

Intersection Safety Review - Broadview Avenue and Chester Hill Road

Date: March 23, 2023

To: Toronto and East York Community Council

From: Director, Traffic Management, Transportation Services

Wards: Ward 14, Toronto-Danforth

SUMMARY

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

Toronto and East York Community Council directed Transportation Services to conduct a review of various safety and operational concerns for road users at the intersection of Broadview Avenue and Chester Hill Road. This report provides an overview of the assessments and improvements proposed or undertaken by Transportation Services.

RECOMMENDATIONS

The Director, Traffic Management, Transportation Services recommends that:

1. City Council rescind the existing prohibited pedestrian crossing on Broadview Avenue, between the south curb line of Chester Hill Road and a point 30.5 metres north of the north street line of Chester Hill Road.

FINANCIAL IMPACT

All costs associated with the safety and operational improvements are included in the Transportation Services 2023 Capital Budget.

DECISION HISTORY

On June 29, 2022, Toronto and East York Community Council adopted Item TE34.175 (Intersection Safety Review - Broadview Avenue and Chester Hill Road), directing Transportation Services to undertake an intersection safety review at Broadview Avenue and Chester Hill Road. The Community Council decision can be found at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2022.TE34.175>

COMMENTS

In response to the direction from Toronto and East York Community Council's adoption of the item TE34.175, Transportation Services conducted an intersection safety review and studied operational and safety measures at the intersection of Broadview Avenue and Chester Hill Road.

Existing Conditions

Broadview Avenue is characterized by the following conditions:

- It is a four-lane, north-south, roadway that is classified as a minor arterial
- It operates two-way traffic on a pavement width of approximately 13 metres
- The daily two-way traffic volume is approximately 20,000 vehicles
- The speed limit is 40 km/h
- Heavy trucks are prohibited from 7:00 p.m. of one day to 7:00 a.m. of the next following day
- The TTC service is provided by 8 Broadview, 87 Cosburn and 100 Flemington Park bus routes
- There are sidewalks provided on both sides of the street

The parking regulations on Broadview Avenue in the vicinity of Mortimer Avenue are as follows:

East side

- No parking, from 7:00 a.m. to 9:00 a.m., Monday to Friday, except public holidays
- No stopping, from 4:00 p.m. to 6:00 p.m., Monday to Friday, except public holidays
- Maximum three-hour statutory parking at all other times

West side

- No parking, from 4:00 p.m. to 6:00 p.m., Monday to Friday, except public holidays
- No stopping, from 7:00 a.m. to 9:00 a.m., Monday to Friday, except public holidays
- Maximum three-hour statutory parking at all other times

Chester Hill Road, near Broadview Avenue, is characterized by the following conditions:

- It is a single lane, east-west, roadway that is classified as a local road
- It operates one-way traffic on a pavement width of approximately 8.6 metres
- The daily one-way traffic volume is approximately 800 vehicles
- The speed limit is 30 km/h
- There is a westbound contra-flow bike lane on the north side
- Heavy trucks are prohibited
- There is no TTC service provided
- There are sidewalks on both sides of the street

The parking regulations on Chester Hill Road, between Cambridge Avenue and Broadview Avenue are as follows:

North side

- No stopping anytime, from Cambridge Avenue to Broadview Avenue

South side

- Maximum three-hour statutory parking

The adjacent land use in the vicinity of the intersection of Broadview Avenue and Chester Hill Road, is a mix of commercial and single-family residential properties. Bluebird Montessori daycare is on the east side of the intersection.

A map of the area is included in Attachment 1.

Collision Review

A review of the Toronto Police Service collision records, with specific emphasis for pedestrian, cyclist and Killed or Seriously Injured (KSI) collisions at this intersection for the three-year period ending January 1, 2023 revealed three turning collisions. There were no reported collisions involving a pedestrian or cyclist.

Road Safety Review

Traffic Operations conducted a detailed safety review at the intersection of Broadview Avenue and Chester Hill Road. This review included all aspects of the road's operation. The results are summarized below.

A. Signage

The signage within the study area were generally found to be in good condition, appropriate and clearly visible to road users.

B. Pavement markings

The pavement markings, within the study area were in good condition. These markings, when required, will be refreshed as part of Transportation Services' annual painting program.

C. Sight lines

All sightlines along Broadview Avenue at its intersections with Chester Hill Road and Browning Avenue were reviewed and there were no impediments identified for road users.

D. Sidewalks

Sidewalks on Broadview Avenue and Chester Hill Road, within the study area, were found to be in good condition. All corners of the intersection are equipped with tactile walking surface indicators (TWSI).

E. Street lighting

Street lighting is the responsibility of Toronto Hydro. However, Transportation Services' review did note that there are street lights provided around the intersection of Broadview Avenue and Chester Hill Road.

F. Parking Regulations

A review of the existing parking regulations revealed that they both effectively allow for safe and efficient traffic operations and serve the community and businesses within the study area. These regulations can be categorized as follows:

- Corner parking prohibition to provide unobstructed sightlines at intersections
- No standing anytime near TTC stops to ensure passenger boarding and dismounting is done without any impediments
- No parking anytime within 30.5 metres of the traffic control signals
- Parking and stopping prohibition during peak hours to ensure a smooth flow of traffic

In light of the above, no changes are recommended to the existing parking regulations.

G. Community Safety Zone

A Community Safety Zone is created by designating the frontage of an eligible school within the City as such. The study area cannot be designated a Community Safety Zone as there is no school fronting on Broadview Avenue around the intersection.

H. Signal Hardware and Design

The vehicle and pedestrian signal displays at the intersection were found to be in good condition and clearly visible to intersection users.

There are pedestrian crosswalks on the west and south side of the intersection. Crossing is prohibited on the north side of the intersection. It is recommended to rescind this crossing prohibition and install a crosswalk on the north side of the intersection to improve pedestrian connectivity at this intersection. The implementation of a north leg pedestrian crossing would require the following:

- Curb depressions and TWSIs would have to be installed.
- Traffic pole would have to be relocated to accommodate the new infrastructure.
- The existing southbound stop bar and pavement markings would have to be removed and pushed back to accommodate the north leg crossing.

The intersection is not equipped with Audible Pedestrian Signals (APS). An audible pedestrian signal would assist visually-impaired pedestrians to cross the intersection safely. A request has been submitted to the Traffic Systems Planning, Design and Capital Coordination unit, to add Audible Pedestrian Signals to this intersection.

I. Signal Timings

The signals at this intersection operate with a semi-actuated mode of control, which means the signals remain green for north-south traffic on Broadview Avenue, unless a vehicle is detected on Chester Hill Road and/or a pedestrian pushes the button to cross Broadview Avenue. This is the appropriate mode of control at this intersection, based on the prevailing conditions.

Based on the pedestrian crossing distances, the signal timings provide sufficient time for pedestrians to cross at a comfortable walking speed. No pedestrians were observed having difficulty completing their crossings.

The intersection is also equipped with a leading pedestrian interval feature (LPI). An LPI operates by displaying the "Walk" phase for pedestrians before the green phase for motorists, giving pedestrians a head-start over turning traffic. This type of phasing is beneficial to pedestrians, as motorists are more likely to yield the right-of-way to pedestrians that are already crossing the street, as opposed to pedestrians that are about to begin their crossing.

J. Geometric Safety Improvements

As noted above, the subject intersection is operating satisfactorily, however it is recommended that in order to further improve safety for all roadway users and bringing the intersection design up to current standards; civil construction be programmed into the City's multi-year capital works program. These improvements may include, curb radius/radii reductions, lane narrowing or realignment, etc.

It should be noted that at the time that this report was prepared, there are no capital works planned for the next five years.

Conclusion

Based on staff findings the traffic control signals at the intersection of Broadview Avenue and Chester Hill Road provide a safe and controlled crossing for all road users. However, it is recommended to add pedestrian crosswalks to the north leg of the intersection to improve pedestrian access. It is also recommended to install audible pedestrian signals at this intersection to assist visually-impaired pedestrians.

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

CONTACT

Dan Clement, CET, Manager Traffic Operations (Area 1), Transportation Services
416-397-5021, Dan.Clement@toronto.ca

SIGNATURE

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

ATTACHMENTS

Attachment 1: Map - Intersection Safety Review, Broadview Avenue and Chester Hill Road

Attachment 1: Map - Intersection Safety Review, Broadview Avenue and Chester Hill Road

