



## STAFF REPORT ACTION REQUIRED

### Proposed Traffic Control Signals – Pharmacy Avenue at Kellyvale Road

<b>Date:</b>	August 19, 2009
<b>To:</b>	Scarborough Community Council
<b>From:</b>	Acting Director, Transportation Services, Scarborough District
<b>Wards:</b>	Ward 37 – Scarborough Centre
<b>Reference Number:</b>	P:\2009\Cluster B\TRA\Scarborough\sc09050 D08-3035945 Pharmacy Kellyvale 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 to convert the existing pedestrian crossover to traffic control signals at Pharmacy Avenue and Kellyvale Road.

Traffic studies reveal that traffic control signals are not warranted; however, a safety review indicates that this intersection is no longer 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 recommend that City Council:**

1. Approve the installation of Traffic Control Signals at the intersection of Pharmacy Avenue at Kellyvale Road.
2. Rescind the “Pedestrian Crossover” regulation on Pharmacy Avenue, as identified in Appendix 1 of this report.
3. Amend the appropriate by-law(s) accordingly.

## **Financial Impact**

The financial cost of the Pedestrian Crossover removal and the installation of the Traffic Control Signals is approximately \$150,000.00. The funding for these signals is available in Transportation Services Division's Capital Works Budget under Project No. CTP708-01.

## **ISSUE BACKGROUND**

Further to a request from the councillor's office, Transportation Services staff reviewed the feasibility of converting the existing pedestrian crossover to traffic control signals on Pharmacy Avenue at Kellyvale Road.

## **COMMENTS**

The following characteristics describe the intersection of Pharmacy Avenue and Kellyvale Road:

- This three-way intersection is located in the Wexford-Maryvale Neighbourhood and is presently controlled by pedestrian crossover on Pharmacy Avenue located on the south side, and westbound stop sign on Kellyvale Road which is supplemented by painted stop bars and crosswalk lines.
- Pharmacy Avenue is a four-lane minor arterial roadway.
- Pharmacy Avenue has a speed limit of 50 kilometres per hour (km/h) and a daily traffic volume of approximately 14,300 vehicles per day.
- Kellyvale Road is a two-lane local roadway with a speed limit of 50 km/h.
- Toronto Transit Commission (TTC) has a northbound bus stop located south of this intersection and a southbound bus stop located north of this intersection along Pharmacy Avenue.
- Traffic control signals are located approximately 217 metres north at Ellesmere Road, and 222 metres south at Dewey Drive.
- Sidewalks are located on both sides of Pharmacy Avenue and none on Kellyvale Road.

## **Environmental Standards for PXO Suitability**

Transportation services staff conducted a detailed review of this location and compared the standards at this PXO with the recommended design standards, or "environmental standards", for PXO's as developed by the Province of Ontario in consultation with Ontario municipalities. These criteria describe a roadway environment suitable for this type of control, and expose factors, which would make a PXO unsuitable or potentially unsafe.

The following table outlines our review of these PXO criteria and whether they are satisfied at this location:

Standards or Criteria to be Met for Physical Suitability of a PXO	Met/ Not Met	Comment
Vehicle operating speed less than 60 km/h	Not Met	85 <sup>th</sup> percentile is 54 Km/h (NB), 85 <sup>th</sup> percentile is 61 Km/h (SB); Average 85 <sup>th</sup> percentile is 58 Km/h. (Posted speed limit is 50 Km/h).
Not more than four lanes wide on a two-way street, or more than three lanes wide on a one-way street.	Met	4 lanes (Varies from 13.7 to 14.7 metres road width).
Traffic volume less than 35,000 vehicles per day (total both directions)	Met	14,280 Vehicles per day.
No driveways or entrances nearby	Not Met	Parkway Mall Driveway just north of PXO (491 eastbound right-turn vehicles crossing the PXO) and Residential driveways (Very low turning movements).
No significant volume of turning movements which interfere with PXO.	Not Met	Parkway Mall Driveway just north of PXO (491 eastbound right-turn vehicles crossing the PXO). Relatively low westbound left-turn volumes from Kellyvale Drive during the peak hours and off peak hours (45 vehicles in an 8 hour period).
No visibility problems exist for either pedestrians or motorists.	Not Met	Northbound visibility is good and Southbound visibility is limited.
No loading zones (including TTC) in the immediate vicinity.	Met	44.5 metres north to southbound TTC bus stop and 28.5 metres south to northbound TTC bus stop.
Not less than 215 metres to another PXO or traffic control device.	Met	217 metres north to TCS at Pharmacy Avenue and Ellesmere Road and 222 metres south at Pharmacy Avenue and Dewey Drive.

As described above, this proposed PXO location failed to meet four of the above “Environmental Standards”. Therefore we recommend converting this PXO location to TCS.

### **Traffic Control Signal Warrant Study**

Transportation Services staff conducted a Traffic Control Signal Warrant Study at the intersection of Pharmacy Avenue and Kellyvale Road during the morning and afternoon peak hours of a typical weekday (Tuesday, February 10, 2009) produced the following results:

Traffic Control Signal Warrant	Compliance Level
	Tuesday, February 10, 2009
Minimum Vehicular Volume	8%
Delay To Cross Traffic	50%
Collision Hazard	7%

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.

As outlined in the above table, Traffic Control Signals at the intersection of Pharmacy Avenue and Kellyvale Road are not technically justified using these criteria. However, we have concluded that changes to the operation of this intersection are justified. Our safety review revealed a number of factors which make this intersection no longer suitable for a pedestrian crossover. Specifically, we conducted a detailed review of this intersection and compared the recommended design standards, or “environmental standards”, for pedestrian crossovers as developed by the Province of Ontario in consultation with Ontario municipalities. These criteria describe a roadway environment suitable for this type of control, and expose factors, which may make the installation of a pedestrian crossover potentially unsafe. The results of our “environmental standards” review revealed that this intersection is no longer a suitable location for a pedestrian crossover.

Coincident with the installation of Traffic Control Signals, the existing Pedestrian Crossover would be removed.

### **Collision History**

A review of the Toronto Police Service collision records for the five-year period ending December 31, 2008 revealed the following history:

Five-Year Collision Information	Number of Reported Collisions					
	2004	2005	2006	2007	2008	Total
Total Collisions	4	3	6	0	1	14
Collisions Potentially Preventable by the Installation of Traffic Control Signals	1	2	1	0	0	4
Collisions Involving Pedestrians	1	0	1	0	0	2

The subject collisions were incidental in nature and are not indicative of a safety problem at this time.

In summary, the resultant installation is expected to improve safety for pedestrians crossing Pharmacy Avenue 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. Appendix 1 – By-law Amendment (rescind)
2. Location Plan (Proposed Traffic Control Signals – Pharmacy Avenue at Kellyvale Road)

## Appendix 1

### “Pedestrian Crossover Locations” Regulation to be Rescinded

(In  
Column 1)  
Road

Pharmacy Avenue

(In  
Column 2)  
At

Kellyvale Road