

Pedestrian Crossing Protection - Wellington Street East and Scott Street

Date: February 2, 2021

To: Toronto and East York Community Council

From: Acting Director, Traffic Management, Transportation Services

Wards: Ward 13, Toronto Centre

SUMMARY

This staff report is about a matter that Community Council has delegated authority from City Council to make a final decision.

Transportation Services is recommending the installation of traffic control signals at the intersection of Wellington Street East and Scott Street. The traffic control signals will provide enhanced safety for vulnerable road users and is justified based on the assessment undertaken.

RECOMMENDATIONS

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

1. Toronto and East York Community Council authorize the installation of traffic control signals at the intersection of Wellington Street East and Scott Street.

FINANCIAL IMPACT

The estimated cost for installing traffic control signals at Wellington Street East and Scott Street is \$200,000. Funding would be subject to availability and competing priorities within the Transportation Services 2022 Capital Budget. The estimated annual loss of revenue and cost of relocating signage and equipment resulting from the removal of pay-and-display parking spaces will be \$297,956.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

Transportation Services staff was requested by the Ward Councillor, on behalf of area residents, to review the need for pedestrian crossing protection on Wellington Street East at Scott Street, to address safety concerns for pedestrians crossing within this segment of Wellington Street East.

Existing Conditions

Wellington Street East is a four-lane east-west minor arterial roadway. It operates one-way traffic on a pavement width of approximately 13.5 metres. The daily one-way traffic volume is approximately 9,300 vehicles. The posted speed limit is 40 km/h on Wellington Street East. Heavy trucks are permitted at all times. There are sidewalks located on both sides of the street.

Scott Street is a two-lane north-south collector roadway. It operates two-way traffic on a pavement width of approximately 9.5 metres north of Wellington Street East and 6 metres south of Wellington Street East. The posted speed limit is 30 km/h on Scott Street. Heavy trucks are permitted at all times. There are sidewalks located on both sides of the street.

East-west traffic on Wellington Street East is free-flow and north-south traffic on Scott Street is stop-controlled. There is no regular Toronto Transit Commission (TTC) service provided at this subject intersection. Wellington Street has streetcar tracks and is a detour route for streetcar service.

The intersection of Wellington Street East and Scott Street is located at the northwest corner of Berczy Park. The adjacent land use in this area is a mix of residential, business, commercial and park.

The closest adjacent traffic controls signals are located approximately 110 metres to the west at Yonge Street and approximately 180 metres to the east at Church Street.

A map of the area is shown in Attachment 2.

Wellington Avenue is slated for Toronto Transit Commission (TTC) track replacement and road reconstruction in 2021. In addition, the area is included as part of the Business Improvement Area Project area, future planned work includes streetscaping, intersection, lighting, and landscaping improvements, etc.

Transportation Services has reviewed the need for either a Pedestrian Crossover (PXO) or traffic control signals at this location to determine if either device should be recommended as an appropriate pedestrian crossing protection measure.

Pedestrian Crossover (PXO)

To determine the need for a Pedestrian Crossover (PXO) on Wellington Street East at Scott Street, staff rely on the justification criteria as outlined in the Ontario Traffic Manual (OTM) Book 12. The Ontario Traffic Manual (OTM) justification criteria includes two main factors: the volume of vehicles and pedestrians; and pedestrian delay to cross traffic. Based on the traffic volume on Wellington Street East, the warrants require a minimum of 396 pedestrians' crossing over eight hours. Also, based on the pedestrian crossing volume, at least 75 pedestrians must be delayed more than 10 seconds.

An eight-hour pedestrian volume and delay study was conducted on February 4, 2020 which recorded the total volume and delays of pedestrians crossing Wellington Street East at Scott Street. Seniors, unassisted children and people with disabilities that are observed crossing are given a higher weighting by a factor of two. The adjusted volume of pedestrians observed crossing was 3,279; of these, 2,813 experienced a delay greater than 10 seconds. The compliance level of the study results in relation to the warrant criteria is shown in Table 1 below.

Table 1: Pedestrian Crossover Warrant Criteria and Compliance at Wellington Street East and Scott Street.

Justification	Compliance
Pedestrian Volume	100 percent
Pedestrian Delay	100 percent

In order to meet the warrant criteria, 100 percent compliance is required in both categories. Based on the results of the study, a pedestrian crossover is technically justified as both the pedestrian volume and delays have met the minimum requirements.

Staff also reviewed the collision history at this location. Collision statistics provided by the Toronto Police Service for the three-year period ending June 30, 2020 disclosed no collisions at the area of Wellington Street East and Scott Street that involved crossing pedestrians.

Environmental safety characteristics were also evaluated to ensure that the installation of a pedestrian crossover would be appropriate at this location. Details of the evaluation are included in Attachment 1. Based on the evaluation, a pedestrian crossover would not be a suitable type of pedestrian crossing protection at this location on basis of the substandard width, spacing to traffic controls and road classification on Wellington Street East. Therefore, traffic control signals are recommended at this location rather than a pedestrian crossover.

Traffic Control Signals

To determine the need for traffic control signals at the intersection of Wellington Street East and Scott Street, staff rely on justification criteria as outlined in the Ontario Traffic Manual Book (OTM) 12. The Ontario Traffic Manual (OTM) justification criteria includes factors such as volume of vehicles and pedestrians, delay to cross traffic, and collision history. In addition to these technical justifications, staff consider an environmental checklist which includes consideration of road width, posted speed limit, operating speeds, adjacent land uses, pedestrian desire lines and demographics, presence of a transit stop, sight lines, and distance between existing crossing opportunities.

Staff conducted vehicle and pedestrian counts on September 18, 2018 at the subject intersection. Westbound left-turning vehicle volumes on Wellington Street East at Church Street, was added to this intersections' traffic data due to future westbound left turns to be prohibited at Church Street as part of the 2021 Business Improvement Area Project.

Collision history provided by the Toronto Police Service for the three-year period ending June 30, 2020 disclosed none involved a pedestrian and five collisions at the subject intersection that were potentially preventable by the installation of traffic control signals. The results of the counts and collision hazard are summarized in Table 1. The "Collision hazard" criterion is based on the number of collisions potentially preventable by the installation of traffic control signals.

Table 2: Warrant Compliance - Wellington Street East and Scott Street

Justification	Compliance level
Minimum vehicular volume	70%
Delay to cross traffic (pedestrians and vehicles)	69%
Collision hazard	33%

To meet the technical justification criteria for the installation of traffic control signals, one of the justifications must be 100 percent satisfied or any two of the three justifications must be at least 80 percent satisfied. Based on the results in Table 1, the installation of traffic control signals is not justified.

In regards to the environmental checklist, staff noted the following environmental factors:

- the long spacing between pedestrian crossing protection on Wellington Street East;
- the pedestrian generators in the immediate area, including residential and park, that attract large amount of pedestrians to cross the street; and
- the four lane cross-section on Wellington Street West.

In considering the above environmental factors, Transportation Services recommends the installation of traffic control signals at the intersection of Wellington Street East and Scott Street as it will provide enhanced safety for all road users.

Other Considerations

It should also be noted that the installation of traffic control signals at Wellington Street East and Scott Street will result in a loss of approximately nine paid parking spaces on Wellington Street East associated with the installation of traffic control signals at this intersection.

It should be noted that the installation of traffic control signals will have the following additional impacts:

- There will be a loss of approximately nine paid parking spaces on Wellington Street associated with the installation of traffic control signals at this intersection
- There will be no impact to transit service on Wellington Street

The Ward Councillor has been advised of the recommendation of this staff report.

CONTACT

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SIGNATURE

Roger Browne, M.A.Sc., P. Eng.
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ATTACHMENTS

Attachment 1: Environmental Safety Audit - PXO - Wellington Street East and Scott Street

Attachment 2: Map - Wellington Street East and Scott Street: Proposed Traffic Control Signals

Attachment 1: Environmental Safety Audit - PXO - Wellington Street East and Scott Street

Standard	Comments	Standard Met/Not Met
Vehicle operating speed less than 60 km/h	The posted speed limit on Wellington Street East is 40 km/h.	Met
Not more than four lanes wide on a two-way street or more than three lanes wide on a one-way street	Wellington Street East operates one-way westbound with four lanes wide	Not Met
Traffic volume not more than 35,000 vehicles per day	Wellington Street East carries approximately 9,300 vehicles per day.	Met
No significant volume of turning movements	The volume of traffic turning to/from Wellington Street East is moderate (approx. 1600 vehicles over busiest eight hours)	Not Met
No visibility problems exist for either pedestrians or motorists	No vertical or horizontal curves.	Met
No loading zones (including TTC) in the immediate area	No TTC services provided at this location	Met
No driveways or entrances nearby	No driveways in the vicinity.	Met
Spacing is not less than 200 metres to another pedestrian crossover or traffic control signal	Yonge Street (TCS) - 110 metres west Church Street (TCS) - 180 metres east	Not Met

Attachment 2: Map - Wellington Street East and Scott Street: Proposed Traffic Control Signals

