



TOWNSHIP OF ESSA STAFF REPORT

STAFF REPORT NO.: A001-26
DATE: February 4, 2026
TO: Committee of the Whole
FROM: Lisa Lehr, Manager of Automated Speed Enforcement
SUBJECT: Red Light Camera Program

RECOMMENDATION

That Staff Report A001-25 be received; and

That Council authorize staff to further proceed with the implementation of a Red Light Camera (RLC) Program within the Township of Essa utilizing Global Traffic Group Ltd. as the vendor; and

That Council direct staff to negotiate and prepare a draft agreement with Global Traffic Group Ltd., including scope, financial terms, and operational requirements, for presentation to Council for consideration and approval at a future meeting.

That Council authorize staff to proceed with a Smart Intersection Pilot project at one (1) signalized intersection, at no cost to the Township of Essa, for a time-limited evaluation period.

BACKGROUND

A red-light violation occurs when:

- A vehicle enters an intersection any time after the signal light has turned red;
- A driver fails to come to a complete stop at a red light before turning right (when permitted); or
- A driver turns right on a red light at an intersection where such movement is prohibited.

Red light running presents a significant public safety concern and is a leading cause of serious intersection collisions, often resulting in severe injury or death to motorists, cyclists, and pedestrians.

Red Light Camera enforcement in Ontario is governed by Part XIV.2 of the Highway Traffic Act and Ontario Regulation 277/99 – Red Light Camera System Evidence. Under this regulation, a Red-Light Camera system consists of one or more cameras and associated equipment installed at a signalized intersection and capable of photographing all or part of the intersection, capturing sequential images of a vehicle approaching and entering an intersection during a red signal.

COMMENTS AND CONSIDERATIONS

Benefits of Red-Light Camera Systems

- Reduction in Red Light Violations – The presence of RLC systems deters risky driver behaviour and promotes compliance with traffic signals.
- Reduction in Severity of Collisions – Particularly side-impact and high-speed collisions, which are among the most dangerous and often result in serious injuries or fatalities.
- 24/7 Monitoring and Enforcement – Continuous enforcement ensures consistent deterrence regardless of time of day.
- Reduction in Police Workload – Automated enforcement allows police resources to focus on patrol, emergency response, and community safety initiatives.
- Valuable Traffic Data Collection – Data supports traffic engineering, signal timing optimization, and future road safety improvements.
- Positive Long-Term Behavioural Change – Encourages a culture of compliance where stopping at red lights becomes habitual.
- Enhanced Safety for Pedestrians and Cyclists – Reduces risk to the most vulnerable road users at intersections.
- Alignment with Broader Public Safety Initiatives – Supports Vision Zero and provincial road safety objectives aimed at reducing traffic-related injuries and fatalities.

Steps to be Taken for Implementation of RLC Program

For implementation of a Red-Light Camera Program in the Township of Essa, the following is required to be completed:

To implement a Red-Light Camera program, the following steps are required:

- a) Correspond with the Ministry of Transportation (MTO) to formally request designation of the Township of Essa as an authorized municipality under Ontario Regulation 277/99;
- b) Enter into an agreement with MTO to permit designated officials to retrieve vehicle owner information for contravening vehicles;
- c) Confirm applicability of the Township's existing Administrative Monetary Penalty System agreement with the Ministry of the Attorney General (MAG) for Red Light Camera contraventions; and
- d) Enter into an agreement with an MTO-approved vendor for the supply and operation of Red-Light Camera systems.

Vendor Overview – Global Traffic Group Ltd.

Global Traffic Group Ltd. is a Canadian-owned traffic safety technology company with more than 23 years of experience delivering automated enforcement solutions across Canada.

The Township of Essa has an established and successful working relationship with Global, including leadership in Ontario's first fully integrated Automated Speed Enforcement (ASE) and Administrative Monetary Penalty System (AMPS) framework, as well as operation of the Joint Processing Centre (JPC).

Global has developed its own proprietary, Canadian-built Red-Light Camera system, G3red, designed specifically to address operational, maintenance, and support challenges associated with legacy imported systems.

The G3red system fully complies with Ontario Regulation 277/99 and includes:

- High-resolution images and video captured in all weather and lighting conditions;
- Sequential, time-stamped photographs documenting approach and entry into the intersection;
- Embedded evidentiary metadata (date, time, signal phase, lane, speed);
- Supplementary video footage for additional verification;
- CSA certification and professional engineering validation;
- Full chain-of-custody controls ensuring legal admissibility.

Each Red-Light Camera Penalty Order carries a set fine of \$325.00, allocated as follows:

- \$60.00 – Ministry of the Attorney General (Victim Component).
- \$8.25 – Ministry of Transportation (plate search fee).
- \$132.40 - Operational Cost (based on volume range 0 to 5 per RLC location)
- \$127.60 – Set fine for the Red-Light Camera contravention

**Note: Risk Factor (0–5) reflects public safety risk based on Ontario road safety data.*

OTHER CONSIDERATIONS

In addition to the proposed Red-Light Camera Program, staff are recommending a time-limited Smart Intersection Pilot at one signalized intersection within the Township of Essa, at no cost to the Township. The pilot would run for approximately three months and involves the temporary installation of a camera-based traffic management and analytics system operating strictly in observation and analysis mode, with no enforcement, staffing changes, or permanent infrastructure modifications. The pilot will provide objective, real-world data on traffic volumes, turning movements, delays, near-miss activity, and collision patterns to support evidence-based decision-making and future transportation planning.

A key benefit of the pilot is its ability to evaluate emergency vehicle movements through signalized intersections, including identifying delays, conflicts, and response challenges without requiring any vehicle-mounted equipment. The system also demonstrates future readiness for traffic optimization, collision analysis, and emergency signal pre-emption, while maintaining full Council control. At the conclusion of the pilot, staff will receive a summary report outlining findings and optional considerations for future discussion, with no obligation for further implementation unless expressly approved by Council.

This initiative is structured strictly as a time-limited, non-enforcement pilot. It does not involve staffing changes, enforcement activities, or permanent modifications to existing traffic infrastructure.

Smart Intersection Pilot Overview

- Location: One (1) signalized intersection (to be confirmed by the Township)
- Duration: Approximately three (3) months
- Cost to Township: \$0
- Installation: Temporary, non-invasive, and fully reversible

All equipment installed as part of the pilot can be removed upon completion.

FINANCIAL IMPACT

The vendor is proposing a risk-based monthly fee structure. Fees are adjusted monthly to reflect actual operating conditions. Global will provide transparent, itemized invoices detailing fee calculations, noting that no capital purchase of equipment is required by the Essa.

Estimated monthly revenue based on 2 active RLC locations \$2,552 (6-10 Volume Range).

SUMMARY/OPTIONS

Council may:

1. That Council authorize staff to further proceed with the implementation of a Red Light Camera (RLC) Program within the Township of Essa utilizing Global Traffic Group Ltd. as the vendor; and
2. That Council direct staff to prepare a draft agreement with Global Traffic Group Ltd., including scope, financial terms, and operational requirements, for presentation to Council for consideration and approval at a future meeting.
3. That Council authorize staff to proceed with a Smart Intersection Pilot project at one (1) signalized intersection, at no cost to the Township of Essa, for a time-limited evaluation period.
4. Direct Staff as Council deems appropriate.

CONCLUSION

Authorize staff to proceed with options 1, 2 and 3.

Respectfully submitted by:



Lisa Lehr
Manager of Automated Speed
Enforcement

Reviewed by:



Michael Mikael, P.Eng
Chief Administrative Officer