



STRATHCONA  
COUNTY

Neighbourhood  
Traffic Safety  
Action Plan

2017

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## Executive Summary

In Strathcona County, the majority of traffic safety concerns voiced by residents are related to neighbourhood traffic - primarily traffic speeds. The Neighbourhood Traffic Safety Action Plan 2017 (NTSAP) recommends the following actions to address these concerns:

Action #1: Research a residential speed limit decrease, including the results from other jurisdictions who have implemented the practice to recommend a best course of action for our community.

Action #2: Improve traffic monitoring on residential roads (link to Action #4).

Action #3: Upgrade pedestrian facilities at multiuse trail crossings, playgrounds, schools and key pedestrian corridors. Include physical traffic calming features (such as raised features, refuge islands, and/or curb extensions) in conjunction with scheduled rehabilitation as appropriate.

Action #4: Formalize communication between RCMP and Enforcement Services, Transportation Planning and Engineering, and Transportation and Agriculture Services to facilitate data sharing (link to Action #2).

Action #5: Consider alternative resourcing and delivery models for residential traffic enforcement in a way that is responsive to resident needs while minimizing impacts to arterial enforcement operations.

Action #6: Expand the Driver Feedback Sign Program and explore new ways to integrate the signs to support data collection and strategic enforcement.

Action #7: Update the Traffic Safety Communication plan to include a residential traffic safety component. Engage with residents to develop messages and to help with the reach of the education program (link to Action #8).

Action #8: Engage residents to develop new and innovative ways to get neighbourhoods involved in residential traffic safety.

Neighbourhood traffic safety is important to Strathcona County residents. 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.

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## **A. Introduction**

In Strathcona County, the majority of traffic safety concerns voiced by residents are related to neighbourhood traffic, primarily traffic speeds. Neighbourhood Traffic Safety is specifically identified as a strategy area in the County's Traffic Safety Strategic Plan 2020. In April 2013, Strathcona County adopted SER 009-040 Traffic Calming, and in January 2014, Strathcona County introduced its first Neighbourhood Traffic Safety Strategy. While there has been some success in the implementation of these two initiatives, resident concern with neighbourhood traffic safety has remained essentially unchanged.

The goal of this Neighbourhood Traffic Safety Action Plan 2017 (NTSAP) is to improve safety and livability of Strathcona County's residential areas. The plan also aims to increase resident engagement in residential traffic safety.

This NTSAP will provide an overview of the current state of traffic safety in Strathcona County. It will outline current neighbourhood traffic safety initiatives in the County, identify priority areas for residential traffic management and recommend further actions to address neighbourhood traffic concerns.

### **I. Development of the Neighbourhood Traffic Safety Action Plan (NTSAP)**

Development of the NTSAP 2017 included analysis of traffic collision and speed/volume data. Data was also collected regarding enforcement operations in residential areas.

Analysis of resident perspectives was based on results of the 2015 Traffic Safety Survey (950 responses), a review of residential traffic safety complaints, as well as public engagement undertaken in recent traffic calming projects in the County.

Analysis of data was supplemented by a literature review of best practices in residential traffic safety and an environmental scan of residential traffic safety initiatives in other municipalities.

This information was all brought together in a draft NTSAP in 2016. This draft was presented to residents in a series of focus groups. Fifty-six residents participated in the focus groups, representing 16 different urban neighbourhoods, two rural hamlets (Ardrossan and South Cooking Lake) and a rural subdivision. Input from these groups was used to finalize the NTSAP 2017.

## **B. Current State of Neighbourhood Traffic Safety**

### **I. Engineering perspective**

#### ***Residential Collision History***

Collision data in Strathcona County is regularly screened for the entire transportation network. In the last 10 years (January 1, 2007- December 31, 2016), there has been one fatal collision on a residential street. In the same timeframe, 59 fatal collisions occurred outside of residential neighbourhoods.

In the last 10 years (January 1, 2007- December 31, 2016), there have been 347 collisions in Strathcona County which resulted in a major injury(s). Eighteen (5%) of these collisions occurred in a residential neighbourhood. Six involved motorcycles, one involved a cyclist and three involved a pedestrian. Two involved an impaired driver

#### ***Pedestrian Collision History***

Many residential concerns received by the County and the RCMP are related to pedestrian safety. Specifically, residents often voice concerns that a child will be struck by a speeding vehicle.

In the last ten years (January 1, 2007- December 31, 2016), there were 117 collisions reported in Strathcona County involving pedestrians. Two of these were fatal, and 15 resulted in major injuries to the pedestrian requiring hospitalization. Twenty-five percent occurred in darkness.

Thirty-one of the pedestrian collisions (26%) occurred in residential areas, involving 32 pedestrians. Six of these collisions (5% of all pedestrian collisions) involved pedestrians less than 12 years of age. Another nine (8%) involved teenaged pedestrians. All other pedestrians (15) involved in residential collisions were between the age of 20 and 62 (age of two pedestrians is unknown).

One residential pedestrian collision was fatal, and the victim was an adult. This collision involved a right hand drive service vehicle and speed was not involved. Two involved major injuries.

In 22/30 (73%) of collisions the driver was at fault. In one collision, the fault was undetermined. Table 2 provides a breakdown of the driver actions involved in residential pedestrian collisions.

Table 1: Driver actions for pedestrian collisions in residential areas

Driver action	Number of collisions
Driving Properly	8
Back Unsafely	3
Fail to yield Right of Way	12
Ran off road	2
Sideswipe	2
Impaired	1
Unknown/Other	3
<b>Total Residential Pedestrian Collisions (January 1, 2005- December 31, 2014)</b>	<b>31</b>

### ***Bicycle Collision History***

In the last ten years (January 1, 2007- December 31, 2016), there were 107 collisions reported in Strathcona County involving cyclists. One of these was fatal, and 7 resulted in major injuries to the cyclist requiring hospitalization.

Thirty of 107 collisions involving a cyclist (28%) occurred in a residential area. One cyclist sustained a major injury. The majority of the collisions occurred at an intersection where the driver or cyclist failed to yield the right of way.

### ***Traffic Speed and Volume Data***

Transportation and Agriculture Services periodically collects speed and volume data on residential roads in order to monitor the safety of the network. If no recent data is available for a location identified as an area of concern by a resident or an elected official, speed and volume data will be collected to investigate the concern.

Historically, residential speed data collected in Strathcona County usually indicates a very small percentage of drivers who drive at high speeds through neighbourhoods (>15 km/h above the posted limit). Increasingly, speed and volume data collected on residential roads in Strathcona County reveals that traffic is moving faster on residential roads. This is particularly true on urban collector roads that were built in the 80s and 90s, where design standards of the time resulted in the construction of roads that were overdesigned for the speed limit.

Higher speeds are a concern as speed is one of the key risk factors for pedestrian traffic injury (see III. *Current research and trends in neighbourhood traffic safety*). Newer neighbourhoods have been designed to lower speeds and often have traffic calming features already incorporated. These roads tend to have lower average and 85<sup>th</sup> percentile speeds than older roads.

## II. Enforcement perspective

The RCMP and Enforcement Services regularly receive residential speeding complaints. The Integrated Traffic Unit investigates all complaints. Patrols are conducted in the location of concern, and speed and volume data are obtained from Transportation and Agriculture Services. In locations where a speeding concern is reported, a Strategic Traffic Enforcement Plan (STEP) file is opened, and the location will be regularly patrolled until the problem is resolved. However, the frequency and intensity of speeding on residential roads is generally too low to warrant ongoing patrols.

Table 2: Strategic Traffic Enforcement Plan (STEP) files- January 2011- December 2016\*

<b>Year</b>	<b>Total # of STEP Files</b>	<b># of Residential</b>	<b># of School/Playground Zones</b>
2011	12	2	6
2012	78	9	9
2013	104	12	13
2014	110	37	12
2015	93	31	9
2016	100	33	12

\*Note the increased number of STEP files is largely due to the removal of mobile photo radar units from the County and the addition of 5 traffic members.

Between January 1, 2011 and December 31, 2016, 11% of traffic violations issued in the County were issued in residential areas.

High demand for residential traffic enforcement creates a dilemma for the Integrated Traffic Unit (ITU). The ITU strives to be data-driven and safety focused, focusing their resources where speeding and other infractions are endemic, or where enforcement is warranted by collision history. This disconnect between resident demand and collision statistics is an ongoing resourcing challenge for the ITU, particularly under a manned enforcement only model.

### III. Resident perspective

#### **What is a livable neighbourhood?**

Strathcona County's strategic vision is to be "Canada's Most Livable Community". Defining a livable neighbourhood from a traffic perspective was an important element of the engagement for the development of the NTSAP. The "wordle" below was created using 169 resident responses gathered through the NTSAP focus groups, the Jim Common Drive Traffic Calming Project and the Davidson Creek/Clarkdale Meadows Traffic calming project. A wordle gives greater prominence to words that appear most frequently in responses.

Figure 1: What one word would you use to describe a livable neighbourhood from a traffic perspective?

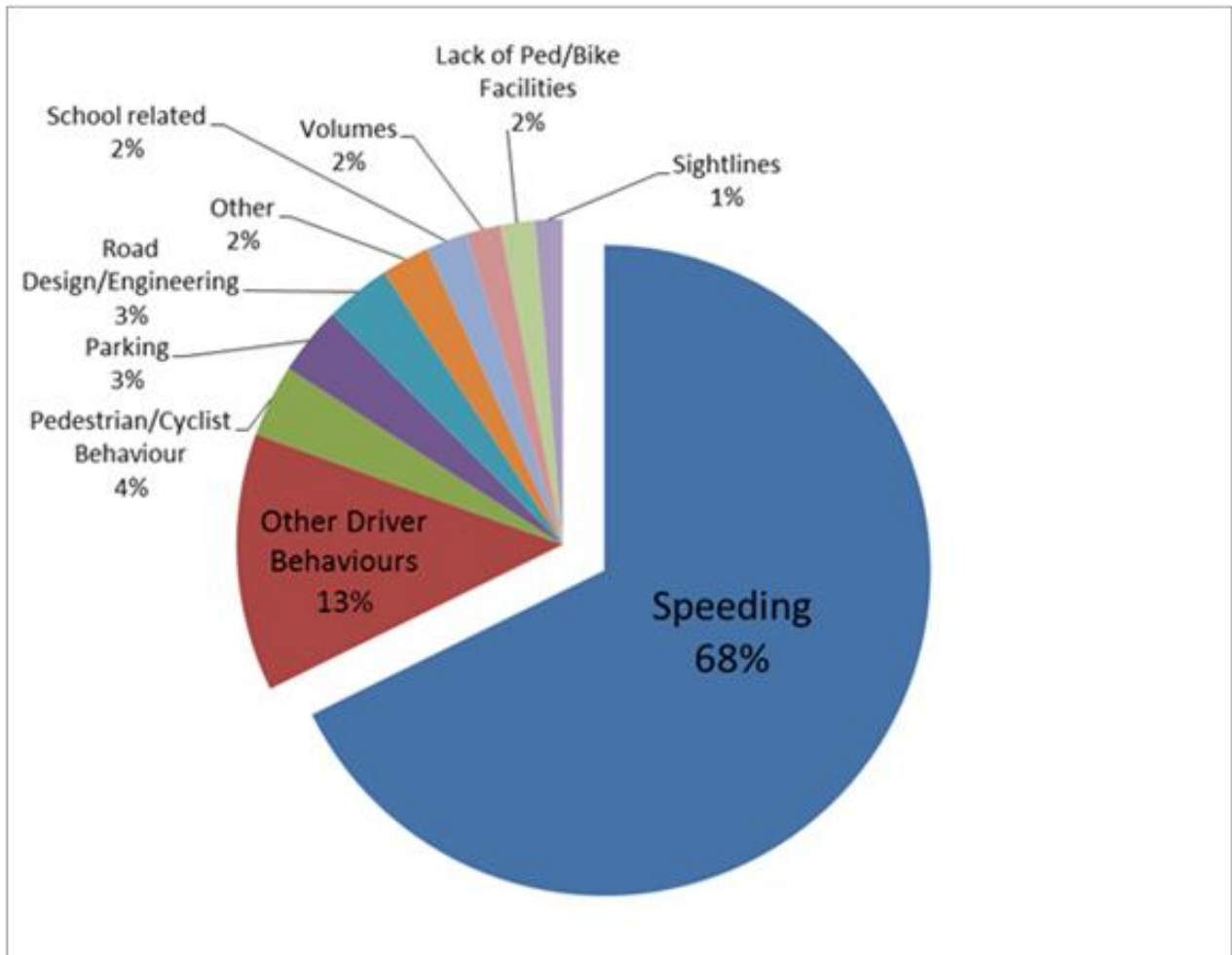


#### **Resident Concerns**

According to results of Strathcona County's Traffic Safety Survey (TSS), administered in both 2013 and 2015, the majority of residents in the County feel that traffic safety is a concern in their neighbourhood. This trend is strongest with urban residents with about 2/3 of residents agreeing with this statement. According to the 2013 TSS, speeding is perceived to be the number one safety issue on neighbourhood streets.



Figure 1: TSS results (2013): “What is your main concern (for those who agreed traffic safety is a concern in their neighbourhood?)”



Effectively all residents express that high level speeding has a significant negative impact on the safety and quality of life in their neighbourhood. In addition, a considerable number of residents express concern with vehicles driving at or just above 50 km/h. Low level speeding (<10 km/h above the posted speed limit) in neighbourhoods also generates a substantial number of complaints for the RCMP and Enforcement Services and traffic engineers.

While residents in Strathcona County express a lot of concern in playground zones in our community, many are also frustrated with the lack of consistency of speed limits in our neighbourhoods, with many collector roads fluctuating between 50 km/h and 30 km/h. Other residents spoke to what they feel is inconsistency in the use of stop/yield signs in the community.

Despite collision statistics that indicate residential roads are generally very safe, many residents do not feel safe in their neighbourhoods. It is very important to address this need to feel safe to improve the livability of our community.

### III. Current research and trends in neighbourhood traffic safety

Pedestrian safety research supports resident concerns with both high and low level speeding on residential streets. Speed is considered to be one of the key risk factors for pedestrian traffic injury (WHO, 2013). It is also one of the most manageable risk factors through effective use of proven countermeasures.

Figure 2: Pedestrian/vehicle collision outcomes based on speeds



\* Adapted from Manitoba Public Insurance

According to Corben, D'Elia & Healy (2006), the risk of a fatal pedestrian crash is estimated to fall by around 75% when a driver chooses 40 km/h instead of 50 km/h.

As a result of this research and the adoption of Vision Zero/Safe System philosophies (as has been adopted in Strathcona County's Traffic Safety Strategic Plan), many municipalities are opting to reduce speed limits in their residential areas. Some municipalities have chosen to reduce residential limits to 40 km/h, including Okotoks and Beaumont. Other municipalities have been more aggressive and opted to reduce speed limits to 30 km/h, including Airdrie. The City of Calgary is also considering reducing speed limits, and the Edmonton Federation of Community Leagues is advocating to the provincial government to lower residential default speeds across the province.

Reducing speed has been conclusively proven to improve safety for pedestrians. However, research conducted in Strathcona County and Edmonton has found that simply reducing a speed limit, without engineering and/or sustained enforcement to support the decreased limit, is ineffective in reducing actual operating speeds. In Strathcona County's pilot project on Mission Street, an average drop of 2 km/h was measured after speed reduction from 50 km/h to 40 km/h. This finding is consistent with published research, which indicates that speed limits on their own will have only modest effects on actual speeds (GRSP, 2008).



Traffic calming is the use of physical features to ensure roads function as intended (SER-009-040 Traffic Calming). Traffic calming alters the design speed of a road, making a lower speed feel more appropriate. It is recognized as a best practice to reduce operating speeds on residential roads.

Other key factors, besides speed, identified through research into pedestrian traffic injury include alcohol, lack of pedestrian facilities, inadequate visibility of pedestrians and inadequate enforcement of traffic laws (WHO, 2013).

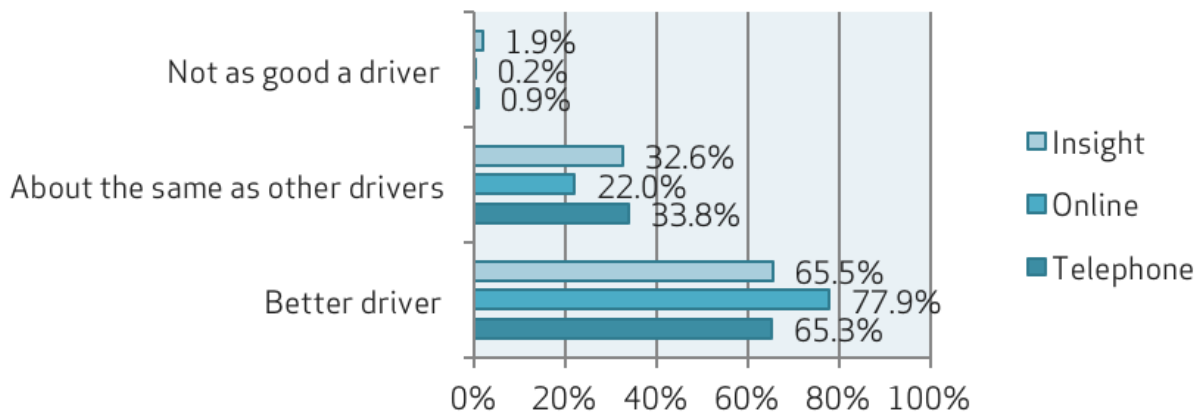
Increasingly, evidence suggests that marked pedestrian crossings should not be implemented without the use of additional safety measures, such as raised pedestrian refuge islands or flashing beacons (WHO, 2013).

High risk drivers are a significant concern on all roads, including residential. Prohibited, suspended and unlicensed drivers are a particular concern as they have shown a history of poor driving behaviours, often including speeding, impaired and dangerous driving. A recent review of child pedestrian fatalities in British Columbia found that drivers involved in fatal child pedestrian collisions had an above average number of previous violations on their driving record, and that over half of these drivers had previously had their licences suspended (Desapriya et al., 2011).

In 2012, the Capital Region Intersection Safety Partnership (CRISP) sponsored a study of prolific offenders based on data obtained through automated enforcement. Data analyzed from the Capital Region, including Strathcona County, found there was a significant correlation between the number of automated enforcement tickets and collision risk (Topinka, 2013). As a result, automated enforcement data continues to be shared across the Capital Region, leading to the identification of high risk drivers in the community. These drivers can then be targeted by education and manned-enforcement efforts.

Results of the *Edmonton and Area Traffic Safety Culture Survey* (Thue et al., 2016) highlight the inherent challenges in education to improve driver behaviour. This survey found respondents in the Edmonton area (including Sherwood Park) generally perceive themselves to be better drivers than other motorists and as a result may not recognize that they may be contributing to traffic concerns in their neighbourhood. Subsequently, they may not feel traffic safety education materials pertain to them.

Figure 3: Responses to *Edmonton and Area Traffic Safety Culture Survey 2016* question “Compared to most other drivers on the roads where you drive, generally, would you say you are...?”



The survey concludes that there is a gap between peoples’ attitudes and perceptions and how they actually drive. In particular, “respondents to the public online survey [which consisted of a higher percentage of male and younger respondents] were more likely to report that they feel they are better drivers than most other drivers on the road. In addition, they were more likely to say that they drive faster, drive more aggressively, engage in tailgating, experience road rage, and have received traffic tickets.” (p. 77).

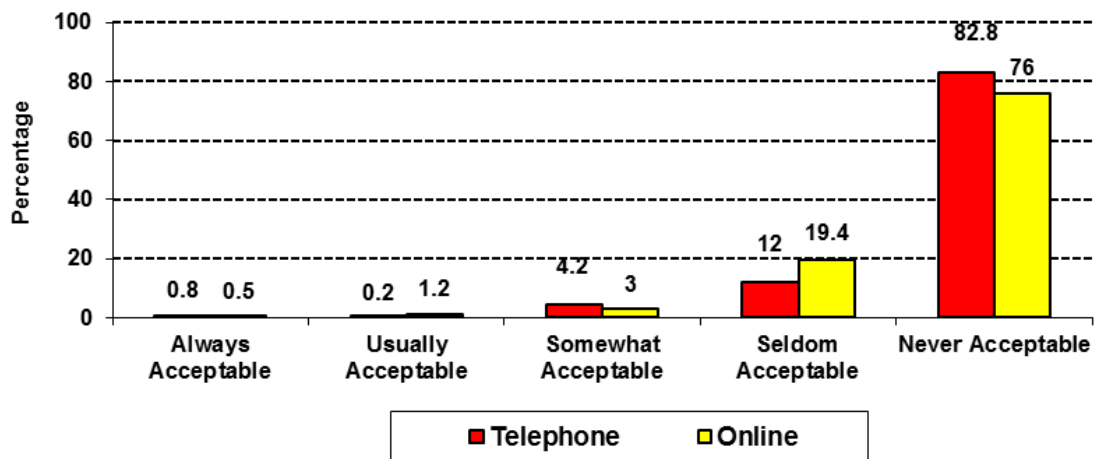
## C. Priority areas

Based on research, resident surveys and resident communications with Strathcona County administration and RCMP, three resident priority areas have been identified for the Neighbourhood Traffic Safety Strategy: Speed Management, Schools and Playgrounds, and Pedestrians and Cyclists.

### I. Speed management

Speed is one of the key risk factors for pedestrian/cyclist injury. Both the 2013 and 2015 Traffic Safety Survey (TSS) results indicate the vast majority of residents of Strathcona County believe it is not acceptable to drive over the speed limit on residential streets.

Figure 4: TSS results (2015): “How acceptable do you think it is to drive over the speed limit on a residential street?”



Better speed management in our neighbourhoods will improve both safety and quality of life in our neighbourhoods.

Most of Strathcona County’s current residential traffic safety initiatives aim to slow traffic on neighbourhood roads (see Appendix 1).

## **II. Schools and playgrounds**

Schools and playgrounds are another priority area identified through resident complaints to Transportation and Agriculture Services and through both the 2013 and 2015 TSS.

Residents express concern over the congestion around schools and the safety of the children navigating the street in these conditions. Appendix 2 outlines current initiatives in place to address safety at our schools and playgrounds.

In the 2014 Neighbourhood Traffic Safety Strategy, the formation of a School Traffic Safety Partnership was recommended. This recommendation was acted upon and the formation of the partnership has significantly improved communication and collaboration on school safety in the County.

## **III. Pedestrians and cyclists**

Protection of pedestrians and cyclists, particularly children, seniors and those with disabilities, is a priority for Strathcona County. As pedestrian safety is closely linked to speed, all measures taken to reduce residential speeds also work to improve safety for pedestrians and cyclists on local and collector roads. Appendix 3 summarizes current initiatives in place to address pedestrian and cyclist safety.

Ensuring safety for pedestrians and cyclists is consistent with the goals of the Traffic Safety Strategic Plan 2020, the Integrated Transportation Master Plan and the County's strategic goals of creating a safe, caring and livable community.

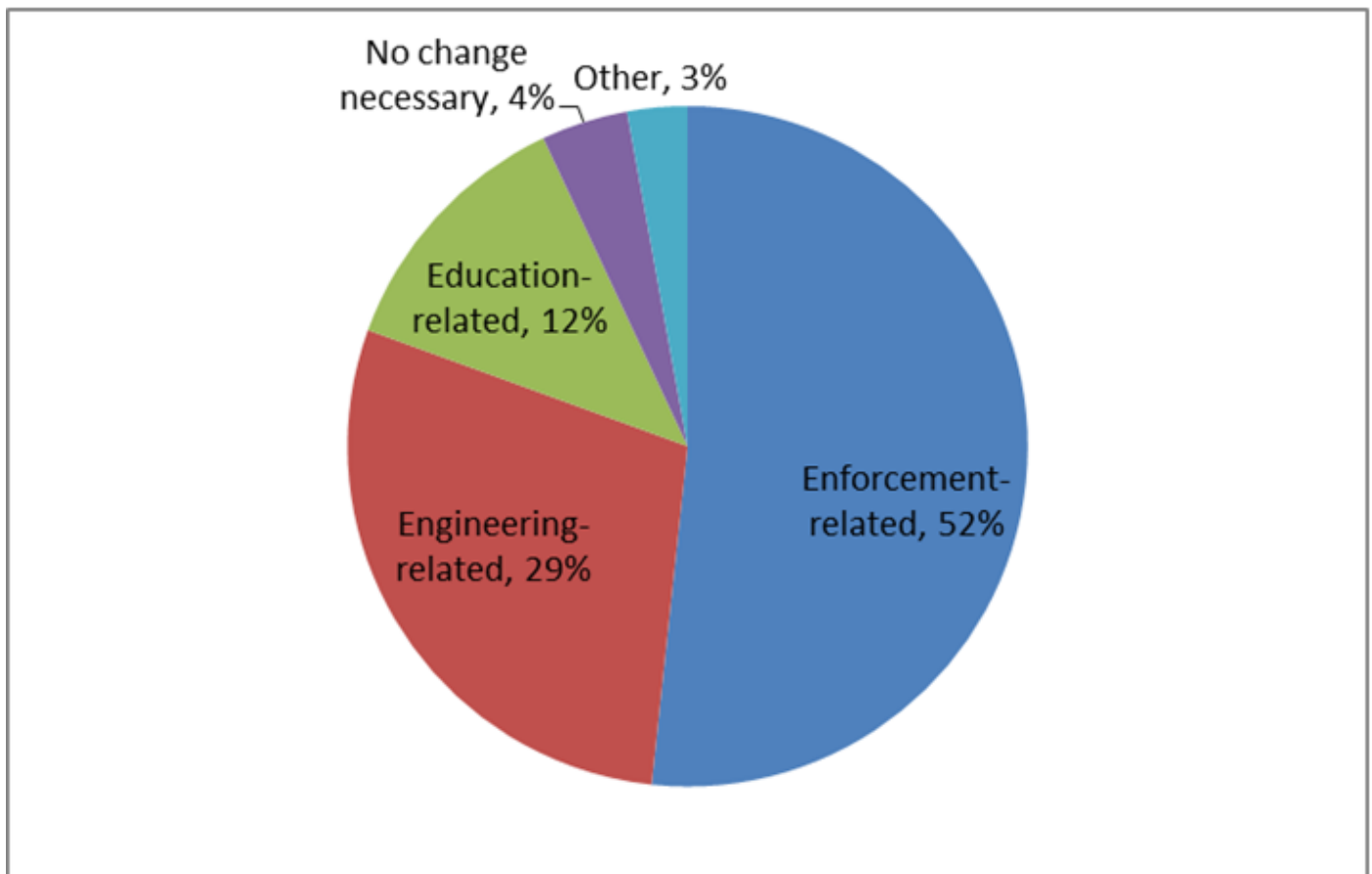
#### D. Recommendations to address neighbourhood traffic concerns

As per Strathcona County’s TSSP 2020, traffic safety issues are addressed in Strathcona County through the “Five E’s”: education, enforcement, engineering, engagement and evaluation. In addressing neighbourhood traffic safety, resident engagement is a key strategy, as decisions made on residential roads have a direct impact on both the safety and quality of life for residents.

In the 2013 Traffic Safety Survey, residents expressed significant concern about residential speeding. The following question (Q13) was asked in the 2015 Survey to establish resident support for the various initiatives that could be used to address this issue:

*“In the 2013 Traffic Safety Survey, two-thirds of residents agreed that traffic safety was a concern in their neighbourhood. Moreover, 70% of these residents identified speed as the cause of this concern. In your opinion, how should the County best address residential speeding concerns?”*

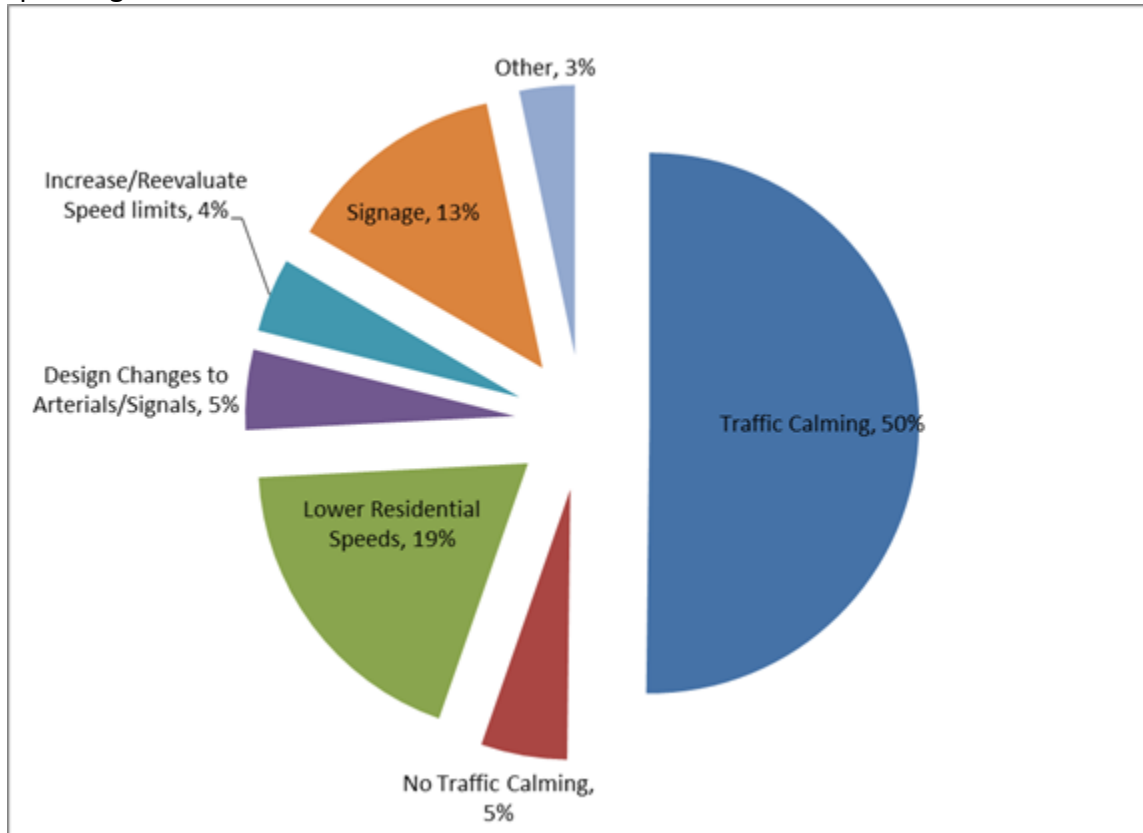
Figure 5: Resident responses: “How should the County best address residential speeding concerns?”



## I. Engineering Recommendations

The following figure breaks down the 29% of responses which supported the use of engineering to address residential speeding concerns.

Figure 6: Engineering-related responses: “How should the County best address residential speeding concerns?”



Action #1: Research a residential speed limit decrease, including the results from other jurisdictions who have implemented the practice to recommend a best course of action for our community.

Action #2: Improve traffic monitoring on residential roads (link to Action #4).

- Develop a schedule for the collection of speed and volume data on residential collector roads to coincide with upcoming rehabilitation.
- Continue to collect data in response to resident concerns.
- Explore and leverage other data sources already available in the community, including Speedwatch and Emergency Services data.
- Consider the value of data to evaluation of residential initiatives when creating the program.



Action #3: Upgrade pedestrian facilities at multiuse trail crossings, playgrounds, schools and key pedestrian corridors. Include physical traffic calming features (such as raised features, refuge islands, and/or curb extensions) in conjunction with scheduled rehabilitation as appropriate.

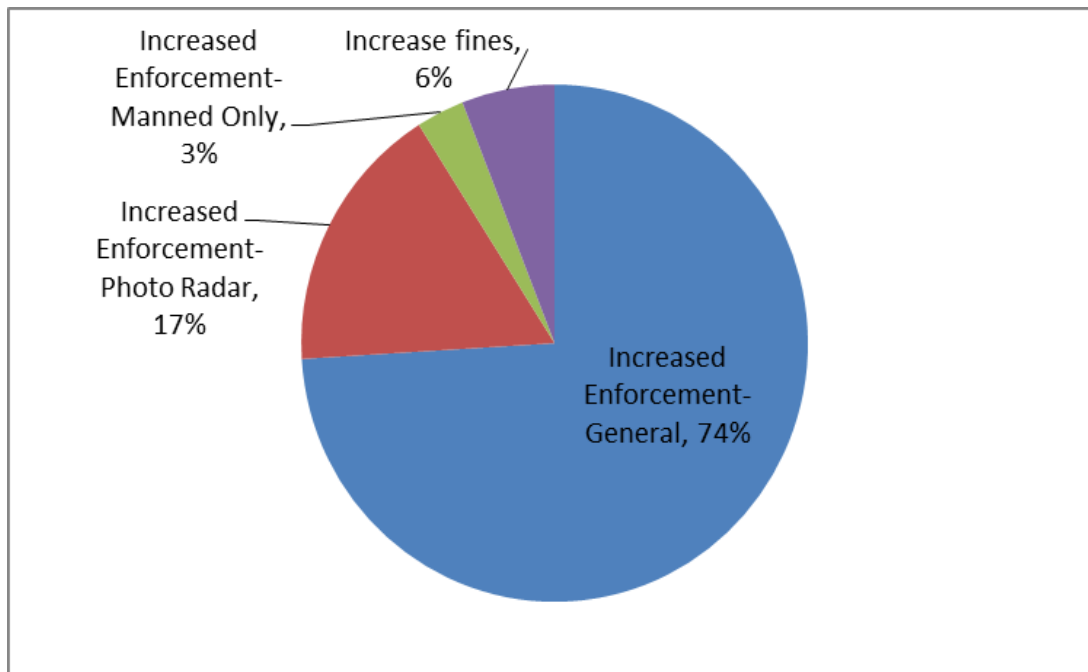
A detailed program will be developed for the implementation of Action #3 that in considers:

- The identification of key pedestrian corridors in the community.
- Warranting guidelines aligning with engineering best practice to ensure these upgrades are applied consistently and provide a tangible safety benefit.
- Develop a prioritization matrix to ensure that resources are invested first at locations where they are most likely to have a safety benefit.
- A process and guidelines for engaging schools and/or residents that live adjacent to locations to be upgraded.

## II. Enforcement Recommendations

The following figure breaks down the 52% of responses which supported the use of enforcement to address residential speeding concerns.

Figure 7: Enforcement-related responses: “How should the County best address residential speeding concerns?”



Action #4: Formalize communication between RCMP and Enforcement Services, Transportation Planning and Engineering, and Transportation and Agriculture Services to facilitate data sharing (link to Action #2).

Establish what data is valuable to share and a process to improve that sharing. Leverage new tools available through Open Data and Geographic Information Systems.

Action #5: Consider alternative resourcing and delivery models for residential traffic enforcement in a way that is responsive to resident needs while minimizing impacts to arterial enforcement operations.

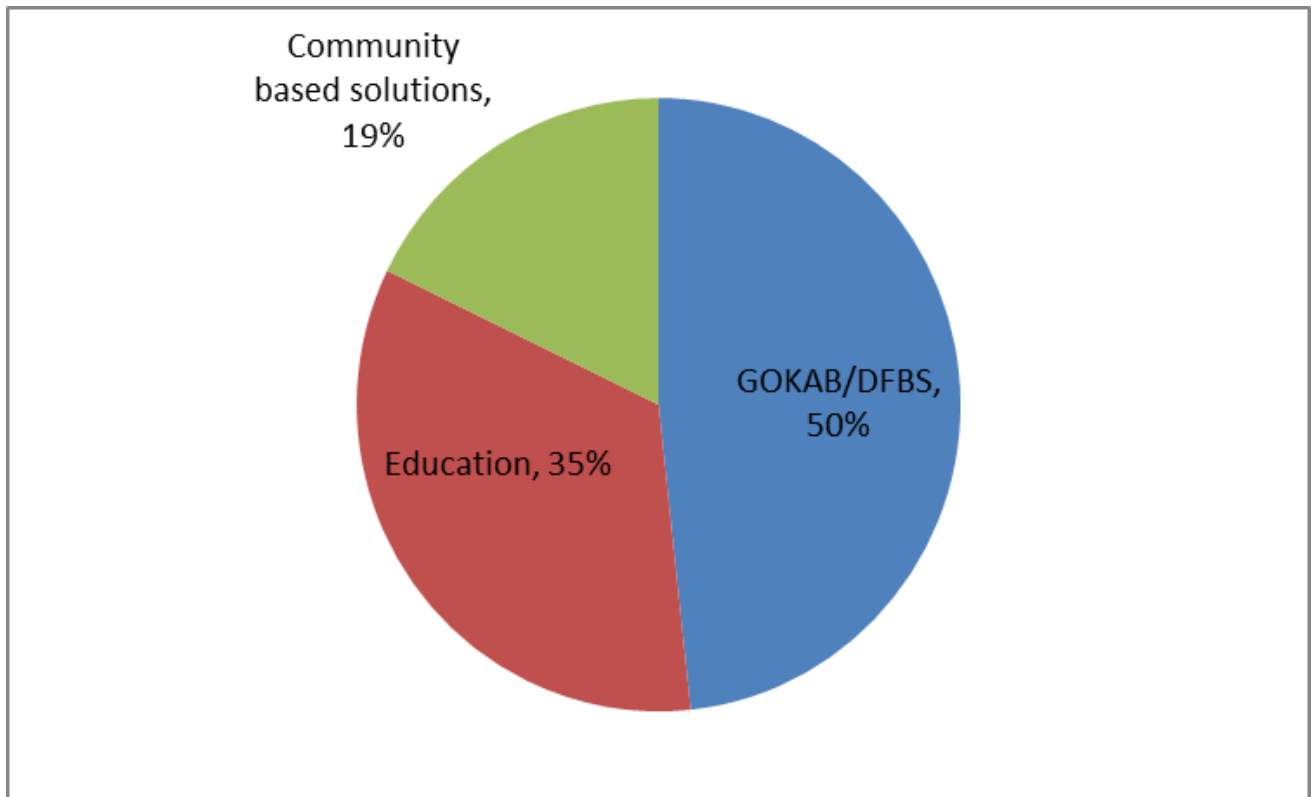
Focus groups confirmed results of the 2013 and 2015 Traffic Safety Survey. Speed enforcement is the top priority for our residents, followed by distracted driving and stop sign enforcement. Residents also suggest the model should be community-based and integrated with engineering, education and engagement initiatives.

Under the present methodology, sustained residential traffic enforcement is impossible. Establish a sustainable program with the goal of addressing enforcement shortfalls in residential areas.

### III. Education Recommendations

The following figure breaks down the 12% of responses which supported the use of education to address residential speeding concerns.

Figure 8: Education-related responses: “How should the County best address residential speeding concerns?”



Action #6: Expand the Driver Feedback Sign Program and explore new ways to integrate the signs to support data collection and strategic enforcement.

Action #7: Update the Traffic Safety Communication plan to include a residential traffic safety component. Engage with residents to develop messages and to help with the reach of the education program (link to Action #8).

#### **IV. Engagement Recommendations**

Alternative ways of thinking about traffic safety suggest that neighbourhood traffic issues can be considered as social or cultural problems. These problems need to be addressed at the cultural level and cannot be solved simply through design and enforcement (Engwicht, 2005). Community-based, resident driven solutions will be necessary to address social and cultural issues. Engagement of residents will lead to better decision making in identifying local issues and developing context specific solutions, encompassing broader options outside of engineering and enforcement.

Action #8: Engage residents to develop new and innovative ways to get neighbourhoods involved in residential traffic safety.

Rural Community Leagues are a great resource that could be leveraged to improve traffic safety in rural hamlets and subdivisions. Social media also offers new opportunities to connect with busy residents. Community-based policing also offers opportunities for better relationships with residents, which leads to more effective enforcement.

#### **V. Evaluation Recommendations**

Evaluation is the cornerstone of any action plan to measure progress towards its goals. The next section outlines deliverables and responsibility for their completion. Once implemented, most of these programs will create measureable outcomes which will add to the evaluation of the NTSAP.

The following Key Performance Indicators will be used to measure overall progress towards the goals of this plan:

- Community Survey (follow up Traffic Safety Survey- level of agreement with the statement *“traffic safety is a concern in my neighbourhood”* and *“Strathcona County engages its residents in traffic safety”*)
- Speed and volume data on residential streets
- Number of residential collisions reported

## E. Deliverables

This action plan will result in the following deliverables:

Deliverable*	Due Date	Evaluation Indicator	Responsible*
Action #1: Residential Speed Limit Report recommending a best course of action for our community	December 2018	Full report with recommendation completed	TPE
Action #2: Residential Road Traffic Monitoring Program	December 2017	Program developed and implemented	TAS/TPE
Action #3: Pedestrian Facility Upgrade Program	October 2017	a) Warranting and process guidelines for upgrades during rehabilitation developed	TAS/TPE
	September 2018	b) Key pedestrian corridors in the County identified and prioritized	
Action #4: Data Sharing Program between RCMP/ES, TPE and TAS	December 2017	Program is developed and implemented	TAS/TPE/RCMP/ES
Action #5: Neighbourhood Traffic Safety Enforcement Program	July 2017	Program developed and implemented	RCMP/ES
Action #6: Updated Driver Feedback Sign Program	December 2017	Program developed and implemented	TAS/TPE
Action #7: Updated Traffic Safety Communication Plan	October 2017	Updated Traffic Safety Communication Plan	TAS/TPE/RCMP/ES
Action #8: Resident Engagement Plan	December 2017	Plan created and implemented	TAS/TPE/RCMP/ES

\*TPE: Transportation Planning and Engineering; TAS: Transportation and Agriculture Services; RCMP/ES: RCMP and Enforcement Services

## **F. Resource Requirements**

Strathcona County's Traffic Safety Strategic Plan 2020 establishes our vision for traffic safety: *"no one will be killed or seriously injured while travelling on Strathcona County's road network"*.

To that end, resources must be allocated where serious injuries and fatalities are most likely to occur. While residential traffic safety is a priority for Strathcona County, the vast majority of our serious collisions take place on the County's arterial network. Thus, it is difficult to justify reallocating resources to our residential roads at the expense of our arterial network. Further, the NTSAP has been developed during a time of economic downturn.

For these reasons, actions recommended through this plan have been developed with the expectation that they will be resourced within existing budgets.

## **G. Conclusion**

Neighbourhood traffic safety is important to Strathcona County residents. 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.

## G. References

Corben, B., D'Elia, A. & Healy, D. 2006 'Estimating pedestrian fatal crash risk', Proceedings 2006 Australasian Road Safety, Research Policing & Education - Conference, 25-27 October, Gold Coast.

Corben, B., Peiris, S., Logan, D., and Candappa, N., 2012. *Intersection Study: An Application of Safe System Approach to Intersections in the Capital Region- Pilot Project. Phase I Progress Report.* (accessible at [http://drivetolive.ca/Downloads/ProgressReport\\_23%20Nov2012-FINAL.pdf](http://drivetolive.ca/Downloads/ProgressReport_23%20Nov2012-FINAL.pdf) )

Desapriya, E., Sones, M., Ramanzin, T., Weinstein, S., Scime, G., and Pike, I., 2011. Injury prevention in child death review: child pedestrian fatalities. *Inj Prev*; 17:i4-i9. (accessible at <http://www.childdeathreview.org/Reports/InjuryPreventionSupplement2011.pdf> )

Engwicht, D., 2005. *Mental Speed Bumps: The Smarter Way to Tame Traffic.* (information about David Engwicht is accessible at <http://www.pps.org/reference/david-engwicht/> )

Global Road Safety Partnership (GRSP), 2008. *Speed management: a road safety manual for decision-makers and practitioners.* (accessible at [http://safety.fhwa.dot.gov/speedmgt/ref\\_mats/fhwasa09028/resources/Speed\\_management\\_manual.pdf](http://safety.fhwa.dot.gov/speedmgt/ref_mats/fhwasa09028/resources/Speed_management_manual.pdf) )

Public Health Agency of Canada (PHAC), 2013. Canadian Best Practices Portal: Automated License Plate Recognition (ALPR). (accessible at <http://cbpp-pcpe.phac-aspc.gc.ca/interventions/automated-license-plate-recognition-alpr/> )

Thue, L., Grekul, J., Islam, T., and Wang, S., 2016. *Edmonton and Area Traffic Safety Culture Survey: Summary of Key Findings 2016.* (accessible at <https://www.edmonton.ca/transportation/RoadsTraffic/TrafficSafetyCultureSurveyReport2016.pdf> )

Topinka, N., 2012. *Automated Enforcement and the Detection of Driver Risk.* (accessible at [http://drivetolive.ca/Downloads/Automated Enforcement and Detection of Driver Risk Summary.pdf](http://drivetolive.ca/Downloads/Automated%20Enforcement%20and%20Detection%20of%20Driver%20Risk%20Summary.pdf) )

Willis, D., 2005. *Speed Cameras: An Effectiveness and Policy Review.* (accessible at <http://d2dtl5nnlpfr0r.cloudfront.net/tti.tamu.edu/documents/TTI-2006-4.pdf> )

World Health Organization (WHO), 2013. *Pedestrian safety: a road safety manual for decision-makers and practitioners.* (accessible at [http://apps.who.int/iris/bitstream/10665/79753/1/9789241505352\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/79753/1/9789241505352_eng.pdf) )

**H. Appendices**

## Appendix 1: Current Speed Management Initiatives in Strathcona County

	Strategy	Description
Education	RCMP Media Relations	The RCMP has a member in charge of media relations who regularly provides traffic safety messaging, including messages around speeding.
	Driver Feedback Signs (DFBS)	DFBS are placed in areas of speeding concerns according to a priority ranking based on RCMP, Councillor and resident request. DFS are relocated approximately every 3 weeks from May to October, as their effectiveness has been found to diminish over time.
	“Give our kids a brake” (GOKAB) signs	GOKAB signs are placed in neighbourhoods based on resident requests. Signs are left in place for approximately 3 weeks.
	Traffic Safety Communication Plan (TSCP)	This plan guides educational messaging for traffic safety in the County. Themes of respect, time management, responsibility, pedestrian and cycling safety and speed are included.
	Speedwatch	RCMP coordinates this group of volunteers interested in traffic safety. Volunteers set up a DFS to bring attention to driver speeds in areas of concern.
Engineering	Traffic Calming Policy	The Traffic Calming Policy was approved by Council in April 2013. The policy a process for the application of physical measures to slow traffic on residential streets in the County.
	Traffic calming in proposed and new development	Traffic calming in new urban neighbourhoods is achieved in accordance with the Transportation Association of Canada’s Canadian Guide for Neighbourhood Traffic Calming (1998) and Strathcona County’s Design and Construction Standards (2011).
Enforcement	Integrated Traffic Unit	Strathcona County’s Integrated Traffic Unit is composed of 25 RCMP, Provincial Sheriffs and Municipal Peace Officers all working together for traffic safety. A list of hotspot locations is targeted, often identified through neighbourhood concerns. Enforcement is also coordinated with monthly traffic safety themes.
	Traffic Safety Committee	Traffic Engineering and Safety, RCMP and Enforcement Services meet bimonthly to share information and advance traffic safety in Strathcona County.
Evaluation	Speed/Volume Data Collection	Transportation and Agriculture Services regularly collects data on residential roadways to ensure volumes and speeds recorded fall within design parameters. If data indicates otherwise, the County takes whatever steps are necessary to bring parameters back within safety guidelines.
	Network Screening	Collision data for Strathcona County is regularly screened to identify any high collision locations.
Engagement	Traffic Safety Liaison Advisor	Transportation and Agriculture Services has one full-time position dedicated to communication with residents regarding their traffic safety concerns.



## Appendix 2: Current playground and school zone/area safety initiatives in Strathcona County

	Strategy	Description
Education	School Resource Officers	RCMP has a full-time school resource officer at each high school in Strathcona County. All other schools have a resource officer available upon request for traffic safety education.
	Traffic Safety Communication Plan (TSCP)	This plan guides educational messaging for traffic safety in the County. Themes of respect, time management, responsibility, pedestrian and cycling safety, speed and back to school are included.
	RCMP Media Relations	The RCMP has a member in charge of media relations who regularly provides traffic safety messaging, including messages around back to school, etc.
	Provincial Traffic Safety Resources	These promotional and educational materials are available to all teachers for free by contacting the provincial Office of Traffic Safety. The RCMP or Traffic Safety Liaison Advisor can also procure these resources on behalf of schools.
Engineering	Signing of Playground and School Zones/Areas	Transportation and Agriculture Services has evaluated all playground and school areas/zones in the County and is in the process of bringing them in line with provincial and federal guidelines to ensure consistency.
	Traffic management at Schools	On request, the Traffic Engineering and Safety branch evaluates traffic issues and implement strategies to manage traffic around schools.
Enforcement	Integrated Traffic Unit	Regularly respond to traffic safety concerns at schools. Conduct routine patrols of school and playground areas throughout the County.
Evaluation	Evaluation of safety initiatives	Evaluation of measures taken to improve traffic safety is undertaken to gauge the success of the intervention (ie. Bev Facey Parking Strategy).
Engagement	School Traffic Safety Partnership	The STSP provides a collaborative forum to effectively address traffic safety concerns at County schools through the integrated implementation of engineering, education, and enforcement initiatives

### Appendix 3: Current neighbourhood pedestrian and cycling safety initiatives in Strathcona County

	Strategy	Description
Education	Traffic Safety Communication Plan (TSCP)	This plan guides educational messaging for traffic safety in the County. Themes of respect, responsibility, pedestrian and cycling safety, speed and back to school are included.
	RCMP media relations	The RCMP has a member in charge of media relations who regularly provides traffic safety messaging, including messages around pedestrian and cycling safety, etc.
	Provincial Traffic Safety Resources	These promotional and educational materials are distributed to the public at several public events throughout the year, including Point, Pause and Proceed materials.
Engineering	40 km/h Zones	Speed limits in Strathcona County have been reduced in residential areas where sidewalks are not available, including Ardrossan and the Estates of Sherwood Park.
	Trails Strategy	Future Trail Project Prioritization Working Group works to identify, prioritize and addressing missing links in sidewalk and trails system.
	Policy SER-009-021- Installation of Traffic Signals and Pedestrian Crossings	This policy guides the application of pedestrian crossing facilities. The policy is based on Transportation Association guidelines for best practices in pedestrian safety. In addition, the safety of pedestrians and cyclists is considered in the application of all traffic control.
	Strathcona County Design and Construction Standards (2011)	Ensure provision of pedestrian facilities and multi-use trails in new development.
	Traffic Safety Analyst	Conducts site visits as necessary to ensure pedestrian safety in road right of way.
Enforcement	Integrated Traffic Unit	Regularly respond to pedestrian related concerns. Provide enforcement at problem areas, identified by resident and Council concerns and collision history.
	Project Mercury	The Integrated Traffic Unit uses data collected through automated enforcement to identify high risk drivers in the community who can be targeted by strategic education and enforcement.
Evaluation	Network Screening	Collision Data is regularly reviewed to identify high collision and or high risk locations.
Engagement	Office of Traffic Safety	Traffic Safety Liaison Advisor is a full-time position dedicated to communication with residents regarding their traffic safety concerns. On request, the TSLA will facilitate the completion of a study/evaluation at a location of concern.