Pedestrian Crossing Protection Study: 623/625 Finch Avenue West

Date: August 9, 2013
To: North York Community Council
From: Acting Director, Transportation Services, North York District
Wards: Ward 10 – York Centre
Reference Number: ny13099

SUMMARY

As the Toronto Transit Commission (TTC) operates a transit service on Finch Avenue West, City Council approval of this report is required.

The purpose of this report is to deny the request for the installation of traffic control signals or a pedestrian crossover in the vicinity of 623/625 Finch Avenue West.

The existing traffic and roadway conditions do not warrant the introduction of traffic control signals or a pedestrian crossover at the above noted intersection.

RECOMMENDATIONS

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

1. Deny the installation of traffic control signals or a pedestrian crossover in the vicinity of 623/625 Finch Avenue West.

Financial Impact

There is no financial impact associated with the adoption of this report.

ISSUE BACKGROUND

Transportation Services, North York District, was requested by the Ward Councillor, on behalf of the area residents to review the feasibility of installing traffic control signals or a pedestrian crossover in the vicinity of 623/625 Finch Avenue West.
COMMENTS

The requested site location of 623 & 625 Finch Avenue West is located on the south side of Finch Avenue West between Torresdale Avenue and Wilmington Avenue. The subject site consists of two mid-rise residential towers (approx. 12 stories), with a common driveway access on to the south side of Finch Avenue West. Approximately 45 metres to the east there is a second driveway access to 609 Finch Avenue West, which is also a mid-rise residential tower. Approximately 35 metres to the west of the driveway access to 623 & 625 Finch Avenue West is a raised centre median dividing eastbound and westbound traffic. Located on the north side of the roadway are the rear yards to the residential homes located on Robert Hicks Drive and the G. Ross Lord Dam and Reservoir.

Finch Avenue West is designated as a major arterial roadway with a posted speed limit of 60 km/h and consists of two lanes eastbound, two lanes westbound and a centre left turn lane. Adjacent traffic control signals are located approximately 560 metres to the west at Wilmington Avenue and 260 metres to the east at Torresdale Avenue/Goldfinch Court. This section of Finch Avenue West is located on a vertical grade of approximately 5%.

Toronto Transit Commission stops are located on both sides of Finch Avenue West in the vicinity of 625 Finch Avenue West. The eastbound stop is located on the south side, 12 metres east of the driveway access to 625 Finch Avenue West and the westbound stop is located on the north side, just opposite the driveway access to 625 Finch Avenue West. Both transit stops are augmented with the presence of bus bays.

Transportation Services has reviewed numerous requests over the past eight years for the installation a traffic control signal or pedestrian crossover at this location. The operational reviews that have been conducted at this subject location have all concluded that neither traffic control signal nor a pedestrian crossover was warranted.

The most recent study conducted at this location was on September 26, 2011.

Traffic Control Signal Review

The eight hour turning movement count at the intersection of Finch Avenue West and the driveway access to 623 & 625 Finch Avenue West has indicated that the technical warrants for the installation of traffic control signals are satisfied to the following extent:

Warrant 1: Minimum Vehicular Volume 15%
Warrant 2: Delay to Cross Traffic 50%
Warrant 3: Accident Hazard 0%
To satisfy the installation of a traffic control signal, one of either the Minimum Vehicular Volume or Delay to Cross Traffic warrants must be 100 percent satisfied, or both must be satisfied to the extent of 80 percent. Accordingly, the installation of a traffic control signal is not justified.

It should be noted that in order for the Accident Hazard component of the warrant to be met a total of 15 collisions in a three-year period, susceptible to correction by the installation of a traffic control signal must occur.

The current geometry/cross section of this section of roadway would require considerable civil modifications to facilitate the implementation of a traffic control signal, as follows:

- Removal of the exiting centre median;
- Relocation of the westbound and eastbound bus bays; and
- Relocation of the transit stop platforms and transit passenger shelters.

**Pedestrian Crossover Review**

The eight hour pedestrian delay study that was conducted on September 26, 2011 indicated that the technical warrants for the installation of a pedestrian crossover are satisfied to the following extent:

- **Warrant 1:** Pedestrian Volume 87%
- **Warrant 2:** Pedestrian Delay 0%

In order to meet the technical requirements for the installation of a pedestrian crossover, both warrants must be 100 percent satisfied. Our study revealed that during eight hour study, 174 pedestrians crossed Finch Avenue West in the vicinity of 625 Finch Avenue West. A minimum of 200 pedestrians are required in order to warrant a pedestrian crossover.

The following data illustrates the result of the previous studies conducted at this location with regards to the feasibility of installing a pedestrian crossover.

<table>
<thead>
<tr>
<th>Study Date</th>
<th>Warrant 1</th>
<th>Warrant 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pedestrian Volumes</td>
<td>Pedestrian Delay</td>
</tr>
<tr>
<td>September 2011</td>
<td>87% (174)</td>
<td>0%</td>
</tr>
<tr>
<td>March 2010</td>
<td>79% (158)</td>
<td>0%</td>
</tr>
<tr>
<td>September 2006</td>
<td>77% (153)</td>
<td>0%</td>
</tr>
</tbody>
</table>

Given the study results, the installation of a pedestrian crossover is not warranted.
Collision History

A review of Toronto Police Services collision records for the three-year period ending December 31, 2012 revealed the following history in the vicinity of 623 & 625 Finch Avenue West:

<table>
<thead>
<tr>
<th>Five-Year Collision Information</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Collision</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Potentially Preventable by the Installation of TCS</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Collisions Involving Pedestrians</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

In addition to the above studies, Staff has obtained from the TTC their ridership counts at this location. The data provided by the TTC indicates that the boarding and alighting figures for transit activity at this location of 623 & 625 Finch Avenue West are as follows:

<table>
<thead>
<tr>
<th>Direction</th>
<th>Boarding</th>
<th>Alighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastbound</td>
<td>172</td>
<td>99</td>
</tr>
<tr>
<td>Westbound</td>
<td>120</td>
<td>168</td>
</tr>
</tbody>
</table>

If these transit stops were to be removed, the existing pedestrian crossing activity would be either eliminated entirely or greatly reduced. The nearest westbound and eastbound transit stops are located at Finch Avenue West and Torresdale Avenue/Goldfinch Court, which is controlled by traffic control signals. The transit riders would be required to walk this additional distance of 250 metres, however, would have the protection of the traffic control signals when crossing the roadway.

Pedestrian Refuge Island

In addition to the above, this Division has also reviewed the feasibility of installing a pedestrian refuge island (PRI) to assist pedestrian crossings at the subject location. The Pedestrian Refuge Islands Guidelines, require that a minimum of 100 pedestrians are observed crossing the roadway and that the pavement width be a minimum of 16.4 metres wide. In this instance the minimum threshold for pedestrian crossings has been observed and the pavement width has met the minimum requirement.

However, In addition to the volume of pedestrians crossing without the protection and the pavement width, consideration is also given to the pedestrian safety, motorist sight lines, and cost of construction. Our review has indicated that significant modifications to the existing bus bay on the north side is required and the removal of the existing centre median is required should a pedestrian refuge island is to be introduced. Furthermore, it is our opinion that given the vertical grade and the required signage for the PRI sight lines for westbound motorists wishing to turn left at this location would be restricted.
Also given that this island would be located just west of the driveway to 625 Finch Avenue West outbound left turn movements would no longer have the availability of conducting a two stage left turn and as such may result in greater right angle collisions.

As such given all of the above, the installation of a traffic control signal or a pedestrian crossover cannot be justified and should not be installed at the subject intersection based on the above noted information.

The Ward Councillor has been advised of the recommendation in this staff report.

CONTACT

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SIGNATURE

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Kypros Pericleous
Director

ATTACHMENTS

Attachment 1: Map – Pedestrian Crossings: 623 & 625 Finch Avenue West
Attachment 2: Map – Intersection Lay-out: 623 & 625 Finch Avenue West