

Report to Civic Works Committee

To: Chair and Members
Civic Works Committee

From: Kelly Scherr, P.Eng., MBA, FEC, Deputy City Manager,
Environment & Infrastructure

Subject: Hamilton Road and Highbury Avenue Intersection – Safety
Review

Date: March 21, 2023

Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following report with respect to the Hamilton Road and Highbury Avenue Intersection **BE RECEIVED** for information.

Linkage to the Corporate Strategic Plan

The following report supports the 2019-2023 Strategic Plan through the focus area of Building a Sustainable City, by improving safety for all modes of transportation and building new infrastructure to support future development and to protect the environment.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Civic Works Committee – May 28, 2018 – Hamilton Road and Highbury Avenue Intersection Improvements Environmental Study Report - Notice of Study Completion

2.0 Discussion and Considerations

2.1 Purpose

The following resolution was passed by the City Council at its meeting on November 8, 2022:

That, prior to the end of Q1 of 2023, the Civic Administration BE DIRECTED to report back to the Civic Works Committee with options to advance the timing of improvements to the intersection of Hamilton Road and Highbury Avenue, along with potential measures to reduce the number of severe accidents in the interim; it being noted that the communication, as appended to the Added Agenda, from Councillor M. van Holst, with respect to this matter, was received. (2022-C09) (5.2/14/CWC)

The purpose of this report is to present the findings from the safety review of the Hamilton Road and Highbury Avenue intersection and timing considerations for the future capital project. The report provides recommendations for the interim measures that can assist in improving safety at this location.

2.2 Existing Conditions

The Hamilton Road and Highbury Avenue North intersection is one of the busiest in the City. Based on counts conducted last November, approximately 58,000 vehicles, 350

pedestrians and 16 cyclists travel through this intersection on a typical day. Hamilton Road is classified as a Civic Boulevard with a speed limit of 50 km/hr and Highbury Avenue North is an Urban Thoroughfare with a posted speed of 50 km/hr and 60 km/hr north and south of the intersection respectively. Approximately 500 m south of Hamilton Road, Highbury Avenue North becomes an Expressway with a posted speed limit of 100 km/hr. Some pavement repairs on Highbury Avenue were completed in 2022 on a small section of the southbound curb lane just north of the intersection to address some localized pavement deficiencies. Figure 1 provides a recent aerial photograph of the intersection area.



Figure 1 – Highbury and Hamilton Road Intersection

Poor compliance with regulatory speed limits, heavy traffic volumes during peak hours, the skewed configuration of the intersection, and multiple commercial and residential driveways are all factors which contribute to the number of collisions at this location.

2.3 Environmental Assessment Recommendations

Based on the recommendations of the City's 2030 Smart Moves Transportation Master Plan, an Environmental Assessment (EA) study for improvements to the Hamilton Road and Highbury Avenue North intersection was completed in 2018. The EA recommended improvements consisting of additional through lanes, turning movement improvements and designated left turn lanes into commercial properties. Other proposed design features include median islands, eastbound and westbound cycling lanes, landscaping, urban design elements, new street lighting, and turning movement restrictions at some residential and commercial entrances. During the future detailed design phase, the EA recommendations will be reviewed with consideration to current design standards and practices.

The planned capital project is identified as a Growth project. As such, the timing is established via the current Development Charges Study and Roadways Growth Capital Budget. The reconstruction of the intersection to implement the EA recommendations is currently identified for 2029 with leading-year activity to acquire property and manage utility conflicts. As part of the ongoing Mobility Master Plan and future DC Bylaw

updates, the priority and timing of this project will be reviewed for opportunity to advance within the growth program.

3.0 Safety Review and Recommendations

3.1 Collision Data Review

A statistical review of signalized intersections has been completed which considers historical collision data, normalizing factors and detailed analysis to identify collision prone locations and opportunities for safety improvements. Based on the most recent review, the Highbury Avenue North and Hamilton Road intersection ranked number 24 on the list of 360 signalized intersections.

The Transportation Planning & Design Division has reviewed the collision data and police reports for collisions which occurred at the intersection from January 1, 2017, and September 30, 2022. The collision data shows a recorded total of 231 collisions over the past six years. Of the total number of collisions, 49% were rear-end collisions, 16% sideswipe, 15% turning movement related, 8% angled, and the remaining 11% were a variety of single motor vehicle (SMV) collisions and unknown causes. There were no fatal collisions recorded in the City's database during this period. There were two reported collisions involving pedestrians. There were no reported collisions involving cyclists. There were 20 injuries listed in the collision reports, resulting in an 8.7% injury rate. Of the total, 88 collisions were property damage only and 123 collisions were non-reportable (damage less than \$2000), resulting in 38% and 53% respectively.

The police reports identify driver negligence as being the main factor for many of the collisions. The explanations and statements from the Motor Vehicle Collision Reports associated with the rear-end collisions identify that distracted driving and drivers failing to limit their speeds on approach to the intersection were the main causes of the collisions. The skew angle of the intersection and reduced sight lines also contributed to many rear-end collisions in the channelized right turn lanes. Due to the high traffic volumes and long queues experienced at this intersection, vehicles attempting to turn left into/from adjacent side streets also result in collisions as drivers sometimes leave a gap for them to initiate the turn but end up colliding with through traffic from lack of vision or awareness.

3.2 Recommendations

Based on the collision data, associated collision reports, EA recommendations, and considering the timing of the future major work, the following interim measures can be considered to improve safety at the intersection:

- 1. Speed Limit Revisions:** Reduce the speed limit for the northbound lanes on Highbury Avenue North approaching the intersection to 50 km/hr and provide a transition from 100 km/hr to the 80 km/hour and 60 km/hr speed zones. The necessary By-law for these revisions has been passed and the signing revisions will be completed in the Winter 2023.
- 2. Increased Enforcement:** Notify the London Police Service of the upcoming speed limit changes and request for additional enforcement.
- 3. Pavement Marking Improvements:** Refresh the pavement markings at the intersection including new pedestrian ladder crossings and stop bars. This will increase the drivers awareness and the conspicuity of the crossings.

- 4. Red Light Camera Evaluation:** Evaluate the intersection for a potential red light camera installation. This is currently under review by Traffic Engineering as part of a program review.
- 5. Mobility Master Plan:** As part of the ongoing Mobility Master Plan (MMP) and future DC Bylaw updates, the timing and prioritization of the intersection improvements will be considered within program priorities. A review of the 2018 Environmental Assessment Study recommendations will also be undertaken during the design phase to ensure that the proposed improvements are consistent with current policies and standards.

With regard to traffic signal operations, it is standard practice for the City to review the signal timing for intersections every two to three years or more frequently as issues are raised.

Conclusion

The Hamilton Road and Highbury Avenue intersection is one of the busiest in the city. The high traffic volumes on all intersection approaches, low compliance with speed limits, driver behaviour, distracted driving, and the angled or skewed configuration of the intersection all contribute to the number of collisions experienced at this location. The presence of a large number of commercial and residential entrances within the area contribute to many left-turn collisions. The proposed turning movement restrictions and access management recommendations provided in the EA study will be important to address these issues in the future.

This report identifies interim safety improvement measures that have a potential to reduce the number of collisions. These actions include speed limit adjustments, a request for greater police presence, rejuvenated pavement markings, and potential red light camera installation. The planned work associated with EA recommendations will provide the most significant and effective improvements and will be further reviewed in the design phase. The Mobility Master Plan and Development Charge Study updates will review the current construction timing of 2029 within the growth capital program priorities. The scheduling and financing of advance project preparation actions such as property acquisition will also be confirmed to support project delivery.

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