

Date: May 24, 2023	Originator's files:
To: Chair and Members of General Committee	
From: Geoff Wright, P.Eng, MBA, Commissioner of Transportation and Works	Meeting date: June 7, 2023

Subject

Bloor Street from Central Parkway East to Etobicoke Creek – Integrated Road Project (Wards 3 & 4)

Recommendation

1. That Alternative 6 in Appendix 1 contained in the Corporate Report dated May 24, 2023 from Geoff Wright, Commissioner of Transportation and Works, entitled “Bloor Street from Central Parkway East to Etobicoke Creek – Integrated Road Project (Wards 3 & 4)” be approved; and
2. That all necessary by-laws be enacted.

Executive Summary

- Staff has carried out, with support from its consultant, Arcadis IBI Group, the pre-approved Schedule ‘A+’ requirements of the Municipal Class Environmental Assessment (EA) process for the Bloor Street corridor from Central Parkway East to Etobicoke Creek.
- Through the EA, consultation was undertaken with the public, specific stakeholders, and various government and technical agencies, including four Community Meetings, Road Safety Committee and a separate meeting with the Applewood Hills & Heights Resident Association.
- The preferred design alternative is to improve Bloor Street from Central Parkway East to Etobicoke Creek, by applying Vision Zero principles, including localized intersection improvements, a new signalized pedestrian crossing at Applewood Trail, new in-boulevard cycling facilities, as well as upgrades to transit stops and illumination throughout the corridor.
- The estimated cost to implement Alternative 6 recommended preliminary design is approximately \$27 million and funding requirements will be identified in the 2024 Service Area Capital Plan.

- Subject to Council endorsement, the recommended preliminary design will be posted on the public record through the project website.

Background

The Bloor Street Integrated Road Project started with the need for roadway pavement rehabilitation, which triggered an opportunity to integrate other roadway infrastructure renewal and improvements including road safety (Vision Zero), intersection controls, street lighting, active transportation and transit infrastructure. This project seeks to align all planned renewals and improvements into a single project which is coordinated for the planning, funding, public engagement, design and construction phases. Identified infrastructure improvements are consistent with approved policies such as the City's Vision Zero Action Plan, Transportation Master Plan, Cycling Master Plan, Pedestrian Master Plan and Climate Change Action Plan.

Municipalities in Ontario follow the Municipal Class Environmental Assessment (October 2000, amended 2007, 2011, and 2015) process under the *Environmental Assessment Act* for most transportation, water and wastewater projects. The Municipal Class EA process is a phased planning approach that includes five (5) main study phases and public consultation. The complexity and extent of the environmental impacts of a specific project determines the number of phases to be completed in order to comply with the Class EA process.

Based on the requirements of the Municipal Class EA process, the Bloor Street Integrated Road Project qualifies as a pre-approved Schedule 'A+' project. Due to the high level of interest, staff completed the consultation and engagement requirements for a Schedule 'B' EA Study (Phases 1 to 4), which is above the typical requirements for this level of project complexity. As Integrated Road Projects are pre-approved under the Municipal Class EA process, staff typically would not seek Council endorsement for the preferred solution through a Corporate Report; however, due to the high level of public engagement in this case, staff are seeking endorsement of the recommended preliminary design.

Present Status

City staff has worked with their consultant Arcadis IBI Group to complete Phases 1 to 4 of the EA process for the Bloor Street Integrated Road Project from Central Parkway East to Etobicoke Creek.

The major objectives of this EA Study were to:

- Apply a Vision Zero and Complete Streets approach;
- Determine active transportation requirements (pedestrian and cyclist);
- Address existing and potential road safety issues along the corridor;
- Establish a recommended design concept; and
- Prepare a preliminary design.

Study Area

The Bloor Street Integrated Road Project study area extends from Central Parkway East in the west to Etobicoke Creek in the east, running parallel between Dundas Street and Burnhamthorpe Road (as shown in Figure 1). Bloor Street accommodates four travel lanes (two lanes in each direction), within a built-up urban environment, with a posted speed limit of 50 km/h. There are above-ground hydro lines within the central section (Cawthra Road to Dixie Road). Streetlighting is located on both sides of Bloor Street. There are continuous sidewalks on both sides of the road as well, although no dedicated cycling facilities are in place.

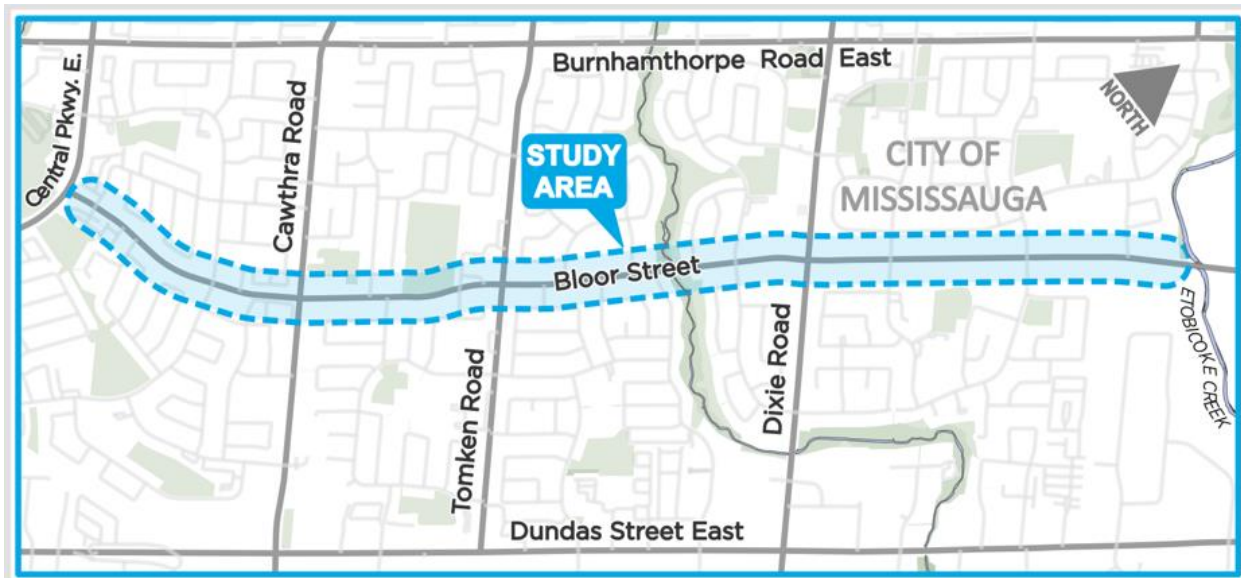


Figure 1: Bloor Street Study Area

The Bloor Street corridor has three character areas based on existing land use and access, which include:

- West Section (Central Parkway East to Cawthra Road) – low density residential, mostly with reverse frontage, with a limited number of direct access points to Bloor Street, including one commercial plaza;
- Central Section (Cawthra Road to Dixie Road) – low density residential and a mix of commercial uses with direct access points to Bloor Street; and
- East Section (Dixie Road to Etobicoke Creek) – high density residential with direct access to Bloor Street via major driveways.

Each character area is outlined in Figure 2.

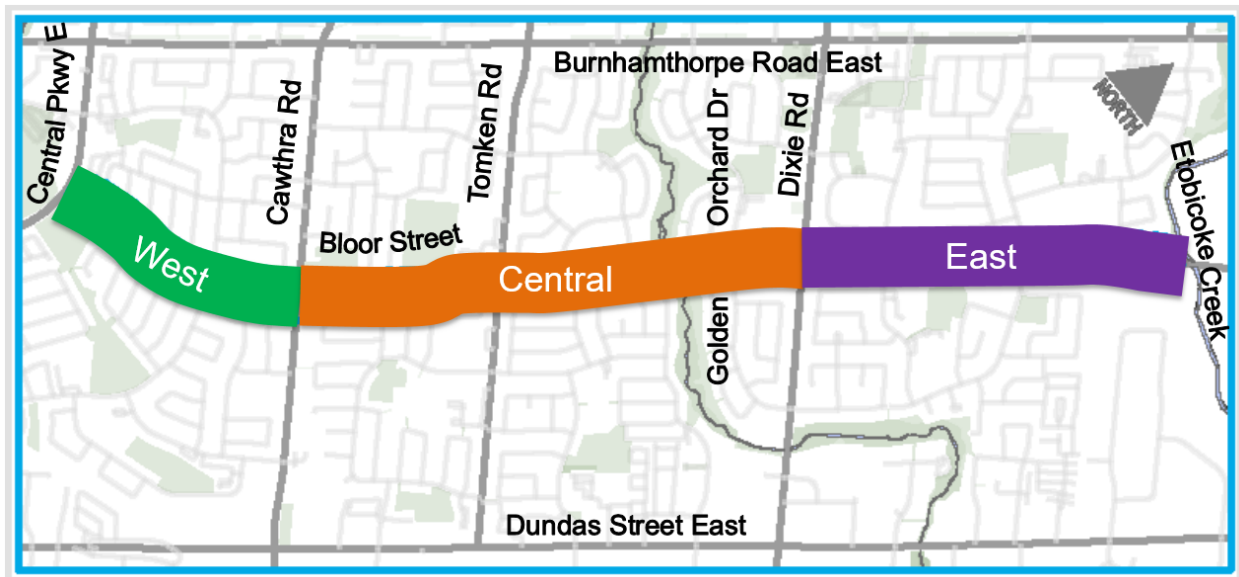


Figure 2: Bloor Street Character Areas

Existing Conditions

Existing conditions within the study area were collected and reviewed, including the following:

- Various background studies and reports (e.g., transportation and safety reports, etc.);
- Data provided by various City Departments (e.g., traffic data, tree survey data, etc.);
- Investigations undertaken as part of this Class EA Study;
- Meetings with the Project Team;
- Meetings and correspondence with agencies including Ministry of the Environment, Conservation and Parks (MECP), Toronto Region Conservation Authority (TRCA) and Region of Peel;
- Consultation with members of the public, Road Safety Committee (RSC), Applewood Hills and Heights Resident Association (AHHRA); and
- Site visits

Comments

Problems and Opportunities

With the need to rehabilitate the pavement and other roadway infrastructure, there is an opportunity to advance a number of the City's master plans and priorities. This includes the accommodation of separate space for our most vulnerable road users, including pedestrians, cyclists and transit users; put another way, a Complete Streets and Vision Zero approach. Improvements to Bloor Street will provide more choices, better connections within and between neighbourhoods, and make it more transit-supportive. By applying a Complete Streets and Vision Zero approach, it will provide choice and comfort to active transportation users and, most importantly, decrease the risk of serious injury or death resulting from road-related collisions.

Evaluation of Alternative Design Concepts

The Class EA process for municipal roads in Ontario requires consideration and evaluation of all reasonable alternative design concepts. Several alternative design concepts were assessed from a safety, infrastructure and operational perspective. While the Do-Nothing scenario was also considered, it is for comparison purposes only; it assumes no changes to the roadway design elements, from now to 2041. The following alternative design concepts were assessed as a potential alternative solution (refer to Figure 3):

Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
In-Boulevard One-Way Cycle Track, adjacent to curb lane (Both Sides)	On-road Separated Bike Lanes (Both sides)	In-Boulevard Two-Way Cycle Track, adjacent to curb lane (North Side Only)	In-Boulevard Two-Way Cycle Track, adjacent to curb lane (South Side Only)	In-Boulevard One-Way Cycle Track, adjacent to Sidewalk (Both Sides)	In-Boulevard One-Way Cycle Track, adjacent to curb lane (Both Sides)

Notes:

1. All Alternatives include sidewalks (both sides).
2. All Alternatives includes 4 travel lanes, except for Alternatives 2 and 6 (2 travel lanes).
3. All Alternatives include transit stops improvements, street lighting upgrades, pedestrian countdown timers, reduced lane widths, and accessibility improvements.

Figure 3: Alternative Design Concepts

Alternative design concepts were evaluated based on the following criteria:

- Traffic & Transit Operations;
- Vehicle & Cycling Separation;
- Walking & Cycling Facilities;
- Walking & Cycling Capacity;
- Trees within Boulevard;
- Hydro Pole Impacts; and
- Maintenance Impacts

During the course of the study, Alternatives 1 – 4 were reviewed and screened-out. Based on the analysis, evaluation and feedback received from the public and stakeholders, Alternative 6 (Figure 4) represents the recommended solution which meets the objectives of the City, as they incorporate Vision Zero principles, consistent with the approved Cycling Master Plan and accommodate future travel demand.

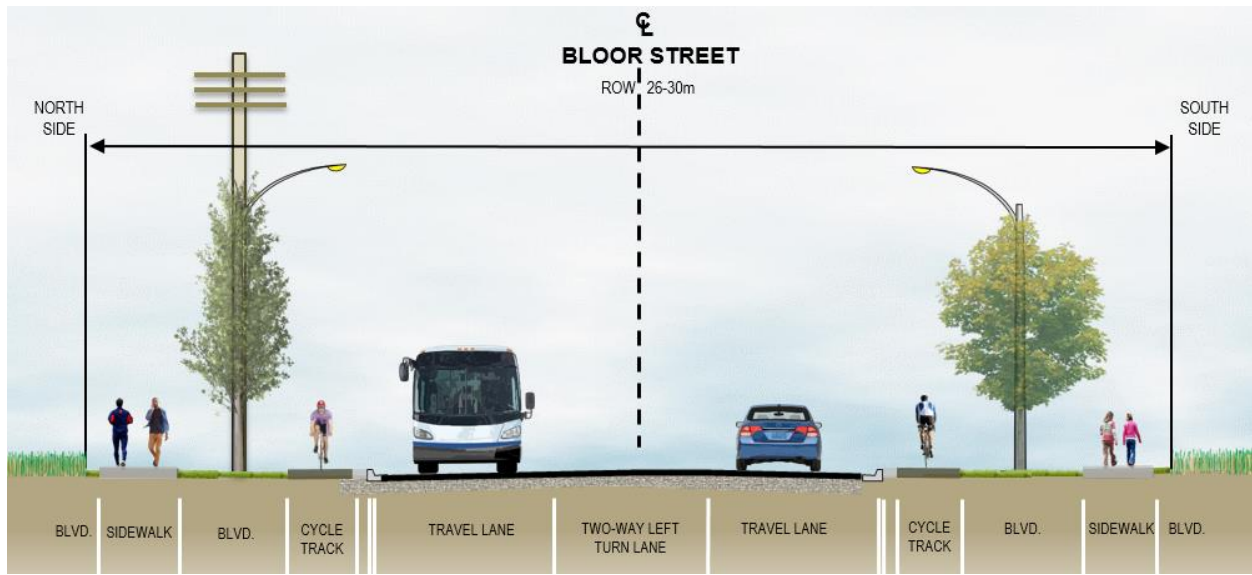


Figure 4: Alternative 6 (One-Way Cycle Track adjacent to Curb)

Alternative 6 is being recommended as it best addresses the problems and opportunities by:

- Supporting the Vision Zero Action Plan which prioritizes the safety of vulnerable users through road design, including network connectivity and access;
- Reducing average vehicular speeds throughout the corridor by narrowing lane widths;
- Providing dedicated and continuous active transportation facilities for pedestrians and cyclists, with improvements to safety and comfort;
- Maximizing boulevard tree planting and streetscaping opportunities throughout the Bloor Street corridor (on both sides of the road); and
- Accommodating snow storage adjacent to the cycle track and recycling/waste pick-up.

Elements of Recommended Design Concept Alternative 6 include:

- Two travel lanes with a continuous Two-Way Left-Turn Lane (TWLTL) within the Bloor Street study area;
- In-boulevard cycle tracks (adjacent to the splash pad behind the curb) and widened sidewalks on both sides of the road;
- New signalized pedestrian crossing at Little Etobicoke Creek/Applewood Trail;
- New signalized intersection at 1750/1759 Bloor Street and removal of signalized pedestrian crossing at 1750 Bloor Street.
- Localized intersection improvements throughout the study corridor;
- Intersection treatments such as cross-rides will be provided at all signalized and un-signalized intersections, as well as protected intersections at select locations (to be confirmed during detailed design);
- Upgraded and new transit stops, including bus pads, to be coordinated with MiWay during detailed design;

- Posted speed to be maintained at 50 km/h; and
- Intersection design compliance with Accessibility for Ontarians with Disabilities Act (AODA).

Recommended Alternative 6 Cross-Section

The typical cross-section for the Recommended Design Concept (Alternative 6) is illustrated in Figure 4. The cross-section was developed based on a 50 km/h posted speed limit. The features provided in the typical cross-section include the following:

- A right-of-way ranging from 26 metres (Central Parkway East to Dixie Road) to 30 metres (Dixie Road to Etobicoke Creek) in width;
- Two 3.5 metre wide curbside through-lanes;
- 3.5 metre continuous Two-Way Left-Turn Lane (TWLTL) to facilitate turning vehicles;
- 1.5 metre wide cycle track + 0.75 metre wide splash pad (both sides);
- 1.8 metre wide sidewalk (both sides); and
- 3.2 metre wide boulevard (where space permits) on both sides to accommodate trees.

In areas where available space within the right-of-way is constrained, the cross-section has been modified to avoid impacts to private property.

Sensitivity Analysis (4-lane to 3-lane conversion)

The Project Team undertook a sensitivity analysis to assess the potential impacts of such a conversion along Bloor Street. As an industry best practice, roads with traffic volumes of less than 20,000 vehicles per day are good candidates for a 4-lane to 3-lane conversion. In the case of Bloor Street, both existing and future (2041) traffic volumes are less than 20,000 vehicles per day. By implementing this lane conversion, average vehicular speeds would be reduced and additional boulevard space would be created for trees and other uses.

The sensitivity analysis concluded that approximately 66% (2/3) of vehicles using Bloor Street during the AM and PM peak hours do not originate from or are destined to locations within the Bloor Street corridor within the study area. This indicates that the majority of existing traffic using Bloor Street is related to longer distance trips and not local residents. By implementing a 4-lane to 3-lane conversion on Bloor Street, the majority of the longer distance trips will divert to Burnhamthorpe Road and Rathburn Road, and to a lesser extent Dundas Street. From a north-south perspective, the majority of trips will be diverted to Mill Road (within Toronto) and to Cawthra Road (within Mississauga). While some increase in congestion is expected along Burnhamthorpe Road during the peak periods, both Bloor Street and the surrounding road network will continue to operate at an acceptable Level-of-Service (LOS).

Driveway Operations and Treatments

Within the Bloor Street corridor, Bloor Central (Cawthra Road to Dixie Road) includes the highest number and density of driveways. By implementing Alternative 6, this stretch of road will benefit the most, as the addition of a two-way left-turn lane will allow property owners with

direct frontage to more safely and more comfortably make left turns into and out of their residential driveway.

Presently, while making a left turn from Bloor Street to a residential driveway, the driver must cross two lanes of traffic, in many cases stopping in the live lane in order to wait for an adequate gap in traffic to complete their turn. With a two-way left-turn lane, the driver would be able to move their vehicle out of the live lane of traffic while making their left turn into their driveway.

Similarly, while making a left turn from a residential driveway to Bloor Street, the left turn must cross two lanes of traffic upon finding an adequate gap in traffic. By providing a two-way left-turn lane, drivers will only have one lane of traffic to cross while also having the option to two-stage their turn out of driveways if required. This movement is illustrated in Figure 5 (below).

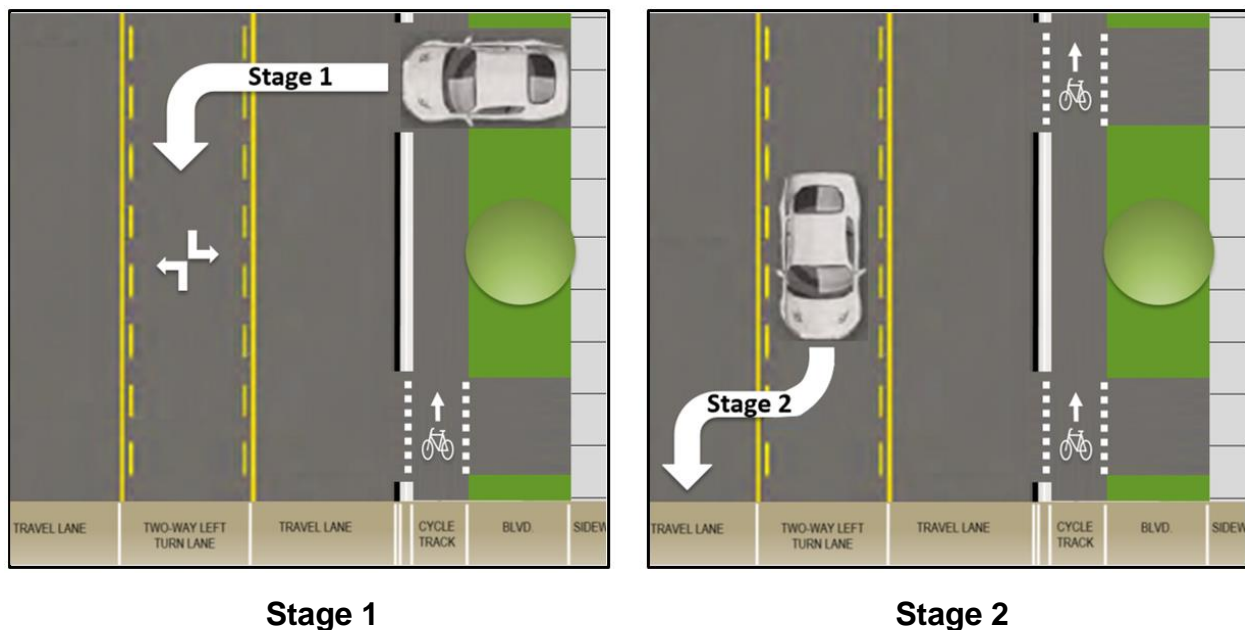


Figure 5: Two-Stage Operations (Exiting Driveway)

At the detailed design stage, the appropriate pavement markings and/or signage will be determined, such as to notify pedestrians, cyclists and vehicular traffic that a driveway exists and for all users to be alert of intersecting facilities (i.e. cycle track intersecting with driveway).

Strategic Plan

The Vision Zero Action Plan supports all of the City's Strategic Pillars for Change. Investments in road safety and protecting the most vulnerable on our roadways helps improve access and provides more options for residents to move around for any purpose, which supports the *Move*, *Belong* and *Connect* pillars. Residents and businesses want to locate in places where they feel safe or they know their staff have safe options for getting to work, which ties closely to the *Prosper* pillar. Finally, safety can be a barrier for some to choose active modes of travel. By

improving safety on Mississauga roads, people will be encouraged to choose more sustainable options. This supports the *Green* pillar in the Strategic Plan.

Engagement and Consultation

Public consultation is a key feature of an EA planning process and therefore was a principal component of the Bloor Street (Central Parkway East to Etobicoke Creek) – Integrated Road Project. Key features of the consultation program undertaken as part of this study included:

- Community Meeting mail-outs, including postcards to more than 9,100 local property owners, as well as notifications to technical agencies;
- Community Meeting #1 held virtually on June 23, 2021 to July 14, 2021;
- Community Meeting #2 held virtually on October 27, 2021 to November 19, 2021;
- Community Meeting #3 held virtually on March 9, 2022 to April 1, 2022;
- Community Meeting #4 held in-person on November 29, 2022;
- Portable message signs were used to advertise each Community Meeting, as well as Mississauga News and Max TV Media for Community Meeting #3 and #4;
- Technical Agency Committee (TAC) virtual meetings held with technical agencies including Region of Peel and Toronto Region Conservation Authority were held on June 17, 2021, October 12, 2021 and February 23, 2022; and
- Individual property owner meetings were held, including in-person with the Applewood Hills and Heights Resident Association on March, 31, 2022.

City Council received two petitions from the Applewood Hills & Heights Resident Association, in December 2021 and September 2022. The petitions were from residents within and adjacent to Bloor Central (Cawthra Road to Dixie Road), in opposition to any new or dedicated cycling infrastructure. This is not consistent with the City's approved Vision Zero Action Plan, Cycling Master Plan or Complete Streets approach.

Subject to Council endorsement, the preliminary design will be published on the project website (Mississauga.ca/bloorstreet) and residents/stakeholders who attended previous engagements or meetings with the Project Team will be notified via email.

Implementation

It is recommended that the preliminary design along Bloor Street be constructed in coordination with the Region of Peel to minimize the impact to surrounding residents. The necessary funding to initiate the detailed engineering design and construction will be identified in the Service Area's 10-Year Capital Program forecast and will be included in the 2024 Service Area Capital Plan for Council's consideration and approval.

Property Requirements

The majority of recommended Alternative 6 improvements are expected to be accommodated within the existing Bloor Street right-of-way. For those locations that are unable to

accommodate an improvement, as identified during the detailed design phase, staff will make best efforts to minimize and/or eliminate the impact. There may be instances in which the City may need to seek an easement with the individual property owner. These will be reviewed on a case-by-case basis and will be subject to Council approval for the authority to negotiate and complete and/or for funding.

Next Steps

Should the recommended design concept and preliminary design be endorsed by Council, this project will be deemed approved to proceed to detailed design and to construction (subject to subsequent budget approval) and the preliminary design will be posted on the project website (Mississauga.ca/bloorstreet).

Financial Impact

There are no financial impacts resulting from the adoption of the recommendations in this report.

The estimated cost to implement the preferred Alternative 6 preliminary design in Appendix 1 is approximately \$27 million and is currently unfunded. The associated budget requests will be identified in the 2024 Service Area Capital Plan.

Conclusion

Staff recommends that the Alternative 6 preliminary design for Bloor Street from Central Parkway East to Etobicoke Creek be endorsed by Council and that staff publish the preliminary design on the project website. The preferred design includes two travel lanes, a continuous two-way left-turn lane, intersection and active transportation improvements, transit improvements and other elements as outlined in this report.

Attachments

Appendix 1: Bloor Street Alternative 6 Preliminary Design



Geoff Wright, P.Eng, MBA, Commissioner of Transportation and Works

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