

Intersection Safety Review - Broadview Avenue and Mortimer Avenue/Pottery 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 Mortimer Avenue. 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 receive this report for information.

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 TE34.173 (Intersection Safety Review - Broadview and Mortimer), directing Transportation Services to undertake an intersection safety review at Broadview Avenue and Mortimer Avenue. The Community Council decision can be found at:

<https://secure.toronto.ca/council/agenda-item.do?item=2022.TE34.173>

COMMENTS

In response to the direction from Toronto and East York Community Council's adoption of the item TE34.173, Transportation Services conducted an intersection safety review and studied operational and safety measures at the intersection of Broadview Avenue and Mortimer Avenue.

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

Mortimer Avenue is characterized by the following conditions:

- It is a two-lane, east-west, roadway that is classified as a minor arterial road
- It operates two-way traffic on a pavement width of approximately 8.4 metres
- The daily two-way traffic volume is approximately 12,000 vehicles
- The speed limit is 40 km/h
- Heavy trucks are prohibited
- The TTC service is provided by 62 Mortimer bus route
- There are sidewalks provided on both sides of the street

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

North side

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

South side

- No parking anytime
- No stopping, from 4:00 p.m. to 6:00 p.m., Monday to Friday

Pottery Road is characterized by the following conditions:

- It is a two-lane, east-west, roadway that is classified as a minor arterial road
- It operates two-way traffic on a pavement width of approximately 7 metres
- The daily two-way traffic volume is approximately 18,000 vehicles
- The speed limit is 40 km/h
- Heavy trucks are prohibited
- There is no TTC service provided
- There is a multi-use trail, separated from the roadway by a concrete barrier, on the south side

Stopping is prohibited at all times on both sides of Pottery Road in the vicinity of Broadview Avenue.

The adjacent land use in the vicinity of the intersection of Broadview Avenue and Mortimer Avenue/Pottery Road, is a mix of commercial and high-rise buildings, and single-family residential properties.

The closest adjacent traffic controls are located approximately 235 metres to the north at Hillside Drive, and approximately 295 metres to the south at Chester Hill Road in the form of traffic controls signals.

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 was undertaken and revealed a total of 47 collisions. There was one collision involving a cyclist, no pedestrian collisions were reported.

On June 15, 2020 an eastbound vehicle hit a westbound left-turning cyclist. The police report indicated that the cyclist did not use caution when turning.

The results of the review are summarized in Table 1.

Table 1: Collision History (2020 - 2022) at the Intersection of Broadview Avenue and Mortimer Avenue/Pottery Road

Item #	Collision Type	Total
1	Cyclist	1
2	Rear End	21
3	Turning	9
4	Sideswipe	10
5	Unattended Vehicle	2
6	Pedestrian	0
7	Other	4

Road Safety Review

Traffic Operations conducted a detailed safety review at the intersection of Broadview Avenue and Mortimer Avenue/Pottery Road. This review included all aspects of the intersection's operation. The results of this review have been summarized as follows:

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 at the intersection were reviewed and there were no impediments identified for road users. However given the skewed intersection and potential sightline limitations, southbound right-turns-on-red are prohibited.

D. Sidewalks

Sidewalks on Broadview Avenue, Mortimer Avenue, within the study area, were found to be in good condition. All corners of the intersection are equipped with tactile walking surface indicators.

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 Mortimer Avenue/Pottery 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:

- 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 prohibitions during the a.m. and p.m. 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.

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 fixed time mode of control, which means the signals indication changes automatically from the main street to the side street, and back, even if there are no vehicles on the side street and/or no pedestrians wishing to cross the main street. 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 competing their crossings.

A northbound and eastbound left-turn green arrow feature is provided at this intersection. This feature operates during the weekday afternoon peak periods (from 3:00 p.m. to 7:00 p.m., Monday to Friday). This phase does not display every cycle, it is only displayed when there are three or more vehicles waiting in the left-turn queue.

The intersection was also assessed for the installation of a leading pedestrian interval feature (LPI). This feature provides an advanced walk signal so that pedestrians begin to cross the street before vehicles get a green signal. The purpose of LPI is to increase the visibility of pedestrians in the intersection and reinforce their right-of-way over turning vehicles.

It has been determined that, the implementation of a conventional LPI is feasible at all approaches of the intersection. However due to the northbound and eastbound left-turn phases (3:00 p.m. to 7:00 p.m., Monday to Friday), the LPI on the north and west approach would only operate when the left-turn phase is not actuated and operational.

This will improve motorists' yielding behaviour toward pedestrians in a crosswalk.

J. Geometric Safety Improvements

At the time that this report was prepared, there are no capital works planned for the next five years. Although the intersection is currently operating with a satisfactory safety record, consideration would be given through any planned capital work to bring the intersection design up to current standards. Potential improvements could include curb radius/radii reductions, lane narrowing or realignment, etc.

Conclusion

Based on staff findings the traffic control signals at the intersection of Broadview Avenue and Mortimer Avenue/Pottery Road provide a safe and controlled crossing for all road users. Notwithstanding, to improve pedestrian access and safety, Transportation Services will implement Leading Pedestrian Intervals (LPI) and install Audible Pedestrian Signals (APS) at this intersection.

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 - Intersection Safety Review - Broadview Avenue and Mortimer Avenue/Pottery Road

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