



**STAFF REPORT
ACTION REQUIRED**

Traffic Control Signals – Yonge Street and Roehampton Avenue/Orchard View Boulevard

Date:	May 28, 2014
To:	Public Works and Infrastructure Committee
From:	General Manager, Transportation Services
Wards:	St. Paul's, Ward 22 Eglinton-Lawrence, Ward 16
Reference Number:	Pw2014072te.top.doc

SUMMARY

Transportation Services is requesting authority from City Council to install traffic control signals at the intersection of Yonge Street and Roehampton Avenue/Orchard View Boulevard.

As part of the review and site plan approval for the development of 2263-2287 Yonge Street, 8-10 Eglinton Avenue, 25 and 25R Roehampton Avneue, necessary improvements to Yonge Street and Roehampton Avenue/Orchard View Boulevard were identified to accommodate increased traffic and pedestrian demands in the vicinity of this development, primarily, the installation of traffic control signals at this intersection. The installation of these traffic control signals will enhance safety for pedestrians and motorists both during construction and once the development is complete, and will result in the loss of approximately eight on-street parking spaces in total, on the east and west sides of Yonge Street.

RECOMMENDATIONS

The General Manager, Transportation Services recommends that:

1. City Council approve the installation of traffic control signals at the intersection of Yonge Street and Roehampton/Orchard View Boulevard.
2. City Council prohibit eastbound right turns on a red signal at all times from Orchard View Boulevard to Yonge Street.

3. City Council prohibit westbound right turns on a red signal at all times from Roehampton Avenue to Yonge Street.

Financial Impact

All costs associated with the installation of traffic control signals, pavement markings and signs, in the estimated amount of \$270,000.00, will be funded by the developer of No. 2263 Yonge Street. Funds have been received by Transportation Services. The annual loss in revenue for the Toronto Parking Authority with the loss of 8 on-street parking spaces is estimated at \$66,316.80.

The Deputy City Manager and Chief Financial Officer have reviewed this report and agree with the financial impact information.

DECISION HISTORY

At its meeting on July 16, 2013, City Council approved the Zoning Amendment and Rental Demolition Application under Municipal Code 667 for 2263-2287 Yonge Street, 8-10 Eglinton Avenue East, 25 and 25R Roehampton Avenue.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2013.TE25.9>

ISSUE BACKGROUND

Construction will begin this summer and extend over the next four to five years, to erect two mixed-use condominium towers at No. 2263 Yonge Street. The site extends from the northeast corner of the intersection of Yonge Street and Eglinton Street West to Roehampton Avenue. As part of the review and site plan approval for this project, necessary improvements to Yonge Street and Roehampton Avenue/Orchard View Boulevard were identified to accommodate increased traffic and pedestrian demands in the vicinity of this development, primarily, the installation of traffic control signals at this intersection. Councillor Josh Matlow has requested that the proposed traffic control signal be installed earlier to alleviate the impacts to traffic and pedestrian safety that may arise with the construction of the development.

COMMENTS

Existing Conditions

Yonge Street is a north-south, four-lane major arterial roadway with a daily, two-way traffic flow of approximately 32,000 vehicles and a speed limit of 50 km/h. Roehampton Avenue is a two-way local roadway with a speed limit of 40 km/h and forms the east leg of the intersection. Orchard View Boulevard is a two-way local roadway with a speed limit of 50 km/h and forms the west leg of the intersection. Roehampton Avenue and Orchard View Boulevard form a “near-right” offset intersection with Yonge Street with an offset of approximately 23 metres (centre-line to centre-line). Both roadways are controlled by a “Stop” sign at their intersection with Yonge Street. Adjacent traffic control signals to this intersection are located approximately 145 metres to the north at

Yonge Street and Broadway Avenue/Montgomery Avenue and approximately 125 metres to the south at Yonge Street and Eglinton Avenue.

The intersection of Yonge Street and Orchard View Boulevard/Roehampton Avenue is on the boundary between Ward 22 (St. Paul's) and Ward 16 (Eglinton-Lawrence) and is also on the service boundary between the North York District and the Toronto and East York District.

Proposed Operation

Based on our review, the installation at Yonge Street and Orchard View Boulevard/Roehampton Avenue can be justified for the following reasons:

- There are high volumes of pedestrians crossing Yonge Street. Over the busiest eight-hour period of a typical weekday, there are approximately 1,380 pedestrians that cross Yonge Street east-west, with the majority of pedestrian crossings (1,050) occurring on the south side of the intersection. In addition, there are several schools in the immediate vicinity of this intersection and there is nearby residential development that will contribute to pedestrian volumes in the area. Generally, the installation of closely spaced signals is not supported due to the safety concerns and impacts to traffic, however, it is clear that pedestrians will continue to cross at this intersection, despite nearby protected crossings at Broadway Avenue/Montgomery Avenue and at Eglinton Avenue; and
- There have been a number of collisions involving pedestrians crossing Yonge Street in the vicinity. Statistics provided by the Toronto Police Service for the three-year period ending December 31, 2013, disclosed 5 collisions involving pedestrians, 2 at Yonge Street and Orchard View Boulevard and 3 at Yonge Street and Roehampton Avenue. We believe that a protected pedestrian crossing will be a pro-active step towards improved pedestrian safety at this intersection.

The installation of traffic control signals at Yonge Street and Orchard View Boulevard/Roehampton Avenue could potentially present operational problems due to the near-right offset alignment and the close spacing to adjacent traffic control devices.

In order to address the concerns associated with the near-right offset alignment, it is proposed that the signals operate in three phases, similar to the operation at Yonge Street and Soudan Avenue/Berwick Avenue, to separate the potential conflicts between eastbound and westbound turning motorists. To minimize the impacts to north-south traffic resulting from this operation, east-west pedestrian crossings will only be permitted on the westbound phase (Roehampton Avenue), minimizing the amount of green time required to be provided for the eastbound phase (Orchard View Boulevard). The installation of the pedestrian crosswalks at Roehampton Avenue, rather than Orchard View Boulevard, was determined by the higher pedestrian volumes and higher number of collisions involving pedestrians at the former location. Additionally, we will also prohibit eastbound and westbound right-turns-on-red to prevent potential pedestrian and vehicle conflicts in the intersection.

To address the concerns associated with the close spacing to the adjacent traffic control signals, Yonge Street and Orchard View Boulevard/Roehampton Avenue will operate with fixed signal timing and a hard-wire interconnect will be installed between these signals and the signals at Yonge Street and Eglinton Avenue. This will ensure that north-south signal indications are the same at both intersections at the same time, reducing the potential for motorists on Yonge Street to view conflicting signal indications. This modification will require some minor timing changes at Yonge Street and Eglinton Avenue.

Additionally, left-turn lanes for north-south motorists will be designated on Yonge Street, with storage for two vehicles. The proposed signal operation as outlined above should address the potential geometry and spacing concerns associated with the installation of traffic control signals at this intersection.

Also, it should be noted that the proposed installation of traffic control signals will result in the loss of approximately eight parking spaces on the east and west sides of Yonge Street. Funds have been received by Transportation Services. The annual loss in revenue for the Toronto Parking Authority with the loss of 8 on-street parking spaces is approximately \$66,316.80.

CONTACT

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SIGNATURE

Stephen Buckley
General Manager, Transportation Services

LIST OF ATTACHMENTS

- (1) Drawing No. 421G-1429, dated May 2014, entitled "Yonge St and Roehampton Ave / Orchard View Blvd Proposed Signalized Intersection Location Plan"