



## STAFF REPORT ACTION REQUIRED

### Proposed Traffic Control Signals – Markham Road at Markanna Drive

<b>Date:</b>	October 15, 2007
<b>To:</b>	Scarborough Community Council
<b>From:</b>	Director, Transportation Services, Scarborough District
<b>Wards:</b>	Ward 36 – Scarborough Southwest
<b>Reference Number:</b>	P:\2007\Cluster B\TRA\Scarborough\sc07060 D06-1270 & D06-2380 Markham Markanna 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 obtain approval for the installation of traffic control signals at Markham Road and Markanna Drive.

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

#### RECOMMENDATIONS

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**Transportation Services, Scarborough District, recommends that Scarborough Community Council:**

1. Approve the installation of traffic control signals at the intersection of Markham Road and Markanna Drive, and
2. Pass or amend the appropriate by-law(s) accordingly.

#### Financial Impact

The financial cost of installing these new traffic control signals is approximately \$90,000.00. The funding for these signals is available in Transportation Services Division’s Capital Works Budget under Project No. CTP706-01.

## ISSUE BACKGROUND

Further to a request from City Councillor Brian Ashton, Transportation Services staff reviewed the feasibility of installing a pedestrian crossover or traffic control signals on Markham Road at Markanna Drive.

## COMMENTS

The following characteristics describe the intersection of Markham Road and Markanna Drive:

- This “T” type intersection is located in the Scarborough Village Neighbourhood and is presently controlled by a stop sign on Markanna Drive.
- Markham Road is a four-lane major arterial roadway.
- Markham Road, between Eglinton Avenue East and Kingston Road, has a speed limit of 60 kilometres per hour (km/h) and a daily traffic volume of approximately 13,000 vehicles per day.
- Markanna Drive is a two-lane local roadway with a speed limit of 50 km/h (not signed).
- Toronto Transit Commission bus stops and bus bays are installed for northbound buses on the south side of the intersection, and for southbound buses on the north side of the intersection.
- Traffic control signals are located approximately 278 metres north at Eglinton Avenue East, and 208 metres south at Kingston Road.
- Sidewalks are located on both sides of Markham Road.

### Pedestrian Crossover Warrant Study

Transportation Services staff conducted a Pedestrian Crossover Warrant Study at the intersection of Markham Road and Markanna Drive. Using pedestrian volumes recorded over the peak eight hours of a typical weekday (Tuesday, September 26, 2006), the following results were obtained:

Pedestrian Crossover Warrant	Compliance Level
Pedestrian Volume	100%
Pedestrian Delays	117%

For a pedestrian crossover to be numerically justified, both the “Pedestrian Volume” and “Pedestrian Delays” warrants must be 100% satisfied.

As outlined in the above table, both warrants have been satisfied. However, a review of the design standards, or “environmental standards” for pedestrian crossovers, which describe a roadway environment suitable for this type of control (and exposure factors, which would make a pedestrian crossover unsuitable or potentially unsafe) revealed that a pedestrian crossover would not be a suitable form of pedestrian crossing protection at this location. This is due to the operating speeds on Markham Road (85<sup>th</sup> percentile speed of 67 km/h), and the proximity of the Toronto Transit Commission bus stops, the Scarborough Village Recreation Centre driveway, and the traffic control signals at Kingston Road.

Accordingly, upgraded crossing protection in the form of traffic control signals should be installed at this location.

### **Collision History**

A review of the Toronto Police Service collision records for the five-year period ending December 31, 2006 revealed the following history:

Five-Year Collision Information	Number of Reported Collisions					
	2002	2003	2004	2005	2006	Total
Total Collisions	1	1	0	0	0	2
Collisions Potentially Preventable by the Installation of Traffic Control Signals	0	1	0	0	0	1
Collisions Involving Pedestrians	0	0	0	0	0	0

In summary, studies indicate that there are sufficient pedestrian crossing volumes to justify the installation of a pedestrian crossover at the intersection of Markham Road and Markanna Drive. However, since this device would not be a suitable form of pedestrian crossing protection given the roadway environment, traffic control signals should be installed instead at this intersection.

Accordingly, the resultant installation is expected to improve safety for pedestrians crossing Markham Road as well as motorists in the intersection, and should not have a significant impact on the operation of the arterial road network.

## **CONTACT**

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## **SIGNATURE**

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## **ATTACHMENTS**

1. Location Plan (Proposed Traffic Control Signals – Markham Road at Markanna Drive)