

Relocation of Pedestrian Crossover - Willowdale Avenue

Date: May 17, 2019

To: North York Community Council

From: Acting Director, Traffic Management, Transportation Services

Wards: Ward 18 - Willowdale

SUMMARY

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

Transportation Services is requesting approval to relocate the existing pedestrian crossover (PXO) from Willowdale Avenue, immediately north of McKee Avenue to Willowdale Avenue, immediately south of Church Avenue.

Transportation Services is also recommending that the installation of traffic control signals at the intersection Willowdale Avenue at Church Avenue not be authorized as the technical justification for the installation of traffic control signals is not satisfied.

The relocation of pedestrian crossover is based on a number of other factors staff have considered, namely; the pedestrian generators in the area (i.e., school, park and community centre on Church Avenue, west of Willowdale Avenue and high density development on Willowdale Avenue, north of Church Avenue), and the nearby TTC stops. A pedestrian crossover at this location will enhance safety for pedestrians in this area.

RECOMMENDATIONS

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

1. City Council authorize the removal of existing pedestrian crossover from Willowdale Avenue, immediately north of McKee Avenue.
2. City Council authorize the installation of pedestrian crossover on Willowdale Avenue, immediately south of Church Avenue.

3. City Council not authorize the installation of traffic control signals at the intersection of Willowdale Avenue at Church Avenue.

FINANCIAL IMPACT

The estimated cost for removing an existing pedestrian is approximately \$20,000 and the estimated cost for installing a new pedestrian crossover at Willowdale Avenue, immediately south of Church Avenue is approximately \$60,000. This installation would be considered in 2020, subject to the availability of funding and competing priorities.

If, however, North York Community Council decides to not proceed with the relocation of the PXO on Willowdale Avenue at Church Avenue and replace it with traffic control signals, the total estimated cost would be approximately \$180,000.00.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

Transportation Services was requested by Councillor John Filion, on behalf of residents, to review the need for traffic control signals at the intersection of Willowdale Avenue and Church Avenue in conjunction with the removal of the pedestrian crossover (PXO) located on Willowdale Avenue, north of McKee Avenue.

In addition to this request, Toronto Transit Commission (TTC) staff have also requested to relocate the existing pedestrian crossover, 80 metres north to the south side of Church Avenue on Willowdale Avenue, to be closer to their bus stops.

Willowdale Avenue is a two lane, north/south minor arterial street with a regulatory 50 km/h speed limit and a daily traffic volume of approximately 19,000 vehicles. Sidewalks are located on both sides of the street. The TTC 98 Willowdale-Senlac bus operates on Willowdale Avenue. There is a far-side southbound TTC stop and a nearside northbound TTC stop at Church Avenue.

Church Avenue is stop controlled at the intersection of Willowdale Avenue. It is an east/west two-way collector street with a posted speed limit of 40 km/h, between Yonge Street and Willowdale Avenue and a local street with a regulatory speed limit of 50 km/h, east of Willowdale Avenue.

McKee Avenue is an east/west local road that is stop controlled at the intersection with Willowdale Avenue. The existing PXO is located on Willowdale Avenue, on the north side of McKee Avenue, approximately 80 metres to the south of Church Avenue.

Adjacent traffic control signals on Willowdale Avenue are located at Byng Avenue, approximately 305 metres to the north of Church Avenue. In addition, a PXO exists approximately 305 metres to the south of Church Street at Parkview Avenue.

The land use on this section of Willowdale Avenue is primarily residential. McKee Public School is located at 35 Church Avenue, approximately 430 metres west of Willowdale Avenue. Mitchell Field Park and Community Centre are located at the southwest corner of Church Avenue and Dudley Avenue, approximately 215 metres west of Willowdale Avenue.

1. PXO Observance Study

A traffic study was recently completed during the peak four hours of a typical weekday which recorded the number of pedestrians crossing at the existing PXO and how many used the push-button to activate the flashing amber signals. Also, the number of motorists that failed to yield to pedestrians waiting to cross was recorded.

The study revealed that 81 pedestrian crossed within the PXO crosswalk, which consisted of 53 adults, 5 assisted children, 5 unassisted children, and 18 senior citizens. Of these, 73 used the push-button. When the push-button was used, 20 motorists out of 225 failed to yield to allow the pedestrians to cross.

A review of the Toronto Police Service collision records for the three-year period ending December 31, 2018 revealed that no collisions were reported involving a pedestrian at the PXO, or anywhere along Willowdale Avenue, between Norton Avenue and Church Avenue.

As part of the safety review, the sight lines for motorists approaching the PXO were reviewed. It was determined that motorists approaching the PXO have a clear view of pedestrians in the crosswalk. Also, the signs and pavement markings associated with the PXO were reviewed and determined to be in an acceptable condition and the push-buttons and flashing signals were functioning properly.

2. Traffic Control Signal Warrant Review

The results of a traffic count done on February 15, 2018 at the intersection of Willowdale Avenue and Church Avenue were applied against the technical warrants for the installation of traffic control signals. Also, the warrants were evaluated with the pedestrian crossing volume from the intersection of Willowdale Avenue and McKee Avenue since these pedestrians would be diverted to the intersection of Willowdale

Avenue and Church Avenue with the removal of the pedestrian crossover. The warrants are satisfied to the following extent:

Table 1: Traffic Control Signal Warrant and Compliance

Criteria	Willowdale Avenue and Church Avenue	
	Existing	Combined
Warrant 1: Minimum Vehicular Volume	61 percent	61 percent
Warrant 2: Delay to Cross Traffic	48 percent	62 percent
Warrant 3: Collision Hazard	53 percent	53 percent
TCS Warrant?	No	No

To satisfy the installation of traffic control signals, one of either the Minimum Vehicular Volume or Delay to Cross Traffic warrants must be 100 percent satisfied, or both must be satisfied to the extent of 80 percent.

The Collision Hazard warrant is based on the number of collisions susceptible to correction by the installation of traffic control signals, and must be 100 percent satisfied.

A review of Toronto Police Service collision records revealed that in a three-year period ending December 31, 2018, there were eight reported collisions that are considered potentially preventable by traffic control signals at the intersection of Willowdale Avenue and Church Avenue. There were no reported collisions involving a pedestrian.

Based on our study results, traffic control signals are not warranted at the intersection of Willowdale Avenue and Church Avenue. As such, we cannot recommend the installation of traffic control signals at this intersection.

From a technical perspective, the above findings indicate that the numerical warrants for the installation of a traffic control signals are not satisfied at the intersection of Willowdale Avenue and Church Avenue at this time. Nevertheless, Transportation Services considered a number of other non-technical factors in determining whether the existing pedestrian crossover (PXO) on Willowdale Avenue, north of McKee Avenue should be relocated, 80 metres north to the south side of Church Avenue. Following are the reasons:

- The crossing protection will be closer to the TTC stops (both northbound and southbound);
 - The crossing protection will be closer to the front of the school on Church Avenue;
- and

- The crossing protection will be closer to the high density development, north of Church Avenue, that is generating pedestrian crossings at this intersection.

After considering the above, Transportation Services is recommending the removal of pedestrian crossover from Willowdale Avenue, immediately north of McKee Avenue, coincident with the installation of pedestrian crossover on Willowdale Avenue, immediately south of Church Avenue. This crossing protection will enhance overall safety for pedestrians under existing and future conditions.

A PXO will provide minimal delays for pedestrians and motorists and is suitable at the location, as it satisfies the environmental criteria for a PXO.

The Ward Councillor is aware of the recommendation of this staff report.

CONTACT

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SIGNATURE

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Acting Director, Traffic Management, Transportation Services

ATTACHMENTS

Attachment 1: Map - Relocation of Pedestrian Crossover – Willowdale Avenue

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