

The Regional Municipality of York

Committee of the Whole
Transportation Services
June 16, 2022

Joint Report of the Commissioner of Public Works
and the Regional Solicitor

Automated Speed Enforcement and Administrative Penalty System

1. Recommendations

1. Council authorize continued use of automated speed enforcement as described in this report, including addition of two new automated speed enforcement mobile cameras in 2022/2023, at an additional cost of \$250,000, for a total cost of \$750,000.
2. Council authorize the Regional Solicitor to take necessary steps to establish a Regional administrative penalty system for automated speed enforcement offences and red light camera offences pursuant to Ontario Regulation 355/22, *Administrative Penalties for Contraventions Detected Using Camera Systems*, including preparation of the necessary bylaw(s), once the Province has provided the enabling regulatory framework, and to include all associated costs, staff resources and potential revenues in the multi-year (2023-2026) budget submission.
3. Council authorize the Commissioner of Public Works to execute any agreement or ancillary documents required to exercise options to extend automated speed enforcement operating agreements with the Ministry of Transportation, City of Toronto and Redflex Traffic Systems (Canada) Limited.

2. Summary

This report seeks Council authority to continue use of automated speed enforcement (ASE) on Regional roads and add additional cameras supported by an administrative penalty system (APS).

Key Points:

- In November 2020, the Region began a two-year, limited used ASE pilot on select Regional roads
- Early pilot results demonstrate strong support for continued use of ASE as a safety tool

- Staff propose expanding the ASE program by adding two mobile cameras in 2022/2023, 60 fixed cameras between 2024 and 2026 and increasing the Region’s red light camera program to 55 intersections by 2026, to align with commencement of administrative penalty system operations
- A Regional APS is required to support the proposed expansion of camera-based enforcement

3. Background

Six provinces have legislation allowing use of electronic speed detection and red light camera systems

Several Canadian municipalities use electronic speed detection (photo radar) and red light camera systems with some cities using these approaches as far back as 1998. Table 1 provides a summary of relevant information.

Table 1
Municipalities Using
Electronic Speed Detection and Red Light Camera Systems

Location	Population	Number of ASE Cameras	Implemented	Number of Red Light Cameras	Implemented
British Columbia**	5,200,000	140	July 2019	35	July 2019
Calgary, AB*	1,360,784	10	1998	55	2000
Regina, SK	215,106	3	December 2014	3	2020
Winnipeg, MB*	749,607	10	2006	33	2001
Hamilton, ON	596,353	2	October 2020	33	2008
Toronto, ON	2,794,356	50	July 2020	150	1999
Ottawa, ON	1,017,449	11	July 2020	67	2001
Montreal, QC	1,762,949	6	May 2009	3	May 2009

* Intersection Safety Cameras detect both whether a vehicle fails to stop for the red light phase in a signalized intersection and the travel speed of vehicular traffic

† Photo radar is administered as a provincial program

2019 Ontario Regulation currently allows municipalities to operate automated speed enforcement in school areas and community safety zones only

Subsequent to Bill 65, *Safer School Zone Act, 2017*, [Ontario Regulation 398/19](#) came into effect on December 1, 2019. The Regulation allows municipalities to use camera systems to enforce speeding offences in school areas and community safety zones only. The Region will continue to advocate for further use of ASE outside of school areas and community safety zones, and municipally-owned roads.

Automated speed enforcement is a safety tool that uses a camera and speed measurement device to help enforce speed limits in school areas and community safety zones. ASE has been shown to influence driver behaviour to help decrease speeding and increase safety and is a cost-effective tool that supplements traditional speed enforcement.

November 2020, one mobile automated speed enforcement camera became operational on Regional roads

In [November 2020](#), the Region began a two-year, limited use ASE pilot on select Regional roads. The Region's pilot program was developed in collaboration with York Regional Police. Sites were selected based on the highest risk to school children, with at least one site selected in each local municipality to maximize Regional coverage. One mobile ASE camera is rotated monthly among 12 community safety zones, covering 19 schools. The cost of the two-year pilot is estimated at \$500,000. ASE information, site locations and camera rotation schedule are available at york.ca/trafficsafety.

November 2021, Council was provided an update on the limited use automated speed enforcement pilot

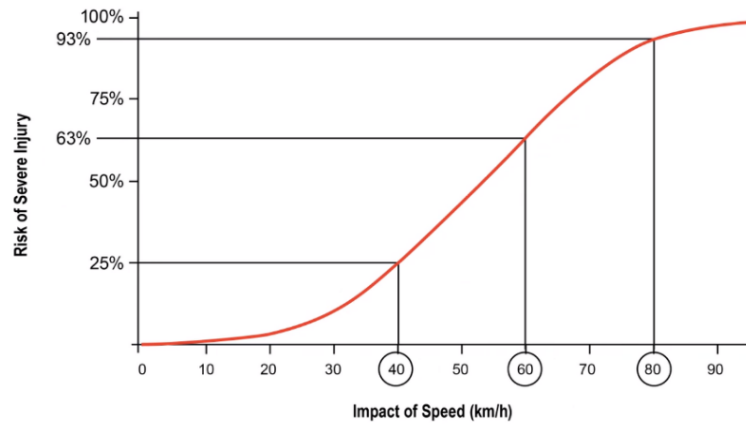
In [November 2021](#), Council received an update on the limited use ASE pilot. Initial results demonstrated a positive effect on driver behaviour and speed limit compliance. Staff committed to providing Council with the two-year pilot results in 2022.

4. Analysis

Lowering speed limits will help improve traveller safety as the Region continues to intensify

Physical environment is a key driver in determining the most appropriate travel speed for a roadway. Where a physical environment encourages walking and cycling, pedestrians and cyclists must co-exist with vehicles. Figure 1 shows the relationship between the probability of a severe pedestrian injury and vehicle collision speed. As vehicle speed increases, pedestrian severe injury rates rise dramatically in a pedestrian/vehicle collision. While 24% of vehicle-only collisions resulted in injury or fatality, almost all pedestrian (94%) and cyclist (82%) collisions resulted in injury or fatality.

Figure 1
Pedestrian Severe Injury Rate in Relation to Vehicle Travel Speed

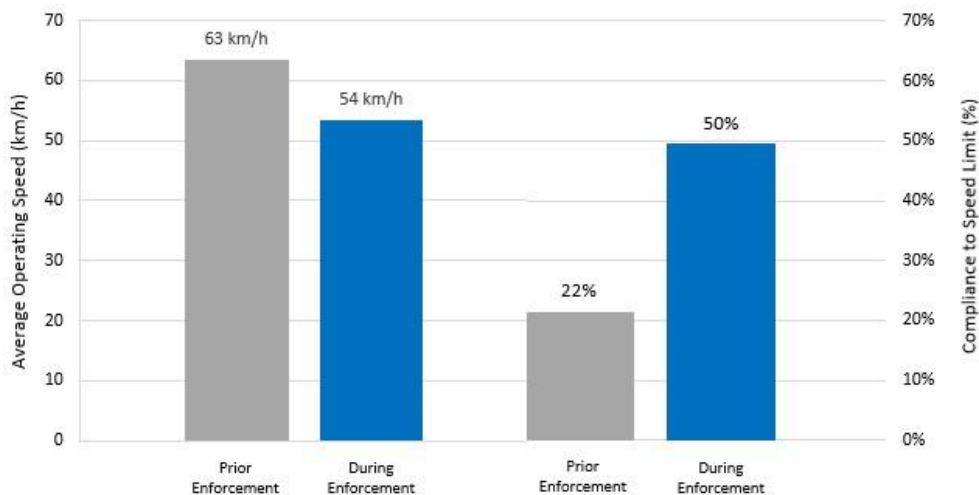


Source: Adapted from TAC Geometric Design Guide for Canadian Roads, June 2017

Early pilot results demonstrate strong support for continued use of automated speed enforcement as a safety tool

The limited use ASE pilot has been operating in school areas on Regional roads for eighteen months. Results collected at the first 11 locations show the presence of the camera is resulting in slower driving speeds. Attachment 1 highlights compliance rates for these locations. Average compliance with the posted speed limit has more than doubled and operating speeds reduced by 9 km/h (Figure 2). More frequent use of ASE will help condition motorists to maintain lower operating speeds. Other participating municipalities are experiencing similar changes.

Figure 2
Average Speed and Compliance in Areas with Automated Speed Enforcement



Staff propose expanding the automated speed enforcement program to align with implementing administrative penalty system operations

Recognizing positive results of the automated speed enforcement pilot and strong business case for a Regional administrative penalty system, staff propose adding two mobile ASE cameras in 2022/2023. Steps to implement 60 automated speed enforcement fixed cameras in York Region community safety zones between 2024 and 2026 are planned, subject to the City of Toronto extending the Vendor's agreement and the City's capacity to process infractions. Development of the administrative penalty system is necessary to accommodate the significant increase in infractions. All costs and staff required to implement administrative penalty system operations would be included in the multi-year (2023-2026) budget submission.

Mobile ASE cameras provide flexibility in covering more school areas. Fixed ASE cameras help sustain improved speed limit compliance with continuous enforcement in school areas. Examples of these cameras are shown in Figure 3. The automated speed enforcement program target is to have one fixed camera in every community safety zone, which includes all school zones by 2026. All costs and staff resources required for the 60 ASE fixed cameras would be included in the multi-year (2023-2026) budget submission.

Figure 3
Automated Speed Enforcement Cameras

Mobile ASE Camera



Fixed ASE Camera



Regional administrative penalty system is required to support automated speed enforcement program growth

Camera-based enforcement such as ASE can generate 10,000 penalties per year per camera. Due to the low dispute rate of ASE offences (12%), Court Services can absorb an increase of two cameras in 2023. Any further growth of the ASE program requires a Regional administrative penalty program to support the higher volume of penalties and provide timely access to dispute resolution. An administrative penalty system is an efficient alternative to

adjudication for low-liability offences, such as camera-based enforcement, parking and some bylaw offences. Penalties are monetary only in nature.

There are numerous benefits to administering certain offences under an administrative penalty system:

- More flexibility to design a streamlined and automated process to improve customer experience
- Due to a digital and automated process, an administrative penalty system is highly scalable and more cost effective than the traditional court process
- Operational value in removing matters from the provincial court system and building capacity for more serious offences
- Opportunity for local municipalities to leverage a Regional program, including shared resources and technology systems

On July 1, 2022, Regulation 355/22 *Administrative Penalties for Contraventions Detected Using Camera Systems* will come into effect, enabling administrative penalties for ASE and red light camera offences. It is recommended the Regional Solicitor be authorized to take necessary steps to establish a Regional administrative penalty system for all eligible offences.

Administrative penalty system would also support further expansion of the red light camera program

The Region currently operates a red light camera program at 40 signalized intersections. Red light cameras have resulted in about a 50% reduction in right-angle and turning movement collisions Region-wide at all signalized intersections. The program is a key component of the Region's Traffic Safety Program and supports community well-being. Implementing red light cameras at a select number of sites can help influence driving behaviour at all signalized intersections across a jurisdiction.

Building on success of the red light camera program and introduction of an administrative penalty system, further expansion of the program can be supported. Staff propose to expand the program by five cameras each year between 2023 and 2026.

Staff recommends Commissioner of Public Works be authorized to execute automated speed enforcement operating agreements

The Region entered into agreements with the Ministry of Transportation, City of Toronto and Reflex Traffic Systems (Canada) Limited to operate ASE. Staff recommends the Commissioner of Public Works be authorized to execute any agreement or ancillary documents required to exercise options to extend automated speed enforcement operating agreements.

Subject to Council approval, expanded use of ASE will be communicated to residents and motorists through on-street signage, social media posts, website content, articles and communication for school boards to share.

Automated speed enforcement supports the Strategic Plan and aligns with Vision 2051

Automated speed enforcement on the Regional road network helps improve traveller safety and aligns with the 2019 to 2023 Strategic Plan priority area of supporting community health, safety and well-being. Automated speed enforcement also aligns with the Traveller Safety Plan being developed in collaboration with road safety partners. Expansion of the Region's ASE program reflects a responsive public service, a focus area of Vision 2051.

5. Financial

Automated enforcement programs are forecasted to be cost neutral with no additional tax levy requirement

Expenses incurred during the pilot under the Provincial Offences Act have been recovered. Once the administrative penalty system is operational, collections from the automated speed enforcement program have the potential to fully recover program costs. Furthermore, it is anticipated the program will have no additional tax levy requirement. All costs associated with implementing APS and expanding ASE and red light camera programs will be included in the multi-year budget submission for Council consideration.

A modest investment is required to establish a Regional administrative penalty system and will be included in the Court Services multi-year budget submission (Table 2). To note, when compared, expenses per offence under an administrative penalty system are 45% lower than in Provincial Offences Court. The primary reason for higher Provincial Offences Court expenditures is a much more intensive business process that drives labour costs up with increased offence volumes. Conversely, an administrative penalty system is highly scalable and labour costs are less affected by the volume of charges processed due to a digital and automated process. It is anticipated all costs will be recovered through collection of penalties.

Table 2
Investment in Administrative Penalty System

	2023	2024	2025	2026
Total automated speed enforcement cameras	3	23	43	63
Total red light cameras	40	45	50	55
Camera operating costs	\$2.0M	\$6.4M	\$10.7M	\$15.2M
Administrative penalty system expenses	\$1.0M	\$1.6M	\$2.3M	\$2.8M
Total expenses	\$3.0M	\$8.0M	\$13.0M	\$18.0M

The estimated cost, in 2023, to operate three automated speed enforcement mobile cameras and 40 red light cameras is approximately \$2 million per year. This cost will increase by approximately \$5 million each year, with a total of 60 additional fixed cameras and 15 additional red light cameras (about 20 automated speed enforcement and five red light cameras per year) between 2024 and 2026.

All associated costs, staff resources and potential revenues will be included in the Public Works multi-year budget submission to support continued use of automated speed enforcement with two additional mobile cameras in 2022/2023, the expansion of 60 fixed cameras between 2024 and 2026 and increasing the red light camera program to 55 intersections by 2026.

6. Local Impact

Automated speed enforcement is a cost-effective enforcement tool supplementing traditional speed enforcement and has been shown to influence driver behaviour to help decrease speeding and increase safety. Staff has shared results of the limited use ASE pilot with local municipal engineering staff and staff's recommendation to continue use of ASE in community safety zones on Regional roads.

Staff will collaborate with local municipal staff as interested municipalities begin developing their own automated speed enforcement programs. Staff will continue to share the Region's experiences with data collection for consideration in site selection. As local municipalities move forward, they will update their traffic bylaws and execute separate agreements with the Ministry of Transportation of Ontario, City of Toronto and Redflex Traffic Systems (Canada) Limited to operate their own ASE program. Currently, this process can take a minimum of 12 to 18 months.

There is also an opportunity for local municipalities who have not implemented an administrative penalty system and have fewer organizational resources, to leverage the Regional program, including shared Screening Officers, Hearing Officers, administrative support and shared technology systems. This approach will also be discussed with our local municipal partners.

7. Conclusion

Early results of the two-year, limited use automated speed enforcement pilot have demonstrated persuasive evidence to support continued use. Staff proposes expanding the program and adding two mobile cameras in 2022/2023, 60 fixed cameras between 2024 and 2026 (approximately 20 per year) and increasing our red light camera program to 55 intersections by 2026 to align with commencement of administrative penalty system operations.

This report seeks Council authorization for the continued use of automated speed enforcement as a safety tool, the addition of two new mobile cameras in 2022/2023, and for the Regional Solicitor to establish an administrative penalty system once the Provincial regulatory framework is provided and include all associated costs, staff resources and potential revenues in the multi-year 2023-2026 budget submission.

Pending Council authorization, the Commissioner of Public Works may execute any agreement or ancillary documents required to exercise options to extend automated speed enforcement operating agreements.

For more information on this report, please contact Joseph Petrungaro, Director, Roads and Traffic Operations, at 1-877-464-9675 ext. 75220 or Lisa Brooks, Director, Court Operations, at ext. 73209. Accessible formats or communication supports are available upon request.

Recommended by:



Erin Mahoney, M. Eng.
Commissioner of Public Works



Dan Kuzmyk
Regional Solicitor



Approved for Submission:

Bruce Macgregor
Chief Administrative Officer

May 27, 2022
Attachment (1)
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