Traffic Control Signal Study – Finch Avenue East at Blackbird Gate

Date: December 15, 2009
To: Scarborough Community Council
From: Acting Director, Transportation Services, Scarborough District
Wards: Ward 42 – Scarborough-Rouge River
Reference Number: P:\2010\Cluster B\TRA\Scarborough\sc1008
D09-3134171 & D09-3506222 Finch Blackbird tcs

SUMMARY

This staff report is about a matter for which the Community Council does not have delegated authority from City Council to make a final decision.

The purpose of this report is to discuss the feasibility of the installation of traffic control signals at Finch Avenue East and Blackbird Gate.

Traffic studies reveal that Traffic Control Signals are not warranted at this location.

RECOMMENDATIONS

Transportation Services, Scarborough District, recommends that Scarborough Community Council recommend that City Council:

1. Not approve the installation of traffic control signals at the intersection of Finch Avenue East and Blackbird Gate.

2. Not pass or amend the appropriate by-law(s) accordingly.

Financial Impact

There is no financial impact associated with this report; however, the financial cost of installing these new traffic control signals would be approximately $150,000.00 should the installation be approved. The funding for these signals is not available in Transportation Services Division’s Capital Works Budget under Project No. CTP709-01 at this time.
**ISSUE BACKGROUND**

Further to a request from Councillor Raymond Cho, Transportation Services staff reviewed the feasibility of installing traffic control signals and/or pedestrian crossing protection at Finch Avenue East and Blackbird Gate.

Traffic Control Signal and Pedestrian Crossover studies were conducted at this location on Monday, March 23, 2009 and the technical justification or warrants were not met.

A pedestrian collision occurred on Friday, October 23, 2009 at 7:17 a.m., resulting in a fatality. A 63-year-old woman was reportedly crossing Finch Avenue East, from the south side to the north side, to meet a bus, and was struck by a westbound vehicle, in the centre lane.

The traffic volumes on Finch Avenue East near Blackbird Gate are approximately 11,000 vehicles per day (vpd). This traffic volume can result in less than adequate gaps in traffic to successfully cross the road or make a left turn safely, particularly during the morning and afternoon rush hours. At the subject location, motorists and pedestrians were observed waiting for a gap in one direction of traffic, using the centre shared left turn lane on Finch Avenue East as refuge, then continuing their crossing or left turn when the other direction of traffic on Finch Avenue East cleared.

**COMMENTS**

The following characteristics describe the intersection of Finch Avenue East and Blackbird Gate:

- The subject intersection is located in Malvern Neighbourhood and is bounded by Neilson Road to the west, Morningside Avenue to the east and McLevin Avenue to the south.
- This T-type intersection is presently controlled by a northbound stop sign on Blackbird Gate.
- Finch Avenue East has been widened to a five-lane minor arterial roadway.
- Blackbird Gate is a two-lane local that forms a ‘T’ intersection on the south side of Finch Avenue East.
- The south side of Finch Avenue East at Blackbird Gate consists of single family residential homes and the north side of Finch Avenue at Blackbird Gate consists of industrial buildings.
- Toronto Transit Commission bus stops for both the eastbound and westbound directions along Finch Avenue East are located in direct proximity to the intersection. The eastbound stop is located on the southwest corner of Finch Avenue East and Blackbird Gate, while the westbound stop is located on the north side of Finch Avenue East opposite Blackbird Gate.
- Traffic control signals are located approximately 254 metres west at Neilson Road, and 462 metres east at Morningside Avenue.
- Sidewalks are located on both sides of Finch Avenue East and Blackbird Gate.
Traffic Control Signal Warrant Study
A Traffic Control Signal Warrant Study was conducted at the intersection of Finch Avenue East and Blackbird Gate. Using traffic volumes recorded over the peak eight hours of a typical weekday, the following results were obtained:

<table>
<thead>
<tr>
<th>Traffic Control Signal Warrant</th>
<th>Compliance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Vehicular Volume</td>
<td>Monday, March 23, 2009</td>
</tr>
<tr>
<td>Delay To Cross Traffic</td>
<td>10%</td>
</tr>
<tr>
<td>Collision Hazard</td>
<td>32%</td>
</tr>
<tr>
<td></td>
<td>7%</td>
</tr>
</tbody>
</table>

For traffic control signals to be numerically justified, one of the “Minimum Vehicular Volume” or “Delay to Cross Traffic” warrants must be 100% satisfied or any two of the three warrants must be at least 80% satisfied.

Pedestrian Crossover Warrant Study
In addition a Pedestrian Crossover Warrant Study was conducted.

<table>
<thead>
<tr>
<th>Pedestrian Crossover Warrant</th>
<th>Compliance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pedestrian Volume</td>
<td>Monday, March 23, 2009</td>
</tr>
<tr>
<td>Pedestrian Delays</td>
<td>24%</td>
</tr>
<tr>
<td>Pedestrian Delays</td>
<td>26%</td>
</tr>
</tbody>
</table>

As outlined in the above table, none of the pedestrian warrants are met. The installation of traffic control signals or a pedestrian crossover cannot be justified at the subject intersection based on the foregoing information. Sight lines for approaching vehicles are adequate but side street delays for motorists/pedestrians occurred due to vehicle volumes on Finch Avenue.

Collision History
A review of the Toronto Police Service collision records for the three-year period from October 1, 2006 to September 30, 2009 is summarised below.

<table>
<thead>
<tr>
<th>Three-Year Collision Information</th>
<th>Number of Reported Collisions</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>2006</td>
</tr>
<tr>
<td>Collisions Involving Pedestrians Crossing Finch Avenue East at Blackbird Gate (Traffic Signal Preventable)</td>
<td>0</td>
</tr>
<tr>
<td>Other Collisions</td>
<td>1</td>
</tr>
</tbody>
</table>

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• We have reviewed the available 2009 Toronto Police Service collision data for 2009. To date, the records show one collision which was the tragic pedestrian collision that occurred on Friday, October 23, 2009 at 7:17 a.m. The collision resulted in a fatality. A 63-year-old woman was crossing Finch Avenue East, from the south side to the north side, to meet a bus, and was struck by a westbound vehicle, in the centre lane.

• In addition, we also reviewed the collision data for complete years of 2005 and 2006. The records indicate that there were no collisions in 2005 and for 2006 the only collision was the rear-end collision on Wednesday, December 13, 2006 at 1:10 p.m. already shown in the table above.

This collision record is not indicative of a significant safety problem at this site. However, should Traffic Control Signals be justified in the future, this would be a suitable location.

In summary, traffic control signals are not justified and should not be installed at the subject intersection. The Toronto Transit Commission has been consulted and concurs with this finding.

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SIGNATURE

____________________________________
Steven T. Kodama, P.Eng.
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KS:ca

ATTACHMENTS

1. Location Plan (Traffic Control Signal Study - Finch Avenue East at Blackbird Gate)