

If this information is required in an accessible format, please contact 1-800-372-1102 ext. 3540.



# The Regional Municipality of Durham Report

---

From: Acting Commissioner of Works, Regional Solicitor and Director of Legal Services and Commissioner of Finance  
Report: #2023-COW-25  
Date: June 14, 2023

---

**Subject:**

Automated Speed Enforcement and Red-Light Camera Program Update

---

**Recommendations:**

That the Committee of the Whole recommend to Regional Council:

- A) That the application of net Provincial Offences Act (POA) revenue sharing be adjusted to apply the third party Regional costs of Red Light Cameras (RLC), Automated Speed Enforcement (ASE), overall increased costs of POA administration and prosecution as a result of RLC and ASE, and third party costs for those local area municipalities with ASE or RLC against gross fine revenue received prior to allocation of net proceeds to local municipalities;
  - i) That the Legal and Finance departments consult with local area municipalities to bring forward an updated agreement for execution of all parties, if deemed necessary;
  - ii) That staff review and report back on the implication of the new Administrative Monetary Penalties (AMP) program, particular to the current POA, RLC, and ASE processes; and
- B) That the Chair and Clerk be authorized to execute such net POA revenue sharing agreement to the satisfaction of the Regional Solicitor subject to consideration of the implications of the AMP program.

**Report:****1. Purpose**

- 1.1 The purpose of this report is to provide an update on the Automated Speed Enforcement (ASE) and Red Light Camera (RLC) programs, including impact on vehicle speeds, red light running, charges issued to date, program costs and the approximate value of charges laid. This also will take into consideration the implications to the current (unsigned but in place for many years) net POA revenue sharing agreement between the Region of Durham and Local Area Municipalities (LAM). An interim arrangement was referenced in Report 2023-F-9 in section 8.5 and 8.6 to close out 2021 and 2022 revenue sharing.

**2. Background**

- 2.1 At their meeting held on April 24, 2019, the Regional Municipality of Durham (Region) Council endorsed a Vision Zero approach to Road Safety for the Region in an effort to reduce injuries and fatalities on Regional and Local Roads over a 5-year period by 10 percent and ultimately eliminate all fatalities and injuries caused by collisions on our road system.
- 2.2 At their meeting on September 30, 2019, Regional Council approved a program to implement twelve RLCs and four mobile ASE cameras across the Region.
- 2.3 Collisions that result from failing to stop at a red light are a major cause of serious and fatal collisions at intersections. When they are obeyed, traffic signals prevent motor vehicle collisions with cross traffic and also pedestrians and cyclists. The cyclists and pedestrians rely on drivers to obey the signals for their safety. Red Light Cameras are an effective measure to improve compliance.
- 2.4 Speeding in areas with high levels of pedestrian traffic causes serious injury and fatal collisions with vehicles and pedestrians. This is particularly acute when those pedestrians are school aged children. For many years these areas have been identified as Community Safety Zones with better signage, lower speed limits and higher fines. Adding Automated Speed Enforcement to these areas to further reinforce posted speed limits will reduce the number of pedestrians injured and killed in these locations.
- 2.5 On September 18, 2020, the RLC program started issuing fines at the first location at Thickson Road and Dundas Street in the Town of Whitby with the remaining 11 sites coming online by the end of 2020.

2.6 On September 8, 2020, ASE program operations started issuing fines at the following four locations in the Region of Durham:

- Central Street (RR5) at Claremont Public School – City of Pickering
- Bayly Street (RR22) at Ajax High School – Town of Ajax
- Anderson Street (RR36) at Anderson CVI – Town of Whitby
- Simcoe Street (RR2) near Camp Samac – City of Oshawa

2.7 The four mobile ASE cameras have been in operation since that time rotating approximately every eight weeks through 28 designated Community Safety Zones and School Zones in the Region.

2.8 Eight fixed location ASE cameras have also been deployed at key locations across the Region.

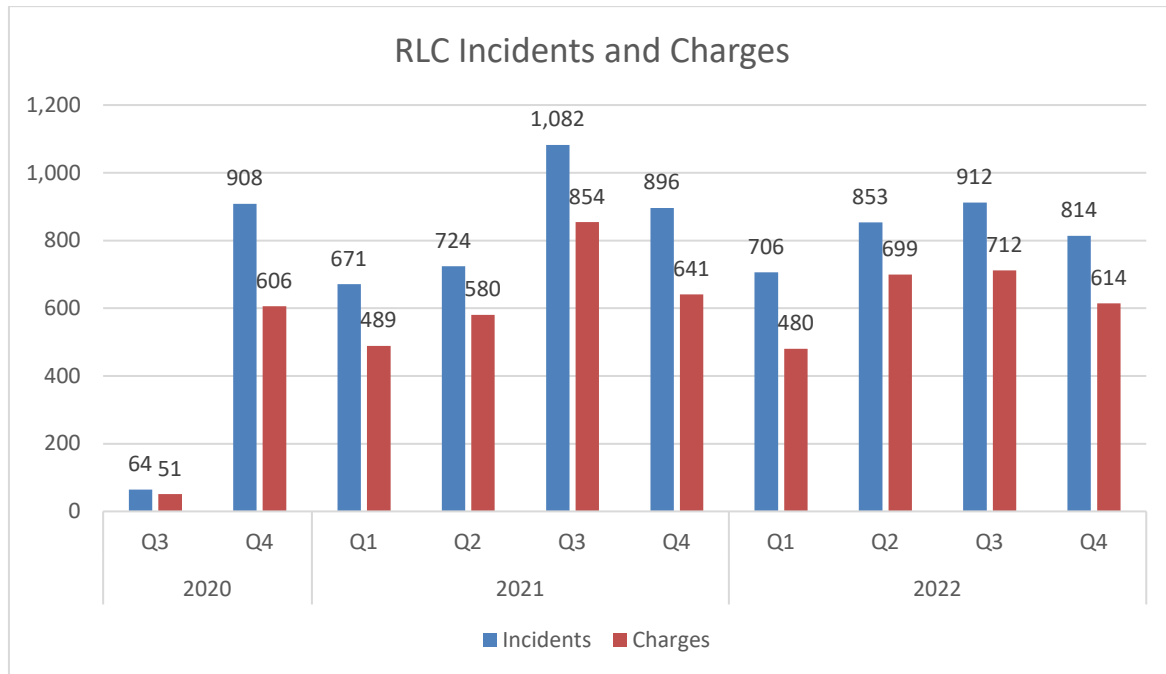
### 3. RLC Key Performance Indicators

3.1 A total of 5,726 RLC charges have been laid up to the end of 2022, including 2,505 in 2022. RLCs have been operational in the Region since September of 2020, as summarized in Table 1.

**Table 1: RLC Locations, Charge Volume and Activation Date**

Location	Charges in 2020	Charges in 2021	Charges in 2022	Activation Date
Thickson Road at Dundas Street	54	175	163	18-Sep-20
Westney Road at Delaney Road	294	600	453	25-Sep-20
Lake Ridge Rd at Goodwood Rd	14	31	40	02-Oct-20
Simcoe Street at Conlin Road	128	547	583	05-Oct-20
Taunton Road at Altona Road	11	145	212	30-Oct-20
Liverpool Road at Bayly Street	13	98	121	30-Oct-20
Stevenson Road at King Street	23	141	152	30-Oct-20
Ritson Road at Bond Street	35	258	284	30-Oct-20
Simcoe Street at Rossland Road	62	429	315	30-Oct-20
Highway 2 at Courtice Road	16	63	90	30-Oct-20
Lake Ridge Rd at Taunton Road	4	27	28	02-Dec-20
Salem Road at Bayly Street	3	50	64	02-Dec-20
<b>Total Charges</b>	<b>657</b>	<b>2,564</b>	<b>2,505</b>	<b>-</b>

- 3.2 As illustrated in Figure 1, the number of RLC charges has varied since the start of the program. Given the COVID19 pandemic related fluctuations in traffic volume, the increase in charges cannot necessarily be construed as an increase in the percentage of vehicles running red lights in the Region.



**Figure 1: RLC Charges over Time**

- 3.3 Figure 1 also illustrates the difference between incidents captured and charges laid. The RLC equipment uses technology to automatically capture an image of a vehicle running a red-light. The images collected by the cameras are summarized as incidents in the chart above. A Provincial Offences Officer in the Joint Processing Centre reviews each image/incident and determines whether a charge can be laid based on the evidence captured. Approximately 75 percent of the incidents captured by the RLC equipment resulted in a charge.
- 3.4 Regional staff are carefully tracking collision statistics to assess the effectiveness of RLCs at reducing collisions and improving safety. Results from other jurisdictions that have been operating RLCs for many years have been very positive and a similar result is anticipated for Durham Region.
- 3.5 Due to a drastic reduction in traffic volumes during the pandemic, collision numbers have decreased across the Region during the period that the RLC

program has been running. It is therefore difficult and premature to correlate any decreases in collisions at RLC intersections to the presence of the cameras.

- 3.6 As shown in Table 2, traffic volumes at the twelve RLC locations have decreased over time by 16 percent from 2019 to 2022, a small increase of 3.5 percent from 2020 to 2021 and a small decrease of less than 0.5 percent from 2021 to 2022. Total injury collisions at the twelve locations decreased from a high of 39 in 2019 to a low of 30 in 2020 and 2022. Rear end collisions increased by 16% from 2020 to 2021 followed by a significant decrease in 2022. No fatal collisions have occurred at the RLC locations since the start of the program.

**Table 2: Collision Statistics for Locations with RLCs**

Year	2019	2020	2021	2022
Vehicle Volume	254,808	212,897	220,551	219,669
% Volume Change from Previous Yr	N/A	-16%	+3.5%	-0.5%
Fatal Collisions	1	0	0	0
Injury Collisions	39	30	38	30
Rear End Collisions	57	50	58	44
Angle Collisions	27	25	24	23
Turning Movement Collisions	58	40	60	42
Total Collisions	174	138	159	126

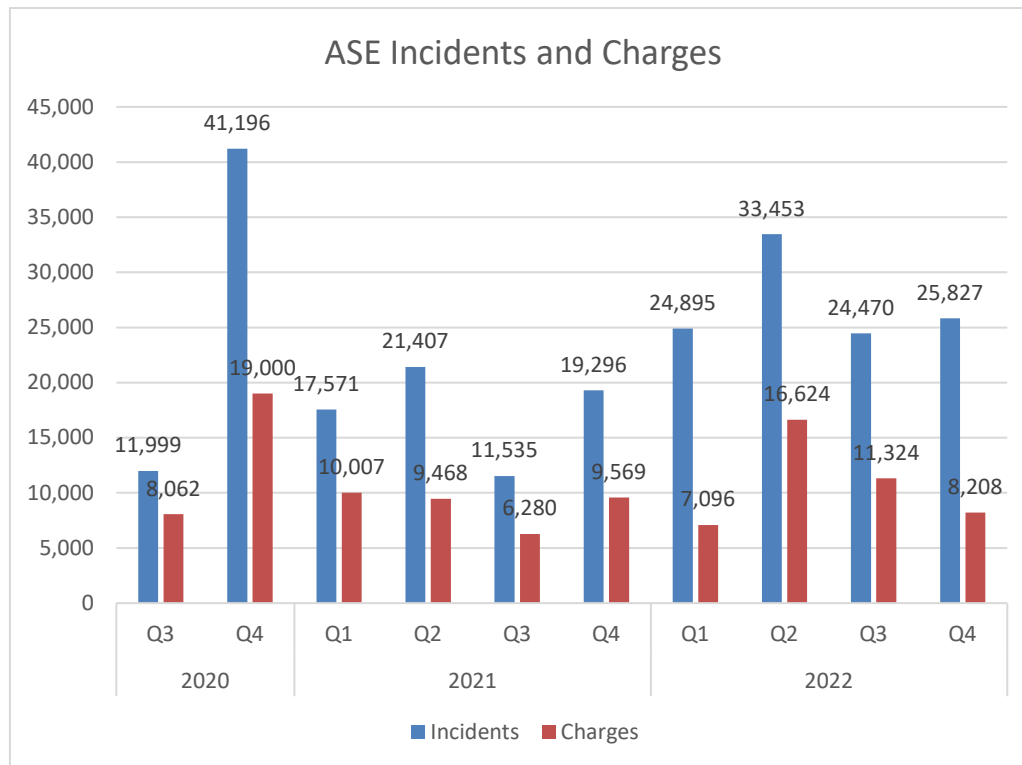
- 3.7 Attachment #1 provides a more detailed summary of RLC Key Performance Indicators to date.
- 3.8 Red Light Cameras form part of the Vision Zero program. The objective of Vision Zero and these specific tools are to reduce the number of people killed or injured by speeding drivers in Community Safety Zones and by drivers who fail to comply with traffic signals. Municipalities expect declining volumes of charges from each specific installation. External factors have posed a challenge to measure the impact of these programs. However, staff working in this program have observed early signs of a declining trajectory of charge volumes for specific installations.

#### **4. RLC Program Costs and Fines Levied**

- 4.1 The total fine payable for running a red light in the Province of Ontario is \$325 resulting in a total of \$1,647,425 in RLC fines for the 5,069 RLC charges issued in 2021 and 2022. In 2021 and 2022 total fines were issued in the amount of \$833,300 and \$814,125 respectively. This should not be interpreted as total revenue as the fines may not have been collected (or collectible) and the \$325 fine includes the \$60 Victim Fine Surcharge that is turned over to the province.
- 4.2 Third-party Program costs include costs for equipment and processing payable to our vendor (TraffiPax), City of Toronto, and Ministry of Transportation – Ontario, as well as Administrative Costs. These Program costs (excluding court costs) for 2021 were approximately \$777,600. Due to the nature of the contract with our equipment vendor, annual RLC enforcement costs decreased substantially starting in 2022 to approximately \$280,500.
- 4.3 In 2021, RLC equipment, Joint Processing Centre, and MTO costs were \$710,650, \$64,133, and \$2,784 respectively. In 2022, those same amounts were \$225,368, \$52,504, and \$2,655.
- 4.4 Attachment #2 provides a summary of traffic-related RLC program costs and fines levied to date. It is important to note that there are additional costs associated with both Works and POA administration and collection processes.

#### **5. ASE Key Performance Indicators**

- 5.1 As illustrated in Figure 2 below, the number of ASE charges have varied significantly since the start of the program. The charge volumes increased in 2022 as the number of cameras increased from four to twelve. The number of charges per camera has been steadily decreasing over time.
- 5.2 Figure 2 also illustrates the difference between incidents captured and charges laid. The ASE equipment uses technology to automatically capture an image of a vehicle speeding. The images collected by the cameras are summarized as incidents in the chart below. A Provincial Offences Officer in the Joint Processing Centre reviews each image/incident and determines whether a charge can be laid based on the evidence captured. The total charge rate (proportion of charges issued compared to total incidents captured) is 46 per cent.
- 5.3 Compared to the baseline collected in 2019, the overall speed limit compliance increased by an average of 30 percent per site.



**Figure 2: ASE Charges over Time**

- 5.4 Since the start of the Region's ASE program, data collected by the ASE cameras and otherwise has shown an 8 km/hr reduction in average operating speed after deployment of the ASE equipment. Over the years, many treatments have been tried to reduce operating speeds on Regional Roads and none have been as effective as the ASE Cameras. Speed limit compliance has on average tripled on road segments equipped with the ASE technology since the start of the program compared to baseline data collected in 2019.
- 5.5 Since the start of ASE enforcement in September of 2020, speed data has been collected from approximately 20 million vehicles by four fixed and four mobile speed camera units. Of those 20 million vehicles, 103,873 of them have (approximately 5 charges per 1,000 vehicles) been issued tickets for speeding violations. The number of repeat offence notices to the same owner and the number of offence notices per camera has declined significantly since the start of operations, suggesting a positive and sustained change in driver behaviour.
- 5.6 The Region have seen favourable results in several Key Performance Indicators over time including the number of repeat offenders, charges issued over time and compliance with the posted speed limit.

- 5.7 Attachment #3 provides a summary of Key Performance Measures for the ASE program to date including impacts on speeding and the number of charges issued.
- 5.8 In 2022, 43,487 ASE charges were issued by the Joint Processing Centre on the Region's behalf.

## **6. ASE Program Costs and Fines Levied**

- 6.1 ASE is an effective tool to reduce operating speeds and improve safety. It is critical to note that generating revenue is not the intent of the program but rather to reinforce Vision Zero objectives. As the program reaches mature implementation, the net revenue is anticipated to be significantly lower than during initial years of implementation.
- 6.2 In 2021, a total of 35,324 speeding fines were issued through the ASE Program with an average fine of approximately \$110.00 per offence resulting in a total of approximately \$3.886 million. In 2022 the average fine amount was \$111.16 resulting in a total estimated fine value of \$4.834 million. As with RLC charges, fines levied should not be interpreted as total revenue as the fines may not have been collected (or collectible), and the fine amount also includes the Victim Fine Surcharge that is turned over to the province.
- 6.3 Third-party Program costs include equipment and processing fees payable to our vendor (Redflex Traffic Systems/Verra Mobility), City of Toronto and Ministry of Transportation – Ontario as well as Administrative Costs. Third-party Program costs (excluding court costs) for 2021 were approximately \$386,716. The program cost increased in 2022 by 43% to \$553,204.
- 6.4 In 2021, ASE equipment, Joint Processing Centre, and MTO costs were \$103,906, \$247,492, and \$35,318 respectively. In 2022, ASE equipment and Joint Processing Centre costs were \$187,925, and \$319,183 respectively. 2022 MTO costs are estimated to be \$46,096 (based on 43,487 charges issued) but are not payable until the end of the Province's fiscal year.
- 6.5 Attachment #4 provides a summary of ASE program costs and fines issued to date.



## **7. Revenue Sharing of Provincial Offences Act (POA) Fines**

- 7.1 As Council is aware, when the original download and transfer of POA administration by the Province occurred (including the Region's responsibility for the cost of prosecution, court services and collections), the Province had been suggesting that this was a net gain to the municipalities, including collection of historical arrears uncollected by the Province. At the time, a revenue sharing arrangement was determined with the LAMs. This arrangement was not finalized and executed but has been honoured by the Region since that time. As seen in Table 3 below, this has not been a significant revenue stream for the Region or the LAMs.
- 7.2 Since this original transfer of responsibility from the Province to the Region, any net POA revenues collected are shared with the local municipalities after accounting for the cost of prosecution, court services and collections. The Region's costs for administering the ASE and RLC programs identified earlier in this report had not been netted against the POA fines collected as they did not exist at the time of the original transfer. However as we have been working through the implementation of ASE and RLC, it has become clear that any separation of the costs of the ASE and RLC programs from the POA court and administrative perspective is not possible. The Region has retained 40 per cent of any net revenues and 100 per cent of deficits to date. This may have to be reconsidered in the future depending upon financial outcomes over time. The individual local municipalities' share of the remaining 60 per cent of net revenues is allocated by their share of the overall weighted current value assessment.
- 7.3 Table 3 also provides the allocation of net POA fines from 2017 to 2021.
- 7.4 When the Region introduced the RLC and ASE programs, additional Regional resources were required to prosecute and provide court services for these offences. All RLC and ASE fines are POA fines and included with the overall POA fines coming to the Region. It is currently a manual process to identify and separate the fine revenue collected specific to RLC and ASE offences due to the constraints of the existing provincial system. Neither the costs nor the revenue collected can be separately identified.

**Table 3: 2017 to 2021 Allocation of Net POA Fines**

	<b>2017 Total Sharing \$</b>	<b>2018 Total Sharing \$</b>	<b>2019<sup>(Note 1)</sup> Total Sharing \$</b>	<b>2020<sup>(Note 2)</sup> Total Sharing \$</b>	<b>2021 Total Sharing \$</b>	<b>5 Year Total Sharing \$</b>
<b>Total</b>	<b>998,617</b>	<b>183,052</b>	<b>(369,255)</b>	<b>(928,989)</b>	<b>278,217</b>	<b>161,642</b>
Ajax	106,313	19,461	7,974	-	29,278	163,026
Brock	10,051	1,791	735	-	2,722	15,299
Clarington	77,345	14,245	5,889	-	21,760	119,239
Oshawa	126,189	23,424	9,655	-	34,895	194,163
Pickering	104,473	19,042	7,926	-	29,470	160,911
Scugog	22,652	4,038	1,630	-	5,873	34,193
Uxbridge	26,232	4,711	1,905	-	6,840	39,688
Whitby	125,915	23,118	9,522	-	36,091	194,646
<b>Area Municipal Share</b>	<b>599,170</b>	<b>109,831</b>	<b>45,236</b>	<b>-</b>	<b>166,930</b>	<b>921,167</b>
<b>Regional Share</b>	<b>399,447</b>	<b>73,221</b>	<b>(414,491)</b>	<b>(928,989)</b>	<b>111,287</b>	<b>(759,525)</b>

**Notes**

1. 50% of Budget Net Revenue was distributed to Area Municipalities in 2019
2. Net Deficit was not shared with area municipalities in 2020
3. Columns may not add due to rounding

- 7.5 Additional complications have arisen with the transfer of responsibility for Part II and IX prosecutions from Ministry of Attorney General to the Region of Durham, as approved by Regional Council in June 2022. Following this transfer, the Region became responsible for additional prosecution costs without an offsetting revenue stream. This further decreases the net POA revenue available for sharing with the Region's local municipalities.
- 7.6 As shown in Table 4, despite population, roads and traffic volumes growing substantially, charge volumes for traffic and regulatory offences were declining since 2017 – reaching an all time low in 2019. Revenues declined over this same period. Charge volumes net of Red Light Camera and Automated Speed Enforcement charges have fully recovered to 2019 levels and may soon match volumes from 2017. When Red Light Camera and Automated Speed Enforcement are included charge volumes fully recovered in 2020 and have far exceeded historical highs. POA revenues have not recovered to match. In 2020, and to some extent in 2021, the Province closed courts for several months in response to the public health emergency. Currently, a persistent lack of judicial resources is

restricting capacity in POA Courts through the province. In Durham, only two out of four POA courts are operational, with more resources expected late in 2023 or early in 2024. The revenue drop is expected to recover as more judicial resources are made available in POA Courts.

**Table 4: Durham Region Courts Data – ASE/RLC and Other Offences**

Year	2017	2018	2019	2020	2021	2022
RLC/ASE <sup>1</sup>				25,727	37,471	56,248
Part 1,2,3	78,357	68,920	65,131	45,315	55,678	65,171
Total	78,357	68,920	65,131	78,218	93,149	131,379

<sup>1</sup> Data represents the number of charges managed by the courts which differs from data shown elsewhere in this report. Several charges issued in 2021 were processed in 2022.

- 7.7 The impact of funding from fine revenue the third party costs associated with the operations of the RLC and ASE programs for the Region and participating LAMs in 2022 and as estimated for the 2023 budget is shown in Table 5 below.

**Table 5: Third Party RLC/ASE Costs Funded from Fine Revenue**

	2022 Actual	2023 Approved Budget
Program costs before RLC/ASE	\$7,227,834	\$9,176,375
RLC/ASE – Region <sup>Note 1</sup>	866,605	842,800
ASE – LAMs -Pickering & Ajax <sup>Note 2</sup>	<u>762,542</u>	<u>291,900</u>
Program Costs	8,856,981	10,311,075
Fine Revenue	<u>(8,920,954)</u>	<u>(11,803,744)</u>
Net Fine Revenue	<u>(\$63,973)</u>	<u>(\$1,492,669)</u>

Note 1: 2022 Actual costs for Region are slightly higher due to timing of receipt/payment of invoices.

Note 2: 2022 Actuals include costs for LAMs for 2021 and 2022 as per Report 2023-F-9. Costs for 2023 are estimated to be equal to that of 2022.

- 7.8 While a small surplus was recognized in 2022 after covering the RLC/ASE operating program costs, a larger surplus is possible for 2023, assuming fine revenue increases to the budget amount. Note that the 2022 fine revenue budget was \$11.8 million and is unchanged in the 2023 approved budget. The shortfall in fine revenue in 2022 was \$2.88 million.
- 7.9 It is also important to note that there are additional operating costs, including staff time and ancillary materials and supplies, incurred in delivering these programs. Furthermore, capital costs are incurred for the acquisition of equipment and these costs are not included in the analysis above and are expected to be funded from alternative sources.
- 7.10 Staff are recommending that, in order to ensure consistency from the total Regional implications of POA, third party costs of the RLC and ASE programs incurred by the Region and participating LAMs be applied against POA revenue received with the net proceeds after that being allocated based on the existing process. It is also recommended that the agreements be updated and progress through an approval process at the LAMs, if deemed necessary in discussions between legal and finance departments respectively. Initially, this may result in an increase to the LAMs to assist those implementing their own ASE programs to offset local costs. As has already been occurring, this net revenue to the LAMs will continue to decline as the positive effect of full implementation of the RLC and ASE programs are felt on driver behaviour and additional POA prosecutions are downloaded by the Province. Ultimately, it is very likely that this will become a cost centre only, with no net revenues. This may depend upon the impact of an AMP system. LAMs should be made aware that their ASE/RLC camera third party costs will not be recovered fully in the event of a shortfall and potentially a cost will be billed to LAMs for POA cost recovery. This may make the process of updating agreements deemed to be unnecessary as it may be a temporary situation that can be accepted informally by all parties.

## **8. Conclusion**

- 8.1 ASE and RLC technology continue to be effective tools to reduce speeding and improve safety on Regional Roads in Durham Region. As often noted, it is not set up or implemented with a view to generate revenue. Fine revenue does not cover, nor is it intended to cover all costs of imposing charges, for example staff costs or DRPS costs.

- 8.2 Works staff will provide a further update on ASE and RLC program performance in 2024 together with other Vision Zero initiatives. Legal and Finance will report back as necessary regarding the net POA revenue sharing agreements given the complexities articulated above.
- 8.3 This report was prepared jointly by the Works, Finance and Legal Services Departments.
- 8.4 For additional information, please contact:
- Ramesh Jagannathan, Director, Transportation and Field Services at 905-668-7711, ext. 2183.
  - Joanne Cermak, Director, Financial Services at 905-668-7711, ext. 2260
  - Jason Hunt, Regional Solicitor and Director, Legal Services at 905-668-7711, ext. 2086

**9. Attachments**

- Attachment 1: Red Light Camera Key Performance Indicators
- Attachment 2: Red-Light Camera Enforcement Costs and Fines Levied
- Attachment 3: Automated Speed Enforcement Key Performance Indicators
- Attachment 4: Automated Speed Enforcement Costs and Fines Levied

Respectfully submitted,

Original signed by:

---

Ramesh Jagannathan  
MBA, M.Eng., P.Eng., PTOE  
Acting Commissioner of Works

Original signed by:

---

Nancy Taylor, BBA, CPA, CA  
Commissioner of Finance

Original signed by:

---

Jason Hunt  
Regional Solicitor and Director

Recommended for Presentation to Committee

Original signed by:

---

Elaine C. Baxter-Trahair  
Chief Administrative Officer

**ATTACHMENT 1A**  
**RED LIGHT CAMERA KEY PERFORMANCE MEASURES**  
**COLLISION DATA BY LOCATION – ANNUAL TOTAL (2019-2022)<sup>1</sup>**

RLC Location	Vehicle Volume				Total Collisions				Angle Collisions				Rear End Collisions				Fatal Collisions				Injury Collisions				Total Charges
	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022	
Thickson at Dundas	34,482	25,972	30,653	30,511	30	24	31	23	1	4	4	4	13	9	11	9	0	0	0	0	5	2	7	5	392
Westney at Delaney	27,654	23,796	24,483	24,681	13	9	4	3	4	0	0	1	1	5	1	0	0	0	0	0	4	3	1	2	1347
Lake Ridge at Goodwood	10,092	9,655	8,741	8,616	4	6	3	6	1	2	0	2	2	2	1	2	0	0	0	0	1	1	1	0	85
Simcoe at Conlin	18,268	15,692	14,361	14,475	24	11	14	2	1	4	1	1	13	4	7	0	0	0	0	0	3	3	5	1	1258
Taunton at Altona	18,552	16,937	17,940	17,462	7	10	13	3	1	2	2	0	3	4	6	0	1	0	0	0	1	4	3	2	169
Liverpool at Bayly	15,191	11,391	17,032	17,182	6	10	12	15	1	1	0	3	1	2	5	5	0	0	0	0	2	2	0	4	316
Stevenson at King	17,756	16,266	13,241	13,597	17	11	7	10	6	1	1	3	3	5	1	2	0	0	0	0	3	2	2	3	368
Ritson at Bond	23,475	17,642	20,916	21,502	18	5	22	11	8	3	7	3	3	0	6	3	0	0	0	0	3	1	5	2	806
Simcoe at Rossland	18,957	17,193	14,985	17,332	24	15	12	19	1	2	5	4	10	4	6	7	0	0	0	0	5	3	2	4	232
Highway 2 at Courtice	25,911	18,878	20,302	21,670	3	4	6	5	2	2	0	0	0	1	2	4	0	0	0	0	0	1	1	0	577
Lake Ridge at Taunton	19,897	18,044	16,973	10,806	17	23	25	17	1	1	2	0	7	10	10	8	0	0	0	0	7	6	8	2	59
Salem at Bayly	24,573	21,431	20,924	21,835	11	10	10	12	0	3	2	2	1	4	2	4	0	0	0	0	5	2	3	5	117
<b>TOTAL</b>	<b>254,808</b>	<b>212,897</b>	<b>220,551</b>	<b>219,669</b>	<b>174</b>	<b>138</b>	<b>159</b>	<b>126</b>	<b>27</b>	<b>25</b>	<b>24</b>	<b>23</b>	<b>57</b>	<b>50</b>	<b>58</b>	<b>44</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>39</b>	<b>30</b>	<b>38</b>	<b>30</b>	<b>5,726</b>

<sup>1</sup> Red-Light Cameras were first activated in late fall 2020. 2021 was the first full year of Red-Light Camera Operations

**ATTACHMENT 1B**  
**RED LIGHT CAMERA KEY PERFORMANCE MEASURES**  
**COLLISION DATA BY LOCATION - %CHANGE FROM 2019 TO 2020 and 2022<sup>1</sup>**

RLC Location	Vehicle Volume				Total Collisions				Angle Collisions				Rear End Collisions				Fatal Collisions				Injury Collisions			
	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022	2019	2020	2021	2022
Thickson at Dundas	100	-25	-11	-12	100	-20	+3	-23	100	+300	+300	+300	100	-31	-15	-31	100	NA	NA	NA	100	-60	+40	0.
Westney at Delaney	100	-14	-11	-11	100	-31	-69	-77	100	-100	-100	-75	100	+400	0.	-100	100	NA	NA	NA	100	-25	-75	-50
Lake Ridge at Goodwood	100	-4	-13	-15	100	+50	-25	+50	100	+100	-100	+100	100	0.	-50	0.	100	NA	NA	NA	100	0.	0.	-100
Simcoe at Conlin	100	-14	-21	-21	100	-54	-42	-92	100	+300	0.	0.	100	-69	-46	-100	100	NA	NA	NA	100	0.	+67	-67
Taunton at Altona	100	-9	-3	-6	100	+43	+86	-57	100	+100	+100	-100	100	+33	+100	-100	100	-100	-100	-100	100	+300	+200	+100
Liverpool at Bayly	100	-25	+12	+13	100	+67	+100	+150	100	0.	-100	+200	100	+100	+400	+400	100	NA	NA	NA	100	0.	-100	+100
Stevenson at King	100	-8	-25	-23	100	-35	-59	-41	100	-83	-83	-50	100	+67	-67	-33	100	NA	NA	NA	100	-33	-33	0.
Ritson at Bond	100	-25	-11	-8	100	-72	+22	-39	100	-63	-13	-63	100	-100	+100	0.	100	NA	NA	NA	100	-67	+67	-33
Simcoe at Rossland	100	-9	-21	-9	100	-38	-50	-21	100	+100	+400	+300	100	-60	-40	-30	100	NA	NA	NA	100	-40	-60	-20
Highway 2 at Courtice	100	-27	-22	-16	100	+33	+100	+67	100	0.	-100	-100	100	NA	NA	NA	100	NA	NA	NA	100	NA	NA	NA
Lake Ridge at Taunton	100	-9	-15	-46	100	+35	+47	0.	100	0.	+100	-100	100	+43	+43	+14	100	NA	NA	NA	100	-14	+14	-71
Salem at Bayly	100	-13	-15	-11	100	-9	-9	+9	100	NA	NA	NA	100	+300	+100	+300	100	NA	NA	NA	100	-60	-40	0.
<b>TOTAL</b>	<b>100</b>	<b>-16</b>	<b>-13</b>	<b>-14</b>	<b>100</b>	<b>-21</b>	<b>-9</b>	<b>-28</b>	<b>100</b>	<b>-7</b>	<b>-11</b>	<b>-15</b>	<b>100</b>	<b>-12</b>	<b>+2</b>	<b>-23</b>	<b>100</b>	<b>-100</b>	<b>-100</b>	<b>-100</b>	<b>100</b>	<b>-23</b>	<b>-3</b>	<b>-23</b>

<sup>1</sup> Red-Light Cameras were first activated in late fall 2020. 2021 was the first full year of Red-Light Camera Operations



**ATTACHMENT 2**  
**RED LIGHT CAMERA ENFORCEMENT COSTS AND FINES LEVIED**

Program Component	Program Costs <sup>1</sup>		
	2021 Actual Cost	2022 Actual Cost	Notes
Equipment Costs (TraffiPax)	\$710,650	\$225,368	-
Processing Costs (City of Toronto)	\$64,133	\$52,504	-
MTO Fees	\$2,784	\$2,655	Estimate - \$1.06 per charge
<b>TOTAL</b>	<b>\$777,567</b>	<b>\$280,527</b>	

<sup>1</sup> Court/Collection Costs Excluded

Program Component	Fines Levied		
	2021 Actual Fines	2022 Actual Fines	Total
Total Charges	2,564	2,505	5,069
Fine Amount	\$325 (incl. \$60 VFS)	\$325 (incl. \$60 VFS)	-
Gross Fines Levied (Includes \$60 VFS remitted to the Province)	\$833,300	\$814,125	\$1,647,425

**ATTACHMENT 3A****AUTOMATED SPEED ENFORCEMENT KEY PERFORMANCE MEASURES – CITY OF PICKERING**

<b>Location</b>	<b>Total Vehicle Volume</b>	<b>Change in Average Speed (km/hr)</b>	<b>% Change in Speed Limit Compliance</b>	<b>Total Charges</b>	<b>Charges per 1,000 Vehicles</b>
1. Claremont – Central Street – Eastbound	810,085	-5	+11	5,292	6.5
2. Claremont – Central Street – Westbound	70,687	-6	+23	263	3.7
3. Altona Rd – S of Sheppard – Elizabeth B Phin PS – NB	601,779	-9	+57	6,264	10.4
4. Whites Rd – South of Finch - St. Mary SS – NB	605,902	-5	+23	1,124	1.9
5. Finch Ave – East of Dixie - St. Isaac Jogues – EB	608,735	-15	+59	1,937	3.2
<b>Total</b>	<b>2,697,188</b>			<b>14,880</b>	<b>5.5</b>

**ATTACHMENT 3B****AUTOMATED SPEED ENFORCEMENT KEY PERFORMANCE MEASURES – TOWN OF AJAX**

<b>Location</b>	<b>Total Vehicle Volume</b>	<b>Change in Average Speed (km/hr)</b>	<b>% Change in Speed Limit Compliance</b>	<b>Total Charges</b>	<b>Charges per 1,000 Vehicles</b>
6. Bayly St – East of Harwood - Ajax HS – EB	4,257,432	-6	+18	2,735	0.6
<b>Total</b>	<b>4,257,432</b>			<b>2,735</b>	<b>0.6</b>

**ATTACHMENT 3C****AUTOMATED SPEED ENFORCEMENT KEY PERFORMANCE MEASURES – TOWN OF WHITBY**

<b>Location</b>	<b>Total Vehicle Volume</b>	<b>Change in Average Speed (km/hr)</b>	<b>% Change in Speed Limit Compliance</b>	<b>Total Charges</b>	<b>Charges per 1,000 Vehicles</b>
7. Anderson Street — Anderson CVI – SB	1,586,259	-9	+28	13,850	8.7
8. Hamlet of Ashburn – Myrtle Rd West -RR5 – EB	262,584	-17	+33	3,132	11.9
9. Taunton Rd – West of Anderson – Sinclair HS – WB	532,386	-15	+59	355	0.7
10. Taunton Rd – East of Fallingbrook – Sinclair HS – EB	453,056	NA	NA	554	1.2
<b>Total</b>	<b>2,834,285</b>			<b>17,891</b>	<b>6.3</b>

**ATTACHMENT 3D****AUTOMATED SPEED ENFORCEMENT KEY PERFORMANCE MEASURES – CITY OF OSHAWA**

<b>Location</b>	<b>Total Vehicle Volume</b>	<b>Change in Average Speed (km/hr)</b>	<b>% Change in Speed Limit Compliance</b>	<b>Total Charges</b>	<b>Charges per 1,000 Vehicles</b>
11. Simcoe St – South of Taylorwood – OTU- SB	2,606,284	-6	+23	8,958	3.4
12. Simcoe St – Camp Sumac – OUT – NB	950,698	-5	+14	4,829	5.1
13. Simcoe St – CSZ - North of Taunton Rd – NB	295,824	-9	+30	3,226	10.9
14. Simcoe St – North of Greta – SJ Philipps PS – NB	501,154	-7	+25	2,968	5.9
15. Harmony Rd – Vincent Massey PS – NB	834,446	-12	+49	7,837	9.4
16. Rossland Rd – W of Stevenson – Paul Dwyer HS – WB	443,766	-4	+15	10,247	23.1
17. Ritson Rd – N of Rossland – Beau Valley PS – NB	1,322,656	-6	+28	8,577	6.5
18. Stevenson Rd – RS McLaughlin CVI – NB	350,146	-6	+9	4,533	12.9
19. Adelaide Ave – Eastdale CVI – WB	668,535	-5	+8	1,776	2.7
<b>Total</b>	<b>7,973,509</b>			<b>52,951</b>	<b>6.6</b>

**ATTACHMENT 3E****AUTOMATED SPEED ENFORCEMENT KEY PERFORMANCE MEASURES - CLARINGTON**

<b>Location</b>	<b>Total Vehicle Volume</b>	<b>Change in Average Speed (km/hr)</b>	<b>% Change in Speed Limit Compliance</b>	<b>Total Charges</b>	<b>Charges per 1,000 Vehicles</b>
20. Highway 2 – Main Street Courtice CSZ – Westbound	541,522	-7	+30	5,547	10.2
21. Liberty St – Bowmanville High School – Southbound	1,040,248	-9	+39	2,533	2.4
<b>Total</b>	<b>1,581,770</b>			<b>8,080</b>	<b>5.1</b>

**ATTACHMENT 3F****AUTOMATED SPEED ENFORCEMENT KEY PERFORMANCE MEASURES - UXBRIDGE**

<b>Location</b>	<b>Total Vehicle Volume</b>	<b>Change in Average Speed (km/hr)</b>	<b>% Change in Speed Limit Compliance</b>	<b>Total Charges</b>	<b>Charges per 1,000 Vehicles</b>
22. Goodwood – RR47 – Westbound	338,306	-24	+60	1,257	3.7
23. Goodwood – RR47 – Eastbound	122,719	-24	+60	1,185	9.7
24. Sandford (Scott Central Public School) -Eastbound	91,993	-10	+20	556	6.0
<b>Total</b>	<b>553,018</b>			<b>2,998</b>	<b>5.4</b>

**ATTACHMENT 3G****AUTOMATED SPEED ENFORCEMENT KEY PERFORMANCE MEASURES - BROCK**

<b>Location</b>	<b>Total Vehicle Volume</b>	<b>Change in Average Speed (km/hr)</b>	<b>% Change in Speed Limit Compliance</b>	<b>Total Charges</b>	<b>Charges per 1,000 Vehicles</b>
25. Beaverton – RR15 – Holy Family Catholic School – WB	216,844	-8	+32	1,132	5.2
26. Sunderland – River Street – EB	418,586	7	-19	2,338	5.6
27. Cannington – Cameron Street -WB	41,349	8	+35	737	17.8
28. Cannington – Cameron Street – West of Albert – EB	54,146	-12	+52	59	1.1
29. Cannington – Cameron Street – Brock HS – EB	84,563	NA	NA	72	0.9
<b>Total</b>	<b>815,488</b>			<b>4,338</b>	<b>5.3</b>

<b>TOTAL DURHAM</b>	<b>20,712,690</b>			<b>103,873</b>	<b>5.0</b>
---------------------	-------------------	--	--	----------------	------------

**ATTACHMENT 4**  
**AUTOMATED SPEED ENFORCEMENT COSTS AND FINES LEVIED**

Program Component	Program Costs <sup>1</sup>		
	2021 Actual Cost	2022 Actual Cost	Note
Equipment Costs (Redflex)	\$103,906	\$187,925	
Processing Costs (City of Toronto)	\$247,492	\$319,183	Adjusted to reflect start-up cost credits
MTO Fees	\$35,318	\$46,096.22	Estimate - \$1.06 per charge
<b>TOTAL</b>	<b>\$386,716</b>	<b>\$553,204</b>	

<sup>1</sup> Court/Collection Costs Excluded

Program Component	Fines Levied		
	2021 Actual Fines	2022 Actual Fines	Total
Total Charges	35,324	43487	78,811
Average Fine	\$110.12	\$111.16	
Gross Fines Levied (Includes VFS remitted to the Province)	\$3,889,878.88	\$4,834,014.92	\$8,723,893,80