

Traffic Control Signals – College Street and Palmerston Avenue/Palmerston Boulevard

Date: January 15, 2020
To: Toronto and East York Community Council
From: Acting Director, Traffic Management, Transportation Services
Wards: Ward 11, University-Rosedale

SUMMARY

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

Transportation Services is requesting authorization from City Council to install traffic control signals at the intersection of College Street and Palmerston Avenue/Palmerston Boulevard. This installation is recommended based on the technical requirements and will provide improved safety for pedestrians, cyclists and motorists at this intersection.

RECOMMENDATIONS

The Acting Director, Traffic Management, Transportation Services, recommends that:

1. City Council authorize the installation of traffic control signals at the intersection of College Street and Palmerston Avenue/Palmerston Boulevard.
2. Subject to approval of and in conjunction with the installation of traffic control signals at College Street and Palmerston Avenue/Palmerston Boulevard:
 - a. City Council prohibit stopping at all times on both sides of Palmerston Boulevard, between College Street and a point 30.5 metres north.

FINANCIAL IMPACT

The estimated cost of installing traffic control signals at the intersection of College Street and Palmerston Avenue/Palmerston Boulevard 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 was requested by Councillor Mike Layton and local residents to investigate the feasibility of installing traffic control signals at the intersection of College Street and Palmerston Avenue/Palmerston Boulevard.

Existing Conditions

College Street is a major arterial roadway which operates two-way traffic on a pavement width of about 20 metres, has a posted speed limit of 40 km/h and a daily two-way volume of about 27,000 vehicles. TTC service in this section of College Street is provided by the "506 Carlton" streetcar service.

The intersecting street is named "Palmerston Boulevard" on the north side of College Street and "Palmerston Avenue" on the south side of College Street. Both are classified as local roadways and operate two-way (northbound and southbound), on a pavement width of about 7 metres. The posted speed limit on both roadways is 30 km/h and both carry a daily two-way traffic volume of about 2500 vehicles. Of note, Palmerston Avenue, between College Street and the first lane south, operates two-way, while the remaining section of the street south of College Street operates one-way southbound.

Adjacent traffic control signals are located at about 204 metres to the east at Bathurst Street and about 102 metres to the west at Euclid Avenue.

Collision Review

Collision statistics provided by the Toronto Police Service for the three-year period ending August 31, 2019 disclosed that five collisions were reported at the intersection of College Street and Palmerston Avenue/Palmerston Boulevard. Three collisions were angle-type and two collisions involved a pedestrian/cyclist, and may have been preventable by the installation of traffic control signals.

Traffic Control Signal Review

Based on the eight-hour vehicular and pedestrian counts conducted at this intersection on July 21, 2018 and the collision history, the technical justifications for the installation of traffic control signals are satisfied to the following extent:

Justification 1: Minimum Vehicular Volume	79 percent
Justification 2: Delay to Cross Traffic	100 percent, and
Justification 3: Collision Hazard	33 percent

To meet the technical requirements for the installation of traffic control signals, one of the justifications must be 100 percent satisfied, or any two of the three warrants must be at least 80 percent satisfied. Based on the above results, the installation of traffic controls signals is warranted at the intersection of College Street and Palmerston Avenue/Palmerston Boulevard.

In addition to the traffic control signal warrant evaluation, an audit was also conducted to assess the operational and physical suitability for traffic control signals at this location. The minimum recommended spacing between adjacent traffic control devices is 200 metres. This is often reduced in the downtown area out of necessity (intersections are in closer proximity to one another), which may lead to traffic spill-over, congestion and delays due to lack of storage space available between the traffic control signals.

Parking amendments are also required in conjunction with this traffic control signal installation. Parking is typically prohibited at all times within 30.5 metres of an intersection controlled by traffic control signals. In this case, there will be no parking loss on College Street as the corner buildouts currently provide a physical parking deterrent, and there will be no parking loss on Palmerston Avenue, south of College Street, as parking is currently prohibited at all times on both sides of the roadway. However, there will be a loss of approximately four on-street permit parking spaces on Palmerston Boulevard, north of College Street. In this regard, Transportation Services is recommending that stopping be prohibited at all times on both sides of Palmerston Avenue, between College Street and a point 30.5 metres north. This will deter parking, provide unobstructed traffic flow and maintain clear corner sightlines.

Although the operational and physical suitability of the traffic control signal is not fully satisfied, it is anticipated that the negative impacts associated with the lack of spacing and traffic infiltration could be mitigated through signal timing coordination and future consideration of the need for turn restrictions at College Street and Palmerston Avenue/Palmerston Boulevard. In addition, the installation of the traffic control signal at this intersection will facilitate future enhancements to the existing cycling infrastructure in terms of connectivity and expansion.

The TTC and Cycling staff have been informed of the proposal to install traffic control signals at the intersection of College Street and Palmerston Avenue/Palmerston Boulevard and comments have been received.

Summary

Transportation Services recommends the installation of traffic control signals at the intersection of College Street and Palmerston Avenue/Palmerston Boulevard. The proposed traffic control signals may result in increased delays for traffic on College Street since the east-west traffic will no longer operate free-flow. However, traffic control signals at this intersection will improve safety for all road users.

Councillor Mike Layton has been advised of the recommendations of this staff report.

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SIGNATURE

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ATTACHMENTS

1. Drawing No. 421G-3611, dated December 2019

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