

Traffic Control Signals – Cosburn Avenue and Todmorden Lane/ Private Access

Date: May 25, 2017
To: Toronto and East York Community Council
From: Acting Director, Transportation Services, Toronto and East York District
Wards: Ward 29, Toronto-Danforth

SUMMARY

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

Transportation Services is requesting approval to install traffic control signals at the intersection of Cosburn Avenue and Todmorden Lane/Private Access. This installation will provide crossing protection for pedestrians in this segment of Cosburn Avenue and are technically justified. This installation will result in the loss of about seven on-street parking spaces.

RECOMMENDATIONS

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

1. City Council authorize the installation of traffic control signals at the intersection of Cosburn Avenue and Todmorden Lane/Private Access.

FINANCIAL IMPACT

The estimated cost of installing traffic control signals at the intersection of Cosburn Avenue and Todmorden Lane/Private Access is \$200,000.00. 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 Mary Fragedakis to report on the installation of pedestrian crossing protection at the intersection of Cosburn Avenue and Todmorden Lane/ Private Access to address safety concerns for pedestrians crossing this intersection.

Existing Conditions

Cosburn Avenue is a minor arterial roadway that operates two-way traffic. It has a pavement width of about 12.2 metres and a daily two-way volume is about 9,000 vehicles. Cosburn Avenue has a regulatory speed limit of 50 km/h, west of Todmorden Lane, and a posted speed limit of 40 km/h, east of Todmorden Lane. It consists of a lane in each direction for general traffic, as well as bicycle lanes. Three-hour time limit parking (unsigned, statutory) is provided on the north side of the road at all times. Heavy trucks are prohibited on Cosburn Avenue between the hours of 7:00 p.m. of one day to 7:00 a.m. of the next following day. TTC service in this section of Cosburn Avenue is provided by the '87 Cosburn' bus and '322 Coxwell' bus.

Adjacent traffic control signals are located about 275 metres to the west, at Cosburn Avenue at Pape Avenue, and about 320 metres to the east, at Cosburn Avenue and Donlands Avenue.

Todmorden Lane is a local roadway, which operates two-way traffic. It has a pavement width of about 7.3 metres and a regulatory speed limit of 50 km/h. Todmorden Lane intersects the north side of Cosburn Avenue in a 'T'-type, stop controlled intersection. The TTC does not provide service on Todmorden Lane. The south leg of this intersection is an uncontrolled, 4.7 metre wide private driveway. This two-way driveway is opposite Todmorden Lane and provides motorist access to the parking lot for No. 165 Cosburn Avenue.

The predominant pedestrian volume generators are the low-rise residential units surrounding the intersection. Further north of the intersection is Gamble Park and William Burgess Elementary School.

Collision Review

Collision statistics provided by Toronto Police Service for the three-year period ending December 31, 2016 disclosed that eight collisions have occurred on Cosburn Avenue at Todmorden Lane/Private Access. Further review of these eight collisions disclosed that none involved a pedestrian and none would have been prevented by the installation of a pedestrian crossover or traffic control signals.

Pedestrian Crossover (PXO)

Transportation Services conducted a pedestrian volume and delay study on October 18, 2015 and reviewed the collision records to determine if the installation of a pedestrian crossover is justified on Cosburn Avenue at Todmorden Lane/Private Access. A pedestrian crossover (PXO) would not be appropriate on Cosburn Avenue as PXO's are no longer installed 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 at the intersection of Cosburn Avenue and Todmorden Lane/ Private Access. The counts recorded the number of pedestrians crossing Cosburn Avenue, as well as the number of these that experienced delays more than ten seconds in crossing. During the busiest eight-hour period, 502 pedestrians were recorded crossing Cosburn Avenue. Of the 502 pedestrians crossing, 213 pedestrians (42 percent) were delayed greater than 10 seconds in crossing. The 502 pedestrians crossing were classified as follows:

401 youth and adult	(80 percent);
77 assisted child	(15 percent);
22 senior citizens	(4 percent);
2 unassisted children	(1 percent); and
0 disabled pedestrians	(0 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 Justification: 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 Cosburn Avenue at Todmorden Lane.

An audit was carried out to assess any deficiencies in the operational and physical suitability of the PXO compared to the provincially adopted environmental standards to potentially expose factors which can make a PXO unsuitable. The standards and the comparative characteristics at this location are described in more detail in the attached Appendix "A".

Based on the PXO audit, the criteria for the loading and adjacent driveways have not been met. Further, the installation of PXO's are no longer supported on arterial roads in the City of Toronto.

TTC Comments

Comments were requested from the TTC to determine if the installation of traffic control signals at Cosburn Avenue and Todmorden Lane would affect the operations of the '87 Cosburn' and '322 Coxwell' buses. The TTC advised that if traffic control signals are to be installed, they would request the following:

- modifications to pavement markings to include an eastbound left turn lane, to reduce the impact of left turning traffic on transit service
- transit signal priority be included to mitigate delays to transit vehicles; and
- that the cost of relocating any bus stop features be included as part of the signals installation.

Summary

Based on the above review, Transportation Services recommends the installation of traffic control signals at the intersection of Cosburn Avenue and Todmorden Lane/ Private Access. This installation is technically justified and will provide a safer crossing environment for pedestrians. However, the installation of traffic control signals at this intersection would result in the following negative impacts:

- Driveway: It will be necessary to include the private driveway on the south intersection leg;
- Loss of parking: With any installation of traffic control signals, parking must be prohibited at all times within 30.5 metres of the intersection. As many as 5 on-street parking spaces on Cosburn Avenue and 2 parking spaces on Todmorden Lane will need to be removed;
- Traffic infiltration: Non-local traffic volumes on Todmorden Lane could increase as it becomes easier to access Cosburn Avenue;
- Impacts to Transit: there will be an increase in delays to transit service on Cosburn Avenue, which would be partially mitigated by the introduction of transit priority;
- Impact to pedestrians: There may be an increase in delay to pedestrians, who will be required to wait for a "Walk" signal, rather than crossing with a gap in traffic; and
- Physical modifications: This installation will require the possible relocation of a garbage bin and bus stop features.

Councillor Mary Fragedakis has been advised of the recommendations of this report.

CONTACT

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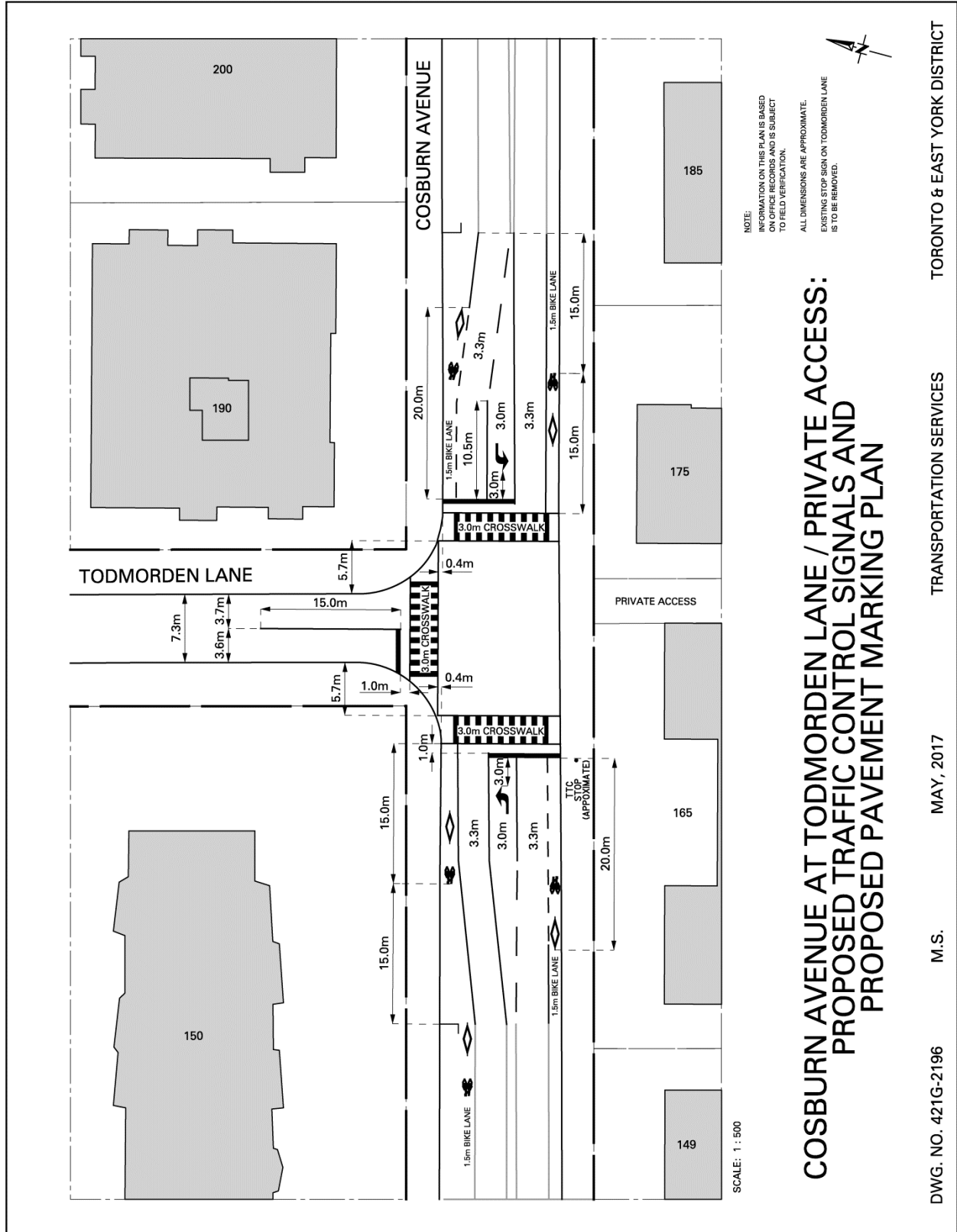
SIGNATURE

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

ATTACHMENTS

1. Drawing No. 421G-2196, dated August 2016
2. Appendix A - Audit of Pedestrian Crossover

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Appendix 'A'

Cosburn Avenue and Todmorden Lane/Private Access

Audit of potential pedestrian crossover

Standard	Comment	Standard Met/ Not Met
Speed – Vehicle operating speed less than 60 km/h	The speed limit on Cosburn Avenue is 50 km/h west of Todmorden Lane and 40 km/h east of Todmorden Lane	Met
Width – Not more than four lanes wide on a two-way street, or more than three lanes wide on a one-way street	Cosburn Avenue operates with one lane in each direction for general traffic, as well as a bicycle lane in each direction and a parking lane on the north side of the road	Met
Volume – Traffic volume less than 35,000 vehicles per day (total of both directions)	Cosburn Avenue carries about 9,000 vehicles/day	Met
Turns – No significant volume of turning movements which interfere with PXO	There are relatively low volumes of traffic turning to/from Todmorden Lane	Met
Visibility – No visibility problems exist for either pedestrians or motorists	There are no visibility obstructions between pedestrians and motorists	Met
Loading – No loading zones in the immediate vicinity	There are near-side bus stops located on Cosburn Avenue at Todmorden Lane	Not Met
Driveways – No driveways or entrances nearby	A private driveway is located opposite Todmorden Lane and there are several private driveways east and west of the intersection	Not Met
Spacing – Not less than 200 metres to another pedestrian crossover or traffic control signal (TCS)	Adjacent traffic control signals are located about 275 metres to the west, at Cosburn Avenue at Pape Avenue and about 320 metres to the east, at Cosburn Avenue and Donlands Avenue	Met