



STRATHCONA
COUNTY

Traffic Safety Annual Report

2017

**Debbie Rawson, MSc
Inspector Chris Narbonne**

January 2018

Highlights

This report will provide an update on Strathcona County's progress towards meeting the targets of the Traffic Safety Strategic Plan (TSSP). To date, 9 of 12 strategies outlined in the TSSP are developed and implemented.

Collision Trends:

- Generally, there was a decrease in both number and rate of collisions across all roads within Strathcona County between 2007 and 2016.
- However, when broken out by collision types, there was a significant decrease in Property Damage Only (PDO) collisions, a slight decrease in Minor Injury Collisions and a significant increase in Fatal/Major Injury Collisions.

Based on the data collected from the 2018 Traffic Safety Survey, the following trends in resident opinions are noted:

- Increase in reported acceptability of behaviours contrary to a Safe System
- 6.3% increase in the number of residents rating traffic safety as "Very Safe" or "Somewhat Safe" in Strathcona County from the 2015 survey.
- General polarizing of resident opinions when responding to questions regarding their support of traffic safety initiatives. Generally, more of these residents are choosing to shift to the negative side than the positive.
- Decrease in residents reporting a concern with neighbourhood traffic.

As a result, Strathcona County is not on track to meet the 2020 collision or resident perception targets set out in our TSSP.

Based on the information presented in this document, the priority projects for traffic safety in 2018 are:

- Better alignment of resources towards evidence-based, data driven engineering, enforcement, and education initiatives to improve traffic safety
- Improve data sharing with internal stakeholders
- Complete actions identified in our Intersection Safety Action Plan
- Update the Traffic Safety Communication Plan
- Development of a Vulnerable Road User Strategy
- Development of a Rural Road Safety Strategy
- Continue to implement actions in Neighbourhood Traffic Safety Action Plan
- Maintain and grow strategies which have been implemented to date

Table of Contents

- Highlights 1
- I. Introduction..... 3
 - A. Background 3
 - B. What is a Safe System?..... 4
 - C. Contextual Changes in Traffic Safety in 2017..... 5
- II. Current State of Traffic Safety in Strathcona County..... 6
 - A. Collision Trends 6
 - B. Trends in Resident Perspectives 10
- III. Targets and Results..... 11
 - A. Traffic Collision Data..... 11
 - B. Resident Perceptions of Traffic Safety..... 12
 - C. Comparison with Other Municipalities 13
- IV. Traffic Safety Strategies and Programs 16
 - Strategy 1: Traffic Safety Data Collection, Analysis and Management Program 16
 - Strategy 2: Road Network Screening Program 16
 - Strategy 3: Integrated Safety-Focused Enforcement Program..... 17
 - Strategy 4: Integrated Public Education and Social Marketing Program 18
 - Strategy 5: In-Service Road Safety Review Program..... 19
 - Strategy 6: Neighbourhood Traffic Safety Strategy 19
 - Strategy 7: Road Safety Audit Program..... 21
 - Strategy 8: Intersection Safety 21
 - Strategy 10: Work Zone Safety Strategy 23
- V. Next Steps 2018 24

I. Introduction

The Traffic Safety Strategic Plan 2020 (TSSP), adopted in 2014 as an update to the original 2008 Traffic Safety Strategic Plan, serves as an internal guiding document for decision-making related to traffic safety in Strathcona County. This report will provide an update on Strathcona County's progress towards meeting the targets of the TSSP 2020. This document summarizes information and statistics and identifies trends based on information and statistics from several other documents:

- 2016 Strathcona County Traffic Collision Statistics Report
- 2018 Strathcona County Traffic Safety Survey Research Results
- 2017 Strathcona County Intersection Safety Action Plan
- 2017 preliminary collision statistics from the RCMP database

This report will also highlight current and upcoming traffic safety initiatives.

A. Background

The TSSP 2020 is based on a Safer System approach:

Vision: *No one is seriously injured or killed while travelling on Strathcona County's road network*

Mission: *Strathcona County is committed to the proactive implementation of integrated, evidence-based, and collaborative road safety strategies to create an increasingly safe and sustainable transportation environment.*

The TSSP 2020 outlines 13 strategies to address traffic safety in the County:

Implemented and Ongoing Strategies	Planned Strategies (Implement in 2014)	Short-Term Strategies (Implement by 2017)	Long-Term Strategies (Implement by 2020)
<ul style="list-style-type: none"> • Strategy 1: Traffic Safety Data Collection, Analysis and Management Program • Strategy 2: Road Network Screening Program • Strategy 3: Integrated Safety-Focused Enforcement Program • Strategy 4: Integrated Public Education and Social Marketing Program 	<ul style="list-style-type: none"> • Strategy 5: In-Service Road Safety Review Program • Strategy 6: Neighbourhood Traffic Safety Strategy 	<ul style="list-style-type: none"> • Strategy 7: Road Safety Audit Program • Strategy 8: Intersection Safety Strategy • Strategy 9: Rural Road Safety Strategy • Strategy 10: Work Zone Safety Strategy 	<ul style="list-style-type: none"> • Strategy 11: MARD/Older Adults Traffic Safety Strategy • Strategy 12: Safe Vehicles Strategy • Strategy 13: Corporate Traffic Safety Strategy

B. What is a Safe System?

The implementation of a Safe System is how we can achieve our vision of zero fatalities or serious injuries on Strathcona County's road network.

Figure 1: Summary of a Safe System Approach



Under a Safe System:

- Death and major injury on roads are unacceptable rather than inevitable outcomes of road transport.
- Responsibility for road safety is shared between road users, designers and regulators.
- Road safety decisions are data-driven and collaborative.
- Efficiency is not prioritized over safety and.
- Speeds are managed and roads designed to keep potential collision forces within levels that can be tolerated by the human body.

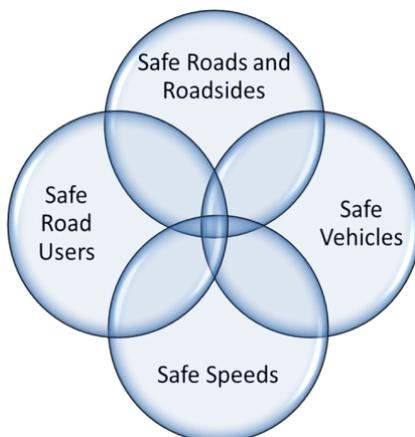


Figure 2: Four pillars of the Safe System Approach

C. Contextual Changes in Traffic Safety in 2017

A major change in Strathcona County's traffic safety environment was the opening of the northeast leg of Anthony Henday Drive in the fall of 2016. The construction of this ring road impacted traffic patterns in Strathcona County for almost 5 years, and this impact will be reflected in year-to-year comparisons of traffic statistics.

Another significant change in our traffic safety environment is the adoption of Vision Zero and the Safe System approach by both the Province of Alberta and at the federal level. Safe System practices have become best practice in traffic safety.

Alberta's Office of Traffic Safety Community Mobilization Team operates with the vision: *Mobilize Alberta communities to embrace and achieve Vision Zero.*

Outcomes they hope to achieve are as follows:

- Encourage shared responsibility for traffic safety
- Build community capacity to address safety priorities
- Inspire and enable collective action to improve safety¹

Alberta Transportation's Road Safety Strategy 2015 has been completed and evaluated. While Alberta collision statistics improved over the course of this plan and its predecessor, evaluation suggests that specific traffic safety areas require greater attention:

Despite the positive changes in many areas of road safety, the data also revealed areas that require additional attention. In particular, casualties involving commercial vehicles, vulnerable road users (e.g., motorcycles, bicycles, pedestrians), and older drivers did not benefit from the TSPs to the same extent as other areas².

These areas of traffic safety will also likely become increasing areas of concern in Strathcona County as our community becomes more walkable and our population ages.

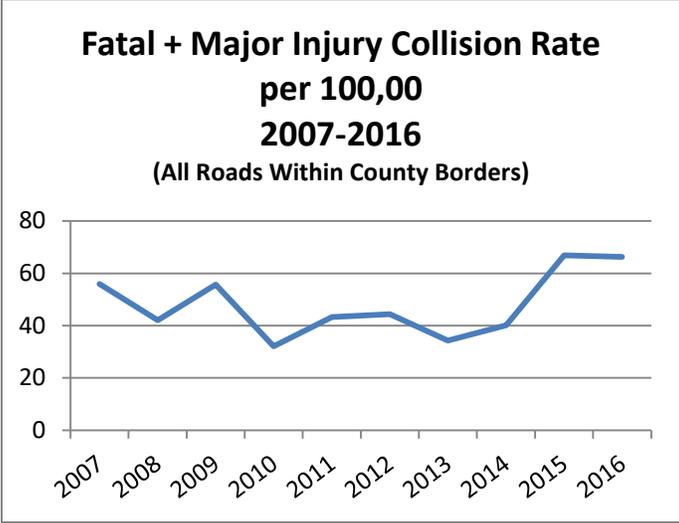
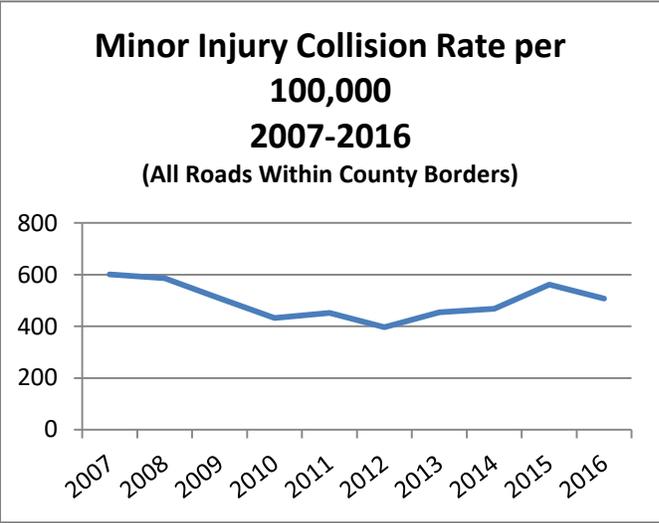
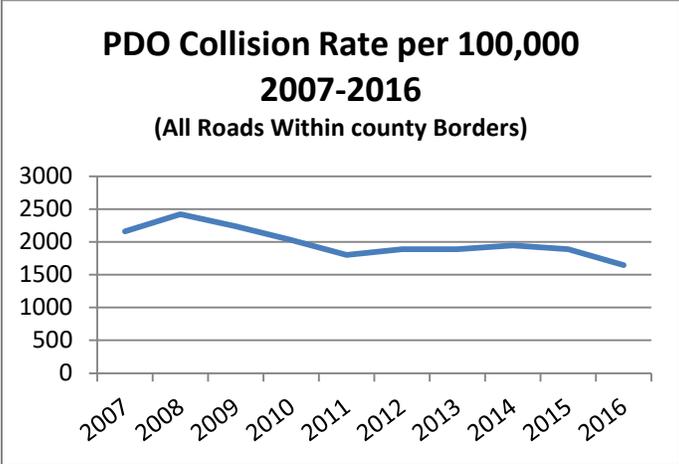
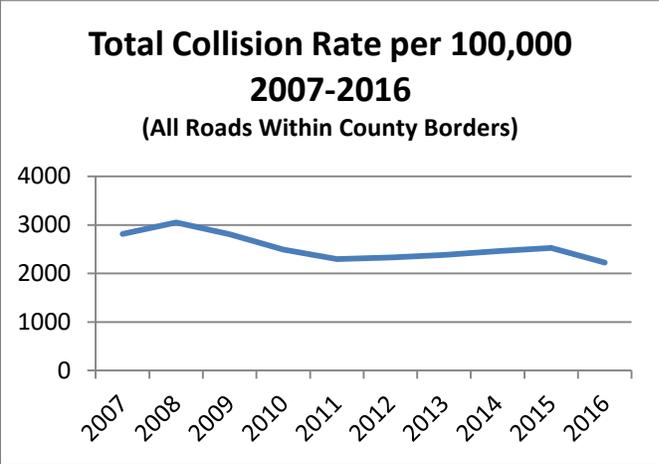
¹ From Municipal Delegation Package Alberta Office of Traffic Safety, presented to Strathcona County Council, January 23, 2018.

² The Impact of Alberta's Traffic Safety Plans 2007 – available from the Alberta Transportation, Office of Traffic Safety.

II. Current State of Traffic Safety in Strathcona County

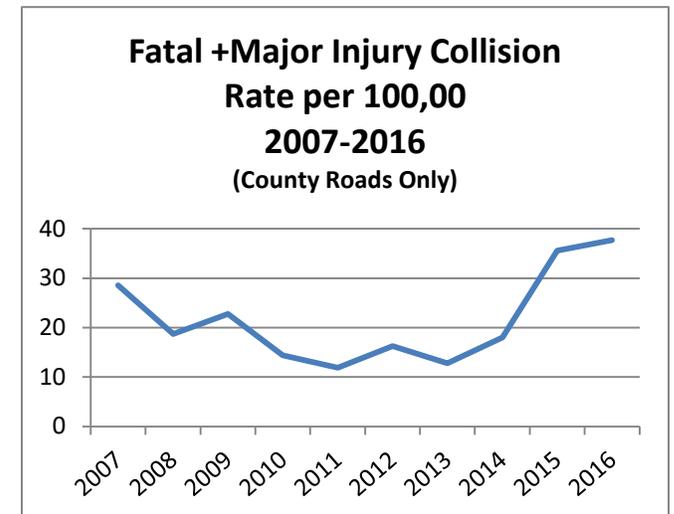
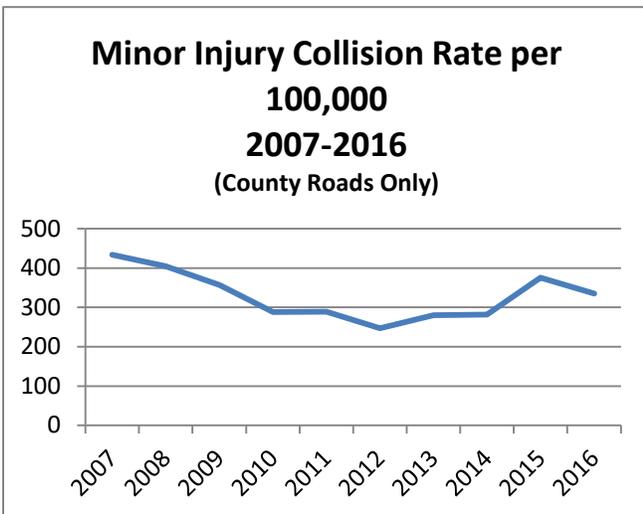
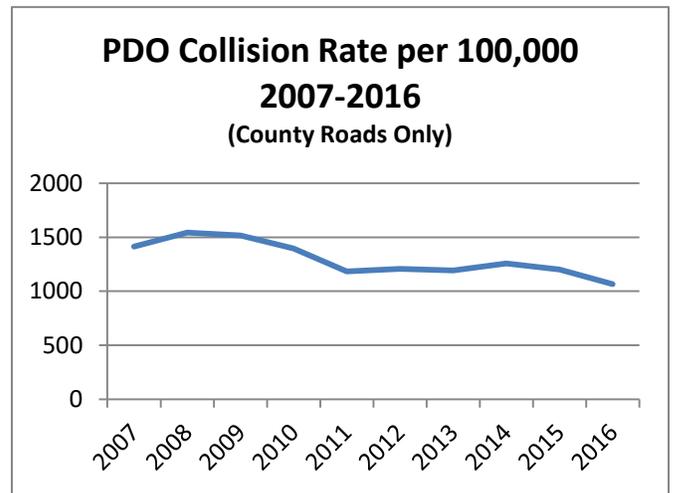
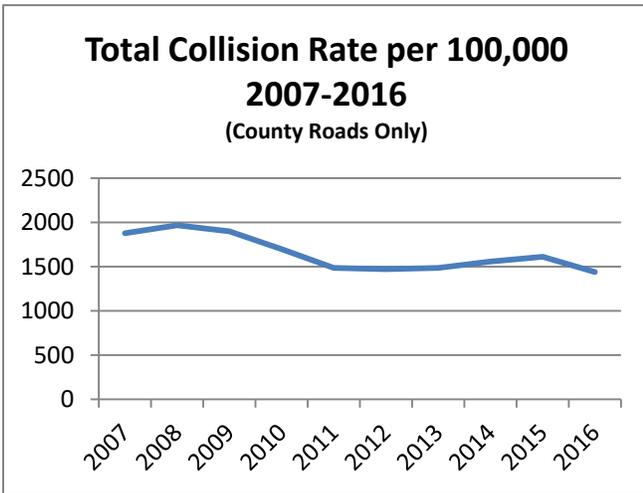
A. Collision Trends

Based on data presented in the *2016 Strathcona County Traffic Collision Statistics Report*, several trends can be identified.



- Generally, there was a decrease in both number and rate of collisions across all roads within Strathcona County between 2007 and 2016.
- However, when broken out by collision types, there was a significant decrease in Property Damage Only (PDO) collisions, a slight decrease in Minor Injury Collisions and a significant increase in Fatal/Major Injury Collisions.

- This trend is stronger on County-owned roads when statistics are separated out, excluding provincial highways.



- Deeper analysis of collisions on County-owned roads shows property-damage-only collisions have dropped substantially in the urban area, while at the same time increasing in rural areas.
- Minor injury collisions have remained fairly constant over the last five years in the rural area, while there has been an increase of about 30% in the urban area.
- The number of fatal and major injury collisions is increasing more in the urban than the rural area.
- The rate of collisions that take place at intersections is increasing, particularly those that involve major injuries.
- Sherwood Drive has four of the top intersections for fatal/major injury collisions; four on Wye Road, and one on Baseline Road.
- Vulnerable road users (pedestrians, cyclists and motorcyclists) are over-represented in collision statistics.
- The vast majority of fatal and major crashes happen on the arterial road network: between 2007-2016 there were 59 fatal crashes, 58 on the arterial network.
- Preliminary 2017, collision analysis shows this trend is continuing.

The following map illustrates the locations of fatal and major injury collisions in the urban areas of Strathcona County from 2015-2017.

**FATAL AND MAJOR INJURY CRASHES
(2015-2017)**

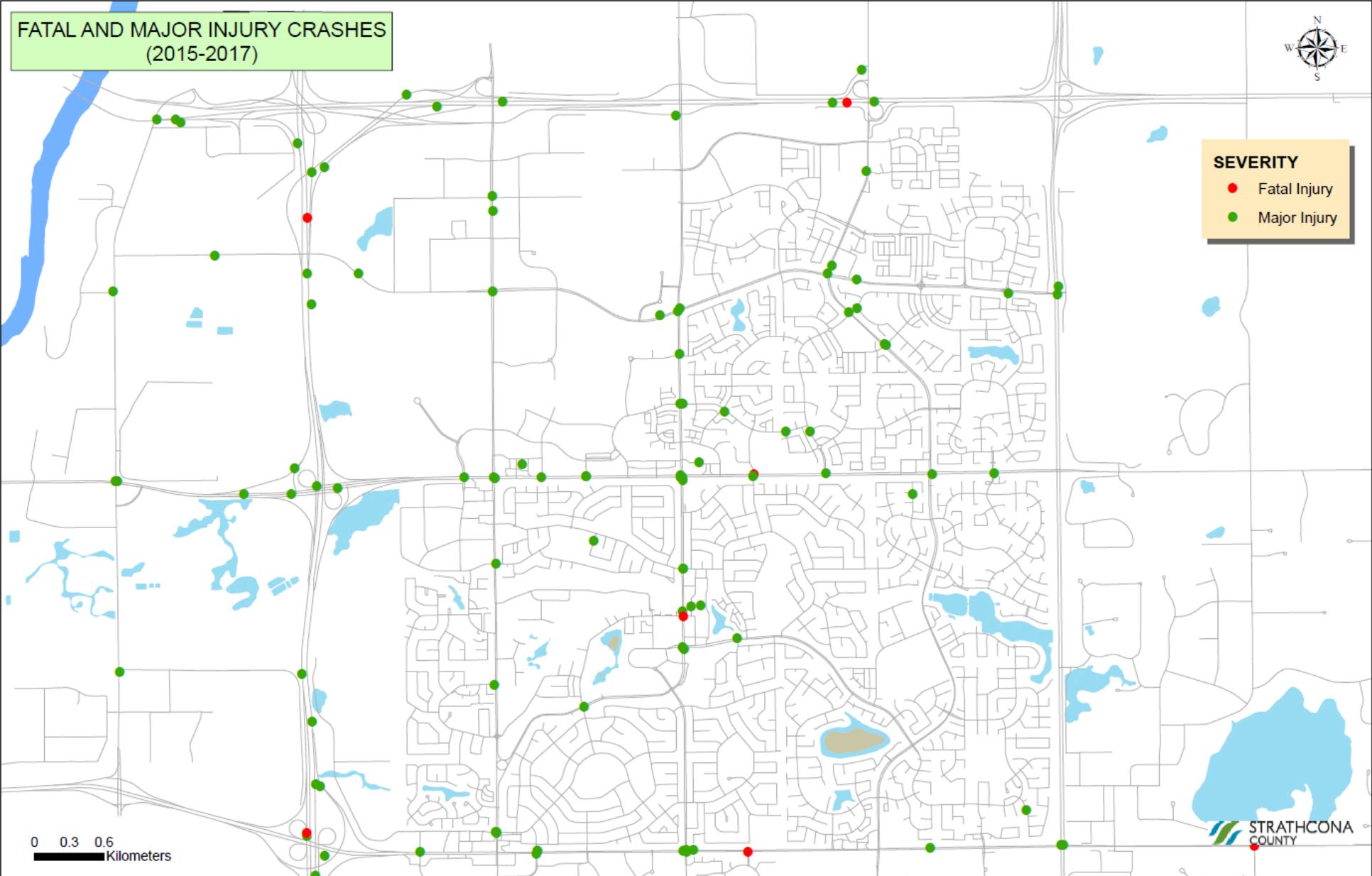


SEVERITY

- Fatal Injury
- Major Injury

0 0.3 0.6
Kilometers

 STRATHCONA
COUNTY



B. Trends in Resident Perspectives

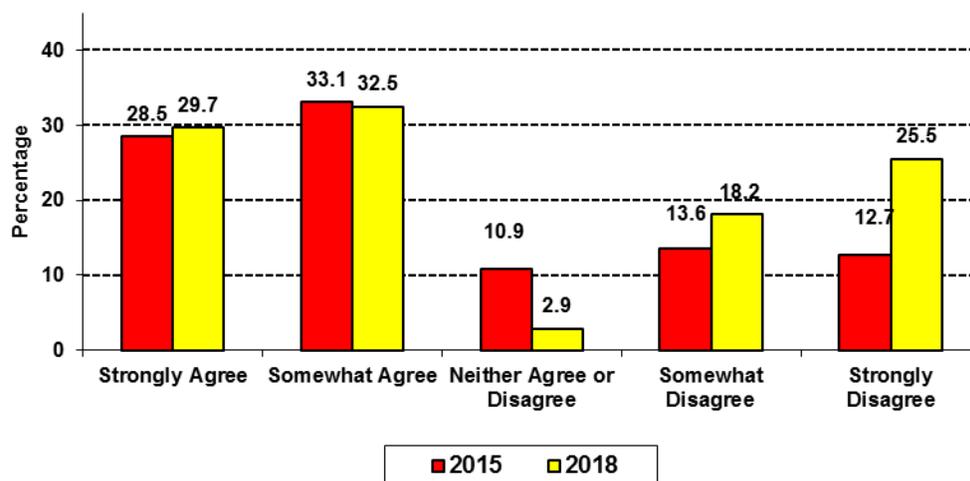
Results from the Traffic Safety Survey administered online in January 2018 were used to establish resident perception. This online survey represents the view of 1,246 respondents.

It must be noted that the online survey format has limitations for the interpretation of opinion trends as the sampling method is not random and resident self-select to participate in the survey.

Based on the data collected from the 2018 Traffic Safety Survey, the following trends are noted:

- Increase in the reported acceptability of rolling through a stop sign and speeding up to make a yellow light.
- About 1/3 of residents persistently believe they only need to slow down in a construction zone when workers are present.
- About half of residents persistently report that it is safe to drive 5-10 km/h over the speed limit on a main road.
- In the 2015 survey, 6.3% increase in the number of residents rating traffic safety as “Very Safe” or “Somewhat Safe” in Strathcona County.
- General polarizing of resident opinions, with fewer residents tending to choose the “Neither Agree or Disagree” option when responding to questions regarding their support of traffic safety initiatives (traffic calming, red light cameras, traffic enforcement, engagement, working to make roads safer). Generally, more of these residents are choosing to shift to the negative side versus the positive.
- Decrease in residents reporting a concern with neighbourhood traffic.

Figure 2: Resident Responses: “I support the use of traffic calming in Strathcona County



III. Targets and Results

A. Traffic Collision Data

Strathcona County’s TSSP 2020 sets out the following target for roads that are owned and maintained by Strathcona County:

The average annual rate of combined fatal and major injury collisions per 100,000 population from 2018 to 2020 will be reduced by 15 percent compared to the average rate from 2011 to 2013. The average number of fatal and major injury collisions from 2018 to 2020 will be reduced by 15 percent compared to the average number of collisions from 2011 to 2013.

Table 1: Average Annual Rate of Combined Fatal and Major Injury Collisions per 100,000 population on County-owned Roads

Years	Average Annual Crash Rate (Combined Fatal and Major Collisions)	Average Annual Number of Fatal and Major Collisions
2011-2013	13.66	12.67
2012-2014	15.69	14.67
2013-2015	22.13	21.00
2014-2016	30.43	29.33
2015-2017	35.70	35.00
<i>TSSP Target 2018-2020</i>	<i>11.5</i>	<i>10.8</i>

Clearly, the actions we have taken to date are not resulting in a decline in fatal and major injury crashes on Strathcona County roads.

For provincial highways in Strathcona County, the TSSP sets out the following target:

For Provincial Highways in Strathcona County: Work cooperatively with Alberta Transportation to improve traffic safety and help meet provincial safety targets.

Strathcona County continues to work closely with the province and supports them in all safety initiatives.

B. Resident Perceptions of Traffic Safety

Strathcona County recognizes that resident perceptions are also an important outcome in traffic safety. With regards to resident perceptions of traffic safety, the TSSP 2020 sets out the following targets:

15% increase in those rating traffic safety in Strathcona County as “Very Safe” or “Somewhat Safe”, and those who “Strongly Agree” or “Somewhat Agree” that Strathcona County is always working to improve traffic safety.

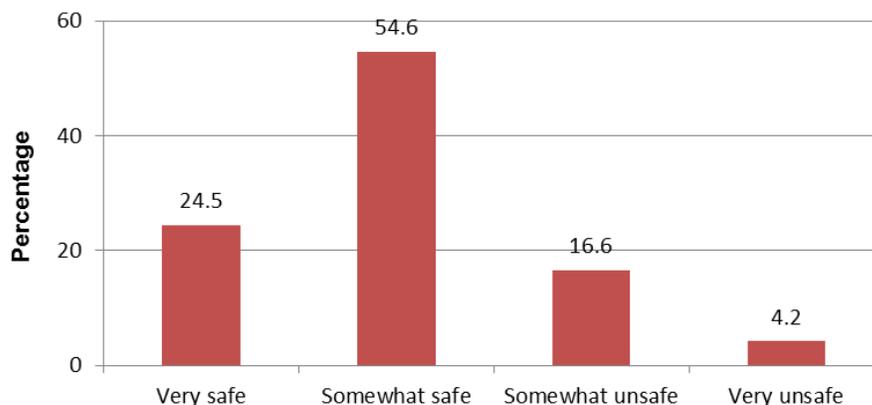
Table 2: TSSP 2020 Targets for Resident Perception Outcomes*

Base Condition 2013 Resident Survey		Target 2020 Resident Survey	
Percent of Residents Rating Traffic Safety in Strathcona County as Safe	Percent of Residents who Agree that Strathcona County is working to improve road safety	Percent of Residents Rating Traffic Safety in Strathcona County as Safe	Percent of Residents who Agree that Strathcona County is working to improve road safety
77.0%	67.6%	88.5%	77.7%

*Note the 2013 data we are measuring against was based on a survey sample of half online and half random telephone respondents. The 2018 survey sample was entirely online, thus comparisons are limited and statistical significance cannot be determined.

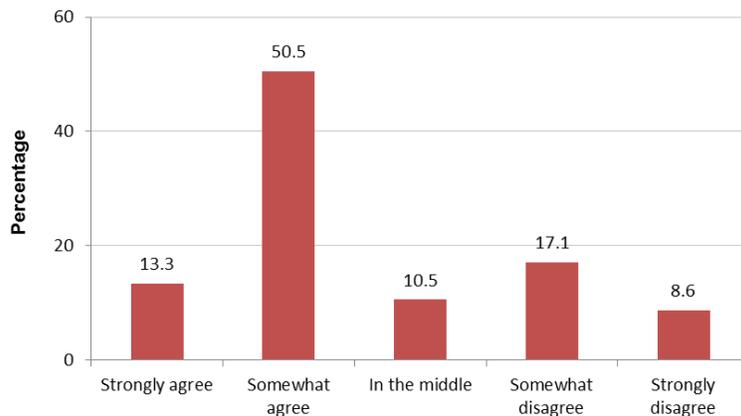
In the January 2018 Traffic Safety Survey, 79.1% of residents rated traffic safety in Strathcona County as “Very Safe” or “Somewhat Safe”. This represents a 2.1% increase from the 2013 survey.

Figure 3: Resident Responses: “Overall, how would you rate the state of traffic safety in Strathcona County?”



In the January 2018 Traffic Safety Survey, 63.8% of residents rated traffic safety in Strathcona County as “Very Safe” or “Somewhat Safe”. This represents a 3.8% decrease from the 2013 survey.

Figure 4: Resident Responses: “Strathcona County is always working to improve road safety”



C. Comparison with Other Municipalities

It is difficult to directly compare with other municipalities due to the rural/urban nature of Strathcona County. Rural grid roads are high speed roads with the majority of intersections at-grade compared with larger municipalities where high speed roadways are grade separated and set in urbanized areas. At grade intersections experience relatively more crashes with higher severity than grade separated intersections. More highly urbanized areas tend to have a greater concentration of pedestrians and cyclists than suburban contexts such as Sherwood Park.

The City of St. Albert produces a detailed collision report that offers some comparisons. Generally, St. Albert has experienced a similar overall collision trend as Strathcona County, with a decline in collisions through 2011-2014, and a sharp increase in collisions in 2015 and 2016.

Figure 5: St. Albert Collision Statistics per 1,000 Population³



Similar to Strathcona County’s experience, St. Albert reports a doubling of injury collisions between 2015 and 2016. St. Albert’s fatal and injury collision rate is less than the rate on all roads in Strathcona County, but higher than the rate on County-owned roads.

Table 2: Collision Rate Comparison between Strathcona County, Edmonton and St. Albert

Municipality	Collisions per 1,000 population		Fatal and Injury Collisions per 1,000 population	
	2015	2016	2015	2016
Strathcona County-all Roads	25.22	22.22	4.11	3.73
Strathcona County-owned Roads	16.12	14.40	6.29	5.74
St. Albert	Not reported	23.71	Not reported	4.13
Edmonton ⁴	28.5	24.8	3.42	2.87

Edmonton’s rate of fatal and injury collisions is 23% lower than Strathcona County’s rate on County-owned roads. The City of Edmonton adopted a Vision Zero strategy in September of 2015. They have been at the forefront of the international trend towards adoption of Vision Zero and the Safe System approach since 2006.

³ Taken from St. Albert Traffic Collision Statistics, 2016. P.18. Available at https://stalbert.ca/uploads/PDF-reports/PE-Trans_Collision-Report-2016.pdf

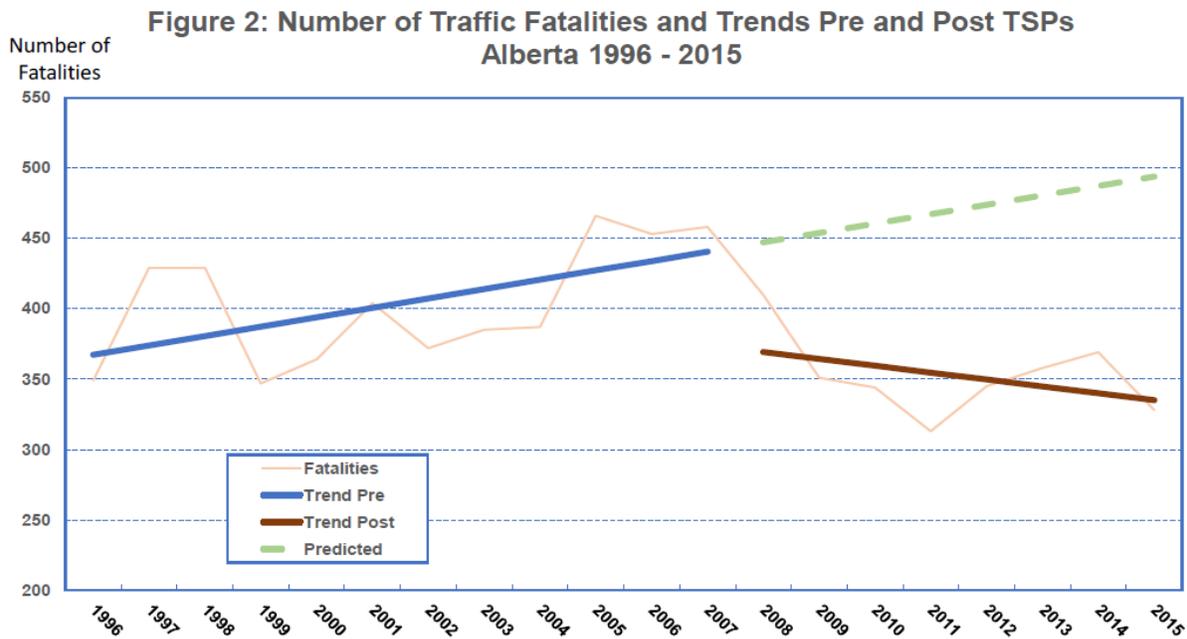
⁴ Taken from Edmonton’s 2016 Motor Vehicle Collisions report, available at <https://www.edmonton.ca/transportation/RoadsTraffic/2016MVCAnnualReports.pdf>

Edmonton reports a 56% decrease in the absolute number of injury collisions from 2006-2016, despite a large increase in population. Over the same timeframe, Strathcona County experienced a 10.2% increase in injury collisions on all roads within Strathcona County and a 4.6% increase on County-owned roads.

Table 3: Change in Number of Collision Injuries 2006-2016- Strathcona County and Edmonton

Municipality	Number of Injury Collisions 2006	Number of Injury Collisions 2016	% Change
Edmonton	6,067	2,656	56% decrease
Strathcona County- all Roads	511	563	10.2% increase
Strathcona County- owned Roads	350	366	4.6% increase

The following figure was taken from the report “The Impact of Alberta’s Traffic Safety Plans 2007”⁵, and it illustrates traffic fatality trends in the province from 1996 to 2015.



This graph shows a similar shape to Strathcona County’s overall collision trend, with a decline in fatalities through 2011-2013, with a sharp increase in collisions in 2015.

⁵ available from the Alberta Transportation, Office of Traffic Safety.

IV. Traffic Safety Strategies and Programs

To date, 9 of 12 strategies outlined in the TSSP are developed and implemented.

Strategy 1: Traffic Safety Data Collection, Analysis and Management Program

Strathcona County’s Traffic Crash Location System (TCLS) has been implemented and forms the basis for all crash data analysis in Strathcona County. Information available in TCLS lags approximately seven months from the time of collision, as data is manually entered, once received from the police.

Strathcona County is in the process of transitioning to the new provincial E-Collision reporting system. Once in place, the data from E-Collision will be received electronically, which will be more accurate and provide information much faster than the manual entry system currently used. This will allow us to be more responsive to safety concerns on our road network.

Strategy 2: Road Network Screening Program

One of the fundamental tenets of the Safe System approach is making evidence-based decisions to improve road safety. Our Traffic Safety Engineer screens both the rural and urban County-owned networks to identify and rank specific sites where programs or infrastructure improvements have the potential to reduce the number of crashes.

In addition to mining collision data, the Transportation and Agriculture Services and Transportation Planning and Engineering Departments work together to collect and analyze traffic data on our road network, including speed and volume studies, pedestrian crossing warrants, traffic control warrants (signals, stop signs) and noise studies.

The information collected through collision data and traffic studies (supplemented by best practice research) drives traffic safety and management decisions in Strathcona County, such as rural road classification, and appropriate locations for the addition of Intersection Safety Devices, stop signs or traffic signals.



Strategy 3: Integrated Safety-Focused Enforcement Program

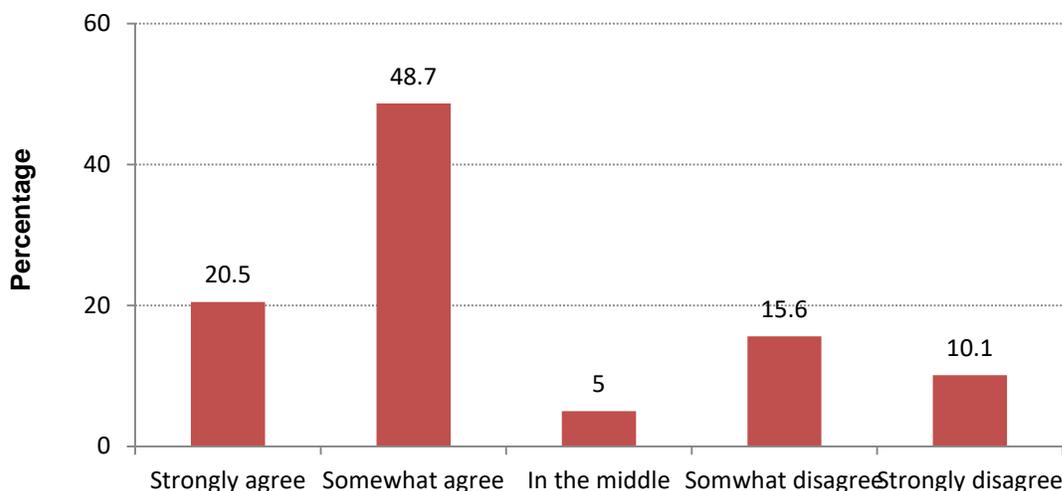
Strathcona County's Integrated Traffic Unit (ITU) is composed of 19 dedicated traffic officers, including Community Peace Officers (CPO's), RCMP members and Provincial Sheriffs. The ITU is increasingly data driven. The ITU works with its engineering partners to identify high risk locations and behaviours for enforcement efforts.



In keeping with the Safe Systems approach, speed and intersections are key focus areas.

Generally, traffic enforcement is well-supported by the residents of Strathcona County.

Figure 6: Level of Agreement with "Traffic enforcement in Strathcona County makes our roads safer" (2018 Traffic Safety Survey)



In 2017, 22,900 traffic violations were issued in Strathcona County. The ITU completed 423 traffic operations, including 81 Joint Force Operations in collaboration with neighbouring police services.



During traffic stops in 2017, police apprehended:

52 *suspended drivers*

176 *drivers with no insurance*

247 *drivers without a license*

822 *impaired operation of a motor vehicle investigations initiated*

Community Peace Officers (CPOs) are recognized as leaders in the province in Commercial Vehicle Safety Assessments. This work is particularly valuable in our community due to the significant amount of commercial vehicles traffic generated by the Industrial Heartland. Officers conduct patrols to protect Strathcona County's infrastructure as well as protecting the public from unsafe commercial vehicles.



Unsafe commercial vehicles taken out of service

Strategy 4: Integrated Public Education and Social Marketing Program

Strathcona County's Traffic Safety Communication Plan developed in 2013 continues to guide traffic safety messaging in the community. In addition, to regularly scheduled safety messaging, public education and social marketing are used to support traffic-related engineering and enforcement initiatives.

January	February	March	April
Intersection Safety 	Medically At Risk Drivers Distracted Driving	Occupant Restraints 	Cycling Safety Construction Zone Safety ATV Safety
May	June	July	August
Child Seats Motorcycle Safety	Speed Commercial Vehicle Safety	Intersection Safety 	Rural Driving Safety
September	October	November	December
Back to School/ Pedestrian Safety 	Halloween Safety Animal Strikes 	Winter Driving Safety Snowmobile Safety	Impaired Driving

In 2017, eight Facebook posts (155 reactions, 92 shares) and 12 Tweets (84 retweets, 67 likes) reflecting the traffic safety calendar were released through social media. Strathcona County also has several Community Peace Officers who tweet about traffic safety on a regular basis.



We are looking for fresh and innovative ways to educate around traffic safety. Our Residential Traffic Safety Campaign was awarded the Most Innovative Public Education Award from the Vision Zero Institute. Supporting the community group, Community Action on Residential Traffic Safety (CARTS) to distribute their message about residential speeding was more

engaging and well-received by residents than traditional messaging.

The Option 4 initiatives undertaken with the RCMP and Enforcement Services were very well received and effective. Option 4 is an alternate option from the existing three options listed on the back of a violation notice. Recipients of the ticket are given the option to attend an information session in lieu of paying the fine received. The sessions provided Strathcona County with 90 minutes to talk directly with known offenders about traffic safety in our community. In total, 443 people attended eight Option 4 presentations in 2017.

74% of participants in the Residential Speeding Option 4 felt material presented would change the way they drive on neighbourhood streets.

97% of participants in the Stop Sign Option 4 reported that they would be more likely to stop fully at stop signs after attending the session.



Driver feedback signs are also used to educate drivers regarding their travelling speed and to encourage them to drive within the speed limit. In 2017, signs were posted at 32 urban locations and nine rural locations for an average of 3-4 weeks per location.

Rural pedestrian safety was a focus in 2017. Strathcona County partnered with Shell Canada to distribute over 1,000 pedestrian safety lights during the Christmas in the Country and Christmas in the Heartland events to educate residents about pedestrian visibility. A further 7,500 lights were distributed to all rural bus students to encourage them to be seen while waiting for their buses during low light months.

Strategy 5: In-Service Road Safety Review Program

In-Service Road Safety Reviews (ISRSRs) address the safety of all road users at crash prone or high risk locations. Priority locations are highlighted for review through our Network Screening Program, but can also be identified based on a resident or Councillor concern/request. Our recently completed 2017 Intersection Safety Action Plan identifies several locations of concern that will be investigated through future ISRSRs.

In 2017, an ISRSR conducted at Clover Bar Road and Davidson Drive resulted in the removal of vegetation that was causing a sightline issue and made some suggestions for short-term strategies to improve pedestrian safety (ie. paint, education strategies). It also makes some longer term suggestions for infrastructure improvements that will be added to priority lists for future construction.

Strategy 6: Neighbourhood Traffic Safety Strategy

Strathcona County invested a great deal of resources in addressing resident concerns about neighbourhood traffic safety in 2015 through 2017.

In May 2017, Council approved the Neighbourhood Traffic Safety Action Plan (NTSAP). The NTSAP sets out eight specific actions based on resident priority and best practice. These actions have been designed to be realistic, sustainable and actionable by December 2018 in order to provide measureable improvement in the safety and livability of our neighbourhoods. Administration will present the outcomes of the NTSAP to Council in Q4 2018.

As part of the NTSAP, the RCMP and Enforcement Services are piloting a new program called Neighbourhood Traffic Safety Initiatives (NTSIs), where specific neighbourhoods are targeted for intensive policing operations for one month in

addition to regular neighbourhood patrols. In 2017, Community Peace Officers spent 167.5 hours participating in NTSIs in seven neighbourhoods.

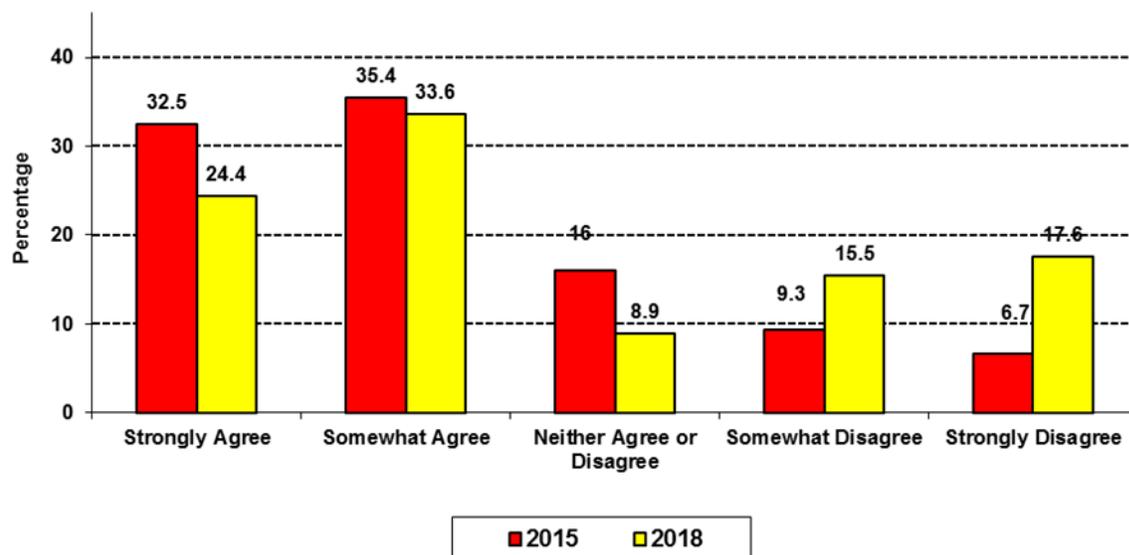
Also as a result of the NTSAP, pedestrian upgrades are being installed at playgrounds and school zones in conjunction with regular rehabilitation. In 2017, upgrades were constructed on Parker Drive (Woodbridge Farms School), Craigavon Drive and Nottingham Boulevard.

In addition to NTSAP specific initiatives, there are several other traffic safety projects continuing in residential neighbourhoods. Construction of traffic calming features took place in Glen Allan (Glenbrook and Gatewood Boulevards) and on Jim Common Drive North and South. Residents were also engaged in a traffic calming project in the neighbourhoods of Davidson Creek and Clarkdale Meadows. Implementation of approved traffic calming plans will begin in 2018 in these two neighbourhoods.

School-related traffic safety remains a concern with County residents and a priority for Strathcona County. Through the Strathcona County School Traffic Safety Partnership, we engage with schools, parents and students to improve traffic safety at all schools. Strathcona County is working closely with Elk Island Public Schools during the planning and construction of the new Davidson Creek and Heritage Hills (Wye) Schools.

In the January 2018, Traffic Safety Survey results suggest efforts in neighbourhood traffic management have resulted in an increased confidence in neighbourhood traffic safety.

Figure 7: Resident Responses: "I believe traffic safety is a concern in my neighbourhood"



Strategy 7: Road Safety Audit Program

Road Safety Audits (RSAs) are safety-focused, multi-modal reviews conducted during the planning and design stages of new road or development projects.

In Strathcona County, road safety audits are now required at the design phase for any new arterial road. These audits are performed by independent consultants.

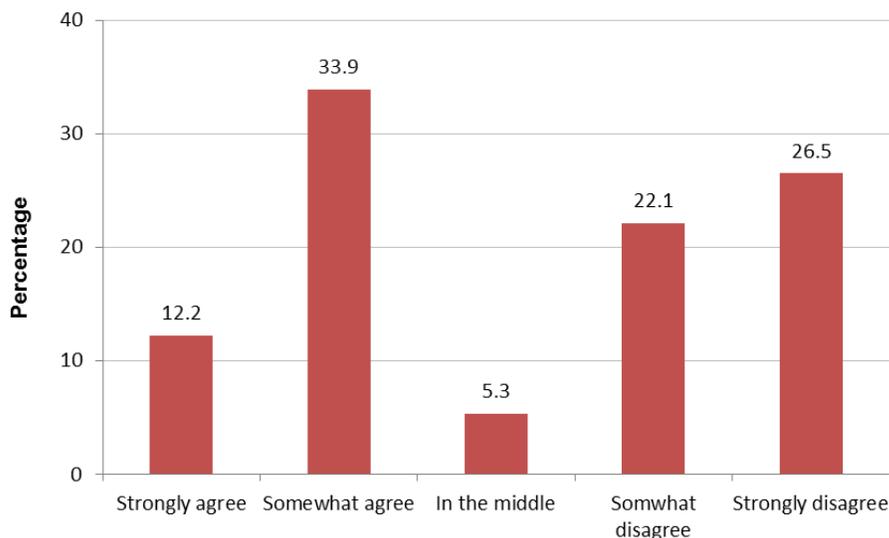
All new development in Strathcona County is reviewed by professional engineers in Transportation Planning and Engineering as well as experts in Planning and Development Services to ensure compliance with Strathcona County's Design and Construction Standards, as well as to identify any potential safety concern.

Strategy 8: Intersection Safety

Strathcona County recently completed an Intersection Safety Action Plan with the goal of identifying specific actions Strathcona County will take to increase intersection safety. Through 2018, Strathcona County will be moving forward with the implementation of these important actions.

The RCMP and Enforcement Services department manages our Intersection Safety Device (ISD) Program. Despite a growing body of research that suggests ISDs are effective safety tools when applied appropriately, residents in Strathcona County are mixed in their support of them.

Figure 8: Level of agreement: "Red light cameras make intersections safer" (2018 Traffic Safety Survey)



Strathcona County currently operates ten ISDs at eight intersections. In 2017, 44,293,674 vehicles were monitored by the cameras. Speed offences were detected in 0.037% of vehicles and 0.0017% of vehicles violated the red light.

A program has been developed for the installation of ISDs that improves transparency and accountability of their application that will facilitate the expansion of the ISD program.



1/59 058

Vehicles monitored by ISDs
commit a red light violation

There is extensive evidence that protected left-hand turn signal phases improve intersection safety. At Wye Road and Sherwood Drive, there was a 75% reduction in left-turn-across-path collisions after the implementation of protected left turn only phases. Safe system based left turn signal assessment warrant guidelines were developed in 2017, and Transportation Planning and Engineering is working to bring our network into compliance. Protected left turns are now best practice wherever double left turn lanes exist.

In 2017, Strathcona County discontinued the use of signals in flash at off peak times in order to improve intersection safety. Two new signals became operational at Lakeland Drive/Aspen Trail and Palisades Avenue/Sherwood Drive. Overhead amber flashers were also installed to improve pedestrian safety at Bethel Drive/Bethel Way.

Rapid Rectangular Flashing Beacons (RRFBs) were also added at Crystal Lane/Jim Common Drive and Oak Street/Beauvista Drive to improve pedestrian safety. They were also added at the intersection of the multiuse trail crossing on Jim Common Drive North.

Strathcona County has a well-established access management program to ensure that any access onto our rural roads meets well-defined design and construction standards to ensure that safety and drainage requirements are met.

In 2017, 225 new and existing rural access inspections were conducted by Transportation and Agriculture Services.



Strategy 10: Work Zone Safety Strategy

Strathcona County has invested significant resources to improve work zone safety over the past two years. All work completed within the road right-of-way requires a Right-of-Way Construction Activity Permit (ROWCAP). Work that requires temporary traffic control (TTC) must include a TTC plan. Strathcona County updated their TTC Manual in 2016 as a resource for those developing TTC plans.

In 2016, a full-time Right-of-Way Activity Technologist was hired in Transportation and Agriculture Services (TAS) to manage ROWCAP applications, and another position was created to proactively monitor ROWCAP sites for compliance with their ROWCAP and TTC during the construction season.

A full-time Traffic Support Aide works in TAS to safely move over-dimensional and over-weight commercial vehicles through Strathcona County in a way that is safe for other road users and our infrastructure.

Further resources were added to workzone safety during the 2017 realignment of the Infrastructure and Planning Services division, resulting in the creation of a full-time Supervisor, Right-of-Way Management position. Another full-time Right-of-Way Activity Technologist position is budgeted for 2018.



In 2017, the Right-of-Way Management branch of completed:

572 *Right-of-Way Construction Activity Permits (ROWCAP)*

119 *ROWCAP Extensions*

145 *Road Use Agreements*

1065 *ROWCAP Inspections*

V. Next Steps 2018

Based on the information presented in this document, the priority projects for traffic safety in 2018 are:

- Better alignment of resources towards evidence-based, data driven engineering, enforcement, and education initiatives to improve traffic safety.
- Improve data sharing regarding high collision locations with internal stakeholders.
- Complete actions identified in our Intersection Safety Action Plan
 - Continue to bring our signals into compliance with the protected left turn guidelines
 - Undertake ISRSRs at our worst performing intersections, with specific attention to the Wye Road and Sherwood Drive corridors
 - Expand ISD program as appropriate
- Update the Traffic Safety Communication Plan
 - Move away from topic specific messaging towards more general messaging about the Safe System approach and the theory behind traffic safety initiatives.
 - Build social capital to support Safe System strategies internally and with residents.
- Development of a Vulnerable Road User Strategy
- Development of a Rural Road Safety Strategy
- Continue to implement actions in Neighbourhood Traffic Safety Action Plan
- Maintain and grow strategies which have been implemented to date