



**STAFF REPORT
ACTION REQUIRED**

Traffic Control Signals – Lansdowne Avenue and Lappin Avenue

Date:	September 2, 2015
To:	Toronto and East York Community Council
From:	Director, Transportation Services, Toronto and East York District
Wards:	Davenport, Ward 18
Reference Number:	Ts2015153te.top.doc

SUMMARY

Transportation Services is seeking authority from City Council to install traffic control signals at the intersection of Lansdowne Avenue and Lappin Avenue.

The installation of traffic control signals at this location will replace an existing pedestrian crossover and enhance safety for pedestrians, cyclists and motorists. This installation will result in the loss of approximately 13 parking spaces.

RECOMMENDATIONS

Transportation Services recommends that:

1. City Council authorize the removal of the pedestrian crossover on Lansdowne Avenue at Lappin Avenue.
2. City Council authorize the installation of traffic control signals at Lansdowne Avenue and Lappin Avenue, coincident with the removal of the pedestrian crossover.

Financial Impact

The estimated cost of replacing the pedestrian crossover with traffic control signals on Lansdowne Avenue and Lappin Avenue is \$196,000.00. This installation would be subject to the availability of funding and competing priorities.

ISSUE BACKGROUND

Transportation Services was requested by Councillor Ana Bailão to investigate the installation of traffic control signals at Lansdowne Avenue and Lappin Avenue to address safety concerns for pedestrians, cyclists and motorists crossing this intersection.

COMMENTS

Lansdowne Avenue is a north-south, minor arterial roadway, with a daily two-way traffic volume of about 16,000 vehicles and a posted speed limit of 40 km/h. It provides two lanes of traffic in each direction. Transit service on Lansdowne Avenue is provided by the '47 Lansdowne' bus and there are near-side transit stops provided at Lappin Avenue.

Lappin Avenue is an east-west roadway. West of Lansdowne Avenue, it is classified as a local road and east of Lansdowne Avenue, it is classified as a collector road. It has a daily two-way traffic volume of about 2,600 vehicles and a posted speed limit of 40 km/h. It provides a single lane of traffic in each direction. To the east of Lansdowne Avenue, the lanes are shared with bicycles, as this section of road is part of the City's bikeway network. There is no TTC service provided on Lappin Avenue.

Currently, a pedestrian crossover is located on the north leg of the intersection of Lansdowne Avenue and Lappin Avenue, providing crossing protection for east-west pedestrians in this area. Adjacent traffic control signals to this intersection on Lansdowne Avenue are located about 290 metres to the south, at Wallace Avenue and about 200 metres to the north, at Dupont Street.

Existing Pedestrian Crossover

Traffic studies were undertaken to review the operating characteristics at the existing pedestrian crossover (PXO). During the busiest eight-hour period of a typical weekday, 265 pedestrians were recorded crossing Lansdowne Avenue at Lappin Avenue.

The 265 pedestrians were classified as follows:

- 210 youths and adults (79 percent);
- 31 assisted children (12 percent);
- 24 senior citizens (9 percent);
- 0 disabled (0 percent); and
- 0 unassisted children (0 percent).

A review to assess any deficiencies in the operational and physical suitability of the existing pedestrian crossover at this location was carried out. By comparing the operation of the pedestrian crossovers to provincially adopted "environmental standards" it was determined whether the pedestrian crossover is operating under acceptable conditions.

The standards and the comparative characteristics at this location are described in the attached Appendix "A".

Based on the results of pedestrian crossover audit, the existing pedestrian crossover may not be in the appropriate location, due to the relatively high volumes of turning movements at this intersection, which could potentially interfere with the operation of the pedestrian crossover.

Traffic Control Signals

Based on the traffic studies at this intersection, the technical justifications for the installation of traffic control signals at this intersection were satisfied to the following extent:

- Justification 1: Minimum Vehicular Volume – 80 percent;
- Justification 2: Delay to Cross Traffic – 95 percent; and
- Justification 3: Collision Hazard – 27 percent.

To meet the technical requirements for the installation of traffic control signals, one of the "Minimum Vehicle Volume" or "Delay to Cross Traffic" justifications must be 100 percent satisfied, or any two of the three justifications must be at least 80 percent satisfied. Based on the above results, the installation of traffic control signals are justified at the intersection of Lansdowne Avenue and Lappin Avenue.

The “Collision Hazard” warrant is based on the number of collisions potentially preventable by the installation of traffic control signals. Collision statistics provided by Toronto Police Service for a three-year period ending October 31, 2013 disclosed that 14 collisions have occurred at the intersection of Lansdowne Avenue and Lappin Avenue. Of these 14 collisions, none involved a pedestrian and four were considered to be potentially preventable by the installation of traffic control signals.

Summary

The installation of traffic control signals at the intersection of Lansdowne Avenue and Lappin Avenue are technically justified and recommended. Replacing the existing pedestrian crossover at this intersection with traffic control signals will provide a safer crossing environment for pedestrians, especially children and senior citizens. However, the installation of traffic control signals at this intersection would result in the following negative impacts:

- a) Loss of Parking spaces. The installation of traffic control signals would result in the loss of about 13 on-street parking spaces as follows:
 - i. about four parking spaces will be removed on Lansdowne Avenue. These spaces operate with three-hour time limit parking (unsigned, statutory) outside the peak periods;

- ii. about nine on-street parking spaces will be removed on Lappin Avenue. On this street, overnight permit parking is in effect between the hours of 12:01 a.m. to 7:00 a.m., daily. Lappin Avenue belongs to permit parking area '3H', which has 843 spaces and 596 permits issued. Between Ward Street and Lansdowne Avenue, there are nine spaces and three permits issued. Between Lansdowne Avenue and St. Clarens Avenue, there are 19 spaces and one permit issued.
- b) The potential for increase in delays to transit service on Lansdowne Avenue;
- c) The potential for increased delays to pedestrians, who will be required to wait for a "Walk" signal, rather than crossing upon pushing the PXO button; and
- d) The potential of traffic infiltration that may increase traffic volumes on Lappin Avenue as it becomes easier for motorists to enter/cross Lansdowne Avenue.

The Toronto Transit Commission has been advised of the proposed installation of traffic control signal at this intersection. Councillor Ana Bailão has been advised of the recommendations in this report.

CONTACT

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SIGNATURE

Kyp Perikleous
Director, Transportation Services
Toronto and East York District

LIST OF ATTACHMENTS

1. Drawing No. 421G-1876, dated August 2015
2. Appendix "A" – Pedestrian Crossover Audit

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