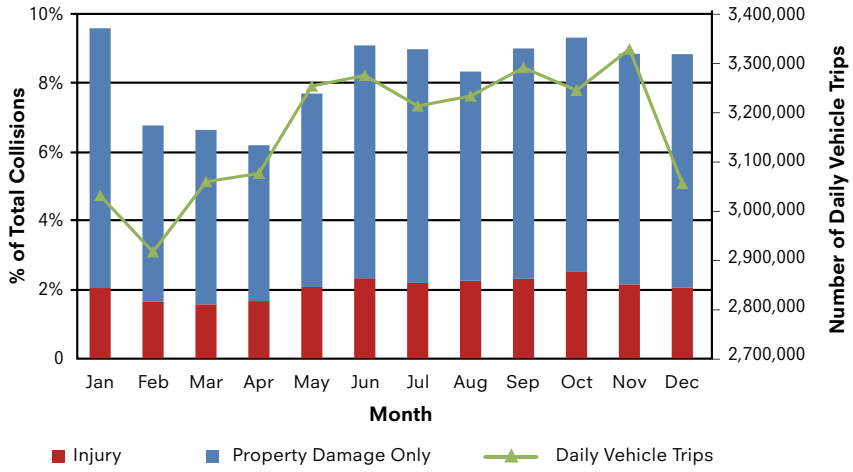
Green circles represent pedestrian collisions, blue circles represent cyclist collisions and red circles represent vehicle

York Region

Collisions by Month, Day and Time

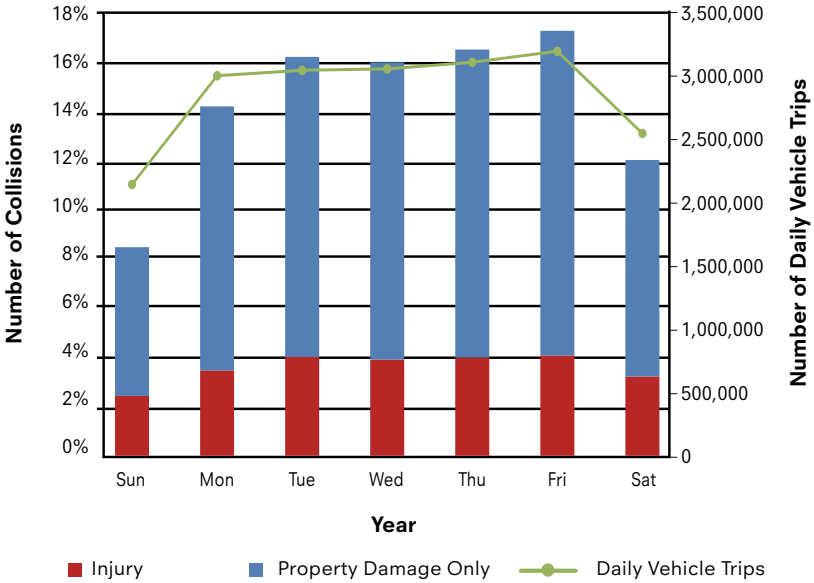
Collisions generally increase as traffic volumes increase. However, during December, January and February, collisions are higher relative to daily vehicle trips. This is likely a result of the challenges associated with winter driving.

Collisions by Month, Three-Year Average Between 2012 and 2014



The day-of-week collision pattern correlates closely with typical day-of-week traffic volume patterns – with the highest number of collisions occurring on Fridays.

Collisions by Day-of-Week,
Three-Year Average Between 2012 and 2014



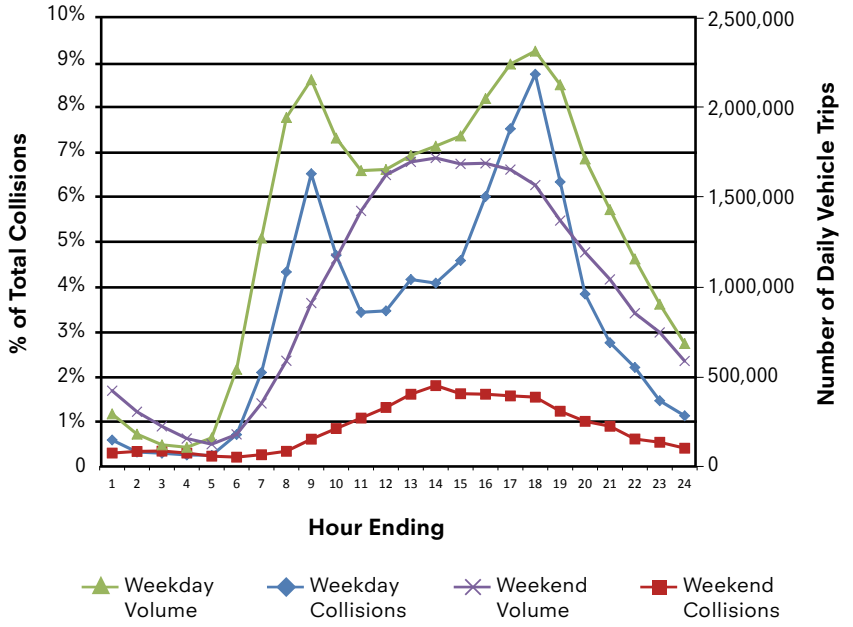
- **The month of January reported highest number of collisions between 2012 and 2014**
- **Injury collisions are relatively constant throughout the year**
- **The day-of-week collision pattern correlates closely with typical day-of-week traffic volume**

York Region

- **Weekday peak periods accounted for 40 per cent of all collisions**
- **Between 2012 and 2014, the highest number of collisions occurred on Fridays in January between 5 p.m. and 6 p.m.**

The time-of-day collision trend also correlates closely with typical daily traffic volume patterns (i.e. high numbers of collisions occur during highest traffic volume times). The highest number of collisions occurred on weekdays, between 8 a.m. and 10 a.m. and 3 p.m. and 7 p.m. Collisions were higher during the afternoon on weekends, consistent with the increasing number of daily vehicle trips.

Collisions by Time-of-Day, Three-Year Average Between 2012 and 2014



- **Since 2011, when the speed limit policy was revised, 50 speed limits have been reduced across Regional roads. Reduced operating speeds have been shown to reduce the severity of collisions and therefore the number of casualties**

Photo: New reduced speed limit sign on a Regional road.

Collisions Involving Vulnerable Road Users

A vulnerable road user is a pedestrian or cyclist. Between 2012 and 2014, the number of pedestrian-involved collisions have remained relatively unchanged, with approximately 160 pedestrian-involved collisions each year. During the same time period, the number of cyclist-involved collisions increased by 18 per cent to 107 cyclist-involved collisions in 2014.

Collisions Involving a Vulnerable Road User, Between 2012 and 2014

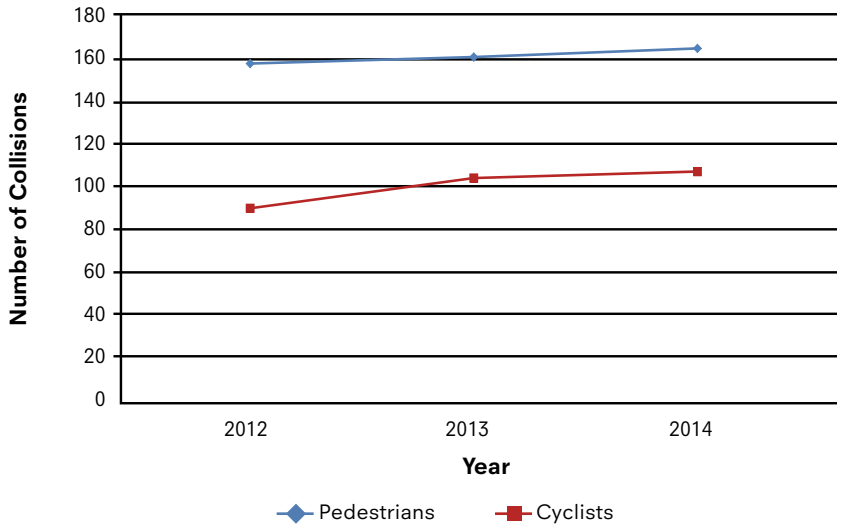


Photo: Zebra crossing at Woodbine Avenue in the Town of Georgina.

- **Collisions involving pedestrians have remained consistent over the last three years**
- **Collisions involving cyclists have increased by 18 per cent over the last three years**
- **York Region introduced new safety measures at signalized intersections including zebra marking, pedestrian countdown signals and increased pedestrian crossing times**

York Region

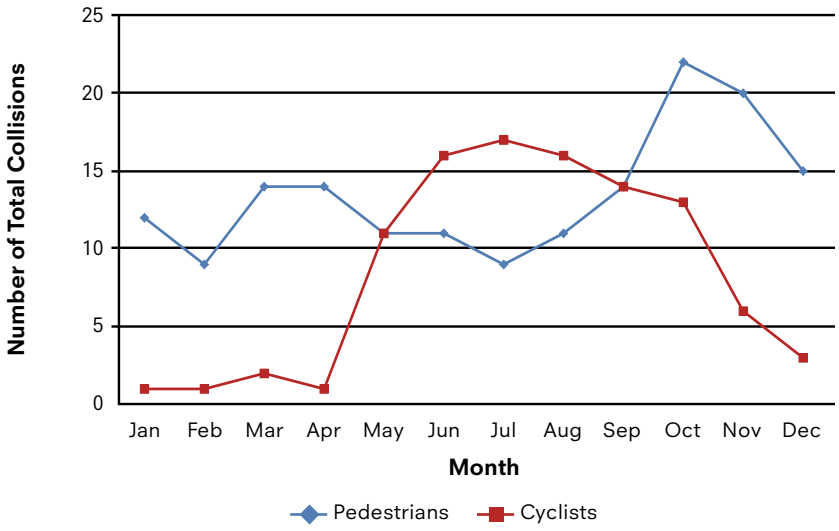
- **The months of October and November had the highest number of collisions, involving pedestrians, likely due to the end of Daylight Saving Time when pedestrians are not as visible in the late afternoon hours**

- **The months of June, July and August had the highest number of cyclist-involved collisions; attributed to increasing cyclist volumes during the summer months**

- **The highest number of pedestrian-involved collisions occurred on Friday, while cyclist-involved collisions occurred on Thursday**

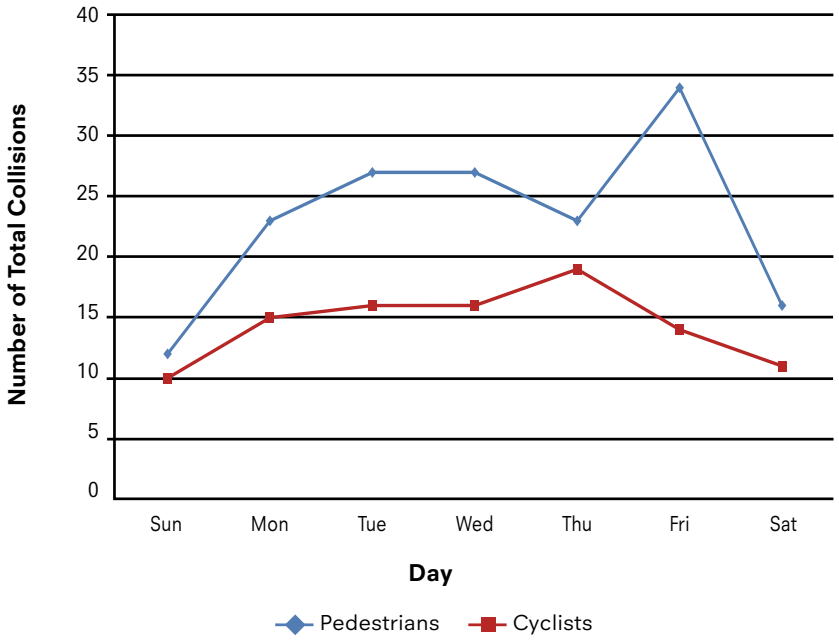
Pedestrian and cyclist-involved collisions follow seasonal trends. Pedestrian-involved collisions were highest in the months of October and November; the end of Daylight Saving Time when pedestrians may not be as visible in the late afternoon hours. Cyclist-involved collisions were highest in the summer months between June and August, when there are more cyclist activities, creating increased potential interactions with other road users.

Collisions Involving a Vulnerable Road User by Month, Three-Year Average Between 2012 and 2014



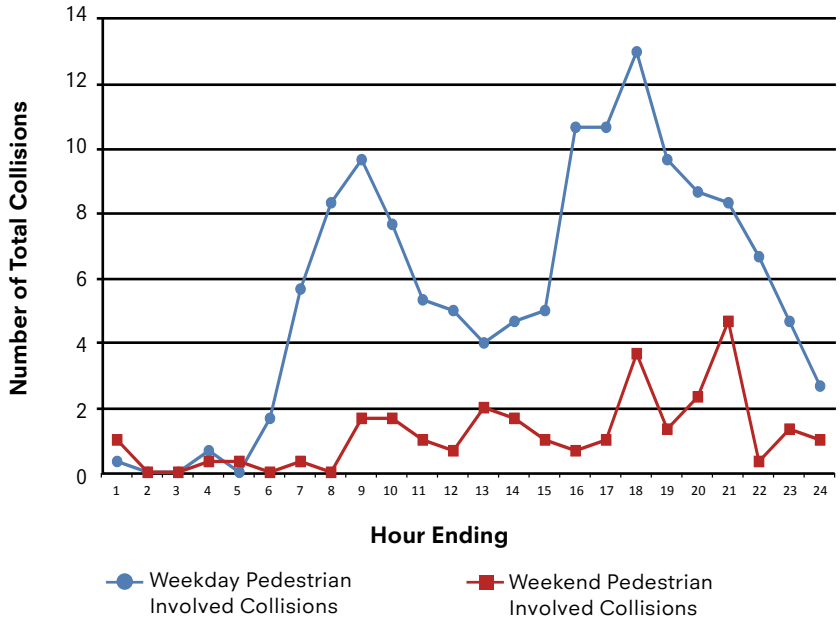
The day-of-week collision pattern shows that the highest number of pedestrian-involved collisions occurred on Friday, while cyclist-involved collisions occurred on Thursday.

Collisions Involving a Vulnerable Road User by Day-of-Week, Three-Year Average Between 2012 and 2014



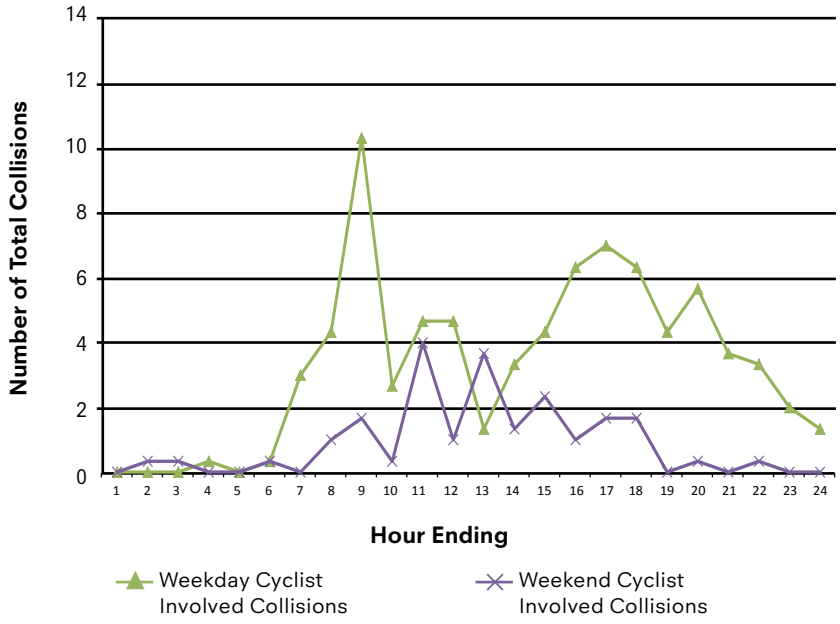
The time-of-day collision pattern shows the highest number of pedestrian-involved collisions occurred during the afternoon peak period between 4 p.m. and 7 p.m.

Collisions Involving a Pedestrian by Time-of-Day, Three-Year Average Between 2012 and 2014



The highest number of cyclist-involved collisions occurred during the morning peak period between 8 a.m. and 9 a.m.

Collisions Involving a Cyclist by Time-of-Day, Three-Year Average Between 2012 and 2014



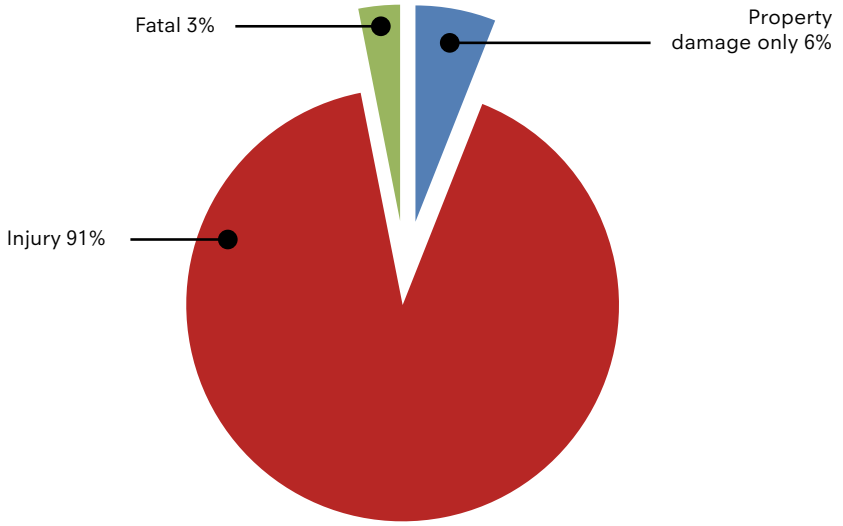
- **Pedestrian-involved collisions occurred most often during the morning and afternoon peak periods when traffic volumes are highest**
- **The least amount of pedestrian-involved collisions occured at midday on weekdays**
- **Recognizing the increasing demands for cycling, York Region continues constructing bike facilities and promoting active transportation**

- **91 per cent of pedestrian-involved collisions resulted in injury**

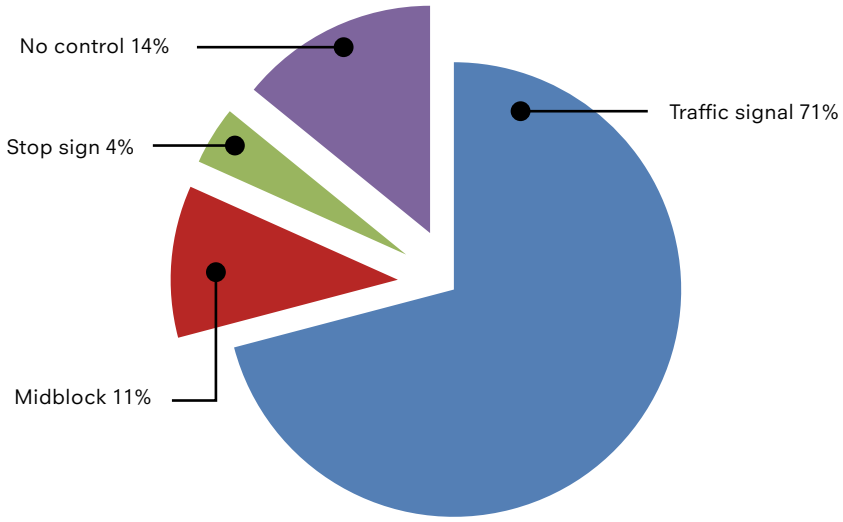
- **71 per cent of pedestrian-involved collisions occurred at signalized intersections**

Ninety-one per cent of pedestrian-involved collisions resulted in injury. As York Region continues to urbanize, more trips are being made on foot. Growing transit usage also means more people walking on our streets since transit riders become pedestrians or cyclists for part of their trip. This increased interaction between pedestrians and vehicles increases the likelihood of collisions. The majority of pedestrian-involved collisions occur at signalized intersections.

Collisions Involving a Pedestrian, Three-Year Average Between 2012 and 2014

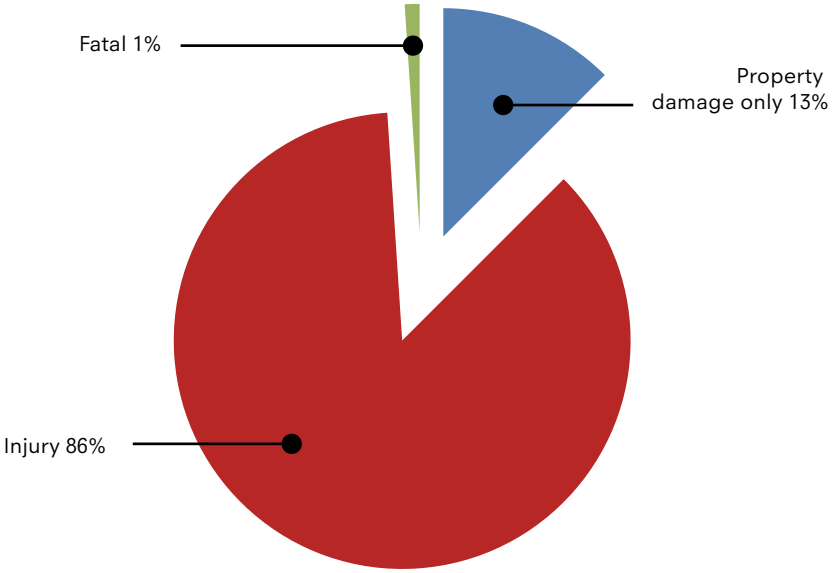


Collisions Involving a Pedestrian by Traffic Control Type, Three-Year Average Between 2012 and 2014

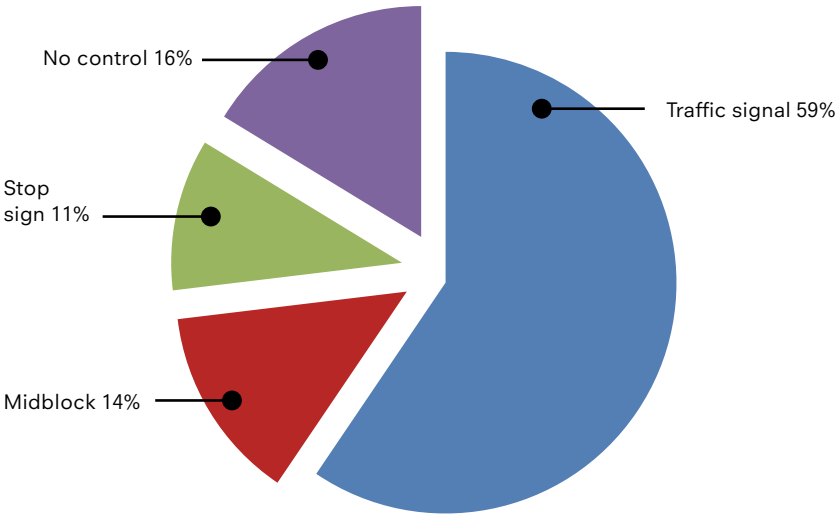


Eighty-six per cent of cyclist-involved collisions resulted in injury collisions. The majority of cyclist-involved collisions occurred at signalized intersections and involving a turning vehicle.

Collisions Involving a Cyclist, Three-Year Average Between 2012 and 2014



Collisions Involving a Cyclist by Traffic Control Type, Three-Year Average Between 2012 and 2014



- **86 per cent of cyclist-involved collisions resulted in injury collisions**

- **59 per cent of cyclist-involved collisions occurred at signalized intersections**

- **70 per cent of all collisions occured during dry road surface conditions**

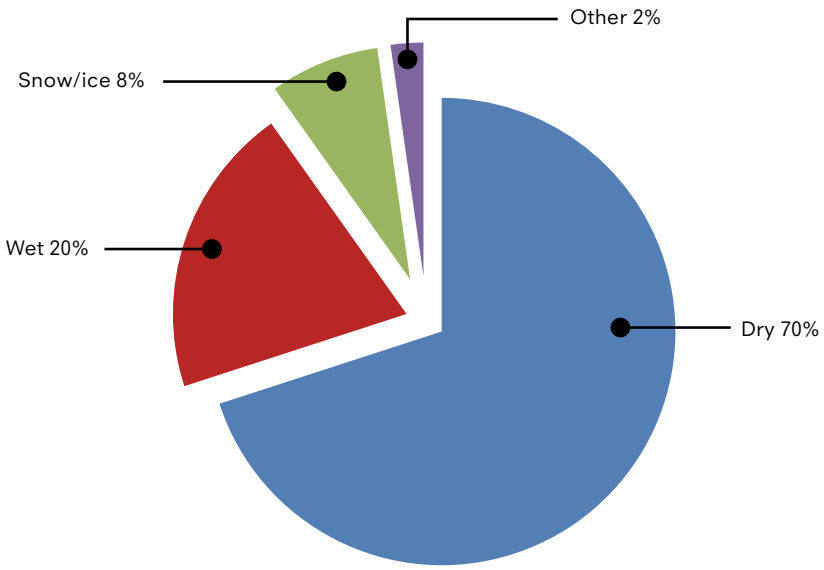
- **Between 2012 and 2014, the Region experienced an average of 25 collisions per day**

- **All ten high frequency collision days experienced an adverse weather event (rain or snow) of some kind**

Collisions by Road Surface Condition

The majority (70 per cent) of all collisions occurred during dry road surface conditions, 20 per cent occurred during wet road surface conditions and eight per cent of collisions occurred during snow/ice road surface conditions. "Other" road surface conditions include: oil, mud and gravel.

Collisions by Road Surface Condition, Three-Year Average Between 2012 and 2014



Twenty-eight per cent of all collisions occurred during poor road surface conditions (i.e. wet or snow/ice covered). The data shows that between 2012 and 2014, the 10 high frequency collision days all experienced a winter event or significant rainfall event. The number of collisions which occurred on these highest 10 days were more than double the Region's average of 25 collisions per day.

Top 10 Days That Experienced the Most Collisions, Between 2012 and 2014

Date	Weekday	Number of Collisions	Rain (mm)	Snow (cm)	Average Temperature (°C)
November 23, 2013	Saturday	76	1.4	2.6	-6.2
September 21, 2013	Saturday	66	24.2	-	14.7
January 24, 2014	Friday	66	-	0.4	-15.6
March 12, 2014	Wednesday	65	-	18.4	-6.3
October 31, 2014	Friday	64	12.5	-	3.3
January 27, 2012	Friday	63	11.2	3.0	0.5
July 4, 2013	Thursday	58	2.4	-	23.8
October 23, 2012	Tuesday	56	13.0	-	10.1
December 21, 2012	Thursday	56	3.8	2.8	1.4
February 1, 2014	Saturday	56	-	16.5	-3.8

Collisions by Traffic Control Type

As traffic continues to increase across the Region, there are increasing resident requests to consider new traffic and pedestrian signals to facilitate access to local communities, balance movements on the major corridors, manage congestion and improve safety.

While the benefits of traffic signals are understood, there are trade-offs that need to be considered prior to installation. Traffic signals increase delays to traffic on the major street, causing driver frustration and encouraging drivers to short-cut through residential neighbourhoods. Traffic signals also increase the number of rear-end collisions. In fact, the majority (53 per cent) of all collisions occurred at signalized intersections between 2012 and 2014.

It is important that new signals only be installed after thorough analysis and careful consideration of all the trade-offs using engineering tools and judgement.

Collisions by Traffic Control Type,
Three-Year Average Between 2012 and 2014

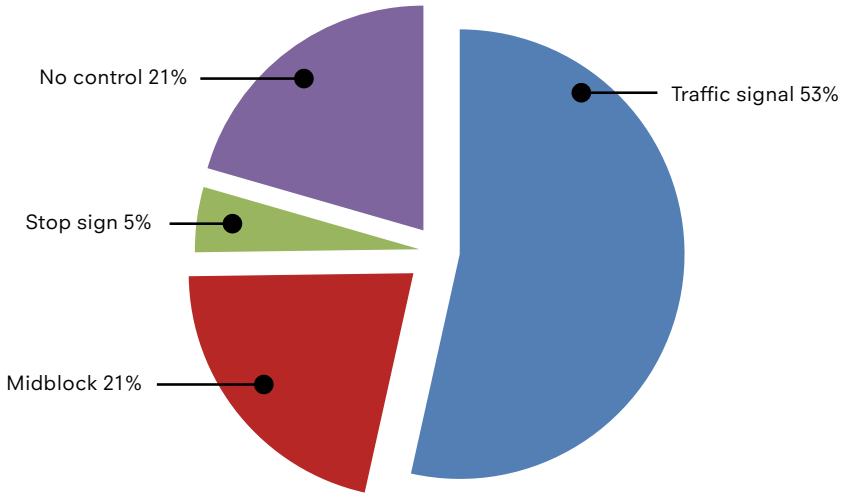


Photo: Retro reflective traffic signal backboard at the intersection of Yonge Street and Mulock Drive in theTown of Newmarket.

- **53 per cent of all collisions occured at signalized intersections**

- **Since 2013, York Region has installed reflective signal backboards at all traffic signal locations to increase the visibility of signals at night and during power outages**

- **Rear-end collisions represented 44 per cent of all collisions, while right angle collisions represented 17 per cent of all collisions**

Collisions by Initial Impact Type

The most common collision type was rear-end collisions at signalized intersections. Rear-end collisions can occur as a result of driver inattention or distraction, tailgating, or acts of aggressive driving. Rear-end collisions are considered "low severity" as they have a lower injury rate compared to right angle or turning movement collisions. Right angle collisions at intersections are considered "high severity" as they are generally the most severe and are more likely to result in serious injury to vehicle occupants. Two per cent of all collisions were recorded as "other" and were excluded from the below chart.

Collisions by Impact Type,
Three-YearAverage Between 2012 and 2014

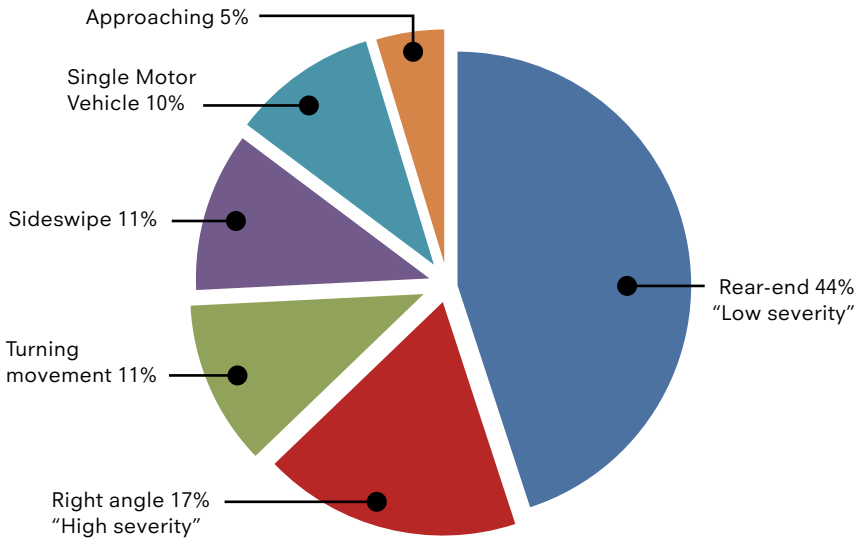


Photo: Traffic signal lights at the intersection of 16th Avenue and Buttonfield Road in the City of Markham.

Collision Frequency at Red Light Camera Locations

The installation of 20 red light cameras was completed in early 2014. Most of the cameras were active by the end of 2013. A list of all 20 red light camera locations is illustrated in the map and table below.

Statistics show that since the fall of 2013, the number of right angle collisions at red light camera locations has reduced by 48 per cent and the number of rear-end collisions has also reduced by fifteen per cent. These results are similar in comparison with experiences in other Regions in term of right angle collisions.

Right Angle and Rear-End Collision Frequency at Red Light Camera Locations, between 2013 and 2014

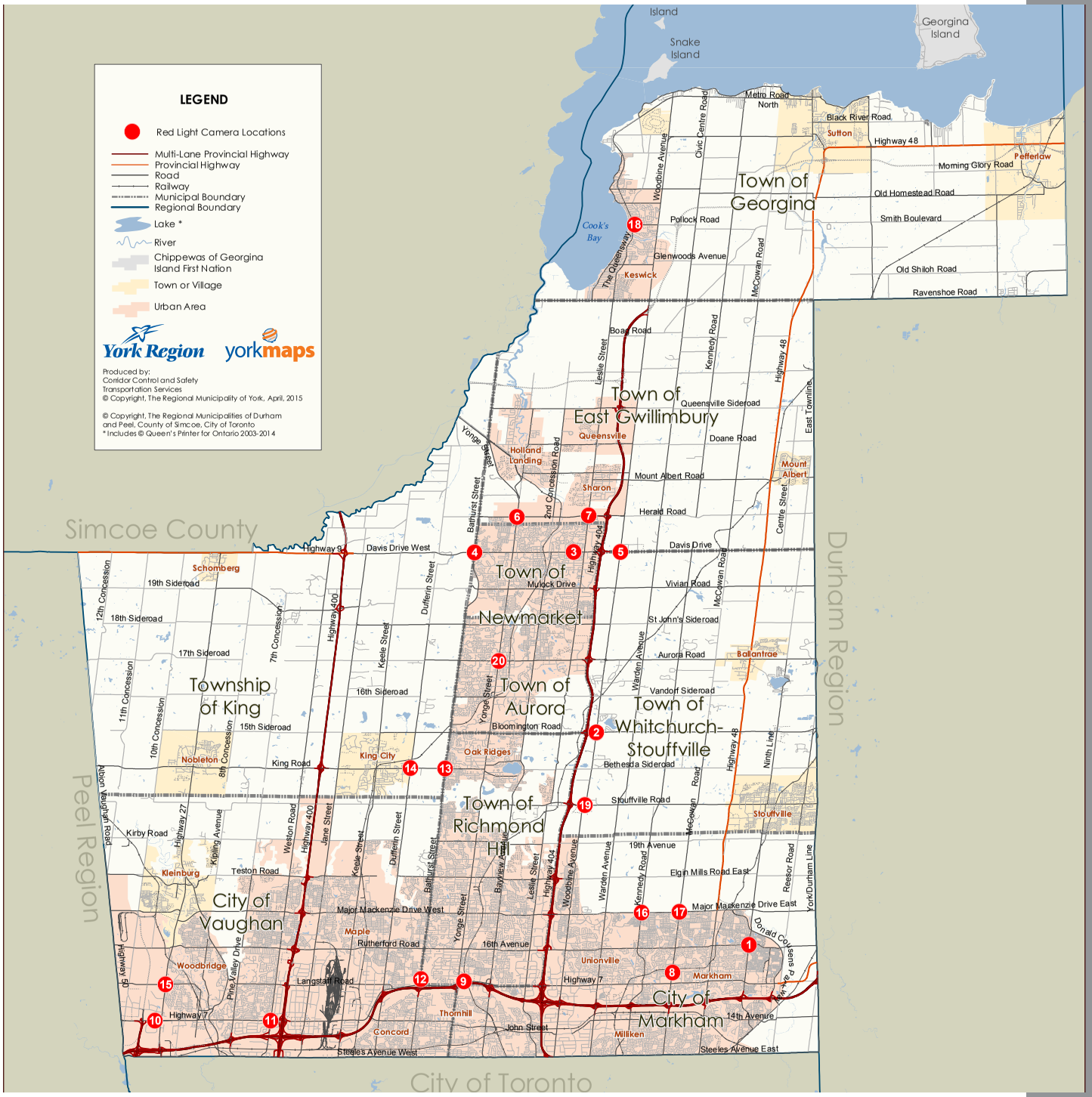
Location	Right Angle		Rear-end	
	2013*	2014	2013*	2014
16th Avenue and Ninth Line	2	3	4	2
Bloomington Road and Woodbine Avenue	2	0	0	1
Davis Drive and Ashton Road/Carlson Drive	2	0	0	0
Davis Drive and Bathurst Street	0	3	8	9
Davis Drive and Woodbine Avenue	3	2	4	2
Green Lane and Yonge Street	14	4	28	23
Green Lane East and Leslie Street	1	3	10	12
Highway 7 and Bullock Drive	0	1	7	6
Highway 7 and Highway 7/Yonge Street Ramp	1	1	2	4
Highway 7 and Vaughan Valley Boulevard	2	1	6	6
Highway 7 and Weston Road	15	9	29	27
Highway 7/Bathurst Street Ramp and Bathurst Street	2	2	8	2
King Road and Bathurst Street	7	2	8	3
King Road and Dufferin Street	2	1	13	7
Langstaff Road and Highway 27	6	1	7	5
Major Mackenzie Drive East and Kennedy Road	4	0	6	3
Major Mackenzie Drive East and McCowan Road	1	1	3	5
Morton Avenue and The Queensway/Metro Road	1	2	2	2
Stouffville Road and Woodbine Avenue	2	1	1	3
Wellington Street and Yonge Street	4	0	8	11
20 Red Light Camera Locations	71	37	154	133

*2013 represents the collision data prior to the installation of a red light camera

Photo: Red light camera at the intersection of Woodbine Avenue and Davis Drive in the Town of East Gwillimbury.

- **Since 2013, the number of right angle collisions has reduced by 48 per cent at 20 red light camera locations**

- **Each red light camera location is equipped with a flash mounted pole and digital camera mounted pole which is triggered by detectors in the road**



Red Light Camera Locations Map

The following map illustrates the 20 red light camera locations

1. 16th Avenue and Ninth Line (Markham)
2. Bloomington Road and Woodbine Avenue (Whitchurch-Stouffville)
3. Davis Drive and Ashton Road/Carlson Drive (Newmarket)
4. Davis Drive and Bathurst Street (King)
5. Davis Drive and Woodbine Avenue (Whitchurch-Stouffville)
6. Green Lane and Yonge Street (East Gwillimbury)
7. Green Lane East and Leslie Street (East Gwillimbury)
8. Highway 7 and Bullock Drive (Markham)
9. Highway 7 and Highway 7/Yonge Street Ramp (Vaughan)
10. Highway 7 and Vaughan Valley Boulevard (Vaughan)
11. Highway 7 and Weston Road (Vaughan)
12. Highway 7/Bathurst Street Ramp and Bathurst Street (Richmond Hill)
13. King Road and Bathurst Street (King)
14. King Road and Dufferin Street (King)
15. Langstaff Road and Highway 27 (Vaughan)
16. Major Mackenzie Drive East and Kennedy Road Markham)
17. Major Mackenzie Drive East and McCowan Road (Markham)
18. Morton Avenue and The Queensway/ Metro Road (Georgina)
19. Stouffville Road and Woodbine Avenue (Whitchurch-stouffville)
20. Wellington Street and Yonge Street (Aurora)

York Region

Collisions by Driver Action

Collisions are typically a direct cause of driver error. Leading causes are “following too close” and “failed to yield”.

Collisions by Driver Action, Three-Year Average Between 2012 and 2014

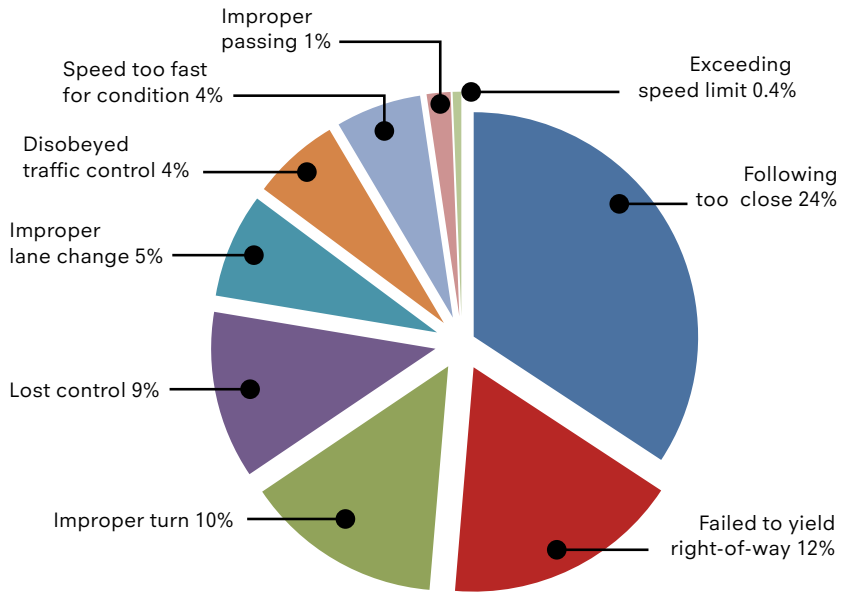


Photo: Traffic congestion at the intersection of Highway 7 and Leslie Street in the City of Markham.

- **76 per cent of all collisions were a direct cause of someone’s improper driving**
- **Acts of aggressive driving accounted for 36 per cent of all collisions**

- **Distracted driving accounted for 15 per cent of all collisions**

- **It is currently illegal for drivers to talk, text, type, dial, or email using hand-held cell phones and other hand-held communications and entertainment devices while driving**

Collisions by Driver Condition

Collisions where the condition of at-fault drivers was recorded as "normal" or "unknown" accounted for 81 per cent of all collisions. Of the remaining at-fault drivers, most were identified as "inattentive driving", i.e. distracted drivers.

Collisions by At-Fault Driver Condition, Three-Year Average Between 2012 and 2014

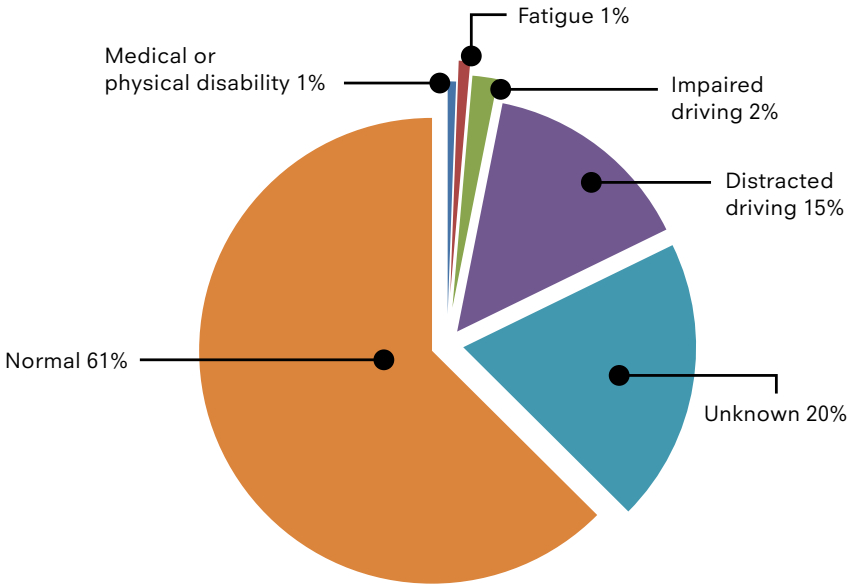


Photo: Interior of a car focused on the steering wheel.

Collisions by Location

Highway 7 is York Region's most travelled roadway providing a link between The Regional Municipality of Peel and Durham. Highway 7 is also a major connecting road to the provincial 400 series highways: 427, 400 and 404.

The majority of high collision intersections are situated along Highway 7 and a few other high volume arterials including Rutherford Road/16th Avenue, Major Mackenzie Drive and Yonge Street.

Top 10 High Collision Frequency Intersections, Three-Year Total Between 2012 and 2014

Description	Total Volume	Injury Collisions	Three-Year Total
Highway 7 and Weston Road	56,063	44	199
Rutherford Road and Weston Road	40,268	47	187
Green Lane and Yonge Street	29,961	32	164
Highway 7 and McCowan Road	36,917	28	161
Highway 7 and Keele Street	54,986	28	157
Carrville Road/16th Avenue and Yonge Street	35,888	35	153
Highway 7 and Jane Street	52,773	34	149
Major Mackenzie Drive West and Jane Street	38,118	39	147
Major Mackenzie Drive East and Bayview Avenue	33,684	28	141
Highway 7 and Leslie Street	44,418	33	140

Photo: Traffic at the intersection of Highway 7 and Valleymede Drive in the City of Markham.

- **The intersection of Highway 7 and Weston Road experienced the highest number of collisions on the Regional road network over the last three years**
- **The three highest traffic volume intersections in York Region are:**
  - **Highway 7 and Weston Road**
  - **Highway 7 and Keele Street**
  - **Highway 7 and Jane Street**

York Region

Collision Frequency by Municipality

The following maps illustrate the top ten high collision intersections for York Region and for each of the local municipalities separately for the three-year period between 2012 and 2014.

The Regional Municipality of York

Town of Aurora

Town of East Gwillimbury

Town of Georgina

Township of King

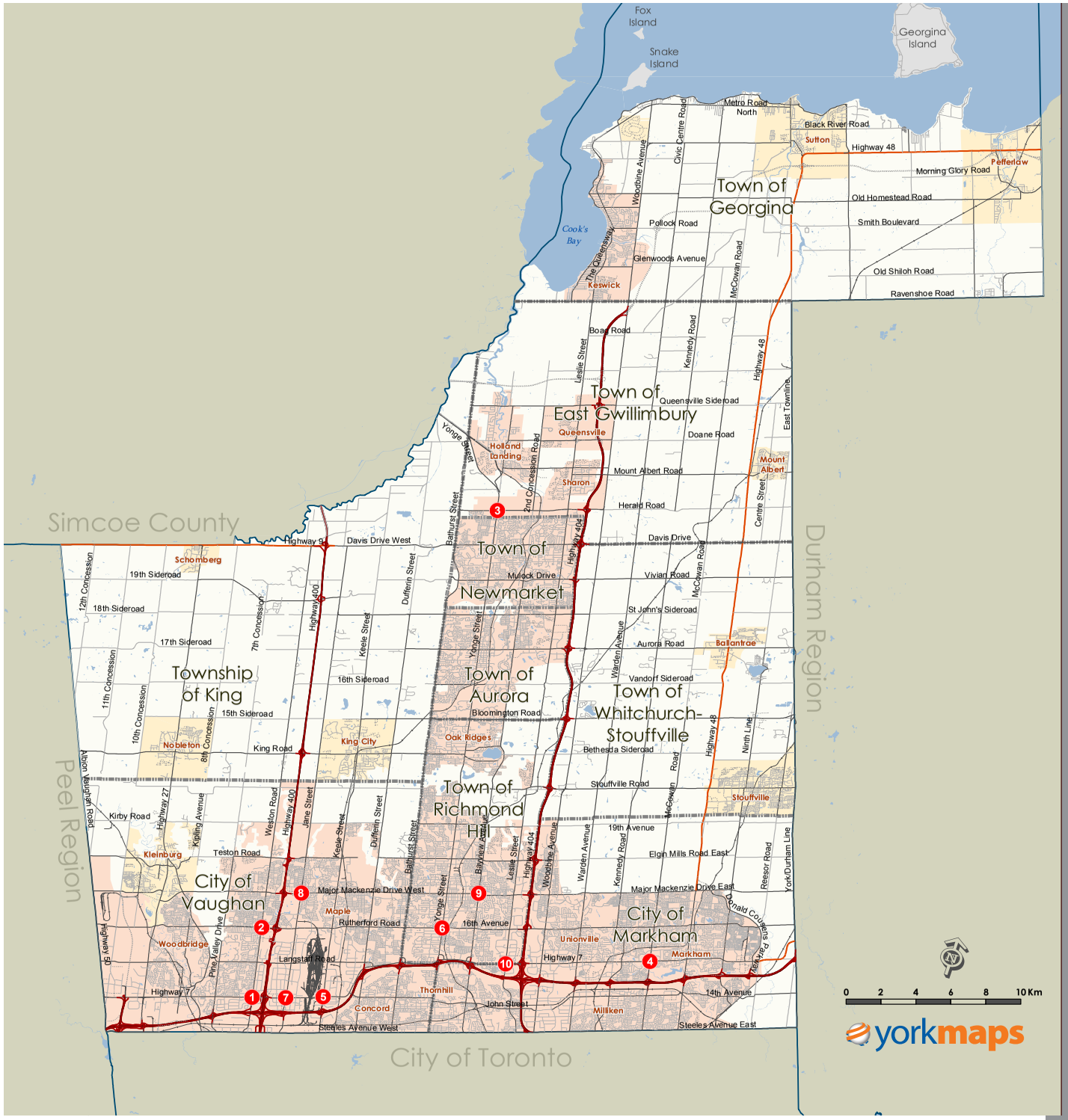
City of Markham

Town of Newmarket

Town of Richmond Hill

City of Vaughan

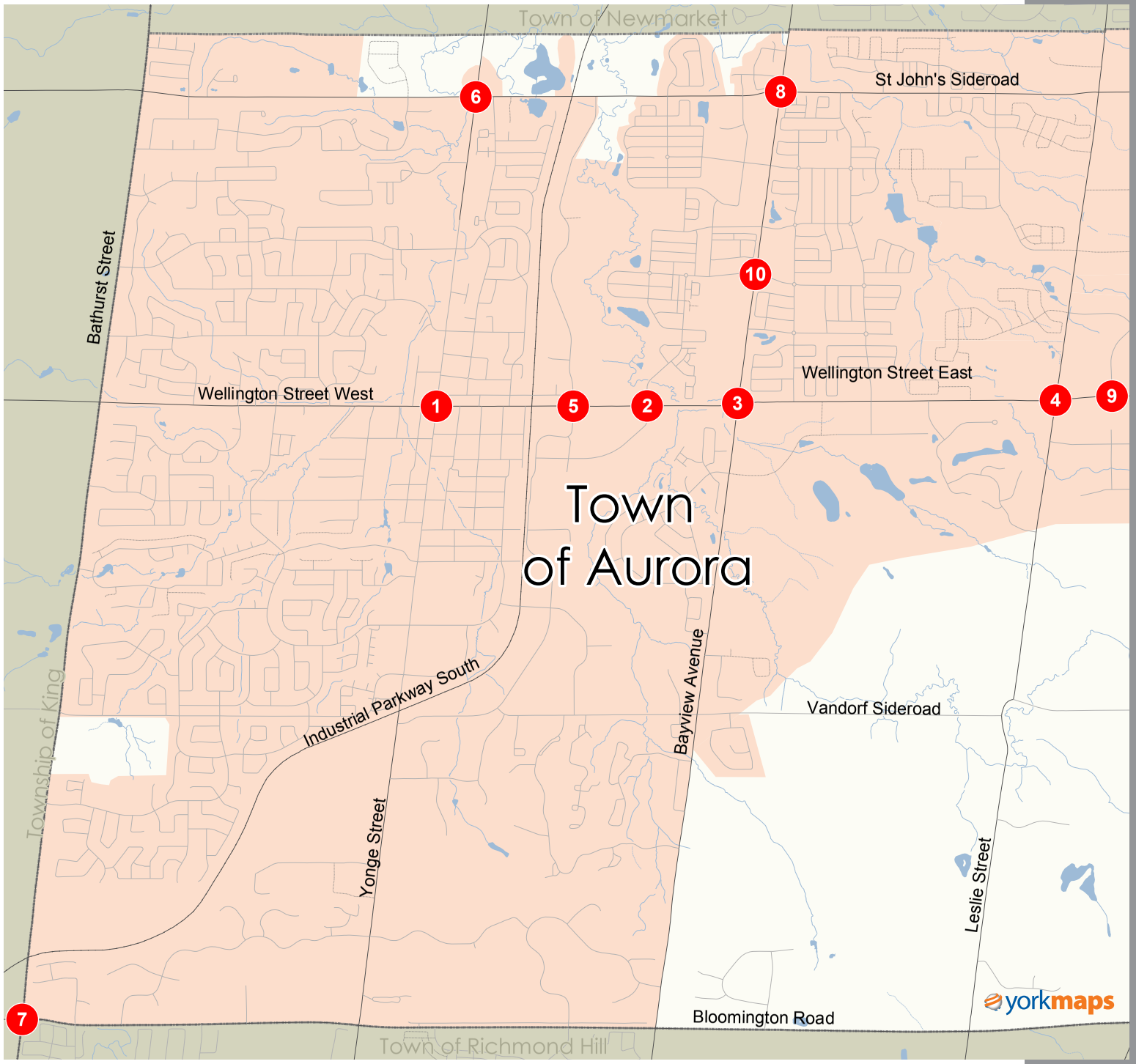
Town of Whitchurch-Stouffville



Top 10 High Collision Intersections for York Region

1. Highway 7 and Weston Road (*199)
2. Weston Road and Rutherford Road (*187)
3. Yonge Street and Green Lane East/ Green Lane West (*164)
4. Highway 7 and McCowan Road (*161)
5. Keele Street and Highway 7 (*157)
6. Yonge Street and Carrville Road/ 16th Avenue (*153)
7. Highway 7 and Jane Street (*149)
8. Major Mackenzie Drive West and Jane Street (*147)
9. Major Mackenzie Drive East and Bayview Avenue (*141)
10. Highway 7 and Leslie Street (*140)

*represents the number of collisions between 2012 and 2014

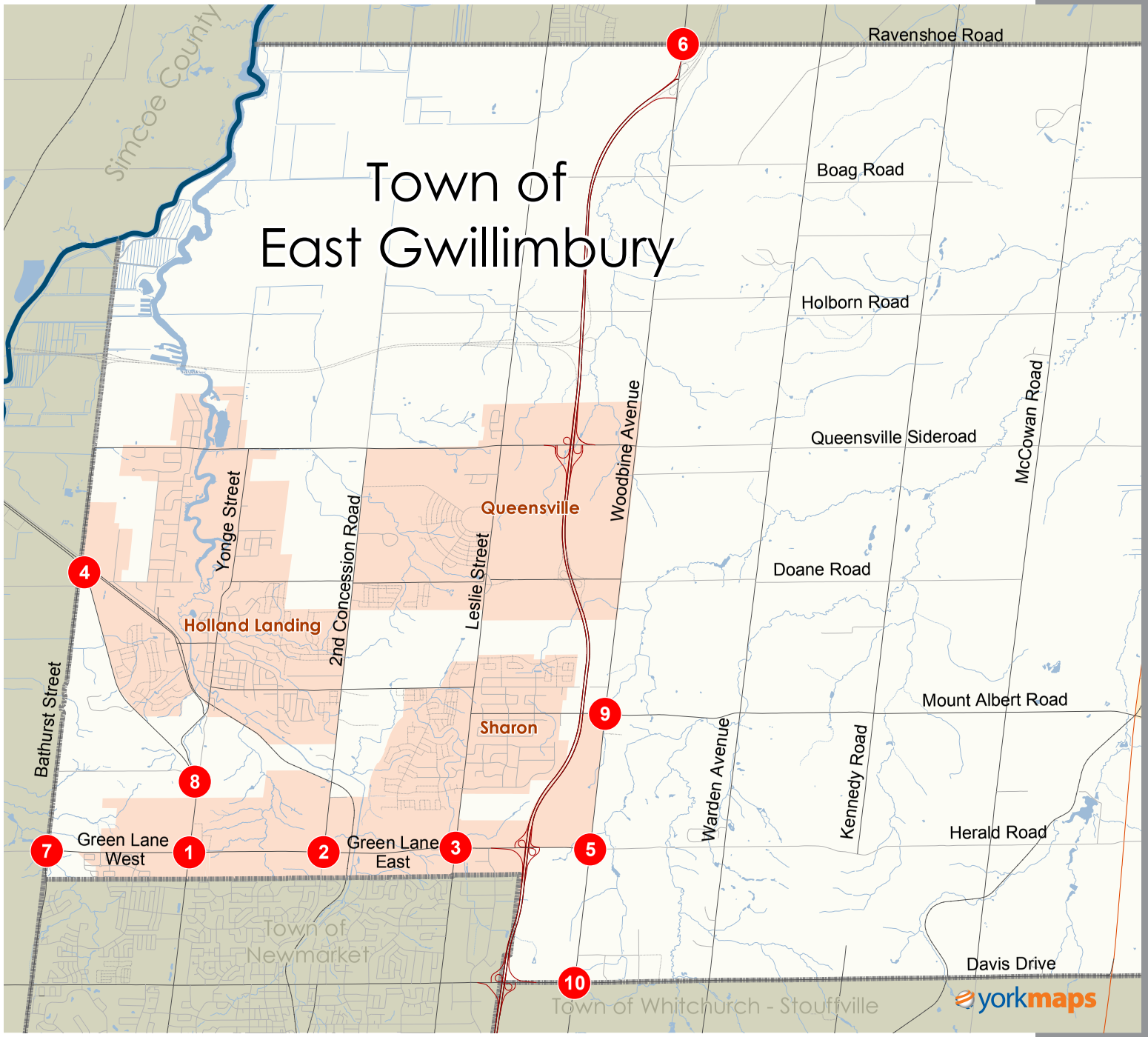


Top 10 High Collision Intersections for the Town of Aurora

1. Wellington Street East and Yonge Street/Wellington Street West; overall York Region rank 32 (*88)
2. Wellington Street East and Mary Street/John West Way ; overall York Region rank 92 (*51)
3. Wellington Street East and Bayview Avenue; overall York Region rank 107 (*47)
4. Leslie Street and Wellington Street East; overall York Region rank 121 (*44)
5. Wellington Street East and Industrial Parkway North/ Industrial Parkway South; overall York Region rank 139 (*40)
6. Yonge Street and St John's Sideroad; overall York Region rank 145 (*37)
7. Bathurst Street and 15th Sideroad/Bloomington Road; overall York Region rank 182 (*32)
8. St John's Sideroad and Bayview Avenue; overall York Region rank 186 (*32)
9. Wellington Street East and First Commerce Drive; overall York Region rank 219 (*28)
10. Bayview Avenue and Hollidge Boulevard/Borealis Avenue; overall York Region rank 259 (*24)

*represents the number of collisions between 2012 and 2014

York Region

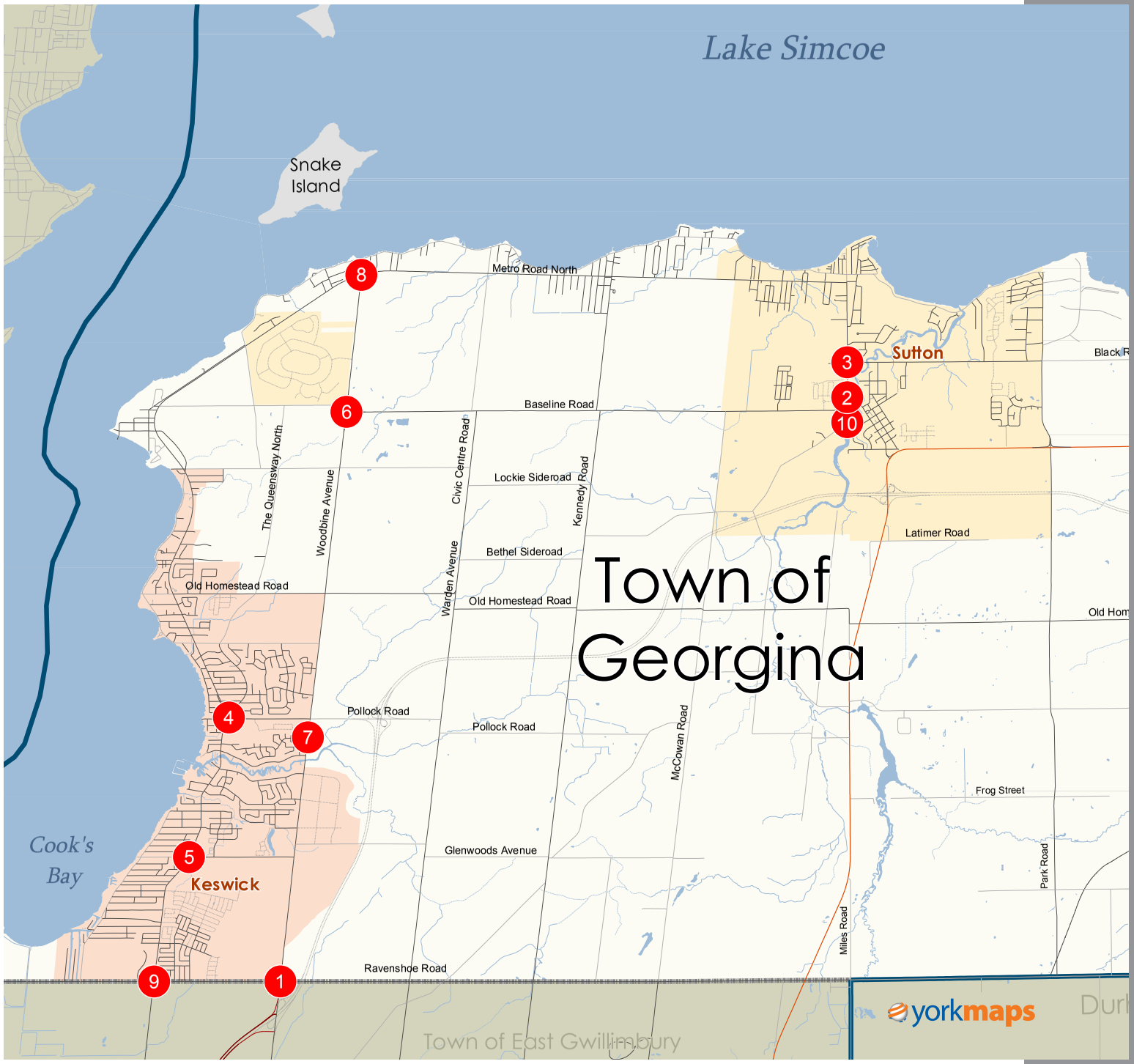


Top 10 High Collision Intersections for the Town of East Gwillimbury

1. Yonge Street and Green Lane East/Green Lane West; overall York Region rank 3 (*164)
2. Green Lane East and Main Street North/2nd Concession Road; overall York Region rank 34 (*86)
3. Leslie Street and Green Lane East; overall York Region rank 61 (*68)
4. Highway 11 and Bathurst Street; overall York Region rank 125 (*43)
5. Woodbine Avenue and Herald Road/Green Lane East; overall York Region rank 154 (*36)
6. Woodbine Avenue and Ravenshoe Road; overall York Region rank 181 (*32)
7. Green Lane West and Miller's Sideroad/Bathurst Street; overall York Region rank 194 (*31)
8. Highway 11 and Morning Sideroad/Yonge Street; overall York Region rank 245 (*26)
9. Woodbine Avenue and Mount Albert Road; overall York Region rank 251 (*25)
10. Woodbine Avenue and Davis Drive; overall York Region rank 270 (*23)

*represents the number of collisions between 2012 and 2014

York Region

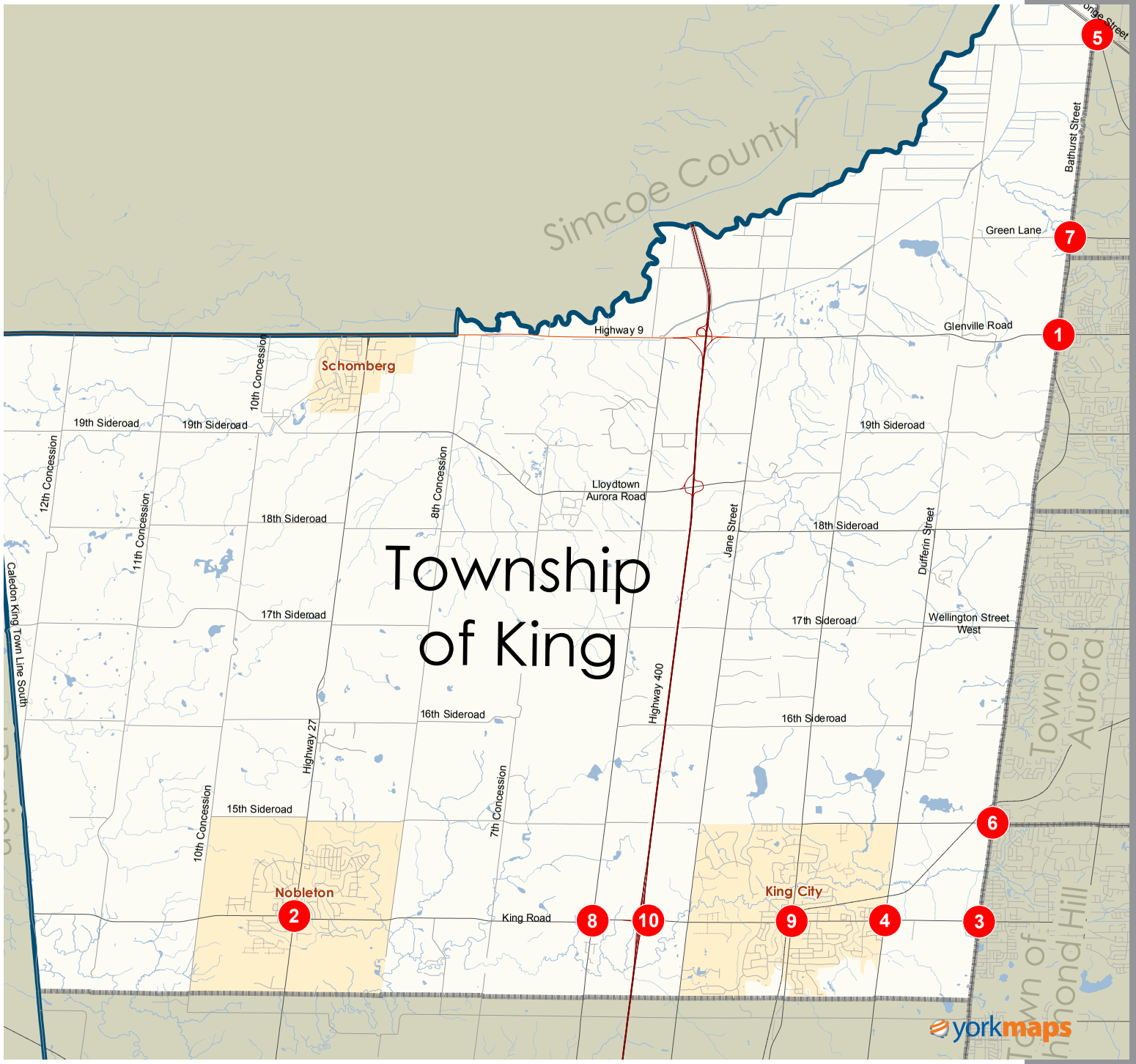


Top 10 High Collision Intersections for the Town of Georgina

1. Woodbine Avenue and Ravenshoe Road; overall York Region rank 180 (*32)
2. Dalton Road and McDonough Avenue/High Street ; overall York Region rank 331 (*19)
3. Dalton Road and Black River Road; overall York Region rank 332 (*19)
4. The Queensway South and Metro Road South/Morton Avenue; overall York Region rank 388 (*16)
5. The Queensway South and Glenwoods Avenue; overall York Region rank 424 (*16)
6. Woodbine Avenue and Baseline Road; overall York Region rank 389 (*16)
7. Woodbine Avenue and Arlington Drive; overall York Region rank 496 (*12)
8. Woodbine Avenue and Metro Road North; overall York Region rank 497 (*12)
9. Leslie Street and Ravenshoe Road/The Queensway South; overall York Region rank 513 (*11)
10. Dalton Road and Baseline Road; overall York Region rank 604 (*9)

*represents the number of collisions between 2012 and 2014

York Region

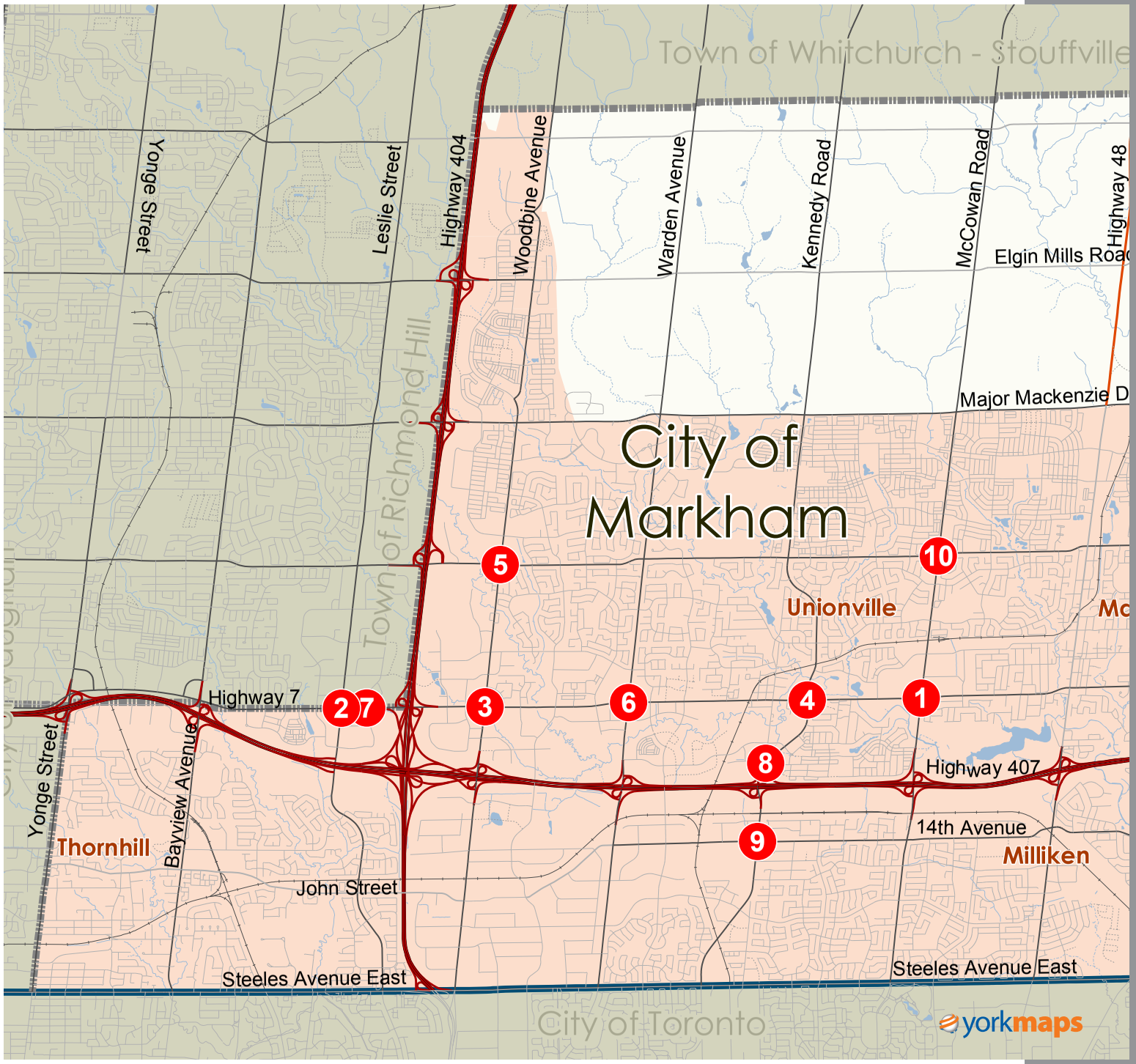


Top 10 High Collision Intersections for the Township of King

1. Davis Drive West and Bathurst Street; overall York Region rank 67(*62)
2. King Road and Highway 27; overall York Region rank 87 (*54)
3. King Road and Dufferin Street; overall York Region rank 88 (*51)
4. King Road and Dufferin Street; overall York Region rank 105 (*47)
5. Highway 11 and Bathurst Street; overall York Region rank 131 (*43)
6. Bathurst Street and 15th Sideroad/Bloomington Road; overall York Region rank 182 (*32)
7. Green Lane West and Miller's Sideroad/Bathurst Street; overall York Region rank 194 (*31)
8. King Road and Weston Road; overall York Region rank 201 (*30)
9. Keele Street and King Road; overall York Region rank 213 (*29)
10. King Road and Exit 43; overall York Region rank 216 (*29)

*represents the number of collisions between 2012 and 2014

York Region

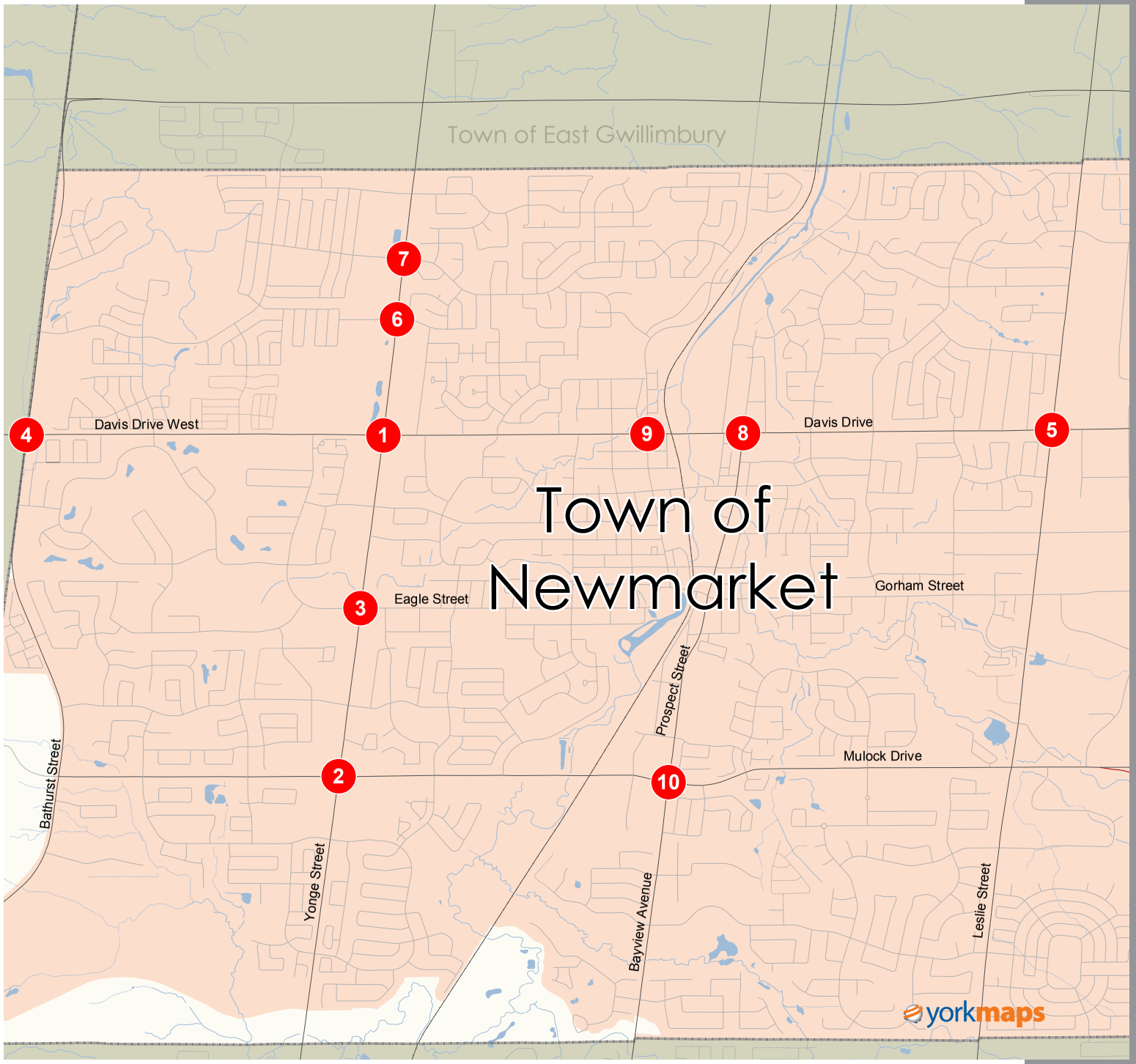


Top 10 High Collision Intersections for the City of Markham

1. Highway 7 and McCowan Road; overall York Region rank 4 (*161)
2. Highway 7 and Leslie Street; overall York Region rank 10 (*140)
3. Highway 7 and Woodbine Avenue; overall York Region rank 16 (*111)
4. Highway 7 and Kennedy Road; overall York Region rank 17 (*108)
5. Woodbine Avenue and 16th Avenue; overall York Region rank 18 (*105)
6. Highway 7 and Warden Avenue; overall York Region rank 19 (*104)
7. Highway 7 and Commerce Valley Drive East/East Beaver Creek Road; overall York Region rank 20 (*104)
8. Kennedy Road and Helen Avenue/YMCA Boulevard ; overall York Region rank 31 (*88)
9. Kennedy Road and 14th Avenue; overall York Region rank 33 (*87)
10. 1McCowan Road and 16th Avenue; overall York Region rank 37 (*86)

*represents the number of collisions between 2012 and 2014

York Region

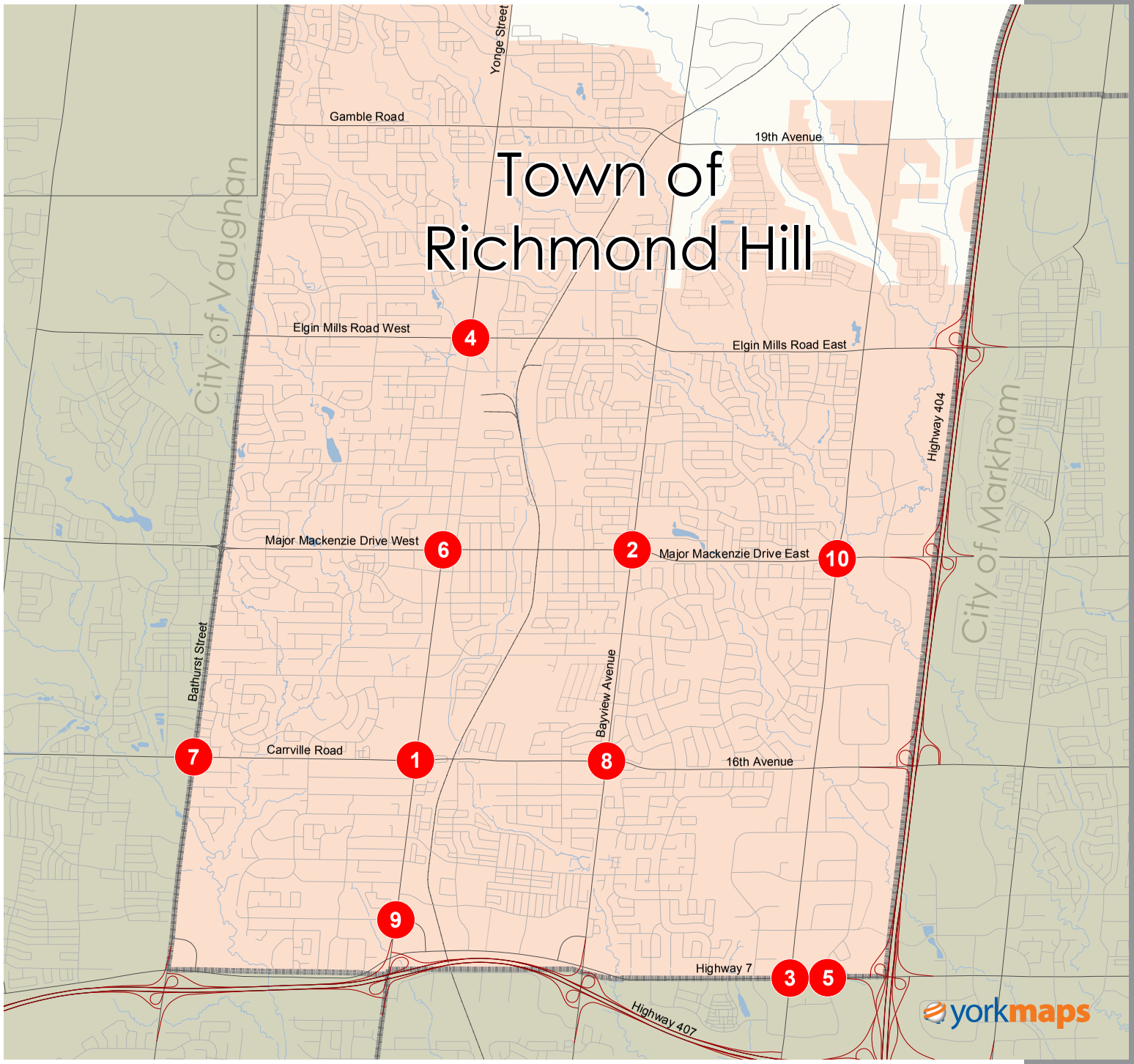


Top 10 High Collision Intersections for the Town of Newmarket

1. Yonge Street and Davis Drive; overall York Region rank 21 (*101)
2. Yonge Street and Mulock Drive; overall York Region rank 56 (*71)
3. Yonge Street and Eagle Street/Eagle Street West; overall York Region rank 60 (*68)
4. Davis Drive West and Bathurst Street; overall York Region rank 67 (*62)
5. Leslie Street and Davis Drive; overall York Region rank 93 (*51)
6. Yonge Street and Kingston Road/Dawson Manor Boulevard ;overall York Region rank 81 (*60)
7. Yonge Street and London Road/Bonshaw Avenue; overall York Region rank 100 (*48)
8. Davis Drive and Lundy's Lane/Prospect Street; overall York Region rank 113 (*45)
9. Davis Drive and Main Street North/Main Street South ; overall York Region rank 138 (*43)
10. Prospect Street and Bayview Avenue/Mulock Drive; overall York Region rank 124 (*40)

*represents the number of collisions between 2012 and 2014

York Region

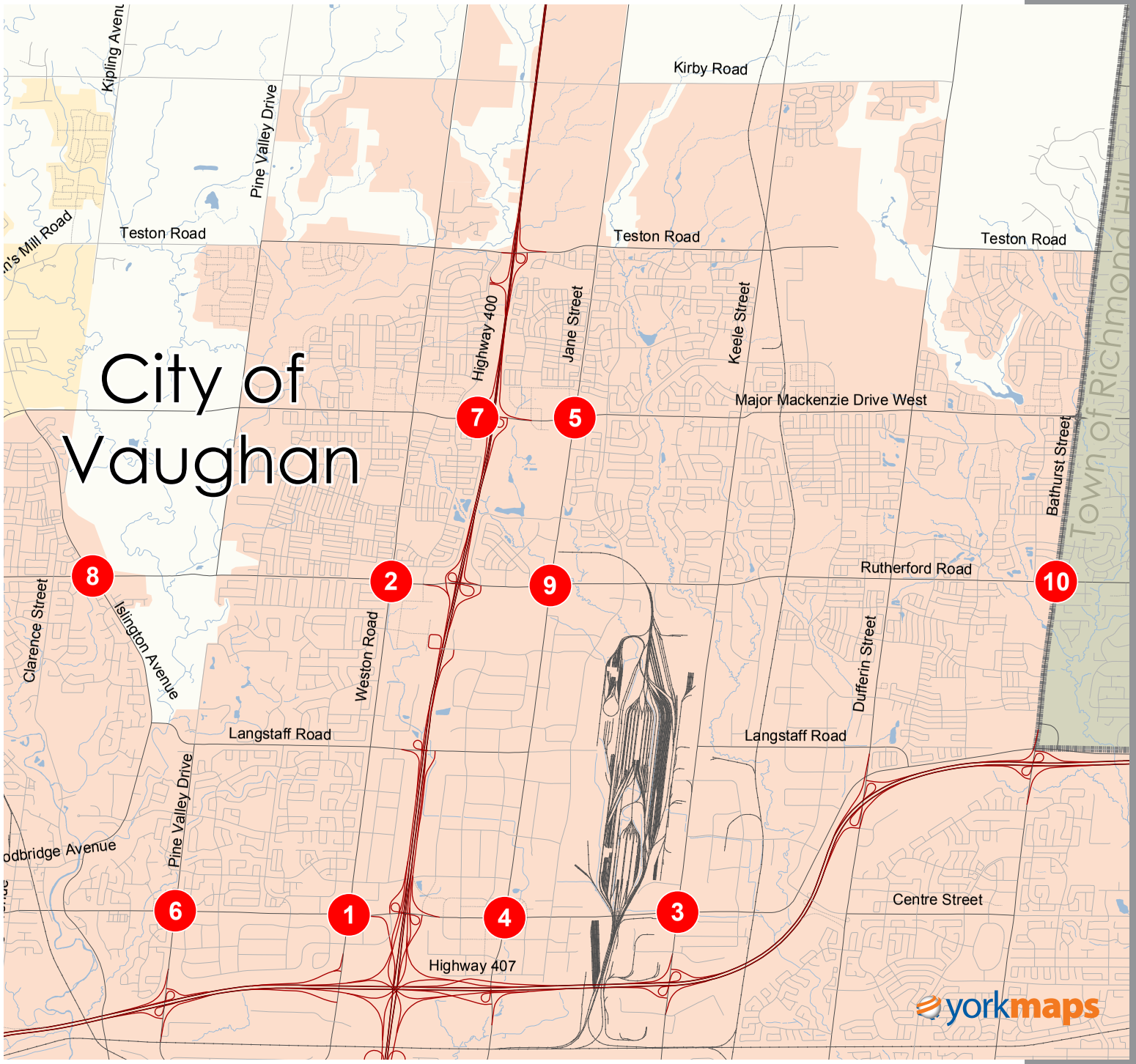


Top 10 High Collision Intersections for the Town of Richmond Hill

1. Yonge Street and Carrville Road/16th Avenue; overall York Region rank 6 (*153)
2. Major Mackenzie Drive East and Bayview Avenue; overall York Region rank 9 (*141)
3. Highway 7 and Leslie Street; overall York Region rank 10 (*140)
4. Yonge Street and Elgin Mills Road West/Elgin Mills Road East; overall York Region rank 15 (*119)
5. Highway 7 and Commerce Valley Drive East/East Beaver Creek Road; overall York Region rank 19 (*104)
6. Yonge Street and Major Mackenzie Drive West/ Major Mackenzie Drive East; overall York Region rank 22 (*101)
7. Bathurst Street and Carrville Road/Rutherford Road ; overall York Region rank 23 (*97)
8. Bayview Avenue and 16th Avenue; overall York Region rank 27 (*91)
9. Yonge Street and Garden Avenue/Highway 7 - Yonge Street Ramp; overall York Region rank 43 (*78)
10. LLeslie Street and Major Mackenzie Drive East; overall York Region rank 47 (*76)

*represents the number of collisions between 2012 and 2014

York Region



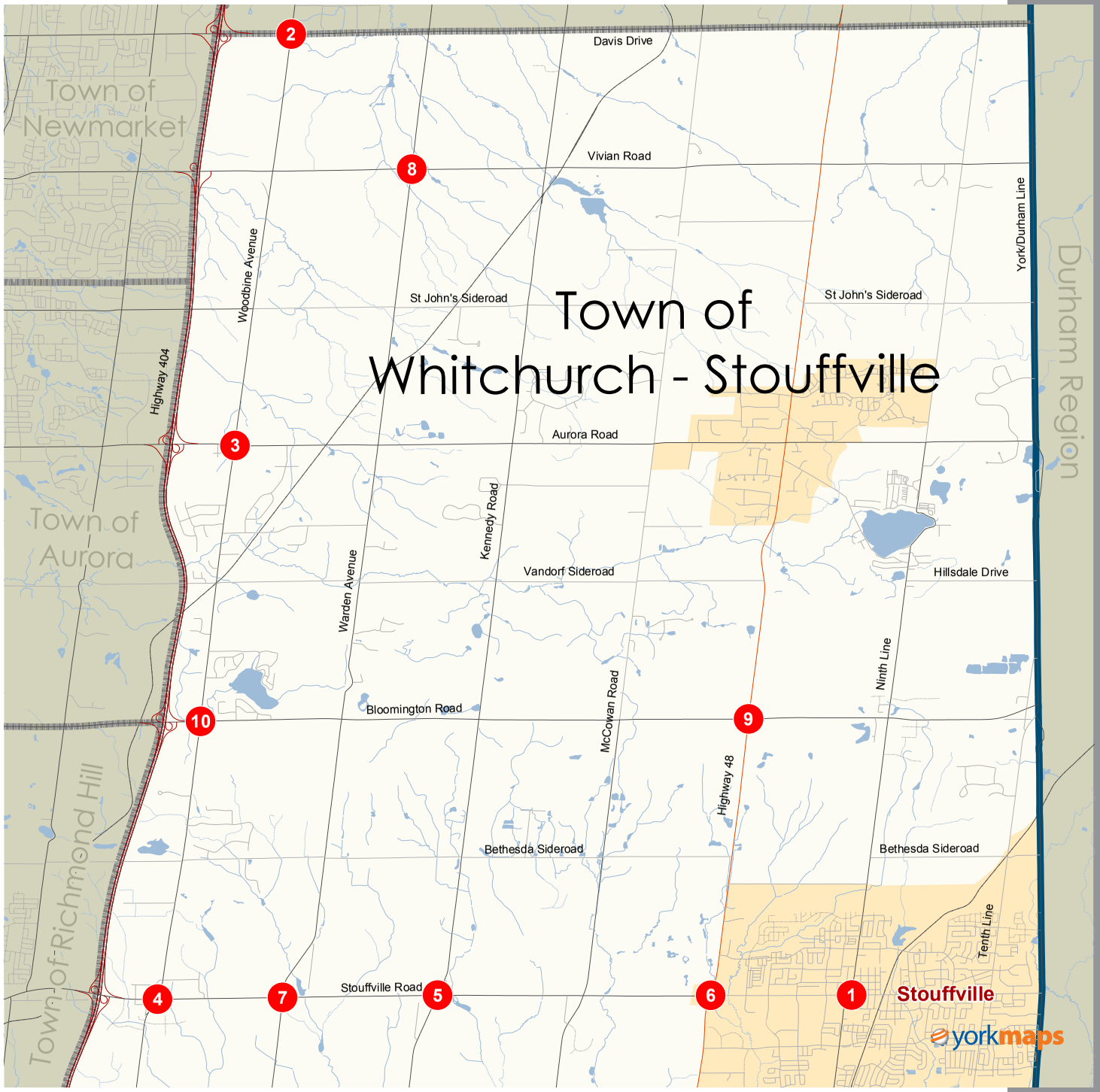
Top 10 High Collision Intersections for the City of Vaughan

1. Highway 7 and Weston Road; overall York Region rank 1 (*199)
2. Weston Road and Rutherford Road; overall York Region rank 2 (*187)
3. Keele Street and Highway 7; overall York Region rank 5 (*157)
4. Highway 7 and Jane Street; overall York Region rank 7 (*149)
5. Major Mackenzie Drive West and Jane Street; overall York Region rank 8 (*147)
6. Highway 7 and Pine Valley Drive; overall York Region rank 11 (*136)
7. Major Mackenzie Drive West and Exit 35/GO Carpool Lot - Hwy 400 & Major Mackenzie Drive West; overall York Region rank 12 (*126)
8. Islington Avenue and Rutherford Road; overall York Region rank 13 (*126)
9. Jane Street and Rutherford Road; overall York Region rank 14 (*121)
10. Bathurst Street and Carrville Road/Rutherford Road ; overall York Region rank 23 (*97)

*represents the number of collisions between 2012 and 2014

yorkmaps

York Region



Top 10 High Collision Intersections for the Town of Whitchurch-Stouffville

1. Main Street and Ninth Line; overall York Region rank 239 (*27)
2. Woodbine Avenue and Davis Drive; overall York Region rank 277 (*23)
3. Woodbine Avenue and Aurora Road; overall York Region rank 283 (*22)
4. Woodbine Avenue and Stouffville Road; overall York Region rank 314 (*20)
5. Kennedy Road and Stouffville Road; overall York Region rank 412 (*14)
6. Stouffville Road and Main Street/Highway 48; overall York Region rank 438 (*14)
7. Stouffville Road and Warden Avenue; overall York Region rank 443 (*13)
8. Warden Avenue and Vivian Road; overall York Region rank 458 (*13)
9. Bloomington Road and Highway 48; overall York Region rank 463 (*13)
10. Woodbine Avenue and Bloomington Road; overall York Region rank 469 (*13)

*represents the number of collisions between 2012 and 2014

York Region

Accessible formats of this report or
communication supports are also available upon request.

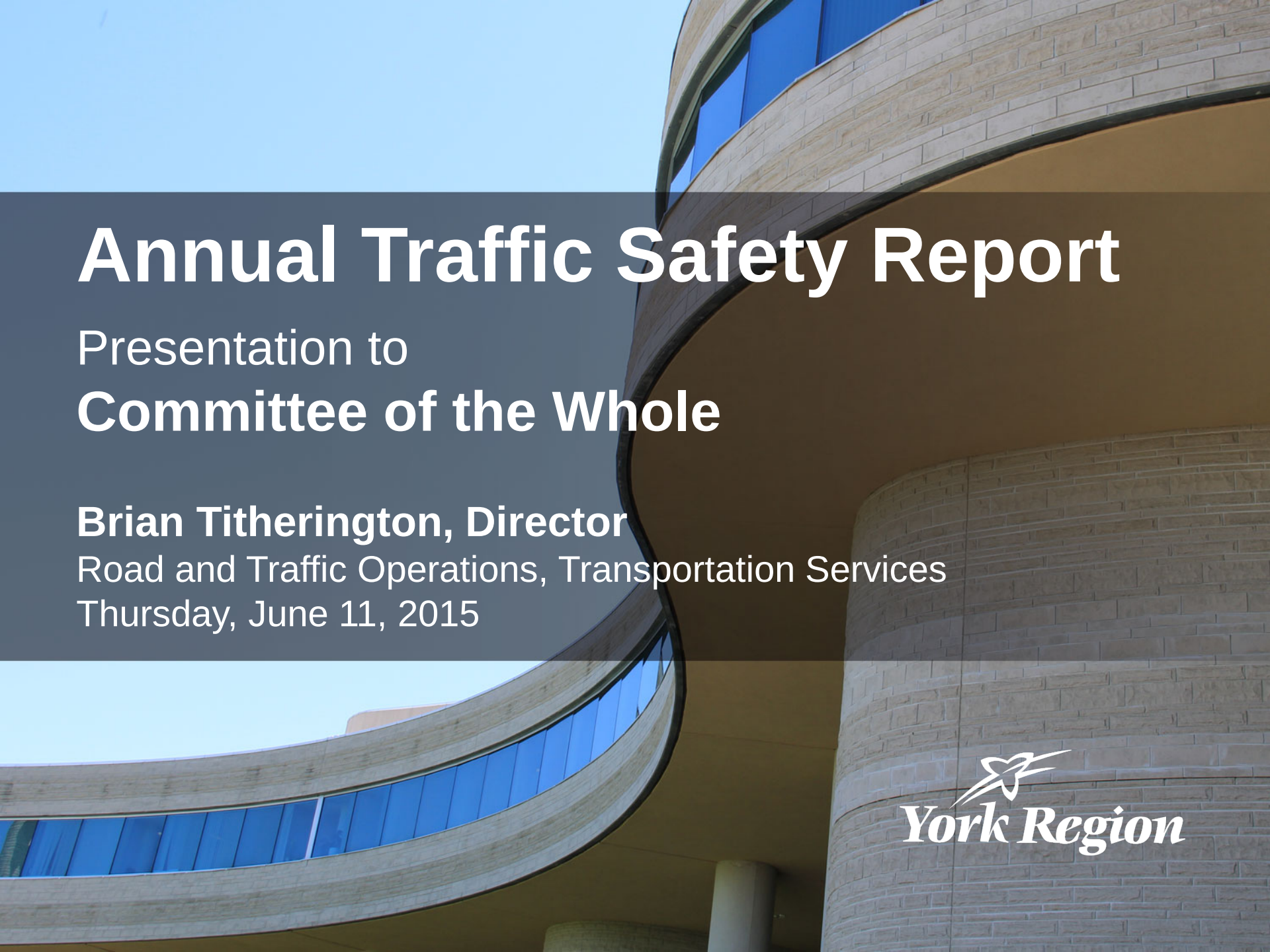
Please contact us for more information.

The Regional Municipality of York
17250 Yonge Street
Newmarket, Ontario
L3Y 6Z1

Transportation Services
905-830-4444 Ext. 75000
TransportationServices@york.ca

Traffic Safety Status Report 2012 to 2014

York Region



Annual Traffic Safety Report

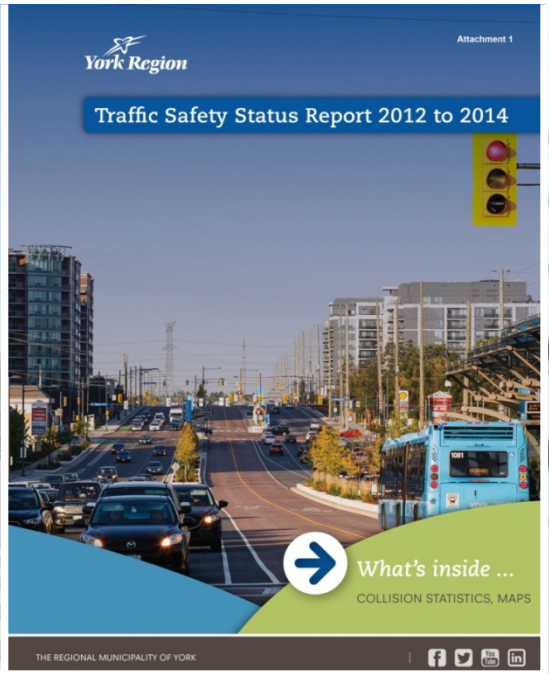
Presentation to

Committee of the Whole

Brian Titherington, Director
Road and Traffic Operations, Transportation Services
Thursday, June 11, 2015

York Region

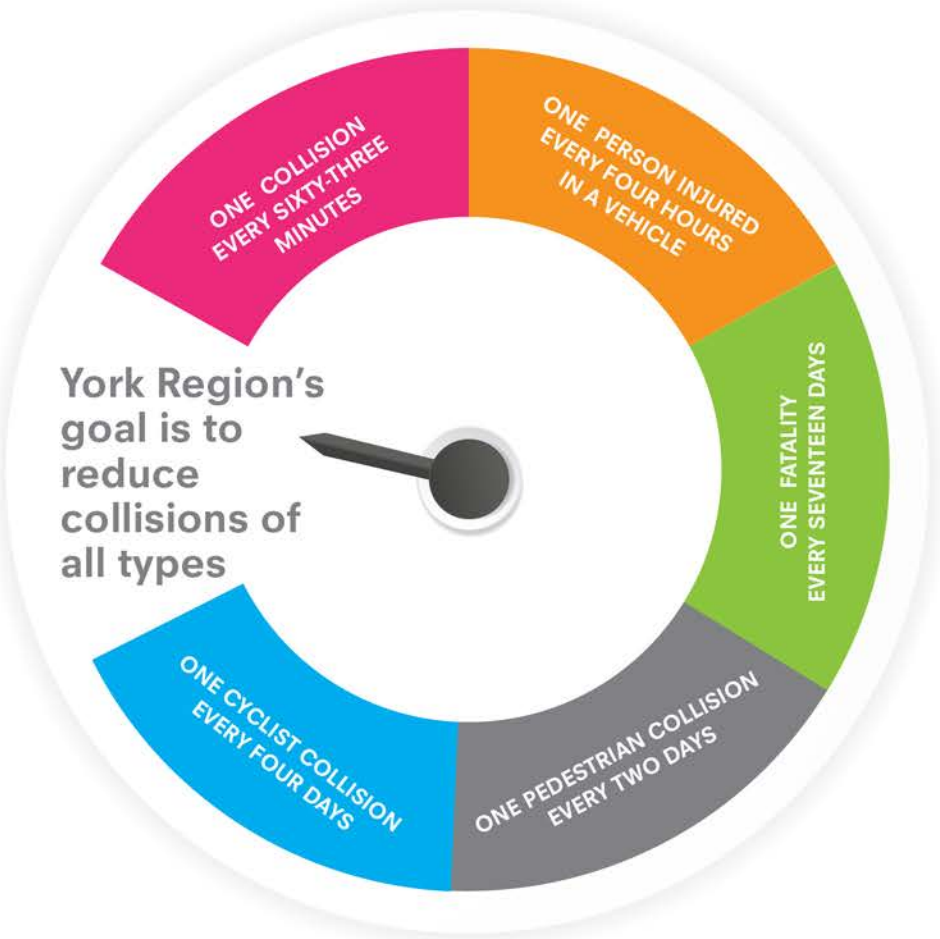
Outline


York Region
Attachment 1
Traffic Safety Status Report 2012 to 2014
What's inside ...
COLLISION STATISTICS, MAPS
THE REGIONAL MUNICIPALITY OF YORK


NEW
MAXIMUM
60
BEGINS

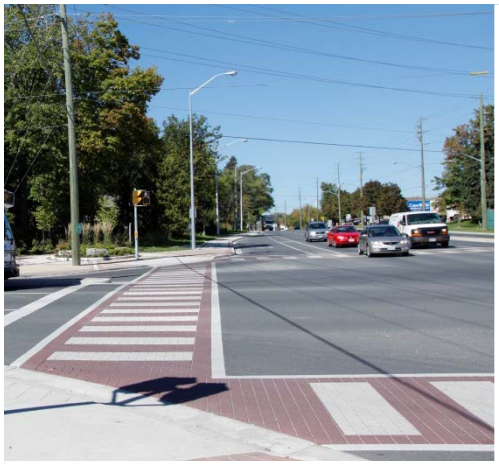

Valleymede Drive

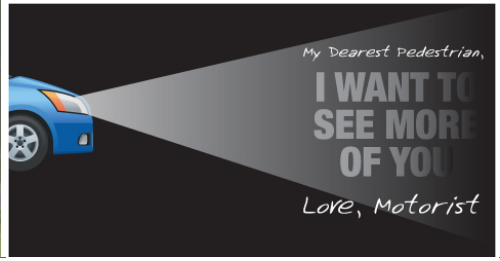
York Region 2014 Collision Clock



There are an average of 25 collisions per day on York Region roads

Safety Programs



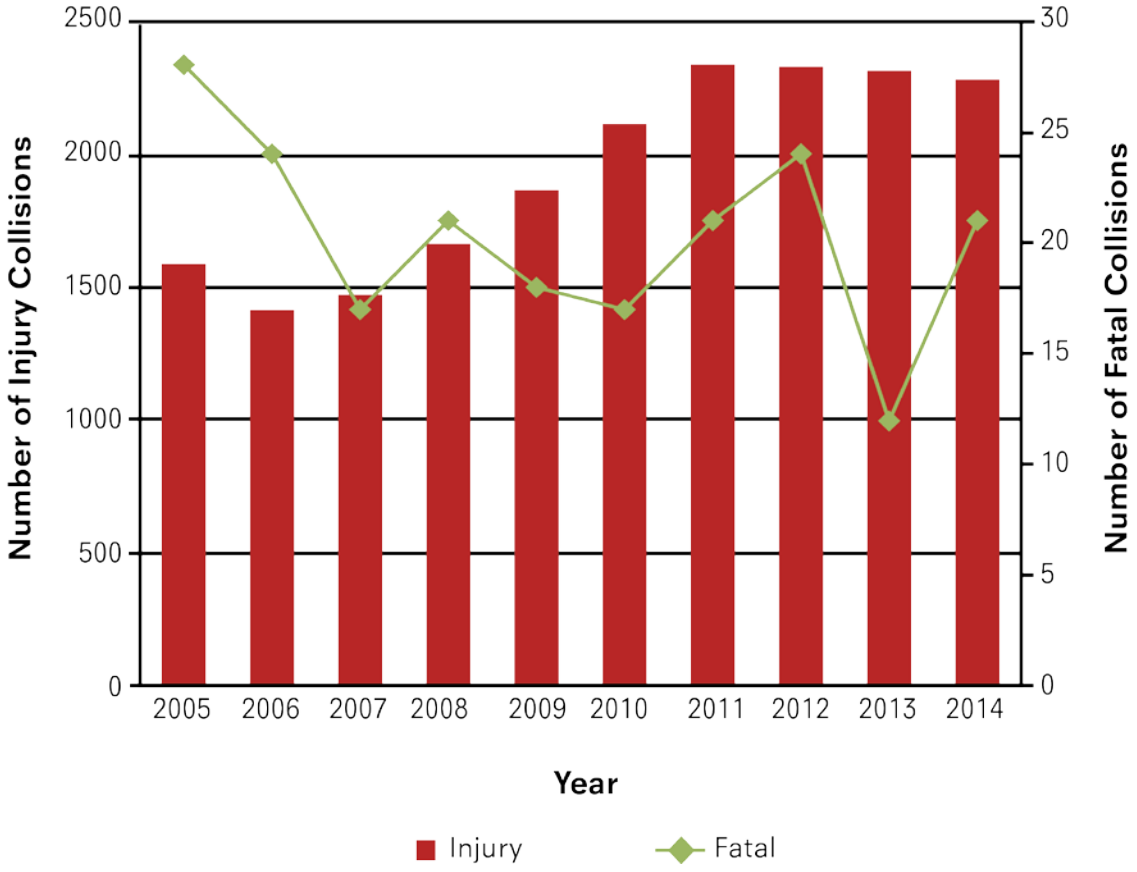


York Region leads and partners on a number of safety programs


Safe Cycling
Campaign Kick Off
May 14, 2015
at Times Square,
Town of Richmond Hill
0:08 / 1:41

Total Injury and Fatal Collisions

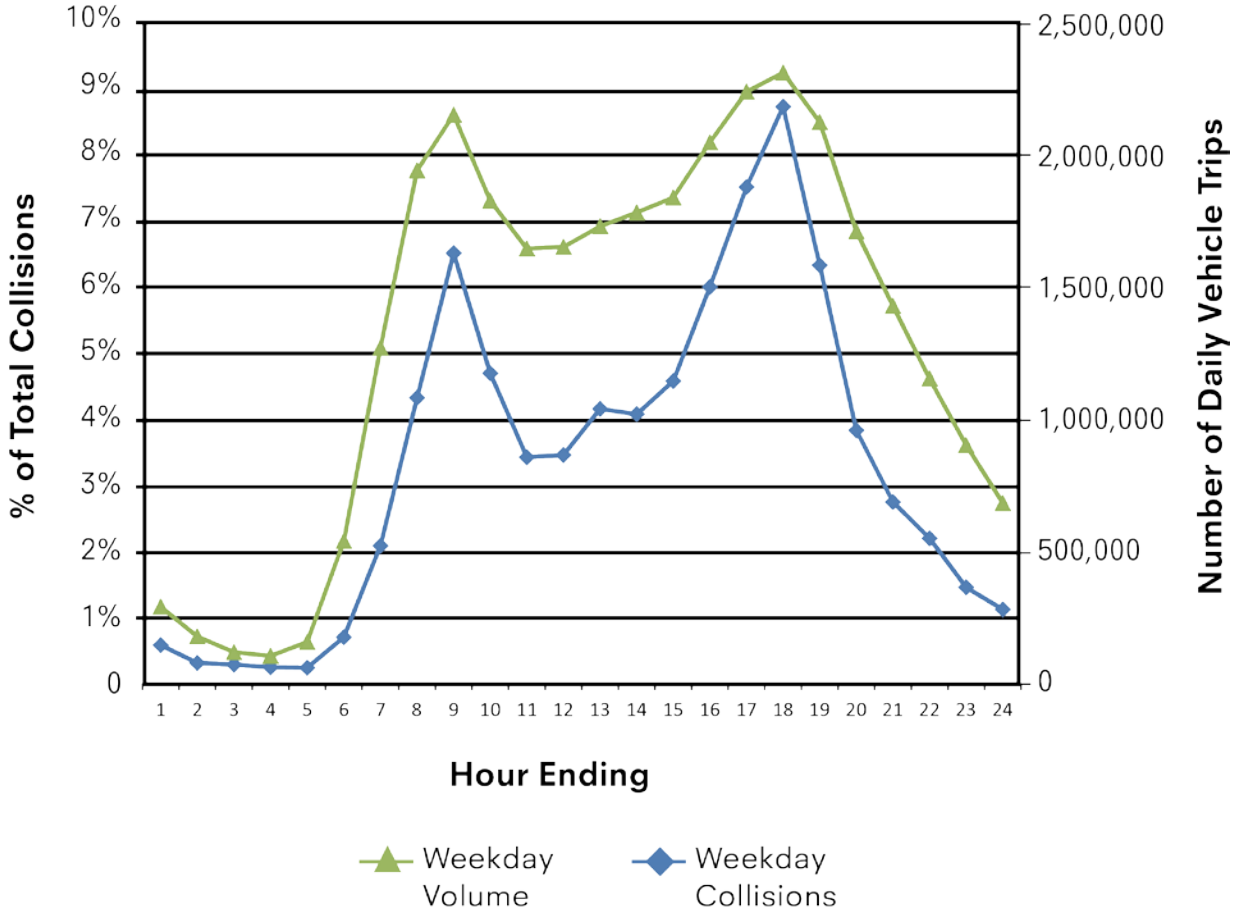
Between 2005 and 2014



Injury collisions have not increased since 2011

Collisions by Time-of-Day

Three-Year Average Between 2012 and 2014



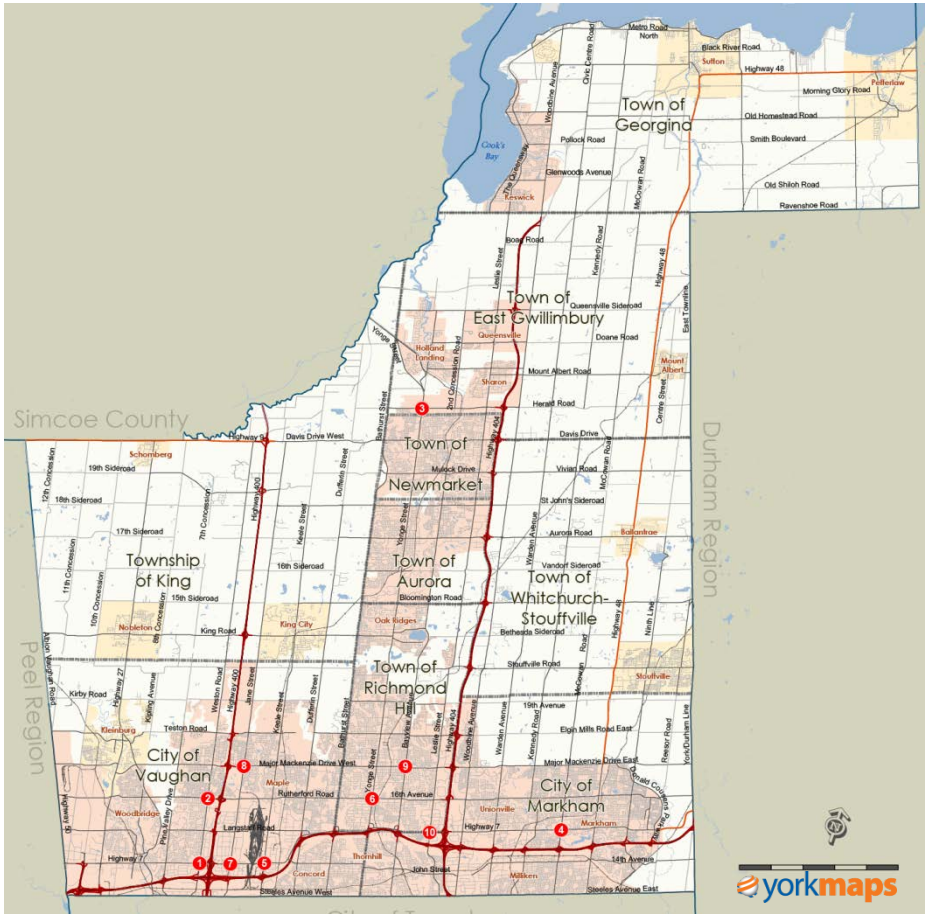
Collisions are highly correlated with traffic volumes

Top 10 High Collision Intersections

For York Region

1. Highway 7 and Weston Road (*199)
2. Weston Road and Rutherford Road (*187)
3. Yonge Street and Green Lane East/Green Lane West (*164)
4. Highway 7 and McCowan Road (*161)
5. Keele Street and Highway 7 (*157)
6. Yonge Street and Carrville Road/16th Avenue (*153)
7. Highway 7 and Jane Street (*149)
8. Major Mackenzie Drive West and Jane Street (*147)
9. Major Mackenzie Drive East and Bayview Avenue (*141)
10. Highway 7 and Leslie Street (*140)

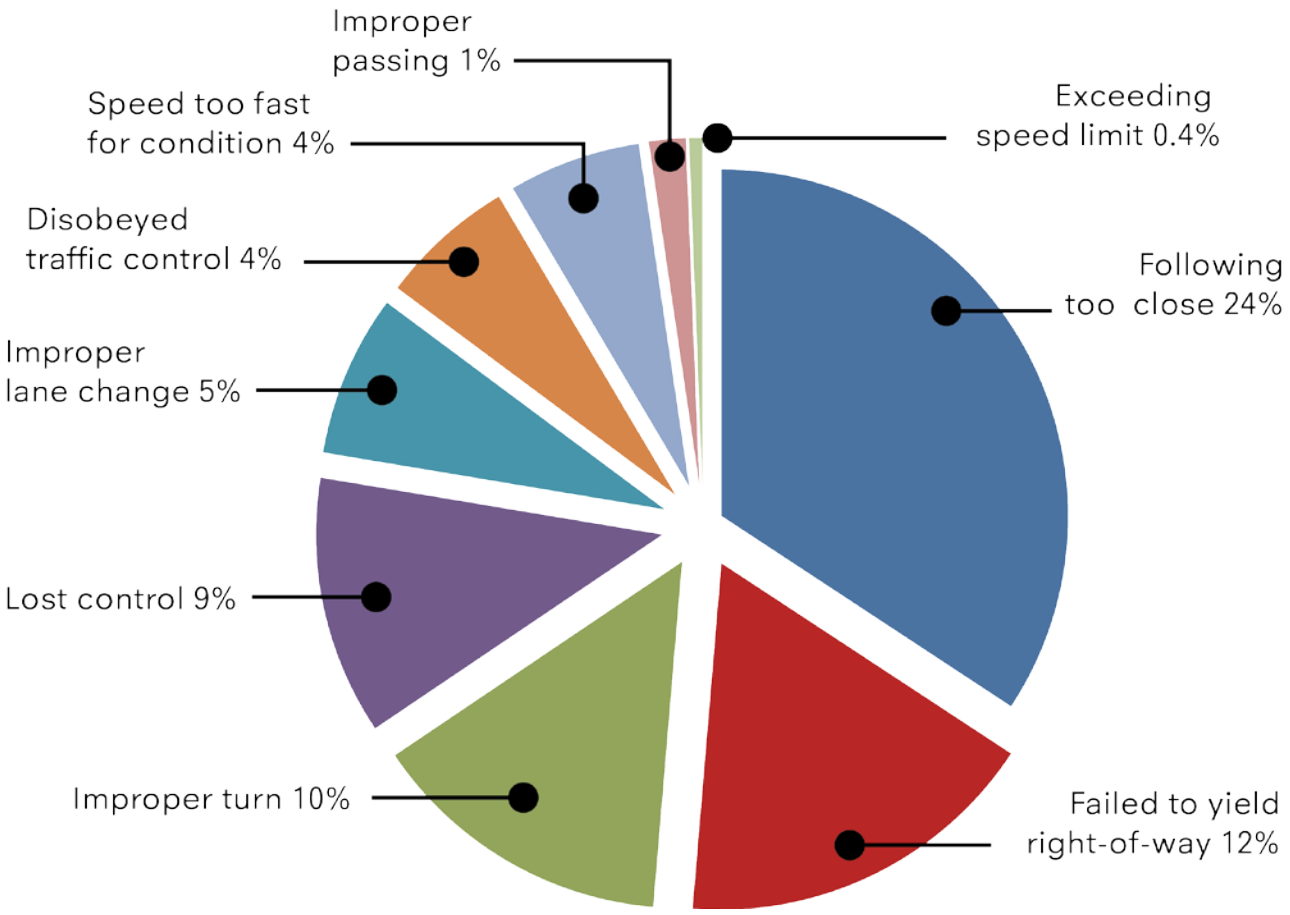
*represents the number of collisions between 2012 and 2014



High collision intersections are situated along high volume roads

Collisions by Driver Action

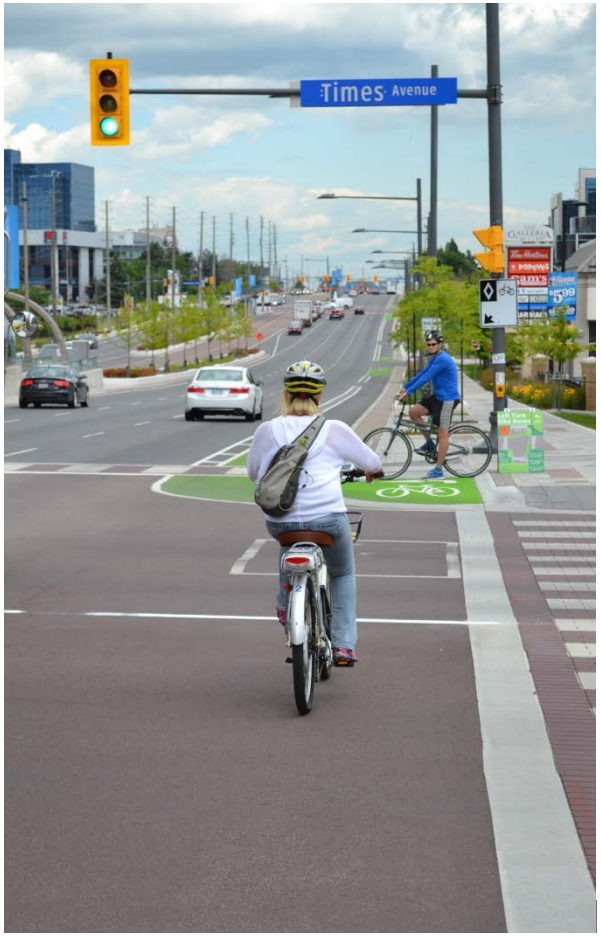
Three-Year Average Between 2012 and 2014

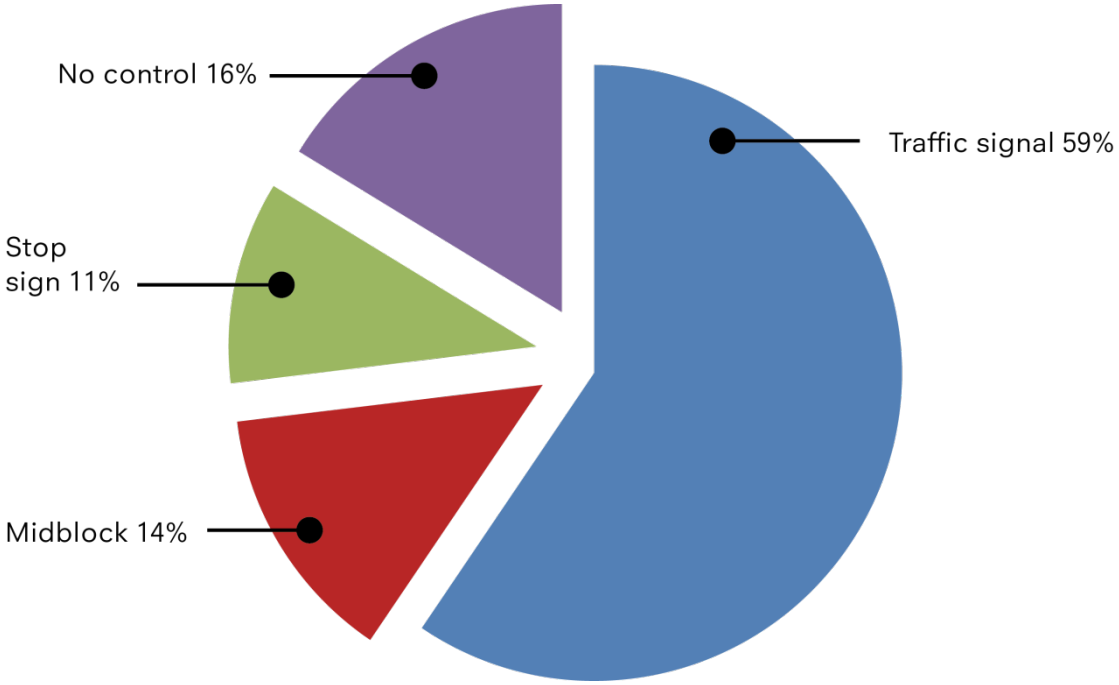


Collisions are typically a direct cause of driver error

Involving a Cyclist

Three-Year Average Between 2012 and 2014



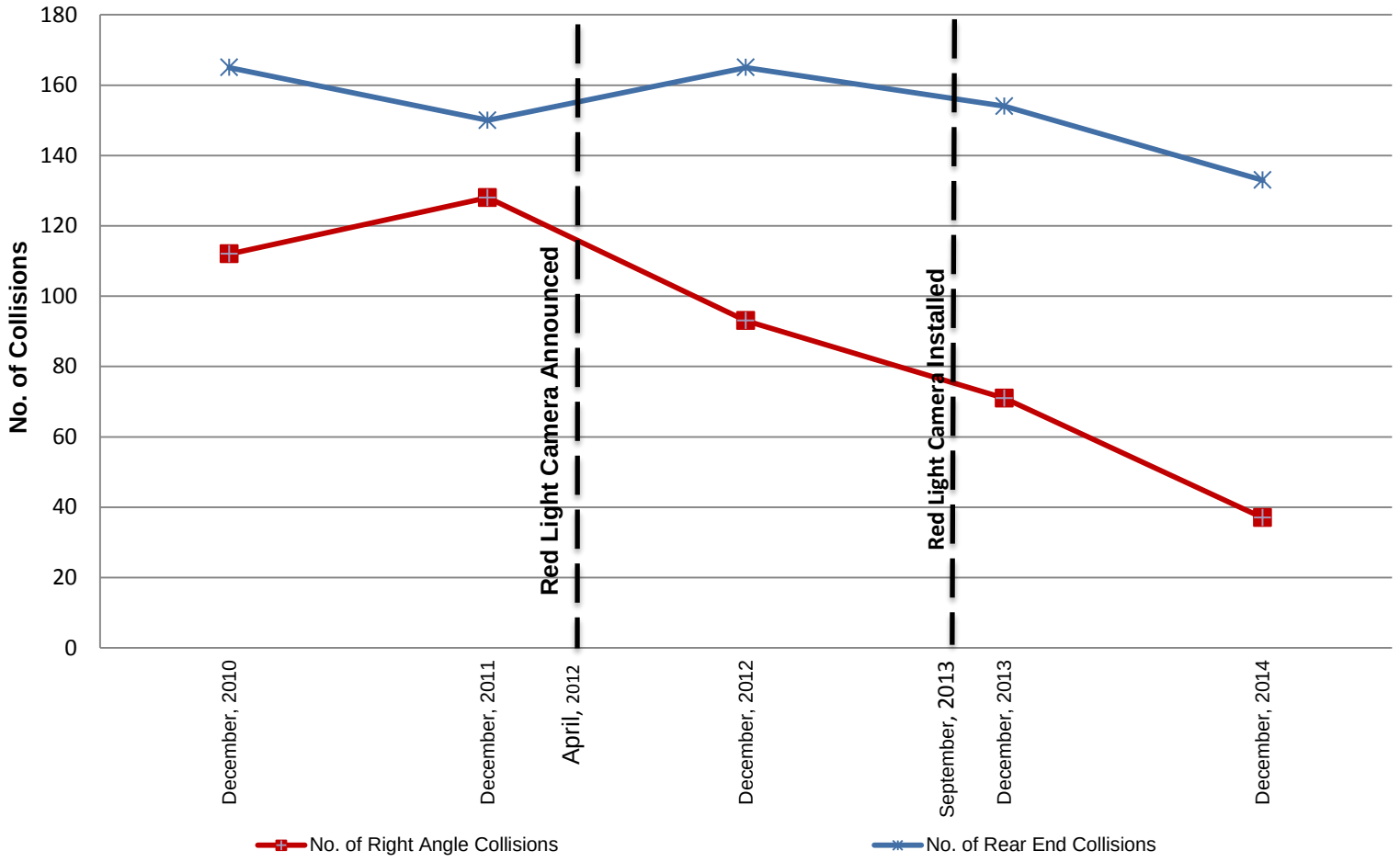


The majority of collisions (all types) occur at signalized intersections

Intersection Safety Programs

The Region has many ongoing intersection safety programs to influence behaviour and reduce collisions at signalized intersections

Red Light Camera Program



Red light cameras have proven to be successful in reducing right angle collisions

Conclusion

The Region will continue to monitor the Regional road network and implement programs to improve safety

Questions

Brian Titherington

Director, Road and Traffic Operations

Transportation Services

905-830-4444 ext. 75901

brian.titherington@york.ca

York Region