



**STAFF REPORT
ACTION REQUIRED**

Traffic Control Signal – Yonge Street and The Esplanade

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| Date: | May 5, 2011 |
| To: | Toronto and East York Community Council |
| From: | Acting Director, Transportation Services Toronto and East York District |
| Wards: | Toronto Centre-Rosedale, Ward 28 |
| Reference Number: | Ts2011126te.top.doc |

SUMMARY

Transportation Services is responding to the request for a plan related to the installation of traffic control signals at the intersection of The Esplanade and Yonge Street. Three options/plans were reviewed in detail and a full movements traffic control signal best serves all road users.

The traffic control signals at The Esplanade and Yonge Street will be installed once the lane and sidewalk closures on Yonge Street and The Esplanade, for the condominium development at 8 The Esplanade, are completed, currently scheduled for June 2013.

RECOMMENDATIONS

Transportation Services recommends that:

1. City Council approve the installation of traffic control signals at the intersection of The Esplanade and Yonge Street, generally as shown on Drawing No. 421G-0340, dated May 2011, attached to the report from the Acting Director, Transportation Services, Toronto and East York District dated May 5, 2011.
2. City Council rescind the westbound left-turn prohibition at the intersection of Yonge Street and The Esplanade.
3. City Council rescind the eastbound left-turn prohibition at the intersection of Yonge Street and The Esplanade.
4. City Council prohibit pedestrians from crossing Yonge Street between the north curblines of The Esplanade and a point 30.5 metres south of the south curblines of The Esplanade.

5. City Council approve the road alteration of Yonge Street, by removal of the median island, generally as shown on Drawing No. 421G – 0340, dated May 2011, attached to the report from the Acting Director, Transportation Services, Toronto and East York District dated May 5, 2011.

Financial Impact

The estimated cost of installing traffic control signals at the intersection of The Esplanade and Yonge Street is approximately \$218,000. All costs associated with this installation will be paid for with Section 37 funds secured for the Yonge Street Pedestrian Promenade Plan.

DECISION HISTORY

At its meeting of August 25, 26 and 27, 2010 (Item TE36.21), City Council approved the installation of traffic control signals at the intersection of The Esplanade and Yonge Street, the cost to be borne by the Section 37 contribution from 5-7 The Esplanade, and directed staff to create a plan for submission to the Toronto and East York Community Council to permit implementation by the end of 2011. The intent of this request was to provide a protected pedestrian crossing of Yonge Street at The Esplanade.

At its meeting of January 18, 2011 (Item TE3.70), Toronto and East York Community Council requested that the Director, Transportation Services, Toronto and East York District, provide the Toronto and East York Community Council for its meeting on May 25, 2011, with an update on the plan requested by City Council on August 25, 26 and 27, 2010 with respect to the installation of traffic control signals at the intersection of The Esplanade and Yonge Street.

COMMENTS

Yonge Street, between Front Street East and Lake Shore Boulevard, is a major arterial roadway with a daily two-way traffic volume of approximately 30,000 vehicles and a speed limit of 50 km/h. Yonge Street has two lanes of traffic and a dedicated bicycle lane in both directions south of The Esplanade and two lanes in both directions and a bicycle lane on the west side north of The Esplanade. Stopping is prohibited on the subject section of Yonge Street at all times. The existing median was installed to prevent westbound left-turns and provide refuge for pedestrians crossing Yonge Street. Southbound left-turns are normally allowed to The Esplanade from Yonge Street. However, a construction staging area for the Sony Centre currently prevents this movement.

The Esplanade is a collector roadway operating two-way east/west. It has a daily traffic volume of approximately 1500 and a speed limit of 40km/h. A "Stop" sign is posted for westbound traffic on The Esplanade at Yonge Street.

The driveway on the west side of the intersection serves as the access point to GO Transit parking and the parking lot for 1 Front Street West (Dominion Public Building).

A recent turning movement count shows that approximately 2000 pedestrians cross Yonge Street in the vicinity of The Esplanade in the peak 8 hours of the day.

The TTC operated route 65-Parliament and 72-Pape on the subject section of Yonge Street and The Esplanade. However, TTC have rerouted these bus routes to accommodate the proposed lane and sidewalk closures on Yonge Street and The Esplanade for construction. They also operate the 97-Yonge and 320-Yonge (Night Bus) on the subject section of Yonge Street.

There is a CN Rail bridge over Yonge Street immediately south of the intersection which significantly reduces northbound sightlines. Transportation Services staff have done extensive field work to develop various options to mitigate the impacts of the reduced sightlines. They are as follows:

Option A: Full Traffic Control Signals with removal of median (DWG 421G-0340)

Option A involves a removal of the median and full signalization of the intersection. A new crosswalk will be installed on the north side of the intersection and all crosswalks will be zebra striped. A pre-signal will be installed under the CN Rail structure to provide motorists with a signal display in advance of the intersection.

This option permits pedestrians to cross on the north side of the intersection and allows full vehicle movements from The Esplanade to Yonge Street. Although the removal of the median would allow for full movements at the intersection, with northbound traffic volume of approximately 1500 vehicles in the peak hour, a northbound left turn cannot be permitted without severely impacting the level of service. Therefore, the northbound left-turn prohibition will be maintained.

Piers for the CN Rail structure are located between the northbound and southbound lanes on Yonge Street. These create a sightline obstruction for motorists traveling northbound on Yonge Street. Specifically, northbound motorists do not have clear line of site to pedestrians crossing Yonge Street on the south side of The Esplanade. This could become problematic in situations where pedestrians are trying to finish a late crossing and motorists are starting early or where pedestrians are starting their crossing early and motorists are driving through an Amber or Red indication. Therefore, pedestrians will not be permitted to cross on the south side of the intersection.

We do not anticipate any substantial queuing problems for northbound or southbound traffic on Yonge Street.

This option will improve the pedestrian environment and provide westbound motorists on The Esplanade with access to southbound Yonge Street.

Option B: Mid-block Pedestrian Signal (DWG 421G-0341)

Option B involves the installation of a mid-block traffic control signal located approximately 50 metres north of The Esplanade. The proposed signal would have a 3m wide crosswalk with zebra stripes. Placing the crossing north of the intersection improves the visibility of pedestrians for northbound motorists.

This option provides a protected pedestrian crossing approximately half way between Front Street and The Esplanade, therefore eliminating conflicting traffic movements to/from The Esplanade.

However, due to the close spacing of Front Street East to the north and The Esplanade to the south, vehicle queues at the mid-block signal will likely extend into these intersections. Furthermore, we anticipate that a significant number of pedestrians would continue to cross at The Esplanade and Yonge Street, not wanting to walk the 50 or so metres north to the proposed mid-block traffic control signal.

Option C: Traffic Control Signals maintain median (DWG 421G-0342)

Option C involves the signalization of the intersection and cutting back of the median to the south to allow for the pedestrian crossing on the north side of The Esplanade and Yonge Street. The proposed crosswalk on the north side of the intersection and all existing crosswalks will be zebra striped. A pre-signal will be installed under the CN Rail structure to provide motorists with a signal display in advance of the intersection. The southbound left-turn movement will be prohibited.

This option improves the pedestrian crossing environment at the intersection of The Esplanade and Yonge Street by providing a controlled crossing. Retaining the existing median minimizes the conflicting traffic movements in the intersection. Only right turns would be possible to and from The Esplanade.

Similar to option A, pedestrians would only be permitted to cross on the north side of the intersection due to the restricted sightlines. However, maintaining the median would require that the southbound left-turn movement be prohibited further restricting access to The Esplanade from Yonge Street. We do not anticipate any substantial queuing problems for northbound or southbound traffic on Yonge Street.

Preferred Option

We recommend Option A because it provides an improved pedestrian environment and permits full vehicular turning movements from The Esplanade without any substantial sightline concerns. Option B is not preferable as it would result in significant queuing problems and impacts on turning movements. Option C requires the prohibition of the southbound left-turn movement and does not permit full movements as in Option A.

Timing

In February 2010, Toronto and East York Community Council approved construction staging areas in the vicinity of The Esplanade and Yonge Street to allow for construction of a condominium on the northeast corner of The Esplanade and Yonge Street (Sony Centre). These staging areas are to be occupied until May 31, 2013. The location of these staging areas precludes the installation of some of the proposed traffic signal poles. As a result, the proposed traffic control signals at The Esplanade and Yonge Street cannot be installed until approximately June 2013.

Additionally, we are aware of proposed building construction on the south side of The Esplanade, between Yonge Street and Scott Street, which may require further lane and sidewalk closures on The Esplanade. This may delay the installation of the traffic control signal past June 2013.

CONTACT

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SIGNATURE

Angie Antoniou, Acting Director
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Toronto and East York District

LIST OF ATTACHMENTS

- (1) Drawing No. 421G-0340, dated May 2011
- (2) Drawing No. 421G-0341, dated May 2011
- (3) Drawing No. 421G-0342, dated May 2011

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