



**STAFF REPORT
ACTION REQUIRED**

**Traffic Control Signals – Sheppard Avenue East and
Lamont Avenue**

Date:	September 30, 2013
To:	Scarborough Community Council
From:	Director, Transportation Services, Scarborough District
Wards:	Ward 41 – Scarborough Rouge River
Reference Number:	P:\2013\Cluster B\TRA\Scarborough\sc1365.docx D12- 4957431 Sheppard/Lamont - traffic signals/pxo

SUMMARY

Traffic studies reveal that warrants for pedestrian crossing protection, specifically, Traffic Control Signals or a Pedestrian Crossover are not warranted at this location at this time.

RECOMMENDATIONS

Transportation Services recommends that:

1. City Council not approve the installation of Traffic Control Signals at the intersection of Sheppard Avenue East and Lamont Avenue at this time.
2. City Council not pass or amend the appropriate by-law(s) accordingly.

Financial Impact

There is no financial impact associated with this report; however, should City Council approve installation of Traffic Control Signals, the estimated cost would be approximately \$150,000.00. Funding would not be available in the Transportation Services Capital Budget or from Metrolinx for this proposed traffic control device since signals were not identified in the Sheppard LRT Environmental Assessment.

ISSUE BACKGROUND

Further to a request from Councillor Chin Lee for a report to Scarborough Community Council and City Council, Transportation Services staff reviewed the feasibility of installing Traffic Control Signals at Sheppard Avenue East and Lamont Avenue.

COMMENTS

The following characteristics describe this section of Sheppard Avenue East and Lamont Avenue:

- The intersection of Sheppard Avenue East and Lamont Avenue is located to the west of Midland Avenue north of Highway 401.
- Sheppard Avenue East is a four-lane major arterial road with a posted 60 km/h speed limit.
- Lamont Avenue is a local two-lane road with an unposted 50 km/h speed limit.
- Traffic Control Signals are located approximately 325 metres west at Sheppard Avenue East and the GO Agincourt Station and 245 metres east at Sheppard Avenue East and Midland Avenue.
- The intersection of Sheppard Avenue East and Lamont Avenue is controlled by a northbound stop sign prior to the sidewalk on Sheppard Avenue East.
- Sidewalks are located on both sides of Sheppard Avenue East.
- There are no paved sidewalks on Lamont Avenue.
- Toronto Transit Commission bus stops for both the eastbound and westbound directions are located on Sheppard Avenue East at Lamont Avenue on the east side of the intersection.
- To mitigate compromised sight lines for motorists on Lamont Avenue to approaching eastbound traffic, mitigating measures have been introduced on Sheppard Avenue East including advance intersection warning signage, eastbound curb lane markings shifting motorists to the north, stopping prohibitions on Sheppard Avenue East and stop bar shifting to the north on Lamont Avenue.
- Left-turn and north through prohibitions have been installed to prevent motorists from Lamont Avenue from potentially coming into conflict with eastbound motorists, to further mitigate sight line concerns.

Traffic Control Signal Justification

Following the completion of nearby grade separation work in late 2012 at Sheppard Avenue East and the GO Rail line 150 metres to the east of Lamont Avenue, Transportation Services staff conducted Traffic Control Signal Justification Studies at the intersection of Sheppard Avenue East and Lamont Avenue. Using traffic volumes recorded over the peak eight hours of several days (Sunday, April 21 2013, Tuesday, April 25, 2013 and Thursday, May 16, 2013), in order to ensure an accurate sampling of neighbourhood users and avoid a false negative result, the following results were obtained:

Justification	Compliance on Sunday, April 21, 2013
1. Minimum Vehicular Volume	6%
2. Delay to Cross Traffic	6%
3. Collision Hazard	0%

Justification	Compliance on Tuesday, April 25, 2013
1. Minimum Vehicular Volume	8%
2. Delay to Cross Traffic	12%
3. Collision Hazard	0%

Justification	Compliance on Thursday, May 16, 2013
1. Minimum Vehicular Volume	8%
2. Delay to Cross Traffic	14%
3. Collision Hazard	0%

For the traffic control signals to be numerically justified, the following results need to be obtained:

1. One of the "Minimum Vehicular Volume", "Delay to Cross Traffic" or "Collision Hazard" justifications must be 100 per cent satisfied, or
2. The first two justifications must be at least 80 per cent satisfied.

Collision History

Three-year review period for which we have complete data: January 1, 2010 to December 31, 2012

Three-Year Collision Information	Number of Reported Collisions			
	2010	2011	2012	Total
Collisions Potentially Preventable by the Installation of Traffic Control Signals	0	0	0	0
Collisions Involving Pedestrians Crossing Sheppard Avenue	0	0	0	0

This collision history is not indicative of a safety problem at this time at this intersection.

Pedestrian Crossover Warrant Study

Transportation Services staff also conducted a Pedestrian Crossover Warrant Study at the subject intersection. Similar to the studies for Traffic Control Signals, using traffic volumes recorded over the peak eight hours of several days in order to ensure an accurate sampling of neighbourhood users at this intersection (Sunday, April 21 2013, Tuesday, April 25 2013 and Thursday, May 16, 2013) the following results were obtained:

Pedestrian Crossover Warrant	Compliance on Sunday, April 21, 2013
Pedestrian Volume	13%
Pedestrian Delays	2%

Pedestrian Crossover Warrant	Compliance on Tuesday, April 25, 2013
Pedestrian Volume	26%
Pedestrian Delays	12%

Pedestrian Crossover Warrant	Compliance on Thursday, May 16, 2013
Pedestrian Volume	35%
Pedestrian Delays	22%

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 tables, both warrants have not been satisfied. In addition, this would not be a suitable location for a crossover, since there are more than four traffic lanes.

U-Turn Mitigation

Concomitant review of turning volumes in this area revealed that there is sufficient capacity along Sheppard Avenue East at Midland Avenue to accommodate left-turns caused by the left-turn prohibition at Lamont Avenue. There is not further requirement for an eastbound Left-Turn Green Arrow or U-Turn traffic control signal phase at Midland Avenue.

In summary, Traffic Control Signals are not warranted at this location.

CONTACT

Marko A. Oinonen, B.A. Sc., P.Eng.
Manager, Traffic Operations, Scarborough District
Tel: 416-396-7148
Fax: 416-396-5641
E-Mail: moinone@toronto.ca

SIGNATURE

Peter J. Noehammer, P.Eng.
Director, Transportation Services, Scarborough District

JAB:pz

ATTACHMENTS

1. Location Plan (Traffic Control Signals - Sheppard Avenue East and Lamont Avenue)