

**Subject: Additional Information - CQ 5/2019 - Implementing Red Light Cameras - City Wide**

**Reference:**

Date to Council: April 29, 2020  
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Clerk's File #: ST/13765

**To:** Mayor and Members of City Council

**Recommendation:**

THAT the additional information report in response to CQ5-2019 – Implementing Red Light Cameras and Photo Radar **BE RECEIVED** by Council for information.

**Executive Summary:**

N/A

**Background:**

At the meeting of City Council on February 25, 2019, Councillor Costante asked CQ5-2019 as follows:

*“Asks that administration report back on implementing red light cameras and photo radars, including what other municipalities have these installed, pros and cons of implementation and costs of implementation. ST: 2019 February 25, 2019.”*

An initial report SCM 401/2019 S 165/2019 was presented at Council on November 18, 2019. At the meeting, Council directed administration to prepare additional information, CR574/2019 ETPS 720:

*“That administration BE REQUESTED to provide a report related to reviewing the potential locations for the use of red light cameras, and automated speed enforcement including location and quantity recommendations and that this information, when it is available BE BROUGHT FORWARD for Council’s consideration.”*

## **Discussion:**

This report discusses Red Light Cameras (RLC). A separate report (S 45/2020) related to Automated Speed Enforcement (ASE) is also being brought forward for Council consideration.

A red light running camera is a type of traffic enforcement camera that captures an image of a vehicle that enters an intersection in spite of the traffic signal indicating red (during red phase). The camera automatically takes two photos of the vehicle; one entering and one proceeding through the intersection. The photo is evidence that assists authorities in enforcing traffic laws. Generally, the camera is triggered by movement of a vehicle as it passes the stop bar after the associated signal has turned red.

The key reasons why municipalities have installed cameras are to change driving behaviour, reduce angled collisions, and increase safety. However, it has been reported that rear-end collisions increase.

Currently, the Highway Traffic Act requires Municipalities to be authorized to use red light cameras by amending Regulation 277/99. Changes to the Regulation as recent as December of 2019, still indicate this requirement. The process includes a submission letter to the Minister of Transportation, requesting permission to enforce this type of infraction. With this letter, documented approval from Council stating that support and intention to enter into the program must be provided.

The following are points of clarification regarding the issuance of tickets:

- Motorists already in an intersection when the signal changes to red will not be ticketed. This includes those drivers who pass the stop bar while the green or amber signal is illuminated. Only those who cross the stop bar while the red signal is illuminated will be ticketed.
- Red light cameras do not replace police officers. The red light cameras are used to complement police efforts in preventing motorists from running a red light.
- The registered license plate holder of the vehicle will receive the ticket, regardless of who is driving the vehicle. No demerit points are lost by the owner.
- Red light cameras are only capable of detecting one direction of travel at an intersection. If all 4 directions of approaches at an intersection are required to be implemented, 4 separate systems must be installed.
- Red light cameras are able to ticket right turning vehicles that do not come to a complete stop on a red light. However, this application is currently being used in a limited capacity in other Municipalities. In general, this is being utilized where there is a dedicated right turn lane only.
- Photograph images of the vehicles are taken from the rear of the vehicle and therefore no persons are identified in the photos. The Office of the Information and Privacy Commissioner was consulted during the pilot development to ensure privacy concerns were minimized.

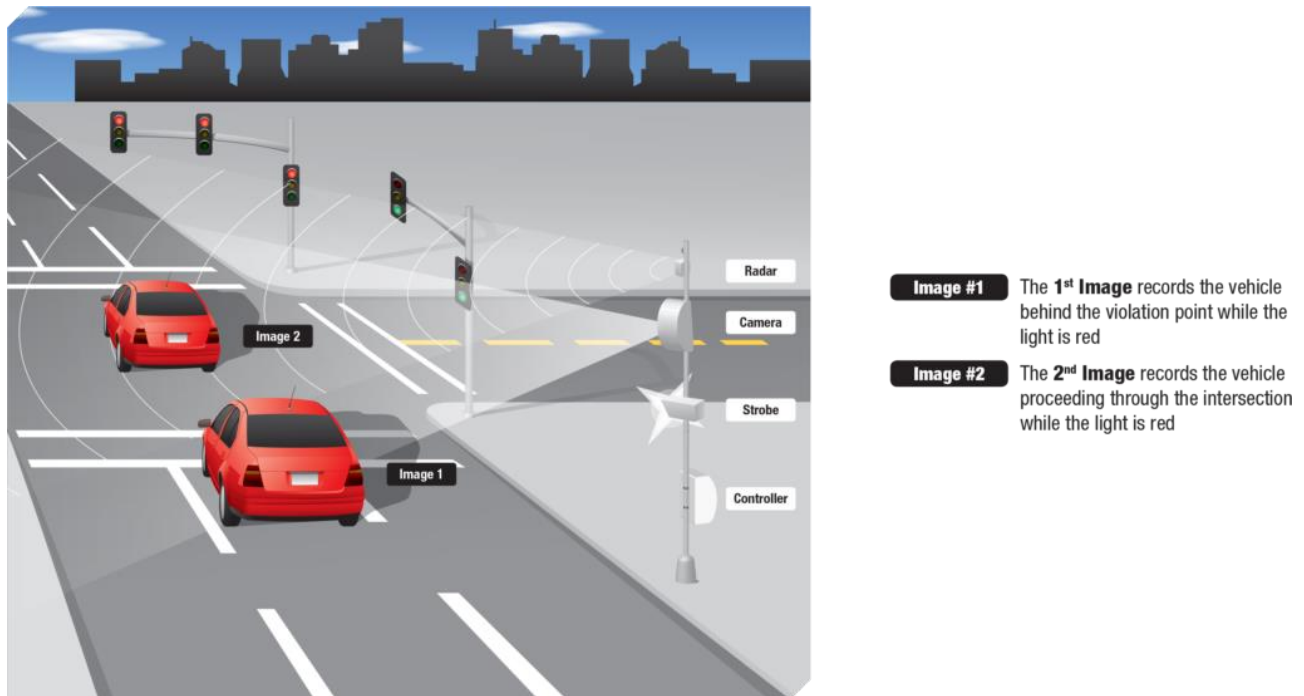


Figure 1 – Operation of Red Light Cameras

The Red Light Camera program is intended to reduce instances of motorists running red lights and hence reduce the instances of angled type collisions. Right-angled collisions typically result in more serious injuries including personal injury or death. Based on the data for the City of Windsor, from 2013 – 2017 there were a total of 7,335 collisions at signalized intersections, 0.54 collisions per million vehicles entering these intersections. During that time 873 (12%) were angle collisions, 3700 (50%) were rear end collisions, the remainder being single car collisions with pedestrians, bicycles or other infrastructure. Only 562 (64%) of angled collisions were noted by police as having disobeyed traffic control.

Should the City of Windsor wish to implement a Red Light Camera program and utilize the Joint Municipal Processing Centre operated by the City of Toronto, the City would first be required to apply to the Ministry of Transportation to obtain an amendment to the Ontario Regulation 277/99 and be added to the list of designated Municipalities. The City of Windsor would then be required to enter into an agreement with both the City of Toronto to use the Joint Municipal Processing Centre and with the vendor approved by the City of Toronto for installation and maintenance of the equipment. Contracts are done in 5-year terms, however Municipalities may enter during an existing 5 year term. The cost is pro-rated based on the number of years left in the contract, which increases the yearly cost for the balance of the 5-year term.

The current program will expire in 2022, however the City of Toronto intends to complete an expansion program in 2020. The City of Toronto intends to begin procurement of a vendor for the expansion program in early 2020 with the expectation that a number of technology changes will be made. The changes include:

- The use of wireless upload and download of data from the units.
- Microwave sensors above ground, no loops installed in the pavement.

The changes are expected to reduce maintenance requirements, costs, and to optimize the program as a whole.

Staffing requirements for Traffic Operations are minimal for the implementation of the RLC program. It is anticipated that it would take a small portion of the Manager of Traffic Operations' time to administer the program, answer public inquiries and provide reports to Council. However, additional staff may be required for the local Provincial Offences Office to process challenges and track payment of tickets. Additionally, discussions with CUPE 543 would be required prior to entering into an agreement with the vendor for installation of camera equipment.

Should Council wish to move forward with a Red Light Camera program in the City of Windsor, Administration recommends submitting the 10 locations listed in Table 1 below to the Ministry of Transportation Ontario. It is recommended that the City purchase ten (10) camera units. Cameras should be in place at each intersection for a minimum of two (2) years, however if significant improvements are measured for a consistent four month (4) time-period, the cameras may be moved earlier. It is not mandatory to relocate the cameras, however it has proven beneficial in other Municipalities.

Table 1 shows the top fifteen (15) intersections where the net collision total indicates a potential reduction in collisions with the use of red light cameras. They are listed in order of priority, therefore the first 10 would be recommended at this time for the use of red light cameras. The column entitled Total Collisions represents the total reduction in collisions expected based on the implementation of red light cameras. This result includes the rate of decrease expected for side impact collisions and the rate of increase expected for rear end collisions. The associated reduction in collisions with injuries or loss of life may be higher than the overall total due to the majority of rear end collisions only representing property damage.

Table 1 – Potential Red Light Camera Locations

Rank - Overall	Location	Projected Net Safety Benefit - Red Light Cameras (Collisions over 5 years)	
		Total Collisions	Injury & Fatal Collisions
Recommended Locations for Initial Installation of Red Light Cameras			
1	WYANDOTTE ST W @ PELISSIER ST	-5.3	-2.4
2	WYANDOTTE ST E @ MCDUGALL ST	-1.7	-1.92
3	WYANDOTTE ST E @ GOYEAU ST	-4.15	-1.92
4	WYANDOTTE ST E @ DROUILLARD RD	-2.9	-1.52
5	UNIVERSITY AVE W @ CAMPBELL AVE	-2.95	-1.44

6	WYANDOTTE ST E @ WINDSOR AVE	-2.05	-1.36
7	WYANDOTTE ST W @ JANETTE AVE	-3.05	-1.28
8	HURON CHURCH RD @ WYANDOTTE ST W	-1	-1.28
9	RIVERSIDE DR E @ PARENT AVE	-1.8	-1.04
10	EUGENIE ST E @ MCDOUGALL ST	-2.55	-0.88
<b>Potential Future Locations for Red Light Cameras</b>			
11	UNIVERSITY AVE W @ CRAWFORD AVE	-2.55	-0.8
12	UNIVERSITY AVE E @ MCDOUGALL ST	-1.8	-0.8
13	WYANDOTTE ST W @ VICTORIA AVE	-1.75	-0.8
14	ERIE ST W @ OUELLETTE AVE & ERIE ST E	-1.4	-0.48
15	ERIE ST E @ GOYEAU ST	-1.75	-0.48

The intersections above were selected based on total number of collisions, including right angle collisions, severity of injuries, geometric features of the intersection, and previous efforts to make the intersections safer.

### **Risk Analysis:**

Increases in the number of rear end collisions may require additional time for Windsor Police Services. Additional time and effort would be required to respond to and process the increase in collisions.

Installations currently include the installation of loops in the roadway surface, which reduces the life of the asset. The City expects to use the above ground microwave sensors if we proceed with RLC implementation.

City of Windsor signal related infrastructure is installed and maintained by CUPE 543 staff. The installation and maintenance done by contractors for this program may be considered contracting out of work and require discussions with the union or alternatively an MOA and approval by the Union. Specifically the connections from the RLC device to the traffic signal controller.

The City of Windsor is a border city therefore a large number of drivers on our roads are out of province and out of Country. As such, there is a higher risk that a portion of the surplus revenue seen by other Municipalities may not be collectable in Windsor.

If the additional volume of tickets generated by the red light cameras is significant, there could be a significant impact on the service levels of the local municipal Provincial Offences Office (POA). Once the additional tickets are filed at the POA office, the POA staff will action all court administration activities related to these fines. There will also be additional prosecutor's time to deal with those individuals that choose to meet with the

prosecutor in an early resolution meeting and potential court time for those individuals that choose to go to trial. POA collections staff will also be tasked with following up on those offenders who have unpaid fines after their due date has passed. Specific numbers have not been released by other Municipalities but initial discussions indicate that there are a significant number of challenges to red light camera violations that are being submitted.

### **Financial Matters:**

If the City was able to obtain amendments to add the City of Windsor as a designated municipality to Regulation 277/99 (Red Light Cameras) and to the future regulation pertaining to automated speed enforcement the following costs are anticipated:

**RLC Program** – The City would be required to enter into an agreement with the City of Toronto and the approved vendor. Payment to the program and vendor are done through one payment through the City of Toronto.

The Vendor installs, operates, and maintains the cameras and the system and then charges a monthly fee based on a minimum 5-year contract. Other Municipalities have estimated a yearly cost of \$52,000 per camera when the contract is entered during year one. The current contract is currently in year 3 and therefore prorated yearly costs are estimated to be in the range of \$80,000 to \$90,000, per camera until the end of the current contract. At the end of the 5 year contract, each Municipality may renew or leave the program.

Costs for the use of the Joint Processing Centre are based on the number of locations registered and the number of cameras in use. The value is based on the total number of cameras the processing center issues tickets from.

Costs would be offset by the revenue retained per violation by the Municipality.

Table 2, uses data from the City of London and provides estimated cost and revenue data, per intersection where red light cameras are used. In 2018, the City of London reported total revenue of \$923,000, which was generated from infractions from 10 cameras.

Table 2 – Potential Costs / Revenue Estimates / Camera

	Yearly Estimates *based on 1 intersection
Expenses*	(\$52,000)
Revenue**	\$92,300
Potential Surplus	\$40,300

*\*Assumes the City enters into year 1 of the new expansion program*

*\*\*Values are based average City of London reported revenues*

The City of London has indicated that the initial surplus is expected to reduce yearly as driver behaviour begins to change, to the point that they are preparing for the potential of a deficit to operate the RLC program in future years. Surplus revenue is being put into a reserve fund that can be used to address these potential deficits in future years and for other road safety initiatives such as education and engineering. Should Council move ahead with a RLC program, Administration recommends a similar approach in Windsor whereby a portion of the revenue generated be used for yearly educational costs (~\$2,000) and the remainder be put into a reserve. The reserve would be used to fund any POA staffing increases and Traffic Operation program expenses, if determined that the RLC program has become a burden on existing staff, and it would be available to cover the operational costs of the agreement in months where the revenue does not exceed the expenses.

Each Municipality that has implemented RLC and is intending to implement ASE has done so along side a public information and communications campaign. It is anticipated that for each program, the initial campaign may cost \$20,000 with ongoing yearly educational costs of \$2,000.

The costs above are estimates. Should Council decide to move forward with the program, Administration will begin negotiations with the vendor and the City of Toronto. Final costs will be based on these discussions. It should be noted however, that Administration does not recommend entering into the current contract. Rather, if the City of Toronto does successfully procure a vendor for the expansion program, it is recommended that the City begin with ten (10) camera units as part of the expansion program.

**The City of Windsor Provincial Offences Office (POA)** - Pursuing the RLC or the ASE program may result in additional costs for POA staff (court administration, prosecutors and/or collections). Maintaining adequate staffing will ensure the department upholds its current service levels for processing fines and the court administration of these fines. The request for additional staffing would be dependent on the expected number of tickets generated from RLC and/or ASE. If the volume is low, the impact could potentially be absorbed with current staffing levels.

The Provincial Offences Court in Windsor processes offences that occur not only in the City of Windsor but also in the eight surrounding municipalities. All of the participating municipalities contribute to the costs associated with operating the Provincial Offences Court and are entitled to share in the net revenue from the fines collected. The distribution is based on the annual regional weighted assessment rates for the year the fine revenue is collected. Revenue distribution is not based on the geographical area that the ticket was issued. In order to implement a Red Light Camera program or an Automated Speed Enforcement program the City of Windsor would incur significant costs but would be required to share the revenue with the other municipalities unless an amendment to the Inter-Municipal Court Services agreement was obtained. Alternatively, if the other Municipalities choose in the future to enter into the RLC program, this will also impact the POA office as the City court system would process these additional tickets. The above is also applicable for the Automated Speed Enforcement program, therefore if Council wishes to proceed with a revised agreement, both programs should be included in the wording.

In summary, should Council wish to proceed with a RLC program, one-time seed funding of up to \$520,000 for the first year implementation and operating costs for ten (10) red-light camera units, along with \$20,000 for initial public education related to the program could be required. However, this amount is subject to negotiations with the City of Toronto and the red light camera vendor. The City is unable to negotiate costs until Council approves moving forward with a letter of intent to the Minister of Transportation. No funding is currently budgeted in the operating or capital budgets for this program.

### **Consultations:**

Transportation Planning

Provincial Offences Office

Windsor Police Services

### **Conclusion:**

Should Council wish to proceed with the implementation of red light cameras in the City of Windsor and utilize the Joint Municipal Processing Centre operated by the City of Toronto, the City would first be required to apply to the Ministry of Transportation to obtain an amendment to Ontario Regulation 277/99 and be added to the list of designated Municipalities under this program. The City of Windsor would then be required to enter into an agreement with both the City of Toronto to use the Joint Municipal Processing Centre and with the vendor approved by the City of Toronto for installation and maintenance of the equipment. Administration would also need to begin discussions with Local 543 regarding installation and maintenance work and the County to amend the Inter-Municipal Court Services Agreement. The City is unable to negotiate costs until Council approval to move forward with a letter of intent is given. No funding is currently budgeted in the operating or capital budgets for this work. Should Council wish to proceed, direction is required for Administration to issue a letter of intent to the Ministry and to report back with recommended funding options related to the potential one-time implementation costs and other related matters.

### **Planning Act Matters:**

N/A

### **Approvals:**

<b>Name</b>	<b>Title</b>
Natasha Couvillon	Manager of Performance Measurement & Financial Administration
Dwayne Dawson	Executive Director of Operations
Mark Winterton	City Engineer



<b>Name</b>	<b>Title</b>
Vincenza Mihaló	Executive Director, Human Resources
Shelby Askin Hager	City Solicitor
Joe Mancina	Chief Financial Officer/City Treasurer
Onorio Colucci	Chief Administrative Officer

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**Appendices:**