



Guidelines for the use of Automated Speed Enforcement in Ontario

Prepared by the Ontario Traffic Council
in conjunction with the
ASE Steering Committee
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Background

Since the enactment of the Safer School Zones Act, 2017, the Ontario Traffic Council has been working with interested municipalities on the implementation of automated speed enforcement in Ontario. The legislation authorizes the use of automated speed enforcement in school zones and community safety zones. Automated speed enforcement, commonly referred to as ASE, is the use of a prescribed device that consists of a camera, a speed measurement device and technology that operate in combination to result in images of motor vehicles being taken, and data recorded, when a motor vehicle travels on a road way past the device at a rate of speed greater than the posted speed limit. The operation of the device does not require that a human be present or on site.

For over two years, the Ontario Traffic Council and participating municipalities have worked to ensure the effective use of automated speed enforcement as a road safety tool throughout Ontario. Considerable research was undertaken to determine how automated speed enforcement was introduced in other jurisdictions both within Canada and across North America. It is expected that the provisions related to automated speed enforcement will be proclaimed in effect in late 2019. In anticipation of the proclamation, various communication platforms have been developed to inform the public with regard to the automated speed enforcement program in Ontario. One example is the microsite: aseontario.com. The public has the right to expect a fair and transparent automated speed enforcement program that is consistent across Ontario and that generates charges based on the proper use of a prescribed device and the application of other, clear guidelines. Open and transparent communication with the public is viewed as essential to the success of the program.

Given that only sixteen municipalities are expected to use automated speed enforcement in the first year, these guidelines have been prepared to ensure that lessons from and decisions made during the initial implementation phase are documented not only to provide guidance for those municipalities that follow but to provide the public with transparency regarding the operation of automated speed enforcement in their communities. In preparing these guidelines, the implementation group had the benefit, for example, of the National Highway Traffic Safety Administration's Speed Enforcement Program Guidelines and Speed Enforcement Camera Systems Operational Guidelines; Winnipeg's Photo Enforcement Final Report; the Saskatchewan Evaluation of the Photo Speed Enforcement Pilot Program and the Alberta Automated Traffic Enforcement Technology Guidelines. As with the Alberta and other guidelines, these guidelines are intended to promote consistent, fair, effective and transparent use of automated speed enforcement as a road safety tool throughout Ontario.

Guidelines

Objective: To ensure that automated speed enforcement is used as a road safety tool to promote compliance with posted speed limits in school and community safety zones with a resulting improvement in collision and other outcomes. ASE must only be operated as part of a road safety plan to improve speed compliance and reduce collisions.

With this objective in mind, the following are guidelines for or features of a road safety based automated speed enforcement program:

1. **Evaluation:** The operation of automated speed enforcement should be subject to evaluation to ensure that the objective of improved speed compliance is being met in specific sites as well as generally within communities and across municipalities. Evaluation results should be made available to the public.
2. **Site Selection:** To support the objective, automated speed enforcement should only be utilized in school and community safety zones that meet or exceed the criteria for site selection as set out in Appendix A. Individual municipalities may score site selection in a manner that best reflects issues specific to that municipality; however site selection assessments should be reflective of risk; low or poor speed compliance; frequency of collisions and volume of vulnerable road users in or around that site.
3. **Signage:** Automated speed enforcement should only be operated in school and community safety zones that are designated by by-law and signed as required. All sites must have signage indicating the posted speed limit for that site. Neighbourhood or area signage is not sufficient. Advisory signage indicating that drivers are approaching an ASE site should be posted.
4. **Speed Limit:** The speed limit for the site must be posted. Default speed limits cannot be used. Time of day or variable speed limits also cannot be used unless MTO approves signage that permits clear communication of the applicable speed limit.
5. **Devices:** Automated speed enforcement must only be operated in accordance with the applicable regulation made under the *Highway Traffic Act*. This means, for example, that only prescribed automated speed enforcement devices can be used to detect and charge motor vehicles travelling above the posted speed limit. Any use of a device that is not prescribed will result in images not being processed and no charges laid, or if charges are laid the charges will be withdrawn.
6. **Transition Zones:** Automated speed enforcement must not be used to detect motor vehicles travelling above the posted speed limit in so-called transition zones. The definition of transition zone as developed in Alberta applies to the use of ASE in Ontario. A transition zone is the area immediately adjacent to a maximum speed limit sign, when the sign indicates a speed change from a higher speed to a lower speed; or vice versa, in accordance with the Table in Appendix B.
7. **School Zones:** ASE cannot be used in school zones where the lower speed limit is signaled or communicated through the use of flashing beacons as there is no ability to prove whether the flashing lights or beacons were in operation at the time of the

offence. Signage communicating the lower speed limit must be posted through the use of tabs or otherwise.

8. Threshold speeds: Municipalities will operate automated speed enforcement using the threshold speeds as established by the ASE Steering Committee. These thresholds speeds reflect information gained through an extensive literature review of experiences in other jurisdictions; guidelines or recommendations in use in other jurisdictions or from agencies involved in speed or traffic safety enforcement; traditional or police speed enforcement practices in Ontario municipalities and considerations of long term program sustainability. The use of automated speed enforcement should not result in all motor vehicles travelling above the posted speed limit being charged. Such an approach is not sustainable due to overall volume as well as severely diminished acceptance of ASE by the public. As any operation of a motor vehicle above the posted speed limit is speeding, and therefore an offence under section 128 of the *Highway Traffic Act*, threshold speeds are not to be publicized or communicated in any way by participating municipalities or individuals involved in implementing or delivering the program, in order to avoid the appearance or creation of higher speed limits than those posted.
9. Charging Process: All motor vehicles captured by the automated speed enforcement device travelling above the posted speed limit, and for which the alpha numeric characters are clearly ascertainable, shall be charged with speeding. No motor vehicles are exempt from being charged with speeding; however some vehicles, such as emergency vehicles, may claim a statutory exemption, as set out in the *Highway Traffic Act*, and those charges, provided that the incident falls within a listed exemption, may be withdrawn by the prosecutor. Only provincial offences officers, employed by municipalities and designated as such to enforce the *Highway Traffic Act* by the Minister of Transportation, may review images, obtain vehicle plate registration information and complete and sign charging documents. All images or incidents captured by the ASE device must be processed.
10. Required information: Irrespective of whether images are processed by and charges laid by a joint processing centre or a processing centre run by an individual municipality, or group of municipalities, no charges shall be laid unless there is plate registration information for the date of the offence; there is information that the offence took place in a school or community safety zone; that the evidence was obtained using a prescribed device; that the motor vehicle plate alpha numeric characters are clearly identifiable; that the motor vehicle is somehow marked in the image to identify that motor vehicle as the one travelling in excess of the posted speed limit; that the provincial offences officer has viewed the certificate of accuracy for the device issued within 12 months of the offence date and that all guidelines herein have been complied with.

A municipality wanting to use automated speed enforcement must comply with these guidelines and also obtain the approval of their Municipal Council to do so; speak with staff at the Ministry of Transportation; enter into the various required agreements; have a plan to process charges and actively engage in public communication regarding the use of ASE in that municipality. As a local decision, municipalities may, for example, determine their own hours of operation of the ASE devices as well as the duration of

use of ASE; however such decisions must be made in conjunction with the processing centre to best allow for the orderly processing of images within the statutory framework. ASE must not be used as a revenue generating tool. Site selection and other related decisions must be driven by the over-arching objective of road safety.

Appendix A

Recommended Site Selection Criteria and Ranking Process

Much of the following is based upon IBI's prior work and discussions at various committee meetings. The format of the ranking process is based on the City of Sudbury Sidewalk Priority Index Warrant since the rating and weighting scoring is fairly easy to explain whereas other rankings tend to have more complicated calculations and are therefore difficult to explain to those outside of the ASE committees.

A) Exposure: Municipality's candidate ASE locations reflect roadways with low speed limit compliance. In order for ASE to affect the largest population of drivers and benefit the largest number of pedestrians, an exposure index component has been included in the site selection ranking. Exposure includes: vehicle volume, 85th percentile vehicle speed, length of Community Safety Zone / School Zone, School Population and after school hour outdoor use data elements. While ASE may only be used during school hours, the after hour use of the candidate zone is an important exposure factor and is therefore included. Applying the following ratings and weights, candidate zones with the highest exposure will have the highest rankings.

Component	Range	Rating	Weight
Traffic Volume (AADT)	< 1,000 v.p.d	1	3.0
"	1,001 to 3,000 v.p.d	2	
"	3001 to 5,000 v.p.d	3	
"	> 5,000 v.p.d	4	
Travel Speed	85 th percent - posted < 10 km/h	1	4.0
"	85 th percent - posted = 11 to 20 km/h	2	
"	85 th percent - posted = 21 to 30 km/h	3	
"	85 th percent - posted > 31 km/h	4	
Length of Zone	< 100 m	1	1.0
"	101 - 200 m	2	
"	201 - 300 m	3	
"	> 301 m	4	
School Population	<400 students	1	2.0
"	401 - 900 students	2	
"	901 - 1200 students	3	
"	> 1201 students	4	

Component	Range	Rating	Weight
After Hour Use	no	0	1.0
	yes	1	

- B) Prior Collisions: It is recommended that the collision history of candidate ASE locations should be considered. However, not all collisions are considered to have been speed related. In order to include collision history without undertaking a significant collision data verification exercise, it is recommended that pedestrian - motor vehicle collisions only are included in the ranking process. Some collision data verification may be required to determine which historical collisions occurred within the candidate zone and which occurred beyond the candidate zone. Rating only pedestrian - motorist only collisions will equalize local, collector and arterial roadways to some degree as arterial roadways tend to have higher numbers of collisions and more collision types than the lower roadway classifications.

Component	Range	Rating	Weight
Prior 3 years Pedestrian Collisions Only	0	0	4
"	1	2	
"	2	3	
"	3	4	
"	> 3	5	

- C) Zone Environment: The absence of sidewalks, the presence of on-street parking (whether permitted or prohibited), the curvature of the roadway within and immediately adjacent to the candidate zone and the presence of a speed limit transition within one kilometer of the candidate zone are all factors which may impact a pedestrian's comfort and safety when travelling along or crossing each candidate zone. The applied ratings and weights will ensure that the environment of the zone is reflected in the site selection process.

Component	Range	Rating	Weight
Sidewalks	Both Sides	0	2.0
"	One Side Only	1	
"	None	2	
On Street Parking	None	1	1.0
	Present Although Prohibited	2	

Component	Range	Rating	Weight
	Present and Permitted	3	
Roadway Curvature	None	0	2.0
	Present	1	
Speed Transition	None	0	2.0
	Present	1	

D) Traditional Enforcement: Municipalities will likely experience public requests for ASE beyond their available ASE resources. Consequently site selection process should consider if there is an available alternative available, even if only temporarily. While traditional police enforcement may be easiest ASE alternative to deploy, traditional enforcement may have been used previously with no long term impact on travel speeds.

Component	Range	Rating	Weight
Site Conditions Support Traditional Enforcement	Feasible	0	4.0
"	Not Feasible	1	
Prior Police Enforcement	Measurable Impact on Travel Speed	0	3.0
"	No Long Term Impact on Travel Speed	1	

Additional considerations may include other vulnerable road users, the type of school, whether children or other vulnerable road users cross the road, percentage of students being driven to school versus walking, police and public input and whether schools have programs to actively encourage walking.

Prior to finalizing the locations, a site audit should be conducted to ensure there are no physical impediments that may prevent or restrict the full functionality of the ASE equipment, including power supply.

The following criteria should be reviewed at all proposed sites:

- All necessary regulatory signs are in place
- There are no obstructions to the ASE equipment including on-street parking
- There is no road work planned. ASE should not be used if there is road work or construction in the school or community safety zone.
- If the location involves a change in the posted speed limit, the ability to accommodate a sufficient buffer

- There is adequate boulevard space to accommodate the ASE equipment
- There are no sharp curves in the road or extreme grading that may affect the operation of the ASE system
- No speed limit reductions are planned or recently implemented

Appendix B

Speed Change In Kilometres per Hour	Area Adjacent to Speed Change Sign
10 km/hr speed change e.g. from 40 km/hr to 30 km/hr	10m on either side of sign, 20m total
20 km/hr speed change e.g. from 80 km/hr to 60 km/hr	25m on either side of sign, 50m total
30 km/hr or greater speed change e.g. from 80 km/hr to 50 km/hr	100m on either side of sign, 200m total