Staff Memorandum

To	Mayor A. Nuttall and Members of Council
Subject	Bayfield Street Transportation Improvements – Municipal Class Environmental Assessment
Date	October 1, 2025
Ward	2, 3 and 4
From	M. Banfield, RPP, Executive Director of Development Services
Executive Member Approval	M. Banfield, RPP, Executive Director of Development Services
CAO Approval	M. Prowse, Chief Administrative Officer

The purpose of the memorandum is to provide Members of Council with an update on the Bayfield Street Transportation Improvements Municipal Class Environmental Assessment (Class EA) Study. The Class EA study is being completed in coordination with the Ministry of Transportation of Ontario's (MTO) Bayfield Street interchange replacement project. Final study recommendations and the Environmental Study Report (ESR) will be submitted to Council in early 2026.

Bayfield Street is one of the City's most important corridors. Improving traffic capacity, road safety, and active transportation infrastructure in step with the MTO's interchange replacement will ensure the corridor can safely and efficiently serve residents, businesses, and visitors as the City continues to grow.

Background

The Bayfield Street interchange crossing structure is nearing the end of its service life and is the last interchange within the City requiring replacement to accommodate the future ten-lane widening of Highway 400 with the Dunlop Street interchange under construction. The MTO is advancing detailed design to replace the interchange which will include widening Bayfield Street to six-lanes with a raised median, a new bridge structure, ramps and active transportation facilities. The MTO project limits are from Grove Street to Coulter Street.

To complement the MTO's work, the City initiated a Class EA in late 2023 to identify transportation improvements to support both interchange traffic operations as well as growth within the City.

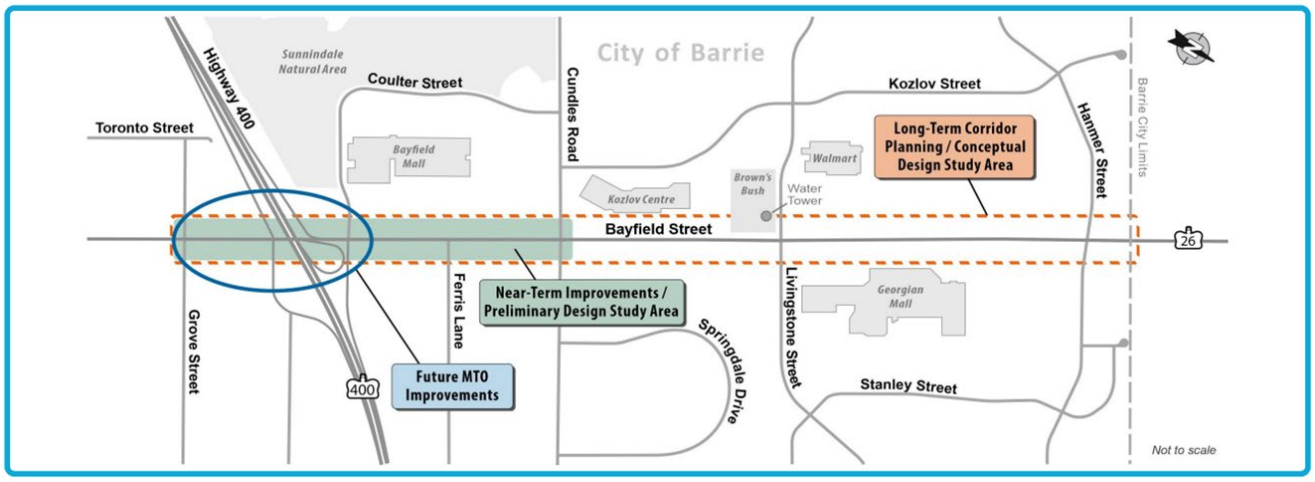
A drawing illustrating the MTO's project is included in Appendix A.

Study Area

The City's study area extends from Grove Street to Hanmer Street. Key objectives are:

- Grove Street to Coulter Street (MTO project limits): Identify active transportation improvements for inclusion with MTO's project.
- Coulter Street to Cundles Road (City project limits / primary focus): Plan multi-modal improvements to address traffic capacity, road safety, and improve infrastructure for pedestrians, cyclists and transit users.
- Cundles Road to Hanmer Street: Identify longer-term active transportation improvements.
- Grove Street to Hanmer Street: Consider long-range opportunities for a fully multi-modal corridor in line with the City's Official Plan.

The following key plan map illustrates the study area limits and study area components.



Work Completed to Date

The project team has completed supporting studies including traffic, safety, and environmental studies and advanced through three phases of the Class EA process. Key tasks completed include:

- Analysis of existing traffic operations, collisions, and access patterns.
- Development and evaluation of planning solutions and design options.
- Consultation with residents, businesses, and property owners through three Public Information Centres (PICs).

The study is now in Phase 4: documenting findings and preparing the Environmental Study Report.

A diagram of the Class EA process is included in Appendix B.

Public Consultation

Three PICs were held between March 2024 and May 2025, providing opportunities to review existing issues, planning alternatives, and design concepts. Input was also collected online at www.buildingbarrie.ca/bayfieldstudy and through direct meetings with affected property owners.

Feedback highlighted the need to:

- Improve traffic capacity.
- Address road safety on the corridor including collision attributed to turning movements to and from uncontrolled driveways.
- Enhance pedestrian, cycling, and transit infrastructure.

Businesses acknowledged the need for improvements but raised concerns about property impacts, proposed access changes, and construction disruption.

Key Issues Identified

1. Traffic Capacity: Bayfield Street lacks sufficient traffic capacity to meet current and future travel demand.
2. Safety: Frequent, closely spaced driveways permitting full turning movements create a high number of turning conflicts, resulting in a hazardous environment for all road users. More than 1,000 collisions have been reported on Bayfield Street between Grove Street and Hanmer Street over the past five years.
3. Active Transportation: Sidewalks are narrow and immediately adjacent to traffic lanes, with no cycling infrastructure and limited space for transit stop infrastructure.

Preferred Design (Subject to Council Direction)

- Grove Street to Coulter Street (MTO project): Add cycle tracks to MTO's planned six-lane Bayfield Street cross-section and add a new pedestrian/cyclist connection where Rose Street access will be terminated to provide connectivity to Bayfield Street. MTO's project includes a raised median.
- Coulter Street to Cundles Road (City project): Widen to six-lanes with a raised median, wider boulevards, separated cycle tracks, and improved sidewalks. These improvements will tie into MTO's planned widening of Bayfield and will result in a continuous six-lane cross-section extending from the Bayfield Street interchange to the City's northern boundary. The preferred design also identifies minor improvements at the Grove Street intersection to support new residential development.

The preferred design represents an implementable solution that mitigates impacts to property owners and businesses to the greatest extent possible based on the current corridor context and land use.

As a medium-term recommendation, the study is recommending that the City implement a multi-use path from Cundles Road to Hanmer Street. For long-term improvements, the City is presently protecting additional right-of-way space to allow for future corridor enhancements should substantial redevelopment occur. This additional space would create balance in the corridor with more of the right-of-way being dedicated to non-auto modes and providing space to implement a fulsome streetscape that aligns with future mixed land uses.

Display panels from the third PIC illustrating the preferred design and cross-section are included in Appendix C.

Preferred Design – Primary Changes / Impacts & Mitigations

- Traffic Capacity & Active Transportation: Additional lane per direction and active transportation facilities requires property acquisition. Property requirements have been minimized through narrower lane widths, narrower active transportation facility widths and eliminating boulevard landscaping/streetscaping.

- Road Safety & Access Management: A raised median will restrict left-in and left-out turning movements from uncontrolled driveways, reducing conflict points and improving safety. Utilization of U-turns at controlled intersections and route detours are available options that provide access to all properties.

Display panels from the third PIC outlining the rationale for the median, benefits, and alternate access routes are included in Appendix D.

Public Feedback

- Support from the public on the preferred design addressing traffic capacity, road safety/access management (raised median), and transit/pedestrian/cycling needs.

- Some concerns from the public on the preferred design due to lack of streetscaping and the auto focused nature of the design.

- Concerns from businesses on the preferred design regarding property impacts, driveway access restrictions, and disruption from construction.

- One-on-one meetings were offered to all directly affected property owners; four participated in May 2025.

Next Steps

- Complete the Environmental Study Report in Q4 2025.

- Present study recommendations in Q1 2026 for Council consideration.

- If approved by Council, advance to detailed design in 2026.

- Construction will be coordinated to follow MTO's interchange replacement.

Appendix:

Appendix A – MTO Bayfield Street Interchange Replacement Drawing
Appendix B – Municipal Class EA Planning and Design Process
Appendix C – PIC 3 Display Panels for Preferred Design & Cross-Section
Appendix D – PIC 3 Display Panels for Access Management Changes via Raised Median

Memo Author:

Brett Gratrix, P. Eng., Senior Project Manager - Transportation, Development Services

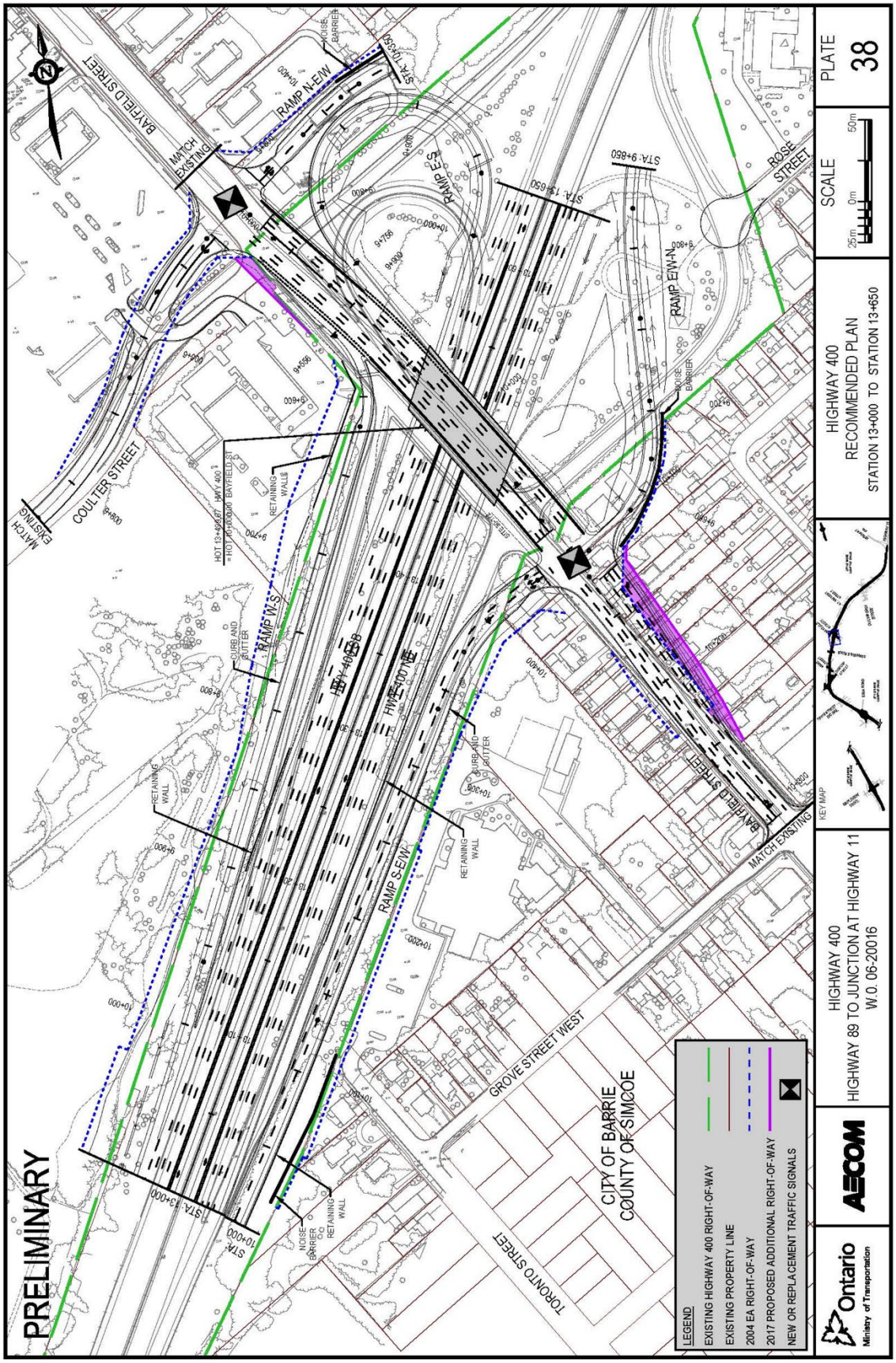
File #:

Not Applicable

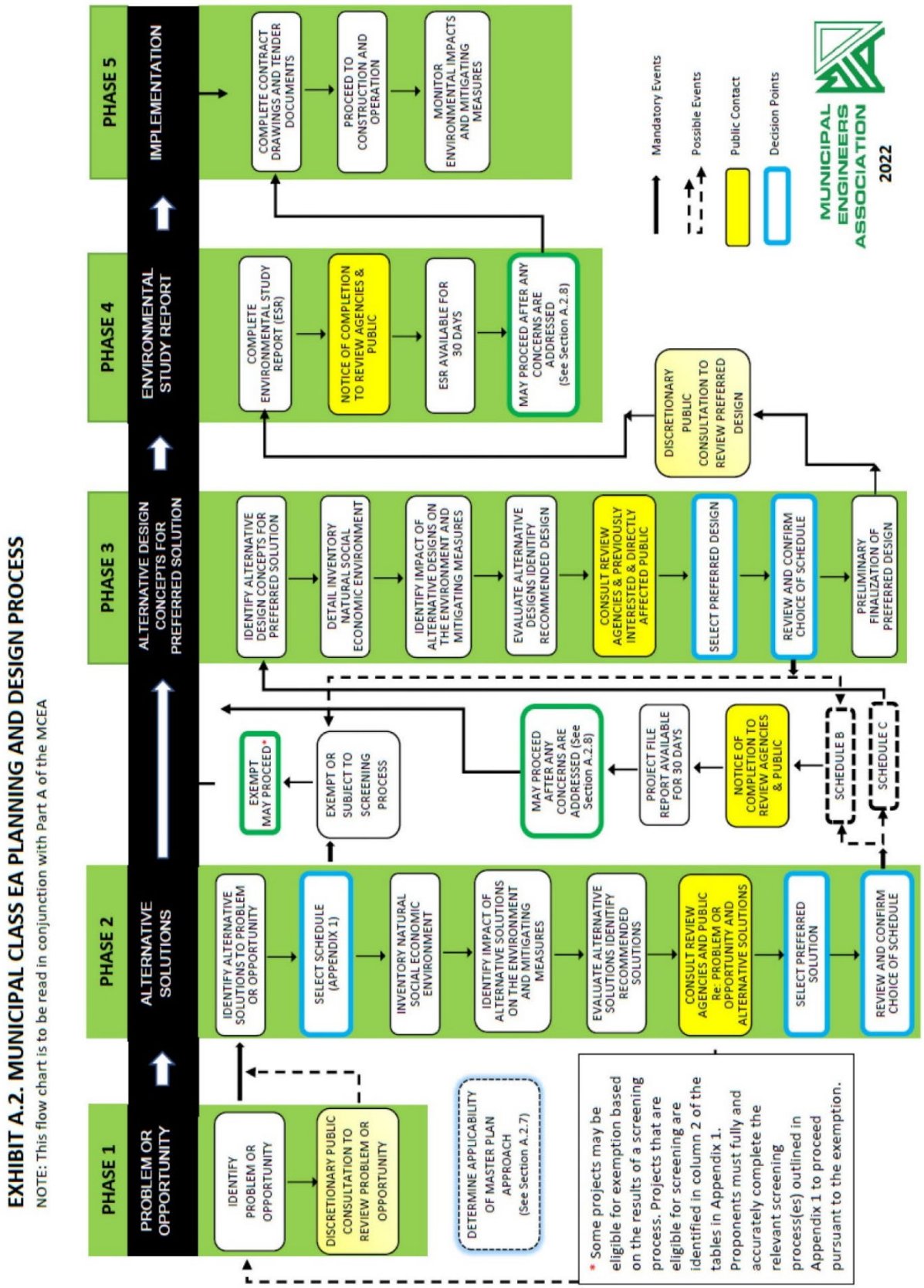
Pending #:

Not Applicable

Appendix A – MTO Bayfield Street Interchange Replacement Drawing



Appendix B – Municipal Class EA Planning and Design Process



Preferred Design Solution

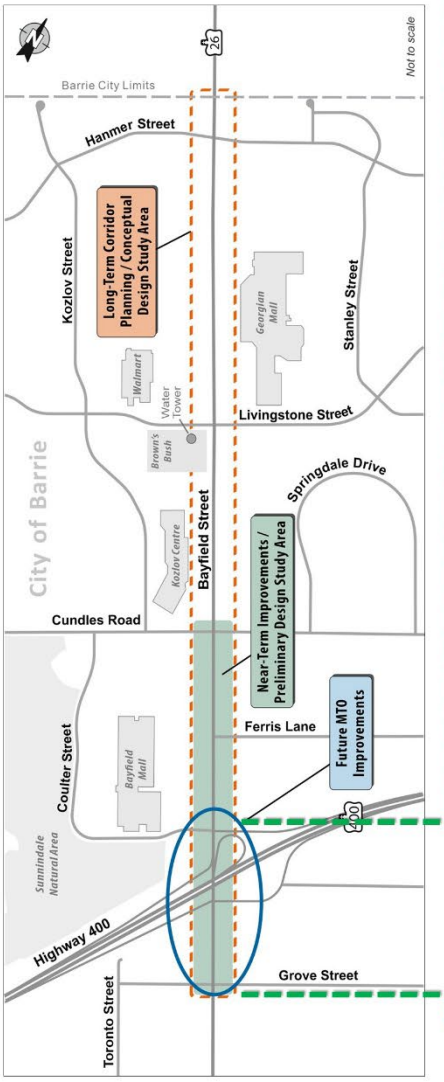
Grove Street to Coulter Street – Study Recommendation for Cycling Infrastructure with MTO Project

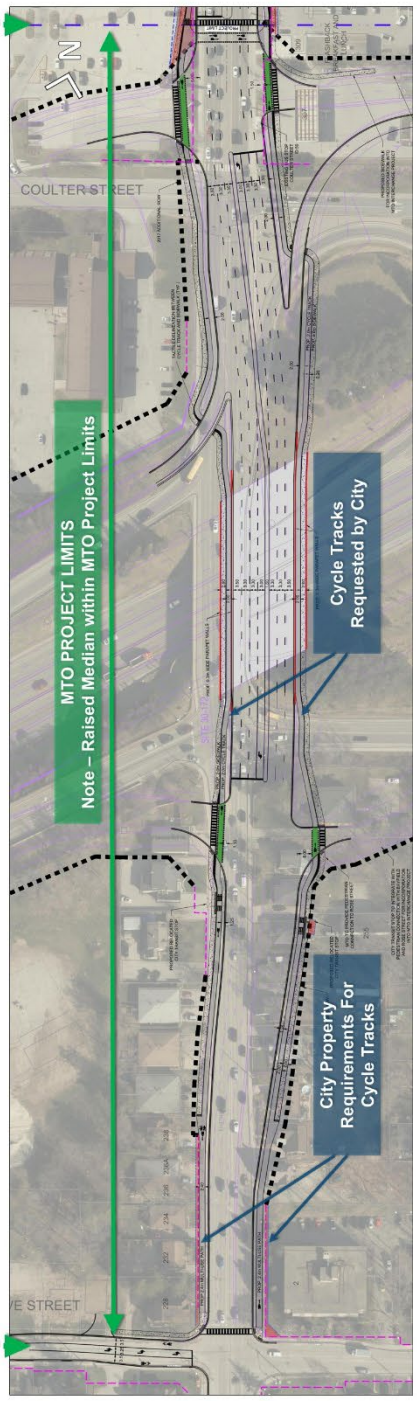
Bayfield Street Transportation Improvements

GROVE STREET TO COULTER STREET INCLUDING A NEW BRIDGE AND INTERCHANGE RAMPS

The **Ministry of Transportation (MTO)** will be undertaking the widening of Bayfield Street from 4-lanes to 6-lanes and construction of a new bridge and interchange ramps. The City's study specifically examined active transportation improvements on this segment of Bayfield Street. The City's study is recommending the inclusion of cycle tracks. This study has identified the need for limited property acquisitions on Bayfield Street near Grove Street. The City is responsible to acquire this property to facilitate implementation of cycling tracks by the MTO. MTO is assessing the request to include cycling facilities.

- **MTO'S PROJECT IS A SEPARATE PROJECT**
- **THE MTO PLANNING STUDY WAS COMPLETED IN 2017**
- **THE MTO IS INITIATING DETAILED DESIGN THIS YEAR**



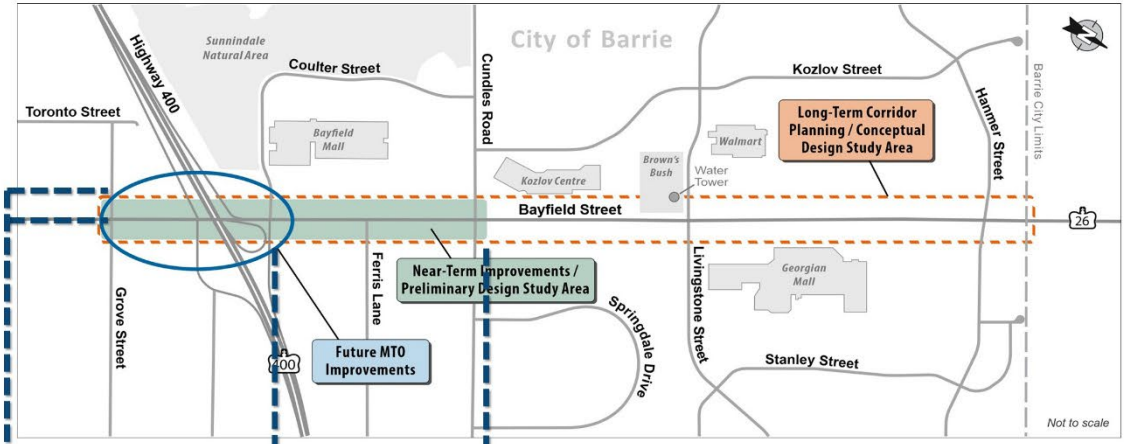


This drawing illustrates the City's concept for the inclusion of cycling facilities as part of MTO's design concept contained in the completed 2017 MTO planning study.

Preferred Design Solution

Coulter Street to Cundles Road & Portion of Grove Street

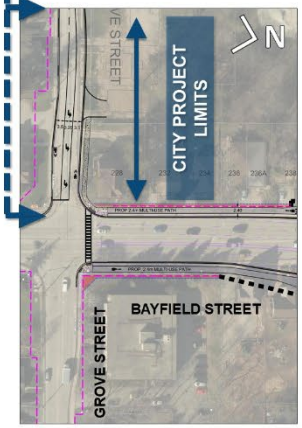
Bayfield Street Transportation Improvements

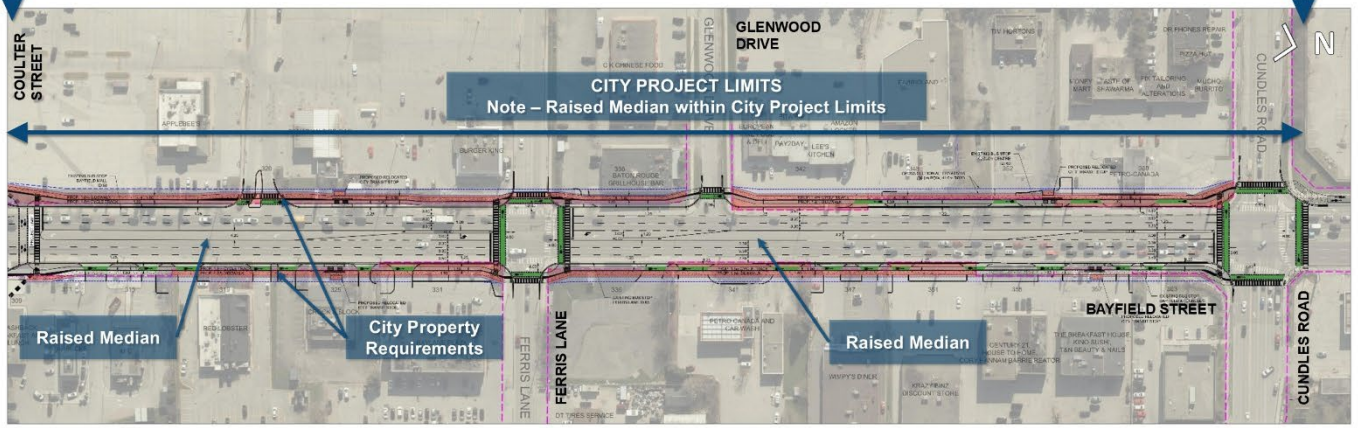


COULTER STREET TO CUNDLES ROAD

The Preferred Design Solution includes widening of Bayfield Street from 4-lanes to 6-lanes, new cycle tracks, wider sidewalks and a raised median. There are also planned improvements at the Grove Street intersection to be included with this project. This project provides the necessary 6-lanes to tie-in to MTO's improvements.

This is the City's project and is separate from the MTO's project. Subject to Council and budget approval, the City will commence detailed design in 2026 with implementation planned to follow the completion of the MTO's project.






Sidewalk
Cycle Track
Buffer
Common Lane
Common Lane
Common Lane
Median
Common Lane
Common Lane
Common Lane
Buffer
Cycle Track
Sidewalk

Preferred Design Solution

Raised Median - Improved Safety Through Access Management

Bayfield Street Transportation Improvements

Unpredictable Access. Higher Risks. Growing Frustration.

- The high number of uncontrolled driveways is resulting in more collisions, more congestion and an unpredictable driving experience.
- The current roadway configuration encourages unsafe turning movements into and out of businesses that are contributing to serious collisions, traffic delays and frequent traffic disruptions.
- There have been 100 mid-block collisions on Bayfield Street, between Grove Street and Hamner Street, over the past 5 years that could have been prevented. Collision rates and severity will increase without changes to access management.
- A travel time increase of as little as 10% can decrease market area by 19% (negatively impacting businesses)[3].

3 – National Cooperative Highway Research Program – NCHRP 1032

Safe Access. Strong Businesses. Safer Community.

- Better access management means safer roads, smoother traffic, and a stronger, more vibrant business environment.
- Before and after studies indicate that 80% of businesses experience either no impact or a positive impact when a median is installed[4].
- A raised median is essential to ensure safety, manage access, and support smooth, predictable traffic flow.
- Safe, orderly and predictable traffic flow is good for both residents and businesses.

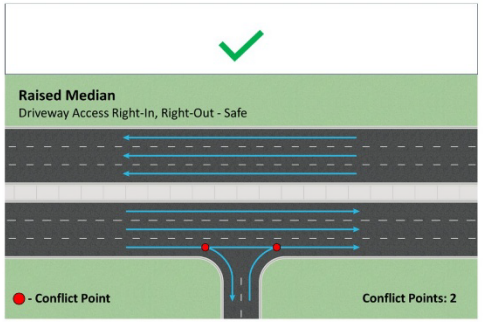
4 - FHWA (via NCHRP): *Safe Access is Good for Business* brochure. Based on reported sales. 53% same, 33% increased, 9% uncertain, 5% decreased.

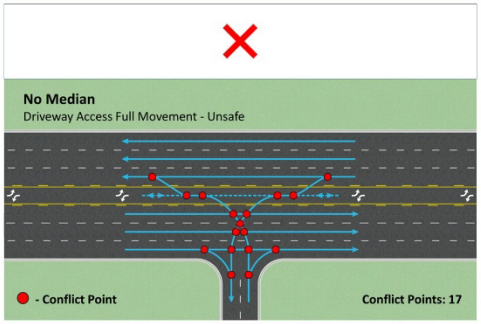
	With Raised Median	Without Raised Median
Road Safety	85% fewer conflict points, elimination of 71% of collisions associated with driveway turning movements[1] and 39% fewer collisions overall[2]	High crash risk including severe head-on and angle collisions
Traffic Flow	Smoother, more predictable traffic flow	Unpredictable traffic flow; frequent slowdowns and sudden stops
Pedestrian & Cyclist Safety	Safer driveways crossings, reduced turning vehicle conflicts	Higher risk for pedestrians and cyclists at crossings
Business Access	Controlled, clear access	Uncontrolled turns make access confusing and less safe for customers
Long-term Corridor Health	Corridor traffic operations are predictable with much fewer collisions and less traffic disruptions, corridor is better suited to support growth	Corridor traffic operations will worsen with increased collision frequency and poor traffic flow; customers may start to avoid the corridor, impacts growth

1 – FHWA - Access Management in the Vicinity of Intersections - FHWA-SA-10-002 , 2 – CMF Crash Modification Factors Clearinghouse – CMF ID:3034

Conflict points are locations where traffic have the potential to collide or interfere with each other.

More conflict points = higher collision instances, reduced safety and more congestion





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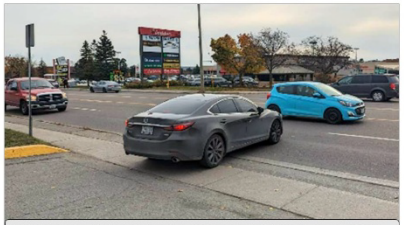
Preferred Design Solution

Raised Median Technical Justification

What are the key metrics used to determine if a median is required?

Justification		Bayfield Street	Rationale
High Traffic Volume	☑	Traffic volumes on Bayfield Street have been recorded as high as 50,000 vehicles per day.	High traffic volumes on urban arterial roads are typically defined as 20,000 vehicles per day. High traffic volumes increase turning conflicts and reduces gaps for safe left turns.
Six-Lane Configuration	☑	Bayfield Street is being proposed to be widened to six-lanes.	A six-lane configuration increases the number of conflict points and left-turns become more challenging.
Closely Spaced Driveways	☑	Bayfield Street has numerous closely spaced driveways.	Closely spaced driveways increases conflict points and create overlapping turning movements.
Mid-block Collision History	☑	Bayfield Street has a history of mid-block collisions.	Mid-block collisions indicate conditions that require access management to improve safety.
Active Transportation Infrastructure	☑	Bayfield Street is being proposed to include cycling infrastructure.	Cycling infrastructure requires access management to improve safety. Reducing conflict points help drivers make safe and predictable turning movements. Left-turns by drivers are hazardous for pedestrians and cyclists.



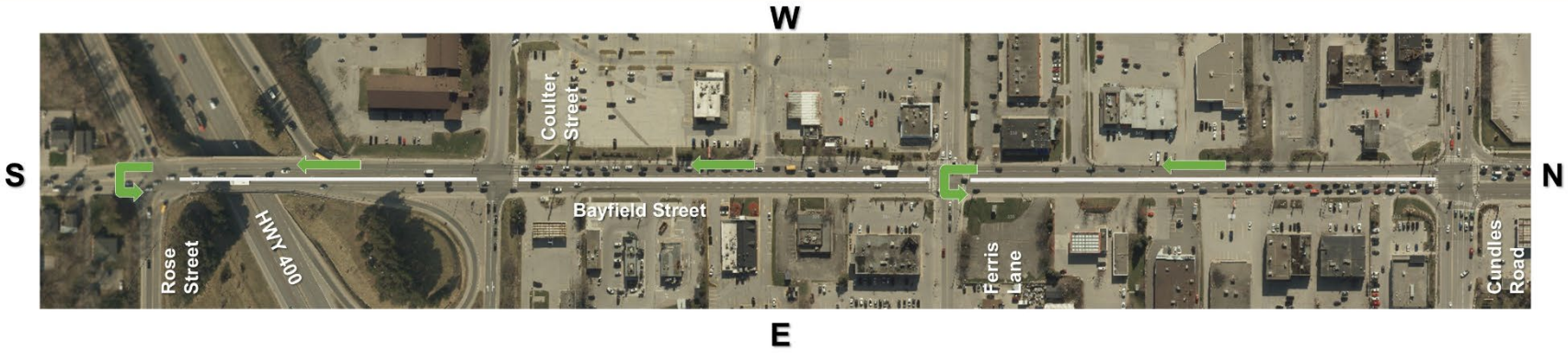
Motorist turning left out of a commercial access on Bayfield Street. This is a turning maneuver with high risk of an angle collision from traffic travelling northbound in Lane 1, other motorists entering and exiting the two-way left turn lane as well as motorists travelling southbound in Lane 1. Visibility is challenging or obstructed for both the driver making the left out turning movement and vehicles on Bayfield Street.

Motorist turning left into a commercial access on Bayfield Street. There is a high risk of collision when drivers attempt a blind left turn through queued traffic as both the driver and traffic in Lane 2 (closest to the curb) may not be able to see each other.

Preferred Design Solution

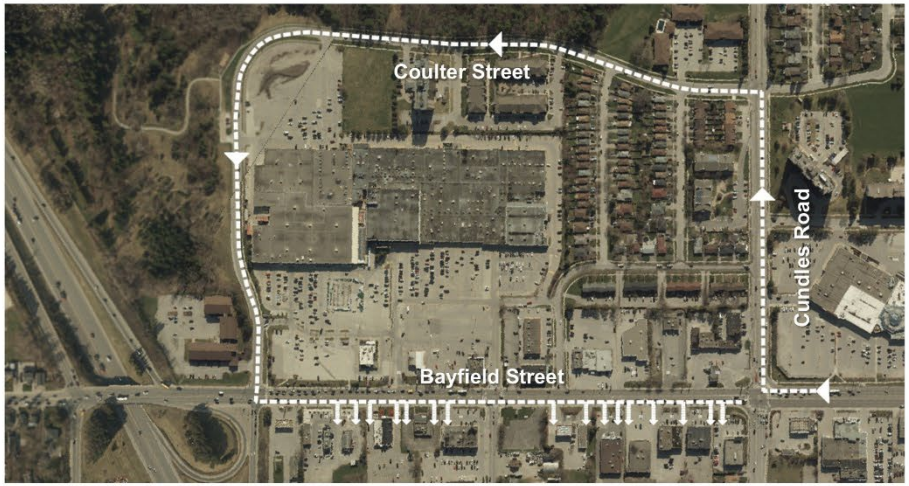
Raised Median – Southbound Traffic Access Changes

Bayfield Street Transportation Improvements



How can I access businesses on the east side of Bayfield Street when travelling southbound?

- Make a U-turn at either Ferris Lane or Rose Street (pending MTO feedback).
- Detour using Cundles Road and Coulter Street.
- Adjust your travel path so that you are travelling northbound.



A little further. A lot safer.

Your trip may take a little longer, but ensuring public safety is paramount. A few minutes may save a life or prevent a serious injury.

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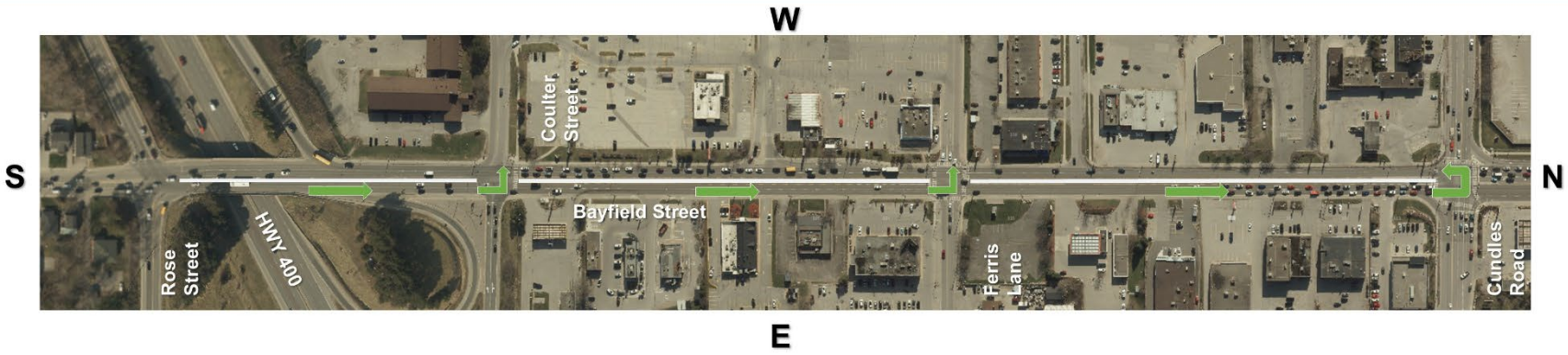
Preferred Design Solution

Raised Median – Northbound Traffic Access Changes

Bayfield Street Transportation Improvements



How can I access businesses on the west side of Bayfield Street when travelling northbound?

- Make a left at Coulter Street or Ferris Lane to access Bayfield Mall.
- Make U-turn at Cundles Road to access businesses between Glenwood Drive and Cundles Road.
- Detour using Heather Street, Kozlov Street and Cundles Road or Glenwood Drive.
- Adjust your travel path so that you are travelling southbound.

A little further. A lot safer.

Your trip may take a little longer, but ensuring public safety is paramount. A few minutes may save a life or prevent a serious injury.

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