

Traffic Control Signal Installation: Keele Street at Victory Drive

Date:	June 8, 2010
To:	North York Community Council
From:	Director, Transportation Services Division, North York District
Wards:	Ward 9 – York Centre
Reference Number:	<i>ny10086</i>

SUMMARY

Since the Toronto Transit Commission (TTC) operates a transit service on Keele Street, City Council approval of this report is required.

The purpose of this report is to obtain approval for the installation of a traffic control signal at the intersection of Keele Street and Victory Drive.

Traffic studies reveal that a pedestrian crossover is warranted; however a safety review indicates that this location is not a suitable location for a pedestrian crossover, as a result, a traffic control signal should be installed.

RECOMMENDATIONS

Transportation Services Division, North York District, recommends that City Council:

1. Approve the installation of a traffic control signal at the intersection of Keele Street and Victory Drive.

Financial Impact

All costs associated with the installation of a traffic control signal at Keele Street and Victory Drive, estimated at \$150,000.00, is included as part of Transportation Services 2010 Capital Works Program.

ISSUE BACKGROUND

The Transportation Services Division, North York District, was requested by the Ward Councillor on behalf of the principal of Madonna Catholic Secondary School, to review the feasibility of installing a pedestrian crosswalk on Keele Street at Victory Drive.

COMMENTS

Keele Street is a four-lane major arterial road with a regulatory speed limit of 60 km/h and a daily two-way traffic flow of approximately 24,100 vehicles. Traffic control signals are located approximately 200 metres to the north at Tibury Drive and 213 metres to the south at Wilson Avenue. A pedestrian refuge island is located on Keele Street, 15 metres north of Victory Drive. The main destination of pedestrians are the public library, Downsview Secondary School and Madonna Catholic Secondary School.

To determine the feasibility of installing a pedestrian crossover, this Division conducted the appropriate studies to identify the existing traffic conditions and to identify any difficulties pedestrians may be experiencing crossing Keele Street. An eight-hour pedestrian delay study was undertaken on January 12, 2010. The technical warrants for the installation of a pedestrian crossover were satisfied to the following extent:

Warrant 1: Pedestrian Volume 137%
Warrant 2: Pedestrian Delay 282%

In order to meet the technical requirements for the installation of a pedestrian crossover, both warrants must be satisfied 100 percent. In order for the pedestrian delay warrant to be considered, a minimum of 200 pedestrians must be observed crossing the roadway, of which 90 must be delayed for periods greater than 10 seconds. Our study revealed a total of 309 pedestrians crossed Keele Street in the vicinity of Victory Drive.

A review of the Toronto Police Services collision records for the five-year period ending December 31, 2009 revealed the following history on Keele Street in the vicinity of Victory Drive:

Five-Year Collision Information	Number of Reported Collision					
	2005	2006	2007	2008	2009	Total
Total Collision	5	3	2	6	3	19
Collisions Potentially Preventable by the Installation of Traffic Control Signals	0	1	2	1	0	4
Collisions Involving Pedestrians	1	0	2	1	1	5

Although the collision history/occurrences does not meet the minimum requirement of 15 collisions over a three year period for the installation of a traffic control signal, pedestrians experience delays when trying to cross Keele Street.

While the installation of a pedestrian crossover is warranted, a review of the design standards, or “environmental audit” for pedestrian crossovers, revealed that a pedestrian crossover would not be a suitable form of a pedestrian crossing protection at this location. The results of the audit indicated that four out of eight criteria failed at this location and that a pedestrian crossover is unsuitable. This is due to the study showing high speed of vehicles, TTC stops and driveways in the immediate vicinity, and minimal spacing between other traffic control signals. Therefore, it is appropriate to install a traffic control signal instead of a pedestrian crossover at this location.

In summary, studies indicate that there are sufficient pedestrian crossing volumes to justify the installation of a pedestrian crossover on Keele Street at Victory Drive. However, since this device would not be a suitable form of pedestrian crossing protection at this location given the roadway environment, a traffic control signal is more appropriate. As a result, the installation of a traffic control signal at Keele Street and Victory Drive will provide the most appropriate pedestrian and vehicular traffic control measure.

The Ward Councillor has been advised of the recommendations contained within this report.

CONTACT

Ann S. Khan, P. Eng.
Manager, Traffic Operations
Transportation Services Division, North York District
Tel: 416-395-7463
Fax: 416-395-7544
Email: akhan5@toronto.ca

SIGNATURE

Myles Currie, B.A.
Director

ATTACHMENTS

Attachment: Map – Traffic Control Signal Installation: Keele St at Victory Dr
(*ny10086_map*)