

# STAFF REPORT ACTION REQUIRED

# Pedestrian Crossing and Right-Turn-On-Red Prohibitions - Yonge Street and Heath Street

Date:	August 19, 2013
То:	Toronto and East York Community Council
From:	Director, Transportation Services, Toronto and East York District
Wards:	St. Paul's, Ward 22
Report Number:	Ts2013152te.top

### SUMMARY

Transportation Services is requesting approval from City Council to prohibit pedestrian crossings on the north side of the intersection at Yonge Street and Heath Street, as well as to prohibit eastbound and westbound right turns during the red traffic signal indication in conjunction with a new three-phase signal operation at this intersection.

#### RECOMMENDATIONS

**Transportation Services recommends that:** 

- 1. City Council prohibit pedestrian crossings on Yonge Street, between a point 30.5 metres north of the north curb line of the west leg of Heath Street and the south curb line of the west leg of Heath Street.
- 2. City Council prohibit eastbound right turns on a red signal at all times from Heath Street West to Yonge Street.
- 3. City Council prohibit westbound right turns on a red signal at all times from Heath Street East to Yonge Street.

#### **Financial Impact**

All costs associated with the necessary sign and pavement marking adjustments at Yonge Street and Heath Street in the estimated amount of \$1,200.00 are contained within the Transportation Services 2013 Operating Budget.

#### **ISSUE BACKGROUND**

At the request of Councillor Josh Matlow on behalf of local residents, we were requested to review both pedestrian and vehicle safety concerns on Yonge Street at Heath Street.

Pedestrian Crossing Prohibition – Yonge and Heath The safety concerns were specifically related to motorist and pedestrian conflicts due to the off-set nature of this signalized intersection.

# COMMENTS

The intersection of Yonge Street and Heath Street is controlled by traffic signals. Yonge Street, in this vicinity, is a four-lane, major arterial roadway with a speed limit of 50 km/h and a daily two-way traffic volume of approximately 31,000 vehicles. The east and west legs of Heath Street form a "near-right" offset intersection with Yonge Street with an offset of approximately 15 metres. At this intersection, there is an exclusive left-turn lane in the southbound direction. The eastbound and westbound approaches to this intersection are comprised of a single lane. Northbound and eastbound left turns are prohibited between the hours of 4:00 p.m. and 6:00 p.m., Monday to Friday and southbound right turns are prohibited between the hours of 7:00 a.m. and 9:00 a.m., Monday to Friday (bicycles excepted). During the busiest eight hour period of a typical weekday, approximately 4,000 to 5,000 pedestrians cross at this intersection. TTC service at this intersection is provided on Yonge Street by the 97 Yonge bus, with near-side transit stops located at Heath Street.

At any "near-right' offset intersection, controlled by traffic signals, there are a number of associated operational concerns:

- Motorists entering the intersection from the side street on a green signal indication may see the main street red signal indication and abruptly stop in the middle of the intersection. This increases the risk of rear-end collisions with the next vehicle which is turning behind them;
- Side street motorists entering the intersection during the same signal phase experience confusion over who has the right-of-way within the intersection; and
- Side street motorists who perform a right turn on a green signal phase have traveled a significant distance and are traveling perpendicular to the next pedestrian crosswalk in which pedestrians have a "Walk" phase.

A review of the Toronto Police Service collision statistics over a three-year period ending May 31, 2013, disclosed that 37 collisions had occurred at this intersection. Of these collisions, one involved a pedestrian and one involved a cyclist. Four of the 37 collisions could have potentially been preventable by the implementation of a three-phase signal operation.

In order to improve vehicle and pedestrian safety at this location we have considered improvements to the traffic control signal phasing and the restriction of east-west pedestrian crossings. Given the potential for pedestrian and vehicle conflicts caused by right-of-way confusion, as noted above, we will be implementing a three-phase traffic control signal operation. The existing north and south signal phasing would be retained, but eastbound and westbound signal phases would be separated and would operate independent of each other. A brief summary of this operation is as follows:

- (a) On the first phase, north-south traffic on Yonge Street and north-south pedestrians are permitted to move;
- (b) On the second phase, eastbound Heath Street traffic is permitted to move. No pedestrian crossings are permitted during this phase; and
- (c) On the third phase, westbound Heath Street traffic and east-west pedestrians are permitted to move.

During the second phase, westbound right-turn-on-red motorists from Heath Street East can be in conflict with eastbound left-turn motorists egressing Heath Street West. Also, during the third phase, eastbound right-turn-on-red motorists from Heath Street West can be in conflict with westbound left-turn motorists egressing Heath Street East as well as pedestrians crossing Yonge Street.

In conjunction with the signal phasing change, the introduction of a "No-Right-Turn-On-Red" regulation for eastbound and westbound right turns will eliminate these potential conflicts. Additionally, with the proposed relocation of the existing north side crosswalk to a mid-block location within the intersection, it is also recommended that pedestrian crossing be prohibited on the north side of the intersection.

The implementation of a three-phase traffic control signal operation at this intersection will result in slightly increased motorist and pedestrian wait times. However, these minor increased delays will result in a safer operational environment for all users of this intersection.

Councillor Josh Matlow has been advised and indicated his support for the recommendations within this staff report.

#### CONTACT

Randy Hillis, Engineering Technologist, Traffic Operations, Toronto and East York District Telephone: 416-338-5430; Fax: 416-392-1920 e-mail: rhillis@toronto.ca

## SIGNATURE

Jacqueline White, P. Eng., Director, Transportation Services, Toronto and East York District

#### LIST OF ATTACHMENTS

(1) Drawing No. 421G-1126, dated July 2013

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