
Subject: Implementation of Automated Speed Enforcement

Report to: Public Works Committee

Report date: Tuesday, March 10, 2020

Recommendations

1. That Regional Council **AUTHORIZE** the use of automated speed enforcement (ASE) technology on Regional roads for a five-year contract term with an option to extend for an additional five (5) years;
2. That the Commissioner of Public Works **BE AUTHORIZED** to negotiate, enter into and execute an operating agreement with Her Majesty the Queen in Right of Ontario, as represented by the Ministry of Transportation (the "MTO") of Ontario for the use of ASE technology by Niagara Region including the access and use of license plate registration information subject to successful negotiations with the LAMs with respect to the Niagara Region Courts Inter-Municipal Agreement;
3. That the Commissioner of Public Works **BE AUTHORIZED** to negotiate, enter into and execute an operating agreement with Redflex Traffic Systems (Canada) Limited to provide ASE service for five (5) years from date of award during the second quarter of 2020 to 2024 in the amount of an upset limit of \$950,000 (including 13% HST) with an option to renew on the sole discretion of the Commissioner of Public Works, and subject to budget approval, for one additional term of five (5) years subject to successful negotiations with the LAMs with respect to the Niagara Region Courts Inter-Municipal Agreement;
4. That the Commissioner of Public Works **BE AUTHORIZED** to negotiate, enter into and execute a partnering agreement with the City of Toronto for processing automated speed infractions at the Joint Processing Center subject to successful negotiations with the LAMs with respect to the Niagara Region Courts Inter-Municipal Agreement; and
5. That following implementation of recommendations 1-4, Regional Staff will review the implementation strategy, including technology assessment, safety and educational evaluation, impacts on the Region's Provincial Offences Courts, countermeasures, and budget and revenue to cover the five (5) year period of 2020-2024 and **REPORT BACK** to Council with an update late 2020.

Key Facts

- The Province enacted ASE Regulation #398/19 under the Highway Traffic Act on December 1, 2019, to enable Ontario Municipalities to administer an ASE program in their jurisdictions. Provincial Guidelines are provided to ensure transparency and for the purpose of promoting road safety while maintaining public trust.
- In July 2019, Regional Council authorized Staff to pursue the potential use of ASE 2019 to improve road safety and influence driver behaviour; please refer to PW 35-2019.
- ASE is the methodology which falls under Vision Zero Road Safety Program that was approved by Regional Council on November 14, 2019; please refer to PW 64-2019.
- The costs associated with the implementation of initiatives under the Vision Safety Program, including ASE, was referred for consideration as part of the 2020 Budget Process in accordance with the recommendations in PW 64-2019. Regional Council approved the associated budget, subject to successful negotiations with the LAMs of the Niagara Region Courts Inter-Municipal Agreement to ensure the program is financially sustainable.
- Niagara Region has one of the highest ratios of fatal collisions per 100,000 population among jurisdictions in Southern Ontario based on the latest Provincial statistics.
- Speeding has a direct impact on the consequences of any crash. Speeding also increases the frequency of crashes as the decision stopping distance increases proportionately with the travel speed.
- ASE systems are an important element in speed management and can be a very effective countermeasure to prevent speeding-related crashes.
- Regional staff propose to operate a combination of mobile and semi-fixed ASE units (quantity of four (4)) in school and community safety zones that were determined with maximum speeding violations during 2019.
- Regional staff will communicate the philosophy and strategy behind the ASE program with Niagara residents and tourists through a communication strategy. ASE is a tool which will enhance the capabilities of traffic law enforcement throughout Niagara region and will supplement, rather than replace, traffic stops by law enforcement officers.

- In order to operate ASE, Niagara Region must execute agreements with the Ministry of Transportation of Ontario (MTO), Redflex Traffic Systems (Canada) Limited and City of Toronto to use automated speed enforcement technology.
- Regional staff have been participating in an inter-municipal working group that was initiated by the Ontario Traffic Council (OTC) in an effort to establish common operating principles for ASE across the Province. Some of the issues under discussion include: i) criteria for site selection; ii) fixed location vs. mobile enforcement; iii) days and hours of operations iv) common definitions of school and community safety zone; v) evaluation of the regime; vi) operating guidelines; and vii) expected impacts to court services.
- Niagara Region designated two Community Safety Zones in September 2019 at:
 - Regional Road 81 (York Road) from Queenston Road to Concession 3 Road in the Town of Niagara-on-the-Lake, St. Davids Public School; and
 - Regional Road 24 (Victoria Avenue) from Frederick Avenue to Regional Road 81 (King Street) in the Town of Lincoln, Twenty Valley Public Schools.
- A staff report is coming forward in Q2 2020 to assign additional community safety zones on Regional roads that can receive ASE deployment.
- Staff have begun discussions with the Local Area Municipalities regarding the Niagara Region Court Inter Municipal Agreement with the first meeting taking place on February 21, 2020 with the Local Area Treasurers. At this meeting a combined presentation with Transportation, Public Works and Finance, Corporate Services did receive general support around the Vision Zero Safety program related to the amendments regarding cost sharing between the Region and Municipalities.

Financial Considerations

In order to successfully implement the ASE program, Transportation and Court Services will require increased capacity and resources based on the projected number of charges expected to be issued with the proposed recommendation of four (4) cameras initially. These cameras will be distributed across Regional schools and Community Safety Zones during 2020. Fine revenue is expected to make the ASE program fully cost recoverable, subject to successful amendment of the Niagara Region Courts Inter-Municipal Agreement with the LAMs.

The most significant costs to operate an Automated Speed Enforcement program include:

1. Cost to design, supply, install, operate and maintain the equipment payable to Redflex Traffic Systems (Canada) Limited: The total estimated Vendor cost for an initial five-year contract term is \$856,000 including 1.76% non-refundable HST to operate four (4) ASE units, a combination of mobile and semi-fixed, that will be rotated in school and Community Safety Zones. The annual operating cost associated with the supply of each ASE unit is estimated to be \$33,100 (including 1.76% non-refundable HST), or \$132,400 total for four units. Costs also include one-time capital costs for camera set-up included in the 2020 capital budget.
2. Cost to access MTO vehicle ownership database, payable to MTO: The Province charges a per-transaction fee every time that their vehicle ownership database is accessed by the Joint Processing Centre. These fees are invoiced directly to the municipality on a quarterly basis. The MTO fee will be approximately \$1.06 per transaction; with the total cost varying depending on the number of charges that are issued.
3. Cost to manage the Joint Processing Centre, payable to the City of Toronto: The City of Toronto will operate an Automated Speed Enforcement – Joint Processing Centre on behalf of all participating municipalities. City of Toronto Processing Centre Staff will review the images from each site and determine whether or not a charge can be laid. The City of Toronto will chargeback each municipality on a cost-recovery basis. The chargeback will include both a portion of fixed costs (for the facility, equipment etc.) and a per-transaction cost. The estimated charge per unit fee will be \$12.50.
4. Niagara Region Court costs: To process, prosecute and collect the fines resulting from charges issued pursuant to ASE. The registered owner of the vehicle can choose one of two options on how to proceed with the ASE ticket:
 - In most cases, the registered owner pays the fine with no contest
 - In other cases, the vehicle owner can choose an “early resolution” dispute process or can also request a trial

Records from other Municipalities operating a Red Light Camera (RLC) program prove that 80% of issued tickets will be paid without contest.

To manage the increased ticket volumes for Court Services when the initiatives are fully operational, 12 permanent, full-time FTEs will be required for the Vision Zero Program as a whole (including both RLC and ASE). This includes one prosecution co-ordinator, nine court clerks, and two trial co-ordinators. The costs associated with additional staffing for the Vision Zero Program have been allocated between both RLC and ASE and are dependent on ticket volume for both initiatives. It is anticipated that more staffing support will be required for ASE due to a higher estimated ticket volume than RLC. For the purposes of the approved business case included in the 2020 budget (see Appendix 4), the cost of nine court clerks and one trial co-ordinator have been allocated to the ASE program. The cost of one trial co-ordinator and one prosecution co-ordinator have been allocated to the RLC program.

5. Transportation Services Division: The Division leads the planning and delivery of the program throughout Niagara Region; including the costs associated with program administration responsibilities, implementation, planning, communications, guidelines, consultant evaluation, coordination, and management with all parties and stakeholders. Staffing costs to manage the program include two permanent full-time project managers and one student for the Vision Zero program as a whole. This would include one project manager and one student to oversee the ASE program and one project manager overseeing the RLC program.
6. Business Licensing Unit: Accepting the delivery of Provincial Offences Tickets from the Toronto Joint Processing Center, verifying that the ticket matches the certificate of control and personal delivery of the package to Niagara Region Court.

A detailed breakdown of the program budget was included in the 2020 Operating Budget and endorsed by Regional Council on December 12, 2019.

See Appendix 4 for the program budget breakdown for the Vision Zero Program (including both the RLC and ASE initiatives) as presented and approved in the 2020 Operating Budget.

It is important to note that the Vision Zero Program will not proceed and no costs will be incurred under this program unless an agreement can be reached with the LAMs and the Inter-Municipal Agreement is successfully amended with respect to the share of revenues and operational costs, and therefore, no net revenue from this program has been included in the 2020 operating budget. The business case was prepared on the assumptions the RLC program would be operational for six months in 2020 and the ASE program would be operational for nine months in 2020. Timing of actual operation

of both the RLC and ASE initiatives is dependent on the timing of the successful negotiation of the Intermunicipal Agreement with the LAMs.

Fines Breakdown

The in court fines for speeding in Ontario are prescribed in Section 128(14) of the Highway Traffic Act are as follows:

Every person who contravenes this section or any by-law or regulation made under this section is guilty of an offence and on conviction is liable, where the rate of speed at which the motor vehicle was driven,

- a) is less than 20 kilometres per hour over the speed limit, to a fine of \$3 for each kilometre per hour that the motor vehicle was driven over the speed limit;
- b) is 20 kilometres per hour or more but less than 30 kilometres per hour over the speed limit, to a fine of \$4.50 for each kilometre per hour that the motor vehicle was driven over the speed limit;
- c) is 30 kilometres per hour or more but less than 50 kilometres per hour over the speed limit, to a fine of \$7 for each kilometre per hour that the motor vehicle was driven over the speed limit; and,

Please note that fines in Community Safety Zones and Construction Zones are doubled.

Analysis

The City of Toronto, on behalf of participating municipalities, awarded Redflex Traffic Systems to provide the service of automated speed enforcement to the province of Ontario

In May 2019, the City of Toronto issued a Request for Proposal No. 9148-19-0048 on behalf of all municipalities for the provision of ASE services. The vendor is required to supply, install, operate, maintain and test new ASE systems at various sites identified by the municipalities.

The City of Toronto awarded the contract to Redflex Traffic Systems (Canada) Limited, the highest scoring proponent identified in the evaluation process that met the requirements as set out in the Request for Proposal. Redflex Traffic Systems will be responsible for the supply, installation, operation, maintenance and decommissioning of

an automated speed enforcement system and maintenance of ASE image processing services.

This process ensures the same equipment is used throughout the Province and provides cost savings associated with group purchasing. Award of this Request for Proposal is a crucial step as the specific model of ASE equipment selected is prescribed in the Highway Traffic Act regulation. Niagara Region's participation aligns with co-operative purchasing provisions set out in Niagara Region's Purchasing Bylaw.

To promote safety in high-risk areas along Regional roads and assess impacts on Court system, Regional Staff propose to operate a combination of mobile and semi-fixed units with specified hours of operations to adhere to Niagara Regional Court capacity

Regional staff propose to operate a combination of mobile and semi-fixed units (quantity of four (4)) on Regional roads, during the second quarter of 2020. This will allow staff to quantify the number of charges and rate at which these charges are disputed. This opportunity will also allow Staff to evaluate the technology and service provided by the Vendor. Staff will report preliminary findings to Council late 2020.

Regional staff will rotate the units among school and community safety zones throughout proposed locations during 2020 with additional locations to be identified for 2021. This scenario allows for maximizing coverage across Niagara region and will help create broader awareness of ASE to familiarize motorists with the technology and the system.

Agreements with Ministry of Transportation Ontario, Redflex Traffic Systems and City of Toronto are required to operate an automated speed enforcement program

To operate an ASE program, Niagara Region is required to enter into necessary agreements with the following:

- Ministry of Transportation Ontario - an operational agreement for the use of automated speed enforcement on Regional roads and access to license plate registry information.
- Redflex Traffic Systems (Canada) Limited - for the supply, installation, operation and maintenance of the ASE units within Niagara Region.

- City of Toronto - for the operation and cost-sharing of the joint processing centre, which issues the Certificate of Offence. The City of Toronto will operate an ASE joint processing centre on behalf of partnering municipalities. The ASE joint processing centre will employ Provincial Offences Officers, designated by the province, to issue charges captured by the cameras, as well as additional support staff for site selection, investigation, contract management and record management. Operating costs for the ASE joint processing centre will be cost-shared by partnering municipalities.

As authorized by Regional Council pursuant to PW 64-2019, and the subsequent budget approval for the Vision Zero Road Safety Initiatives (including ASE), staff are in the process of initiating discussions with the LAMs to pursue an amendment to the Niagara Region Courts Inter-Municipal Agreement, which is a necessary first step in order for the program to be financially sustainable. The implementation of the ASE program, as indicated in the recommendations of this report and PW 64-2019, is subject to the successful completion of negotiations with the LAMs with respect to Niagara Region Courts Inter-Municipal Agreement (which will be the subject of a future report to Council to advise as to the outcome of the discussions and seek approval to execute an amendment to the Inter-Municipal Agreement as necessary).

Site Selection Process

The selection of the specific sites is determined using a data-driven approach which involves a thorough analysis of different components including speed, school type, daily volume, percent of sidewalk, boulevard, playground, parks and recreational centres, the number of students walking or crossing Regional roads, and collision data. The criteria for prioritizing and selecting sites was developed through the ASE Municipal Working Group and incorporated best practices as outlined by the National Highway Traffic Safety Administration's (NHTSA) operational guidelines for Speed Enforcement Camera Systems, and lessons learned from other jurisdictions in North America.

Niagara Region site selection methodology was developed using the above criteria in conjunction with Niagara Region's geographic information system (GIS) data, traffic data, and on-site visits by Regional Staff members. Traffic data such as annual average daily traffic (AADT) counts and proposed infractions of speeding violations were provided by a consultant, Pyramid Traffic Incorporation. The Niagara Student Transportation Services provided an approximate number of students travelling to schools from neighbouring area walking or crossing Regional roads.

Appendix 3 includes site locations for the launch and implementation of Automated Speed Enforcement during 2020 based on the criteria outlined above.

An education campaign will be launched to create safety awareness of automated speed enforcement throughout Niagara Region on Regional roads

Regional staff will create a communication plan utilizing different methods to advertise the use of ASE in school and community safety zones on Regional roads. The communication plan will include the following tactics to effectively reach residents and motorists:

- Ontario Traffic Council- Automated Speed Enforcement communications campaign: that includes a site that will act as a “hub” for individuals looking for more information on ASE in Ontario.
- A 90-day warning period in advance of ASE system activation and each new municipal ASE camera deployment that includes advance warning sign as per below detail.
- Social media posts (Facebook, Twitter, Instagram).
- Website content about the program (niagararegion.ca) supported by Local Area Municipalities websites.
- On-Street Regulatory Signage as per below detail.
- Other tactics to be determined as the plan is developed.

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Local Impact

Regional staff have been in dialogue with a number of the LAMs to understand how they can participate in road safety initiatives including ASE and RLC in their jurisdictions. Niagara Region will launch and lead different road safety regimes as part of Vision Zero Road Safety initiatives and consult with the LAMs on possible future implementation of ASE equipments once the program has been operational and evaluated for performance.

Staff report PW 46-2019 recommended that Staff initiate discussions with the LAMs to pursue an amendment to the Intermunicipal Agreement to ensure financial sustainability for the successful operation and durability of the overall Vision Zero Road Safety Program. This operational model will benefit Niagara Region and Local Area Municipalities by ensuring a holistic approach, minimizing cost and allowing for the collection of revenue to offset operating costs.

More recently, the Province has issued guidelines that provide that Municipal revenue, collected under any Municipal ASE program, that exceeds the cost of delivering ASE program is to be used to support local public safety and educational initiatives. Accordingly, Parliamentary Assistant to the Minister of Transportation will be conducting a 180-day review to ensure the ASE program is operating as intended by meeting the objective of transparently improving road safety while maintaining public trust.

The review will be conducted by a specialized consultant on behalf of participating municipalities. The Hospital for Sick Children has been selected jointly to provide:

1. Feedback on the ASE site selection process across the province;
2. Short and long term ASE effectiveness in reducing vehicle speed and improving road safety; and
3. Feedback throughout two years post implementation and program evaluation as requested by the province.

Relevant Consultation

This report has been written in consultation with staff from Legal and Court Services, and Finance.

In addition, Public Health, School Board and Niagara Regional Police Services all are supportive of moving forward with this initiative and all share the same concerns around road safety as presented in this report.

Alternatives Reviewed

In addition, Regional staff have implemented a number of other supporting safety initiatives throughout Niagara Region:

- Installation of flashing beacons and decreasing speed limits in school zones.
- Enhanced pavement markings and signage.
- "Speed Display Trailer" mobile unit that is prioritized among Regional roads to educate motorist on their speed.
- Implementation of PXOs at different Regional road locations.
- In-service road safety reviews to reduce collision frequency and severity.

Relationship to Council Strategic Priorities

Implementing automated speed enforcement supports the 2019 to 2022 Strategic Plan and aligns with Transportation Master Plan TMP Vision 2041

Regional Council adopted Niagara Region Strategic Plan 2019-2022 with the vision statement of striving to achieve a prosperous, safe and inclusive community that embraces our natural spaces and promotes holistic wellbeing and quality of life. This project will address Niagara Region's commitment to the safe system approach, by recommending extensive, proactive and targeted initiatives, informed by data and aimed at eliminating serious injury and fatalities on Niagara Regional roads.

Alignment to Niagara Region Transportation Master Plan

Niagara Region is undergoing significant change and by 2041 will have grown and evolved on economic, demographic, social and technological fronts. This recommendation will support growth and enhance Niagara globally by promoting an integrated network of roads and highways for the safe movement of people and goods.

This recommendation is part of Transportation's Vision Zero Road Safety Program that is critical in building a safe and inclusive community. It is a philosophy of significant

departure from the traditional approach of road safety by providing a transportation network with safer walking, cycling, and motor vehicle routes.

Automated Speed Enforcement (ASE) is a modern system designed to work in tandem with other road safety measures, like engineering and education initiatives, to help improve safety for people of all ages by increasing speed compliance, altering driver behaviour and increasing public awareness about the critical need to slow down. The system is applied evenly and consistently to all motorists and is not biased towards or against any sector of the population to ensure equity and prioritizing vulnerable road users.

Other Pertinent Reports

PW 64-2019, Vision Zero Road Safety Program, November 5, 2019

PW 35-2019, Automated Speed Enforcement – Safer School Zones, July 9, 2019

Prepared by:

Sulaf Alkarawi, P.Eng.
Associate Director, Transportation Planning
Public Works Department

Recommended and Submitted by:

Ron Tripp, P.Eng.
Acting Chief Administrative Officer /
Commissioner Public Works Department

This report was prepared in consultation with Carolyn Ryall, Director Transportation Services, and reviewed by Donna Gibbs, Director Legal and Court Services and Dan Ane, Manager Program Financial Support.

Appendices

Appendix 1 Provincial Guidelines provided by Ministry of Transportation

Appendix 2	Ontario Regulation 398/19 under Highway Traffic Act Automated Speed Enforcement
Appendix 3	Site locations for the launch and implementation of Automated Speed Enforcement during 2020
Appendix 4	Vision Zero Road Safety Program Costing