



# STAFF REPORT ACTION REQUIRED

## Traffic Control Signal Study – Birchmount Road and Rolark Drive

<b>Date:</b>	January 20, 2010
<b>To:</b>	Scarborough Community Council
<b>From:</b>	Acting Director, Transportation Services, Scarborough District
<b>Wards:</b>	Ward 40– Scarborough Agincourt
<b>Reference Number:</b>	P:\2010\Cluster B\TRA\Scarborough\sc1020 D09-3520798/D09-3519438/D09-3522855 - Birchmount Rolark tcs

### SUMMARY

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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 Birchmount Road and Rolark Drive.

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

### RECOMMENDATIONS

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**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 Birchmount Road and Rolark Drive.
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 \$165,000.00 should the installation be approved. The funding for these signals is not available in Transportation Services Division’s Capital Works Budget under Project No. CTP710-01 at this time.

## **ISSUE BACKGROUND**

Further to a request from the local councillor, Transportation Services staff reviewed the feasibility of installing traffic control signals and/or pedestrian crossing protection at Birchmount Road and Rolark Drive.

Traffic Control Signal (TCS) and Pedestrian Cross-over (PXO) studies have been conducted at this location on several occasions dating back to the 1990's. The technical justification or warrants have not been met on all occasions.

The traffic volumes on Birchmount Road north of Ellesmere Road are approximately 30,000 vehicles per day (vpd). This continuous flow of traffic volume does not provide frequent gaps to successfully cross the road or make a left turn in safety, especially during peak traffic periods.

A pedestrian fatality occurred at this location on Thursday, November 12, 2009 at 5:59 p.m. A female pedestrian, 49 years of age, tried to cross Birchmount Road, from the east side to the west side, after alighting a TTC bus at Rolark Drive. She was struck by a vehicle travelling northbound in the median lane, just south of Rolark Drive.

## **COMMENTS**

The following characteristics describe the intersection of Birchmount Road and Rolark Drive:

- This T-type intersection is presently controlled by stop signs on Rolark Drive.
- Birchmount Road on the south leg is a four lane cross-section while the north leg is five-lane on this major arterial roadway.
- Birchmount Road has a posted speed limit of 60 kilometres per hour (km/h) and a daily traffic volume of approximately 30,000 vehicles per day (vpd).
- Rolark Drive is a two-lane local roadway with an unposted speed limit of 50 km/h. that forms a "T" type intersection on the west side of Birchmount Road.
- Toronto Transit Commission bus stops for both the northbound and southbound directions along Birchmount Road are located in direct proximity to the intersection.
- Traffic control signals are located approximately 780 metres north at Allanford Road / Scarden Avenue, and 470 metres south at Ellesmere Road along Birchmount Road
- Sidewalks are located on both sides of Birchmount Road.

### Traffic Control Signal Warrant Study

Transportation Services staff conducted a Traffic Control Signal Warrant Study at the intersection of Birchmount Road and Rolark Drive. Using traffic volumes recorded over the peak eight hours of a typical weekday, the following results were obtained:

Traffic Control Signal Warrant	Compliance Level
	Monday, October 20, 2008
Minimum Vehicular Volume	21%
Delay To Cross Traffic	40%
Collision Hazard	7% *

\* Fatal Pedestrian collision in 2009 included in our traffic signal control warrant analysis.

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.

In addition a Pedestrian Crossover Warrant Study was also conducted.

Pedestrian Crossover Warrant	Compliance Level
	Monday, October 20, 2008
Pedestrian Volume	39%
Pedestrian Delays	38%

As outlined in the above table, none of the categories are met. The installation of traffic control signals or a pedestrian crossover cannot be technically justified at the subject intersection based on the foregoing information. There are adequate sight lines of approaching vehicles. However, some side street delays and pedestrian delays occurred due to significant vehicle volumes on Birchmount Road.

### Collision History

A review of the Toronto Police Service collision records for the five-year period ending December 31, 2008 is summarised below.

Five-Year Collision Information	Number of Reported Collisions						
	2004	2005	2006	2007	2008	2009*	Total
Collisions Potentially Preventable by the Installation of Traffic Control Signals	1	0	0	0	0	1	2
Collisions Involving Pedestrians Crossing Birchmount Road and Rolark Drive	0	0	0	0	0	1	1

\* Fatal Pedestrian collision in 2009 included in our traffic signal control warrant analysis but the data for this year is incomplete at this time.

A pedestrian fatality occurred at this location on Thursday, November 12, 2009 at 5:59 p.m. A female pedestrian, 49 years of age, tried to cross Birchmount Road, from the east side to the west side, after alighting a TTC bus at Rolark Drive. She was struck by a vehicle travelling northbound in the median lane, just south of Rolark Drive  
This collision record is not indicative of a significant safety problem at this intersection.

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

It should be noted that notwithstanding the current non-compliance with numerical warrants, and if traffic control signals were approved, this would be a suitable location in terms of traffic control signal spacing and providing pedestrian access to the TTC stops.

## **CONTACT**

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## **SIGNATURE**

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## **ATTACHMENTS**

1. Location Plan (Traffic Control Signal Study – Birchmount Road at Rolark Drive)