

Traffic Control Signal Relocation - Sheppard Avenue West and Pewter Road

Date: February 24, 2021

To: North York Community Council

From: Acting Director, Traffic Management, Transportation Services

Wards: Ward 18 - Willowdale

SUMMARY

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

Transportation Services is seeking authorization to install traffic control signals at the intersection of Sheppard Avenue West and Pewter Road. A pedestrian activated traffic control signal was previously approved on Sheppard Avenue West, 30 metres east of Pewter Road (but not yet installed), however, relocation to the subject intersection has been requested to enhance safety and facilitate movement for both pedestrians and motorists in the area. Staff have reviewed the feasibility of the request and have no objections to the relocation of the signal to the subject intersection.

RECOMMENDATIONS

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

1. City Council amend its decision on Item NY11.22 by deleting Part 1 of its decision and replacing it with the following new recommendation:

"1. City Council authorize the installation of traffic control signals at the intersection of Sheppard Avenue West and Pewter Road."

FINANCIAL IMPACT

The estimated cost for installing traffic control signals at the intersection of Sheppard Avenue West and Pewter Road is \$200,000. Funding from the original location will be re-allocated to the subject location.

DECISION HISTORY

At its meeting on December 17 and 18, 2019, City Council adopted Item NY11.22 (entitled "Traffic Control Signals - Sheppard Avenue West") to install pedestrian activated traffic control signals on Sheppard Avenue West at a point approximately 30 metres east of Pewter Road. The report is provided in the following link:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.NY11.22>

COMMENTS

Transportation Services was requested by the Ward Councillor, on behalf of local residents, to investigate the feasibility of relocating a previously approved pedestrian activated traffic control signal recommended to be installed 30 metres east of Pewter Road, to the intersection of Sheppard Avenue West and Pewter Road. The relocation request was to facilitate both pedestrians and motorists at the intersection rather than just pedestrians at the original location.

Existing Conditions

Sheppard Avenue West is characterized by the following conditions:

- It is a four-lane, east-west, major arterial roadway
- It operates two-way traffic on a pavement width of approximately 12.5 metres
- The daily two-way traffic volume is approximately 28,000 vehicles
- The posted regulatory speed limit is 50 km/h
- There is TTC service provided by the 84 Sheppard West and 384 Sheppard West bus routes
- Heavy trucks are permitted at all times
- There are sidewalks located on both sides of the street

Pewter Road is characterized by the following conditions:

- It is a two-lane, north-south local roadway
- It operates two-way traffic on a pavement width of approximately 8.5 metres
- The daily two-way traffic volume is approximately 1,300 vehicles
- The posted regulatory speed limit is 40 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

Sheppard Avenue West and Pewter Road is a "T" intersection. Pewter Road is stop-sign controlled while Sheppard Avenue West is uncontrolled free-flow. To address transient traffic volumes through the community, a staff report in 2008 (Item [NY20.30](#)) and a motion by the Ward Councillor in 2009 (Item [NY25.30](#)) were submitted to City Council for approval of turn-prohibitions at the intersection. As a result, there are left and right-turn prohibitions on Sheppard Avenue West at Pewter Road in effect, between

7:00 a.m. and 10:00 a.m. and 4:00 p.m. to 7:00 p.m., Monday to Friday (bicycles excepted). A left-turn prohibition is also in effect on Pewter Road at Sheppard Avenue West from 4:00 p.m. to 7:00 p.m., Monday to Friday (bicycles excepted) for northbound motorists.

The adjacent land use in this area is primarily residential, with a few commercial establishments.

The section of Sheppard Avenue West, between Senlac Road and Beecroft Road is approximately 790 metres in length. The closest adjacent traffic control signals are approximately 320 metres to the west of Pewter Road at Senlac Road and approximately 470 metres to the east of Pewter Road at Beecroft Road. Between these two signalized intersections, there is no pedestrian crossing protection provided on Sheppard Avenue West.

A map of the area is included in Attachment 1.

Traffic Control Signals

To determine the need for traffic control signals at the intersection of Sheppard Avenue West and Pewter Road, 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 and outlined in the previous report, staff conducted vehicle and pedestrian counts on November 18, 2018 at the subject intersection. 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 October 31, 2019 disclosed one collision at the subject intersection that was potentially preventable by the installation of traffic control signals. No collisions at the intersection involved pedestrians.

Table 1: Warrant Compliance - Sheppard Avenue West and Pewter Road

Justification	Compliance level
Minimum vehicular volume	15%
Delay to cross traffic (pedestrians and vehicles)	22%

Justification	Compliance level
Collision hazard	0%

To meet the 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 Sheppard Avenue West;
- the presence of transit stops in both directions on Sheppard Avenue West that attract pedestrians to cross the street;
- the pedestrian generators in the immediate area, including residential and community health centres, that attract vulnerable pedestrians to cross the street; and
- the four lane cross-section on Sheppard Avenue West, as well as the speed and volume of traffic using this street.

In considering the above environmental factors, Transportation Services recommends the installation of traffic control signals at Sheppard Avenue West and Pewter Road as it will provide enhanced safety for all road users.

Although the previous report had indicated that the only suitable location for traffic signals was 30 metres east of Pewter Road, upon further review with staff from Transportation Services and the TTC, it has been determined that signal installation can be accommodated at the intersection. Considering the above and as a result of conversations with the Ward Councillor, relocation of the previously approved pedestrian activated traffic signal to the intersection is recommended.

The TTC has been consulted on the amendment to the signal location and concurs with these findings. However, the TTC recommends relocating the existing mid-block westbound bus stop, located at 168 Sheppard Avenue West, to the intersection. The eastbound nearside bus stop will remain. Relocating these stops will improve customer safety by providing them with a protected pedestrian crossing, a more reliable service through efficient stop spacing meeting TTC service standards, and optimally placed TTC stop locations to support both the current needs of customers and future development in this area.

Staff recommends the relocation of the previously approved traffic signals on Sheppard Avenue West, 30 metres east of Pewter Road to the "T" intersection of Sheppard Avenue West and Pewter Road. The installation will accommodate both pedestrians and motorists and enhance safety for all road users. Of note, the previously approved signals have not yet been installed.

Please note, driveways to single family homes exist on the north side of Sheppard Avenue West in the vicinity of the intersection. Although the driveway to 156 Sheppard Avenue West will be within the intersection, access and egress from this driveway will remain the same as existing conditions as the driveway movements will not be signalized.

Other Considerations

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

- There is potential for increase in delays to transit service on Sheppard Avenue West as east-west traffic will no longer operate free-flow.
- The existing turn-prohibitions at the intersection will be maintained.

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

CONTACT

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SIGNATURE

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ATTACHMENTS

Attachment 1: Map - Traffic Control Signals - Sheppard Avenue West and Pewter Road

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