Council Report

Report Number:	**ENG2021-030**
Meeting Date:	November 16, 2021
Title:	Automated Speed Enforcement Implementation
Description:	Options for Automated Speed Enforcement Implementation
Author and Title:	Joseph Kelly, Senior Engineering Technician

Recommendation(s):

Report **ENG2021-022 Automated Speed Enforcement Implementation** be received.

Department Head: _____

Financial/Legal/HR/Other:_____

Chief Administrative Officer:_____

Background:

At the Committee of the Whole meeting of October 5, 2021, Council adopted the following resolution:

CW2021-231
That Staff review the costing for the implementation of Automatic Speed Enforcement, including the creation of a list of community safety zones as part of the review, and bring forward a decision unit for the 2022 budget process; and

That this recommendation be brought forward to Council for consideration at the next Regular Council meeting.

This report addresses that direction.

As presented in that Committee of the Whole meeting, under the Highway Traffic Act (HTA) Automated Speed Enforcement (ASE) can be installed in any school zone or road designated through by-law as a Community Safety Zone with a speed limit less than 80 kilometres per hour. An ASE location can be fixed or mobile.

It was presented that the Municipality can contract with the Province's chosen vendor for ASE, and be part of Toronto's joint processing centre (JPC) in order to reduce the burden on the Municipality for administering an ASE system. This report further breaks down the costs associated with ASE implementation as it relates to our road system and offers a systematic approach for assessing roads to be included in an ASE program in both school zones and future community safety zones.

Rationale:

Site Selection – School Zones and School Areas

Under the HTA the council of a municipality may by by-law designate a portion of a road that adjoins the entrance to or exit from a school and that is within 150 m along the road in either direction beyond the limits of the land used for the purposes of the school and prescribe the speed and time when such speed limit is in effect.

CKL By-law 2005-328, A By-law to Establish Speed Limits, lists 26 zones (23 40km/hr school zones and 3 60km/hr school zones). A map of the school zone locations can be seen in Appendix A. These zones were then scored on traffic volume range, collisions, and collision involving pedestrians. Score was calculated based of the volume ranges shown in Table 1, plus one point per collisions within the school zone in the previous 36 months. Three points were added for collisions involving pedestrians in the school zone over the previous 36 months.

Traffic Volume	Score
0-999	0
1000-1999	1
2000-2999	2
3000-3999	3
4000-4999	4
>= 5000	5

Table 1 – ASE score for volume ranges

When compared against each other, it is not feasible to implement ASE on school zones scoring under five without there being a pressing need for special consideration (high operating speed, lack of sidewalks, special road characteristics, ect). Results of the scoring of all school zones can be seen in Appendix B. Ten school zones were selected for inclusion in any future ASE program outlined in Table 2.

School	Road	Volume (AADT)	Collisions	Ped Collisions	Score	Special Consideration
Central Senior and LCVI	Kent St W	13623	38	2	74	
IE Weldon	Verulam Rd	5442	11	0	16	
Leslie Frost	Angeline St S	7651	5	2	14	
Fenelon Falls SC	Lindsay St	5181	8	0	13	
King Albert	Glenelg St W	3000	10	0	13	
St Thomas Aquinas	Angeline St S	8290	2	1	9	
Parkview	Adelaide St N	1428	6	0	7	
IE Weldon	Wheldon Rd	1078	6	0	7	
St John Paul II	Orchard Park Rd	2400	4	0	6	
Dr George Hall	Eldon Rd	2400	1	0	3	No sidewalk, coming off 80 zone

Table 2 – Top ten ASE ranked school zones

Community Safety Zones

The HTA allows municipalities to designate Community Safety Zones (CSZ) via by-law where traffic fines will be doubled. No Provincially recommended technical criteria for the establishment of CSZs currently exists, other than location where public safety is of special concern, such as in the vicinity of schools, day care centres, retirement homes or area with high collision rates (PWC Niagara Region, 2019).

It has been studied that CSZ have little effect on operating speeds without significant enforcement. ASE is a significant form of enforcement, therefore CSZ should only be established with the intention of implementing an ASE permanently or through a yearly rotation.

CKL Engineering uses pre-screening methods to determine if a road qualifies for traffic calming measures. This can be adapted to include the creation of ASE on CSZ roads by taking into account the following criteria:

- Vehicular Volume
- Collisions
- Operating speed (and/or number of safety and speeding complaints)
- Proximity to vulnerable user generators (known walking route to school/park/retirement homes)
- Special considerations (lack of sidewalks, higher cyclist volumes, road characteristics, roadside environment, etc.)

Should an ASE program be implemented, staff recommends including CSZs as part of our traffic calming procedures where roads are evaluated on a case by case basis when petitions are submitted followed by pre-screening to determine the most appropriate action. Table 3 shows examples where roads meet the pre-screening criteria and a CSZ could be a successful form of traffic calming.

Road	CSZ Zone Limits	ASE Location	AADT	Justification
Colborne St (Lindsay)	William St N to Charles St	Across from Alexandra School	12000	School area, high volume
William St N (Lindsay)	Kent St W to Orchard Park Rd	Between Pottinger and Elgin	5000	High demand for calming, high volume, operating speeds over 55 km/hr
Frank Hill Rd (Emily)	Valley Rd to Peninsula Dr	Middle of built up area	3000	Med-high volumes, very high operating speeds, high collisions
Simcoe St (Manilla)	Extents of built-up area	North of Short St	4000	High volumes, ped access to park/field compromised, very high operating speeds

Table 3 – Example Roads for ASE at possible future CSZ

Revenue Generation

It should be noted that the site selection criteria set forth compares CKL roads relative to each other. Generally, CKL roads are lower volume and have lower total collisions compared to roads in other Municipalities that have implemented an ASE program.

It is difficult to predict violation rates at this time. Due to our relatively lower vehicular volumes, and until data proves otherwise, any ASE program should be considered an expense rather than a revenue generator. Increasing the number of active ASE locations would increase the overall expense.

Costs

The total cost of implementing an ASE program can be estimated based on the following known factors as summarized in Table 4:

- Vendor Costs
  - Initial set up for fixed site - $31 385 per site
  - Initial set up for mobile site- $253 per camera plus $75 per redeployment
  - Daily rate of $105.59 ($131.22 after July 2022) - $38 840.35 per year per camera
- Partner Costs (JPC)
  - One time cost for JPC startup divided between all Municipalities in agreement – unknown until agreement is presented, estimated $50000 (based off estimated budget request from another Municipality)
  - Cost to JPC per violation processed
  - MTO license plate request ($1 per look up)
- Other
  - Potential need to cover for POA Court expenses and extra staffing depending on number of cases - $50 000/year
  - Sign installation - $2000/site
  - Communication plan, public outreach, warning letters if soft launching

Item	Cost per Item	Total Items	Total Initial	Total Yearly
Initial Set up	$253	1	$253	
Redeployment	$75	14		$1050
Daily Rate	$105.59	1		$38840.35
JPC			$50000	
Signs	$2000	14	$28000	
		Total	$78253	$39890.35
Grand Total (Initial plus year one): $118143.35 ($168143.35) if an additional POA staff is required)				
Yearly Total (after year one): $39890.35 ($89890.35 if an additional POA staff is required)				

Table 4 – Cost estimate for a single camera used between 14 sites a year

Not accounting for potentially required additional staff, year one cost for a single mobile unit travelling to 14 locations (including signage) is estimated to be about $120000 followed by about $40000 annually. Additional locations would accrue extra costs for signage and increase redeployment costs, while additional mobile units would add approximately $40000 annually per unit.

Depending on the violation rate, it is not anticipated that a single ASE unit would have a major impact on court resources, however, expansion of the program may require additional staff/resources.

Chief of Kawartha Lakes Police Service advised that they are generally in support of photo radar, but recommend first evaluating the impacts of the City wide 40 area speed initiative.

As a result of the review carried out by staff, it is recommended that this report be received as information only. Speed limits in these areas are being lowered as part of the city wide 40 Speed Area project. Staff recommends giving drivers time to adapt to the new speed limit. A CKL ASE program can be re-evaluated after a review of the effectiveness of the 40 Speed Area project (Q4 2022).

Chief of Kawartha Lakes Police Service advised that they are not opposed to photo radar, but recommend first evaluating the impacts of the City wide 40 area speed initiative.

Other Alternatives Considered:

An option of moving forward with an ASE program of one ASE unit traveling to 14 locations would require Council approval of a budget of approximately $120000 plus $40000 annually.

Council would also need to pass a by-law to designate any chosen CSZ for ASE on non-school zone roads.

Alignment to Strategic Priorities

Providing life safety and protection, is a priority objective of the City under the Council Adopted Strategic Plan Goal of An Exceptional Quality of Life.

Financial/Operation Impacts:

The recommended option has no associated costs.

The alternative option of one ASE unit traveling to 14 locations would cost approximately $120,000 plus $40,000 annually.

Consultations:

Project Manager of Automated Speed Enforcement, Transportation Services, City of Toronto
Business Development Executive at Redflex Group
Executive Director at Ontario Traffic Council
KLPS Chief of Police
KLPS Community Response Officer (ongoing consultations starting with 40 is the New 50 campaign)

Attachments:

Appendix A – School Zone Locations Map

Adobe Acrobat Document

Appendix B – School Zone ASE Ranking

Adobe Acrobat Document

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Department Head: Juan Rojas, Director of Engineering & Corporate Assets

Department File: Engineering and Corporate Assets