
Subject: Implementation of Red Light Camera (RLC) Across Niagara Region

Report to: Public Works Committee

Report date: Tuesday, April 4, 2023

Recommendations

1. That Regional Council **AUTHORIZE** the use of Red Light Camera (RLC) technology at 10 signalized intersections on regional roads as determined by the Commissioner of Public Works for a term of approximately 26 months, with an option to extend for an additional two (2) years at the sole discretion of the Commissioner of Public Works, to improve road safety and reduce red-light running;
2. That the Commissioner of Public Works **BE AUTHORIZED** to execute an operating agreement with Trafficpax LLC to provide RLC service, in a form satisfactory to the Director of Legal and Court Services, for approximately 26 months from date of execution in the amount of an upset limit of \$851,360.83 (including 13% HST), with an option to renew at the sole discretion of the Commissioner of Public Works and, subject to budget approval, for one additional term of two (2) years in the amount of an upset limit of \$983,843.61 (including 13% HST);
3. That the Commissioner of Public Works **BE AUTHORIZED** to execute an operating agreement with His Majesty the King in Right of Ontario, as represented by the Ministry of Transportation Ontario (MTO) for the use of RLC technology by Niagara Region including the access and use of license plate registration information, in a form satisfactory to the Director of Legal and Court Services;
4. That the Commissioner of Public Works **BE AUTHORIZED** to execute a partnering agreement with the City of Toronto for processing RLC infractions at the Joint Processing Centre (JPC), in a form satisfactory to the Director of Legal and Court Services;
5. That staff **BE DIRECTED** to create a report to review the implementation strategy, including technology assessment, safety and educational evaluation, impacts on the Region's Provincial Offences Courts, expenses and revenue; and report back to Public Works Committee on an annual basis. Reporting will include identification of any Vision Zero program net surplus and net deficit funded by the Region until full cost recovery is achieved; and

6. That a copy of this Report **BE CIRCULATED** to the Ministry of Transportation – Ontario, the City of Toronto, and Local Area Municipalities.

Key Facts

- The purpose of this report is to seek the final Council authorization required to proceed with the implementation of RLCs at 10 signalized intersections across Niagara to reduce injuries, fatalities, and the high societal costs of collisions in support of Vision Zero.
- The purpose of this report is also to seek Council approval for the Commissioner of Public Works to have delegated authority to execute the required agreements on behalf of the Region, including the RLC single source contract in accordance with Schedule “B” of the Procurement By-law, as the estimated aggregate value of this contract for the initial 26 months and the additional 24 month extension will be greater than one million dollars.
- RLCs have a proven history of improving intersection safety through a reduction in the frequency and severity of collisions, and in particular right-angle collisions that are more commonly associated with injuries, fatalities, and the high societal costs of collisions.
- Council has previously endorsed the implementation of RLCs as a component of the Vision Zero road safety program (Report PW 64-2019), subject to the negotiation of an amended Niagara Region Courts Intermunicipal Agreement (NRCIMA). The negotiation and execution of the necessary amending agreement by all the local area municipalities (LAMs) and the Region, was successfully completed in Q4 2022.
- The preferred 10 locations for RLC cameras have been selected on criteria such as the frequency and severity of collisions, the feasibility of camera installation, and the overall distribution of camera sites across the region.
- Subject to the recommendations of this report, the Commissioner of Public Works will execute a series of agreements with the camera vendor (Trafficpax LLC), Ministry of Transportation, and City of Toronto, to begin the implementation of RLCs. It is anticipated that full implementation will occur in late Q3 / early Q4 2023.
- As required as part of the NRCIMA, staff will report back to Council annually to outline the results of the RLC program, in concert with other Vision Zero programs such as Automated Speed Enforcement (ASE) and the development of a comprehensive Road Safety Strategic Plan (RSSP) that will examine opportunities to further improve road safety in Niagara.

Financial Considerations

Niagara Region will be leveraging the existing joint procurement led by the City of Toronto (RFP 2184528757) for the supply, install, and operation of the RLC system. The Region is joining the final (approximately 26) months of the contract following which the participating Municipalities will evaluate the current contract and determine whether to renew for a two-year extension or issue a new RFP. The total estimated vendor cost for the 26 months is \$766,678.30, including 1.76% non-refundable HST, including installation and preparation costs. The total estimated vendor cost for the subsequent 24 month extension is \$885,983.38, including 1.76% non-refundable HST.

Program administration costs further include a flat \$6,000 per camera annual fee for the Joint Processing Centre, and a flat \$60,000 fee per municipality to access to the MTO licensing database. The RLC program, originally approved via the 2020 budget, is intended to operate on a cost-recovery basis with infraction revenue offsetting operating expenses such as site installation, camera operation, ownership information retrieval, JPC infraction processing, and the required Transportation Services and Court Services resources to administer the program.

Although the Vision Zero program is designed to operate on a cost-recovery basis over the course of a full budget year, given that the timing of implementation is not anticipated to occur until late Q3 / early Q4 2023, program gross revenues will be less than program costs by approximately \$750,000 to \$1 million in 2023. As a result, at the 2023 year-end, the Region will provide funding to cover the Vision Zero program deficit so that the net (non-Vision Zero) court revenues distributed to all local area municipalities are not negatively impacted by the timing of the launch of the program in accordance with the NRCIMA. In 2024, net program revenues will first be used to repay the Region for the 2023 net revenue shortfall, and then used for the operation and reinvestment in the program. Per the NRCIMA, any net revenue above eligible operational expenses must be directly re-invested in road safety initiatives, to be divided between the Region and LAMs on a 50/50 basis.

The financial sustainability of the RLC program will be closely monitored to balance program costs with infraction revenue. Should the program achieve its objectives (i.e. achieve a reduction in red light running), initial fine revenues will decrease, while program costs will remain generally stable. The initial financial results of the RLC program will be discussed in the required report back to Council on an annual basis, and comprehensive financial reporting is a further requirement of both the amended NRCIMA as well as the pending operating agreement with the MTO.

Analysis

Vision Zero

In 2019, Niagara Region adopted Vision Zero, striving to eliminate traffic fatalities and injuries on the Regional road network. The implementation of Red Light Cameras serves as an important component of the Region's overall strategy for achieving this vision by reducing both the frequency and severity of collisions at signalized intersections, and in particular right-angle collisions that are more commonly associated with serious injuries, fatalities and the high societal costs of collisions.

RLCs have been operational in the Province of Ontario since 2000. In implementing RLCs, Niagara will be joining a number of peer municipalities such as Toronto, Hamilton, Halton, Peel, York, London, Durham, and Ottawa who are currently participating in the program.

RLCs have a proven history of improving safety at signalized intersections, with published studies reporting reductions such as a 37.7% decrease in angle collisions, 32.4% decrease in severe (fatal and injury) collisions, and an overall decrease of 8.4% in total collisions¹.

Further safety benefits can be achieved if over time RLCs at specific intersections create wide-spread changes in driver behaviour across all intersections via a 'halo' or 'spillover' effect. This spillover effect has been attributed to reductions in collisions of up to 10% at non-RLC equipped locations due to "...jurisdiction-wide publicity of RLC programs and the negative results of red-light running,...and a conservative assumption by motorists that every signalized intersection is potentially equipped with a RLC"²

Recommended Locations and Site Selection Process

Table 1 below and Appendix 1 to Report PW 11-2023 identify the 10 intersections preferred for the installation of Red Light Cameras. RLCs at these locations will be full

¹ Intersection Safety Device Program – Red Light Camera Analysis. Prepared by AECOM for Alberta Transportation.
<http://www.transportation.alberta.ca/content/doctype47/production/isdredlightcameraanalysis.pdf>

² Ibid

time installations and will not rotate between locations in the same manner that ASE cameras do. These locations have been identified by staff based on a combination of factors, consistent with how RLC site selection has occurred in peer municipalities:

- *Collision Reduction* – a consultant was retained by the Region to undertake an assessment of collision history at all regional signalized intersections, and to make recommendations on where RLCs would have the greatest safety benefit based on the frequency and types of collisions observed.
- *Site Feasibility Assessment* – working with the camera vendor Trafficpax, field investigations have been undertaken to confirm the ability of RLCs to be properly installed and operated at candidate locations identified through the collision history analysis.

In the event that during final site preparation and installation staff or the camera vendor determines any of these sites to ultimately not be feasible, an alternative site within the same municipality will be selected by the Commissioner of Public Works. Should the move to an alternative site be required, the Commissioner of Public Works will notify Council via its Friday correspondence.

- *Geographic Coverage* – RLC sites were further selected ensure a full distribution of sites across the region. This expanded coverage is required to achieve desired “spillover” or “halo” effects described above, by ensuring that a majority of drivers across the region have some exposure to intersections with RLC coverage.

Table 1 – Proposed Niagara Region Red Light Camera Locations

Municipality	Regional Roadway	At
Fort Erie	Regional Road 3 (Garrison Road)	Pettit Road / Daytona Drive
Grimsby	Regional Road 12 (Christie Street)	Regional Road 40 South Service Road
Lincoln	Regional Road 18 (Ontario Street)	Regional Road 40 (South Service Road)
Pelham / West Lincoln	Regional Road 20 (Highway 20)	Regional Road 24 (Victoria Avenue)
Niagara Falls	Regional Road 20 (Lundy's Lane)	Garner Road
Niagara Falls	Regional Road 102 (Stanley Avenue)	Dunn Street
St. Catharines	Regional Road 81 (St. Paul Street West)	First Street Louth
St. Catharines	Regional Road 48 (Niagara Street)	Parnell Road
Welland	Regional Road 54 (Prince Charles Drive)	Regional Road 29 (Lincoln Street)
Welland	Regional Road 50 (Niagara Street)	Quaker Road

Red Light Camera Program – Required Agreements

The operation of RLCs in Ontario follows an established and collaborative program between:

- The approved camera vendor *Trafficpax LLC* - who completes the necessary detailed design for RLC locations, supplies and installs the equipment, and maintains and operates the system. Niagara Region will be leveraging the existing joint procurement lead by the City of Toronto (RFP 2184528757) and joining the final (approximately 26) months of the original 5-year contract. In 2025 the participating municipalities will evaluate the current contract and determine whether to renew for a two-year extension or issue a new RFP;
- The *City of Toronto* – who operate the Joint Processing Centre (JPC) where Provincial Offence Officers review the images and confirm that the evidence captured discloses that an offence has occurred in order to proceed with the charge; and

- The *Ministry of Transportation Ontario* - to permit access to the Provincial vehicle ownership database to issue offence notices to the registered owner of vehicles.

The adoption of the recommendations of this report will provide staff with the necessary authorities to negotiate and execute the operational agreements between the Region and the partnering parties above to support the implementation and operation of the RLC program as a whole.

Red Light Camera Program – Implementation

Following the execution of the required agreements, work will commence to finalize the implementation of the RLC program. While subject to the considerations outlined below, the full launch of the program is anticipated to occur in late Q3/early Q4 2023.

- *Site Preparation and Installation* – Trafficpax has confirmed that following contract execution, approximately 120 days will be required to supply cameras, prepare and install site equipment, and undertake required system calibration and verification.
- *60-Day Warning Period* – under legislation and the MTO operating agreement, “coming soon” warning signage must be installed 60 days in advance of the operation of a RLC camera. It is anticipated that this public notice and warning periods will commence in mid-Q3 2023 and proceed in parallel with the installation of the camera technology itself.
- *Public Awareness Campaign* – Transportation Services staff are working with the Corporate Communications team to develop a public awareness plan, which will launch in parallel with the commencement of the 60-day warning period. This campaign will focus on the safety benefits of the program and the support and commitment from community leaders. The plan will propose tactics that include outreach through social media, printed advertisements, billboards, and web content.
- *JPC Integration* – coordination with City of Toronto staff will be required to ensure the JPC is prepared and resourced to process Niagara Region charges at program launch.

Court Services Operations and Intermunicipal Courts Agreement

Automated enforcement offences in Ontario are processed through the Provincial Offences Courts in accordance with the Provincial Offences Act (POA). Accordingly, charges laid by the JPC will be forwarded to Niagara Region Courts for processing.

Transportation Services has worked closely with Court Services staff to ensure that appropriate resources are in place to process RLC charges and will continue to monitor the program and any resulting resource impacts beyond those contemplated as part of the approved business case.

In Q4 2022, the NRCIMA between Niagara Region and the LAMs was updated as required consistent with Council approval to support the launch of the RLC and ASE programs. The amended agreement confirms various program reporting requirements, as well that any net program revenues will be split 50/50 between the Region and LAMs, with the requirement that they be re-invested in road safety programs. Under the NRCIMA, LAMs have the option to either invest in their own road safety programs or to support Region-led initiatives.

Program Monitoring and Evaluation

Both the MTO operating agreement and amended NRCIMA agreement outline comprehensive program monitoring and reporting requirements. Metrics to be tracked include collision and vehicle speed trends (before/after installation), program administration and Court costs, fine revenue, and both LAM and Region road safety programs supported by both the RLC and ASE programs.

As required by the NRCIMA, staff will report back to Council annually with an assessment of the operation of both the RLC and ASE programs including the required metrics as outlined above. This report will consider any adjustments required to appropriately resource the program, to ensure its financial sustainability, or any recommendations regarding future expansion of either the RLC or ASE programs.

In addition to the detailed MTO and Council mandated reporting requirements, additional public facing reporting on the Region's website will take place a component of the overall communication strategy.

Vision Zero Program Update

The implementation of RLCs forms a component of the overall Vision Zero program. The following is a brief update on other parallel Vision Zero initiatives underway.

- *Automated Speed Enforcement* – all operational agreements authorized by Report PW 34-2022 are to be executed through Q1 2023, and staff are in the process of verifying with the vendor timelines for site works and camera installation. It is currently anticipated that the required warning period (minimum 90 days) ahead of program launch will commence later in Q2 2023, with full program launch in Q3 2023.
- *5-Year Road Safety Strategic Plan* – staff have initiated a consulting assignment for development of a comprehensive strategic roadmap and plan for the Region's implementation of Vision Zero. The plan will set out the targets, policies and actions to create safer roads and reduce the number of fatal and injury collisions. Plan development will continue through 2023 in partnership with the LAMs and other key advocacy groups.
- *Administrative Monetary Penalty System (AMPS)* - The Province has recently introduced legislative changes that make it possible for enforcement of ASE and RLC offences to be undertaken through the adoption of an AMPS. Staff continue to monitor the implementation of AMPS in peer jurisdictions, and in the future will engage in a broader corporate consultation regarding the exploration of an AMPS program.

Alternatives Reviewed

The alternatives to approval of the recommendation in this report follow:

1. Do not authorize the implementation of Red Light Cameras. This would be inconsistent with the previous decisions of Council in support of Vision Zero generally, and the Red Light Camera program more specifically.
2. Council could approve a reduced or expanded series of RLC locations for initial implementation. This is not recommended by staff as significant analysis of collision history, site installation feasibility, and the necessary resources to administer a 10 RLC camera program at launch has been undertaken.

Relationship to Council Strategic Priorities

The proposed implementation of Red Light Cameras under the Vision Zero program directly aligns with the Council Strategic Priority: Facilitating the Movement of People and Goods (Objective 3.4) through supporting and advancing safe and healthy streets for the Region.

Other Pertinent Reports

PW 34-2022	Implementation of Automated Speed Enforcement Across Niagara Region
PW 64-2019	Vision Zero Road Safety Program
PW 36-2019	Red Light Camera

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Appendices

Appendix 1	Red Light Camera Locations
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