

CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF MAY 16, 2017

Item 5, Report No. 17, of the Committee of the Whole, which was adopted without amendment by the Council of the City of Vaughan on May 16, 2017.

**5 TRAFFIC CONTROL AND MANAGEMENT SYSTEM UPGRADE: CLARK AVENUE
 WARD 5**

The Committee of the Whole recommends approval of the recommendation contained in the following report of the Deputy City Manager of Public Works and the Director of Transportation Services, Parks and Forestry Operations, dated May 2, 2017:

Recommendation

The Deputy City Manager of Public Works and the Director of Transportation Services, Parks and Forestry Operations, in consultation with the Chief Financial Officer and City Treasurer, the Director of Procurement Services and the Director of Financial Planning and Development Finance and Deputy City Treasurer recommend:

1. That the City enter into a single source contract with Econolite Canada Ltd. for the supply and delivery of 14 traffic signal controllers to be used in the Clark Avenue Pilot Project and that the amount of \$212,000 plus applicable taxes be approved;
2. That a contingency allowance in the amount of \$21,200 plus applicable taxes be approved within which the Director of Transportation Services, Parks and Forestry Operations or his designate is authorized to approve amendments to the contract with Econolite Canada Ltd.;
3. That the amount of the contract with Econolite Canada Ltd., plus applicable taxes and contingency allowance be funded from the capital project CD-2011-15;
4. That the Mayor and City Clerk be authorized to sign the necessary documents; and
5. That the City Clerk be requested to forward a copy of this report to York Region.

Contribution to Sustainability

This report contributes to the goals and objectives within Green Directions Vaughan, The City's Community Sustainability and Environmental Master Plan, specifically:

Goal 3: To ensure that Vaughan is a city that is easy to get around with a low environmental impact.

Objective 3.2: To develop and sustain a network of roads that supports efficient and accessible public and private transit.

Economic Impact

Clark Avenue has been identified for a traffic signal equipment upgrade, which will include the deployment of thirteen (13) traffic signal controllers on Clark Avenue and one (1) traffic signal controller at the operations centre for testing. The activities associated with the Clark Avenue project are fully funded under the capital project CD—2011-15 in the amount of \$441,900.

Funding for the operating costs to administer the Clark Avenue project will be reviewed as part of the department's operating budget in the respective budget year.

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Communications Plan

A copy of the report will be circulated to the Region of York.

Purpose

The purpose of this report is to seek Council approval for the single source award and issuance of a purchase order for the supply and delivery of 14 traffic signal controllers for the implementation of the Clark Avenue pilot project.

Background - Analysis and Options

The City of Vaughan is one of Ontario's fastest growing municipalities. With the increase in population and employment, there is a need for a more robust Traffic Control and Management System to accommodate future travel.

The City of Vaughan is one of Ontario's fastest growing cities with a population of over 330,000 people, which is forecasted to reach 416,000 by 2031. Employment is expected to keep pace with population growth with employment forecasted to grow from 226,000 jobs in 2014 to 266,100 jobs by 2031.

With the increase in population and employment and the city's transformation from a suburban municipality into a world class city, there is a need for a more robust traffic control and management system to accommodate existing and future travel.

Currently, there are sixty-nine (69) traffic signal locations, fifteen (15) pedestrian signal locations and eleven (11) flashing warning beacon locations under the ownership and jurisdiction of the City. An inventory conducted of the traffic signals indicated that most of the traffic signal controllers are more than 10 years old with some over 20 years old. Replacement parts are no longer available and industry standards have changed making it increasingly difficult to maintain the level of service required for growing travel demands. Equipment failures would necessitate replacement. These signals are not connected to any monitoring or control system. Any equipment malfunctions can only be detected in the field or reported by the public. New investment for a traffic control and management system is required to have the traffic signals maximize service and minimize risk of service disruption.

The Traffic Signal Control system upgrade on Clark Avenue addresses the City's needs to improve traffic operations, which will result in enhanced traffic control and monitoring capacity on the City Road network.

The City owns thirteen (13) signalized intersections and pedestrian signals and the Region owns three (3) signalized intersections along Clark Avenue. York Region Transit (YRT) is expanding services on Clark Avenue and requested signal coordination along this corridor. A capital project has been created for the Clark Avenue traffic signal equipment upgrade under project CD-2011-15. With funding already in place and requirements to connect with YRT, a Traffic Signal Control system upgrade can be implemented on Clark Avenue.

This will assist staff in their efforts to manage traffic congestion by having greater flexibility to adjust and coordinate traffic signals at intersections. In terms of monitoring, the system will have the capacity to monitor equipment failure and allow staff to address issues in a timely manner. Further, enhanced central monitoring provides considerable savings in both travel time and cost for staff and our contractor.

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City Staff are working in collaboration with York Region for a coordinated traffic system to improve mobility and provide provision for transit and accessibility on Clark Avenue.

As of October 2016, the Region operates 229 traffic signals at regional intersections across the City. One-hundred and two (102) or forty-five percent (45%) of the 229 traffic signals have been converted to the Centrac Centralized Traffic Control system for enhanced traffic monitoring and control capabilities on the Regional network.

The Region has shown interest in supporting the City in building connections to their Centrac Centralized Traffic Control system that allows for better signal timing coordination between City and Regional roads. The Region would support the City with equipment set-up to connect to their traffic control system.

To maximize resources and knowledge sharing between the City and the Region, City staff will work in collaboration with York Region to build a coordinated traffic system.

York Region has procured the traffic signal controllers through a competitive process from Econolite Canada Ltd and the City will be using the Region's favourable pricing. The direct purchase of traffic signal controllers from Econolite Canada Ltd. will also support the Region's Centrac Centralized Traffic Control System.

The Region operates an Econolite Canada Centracs Centralized Traffic Control System using Econolite Canada traffic signal control equipment (Cobalt). In order to connect to the York Region system, it is necessary for the City to use the same traffic signal equipment as the Region.

York Region currently has an agreement with Econolite Canada Ltd. for the supply and delivery of traffic signal controllers for a four (4) year term that started in May 2014 with an option to negotiate an extension for an additional four (4) years expiring in 2022. The price is based on a large volume purchase of four hundred (400) traffic signal controllers. Econolite Canada Ltd. is willing to provide the City with the same price as the Region. The most recent quote provided by Econolite Canada Ltd. for a traffic signal controller is in the amount of approximately \$13,500. There is a cost saving of 15% per traffic signal controller for the City. This price is also consistent with other municipalities such as Durham Region and the Region of Waterloo.

The direct purchase of traffic signal controllers from Econolite Ltd. will support the Region's Centrac Centralized Traffic Control System and enable a coordinated traffic system.

City Staff will monitor progress of the Clark Avenue implementation and assess the opportunities to expand traffic signal upgrades subject to future budget approval.

Relationship to Term of Council Service Excellence Strategy Map (2014-2018)

In consideration of the strategic priorities related to the Term of Council Service Excellence Strategy Map (2014-2018), this report is consistent with the following Term of Council Priorities:

- Improve municipal network;
- Invest, renew and manage infrastructure assets; and
- Continue to ensure the safety and well-being of citizens.

Regional Implications

The City's work in collaboration with the Region to establish a coordinated traffic system is consistent with the Region's Transportation Master Plan to create an advanced interconnected system of mobility in the GTHA making York Region the best place to live, work and play.

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Conclusion

York Region is expanding transit services on Clark Avenue. A capital project has been created by the City for a traffic signal equipment upgrade. The traffic signal control system upgrade on Clark Avenue will address the City's needs to improve traffic operations, which will result in enhanced traffic control and monitoring capabilities of the City road network.

The Region has shown interest in supporting the City in building connections to their Centrac Centralized traffic control system for a coordinated traffic control system. This will allow for better signal timing coordination between City and Regional roads and enable transit priority.

In order to ensure the consistency of traffic signal equipment and traffic operation standards within the Region, it is recommended that the direct purchase of the traffic control equipment be awarded to Econolite Canada Ltd.

Attachment

N/A

Report prepared by:

Ron Whitelock, Project Manager Traffic Signals Ext. 6148
Margie Chung, Manager Traffic Engineering, Ext. 6173

**TRAFFIC CONTROL AND MANAGEMENT SYSTEM UPGRADE: CLARK AVENUE
WARD 5****Recommendation**

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Report prepared by:

Ron Whitelock, Project Manager Traffic Signals Ext. 6148
Margie Chung, Manager Traffic Engineering, Ext. 6173

Respectfully submitted,

Stephen Collins, P.Eng
Deputy City Manager of Public Works

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Director of Transportation Services,
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Margie Chung
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