

**Highway 401 Improvements from 1 km East of Highway 16 to 3.3 West of
Maitland Road**
Class Environmental Assessment and Preliminary Design Study (GWP 4024-20-00)
Ontario Ministry of Transportation

PUBLIC INFORMATION CENTRE #2 (VIRTUAL)

PRESENTATION VIDEO TRANSCRIPT

AUGUST 3RD, 2023

Slide 1 – Cover Page Slide

Hello and thank you for joining us for this online Public Information Centre. This video presentation will provide you with an overview of the Preliminary Design and Class Environmental Assessment Study initiated by the Ontario Ministry of Transportation to provide improvements to Highway 401 from 1 km East of Highway 16 to 3.3 km West of Maitland Road. This is the second and final Public Information Centre for this undertaking.

If you have any questions or concerns or require any assistance regarding the accessibility of these materials, please contact us by email at ProjectTeam@highway401prescottmaitland.ca or by clicking the 'Contact Us' button on the study website. We would be happy to assist you.

Slide 2 – Welcome!

This presentation will briefly take you through some of the key features and details of the Study. The following PIC resources are available for download on the Study website:

- PIC #2 Video Presentation and transcript
- A downloadable PDF copy of the PIC #2 Presentation slides
- A downloadable PDF copy of the Technically Preferred Plan
- Summary of Key Facts, Questions & Answers

We invite you to please review the presentation material and submit any comments using the Comment Sheet provided on the project website.

Slide 3 – Purpose of Public Information Centre #2

The purpose of this online PIC is to present and gather feedback on the following:

- Study Background, Purpose, and Scope
- Summary of Public Information Centre #1 (held December 2021)
- Assessment and Evaluation of the Short List of Design Alternatives
- Preliminary Design of the Technically Preferred Alternative
- Potential Mitigation Strategies to Minimize Environmental / Community Impacts
- Next Steps

Slide 4 – Project Background and Study Area

The Ontario Ministry of Transportation - or MTO - has retained AECOM to undertake a Planning, Preliminary Design, and Class Environmental Assessment Study – also known as a Class EA - for Highway 401 extending from 1 km east of Highway 16 to 3.3 km west of Maitland Road as

Highway 401 Improvements from 1 km East of Highway 16 to 3.3 West of Maitland Road

Class Environmental Assessment and Preliminary Design Study (GWP 4024-20-00)

Ontario Ministry of Transportation

illustrated in the image, for a total length of approximately 20.75 km.

This project is located within the Township of Augusta, Town of Prescott, and the Township of Edwardsburg Cardinal.

The purpose of this Study is to address current and future transportation needs by:

- Developing a plan for the rehabilitation or replacement of 14 bridges and culverts;
- Developing a long-term plan for the Maitland Road, Edward Street and Highway 16 interchanges; and
- Establishing the future footprint for an interim six lanes and ultimate eight lanes of Highway 401.

Slide 5 – MTO Class EA Process

This Class EA study is following the approved planning process for a Group 'B' Project in accordance with the *MTO Class EA for Provincial Transportation Facilities (2000)*.

Investigations pertaining to the natural, socio-economic, and cultural heritage environments have been undertaken to document existing conditions and to identify any areas of environmental concern or constraint. This information has been used to evaluate the alternatives, assess the potential for impact and in the development of appropriate mitigation.

A Transportation Environmental Study Report (TESR) will be prepared to document the study process and will be placed on the public record for a 30-day review period.

Consultation is a key component of the MTO Class EA process and will be ongoing throughout this study. In addition to two Public Information Centres, consultation will be completed with Indigenous Communities, agencies, the public, key stakeholders, and also include meetings with a Municipal Technical Advisory Committee - or MTAC - at key milestones during the process.

Slide 6 – Online Public Information Centre 1 Summary

Public Information Centre 1 was held online, between December 8th, 2021 and January 21st, to present and gather feedback on:

- Project background and the MTO Class EA Process
- Key objectives of the study, study process, and timing of study activities
- Challenges and Opportunities, including existing & future traffic projections, structural requirements, and the need for highway improvements
- Long-list Alternatives being considered to address the identified challenges, including alternative interchange configurations at Maitland Road, Edward Street and Highway 16, Highway 401 cross-section requirements, and bridge and culvert rehabilitation and replacement strategies
- Preliminary criteria to be used to evaluate the alternatives

Highway 401 Improvements from 1 km East of Highway 16 to 3.3 West of Maitland Road

Class Environmental Assessment and Preliminary Design Study (GWP 4024-20-00)

Ontario Ministry of Transportation

Slide 7 – Study Area and Existing Conditions

The Study Area consists of a mix of land uses including Agricultural, Natural areas and open spaces, Residential, Commercial, Industrial, Community services and recreational facilities.

Environmental features within the Study Area include:

- Forested habitat, wetlands, woodlands and environmentally significant areas
- Wildlife and species at risk have the potential or are known to inhabit the Study Area
- Potential animal movement corridors and pathways
- Lemons Creek, Bradleys Creek, Smades Creek, Johnson Creek and other tributaries
- Potential for archaeological and heritage resources

A plan of the existing study area, illustrating environmental features, as well as existing bridges and culverts and notable geometric conditions and concerns, can be viewed by clicking on the link at the bottom of the slide.

Slide 8 – Environmental Studies

A number of investigations pertaining to the natural, socio-economic, and cultural heritage environments, as listed, have been undertaken to document existing conditions and to identify any areas of environmental concern or constraint. This information has been used to evaluate the alternatives, assess the potential for impact and in the development of appropriate mitigation.

Slide 9 – Preliminary Long List Alternatives (from PIC #1)

A Long List of Alternatives was presented at PIC #1 to implement the improvements along Highway 401, the interchanges and other bridges requiring replacement. The evaluation of the Long List Alternatives and identification of the Short List of Alternatives subsequently carried forward for further evaluation was also presented. This information from PIC#1 continues to be available on the project website.

Slide 10 – Overview of Short List Evaluations

A weighted-score arithmetic evaluation system was used to compare the Short List of Alternatives using criteria that included transportation and constructability as well as the potential to impact the natural, socio-economic, and cultural environments. In short, the process involved impacts being measured quantitatively or qualitatively and assigning a weighted score that when totaled led to selection of a preferred alternative that had the best balance between benefits and impacts.

Highway 401 Improvements from 1 km East of Highway 16 to 3.3 West of Maitland Road

Class Environmental Assessment and Preliminary Design Study (GWP 4024-20-00) Ontario Ministry of Transportation

Slide 11 – Interchange Alternatives – Maitland Road (North Side)

This slide and several to follow illustrate the alternatives considered and the associated evaluation that led to selection of the technically preferred solution.

As illustrated, three north side interchange alternatives for Maitland Road, identified as Alternative N1, N2, and N3, were carried forward to the detailed evaluation from the screening of long-list alternatives presented at PIC 1. Following PIC 1, refinements were made to two of the short-listed alternatives, and new alternatives identified as N1A and N2A were developed and included as part of the evaluation.

Slide 12 – Maitland Road Interchange (North Side) – Evaluation Summary

The matrix as presented provides notable trade-offs and a high level summary of the results of the more detailed weighted-score arithmetic evaluation completed. A green circle indicates the alternative is most preferred in that Category, while a red circle is least preferred. As illustrated, Alternative N2A, which includes a buttonhook ramp design, realignment of Concession Road 2 and extension of Concession 2 on the east side of Maitland Road, was identified as the most preferred alternative in all categories.

Slide 13 – Interchange Alternatives - Maitland Road (South Side)

As illustrated, three south side interchange alternatives for Maitland Road, identified as Alternative S1A, S2A and S3, were carried forward to the detailed evaluation from the screening of long-list alternatives presented at PIC 1.

Slide 14 – Maitland Road Interchange (South Side) – Evaluation Summary

The evaluation matrix summary for the Maitland Road interchange south alternatives, as illustrated, highlights that Alternative S2A involving a Parclo A2 design and replacement of the existing Maitland Road structure offset to the west was identified as the most preferred alternative.

Slide 15 – Preferred Alternative at Maitland Road Interchange

This slide shows the overall technically preferred design for the north/south side of the Maitland Road interchange. As discussed, this includes a buttonhook ramp design with a Concession Road 2 realignment and extension (Alternative N2A) on the north side of Highway 401, with replacement of the Maitland Road structure offset to the west. This alternative was selected for the following reasons:

- Good overall traffic operations and geometrics;
- Improved intersection and access spacing; and,
- Avoids significant Concession Road 2 realignments to the north required with the other

Highway 401 Improvements from 1 km East of Highway 16 to 3.3 West of Maitland Road

Class Environmental Assessment and Preliminary Design Study (GWP 4024-20-00)

Ontario Ministry of Transportation

alternatives, resulting in the lowest impacts to the Natural, Socio-Economic and Cultural Environments.

As mentioned, the Parclo A2 (Alternative S2A) is the technically preferred south side alternative for the Maitland Road Interchange, and it was selected for the following reasons:

- Good overall traffic operations at the ramp intersection.
- Avoids new ramps and has lower impacts in the southeast quadrant of the interchange.

Slide 16 – Interchange Alternatives - Edward Street (North Side)

As illustrated, five north side interchange alternatives for Edward Street, identified as Alternatives N1B, N3A, N4, N5C and N7A, were carried forward to the detailed evaluation from the screening of long-list alternatives presented at PIC 1.

Slide 17 – Edward Street Interchange (North Side) – Evaluation Summary

The evaluation matrix summary for the Edward Street interchange north alternatives, as illustrated, highlights that Alternative N1B was identified as the most preferred alternative. This alternative includes a Parclo A4 design with the new westbound off-ramp located opposite the existing Development Drive intersection.

Slide 18 – Interchange Alternatives - Edward Street (South Side)

As illustrated, three south side interchange alternatives for Edward Street, identified as Alternatives S1, S2 and S4, were carried forward to the detailed evaluation from the screening of long-list alternatives presented at PIC 1.

Slide 19 – Edward Street Interchange (South Side) – Evaluation Summary

The evaluation matrix summary for the Edward Street interchange south alternatives, as illustrated, highlights that Alternative S1, which includes a Parclo A4 design, was identified as the most preferred alternative.

Slide 20 – Preferred Alternative at Edward Street Interchange

This slide shows the overall technically preferred design for the Edward Street interchange. As discussed, the Parclo A4 (Alternative N1B) is the technically preferred north side alternative for the Edward Street Interchange, and it was selected for the following notable reasons:

- Good overall traffic operations and geometrics.
- Avoids significant impacts to existing residential and commercial properties.
- Preferred or equally preferred in the Transportation/Constructability and Cultural environment categories.

Highway 401 Improvements from 1 km East of Highway 16 to 3.3 West of Maitland Road

Class Environmental Assessment and Preliminary Design Study (GWP 4024-20-00) Ontario Ministry of Transportation

The Parclo A4 (Alternative S1) is the technically preferred south side alternative for the Edward Street Interchange, and was selected for the following notable reasons:

- The roundabout option (Alternative S4) has complex construction staging and intersection and driveway spacing concerns.
- Alternative S1 has improved traffic operations compared to both the existing condition and Alternative S2.
- Alternative S1 has the most desirable horizontal and vertical geometrics and sight distance.

Slide 21 – Interchange Alternatives - Highway 16

As illustrated, three interchange alternatives for Highway 16, identified as Alternatives 1B, 2A and 2B, were carried forward to the detailed evaluation from the screening of long-list alternatives presented at PIC 1.

Slide 22 – Highway 16 Interchange – Evaluation Summary

The evaluation matrix summary for the Highway 16 interchange alternatives highlights that Alternative 2B, involving a Parclo A4 design with a 75 metre radius for the northbound to westbound on-ramp and a realignment of Highway 16 to the west, was identified as the most preferred alternative.

Slide 23 – Preferred Alternative at Highway 16 Interchange

The Parclo A4 (R-75m) Alternative with Realignment of Highway 16 to the West (Alternative 2B) was selected as the technically preferred alternative for the Highway 16 Interchange for the following notable reasons:

- Avoids Rooney Road realignment and can re-use a portion of the existing westbound off-ramp
- Lower utility impacts
- Avoids impacts to the MTO Maintenance facility; and,
- Lowest potential to encounter contamination

Subsequent to selection of the technically preferred alternative, the alignment of Highway 16 was modified closer to the existing bridge to reduce the extent of the realignment, and the associated impacts and costs.

The next three slides present the technically preferred alternatives for replacement of the underpasses at Blue Church Road and Merwin Lane as well as the CPR Overhead bridge structure located between Edward Street and Highway 416.

Highway 401 Improvements from 1 km East of Highway 16 to 3.3 West of Maitland Road

Class Environmental Assessment and Preliminary Design Study (GWP 4024-20-00) Ontario Ministry of Transportation

Slide 24 – Blue Church Road Underpass

The technically preferred alternative for Blue Church Road includes bridge replacement along a new alignment east of the existing bridge. This will allow the existing bridge to remain open for the majority of the construction period. The replacement structure is also located on a tangent alignment that will provide improved sight distance across the structure.

Slide 25 – Merwin Lane Underpass

The technically preferred alternative for Merwin Lane includes bridge replacement along a new alignment east of the existing bridge which will allow it to remain open for the majority of the construction period. Shifting the alignment to the east also avoids impacts to the hydro corridor along the west side of Merwin Lane, and will result in a lower grade raise of Merwin Lane over Highway 401 and a reduced grading footprint as compared with a replacement to the west.

Slide 26 – CPR Overhead

The technically preferred alternative for the bridge carrying Highway 401 over the existing CPR rail corridor, east of Edward Street, will be replacement with a new bridge structure. Currently, the former CPR track beneath Highway 401 has been removed at this location and the crossing is used as a recreational trail. The bridge will be designed to accommodate the ultimate 8-lanes on Highway 401, and will protect for a potential future rail passage beneath Highway 401.

Slide 27 – Highway 401 Widening

Highway 401 is to be widened from 4-lanes to 6-lanes in the interim, and ultimately to a future 8-lane section. For locations with an existing urban cross-section, the widening to an interim 6-lanes will include maintaining the existing median, with additional lanes added to the outside as illustrated. For locations with an existing rural cross-section, widening to an interim 6-lanes will occur by adding the additional lanes to the inside, with construction of a new median barrier. It is important to note that there is currently no timeline for widening of Highway 401.

Slide 28 – Technically Preferred Plan

In summary, the Technically Preferred Plan for the subject corridor includes the following:

- Reconfiguration of Maitland Road, Edward Street and Highway 16 Interchanges, including bridge replacements;
- Replacement of Merwin Lane Underpass, Blue Church Rd Underpass, CPR Overhead and Highway 16 CNR Overhead;
- Replacement of the Lemon's Creek Culvert and localized realignment of Lemon's Creek;
- Rehabilitation of two bridges and three culverts at the Highway 401/416 Interchange; and
- Widening of Highway 401 to an interim 6-lane and ultimate 8-lane cross section

Highway 401 Improvements from 1 km East of Highway 16 to 3.3 West of Maitland Road

Class Environmental Assessment and Preliminary Design Study (GWP 4024-20-00)

Ontario Ministry of Transportation

The image shown illustrates the overall Technically Preferred Plan. A high-resolution copy of this plan can be downloaded from the project website or by clicking the link at the bottom of the slide.

Slide 29 – Construction Sequencing, Staging and Detours

Details regarding the sequencing and staging to construct the technically preferred plan will be confirmed during future stages of design. However, it is expected that the proposed improvements will be constructed through a series of contracts.

It is anticipated that interchanges and bridges may be re-constructed or replaced first, followed by the Highway 401 widening to an interim 6-lanes (and ultimately a future 8-lanes) at a later date.

To facilitate the work, short-term and/or long-term closures of Highway 401, ramps or crossing roads will be required. For all closures, advanced notification and signage will be provided, including a corresponding detour plan for full closures.

Consultation with municipalities will be undertaken during future stages of design regarding detour routes, and notification will be provided to adjacent property and business owners at that time. It is expected that:

- Two lanes of traffic will be maintained along Highway 401 in both directions during peak periods (night-time lane reductions may be required);
- New bridges will be constructed adjacent to existing ones, while the existing bridges remain open;
- Night-time / weekend or short-duration (< 30 days) closures of existing ramps, crossing roads and municipal roads are anticipated to complete tie-ins between the existing road/ramps and newly constructed pieces;
- Full overnight closures of Highway 401 are anticipated to facilitate removal of the existing bridges;
- Potential detour routes associated with full overnight closures of Highway 401 are summarized on the following slides. Detour routes will generally follow the designated Highway 401 Emergency Detour Routes (EDR).

Slide 30 – Potential Detour Routes (Highway 401 Closures)

This slide illustrates the potential detour routes that may be utilized during full overnight closures of Highway 401 to facilitate bridge demolition, following construction of the replacement bridges over Highway 401. As noted, detour routes will generally follow the designated Highway 401 Emergency Detour Routes (EDR), and will be confirmed during future design stages.

A single night closure is anticipated for the demolition of each structure at Maitland Road, Blue Church Road, Merwin Lane and Edward Street. As illustrated, westbound traffic is expected to be detoured north to County Road 26 via Edward Street, and back to Highway 401 at Maitland Road. Eastbound traffic will be detoured south to Highway 2 via Maitland Road and back to Highway 401

Highway 401 Improvements from 1 km East of Highway 16 to 3.3 West of Maitland Road

Class Environmental Assessment and Preliminary Design Study (GWP 4024-20-00)

Ontario Ministry of Transportation

using Highway 16.

During the single night closure to complete the demolition of the Highway 16 structure westbound it is expected that traffic will be detoured south to Highway 2 using Highway 16 and back to Highway 401 at Maitland Road. Eastbound traffic will be detoured south to Highway 2 using Highway 16 and back to Highway 401 via Shanly Rd.

Slide 31 – Proposed Mitigation Measures and Recommendations

Preliminary mitigation measures have been identified to minimize the potential for impacts during implementation of the technically preferred plan. This may include employing standard best management practices; adhering to in-water work timing restrictions; completing additional localized study where necessary; minimizing vegetation removal and replanting where possible; and obtaining any necessary approvals/permitting in advance of construction. Additional details regarding the preliminary mitigation measures and commitments to future work will be documented in the Transportation Environmental Study Report to be prepared at the completion of this study.

Slide 32 – Next Steps and How to Stay Informed

Following this PIC, the Project Team will:

- Review and respond to any questions.
- Incorporate any revisions where appropriate and finalize the preliminary design plans.
- Finalize mitigation measures to minimize or avoid potential environmental effects.
- Prepare and file the Transportation Environmental Study Report for a 30-day public comment period and agency review.
- Seek Environmental Assessment clearance.

Detail Design and Construction will be completed as future, separate undertaking(s).

The following information is available on the Study Website for this PIC:

- PIC #2 Video Presentation and transcript
- Roll Plan of Existing Conditions (from PIC #1)
- Roll Plan of Technically Preferred Plan

Slide 33 – Thank You!

Thank you for attending PIC #2!

Please fill out the [PIC Comment Form](#) found on this Study Website and provide your comments by **September 18th, 2023**.

Highway 401 Improvements from 1 km East of Highway 16 to 3.3 West of Maitland Road

Class Environmental Assessment and Preliminary Design Study (GWP 4024-20-00)

Ontario Ministry of Transportation

For more information you can visit our Study Website at the link provided or you can email the Project Team at ProjectTeam@highway401prescottmaitland.ca

Comments and information regarding this study are being collected to assist the MTO and AECOM in meeting the requirements of the *Ontario Environmental Assessment Act*, and in accordance with the *Freedom of Information and Protection of Privacy Act*. With the exception of personal information, all comments will become part of the public record.

On behalf of the Project Team we thank you for your interest and participation in Public Information Centre #2. We encourage you to contact members of the Project Team if you have any questions or concerns regarding the information presented.