



City of  
**Peterborough**

---

**To: Members of the General Committee**

**From: Cynthia Fletcher  
Commissioner of Infrastructure and Planning Services**

**Meeting Date: November 1, 2021**

**Subject: Report IPSTR21-017  
Award of RFP-29-21 Supply of Traffic Signal Control Units and  
Cabinet Assemblies**

---

## **Purpose**

A report to recommend the award of RFP-29-21 for the Supply of Traffic Signal Control Units and Cabinet Assemblies and to approve additional staffing to manage the program.

## **Recommendations**

That Council approve the recommendations outlined in Report IPSTR21-017 dated November 1, 2021, of the Commissioner of Infrastructure and Planning Services, as follows:

- a) That RFP-29-21 for the Supply of Traffic Signal Control Units and Cabinet Assemblies be awarded to Tacel Ltd., 179 Bartley Drive, Unit B, Toronto, Ontario, M4A 1E6 at a cost of \$863,580.00, plus HST of \$112,265.40, for a total cost of \$975,845.40 for contract years one (1) and two (2); and
- b) That RFP-29-21 be awarded with the option to extend the Contract for three (3) additional one (1) year terms to complete the Traffic Signal Controller Replacement Program, subject to budget availability and satisfactory performance; and
- c) That Tacel Ltd. be considered as a vendor of record for new or replacement Traffic Control Units and Cabinet Assemblies, and that future purchases be considered as Exempt Purchases under Appendix B, Section B.1.3(l) of the Procurement By-law 18-084; and
- d) That the current contract position Intelligent Transportation Systems Project Manager be made permanent to oversee the implementation of the Traffic Signal Controller and Cabinet Assemblies contract and all Smart Traffic Signal initiatives.

## Budget and Financial Implications

The total project costs, net of the HST rebate, are set out in Table 1.

**Table 1: Project Costs**

| <b>Line</b> | <b>Description</b>  | <b>Amount</b>       |
|-------------|---|---------------------|
| 1           | Supply of Traffic Signal Controllers and Cabinet Assemblies Year 1 and Year 2 | \$863,580.00        |
| 2           | HST Payable by the City   | \$ 15,199.01        |
| 3           | Staffing Cost – 11 Months   | \$105,000.00        |
|             | <b>Total Costs</b>  | <b>\$983,799.01</b> |

The total estimated cost of the 2-year contract period, including the staffing costs is \$983,799.01, net of HST rebate, and can be accommodated within the uncommitted balance of the 2018 Capital Budget Traffic Signal Controller Replacement Program (ref 5-13.01).

A request to convert the existing Intelligent Transportation Systems Project Manager contract position to full time has been included as a “Below the Line” item submitted as part of the draft 2022 budget. For 2022, recognizing funding constraints and the importance of moving this project forward in a timely manner, it is proposed that the addition of this FTE would be funded from the pre-approved 2018 Capital Budget funding for the Traffic Signal Controller Replacement Program. Beyond December 31, 2022, it is proposed that this position be funded through future Traffic Operating Budgets or future Traffic capital budgets. This future cost will be incorporated into the 2023 budget review process.

## Background

### Traffic Signal Controller Replacement Program

The Traffic Signal Controller Replacement Program is a multi-year program to replace the City’s aging on-street traffic signal control equipment. The City operates 122 signalized intersections and 15 signalized pedestrian crossings. Of the 137 traffic signal controllers, 69% of controllers are more than 15 years old and have reached the end of their service life. Of the 42 remaining controllers 27 are between 10 and fifteen years old. The average expected service life of traffic signal controller equipment is 14 years. This project is one of several background projects that were implemented following Council approval of Report USDIR18-002- Transportation Planning, using previously approved capital funding. Upgrading of the traffic signal controller units and cabinets is a

necessary first step to enable future advance traffic signal management programs, including any expansion of the Smart Signal Pilot program.

The replacement controller units are Advanced Traffic Signal Controllers (ATC Controllers) offering enhanced traffic control and network features that our current units do not fully support. These ATC controller units provide greater flexibility and functionality and are designed with an open architecture to support third party applications such as: transit signal priority, connected vehicle communication, enhanced vehicle and pedestrian detection, and central and adaptive traffic signal control. The new traffic controller cabinet assemblies house the ATC units and provide an updated interface between all the ancillary devices that drive the traffic signals on the street.

### **Bid Solicitation**

City staff prepared and issued RFP-29-21 on July 22, 2021, with a closing date of August 26, 2021. The RFP was advertised on Bids and Tenders hosted webpage.

Three (3) bids were received and reviewed by the Transportation Services Coordinator, Intelligent Transportation Systems Project Manager and the Traffic Operations Technologist, all in accordance with the City's Procurement By-Law 18-084.

### **RFP Statement**

This solicitation process was an RFP where several criteria were used to evaluate submissions. The Criteria and their relative weighting were clearly set out in the RFP document. The RFP evaluation was broken into two (2) stages. Stage one (1) evaluated the Proponent's Experience and Qualifications, Project Understanding and Delivery Approach, Traffic Signal Control Unit Functional/Technical Specifications, and Cabinet Assemblies Unit Functional/Technical Specifications. The two (2) highest ranked proponents from Stage one (1) proceeded to Stage two (2). Stage two (2) included Sample Equipment Evaluation and Pricing.

### **RFP Evaluation Summary**

Table 2 provides a summary of the RFP results.

**Table 2 – Bidder Submission Evaluation Summary**

| <b>Rated Criteria Category</b>  | <b>Tacel Ltd.</b> | <b>Electromega</b> |
|---|-------------------|--------------------|
| Experience and Qualifications Project Understanding and Delivery Approach | 16.67             | 16                 |
| Traffic Signal Control Units Functional/Technical Specifications          | 20.49             | 18.97              |
| Cabinet Assemblies Functional/Technical Specifications                    | 15.93             | 15.84              |
| Stage 1 - Subtotal  | 53.09             | 50.81              |
| Sample Equipment Evaluation   | 10                | 5                  |
| Pricing (See Appendix C for details)                                      | 25                | 22.18              |
| <b>Total Points</b>   | <b>88.09</b>      | <b>77.99</b>       |

**Recommended Bidder and Vendor of Record**

It is recommended that RFP-29-21 be awarded to Tacel Ltd. Tacel Ltd. has forty (40) plus years of experience in the supply of traffic signal equipment across Canada and is a well qualified vendor, who has satisfactorily provided a variety of traffic signal equipment to City for many years.

Historically the City has installed 1-2 new traffic signal installations each year and have replaced controller units and cabinets that are impacted by construction or vehicle collisions. Given the routine nature of these purchases, it is recommended that Tacel Ltd. be considered as a vendor of record for the purchase of Traffic Control Units and Cabinet Assemblies. This would apply so long as this equipment continues to meet the needs of the City and performs well. If a replacement of this type of equipment were to be contemplated in the future, a competitive procurement process would occur to select a new vendor of record.

Appendix B of the City’s Procurement By-law 18-084 lists expenditures that are exempt from the Procurement By-law requirements. The list of exempt purchases under Section B.1.3(l) includes “Annual maintenance, support or equipment parts / supplies for software or hardware that is only available through a sole source.” Given the need to ensure that any new Traffic Control Units and Cabinet Assemblies is compatible with existing hardware and software on the rest of the signal system, it is proposed that these items would be consistent with the existing exemptions within the by-law.

## **Intelligent Transportation Systems Project Manager**

In July 2020, Council approved Report IPSTR20-020 creating the position of Intelligent Transportation Systems Project Manager, as a 15-month contract position, to lead the implementation of a new Central Traffic Signal System, procuring and installing new Traffic Signal Controller Units, and the design and installation of a pilot project to test and evaluate a Smart Signal System.

The Intelligent Transportation Systems Project Manager is currently leading the Traffic Signal Control Unit and Cabinet Assembly replacement program, the Smart Signal System traffic adaptive pilot project, a Connected Vehicle pilot project, and the new Central Traffic Signal System replacement program. These projects are the building blocks of an integrated traffic management system to optimize the City's existing road network, reduce delay and Green House Gas emissions, and support future connected vehicle technology.

The initiation of these projects has demonstrated the need for a permanent specialized position to manage the complexities of developing and maintaining a multi-year program to implement new technology that supports an integrated traffic management system for the future. Proposed funding for this position is outlined under the Budget and Financial Implications section of this report.

## **Timelines**

If the recommendations are approved, an agreement will be prepared and signed by the CAO and Clerk, under their delegated authority to do so before a purchase order is issued. The estimated lead time for the supply of the controller units is eight (8) to ten (10) weeks and as such the delivery is anticipated mid March 2022.

## **Summary**

RFP-29-21 for the Supply of Traffic Signal Control Units and Cabinet Assemblies has been issued in accordance with the City's Procurement By-law 18-084 and can be awarded within approved budgets as recommended in this report. To ensure compatibility with equipment and associated software that operates these systems on new and future signalized intersections, it is in the best interest of the City for this vendor to be considered as a "Vendor of Record" for the supply of future traffic signal control units and cabinet assemblies. For future purchases, it is proposed that this equipment be considered as an exempt purchase under the purchasing by-law.

Submitted by,

Cynthia Fletcher  
Commissioner of Infrastructure and Planning Services

**Contact Name:**

Kevin Jones  
Manager, Transportation Division  
Phone: 705-742-7777 Ext. 1895  
Toll Free: 1-855-738-3755  
email: [kjones@peterborough.ca](mailto:kjones@peterborough.ca)

Peter Malin  
Transportation Services Coordinator  
Phone: 705-742-7777 Ext. 1846  
Toll Free: 1-855-738-3755  
email: [pmalin@peterborough.ca](mailto:pmalin@peterborough.ca)