

Traffic Control Signals - Queen Street West and Fuller Avenue

Date: September 9, 2024

To: Toronto and East York Community Council

From: Director, Traffic Management, Transportation Service

Wards: Ward 4, Parkdale-High Park

SUMMARY

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

Transportation Services has reviewed the need for traffic control signals at Queen Street West and Fuller Avenue. Based on the assessment undertaken, Transportation Services is requesting approval to install traffic control signals at this intersection. The installation is recommended based on vulnerable pedestrian crossing activity in the vicinity. Traffic control signals will enhance safety for pedestrians, cyclists and motorists using this intersection.

During the investigation, Transportation Services discovered a discrepancy between the by-lawed parking regulations and the posted signage on both sides of Queen Street West, between Macdonell Avenue and Callender Street, as well as Beaty Avenue and Jameson Avenue. Recommendations 3, 4 and 5 will rectify these inconsistencies.

RECOMMENDATIONS

The Director, Traffic Management, Transportation Services recommends that:

1. City Council authorize the installation of traffic control signals at the intersection of Queen Street West and Fuller Avenue.
2. City Council rescind the existing stopping prohibition in effect at all times on the north side of Queen Street West, between Fuller Avenue and a point 15 metres east and west.

3. City Council rescind the existing maximum one-hour parking regulation in effect from 9:00 a.m. to 4:00 p.m., Monday to Friday, and from 8:00 a.m. to 6:00 p.m., Saturday, on the north side of Queen Street West, between a point 15 metres west of Fuller Avenue and a point 15 metres east of Callender Street.

4. City Council rescind the existing maximum one-hour parking regulation in effect from 8:00 a.m. to 4:00 p.m., Monday to Friday, and from 8:00 a.m. to 6:00 p.m., Saturday, on the north side of Queen Street West, between a point 15 metres west of Macdonell Avenue and a point 15 metres east of Fuller Avenue.

5. City Council rescind the existing maximum one-hour parking regulation in effect from 9:00 a.m. to 6:00 p.m., Monday to Friday, and from 8:00 a.m. to 6:00 p.m., Saturday, on the south side of Queen Street West between a point 15 metres east of Beaty Avenue and a point 50.3 metres west of Jameson Avenue.

FINANCIAL IMPACT

The estimated cost for installing traffic control signals at the intersection of Queen Street West and Fuller Avenue is \$250,000.00. Funding would be subject to availability and competing priorities within the Transportation Services 2025 Capital Budget.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

Transportation Services was requested by the Ward Councillor and local residents to review the need for pedestrian crossing protection at Queen Street West and Fuller Avenue.

Existing Conditions

Queen Street West is characterized by the following conditions:

- It is a four-lane, east-west, major arterial roadway that includes streetcar tracks operating on a shared right-of-way in the median lanes
- It operates two-way traffic on a pavement width of 13 metres
- The daily two-way traffic volume is approximately 13,300 vehicles
- The speed limit is 40 km/h
- There is TTC service provided by the 501 Queen streetcar, 301 Night Queen streetcar, 504 King streetcar, 304 Night King streetcar and the 402 Parkdale Community bus
- There are sidewalks located on both sides of the street

Fuller Avenue is characterized by the following conditions:

- It is a two-lane, north-south, local roadway
- It has a pavement width of 6.4 metres
- It operates two-way traffic between Queen Street West and a point 54.8 metres north of Queen Street West and one-way southbound traffic between a point 54.8 metres north of Queen Street West and Pearson Avenue
- The daily two-way traffic volume is approximately 740 vehicles
- The speed limit is 30 km/h
- Heavy trucks are prohibited at all times
- There is no TTC service provided
- There are sidewalks located on both sides of the street

Queen Street West and Fuller Avenue form a "T" type intersection. Fuller Avenue is stop controlled while Queen Street West is uncontrolled and free-flow.

The adjacent land use in this area is a mix of residential and commercial. Albert Crosland Park and a Green P Parking Lot are situated just north of Queen Street West and is accessible through Fuller Avenue. A pharmacy is located on the south side of the intersection, opposite Fuller Avenue.

Queen Street West/East, between Roncesvalles Avenue and Parliament Street, is designated as a Pedestrian Safety Corridor. Additionally, Queen Street West, between Jameson Avenue and Triller Avenue, is designated as a Community Safety Zone. The intersection of Queen Street West and Fuller Avenue is within the Pedestrian Safety Corridor and the Community Safety Zone.

The closest adjacent traffic controls are located approximately 150 metres to the east at Jameson Avenue/Lansdowne Avenue and approximately 155 metres to the west at Sorauren Avenue in the form of traffic controls signals.

A map of the area is included in Attachment 2

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

Pedestrian Crossover (PXO)

To determine the need for a PXO at Queen Street West and Fuller Avenue, staff rely on the justification criteria as outlined in the Ontario Traffic Manual (OTM) Book 12. The 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 Queen Street West, the warrants require a minimum of 305 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 June 8, 2022 which recorded the total volume and delays of pedestrians crossing at Queen Street West and Fuller Avenue. 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 319; of these, 254 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 Queen Street West and Fuller Avenue

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 PXO 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 April 30, 2024, disclosed no collisions at the intersection of Queen Street West and Fuller Avenue that involved crossing pedestrians.

Environmental safety characteristics were also evaluated to ensure that the installation of a PXO would be appropriate at this location. Details of the evaluation are included in Attachment 1. Based on the evaluation, a PXO would not be a suitable type of pedestrian crossing protection at this location because of the substandard spacing to adjacent traffic controls and a driveway nearby. Therefore, traffic control signals would be a more suitable traffic control at this location rather than a PXO.

Traffic Control Signals

To determine the need for traffic control signals at the intersection of Queen Street West and Fuller Avenue, staff rely on the justification criteria as outlined in the Ontario Traffic Manual (OTM) Book 12. The 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.

As part of the investigation, staff conducted vehicle and pedestrian counts on June 8, 2022 at the subject Queen Street West and Fuller Avenue. 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. Collision history provided by the Toronto Police Service for the three-year period ending April 30, 2024 disclosed two collisions at the subject intersection that were potentially preventable by the installation of traffic control signals.

Both collisions involved motorists making southbound turns from Fuller Avenue to Queen Street West and colliding with motorists on Queen Street West. No pedestrian and cyclist collisions were reported during the three-year period.

It is also noted that on July 3, 2024, there was a fatal collision approximately 45 metres west of the Queen Street West and Fuller Avenue intersection. The Toronto Police Service reported that a pedestrian was struck crossing Queen Street West, east of Dowling Avenue. The pedestrian was crossing southbound when they were struck by a westbound TTC streetcar. The pedestrian sustained fatal injuries and was pronounced on the scene. Following the fatality, Traffic Operations conducted a detailed safety review at the collision location to ensure there were no deficiencies or safety concerns. Based on the available information, this collision does not appear to be related to the operation of the Queen Street West and Fuller Avenue intersection.

Table 1: Warrant Compliance - Queen Street West and Fuller Avenue

Justification	Compliance level
Minimum vehicular volume	12%
Delay to cross traffic (pedestrians and vehicles)	54%
Collision hazard	13%

To meet the justification criteria for the installation of traffic control signals, one of the justifications must be 100 percent satisfied or both the minimum vehicular volume and delay to cross traffic justifications must be at least 80 percent satisfied. Based on the results in Table 1, the installation of traffic control signals is not justified.

Notwithstanding the numeric warrants not being met, in view of the safety and connectivity concerns in this section of Queen Street West, Transportation Services further considered the installation of traffic signals on Queen Street West and Fuller Avenue for the following reasons:

- the pedestrian generators in the immediate area, including a pharmacy, residential, restaurants and other businesses, that may attract vulnerable pedestrians to cross the street
- the absence of a protected crossing in the vicinity for Albert Crosland Park and Green P Parking Lot patrons
- it will benefit pedestrians on both sides, requiring crossing the four lane cross-section on Queen Street West

In considering the above reasons, Transportation Services recommends the installation of traffic control signals at Queen Street West and Fuller Avenue as it will provide enhanced safety for all road users.

The TTC has been advised of our recommendation and concurs with the installation of traffic control signals at Queen Street West and Fuller Avenue. As Queen Street is considered a Transit Signal Priority corridor, the TTC has requested that the new signal be equipped with transit signal priority.

Other Considerations

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

- The loss of approximately fifteen on-street paid parking spaces within the above-noted segment of Queen Street West. The approximate annual revenue that will be lost from the removal of on-street paid parking spaces is \$36,236.00
- There will be an increase in delays to motorists on Queen Street West as a result of the traffic control signal installation
- There is potential for increase in delays to transit service on Queen Street West as east-west traffic will no longer operate as free-flow

Housekeeping Issues

Transportation Services also detected various inconsistencies in the traffic by-law related to the current signed parking regulations along this corridor. These inconsistencies will be resolved with the approval of Recommendations 3, 4 and 5 of this report.

The Ward Councillor has been advised of the recommendations in this report.

CONTACT

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SIGNATURE



for

Roger Browne, M.A.Sc., P. Eng.
Director, Traffic Management, Transportation Services

ATTACHMENTS

Attachment 1: Environmental Safety Audit - PXO - Queen Street West and Fuller Avenue

Attachment 2: Map - Traffic Control Signals - Queen Street West and Fuller Avenue

Attachment 1: Environmental Safety Audit - PXO - Queen Street West and Fuller Avenue

Standard	Comments	Standard Met/Not Met
Vehicle operating speed less than 60 km/h	The posted speed limit on Queen Street West 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	Queen Street West operates with two lanes in each direction.	Met
Traffic volume not more than 35,000 vehicles per day	Queen Street West carries approximately 13,300 vehicles per day.	Met
No significant volume of turning movements	The volume of traffic turning to/from Queen Street West is moderate (approx. 327 vehicles over busiest eight hours).	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	There are no TTC stops located at this location.	Met
No driveways or entrances nearby	There is a driveway on the south side of this intersection.	Not Met
Spacing is not less than 200 metres to another pedestrian crossover or traffic control signal	Jameson Ave/Lansdowne Ave (TCS) - 150 metres east Sorauren Ave (TCS) - 155 metres west	Not Met

Attachment 2: Map - Traffic Control Signals - Queen Street West and Fuller Avenue

