



**STAFF REPORT
ACTION REQUIRED**

**Traffic Control Signal Study – Lawrence Avenue East
and Wayne Avenue**

Date:	March 5, 2009
To:	Scarborough Community Council
From:	Acting Director, Transportation Services, Scarborough District
Wards:	Ward 37– Scarborough Centre
Reference Number:	P:\2008\Cluster B\TRA\Scarborough\sc09016 D08-2940463 Lawrence Wayne tcs/pxo

SUMMARY

This staff report is about a matter for which the Community Council has delegated authority from City Council to make a final decision.

At the request of Scarborough Community Council, Transportation staff were directed to report to Scarborough Community on the feasibility of installing traffic control signals or a pedestrian crossover at Lawrence Avenue East and Wayne Avenue.

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

RECOMMENDATIONS

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

1. Receive this report for information.

Financial Impact

There is no financial impact associated with this report.

ISSUE BACKGROUND

Further to a request from Scarborough Community Council at its meeting of October 7, 2008, Transportation Services staff reviewed the feasibility of installing traffic control signals at Lawrence Avenue East and Wayne Avenue, in consultation with the Ward Councillor.

COMMENTS

The following characteristics describe the intersection of Lawrence Avenue E and Wayne Avenue:

- This T-type intersection is presently controlled by a stop sign on Wayne Avenue.
- Lawrence Avenue E is a seven-lane major arterial roadway.
- The land use on this section of Lawrence Avenue E is primarily commercial.
- Lawrence Avenue E has a posted speed limit of 60 kilometres per hour (km/h) and a daily traffic volume of approximately 44,000 vehicles per day (vpd).
- The average operating speed of traffic on Lawrence Avenue E in the vicinity of Wayne Avenue is approximately 68 km/h. The 85th percentile speed is the speed at or below which the majority of motorists are travelling.
- Wayne Avenue is a two-lane local roadway with a posted speed limit of 50 km/h., north of Sherwood Avenue to Lawrence Avenue. This section of Wayne Avenue has a daily traffic volume of approximately 1,500 vehicles per day (vpd) and an average operating speed of 50 km/h. The 85th percentile speed is the speed at or below which the majority of motorists are travelling. Wayne Avenue forms a “T” type intersection on the south side of Lawrence Avenue E.
- Toronto Transit Commission bus stops for both the eastbound and westbound directions are in place along Lawrence Avenue E. They are located in close proximity to the intersection. The eastbound stop is located on the southwest corner of Lawrence Avenue E and Wayne Avenue while the westbound stop is located on the north side of Lawrence Avenue E near the intersection.
- Traffic control signals are located approximately 238 metres to the east at Warden Avenue, and 240 metres to the west at Elinor Avenue. The aforementioned signalized intersections provide alternating right-of-way access for pedestrians, transit vehicles, cyclists and motorists alike.
- Sidewalks are located on both sides of Lawrence Avenue E and Wayne Avenue.
- The land use on Wayne Avenue is residential single family dwellings.

Traffic Control Signal Warrant Study

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

Traffic Control Signal Warrant	Compliance Level
	Tuesday, December 16, 2008
Minimum Vehicular Volume	17%
Delay To Cross Traffic	34%
Collision Hazard	13%

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
	Tuesday, December 16, 2008
Pedestrian Volume	31%
Pedestrian Delays	38%

To support the installation of a pedestrian crossover, both warrants must be satisfied to the extent of 100 percent. In order for a pedestrian delay warrant to be met, a minimum of 200 pedestrians must be observed crossing the roadway, of which 130 must be delayed for periods greater than 10 seconds when crossing the major roadway. A total of 61 pedestrians were observed crossing the roadway of which 49 were delayed 10 seconds or more. A pedestrian crossover cannot be supported at this time.

Collision History

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

Five-Year Collision Information	Number of Reported Collisions			
	2006	2007	2008	Total
Collisions Potentially Preventable by the Installation of Traffic Control Signals	0	2	0	2
Collisions Involving Pedestrians Crossing Lawrence Avenue East	0	0	0	0

This collision history does not warrant full protection and is not indicative of a safety problem at this location.

As outlined in the above tables, none of the categories are met. The installation of traffic control signals or a pedestrian crossover cannot be justified at the subject intersection based on the foregoing information. However, should Community Council wish to install traffic control signals at this location despite the statistical findings, such an approval is not delegated and can only be dealt with by City Council.

The Toronto Transit Commission has been consulted about this location.

In summary, traffic control signals and/or a pedestrian crossover are not justified and should not be installed at the subject intersection.

CONTACT

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SIGNATURE

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ATTACHMENTS

1. Location Plan (Study location – Lawrence Avenue East and Wayne Avenue, Proposed Traffic Control Signal/Pedestrian Crossover)