
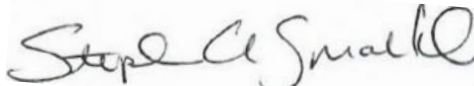




CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Transportation Operations & Maintenance Division
and
CORPORATE SERVICES DEPARTMENT
Legal and Risk Management Services Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	September 20, 2021
SUBJECT/REPORT NO:	Automated Speed Enforcement Update (PW20002(a)/LS21035) (City Wide)
WARD(S) AFFECTED:	City Wide
PREPARED BY:	Ryan Krantz (905) 546-2424 Ext. 5663 Peter Locs (905) 546-2424 Ext. 6015
SUBMITTED BY:	Mike Field Acting Director, Transportation Operations & Maintenance Public Works Department 
SIGNATURE:	Stephen Spracklin, City Solicitor Legal and Risk Management Services Corporate Services Department 

RECOMMENDATIONS

- (a) That the one-year automated speed enforcement (ASE) pilot approved through Report PW20002 be implemented as a permanent roadway safety program utilizing two mobile ASE units installed at rotating and scheduled operating locations;
- (b) That the proposed 24 ASE program operating locations and associated schedule, comprised of one location per Ward and nine school zones, attached to Report (PW20002(a)/LS21035) as Appendix "A", be approved for implementation in 2022;

- (c) That the cost of transitioning from a pilot and operating a permanent ASE program be funded from the Red Light Camera (RLC) Reserve #112203;
- (d) That the ASE program operating locations, which have not previously been designated as Community Safety Zones (CSZ), be approved for designation and Traffic By-law 01-215 be amended accordingly, through passage of the amending by-law attached to Report (PW20002(a)/LS21035) as Appendix “B”; and
- (e) That the General Manager of Public Works, or their designate, be authorized and directed to enter into and/or extend the appropriate agreements with the Ministry of Transportation, City of Toronto and Redflex Traffic Systems (Canada) Limited for the permanent ASE program.

EXECUTIVE SUMMARY

ASE was piloted in the City of Hamilton between October 2020 and September 2021 operating at 18 different locations as approved by Council. Data collected during the pilot demonstrates that ASE technology is effective at reducing motor vehicle speeds and increasing driver compliance with posted speed limits. Evidence suggests that the presence of ASE on a roadway changes driver behaviour because when the units were removed from operating locations there was a measurable residual benefit in vehicle speeds.

During operations the ASE equipment was impacted by intentional damage and vandalism which interfered with their function in some instances. Measures were put in place during the pilot which reduced instances of damage and vandalism and were effective at reducing impacts. The site selection strategies utilized were found to be effective and experience from the pilot has provided additional enhancement criteria related to site selection to ensure equipment is not located on sections of roadways that have little to no natural surveillance.

Financial and resourcing analysis of the ASE pilot indicates that the pilot could be successfully transitioned from a pilot to a permanent roadway safety program. However, there are considerable barriers related to expanding the program beyond two ASE units utilized by the pilot related to financial sustainability, legal impacts on the court system and resourcing pressures.

The Province of Ontario is likely to allow ASE to be processed through an Administrative Monetary Penalty system beginning in 2023/2024 which would be beneficial and provide financial relief, enabling future ASE program expansion. Many municipalities in similar positions to Hamilton are delaying implementation or expansion

of ASE until Administrative Monetary Penalty systems become available for these offences, based on concerns with the impact on Courts and POA enforcement. Since ASE has proven to be an effective tool at reducing motor vehicle speed limit compliance, it is recommended that it is implemented as a permanent roadway safety program and matching the scale of deployment to what was used during the pilot.

Further, it is recommended that proposed operating locations and program schedule for 2022 be approved, which includes 1 ASE location per Ward and 9 school zones which when evaluated were found to be locations that receive the highest degree of benefit from ASE operations. Locations beyond 2022 would be selected and presented to Public Works Committee for approval in the future.

Alternatives for Consideration – See Page 11

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: Net operational costs of ASE exceed ticket fees recovered through violations. The following is the approximate yearly annual operating cost, given current volumes and operating two mobile ASE units, for the implementation a permanent ASE program:

ASE Equipment Contract	\$ 300,000
ASE Infraction Processing (City of Toronto)	\$ 400,000
Vehicle License Information (MTO)	\$ 30,000
POA Administration	\$ 1,250,000
Communications (OTC Working Group)	\$ 20,000
Regulatory Signage and Internal Operations	\$ 200,000
Total estimated operating cost (without HST)	\$ 2,200,000
 Estimated Recovery Costs of Violations (20,000 @ \$80/ticket)	 \$ 1,600,000
 Net Projected 2022 Operating Cost	 \$ 600,000

The RLC Reserve #112203 has approximately \$5.6 million in available funds and is utilized to fund roadway safety initiatives as defined by the Vision Zero Action Plan 2019-2025. If ASE is expanded by as few as two additional units (doubling of the recommendation) the RLC reserve is projected to be exhausted as early as 2024. This would result in considerable cost pressures and the City would need to determine a different funding model for roadway safety initiatives. Operating two ASE cameras, as recommended, will enable the RLC reserve to be sustained with a positive balance until AMPS is implemented which would considerably ease the associated program cost pressures.

Staffing: Given current volumes, there are no staffing impacts based upon the recommendations for the ongoing operation of 2 ASE units compared to what was required for the pilot. Any increases to the number of ASE units will result in the possible need for additional staffing resources for POA Legal, POA Administration and Transportation Operations & Maintenance.

Legal: It is expected that Hamilton's POA judicial resources (as appointed by the Province of Ontario) will continue to be constrained from increased volumes of cases, due to the COVID-19 related court closures. Without the addition of judiciary and a growing, rather than shrinking court schedule, the volume of additional charges has an adverse effect on POA fine revenues. This impact is on the full range of fine revenue received by the City, not just newly added charges. Expansion beyond the proposed ASE operating structure will result in additional pressure on the provincial court system; specifically, judicial resources as well as an increased need for prosecution and administration staff. The costs of the courts in Hamilton are borne by the City, but the availability of judicial staff and judicial control of court schedules rely on Provincial appointments.

Although there has been discussion with respect to the transitioning of ASE to the Administrative Monetary Penalty System (AMPS), the regulatory framework still requires development by the Ministry of the Attorney General which will govern AMPS across the Province and is expected to be released in mid-2022 for a mid-2023 potential launch. Even with the transition from POA to AMPS, there will be an overlap with courts processing charges and AMPS section for a few years.

HISTORICAL BACKGROUND

On September 1, 1998, the *Highway Traffic Act*, R.S.O. 1990, c. H.8 (HTA) was amended to permit municipalities to establish community safety zones (CSZ) on public roads under their jurisdiction. Under Section 214.1(1) of the HTA, delegated authority was given to the Council of municipalities to designate, by by-law, a part of a highway under its jurisdiction as a community safety zone if, in the Council's opinion, public safety is of special concern on that part of the highway.

On May 30, 2017, the Province of Ontario passed Bill 65, the Safer School Zones Act, which amended the HTA to facilitate the municipal adoption of Automated Speed Enforcement (ASE) technology on roads with speed limits under 80 km/h in designated school zones and CSZ's.

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On February 13, 2019, Council approved the Hamilton Strategic Road Safety Program and Vision Zero Action Plan 2019-2025 through Report PW19015, which identified the use of ASE technology.

On January 22, 2020 Council directed, via a motion amending recommendations in Report PW20002, the use of ASE for a one-year limited use pilot in designated school zones and CSZs utilizing two mobile ASE units.

On July 10, 2020 Council approved the implementation and use of CSZ's via amendments to By-law 01-215, a Community Safety Zone Guideline, designation of 12 CSZ locations and an ASE pilot location operation schedule through Report PW20045. Further, Transportation Operations & Maintenance were directed to consult with Ward Councillors and report back in Q4 of 2020 with an auxiliary list of proposed ASE pilot locations.

In October 2020, the ASE pilot began operations at the first scheduled location on Stone Church Road East between Pritchard Road and Dartnall Road.

On December 16, 2020, Council approved an auxiliary list of 6 additional CSZ/ASE locations, and a revised ASE pilot schedule through Report PW20045(a).

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

There are ongoing discussions with respect to the transitioning of ASE to Administrative Monetary Penalty System (AMPS). The regulatory framework is still in development by the Ministry of the Attorney General which will govern AMPS across the Province and is expected to be released in mid-2022 for a mid-2023 potential launch. Even with the transition from POA to AMPS, there will be an overlap with courts processing charges under the current Provincial Offences framework and the AMPS section for a few years until in-process trials and early resolution meetings are resolved.

The proposed recommendations comply with and support Ontario Regulation 398/19 Highway Traffic Act, Hamilton Council Strategic Plan 2016-2025, Hamilton Transportation Master Plan and the City of Hamilton Vision Zero Action Plan 2019-2025.

RELEVANT CONSULTATION

The following key stakeholders have been consulted with respect to the development and content of this report:

- Provincial Automated Speed Enforcement Steering Committee;
- Hamilton Strategic Road Safety Committee;

- Road Safety Committee of Ontario (ROSCO);
- Ontario Ministry of Transportation;
- Hamilton Police Services
- Ontario Traffic Council and other municipalities implementing ASE;
- City Clerks; and
- Corporate Services (POA Legal and POA Admin).

ANALYSIS AND RATIONALE FOR RECOMMENDATIONS

The 2017, 2018, 2019 and 2020 Annual Collision Reports consistently identify that speeding and aggressive driving are contributing factors for approximately 50% of all collisions City wide. The Council approved Vision Zero Action Plan 2019-2025 identifies that ASE technology is a possible roadway safety measure that could aid in altering driver behaviour for the benefit of all road users and further improve the safety performance.

Like RLC's, ASE technology is an automated roadway safety measure system that utilizes cameras and sensors to detect operational parameters of motor vehicles, specifically speed. ASE units detect vehicles that exceed the posted speed limit and logs information that is used to issue speeding fines to identified registered vehicle plate owners. ASE is actively being used in other Ontario jurisdictions as both permanent and pilot programs, notably the City of Toronto, City of Mississauga, York Region and Region of Durham.

The objectives of the City of Hamilton one-year ASE pilot project were to gauge the technology's effectiveness to mitigate speeding, change driver behaviour and enhance roadway safety in alignment with the Vision Zero Action Plan 2019-2025's goals and objectives. The pilot also examined operational characteristics, cost of use/implementation, resourcing requirements and impacts on the Provincial Offences Court system. Analysis and results of the pilot project was leveraged to formulate recommendations (a) through (e) in Report PW20002(a)/LS21035 regarding transitioning from a pilot to a permanent roadway safety program.

Roadway Safety

ASE was approved to operate as a pilot at 18 different locations between October 2020 and September 2021. Units were installed and operated at the approved locations either for two week or one-month intervals, in compliance with the approved schedule.

Transportation Operations & Maintenance conducted pre-enforcement and post-enforcement speed and volume data collection for all ASE locations to assess changes in driver behavior (vehicle speeds). This information, as well as data from the ASE units

for each location was published on the ASE City's webpage (www.hamilton.ca/automatedspeedenforcement).

Data from all 18 ASE locations was not available during the development of Report PW20002(a)/LS21035, however, data from approximately two-thirds of the locations demonstrates that vehicle speeds were reduced on roadways where the units were operating and lasted residually after they were removed.

Vehicle compliance to the posted speed limit increased by 29% and the average reduction of the 85th percentile speed (the speed at or below which 85% of vehicles travel) between the pre-enforcement period and enforcement period was 10 km/h. Mountain Brow Boulevard between Broker Drive and Mohawk Road East benefitted the most from ASE operation as the 85th percentile speed was reduced from 67 km/h during the pre-enforcement period to 48 km/h during the enforcement period, which is a total reduction of 19 km/h. The posted speed limit on Mountain Brow Boulevard is 40 km/h. The highest recorded non-compliant speed was 78 km/h above the posted speed limit which occurred at the Stone Church Road East location.

Residual benefits were observed after ASE units were removed and relocated as the average reduction of the 85th percentile speed between the pre-enforcement period and post-enforcement period was 5 km/h.

A detailed list of ASE operation statistics is attached as Appendix "C" to Report (PW20002(a)/LS21035) for reference.

Based upon the empirical results of the pilot when compared to other speed management traffic calming measures, the results demonstrate that ASE technology can considerably reduce vehicle operating speeds and therefore increase roadway safety performance for all road users.

Pilot Operations

The pilot utilized two mobile ASE units which worked paired monitoring both directions of vehicular traffic at each location. They were cycled from one location to the next as per the Council approved ASE operating location and schedule. The 18 ASE pilot locations provided thorough and representative types of roadways and were selected using the Community Safety Zone Selection Guideline and with the aid of consultation with all Ward Councillors.

The process to select and approve ASE operating locations was effective since it was evidence based and included Ward consultation. It is preferred that this process be used for location selection and approval if ASE is approved to transition from pilot to a permanent program.

Unfortunately, ASE units were regularly targeted and suffered varied degrees of intentional damage and vandalism. In some instances, this interfered or disabled the operation of the units until they were able to be attended to by the City or the ASE vendor. To address these scenarios, Transportation Operations & Maintenance regularly monitored the status of the cameras, conferred with Corporate Security on mitigation techniques and worked with Hamilton Police Services. While this approach did not stop damage and vandalism, it reduced and lessened operational impacts. The mobile ASE units are susceptible to damage and vandalism since they are ground mounted and the camera/radar lenses easily accessible to the public.

The Vendor is investigating additional security measures which could be implemented that would assist in identifying individuals intentionally causing damage. There is ASE equipment in which the camera/radar is mounted on a post out of reach of the general public, however this type of equipment is not mobile and only suitable for permanent and static locations, like RLC units. Permanent ASE locations could be considered in the future should the program be implemented and expanded.

Enhanced evaluation of site selection could assist in further mitigating damage and vandalism by considering the availability of natural surveillance. ASE units which operated on roadways that were rural or semi-urban (with minimal natural surveillance) were generally more susceptible to being impacted. Applying Crime Prevention through Environmental Design (CPTED) principles could improve site selection criteria. Operating ASE units in isolated environments should be avoided.

Transportation Operations & Maintenance utilized internal resources in both the Transportation Operations and Roadway Maintenance sections to manage the ASE pilot and conduct regular in-field monitoring. Existing staff resources are adequate to support the proposed recommendations and additional internal resources may be required to support an expanded program.

Resourcing, Pressures and Provincial Offences Court System

ASE processing is managed through a contractual agreement with the City of Toronto and charges issued are filed with the City's resources in POA Court Administration. The processing and resolution of these infractions is done in collaboration with POA Legal, the Provincial Prosecution Offices and the Judiciary. Existing resources adequately supported the pilot and proposed recommendations. However, an expanded program would result in a direct resource impact based on increased volumes. Estimated staffing impacts are the addition of:

- One Court Administration Clerk (per 5,000 charges);
- One Court Reporter;
- Three Prosecutors; and
- One Prosecution Administration Clerk.

The above cost would result in an additional pressure against RLC and ASE revenues of approximately \$1,000,000 per year. Staffing and work space costs have not been included as part of the cost estimation.

These, or potentially greater staffing implications, will affect available space or capital costs in the City's Courthouse and higher levels of charges may need consideration of expanded court space for courtrooms if a court schedule expansion were likely to be approved. Costs and implications outlined above would potentially affect City POA revenues and the RLC Reserve #112203, though the fiscal impact may develop over a period of time.

Hamilton utilizes an Administrative Monetary Penalty System for parking and licensing violations which has proven to be an efficient process for resolving parking/licensing ticket disputes. Currently AMPS is not available for processing ASE violations however the City of Hamilton, along with other participating municipalities and organizations, including the Ontario Traffic Council (OTC), have been in contact with the Ministry of Transportation, requesting the use of the AMPS to process ASE violations. The request includes legislative amendments that would direct the revenue from ASE penalties to municipalities. Guidelines from the Province indicate that Municipal revenue collected under any Municipal ASE program that exceeds the costs of delivering the ASE program is used to support local public safety and educational initiatives.

Further, the City of Hamilton is also participating in the ASE AMPS working group led by the OTC. The working group will continue the advocacy and communication towards a shift from Provincial Offenses Act (POA) to an AMPS process for administering ASE, RLC and automated school bus camera offences (ASBC).

The latest indication from the MTO is that AMPS may be available to process ASE in 2022/2023. However, the City of Hamilton would need to review and develop a program to accommodate this change. It is the opinion of Transportation Operations & Maintenance, Legal Services and POA, that the operation of AMPS would not be ready for operation until the Q2/Q3 of 2023. Enabling AMPS for ASE would be of great benefit as it would likely provide financial sustainability and therefore any expansion of the program beyond the recommendations should be held until that time.

Permanent Program

Based on the operational experiences gained from the ASE pilot, it is recommended that it is established as a permanent roadway safety program.

The recommendations propose that the City continues to operate two mobile ASE units and not expand operations until AMPS is implemented in the future. To enhance deployment without introducing unsustainable impacts the two units can be un-paired

and operated independently at different locations simultaneously. This approach would double the number of operational locations but only enable enforcement of one direction of travel per location. The most optimal direction of travel with the poorest recorded speed limit compliance would be used and the direction of travel not being monitored would still benefit from the 'halo' effect of ASE operating on the roadway. Regulatory signage required for ASE does not indicate directional enforcement, only that equipment is in operation.

Operating two mobile ASE units, as outlined above, requires the selection of 24 locations. Transportation Operations & Maintenance evaluated candidate locations city wide using the Community Safety Zone Selection Guideline. This guideline, prepared as part of Report PW20045, provides a consistent, repeatable, transparent and defined method for designating CSZ's and ASE and is in alignment with Provincial Guidelines. Secondary screening was also conducted as ASE technology has operational constraints such as a limit to the total number of lanes being monitored, physical obstructions and availability of natural surveillance. Of the evaluated candidates, top scoring locations from each Ward were identified and the top scoring school zone locations.

Appendix 'A' attached to Report (PW20002(a)/LS21035) contains the list of the proposed 15 Ward (one per Ward) and 9 school zone operating locations. When combined this provides 24 locations for ASE operations. Providing equal distribution across all Wards will enable changing drivers' behaviour regarding speed management in a holistic manner.

The ASE operation list, attached to Report (PW20002(a)/LS21035) as Appendix 'A', includes a deployment schedule for 2022. The schedule details when advanced signage is required to be posted and when the ASE units would be deployed, ensuring that they are planned and align with the school season for selected school zone locations.

ASE is only permitted to be used for roadways that have been designated as a CSZ and/or a school zone. Designation, via amendments to City of Hamilton By-law 01-215, is required for the 15 identified locations as detailed in Appendix 'B' to Report (PW20002(a)/LS21035). The nine identified school zones have also been included in the proposed amendments as school zones can have dual designation, thereby benefitting from the doubling of traffic offence fines that is permitted with CSZ's per the Highway Traffic Act.

The proposed deployment of the permanent ASE program only encapsulates 2022 as recommended in Report PW20002(a)/LS21035. Locations beyond 2022 would be brought forward by Transportation Operations & Maintenance for approval at a future date and prior to subsequent operating cycles on a go-forward basis.

ALTERNATIVES FOR CONSIDERATION

Alternatives include discontinuing the program or expanding the program.

Discontinuing the ASE program would remove an effective tool in the City's Vision Zero toolbox. Data collected at ASE pilot locations shows that it is successful in reducing operating speeds on roads where other traffic calming measures may not be a viable option.

Expanding the program and increasing the number of cameras beyond those recommended in the report at this time has impacts from a processing, staffing and financial perspective.

City staff may not have the resources to accommodate an increase in cameras without hiring additional staff, which could put further strain on the RLC fund.

While expansion of the ASE system in the future may be desirable, it should only be expanded beyond the current level after the Province implements legislation that would permit the processing of ASE offences by way of an AMPS process, and after such a process is appropriately developed, budgeted for, and staffed. Premature expansion of the ASE system would create an even greater challenge for POA due to the court closures and judicial constraints that have been compounded by the pandemic. Adding potentially tens of thousands of ASE offence matters to the current dockets without having an AMPS process in place would have an adverse effect on the administration of the POA Courts and reduce POA fine revenues for all offences, not just fines for ASE speeding offences.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Community Engagement and Participation

Hamilton has an open, transparent and accessible approach to City government that engages with and empowers all citizens to be involved in their community.

Economic Prosperity and Growth

Hamilton has a prosperous and diverse local economy where people have opportunities to grow and develop.

Healthy and Safe Communities

Hamilton is a safe and supportive City where people are active, healthy, and have a high quality of life.

Built Environment and Infrastructure

Hamilton is supported by state of the art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report (PW20002(a)/LS21035) – 2021 ASE Operating Locations & Schedule

Appendix “B” to Report (PW20002(a)/LS21035) – Amending By-law to City of Hamilton By-law 01-215, being a By-law to Regulate Traffic, to designate Community Safety Zones

Appendix “C” to Report (PW20002(a)/LS21035) – ASE Pilot Operation Statistics