



**Report**  
**Staff Report**  
The Corporation of the City of Brampton  
**7/10/2024**

**Date:** 2024-07-04

**Subject:** **Budget Amendment and Request to Begin Procurement for Intersection Cameras and Implementation – All Wards (RM 9/2023)**

**Contact:** Jason Keddy, Manager, Security Services, Facilities, Operations and Maintenance

**Report number:** Public Works & Engineering-2024-616

**RECOMMENDATIONS:**

1. That the report from Jason Keddy, Manager Security Services, Public Works, and Engineering to the City Council Meeting of July 10, 2024, re: **Budget Amendment and Request to Begin Procurement for Intersection Cameras and Implementation – All Wards (RM 9/2023)** be received; and
2. That a budget amendment for Intersection Camera Procurement be approved for Project # 231860-001 in the amount of \$2,115,500 for the Purchase of Fifty (50) 360-degree cameras, Two Hundred (200) License Plate Recognition Cameras (LPRC), and first year software licensing fee, with funding of \$2,115,500 to be transferred from Reserve # 4-Asset Replacement Fund and;
3. That subject to the approval of Recommendation 2, staff be directed to undertake the work required for the design and construction of new trenching, conduit and associated electrical work; and
4. That a budget amendment for Intersection Camera Procurement be approved for Project # 231860-001 in the amount of \$8,132,500 for the Design, Engineering and Construction Services for new trenching, conduit and associated electrical and installation work at all fifty (50) intersections, with funding of \$8,132,500 to be transferred from Reserve # 4-Asset Replacement Fund; and
5. That funding for annual software licensing fee of \$35,000 be included in the 2025 operating budget submission and presented to the Mayor for his consideration.

**OVERVIEW:**

- **At the February 21, 2024, Committee of Council meeting, the Council authorized staff to commence procurement for the design, supply, and installation of a complete Video Management System (VMS) at 50 intersections.**
- **The purpose of the project is to support Peel Regional Police (PRP) with investigations and deter careless driving in the City.**
- **NRFP2024-140 was issued on April 10, 2024, for the design, supply, and deployment of LPRCs, 360-degree video cameras, and a VMS at the 50 intersections across the City.**
- **Staff recommends that the VMS shall include, 50 360-degree cameras, 200 LPRCs, all hardware/software, installation, and training. It should be noted that one 360-degree camera and four LPRCs will be installed at each of the intersections.**
- **To ensure the City receives optimal value for the Intersection Camera System, the Request for Proposal (RFP) allowed bidders to provide pricing for both purchase and lease options for the cameras, resulting in a top-rated bidder for both lease and purchase options.**
- **This report provides an overview of the RFP results, advantages, and disadvantages based on overall lifecycle, flexibility, and cost. A recommendation of a preferred proposal seeks a budget amendment to proceed with the acquisition of 50 360-degree cameras and 200 LPRCs, software, and related parts and services.**
- **Subject to Council's direction to implement the 250 cameras at 50 intersections and subject to Council approval, staff will commence procurement for the Design, Engineering and Construction for new trenching, conduit and associated electrical work required.**
- **Staff recommend the implementation work and seek a budget amendment in the amount of \$10,248,000.**

**BACKGROUND:**

The current cameras at city intersections are used by staff in Traffic Services to view current traffic and road conditions. The ability to record video feeds from traffic detection equipment has been discussed but was not implemented due to concerns over privacy and risk.

At the Committee of Council meeting on February 22, 2023, PRP commented in support of adding recording devices to traffic cameras at intersections to provide PRP with additional resources to assist with the identification of those involved in criminal activity, which was referred to staff (RM 9/2023).

At the March 9, 2023, Special Committee of Council meeting, a budget amount of \$13,800,000 was presented to Council for consideration to implement 40 360 cameras and 40 LPRC at 40 intersections. Council directed staff to conduct a review and benchmarking of other municipalities and law enforcement agencies prior to selecting any specific technology. Council approved \$1,376,000 for the project to commence. Council also directed staff to increase the scope of intersections from 40 intersections to 50 intersections.

In December 2023, a Privacy Impact Assessment (PIA) was undertaken by the City's privacy office, and no privacy concerns were identified.

With the increase in serious collisions at select intersections within the City of Brampton, Council accepted report CW006-2024 on February 21, 2024, and directed staff to commence with the procurement, supply, and installation of the necessary equipment for the intersection cameras at 50 intersections.

A Negotiable RFP was issued to solicit proposals from the camera supplier market to ensure that the best solution for the City is identified and ultimately awarded. The NRFP was released on April 10, 2024, and closed on May 3, 2024.

## **CURRENT SITUATION:**

### **Overview of the NRFP**

At an elevated level, the scope of work in the NRFP included the following:

- 50 360-degree cameras: These cameras will record a complete 360-degree view of the intersection and immediate area.
- 200 LPRC: The License Plate Recognition cameras will capture and process the license plates and vehicle characteristics (such as - license plate number, province/state of issue, make, model, and color).
- Operation and Maintenance: The successful bidder will be responsible for the ongoing operation and maintenance of 360-degree cameras and LPRC cameras. The purchase option includes a two-year warranty on all parts and labor and includes two annual preventative maintenance cycles. At the conclusion of the warranty period, the City will be responsible for the ongoing preventive and demand maintenance of the system through our existing security systems staff.

The lease option includes a five-year parts and labor warranty and a two annual preventative maintenance cycles for the five years.

- Video Management System (VMS): This includes all software, servers, licenses, and Artificial Intelligence (AI) systems required for this project. VMS will support video storage for up to 31 days as well as redaction capability which will allow the City to protect privacy when video is released. There is an operational cost in the amount of \$35,000 for the licensing fees that the City will have to pay the vendor for annual renewal of the software.

## **Comparing Lease and Purchase**

Over 5 years, the top-rated lease bidders' proposal cost is 13.7% more than the top rated bidders purchase proposal cost.

To ensure the City achieves optimal value for the Intersection Camera Project, the RFP allowed bidders to provide purchase and lease pricing for the Intersection Camera Project. This resulted in a top-rated bidder for purchase pricing (Option A) and a top-rated bidder for lease pricing (Option B). To aid Council in this decision, Attachment A outlines the typical advantages and disadvantages of ownership and lease options.

Staff have assessed the top-rated lease and top-rated purchase options.

### 1. Purchase vs. Lease Cost Comparison:

The useful life of the 360-degree cameras and LPRC cameras is estimated to be five to seven years and seven to ten years, respectively.

Purchase Option includes the design, supply, and installation of all equipment and a two-year warranty. Lease Option includes the design, supply, and installation of all equipment and a five-year warranty.

### 2. End of Contract Implications:

If the City leases the Intersection Camera System, the City will have to undergo a complete RFP cycle every 5 years, which will involve the removal and replacement of all the components of the Intersection Camera System, along with other monetary and non-monetary costs including:

- a) IT network set-up, server configuration, network rules
- b) Re-training of city staff on the use and service of the new camera systems
- c) Reduced camera coverage as the outgoing vendor removes their equipment and new equipment is installed
- d) Closing lanes of traffic to remove, and later reinstall the new cameras

With a purchased system when the contract ends, the City will be in a position where it can dictate the required upgrades in a more controlled manner. Although the Lease option includes parts, labor, warranty, annual licensing, and two preventative maintenance cycles a year for 5 years, there is no buy-out option.

### 3. Control & Flexibility:

By purchasing the system, the City will be in a better position to both expand the system and implement new features and options as they become available.

If the City's requirements change and system components (software or hardware) need to be added, changed, altered, or integrated, this can be exceedingly difficult under a lease option. With ownership, the City will be able to upgrade the system as required. Some examples of this include newer camera technologies, additional analytics, and AI, integration with other systems.

### **Design and Construction of New Trenching, Conduit and Associated Electrical Work**

To install and power all 250 cameras across all 50 intersections, new underground conduit is required. Staff has listed three distinct phases for the rollout of this project:

1. Phase 1 - The existing 20 Pan-Tilt-Zoom can be replaced with the new 20 360-degree cameras without performing any trenching, conduit, or new electrical work. Considering, the low value for implementation of \$73,500 and to expedite the work, staff recommends completing this work through the City's current traffic signals maintenance contractor on record. It is estimated that this work can be completed within 4-6 weeks.
2. Phase 2 – During this phase, the Design and Engineering Services for new trenching, conduit and associated electrical work at all 50 intersections will be completed. A competitive bid process will be used to source this work to a third-party consultant. The overall estimated time to complete this work is 20 weeks.
3. Phase 3 – During this phase, new trenching, conduit and associated electrical work will be completed at all 50 intersections. A competitive bid process will be used to source this work to the eight (8) pre-qualified vendors who are qualified to work on traffic signals infrastructure. During this phase, the remaining thirty (30) 360-degree cameras as well as two hundred (200) LPRCs will be installed. To expedite the trenching, conduit and electrical work, the work will be assigned to multiple pre-qualified vendors as the vendors can perform work on multiple intersections simultaneously.

For the phases 2 and 3, below is the estimated schedule for the implementation of thirty (30) 360-degree cameras and two hundred (200) LPRCs at all fifty (50) intersections.

<b>Milestone</b>	<b>Activity</b>	<b>Timeline</b>
Milestone 1	Award for the Design and Engineering Services	Q3 2024
Milestone 2	Completion of Design and Engineering Services	Q4 2024
Milestone 3	Award for the Civil and electrical work to pre-qualified vendors	Q1 2025
Milestone 4	Completion of the Installation work	Q4 2025

### **Next Steps**

Based on the comparative analysis of purchase versus lease, staff recommend the purchase option because it is the most cost effective, and staff recommend proceeding with the top-rated Purchase Proposal from the NRFP. Staff have completed a fulsome review of market conditions and are confident that purchasing provides good value for the City.

Subject to Council's direction to implement the 250 cameras at 50 intersections and subject to Council approval, staff will commence procurement for the Design, Engineering and Construction for new trenching, conduit and associated electrical work required for the camera installation.

### **CORPORATE IMPLICATIONS:**

#### **Financial Implications:**

The total financial requirement for the implementation of Intersection Cameras Project at 50 intersections is approximately \$11,659,000. The capital costs are \$11,624,000, and the annual operating impact is \$35,000.

#### **Operating Budget:**

The initiative requires annual operating costs of \$35,000 for software licensing, which along with full time staff resources resulting from this initiative will be incorporated in the 2025 Operating Budget and presented to Mayor for his consideration.

#### **Capital Budget:**

Council approved an initial funding of \$1,376,000 as part of the 2023 Capital Budget. A budget amendment is required to increase Capital Project #231860-001-Traffic intersection Camera in the amount of approximately \$10,248,000 for traffic camera installations at 50 intersections, with funding of approximately \$10,248,000 to be transferred from Reserve # 4-Asset Replacement Fund, subject to council approval.

Table below provides a summary of the approved and required capital investment:

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<b>Project 231860-001 Traffic Intersection Cameras</b>	<b>Approved Funding</b>	<b>Budget Amendment</b>	<b>Total Funding</b>
IT Requirements	1,376,000		<b>1,376,000</b>
Traffic Camera Program		10,248,000	<b>10,248,000</b>
<b>Grand Total</b>	<b>1,376,000</b>	<b>10,248,000</b>	<b>11,624,000</b>

There is currently sufficient funding available in Reserve #4- Asset Replacement Fund to approve this amendment.

**Other Implications:**

**Purchasing Implications:**

A public Procurement Process has been conducted and the bid submissions have been evaluated in accordance with the published evaluation process within the bid document. Purchase approval shall be obtained in accordance with the Purchasing By-law.

All communication with Bidders involved in the procurement must occur formally, through the contact person identified in the Bid Document.

**STRATEGIC FOCUS AREA:**

This report supports Health and Well-being. The intersection camera project is a key strategy in the City's goal to improve safety by allowing the city to work with law enforcement to deter dangerous and reckless driving while providing enhanced investigative tools.

**CONCLUSION:**

Staff recommends that the city award the NRFP to the highest-rated Bidder for the purchase proposal as it is the most cost-effective option and seeks approval for a budget amendment to proceed with the acquisition of intersection cameras, software, and related services as well as for the design, engineering and construction for new trenching, conduit and associated electrical work required.

Authored by:

Reviewed by:

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Jason Keddy,  
Manager,  
Security Services

Approved by:

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Rajkaran Chhina, MBA, P.Eng., AMP,  
PMP, CEM  
Director,  
Facilities Operations and Maintenance

Approved by:

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Peter Pilateris, M.A.Sc, P.Eng.  
Commissioner, Public Works, and  
Engineering

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Marlon Kallideen,  
Chief Administrative Officer

**Attachments:**

- Attachment 1 – Advantages of Purchase Option and Disadvantages of Lease Option
- Attachment 2 – Intersections in Scope for this Project