

Mid-Block Pedestrian Traffic Control Signal - Spadina Road, between Lowther Avenue and Bloor Street West

Date: March 8, 2018
To: Toronto and East York Community Council
From: Acting Director, Transportation Services, Toronto and East York District
Wards: Ward 20, Trinity-Spadina

SUMMARY

As the Toronto Transit Commission (TTC) operates a transit service on Spadina Road, City Council approval of this report is required.

Transportation Services is requesting approval to install a mid-block pedestrian traffic control signal on Spadina Road, between Lowther Avenue and Bloor Street West. This installation will provide a safe and effective crossing area for pedestrians in this segment of Spadina Road and is technically justified.

RECOMMENDATIONS

The Acting Director, Transportation Services, Toronto and East York District, recommends that:

1. City Council authorize the installation of a mid-block pedestrian traffic control signal on Spadina Road, between Lowther Avenue and Bloor Street West.

FINANCIAL IMPACT

The estimated cost of installing a mid-block pedestrian traffic control signal on Spadina Road, between Lowther Avenue and Bloor Street West is \$120,000.00. This installation would be subject to the availability of funding and competing priorities.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

Transportation Services, Toronto and East York District, was requested by Councillor Joe Cressy to report on the installation of pedestrian crossing protection on Spadina Road, between Lowther Avenue and Bloor Street West to address safety concerns for pedestrians crossing on this segment of Spadina Road.

Existing Conditions

Spadina Road, between Lowther Avenue and Bloor Street West is a major arterial roadway with two lanes in each direction. It has a posted speed limit of 40 km/h and a daily two-way traffic volume of about 17,000 vehicles. TTC service on Spadina Road is provided by the "510 Spadina" bus. The existing land use in this section of Spadina Road is generally mixed-use. Mid-block pedestrian generators include the Spadina TTC station, Toronto Public Library, Toronto Parking Authority parking lot, various restaurants, residential facilities, offices, and schools.

Spadina Road, between Lowther Avenue and Bloor Street West is about 257 metres in length and intersects with the following local streets:

- Annex Lane

Traffic control signals on this section of Spadina Road are located about 128.5 metres to the north at Lowther Avenue and about 128.5 metres to the south at Bloor Street West, from the proposed mid-block pedestrian traffic control signal.

Collision Review

Collision statistics provided by Toronto Police Service for the three-year period ending December 31, 2017, disclosed that nine collisions have occurred on Spadina Road, between Lowther Avenue and Bloor Street West. Further review of these nine collisions disclosed that none involved a pedestrian and none would have been prevented by the installation of a pedestrian crossover or mid-block pedestrian traffic control signal.

Pedestrian Crossover (PXO)

Transportation Services conducted a pedestrian volume and delay study on March 29, 2017, and reviewed the collision records to determine if the installation of a pedestrian crossover is justified on Spadina Road, between Lowther Avenue and Bloor Street West. Pedestrian crossovers (PXOs) are often not appropriate on arterial roadways in the City of Toronto. However, traffic control signals are considered at locations where pedestrian crossovers are technically justified, but their installation would be unsuitable or unsafe due to provincially established "environmental standards".

Pedestrian delay and classification studies were undertaken during the busiest eight-hour period of a typical weekday on Spadina Road, between Lowther Avenue and Bloor Street West. The counts recorded the number of pedestrians crossing Spadina Road, as well as the number of these that experienced delays more than ten seconds in crossing. During the busiest eight-hour period, 270 pedestrians were recorded crossing Spadina Road. Of the 270 pedestrians crossing, 99 pedestrians (37 percent) were delayed greater than 10 seconds in crossing. The 270 pedestrians crossing were classified as follows:

- 220 youth and adult (81 percent);
- 10 assisted child (4 percent);
- 34 senior citizens (13 percent);
- 0 unassisted children (0 percent); and
- 6 disabled pedestrians (2 percent).

Based on these pedestrian volumes and delays, the technical justifications for the installation of a PXO are as follows:

- Pedestrian Volume Justification: Met
- Pedestrian Delay: Met

To meet the technical requirements for the installation of PXO, both technical justifications of pedestrian volume and pedestrian delay must be satisfied. Based on the pedestrian volumes and delays, the installation of a PXO is technically justified on Spadina Road, between Lowther Avenue and Bloor Street West.

An audit to assess any deficiencies in the operational and physical suitability of a potential PXO at this location was carried out. The results of the review indicated that this location is unsuitable for a pedestrian crossover. There are several driveways located on this section of Spadina Road, which will result in operational safety concerns between turning traffic and pedestrian crossings. The standards and comparative characterises at this location are described in more detail in the attached Appendix "A".

Based on the PXO audit, the criteria for the proximity of driveways and adjacent traffic control signals have not been met.

Transportation Services has consulted with Toronto Transit Commission (TTC) regarding the potential installation of a pedestrian crossover or a mid-block pedestrian traffic control signal on Spadina Road, between Lowther Avenue and Bloor Street West. The TTC has indicated that a more comprehensive evaluation should be conducted before proceeding.

Summary

Based on the review, Transportation Services recommends the installation of a mid-block pedestrian traffic control signal on Spadina Road, between Lowther Avenue and Bloor Street West. This installation will provide a safe and effective crossing area for pedestrians in this segment of Spadina Road and is technically justified.

Of note, pedestrian crossings volumes in this area of Spadina Road are probably higher in the summer given that the study was conducted in March. Additionally, the installation of a mid-block pedestrian traffic control signal at this location would result in the following negative impacts:

- **Loss of Parking:** Ten to twelve pay-and-display parking spaces may need to be removed from Spadina Road.
- **Impacts to Pedestrians:** There may be an increase in delays to pedestrians, who will be required to wait for a "Walk" signal, rather than crossing with gaps in traffic.
- **Physical Modifications:** The installation will require the possible relocation of a parking machine.
- **Impacts to Transit:** There will be an increase in delays to transit service on Spadina Road, which would be partially mitigated by the introduction of transit priority.

Councillor Joe Cressy has been advised of the recommendations of this staff report.

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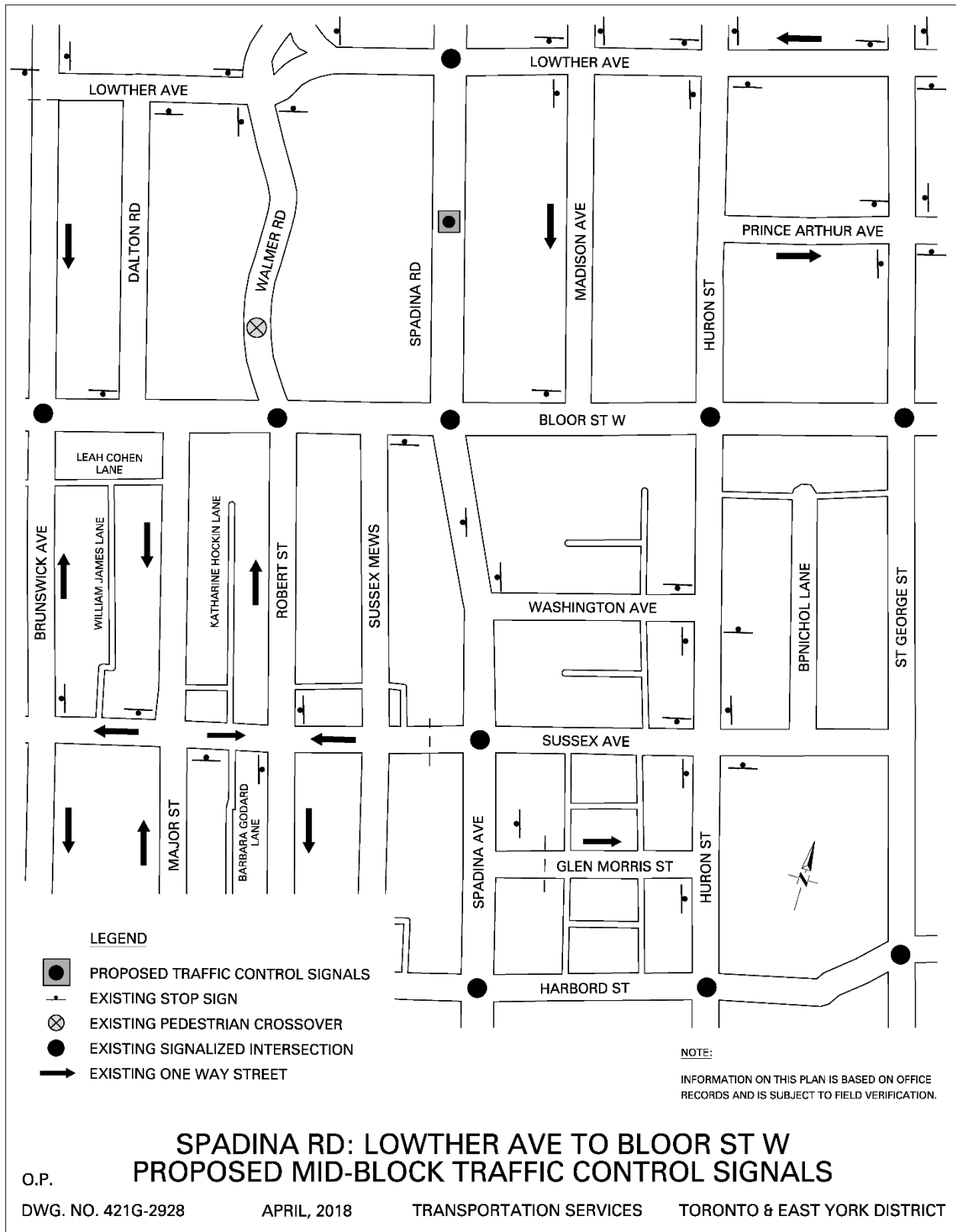
SIGNATURE

Dave Twaddle, C.E.T.
Acting Director, Transportation Services
Toronto and East York District

ATTACHMENTS

1. Drawing No. 421G-2928, dated April 2018
2. Appendix A - Audit of Pedestrian Crossover

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Appendix 'A'

Spadina Road, between Lowther Avenue and Bloor Street West

Audit of potential pedestrian crossover

Standard	Comment	Standard Met/ Not Met
Speed – Vehicle operating speed less than 60 km/h	The posted speed limit on Spadina Road is 40 km/h.	Met
Width – Not more than four lanes wide on a two-way street, or more than three lanes wide on a one-way street	Spadina Road generally operates with two lanes of traffic in each direction.	Met
Volume – Traffic volume less than 35,000 vehicles per day (total of both directions)	Spadina Road carries approximately 17,000 vehicles per day in both directions.	Met
Turns – No significant volume of turning movements which interfere with PXO	Low turning movement counts across the proposed PXO from surrounding parking lots and driveways.	Met
Visibility – No visibility problems exist for either pedestrians or motorists	There are no visibility problems.	Met
Loading – No loading zones in the immediate vicinity	There are no commercial loading zones or TTC stops in the immediate area.	Met
Driveways – No driveways or entrances nearby	There are private driveways located on Spadina Road, north and south of the potential pedestrian crossover.	Not Met
Spacing – Not less than 200 metres to another pedestrian crossover or traffic control signal (TCS)	Adjacent traffic control signals are located about 128.5 metres to the north at Lowther Avenue and about 128.5 metres to the south at Bloor Street West from the proposed mid-block pedestrian traffic control signal.	Not Met