



G.W.P. 135-90-00

**HIGHWAY 11/17 FOUR-LANING
FROM 2.83 km WEST OF OUIMET OVERHEAD, EASTERLY 8.63 KM**

**MUNICIPALITY OF SHUNIAH
TOWNSHIP OF DORION**

**CLASS ENVIRONMENTAL ASSESSMENT FOR
PROVINCIAL TRANSPORTATION FACILITIES
GROUP 'B' PROJECT**

**MINISTRY OF TRANSPORTATION
NORTHWESTERN REGION**

**ENVIRONMENTAL STUDY REPORT
ADDENDUM**

October 2016

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FROM 2.83 WEST OF OUIMET OVERHEAD, EASTERLY 8.63 KM**

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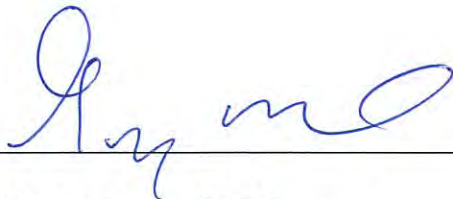
ENVIRONMENTAL STUDY REPORT ADDENDUM

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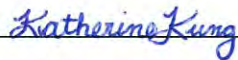
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THE PUBLIC RECORD

A copy of this document has been submitted to the following office of the Ministry of the Environment and Climate Change to be placed in the Public Record:

Ministry of the Environment and Climate Change

Thunder Bay Regional Office
435 James Street South, Suite 331
Thunder Bay, Ontario P7E 6S7

This Addendum to the Environmental Study Report is also available for public review during normal business hours at:

Municipality of Shuniah

Clerk's Office
420 Leslie Avenue
Thunder Bay, Ontario

Township of Dorion

Clerk's Offices
170 Dorion Loop Road
Dorion, Ontario

Dorion Public Library

170 Dorion Loop Road
Dorion, Ontario

Red Rock Public Library

42 Salls Street
Red Rock, Ontario

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NOTICE OF FILING – ENVIRONMENTAL STUDY REPORT ADDENDUM

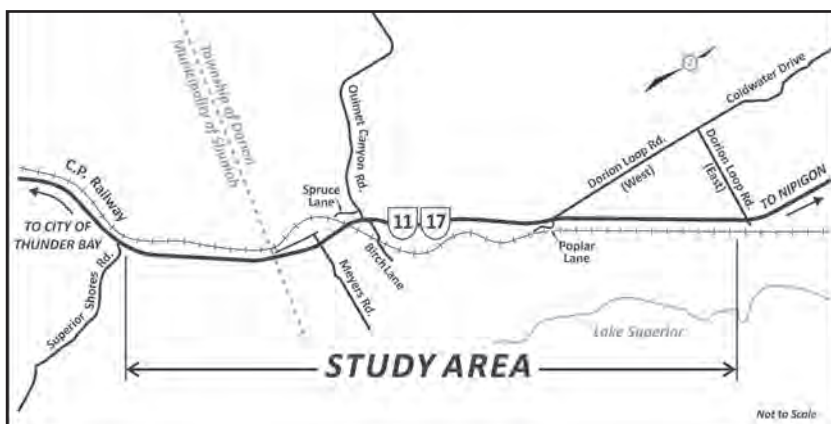
Preliminary Design, Detail Design, and Class Environmental Assessment Study Highway 11/17 Four-Laning from Ouimet to Dorion

THE STUDY

The Ontario **Ministry of Transportation (MTO)** is nearing completion of the Preliminary Design phase for the four-laning of Highway 11/17 from 2.83 km west of Ouimet Overhead, easterly 8.63 km. **MMM Group Limited, a subsidiary of WSP Global** is undertaking the design on behalf of MTO.

The project includes:

- Some areas of twinning the existing highway;
- Some areas of new four-lane alignment, including constructing new eastbound and westbound bridges over the Canadian Pacific Railway;
- Providing connections to the new four-lane highway at Meyers Road, Ouimet Canyon Road, the proposed Service Road and Dorion Loop Road West;
- Connection of Poplar Lane to the proposed Service Road; and
- Securing all the necessary environmental approvals for construction.



In 1997, an Environmental Study Report was prepared to document the proposed plans for four-lane this portion of Highway 11/17. The project was approved and subsequently the four-lane highway corridor was designated (protected) in 2003. A provincial funding commitment for the construction for the four-laning of this portion of Highway 11/17 was included in the 2016 Ontario Budget.

ENVIRONMENTAL STUDY REPORT ADDENDUM

The purpose of this study is to document any changes in the existing environmental conditions from the original study and any proposed changes to the approved four-lane plan. As a result of this review, the ministry is proposing a number of changes to the original Approved Four-Lane Plan and has prepared an Addendum to the 1997 Environmental Study Report (ESR). The proposed changes include: highway alignment revisions in some sections, modifications to public access as well as an increase in right-of-way width from 90 m to 110 m (minimum).

In consideration of concerns raised at the Public Information Centre (PIC) held on Wednesday, April 13, 2016, and further discussions with the Township of Dorion and the Dorion Four-Lane Community Consultation Committee, the Ministry has proposed several design changes to the recommended plan presented at the PIC. The public access option for Meyers Road West has been revised to provide full access to Highway 11/17 for both east and westbound lanes. The Ministry is also proposing that existing Highway 11/17 from east of Ouimet Canyon Road westerly for approximately 1 km be converted to a service road with full access to the four-laned Highway 11/17 and a new connection to Poplar Lane. The 1997 ESR did not include a provision for a direct connection to Highway 11/17 from Birch Lane. However, the Ministry will further review the feasibility of providing a road connection between Birch Lane and Meyers Road East during Detail Design. A second Addendum to the 1997 ESR will be required to address the potential road connection between Birch Lane and Meyers Road East.

THE PROCESS

This study is following the approved planning process for Group 'B' projects under the *Class Environmental Assessment for Provincial Transportation Facilities (2000)*. In accordance with the Class EA, an Addendum to the original ESR has been prepared to document the proposed changes. The ESR Addendum is available for review at the following locations:

Township of Dorion
Clerk's Office
170 Dorion Loop Road, Dorion, ON

Municipality of Shuniah
Clerk's Office
420 Leslie Avenue, Thunder Bay, ON

Ministry of the Environment and Climate Change
Thunder Bay Regional Office
435 James Street South, Thunder Bay, ON

Dorion Public Library
170 Dorion Loop Road, Dorion, ON

Red Rock Public Library
42 Salls Street, Red Rock, ON

The report and additional study information will also be available on the project website at www.Hwy11-17Four-LaningfromOuimettoDorion.ca.

The Addendum will be available for a 30-day review period ending **Monday, November 14, 2016**. If after consulting with ministry staff and consultants, you have serious unresolved concerns, you may request a Part II Order ("bump-up") from the Ministry of the Environment and Climate Change (77 Wellesley Street West, 11th Floor, Toronto, Ontario, M7A 2T5). There are no opportunities to request a Part II Order for the approved four-lane project, only for concerns associated with the proposed changes.

A copy of your request should also be forwarded to the Ministry of Transportation at the address below. If no requests are received by **Monday, November 14, 2016**, the proposed changes will have met the requirements of the Class EA and Detail Design and will proceed.

COMMENTS

We are interested in any comments or concerns you may have regarding the Addendum and study. Please submit your comments and/or concerns to one of the individuals listed below by **Monday, November 14, 2016**.

Ms. Domenica D'Amico, P.Eng., Project Manager
MMM Group Limited | WSP Global
2655 North Sheridan Way, Suite 300, Mississauga, ON L5K 2P8
tel: 1-877-562-7947, ext. 1331 or 905-823-8500
fax: 905-823-8503
e-mail: d'amicod@mmm.ca

Mr. Rick Inman, Senior Project Manager
Ontario Ministry of Transportation
615 James Street South, Thunder Bay, ON P7E 6P6
tel: 1-800-465-5034 or 807-473-2049
fax: 807-473-2168
e-mail: rick.inman@ontario.ca

Information will be collected in accordance with the *Freedom of Information and Protection of Privacy Act*. All comments will be maintained on file for use during the study and, with the exception of personal information, may be included in study documentation and become part of the public record.

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GLOSSARY

CPR	–	Canadian Pacific Railway
DCR	–	Design and Construction Report
DFLCCC	–	Dorion Four-Lane Community Consultation Committee
EA		Environmental Assessment
ESR	–	Environmental Study Report
HONI	–	Hydro One Networks Inc.
IO	–	Infrastructure Ontario
LRCA	–	Lakehead Region Conservation Authority
MMM	–	MMM Group Limited
MNO	–	Métis Nation of Ontario
MNRF	–	Ministry of Natural Resources and Forestry (<i>formerly Ministry of Natural Resources</i>)
MPP	–	Member of Provincial Parliament
MTCS	–	Ministry of Tourism, Culture and Sport
MTO	–	Ministry of Transportation
PIC	–	Public Information Centre
SAR	–	Species-at-Risk

1.0 Project Summary

1.1 Project Description and Background

In 1997, the Ministry of Transportation (MTO) completed a Planning and Preliminary Design Study for the four-laning of Highway 11/17 from 8 km west of Ouimet, easterly 36 km to the west boundary of Red Rock Township. An Environmental Study Report (ESR) was filed in September 1997 and received environmental clearance. The study was identified as a Group “B” project and complied with the requirements of the *Provincial Highway Class Environmental Assessment* (1992).

The 1997 ESR documented the following:

- Description of the project, project justification, and its purpose;
- Environmentally significant aspects of the planning, design, and construction of the four-laning within the study limits;
- Description of the alternatives evaluated at the time;
- External agency and public consultation; and
- Anticipated environmental effects, proposed mitigation measures, and monitoring.

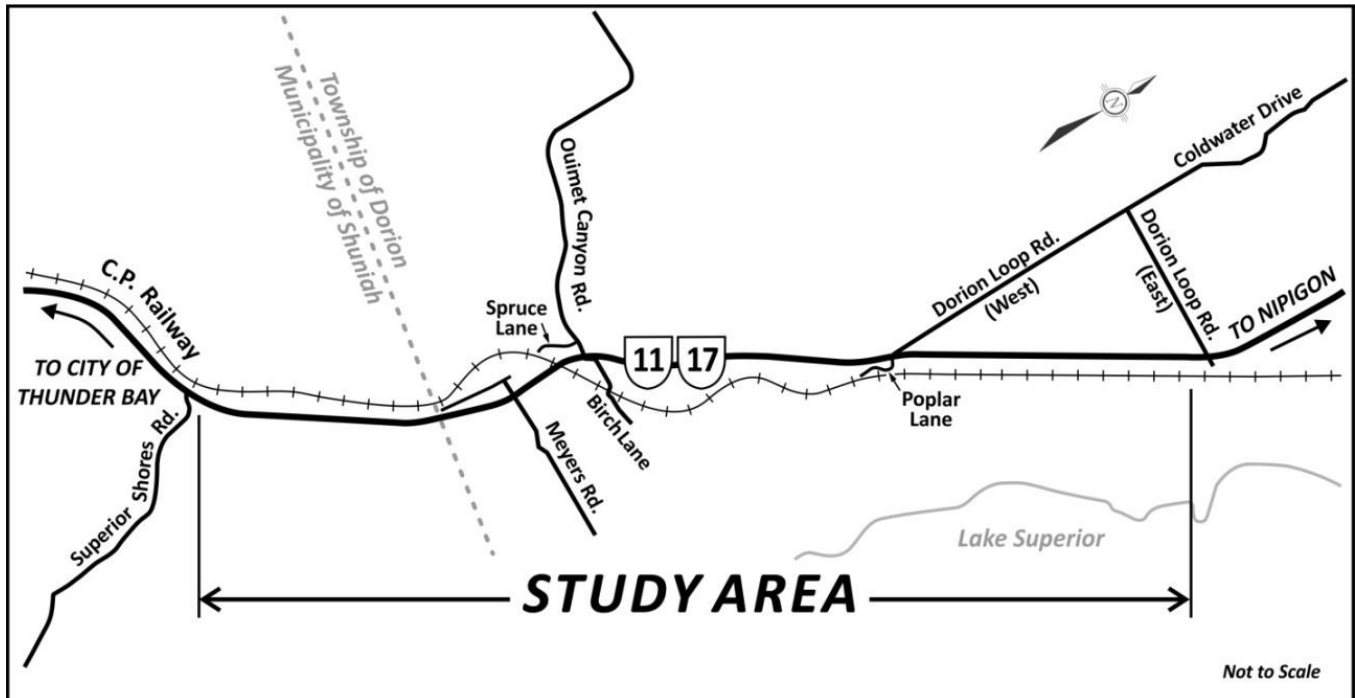
The key design features recommended in the 1997 ESR for the section of Highway 11/17 from 2.83 km west of Ouimet Overhead, easterly 8.63 km, included:

- Some areas of twinning the existing highway;
- Some areas of new four-lane alignment;
- A new, grade-separated crossing of the Canadian Pacific (CP) Railway; and
- Improvements at / modifications to intersecting roads.

The proposed new four-lane divided highway was designated as a four-lane facility and registered as a controlled access highway in 2003.

In October 2015, MTO retained MMM Group Limited, a subsidiary of WSP Global, to undertake the Preliminary Design, Detail Design, and Class Environmental Assessment (EA) study for the four-laning of Highway 11/17 from 2.83 km west of Ouimet Overhead, easterly 8.63 km. The project location is shown below in **Exhibit 1-1**.

Exhibit 1-1: Project Location



The Preliminary Design phase includes an update to the current environmental conditions, and a review of the proposed changes to the original design decisions that have occurred since the submission of the original 1997 ESR. An Addendum to the ESR is necessary to document any revisions to the original design as part of the requirements of the MTO Class EA process (see **Section 1.2** for further discussion).

The proposed changes to the original EA Approved Plan for the study area that were documented in the 1997 ESR include: highway alignment revisions in some sections, modifications to public access at Meyers Road, Ouimet Canyon Road, and Poplar Lane, and an increase in right-of-way from 90 m to 110 m (minimum). Further details regarding these proposed changes to the EA Approved Plan are provided in **Section 3.0**. Detail Design is scheduled to proceed in the Fall of 2016, subject to the clearance of this Addendum to the ESR.

In March 2016, as part of the 2016 Ontario Budget, the provincial government committed funding for the expansion of the Highway 11/17 corridor to four lanes from the section west of the CPR Overhead at Ouimet easterly for 8.6 km.

1.2 Purpose of the Addendum to the Environmental Study Report

Since construction has not commenced within five years of the 1997 ESR, this Addendum to the 1997 ESR has been prepared to provide an update to the current environmental conditions within the study area to determine if there have been any new conditions in the study corridor that may affect, or be affected by, the proposed four-laning of Highway 11/17. This Addendum also provides a review of any proposed changes to the commitments made in the 1997 ESR (and/or the basic intent of the undertaking) that may be significant.

Given several changes to the original Approved Four-Lane Plan outlined in the 1997 ESR are proposed, an Addendum to the ESR must be prepared and made available for a 30-day review period. The proposed changes include: highway alignment revisions in some sections, modifications to public access at Meyers Road, Ouimet Canyon Road, the proposed Service Road east of Ouimet Canyon Road, and Dorion Loop Road West, as well as an increase in right-of-way width from 90 m to 110 m (minimum). A Notice of the ESR Addendum Filing has been sent to external agencies, First Nation / Aboriginal communities, and affected and interested parties via direct notification letters, published in local newspapers, as well as being posted on the project website, and local municipal websites.

During the 30-day public review period, parties are encouraged to bring their concerns about the proposed changes to the EA Approved Plan to the attention of MTO. If you have serious unresolved concerns after consulting with the MTO and MTO's consultants, you have the right to submit a Part II Request ("bump-up") to the Minister of the Environment and Climate Change (11th Floor Ferguson Block, 77 Wellesley Street West, Toronto, Ontario, M7A 2T5) to elevate this project to an Individual Environmental Assessment. Only the changes identified in the Addendum are eligible for "bump-up".

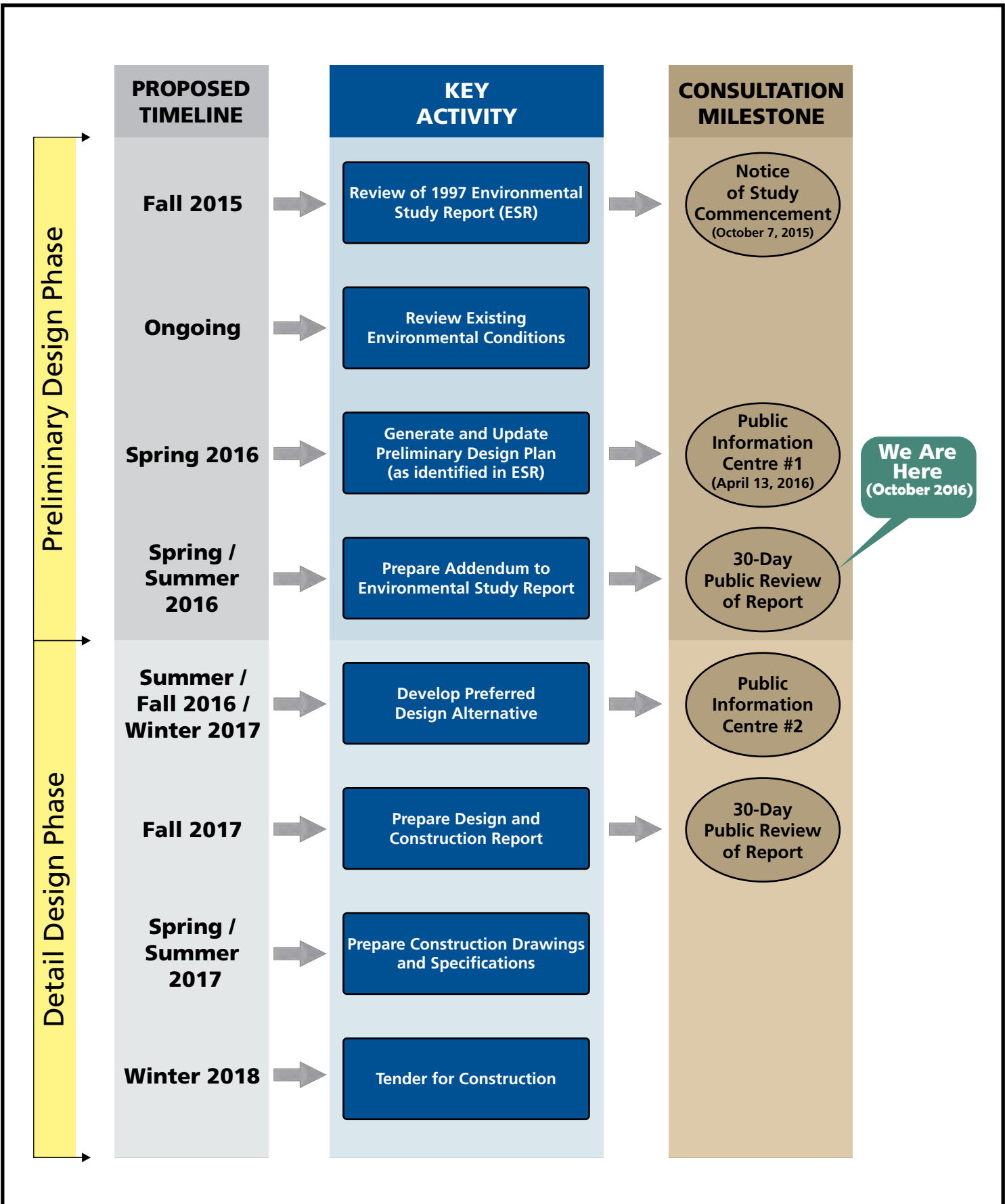
A copy of the bump-up request should also be sent to the MTO and Consultant Project Manager at the following addresses:

Rick Inman, Senior Project Manager
Ministry of Transportation
615 James Street South
Thunder Bay, ON P7E 6P6
Tel: 1-800-465-5034 or (807) 473-2049
Fax: (807) 473-2168
e-mail: Rick.Inman@ontario.ca

Domenica D'Amico, P.Eng., Project Manager
MMM Group Limited | WSP
2655 North Sheridan Way, Suite 300
Mississauga, ON L5K 2P8
Tel: 1-877-562-7947 or (905) 823-8500 (ext. 1331)
Fax: (905) 823-8503
e-mail: d'amicod@mmm.ca

1.3 Study Process

The key steps in the Preliminary Design and Detail Design phases are highlighted in **Exhibit 1-2**. Detail Design and preparation of the contract documentation will commence after this Addendum to the ESR has been filed and receives Environmental Clearance. Upon completion of the Detail Design phase, a Design and Construction Report (DCR) will be prepared to document the updated Detail Design plan and the proposed environmental mitigation measures. There is a possibility that the final design plans may identify design modifications or refinements that could result in environmental benefits or impacts that may not have been anticipated or identified in this Addendum to the 1997 ESR. Any design modifications or refinements to the final design plans and resultant environmental benefits or impacts will also be documented in the DCR. The DCR will be made available for a 30-day public and external agency review period, as shown in **Exhibit 1-2**. A notice of DCR filing will be sent to contacts on the study mailing-list, posted on the project and local municipal websites, and published in local newspapers when the DCR is available for viewing.



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2.0 Existing Environmental Conditions and Changes

As noted in **Section 1.2**, any portion of a project for which construction has not commenced within five years of Notice of Submission for the Environmental Study Report (ESR), and a Design and Construction Report (DCR) has not been submitted within that five year period, the proponent must carry out a review of the portions of the project that have not been constructed before construction may begin. This review must consider changes that have taken place since the submission of the original ESR, including new conditions in the study area.

This section reviews and compares the current environmental conditions with the environmental conditions documented in the 1997 ESR to determine if there have been any significant changes that may affect the proposed four-laning of Highway 11/17 within the study limits. The 2016 existing environmental conditions is presented in **Exhibit 2-1** while the comparison table of the 1997 environmental conditions and the 2016 existing environmental conditions is presented in **Exhibit 2-2**.

Terrestrial and aquatic field investigations were completed in 2015 between late September and early October to gather data regarding current environmental conditions along the proposed alignment documented in the 1997 ESR and potential alignment revisions. The collection of updated information was necessary to build upon the existing data and identify the current existing conditions and constraints to provide a comparison to the 1997 environmental conditions. The 1997 existing conditions were obtained from the 1997 ESR.

Further terrestrial and aquatic site visits are occurring throughout the Summer / Fall of 2016 to carry out detailed investigations on the preferred plan as identified in Section 5.0. The findings of these detailed investigations and impact assessments of the preferred plan will be documented in the DCR later in the Detail Design phase.

A Stage 1 archaeological assessment was completed in October 2015 as part of this Preliminary Design phase for the Highway 11/17 realignment alternatives, and for the increase in right-of-way from 90 m to 110 m (minimum). Further Stage 2 archaeological assessments will be required for all previously unassessed areas required for the Highway 11/17 realignment alternatives, additional 10 m (minimum) of right-of-way on each side of the highway, and the preferred public access location options. All archaeological assessments will be carried out in conformity with the Ministry of Tourism, Culture and Sport's (MTCS) *Standards and Guidelines* (2011) and submitted to MTCS for archaeological concurrency prior to construction.

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Please refer to separate link for Exhibit 2-1

Exhibit 2-2: Comparison between 1997 and 2016 Environmental Conditions

Factor / Indicator	Existing Environmental Conditions (1997)	Review of Existing Environmental Conditions (2016)
Natural Environment		
Geology and Soils	<ul style="list-style-type: none"> The bedrock within the study area is entirely composed of rock formed in the Precambrian era. 	<ul style="list-style-type: none"> No changes since 1997.
Vegetation	<ul style="list-style-type: none"> Dominant tree species along the highway corridor include: Poplar, White Birch, Balsam Fir, and Black Spruce. No significant species identified by the Ministry of Natural Resources and Forestry (MNRF) (<i>formerly Ministry of Natural Resources</i>). 	<ul style="list-style-type: none"> More recent data collection was carried out and assessed to establish existing natural environment conditions to the proposed changes to Highway 11/17 alignment. Vegetation along the highway corridor consists primarily of second growth forest, wetland, agricultural land, and anthropogenic land (residential and commercial development). No provincially significant wetlands were identified in the area although MNRF noted that there are numerous unevaluated wetlands in the area. No vegetation Species of Conservation Concern was identified to be present within the study area by MNRF. MNRF identified a “significant woodland” located within the study area.
Wildlife and Wildlife Habitat	<ul style="list-style-type: none"> Area supports a wide range of species, including: moose, black bear, deer, rabbit, gamebirds, and waterfowl. No species of conservation concern were identified. 	<ul style="list-style-type: none"> More recent data collection was carried out and assessed to establish existing natural environment conditions to the proposed changes to the Highway 11/17 alignment. Area continues to support a wide range of common species. MNRF identified 11 birds, 1 turtle and 3 mammalian species of conservation concern within the general Region (American White Pelican, Bald Eagle, Black Tern, Bobolink, Barn Swallow, Golden Eagle, Least

Factor / Indicator	Existing Environmental Conditions (1997)	Review of Existing Environmental Conditions (2016)
		<p>Bittern, Loggerhead Shrike, Whip-poor-will, Peregrine Falcon, Yellow Rail, Snapping Turtle, American Badger, Wolverine, and Woodland Caribou).</p> <ul style="list-style-type: none"> The potential for these species of conservation concern to occur within the study limits is low due to the vegetation and habitat conditions within the study area. Eastern Whip-Poor-Will, a species-at-risk (SAR), was identified by MNRF to be present within the study area. Whip-poor-will were not observed during field surveys conducted in the Spring of 2016. Barn Swallow (SAR) nests were observed in a barn within the vicinity of Station 31+000. Registration under the <i>Endangered Species Act</i> will be undertaken later in the Detail Design phase.
<p>Fish and Fish Habitat</p>	<ul style="list-style-type: none"> Waterbodies within the study area are mainly cold water streams. Streams flowing into Lake Superior are considered high significance by MNRF. Lake Superior tributaries contain a wide range of aquatic wildlife, such as resident brook trout, minnows, trout, and tadpoles. Minnows, trout, and tadpoles were observed throughout the study area. No species of conservation concern were identified. Limited aquifer potential as a result of the underlying bedrock and its proximity to the surface. 	<ul style="list-style-type: none"> More recent data collection was carried out and assessed to establish existing natural environment conditions to the proposed changes to the Highway 11/17 alignment. Initial screening / background information from MNRF has identified that all watercourse crossings within the highway corridor should be treated as coldwater streams as they are tributaries of Lake Superior and likely support coldwater species. Watercourse classification will be confirmed by MMM during Summer / Fall 2016 field investigations. All streams in the area have a high probability of being or are known migratory routes and/or nursery grounds for Lake Superior Salmonid populations. MMM ecology staff will determine the potential for spawning and migration of salmonid species within the highway corridor during detailed field assessments in 2016.

Factor / Indicator	Existing Environmental Conditions (1997)	Review of Existing Environmental Conditions (2016)
		<p>Several culverts are perched at the existing highway, limiting upstream movement of fish seasonally. Fish passage will be improved through the proposed design.</p> <ul style="list-style-type: none"> • MNRF did not identify any aquatic species of conservation concern. • Additional investigations are being carried out in the Summer / Fall of 2016 to assist in the assessment of seasonal fish use, connectivity of the watercourses to downstream fish habitat, culvert design, and mitigation measures.
Social and Cultural Environment		
Social	<ul style="list-style-type: none"> • Project area is sparsely populated in a rural landscape. • Residents within study area are on well water. 	<ul style="list-style-type: none"> • No changes since 1997.
Land-use	<ul style="list-style-type: none"> • Township of Shuniah is generally characterized by rural land use and is sparsely developed. • Lands fronting along existing Highway 11/17 include scattered residential development and farms. • <i>Township of Shuniah's Official Plan</i> states Highway 11/17 is to remain a main transportation artery. • Township of Dorion is generally characterized by rural land uses with commercial establishments located adjacent to Highway 11/17. 	<ul style="list-style-type: none"> • <i>Municipality of Shuniah's Official Plan (2005)</i> designates lands within the study area as 'Open Space', and 'Aggregate Extraction' in the vicinity of the study area. • <i>Municipality of Shuniah's Official Plan</i> continues to state Highway 11/17 is to remain a main transportation artery. • <i>Township of Dorion's Official Plan (2014)</i> designates lands within the study area as 'Rural', 'Hamlet/Settlement Residential', 'Environmental Protection', and 'Highway Commercial'. • No significant changes since 1997.
Agriculture	<ul style="list-style-type: none"> • General agricultural conditions exist in the study area and adjacent to the existing Highway 	<ul style="list-style-type: none"> • Soils within the vicinity of the study area are classified as Class 1, 3, 4, and 7.

Factor / Indicator	Existing Environmental Conditions (1997)	Review of Existing Environmental Conditions (2016)
	11/17. <ul style="list-style-type: none"> Designated specialty crops, including potatoes and strawberries are present within the Ouimet area. Soils within the Thunder Bay corridor are classified as Class 3, 5 and 7. 	<ul style="list-style-type: none"> The Ministry of Agriculture and Food & Ministry of Rural Affairs was contacted on April 25-16 noting that agricultural lands will be impacted by the study and requested current and precise soil classification mapping for the study area.
Archaeology and Heritage	<ul style="list-style-type: none"> The 1997 ESR recommended future archaeological assessments be conducted along the corridor. 	<ul style="list-style-type: none"> A Stage 1 archaeological assessment was carried out in October 2015 and identified areas that require further Stage 2 archaeological assessment. Further Stage 2 assessment will be carried out later in the Detail Design phase.
Heritage	<ul style="list-style-type: none"> No heritage features were documented in the 1997 ESR. 	<ul style="list-style-type: none"> Municipality of Shuniah and Township of Dorion confirmed no built heritage resources are present within the vicinity of the study area. The Canadian Pacific Railway Overhead Bridge at Ouimet was screened out with the <i>Heritage Bridges - Identification and Assessment Guide</i> (Ontario 1945-1965) as not having heritage value.

3.0 Review / Update to 1997 EA Approved Plan

This Preliminary Design, Detail Design, and Class Environmental Assessment (EA) Study includes a review of the commitments made in the 1997 Environmental Study Report (ESR) based on new engineering standards, and new environmental constraints.

The 1997 EA Approved Plan is shown in **Exhibit 3-1**. Highway 11/17 was divided into four manageable sections within the study limits for the purposes of reviewing the EA approved highway alignment based on updated geometric criteria, existing environmental constraints, and the length of the study area. **Exhibit 3-1** also presents these four sections.

The review of the 1997 EA Approved Plan included the following:

- Review of Highway Cross-Section;
- Review of Highway Alignment; and
- Review of Public Access Locations.

The following sub-sections summarize the review of the above components, and the analysis / evaluation of alternatives, as applicable.

3.1 Review of Highway Cross-Section

MTO is proposing to increase the right-of-way from 90 m (minimum) to 110 m (minimum) as a result of revisions to highway engineering design and safety standards that have occurred since the 1997 ESR. This will accommodate a 30 m median and flatter (4:1) side slopes. In addition, the decision to provide a minimum right-of-way width of 110 m ensures a consistent corridor width for Highway 11/17 between Thunder Bay and Nipigon. A typical cross-section is shown in **Exhibit 3-2**.

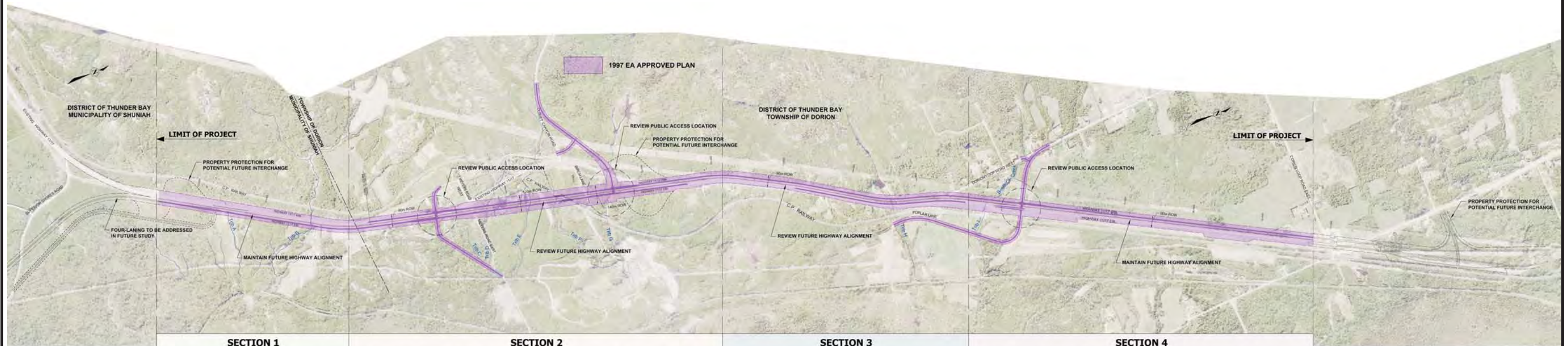
3.2 Review of Highway Alignment

The four-laning alignment identified in the 1997 EA Approved Plan was reviewed to ensure the proposed highway alignment meets current engineering standards and minimizes / avoids updated environmental constraints.

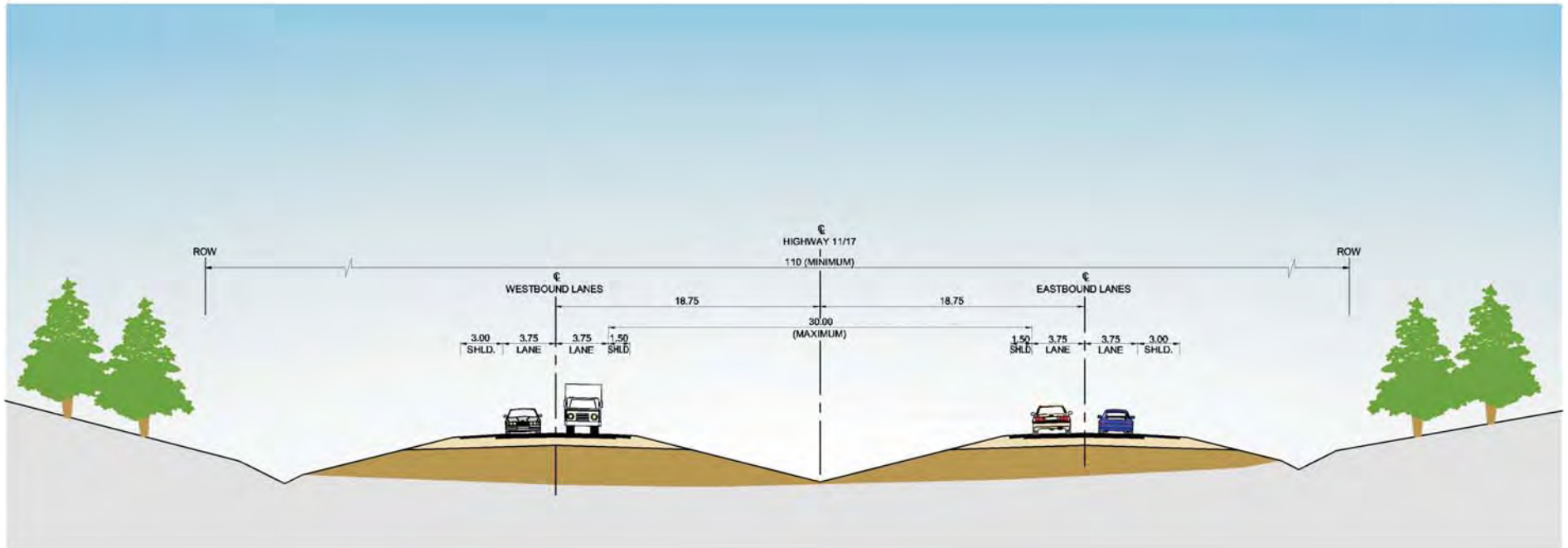
The 1997 EA Approved plan is made up of the following sections of twinning and new alignment:

- Section 1:
 - Construct two (2) new lanes for eastbound traffic south of the existing Highway 11/17 (twinning).
- Section 2:
 - Realign the existing Highway 11/17 south of the existing railway bridge and construct four new lanes and two new bridges over the railway.
- Sections 3 and 4:
 - Construct two (2) new lanes for westbound traffic north of the existing Highway 11/17 (“twinning”).

Following a review of the 1997 ESR approved alignment during this Preliminary Design Study, alignment alternatives were identified for Sections 2 and 3. Revisions to the 1997 ESR approved alignment were not required in Sections 1 and 4. The factors and criteria used by the Project Team to evaluate the alignment alternatives for Sections 2 and 3 are summarized in **Exhibit 3-3**.



SECTION 1	SECTION 2	SECTION 3	SECTION 4
<ul style="list-style-type: none"> • NO SIGNIFICANT CHANGES TO HIGHWAY ALIGNMENT. • WIDEN HIGHWAY RIGHT-OF-WAY FROM 90m TO 110m (MINIMUM). • INTERIM TRANSITION FROM EXISTING HIGHWAY TO PROPOSED FOUR-LANING. 	<ul style="list-style-type: none"> • NEW HIGHWAY ALIGNMENT ALTERNATIVES DEVELOPED TO MINIMIZE ENVIRONMENTAL IMPACTS AND TO ENHANCE HIGHWAY GEOMETRY (SEE EVALUATION OF HIGHWAY ALIGNMENT ALTERNATIVES DISPLAY). • WIDEN HIGHWAY RIGHT-OF-WAY FROM 90m TO 110m (MINIMUM). • NEW PUBLIC ACCESS ALTERNATIVES DEVELOPED WITH CONSIDERATION TO A MINISTRY SPACING CRITERIA OF 3-8km AND THE NEEDS OF THE COMMUNITY (SEE "MEYERS ROAD EAST", "MEYERS ROAD WEST" & "OUIMET CANYON ROAD" DISPLAYS). 	<ul style="list-style-type: none"> • NEW HIGHWAY ALIGNMENT ALTERNATIVES DEVELOPED TO IMPROVE HIGHWAY GEOMETRY AND MINIMIZE IMPACTS TO HYDRO TOWERS. (SEE EVALUATION OF HIGHWAY ALIGNMENT ALTERNATIVES DISPLAY) • WIDEN HIGHWAY RIGHT-OF-WAY FROM 90m TO 110m (MINIMUM). • NEW PUBLIC ACCESS ALTERNATIVES DEVELOPED WITH CONSIDERATION TO A MINISTRY SPACING CRITERIA OF 3-8km AND THE NEEDS OF THE COMMUNITY (SEE "MEYERS ROAD EAST", "MEYERS ROAD WEST" & "OUIMET CANYON ROAD" DISPLAYS) 	<ul style="list-style-type: none"> • NO SIGNIFICANT CHANGES TO HIGHWAY ALIGNMENT. • WIDEN HIGHWAY RIGHT-OF-WAY FROM 90m TO 110m (MINIMUM). • NEW PUBLIC ACCESS ALTERNATIVES DEVELOPED WITH CONSIDERATION TO A MINISTRY SPACING CRITERIA OF 3-8km AND THE NEEDS OF THE COMMUNITY (SEE "DORION LOOP ROAD WEST" & "POPLAR LANE" DISPLAYS)



G.W.P. 135-90-00
 HIGHWAY 11/17 FOUR-LANING
 From 2.83 km West of Ouimet Overhead, Easterly 8.63 km
 Environmental Study Report Addendum

Typical Section

Exhibit

3-2

Exhibit 3-3: Evaluation Criteria

Factors	Level of Importance	Criteria / Measurement / Indicators	Rationale for Importance
Natural Environment	Medium	<ul style="list-style-type: none"> • Extent of Natural Habitat Fragmentation • Extent of Impacts to Natural Features • Extent of Vegetation Community Removal • Potential Impacts to Wildlife and Wildlife Habitat • Impact to Fish and Aquatic Resources 	<ul style="list-style-type: none"> • Natural Environment has medium relevance in the decision-making process. Minimizing potential impacts to undisturbed natural areas and water features is considered important; however, these potential impacts must be weighed against the benefits of a four-laned highway that improves future traffic operations and meets current design standards.
Socio-Economic and Cultural Environment	Medium	<ul style="list-style-type: none"> • Resident and Business Displacement • Property Requirements • Noise • Archaeological Resources 	<ul style="list-style-type: none"> • Socio-Economic and Cultural Environment has medium relevance in the decision-making process. While it is desirable to minimize property takings and impacts, and potential noise impacts, these potential impacts must be weighed against the benefits of a four-laned highway that improves future traffic operations and meets current design standards.
Transportation and Engineering	High	<ul style="list-style-type: none"> • Flexibility to Accommodate Municipal Road Connections • Highway Geometrics • Flexibility to Accommodate Future Interchanges • Intersection Spacing Requirements (3 - 8 km) • Complexity and Difficulty of Construction • Geotechnical Suitability • Impacts to Utilities • Structures 	<ul style="list-style-type: none"> • Transportation is the key factor in the decision-making process since the overall purpose of the highway planning and design project is to develop a proposed plan that accommodates future traffic operations and meets current design standards.

Factors	Level of Importance	Criteria / Measurement / Indicators	Rationale for Importance
Cost	Medium	<ul style="list-style-type: none"> • Cost including construction, utility relocation, and property requirement 	<ul style="list-style-type: none"> • Cost has medium relevance in the decision-making process. While a cost-effective plan is required, improvements to future traffic operations and meeting current design standards are considered at a higher significance relative to cost.

In Section 2, two (2) alignment alternatives were considered against the 1997 EA Approved Plan and placed to the south of the existing highway given the railway and hydro corridor constraints to the north. The alignment alternatives were developed in an effort to minimize footprint impacts to environmental features such as baitfish ponds, rock barren (potential Whip-Poor-Will habitat), and the significant woodland. **Exhibit 3-4** illustrates the highway alignment alternatives considered in Section 2 and **Exhibit 3-5** summarizes the analysis / evaluation of these highway alternatives.

Based on the analysis / evaluation, Alternative 2-2 is preferred for the following reasons:

- Retains most of baitfish ponds between Meyers Road and Canadian Pacific Railway (CPR);
- Lowest property impact and displacement;
- Minimizes impact to significant woodland area and potential Whip-Poor-Will habitat;
- Impacts fewer noise / air quality sensitive areas;
- Has better construction staging;
- Slightly better skew on the CPR structure and geometrics; and
- Lower cost.

In Section 3, two (2) alignment alternatives to the 1997 Approved Plan were placed to the north of the existing highway given the railway constraint to the south. The alignment alternatives also considered minimizing impacts to the Hydro One towers. **Exhibit 3-6** illustrates the highway alignment alternatives considered in Section 3 and **Exhibit 3-7** summarizes the analysis / evaluation of these highway alternatives.

Based on the analysis / evaluation, Alternative 3-2 is preferred for the following reasons:

- Lower property impact and displacements;
- Impacts fewer noise / air quality sensitive areas;
- Has better highway geometrics;
- Has better construction staging;
- Impacts fewer hydro towers; and
- Lower cost.

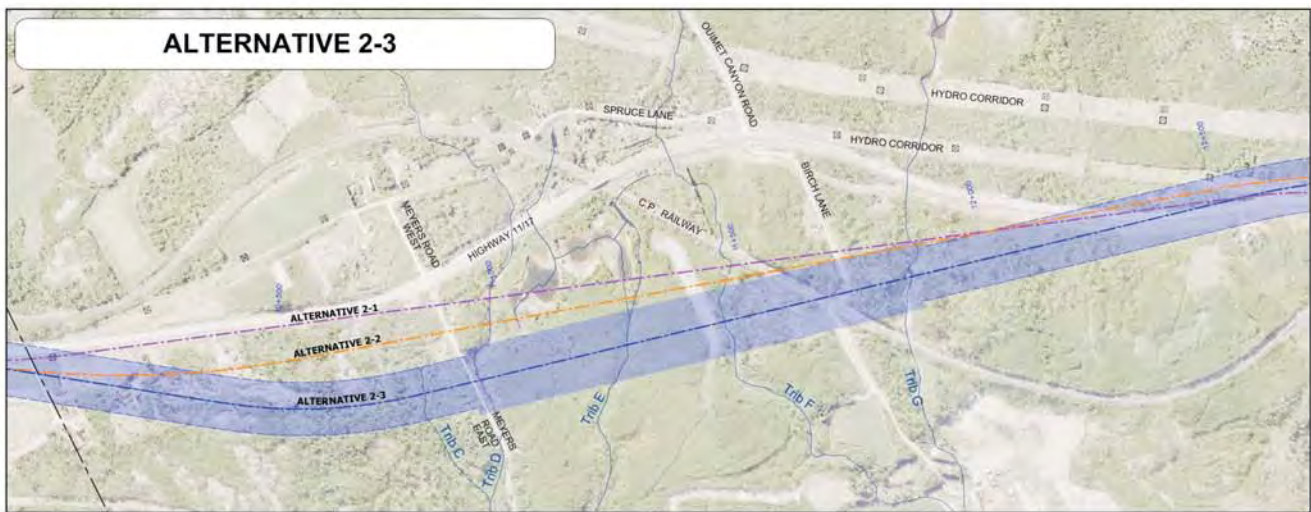
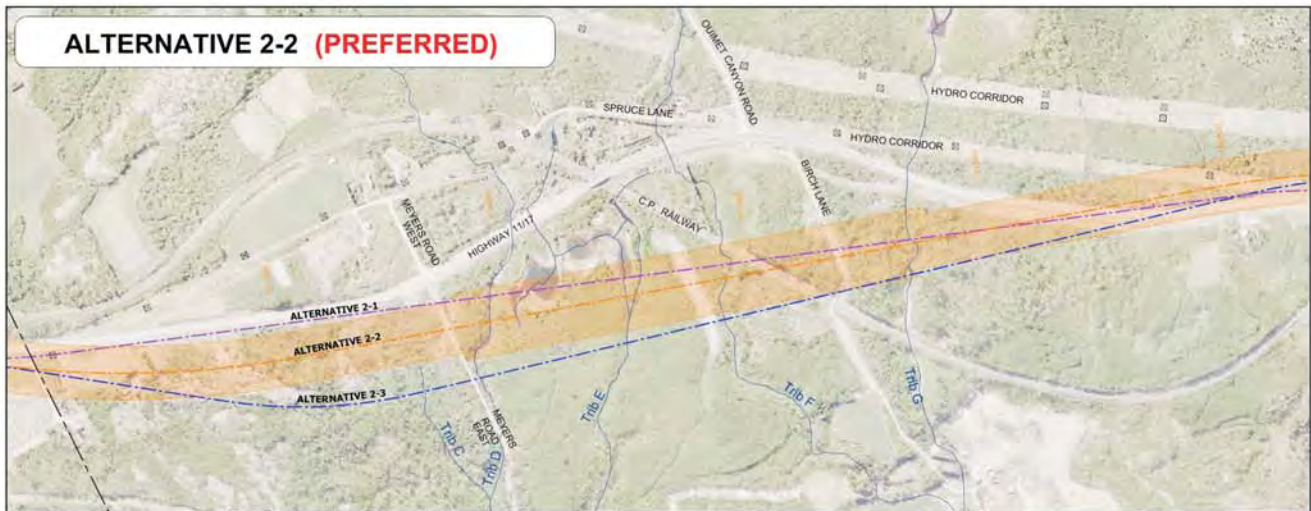
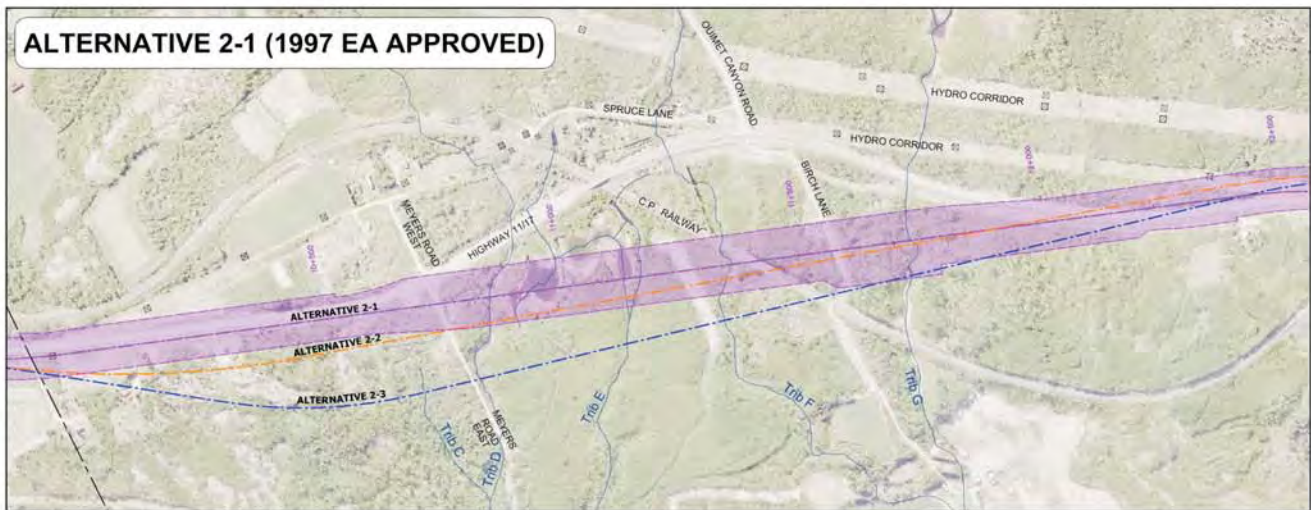

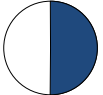




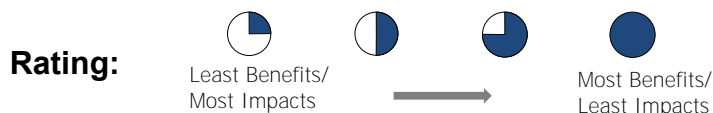


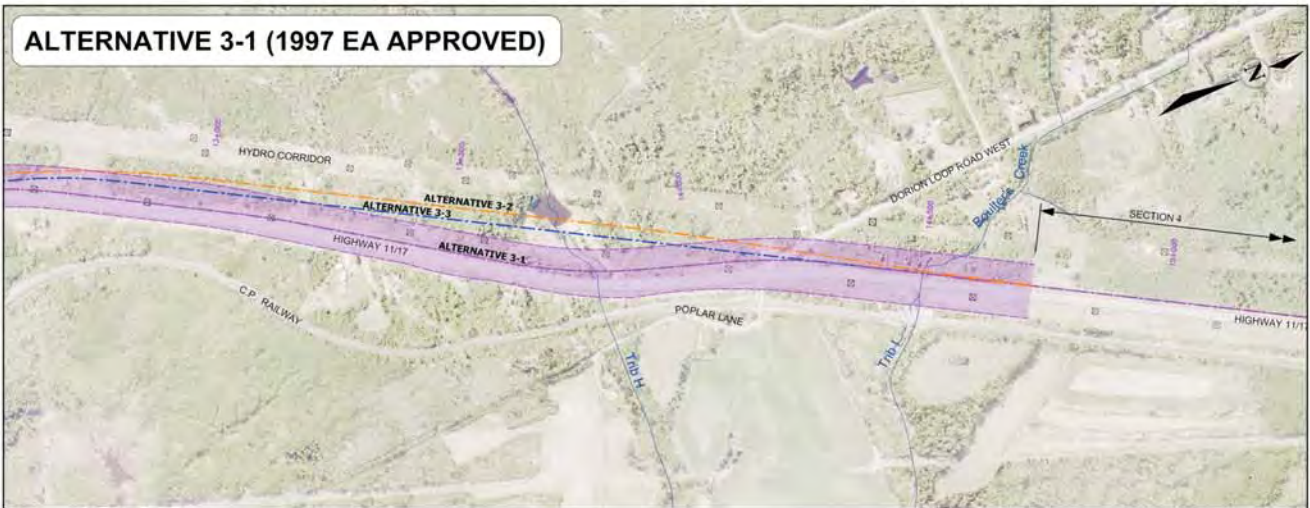
Exhibit 3-5: Analysis and Evaluation of Highway Alignment Alternatives for Section 2

Factor / Indicator	Alternative 2-1 (1997 EA Approved Plan)	Alternative 2-2	Alternative 2-3	Comments
Natural Environment				<ul style="list-style-type: none"> Alternative 2-1 will result in minor habitat fragmentation whereas Alternatives 2-2 and 2-3 will cause greater habitat fragmentation. Alternative 2-1 will minimize impacts to significant woodland area, wetlands, and rock barren (potential Whip-Poor-Will habitat). Alternative 2-2 will result in minor impacts to the significant woodland area but higher impacts to rock barren areas. Alternative 2-3 results in direct impacts to the significant woodland area and the highest impact to rock barren areas. Alternative 2-1 will require the least amount of vegetation removal because this alignment reuses a portion of existing Highway 11/17. Alternatives 2-2 and 2-3 will require greater extents of vegetation removal. All Alternatives will require crossings over Tributaries C, D, E, F, and G. Alternative 2-1 is not preferred because it is anticipated to have greater impacts to baitfish ponds.
Summary	<ul style="list-style-type: none"> Alternative 2-1 is preferred from a natural environment perspective. 			
Socio-Economic and Cultural Environment				<ul style="list-style-type: none"> All Alternatives will impact the private baitfish operation, however, Alternative 2-1 causes the least impacts to private baitfish ponds. Alternative 2-1 is anticipated to impact 13 properties; Alternatives 2-2 is anticipated to impact 11 properties and Alternative 2-3 is anticipated to impact 12 properties. 2 residential and/or business displacements result with all three alternatives. Alternative 2-1 has the lowest property requirement by area, though all have similar total property requirements. Alternative 2-2 will impact the fewest noise / air quality sensitive areas. All alternatives require archaeological assessment.

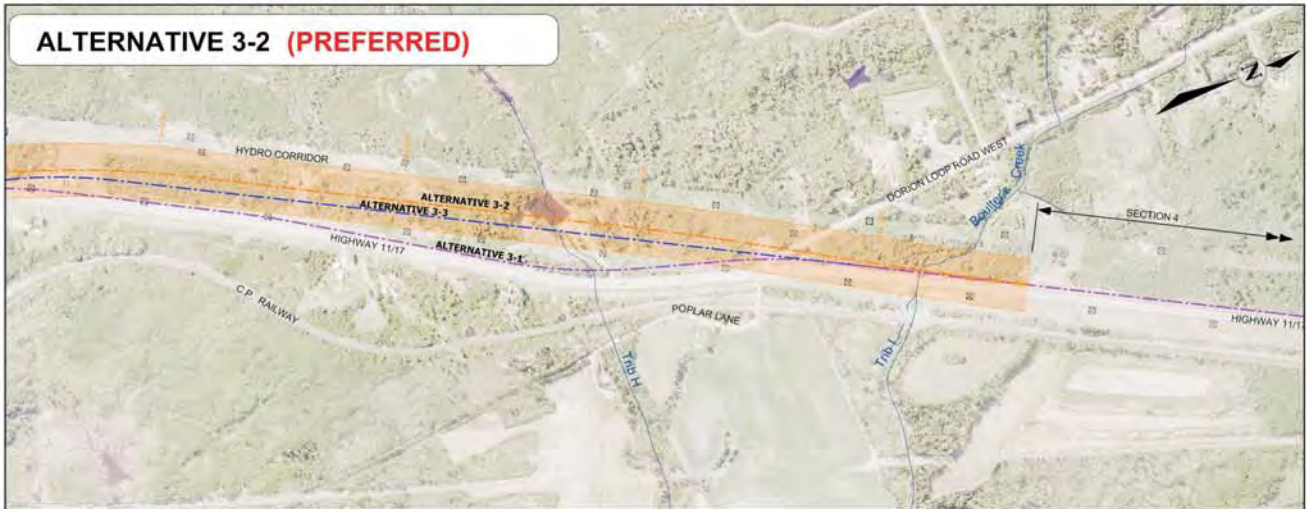
Factor / Indicator	Alternative 2-1 (1997 EA Approved Plan)	Alternative 2-2	Alternative 2-3	Comments
Summary	• Alternative 2-2 is preferred from a socio-economic and cultural perspective.			
Transportation /Engineering				<ul style="list-style-type: none"> • All Alternatives will meet the projected traffic demand and enhance highway safety. • Alternative 2-2 will offer slightly better highway geometrics, and will accommodate future municipal road connections. • Alternative 2-2 allows for better construction staging which reduces the impacts of traffic during construction. • Alternative 2-2 allows for a slightly better skew at the CPR bridge crossing and reduces CPR bridge length. • All Alternatives will have similar impacts to utility towers.
Summary	• Alternative 2-2 is preferred from a transportation / engineering perspective.			
Cost				<ul style="list-style-type: none"> • Alternative 2-2 has a lower construction cost whereas Alternatives 2-1 and 2-3 have higher construction costs.
Summary	• Alternative 2-2 is preferred from a cost perspective.			
OVERALL EVALUATION		 PREFERRED		<p>Overall, Alternative 2-2 is preferred for the following reasons:</p> <ul style="list-style-type: none"> • Retains most of baitfish ponds between Meyers Road and CPR; • Lowest property impact and displacement • Minimizes impact to significant woodland area and potential Whip-Poor-Will habitat; • Impacts fewer noise / air quality sensitive areas; • Has better construction staging; • Slightly better skew on the CPR structure and geometrics; and • Lower cost.



ALTERNATIVE 3-1 (1997 EA APPROVED)



ALTERNATIVE 3-2 (PREFERRED)



ALTERNATIVE 3-3

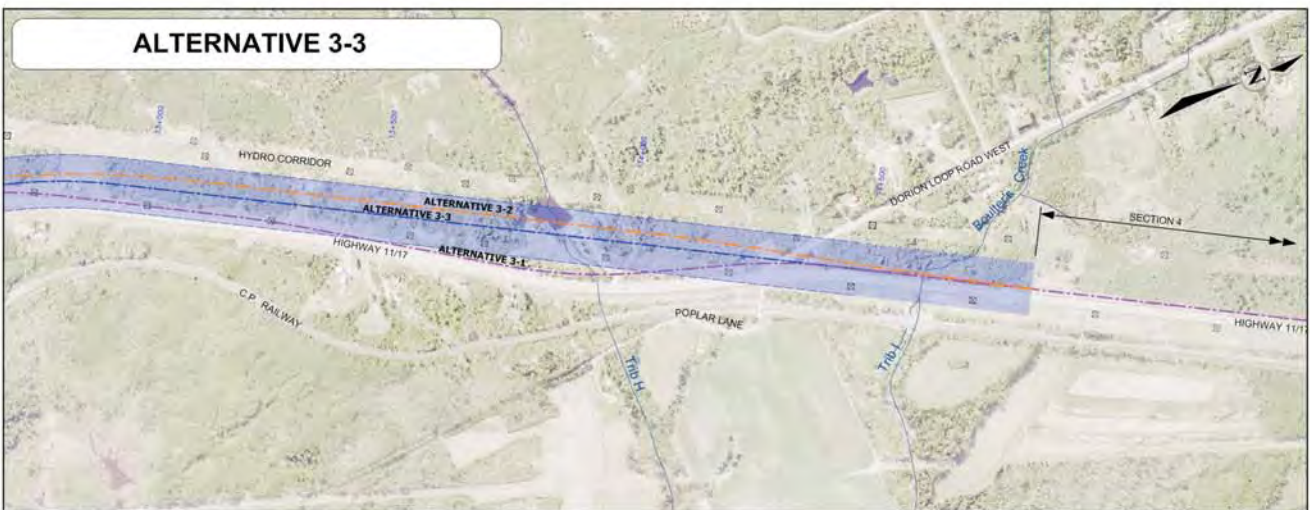











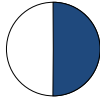



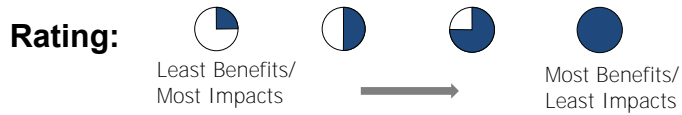


Exhibit 3-7: Analysis and Evaluation of Highway Alignment Alternatives for Section 3

Factor / Indicator	Alternative 3-1 (1997 EA Approved Plan)	Alternative 3-2	Alternative 3-3	Comments
Natural Environment				<ul style="list-style-type: none"> Alternative 3-1 will result in minor habitat fragmentation whereas Alternatives 3-2 and 3-3 will cause greater habitat fragmentation. Alternative 3-1 will minimize impacts to natural features (i.e. wetlands), whereas Alternatives 3-2 and 3-3 will result in greater impacts to wetlands. Alternative 3-1 avoids impacts to the private baitfish pond while Alternatives 3-2 and 3-3 impacts the private baitfish pond. All alternatives will require a crossing over Tributary H and Tributary I / Boulter's Creek.
Summary	<ul style="list-style-type: none"> Alternative 3-1 is preferred from a natural environment perspective. 			
Socio-Economic and Cultural Environment				<ul style="list-style-type: none"> Alternative 3-1 is anticipated to impact 11 properties; Alternative 3-2 is anticipated to impact 7 properties, and Alternative 3-3 is anticipated to impact 7 properties. 3 residential and/or business displacements result with all three alternatives. Alternative 3 has the lowest property requirement by area, though all have similar total property requirements. Alternative 3-2 will impact fewer noise / air quality sensitive areas. All alternatives require archaeological assessment.
Summary	<ul style="list-style-type: none"> Alternative 3-2 is preferred from a socio-economic and cultural perspective. 			
Transportation / Engineering				<ul style="list-style-type: none"> All Alternatives meet the projected traffic demand and enhances highway safety. However, Alternative 3-2 offers better highway geometrics. Alternative 3-2 will result in fewer disruptions to traffic during construction as it allows for better construction staging. Alternative 3-2 will impact the fewest hydro towers.
Summary	<ul style="list-style-type: none"> Alternative 3-2 is preferred from a transportation / engineering perspective. 			

Factor / Indicator	Alternative 3-1 (1997 EA Approved Plan)	Alternative 3-2	Alternative 3-3	Comments
Cost				<ul style="list-style-type: none"> Alternative 3-2 has a lower construction cost whereas Alternatives 3-1 and 3-3 require higher construction costs.
Summary	<ul style="list-style-type: none"> Alternative 3-2 is preferred from a cost perspective. 			
OVERALL EVALUATION		 PREFERRED		<p>Overall, Alternative 3-2 is preferred for the following reasons:</p> <ul style="list-style-type: none"> Lower property impacts and displacements; Impacts fewer noise / air quality sensitive areas; Has better highway geometrics; Has better construction staging; Impacts fewer hydro towers; and Lower cost.



3.3 Review of Public Access Locations

Public access locations identified in the 1997 EA Approved Plan were reviewed in consideration of the existing and planned development (e.g. local Official Plans, Strategic Plan, developments underway etc.), and MTO's roadway use and highway access management. The new four-lane divided Highway 11/17 was designated as a Controlled Access Highway in 2003; as a result, the number of direct accesses to Highway 11/17 will be limited. Public road access will depend on the needs of the community in consideration to adjacent development / land use, and MTO's Controlled Highway Access Criteria that requires 3 km to 8 km between accesses. The public access provisions in the 1997 EA Approved Plan include interim at-grade intersections at Meyers Road, Ouimet Canyon Road and Dorion Loop Road West and consideration of future interchanges at Superior Shores Road, Ouimet Canyon Road, and Dorion Loop Road East.

This section discusses and summarizes the generation and assessment of the public access locations at:

- Meyers Road;
- Ouimet Canyon Road;
- Service Road East of Ouimet Canyon Road;
- Birch Lane;
- Dorion Loop Road West; and
- Poplar Lane.

3.3.1 Meyers Road

The 1997 EA Approved Plan identified 1.3 km spacing between Meyers Road and Ouimet Canyon Road, which does not satisfy the minimum spacing criteria of 3 km between full-access intersections. Accesses that are too closely spaced can lead to operational and safety concerns. In addition, Meyers Road East is limited to seasonal road use only. In light of these considerations, the Project Team initially determined that full access with a median crossover is not recommended at Meyers Road. As such, access options were reviewed separately at Meyers Road East and Meyers Road West.

One (1) public access alternative was developed for Meyers Road East while two (2) public access alternatives were developed for Meyers Road West for review and evaluation against the 1997 EA Approved Concept. The proposed sideroad connection evaluation and plans for Meyers Road East and West were presented at the first Public Information Centre (PIC), and are included in **Appendix C**.

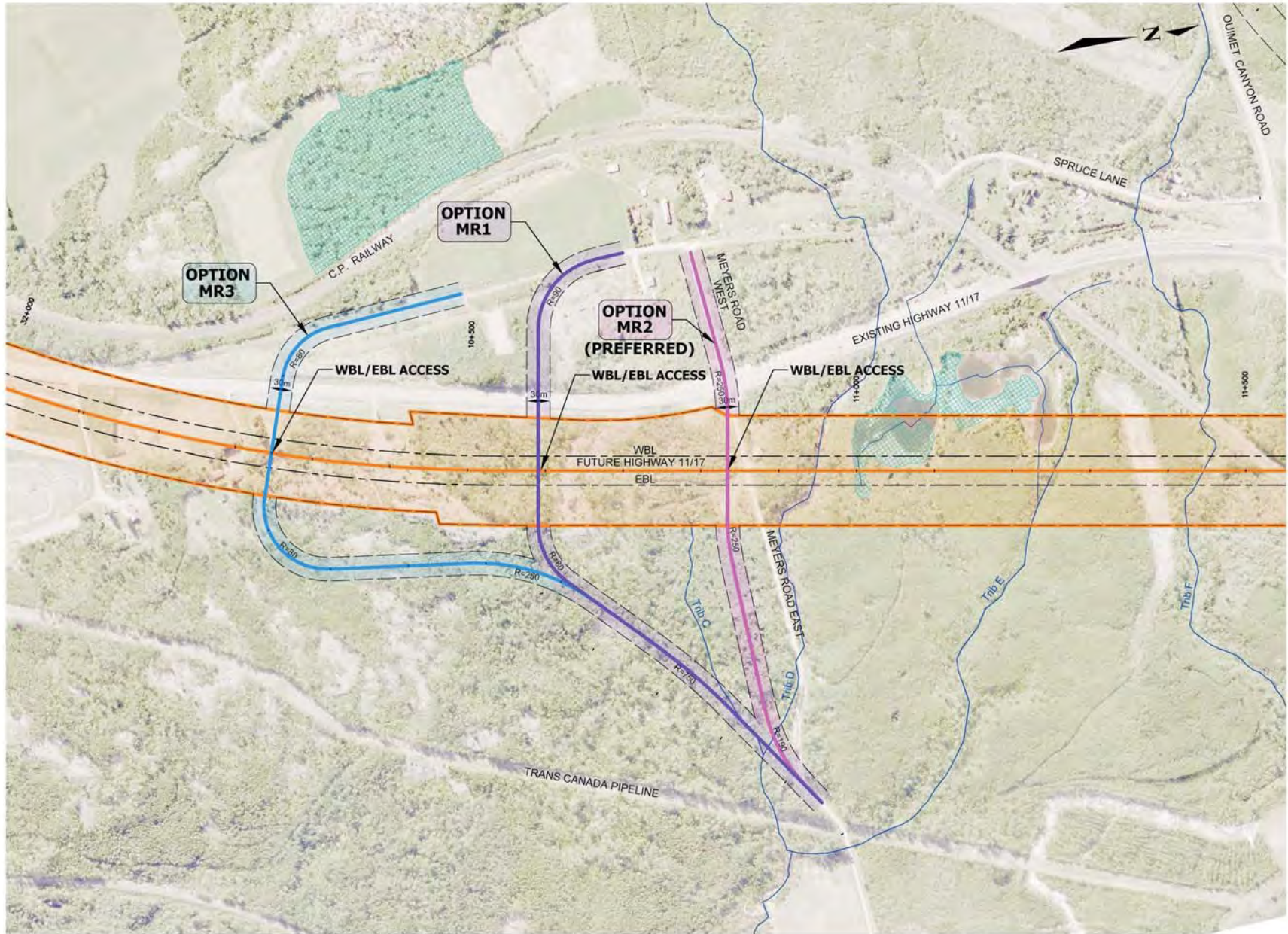
The Ministry received numerous comments at and following the PIC from local residents about safety concerns with the proposed at-grade railway crossing at Spruce Lane (Option MRW2). The concerns were related to the train's operating speeds and sight distances given the curvilinear alignment of the tracks. It was determined that sightline requirements could be achieved or marginally exceeded, provided some trees were cleared on private property. Further discussions with Canadian Pacific Railway indicated that this proposed "public" crossing location would not be considered a relocation but rather a new at-grade rail crossing and would be subject to current permitting procedures. The existing crossings (Mile 89.40 Nipigon Sub and #2 – mile 88.60 Nipigon Sub (i.e. Birch Lane)) are private crossings and are for the exclusive use of the property owners at these locations. They are linked to the title of the property, dating back to when the railway was built and cannot be relocated, as they must be contiguous to the property.

The Dorion Four Lane Community Consultation Committee (DFLCCC) requested that the Ministry revisit the provision of full median access at Meyers Road as a result of the existing and planned development associated with the RV Park on Meyers Road East. Three (3) alternatives providing full median crossing at Meyers Road were developed for further review and evaluation, which are outlined in **Exhibit 3-8**. Further details of the additional analysis are provided in **Exhibit 3-9**.

Based on the updated analysis / evaluation of the three (3) alternatives for Meyers Road, Option MR2 was assessed as the technically preferred alternative for the following reasons:

- Eliminates the railway crossing at Spruce Lane;
- Less impact to tributaries and fish and fish habitat;
- No channel realignment required;
- Lowest overall cost;
- Least property impacts; and
- Tolerable traffic disruption to Meyers Road (2 active residents on Meyers Road East)

It should be noted that the Ministry's long term transportation strategy for this section of Highway 11/17 is to ultimately remove full access at Meyers Road with the future construction of the Ouimet Canyon Road interchange.



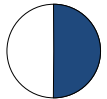


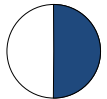

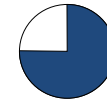
G.W.P. 135-90-00
 HIGHWAY 11/17 FOUR-LANING
 From 2.83 km West of Ouimet Overhead, Easterly 8.63 km
 Environmental Study Report Addendum


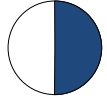
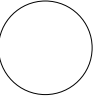
Public Access Options for Meyers Road

Exhibit

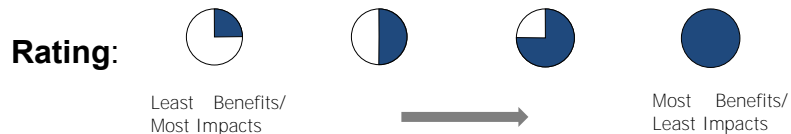
3-8

Exhibit 3-9: Evaluation of Alternatives for Meyers Road

Factor / Indicator	Level of Importance	Option MR1 (1997 EA Approved Concept)	Option MR2	Option MR3	Comments
Natural Environment	Medium				<ul style="list-style-type: none"> • MR2 results in less natural habitat fragmentation compared to MR1 and MR3. • MR3 results in the most cut through the rock barren, which may support Whip-Poor-Will (SAR) habitat in the area. • MR3 requires the most vegetation removal. • MR2 requires one watercourse crossing (Trib D), whereas, MR1 and MR3 require two crossings (Trib C and Trib D). • MR1 and MR3 require a realignment of a section of Trib C resulting in more watercourse impacts and potential for impacts on fish and fish habitat. • MR2 realizes the smallest amount of impact on the natural environment as it parallels an already impacted section of road. • MR1 and MR3 result in more fragmentation of the north/south movement corridor for wildlife compared to MR2.
Category Summary	<ul style="list-style-type: none"> • MR2 is preferred from a natural environment perspective. 				
Socio-Economic and Cultural Environment	Medium				<ul style="list-style-type: none"> • No residential or business displacements. • MR2 has the least property requirements. • MR1 bisects privately owned property. • MR3 provides the least impact to noise/air quality sensitive receptors followed by MR1. • MR2 retains proximity to noise/air quality

Factor / Indicator	Level of Importance	Option MR1 (1997 EA Approved Concept)	Option MR2	Option MR3	Comments
					receptors. • All options may require further archaeological assessment.
Category Summary	• MR2 is preferred from a socio-economic and cultural environment perspective.				
Transportation / Engineering	High				<ul style="list-style-type: none"> • MR3 does not allow for standard geometrics at the median crossing location and is therefore unviable. • MR1 provides the most desirable median crossing location since the existing and proposed highways are on tangent. • MR2 crosses the existing highway at a curve location resulting in a less desirable tie-in compared to MR1. • Intersection spacing from Ouimet Canyon Road is approximately 1.4 km for MR1, 1.2 km for MR2, and 1.8 km for MR3. MR3 is an unviable option due to substandard geometry. • MR1 meets sightline requirements for a 70 kph design speed while MR2 meets sightlines for a 60 kph design speed. MR3 is an unviable option due to substandard geometry. • MR1 requires the least complex construction and can be completed offline. No detours are required for construction. • MR2 will require reconstruction of existing Meyers Road via single lane closures resulting in more

Factor / Indicator	Level of Importance	Option MR1 (1997 EA Approved Concept)	Option MR2	Option MR3	Comments
					disruption to residents. • No known geotechnical concerns in this area. • No impacts to utilities.
Category Summary	• MR1 is preferred from a transportation / engineering perspective.				
Cost	Medium				• MR2 is anticipated to have the lowest overall cost.
Category Summary	• MR2 is preferred from a cost perspective.				
EVALUATION SUMMARY			 PREFERRED		Overall, Option MR2 is preferred for the following reasons: <ul style="list-style-type: none"> • Eliminates the railway crossing at Spruce Lane. • Less impact to tributaries and fish and fish habitat. • No channel realignment required. • Lowest overall cost. • Traffic disruption to Meyers Road as a result of the construction staging is tolerable as the road provides access to a limited number of occupied properties (i.e. 3).



3.3.2 Ouimet Canyon Road

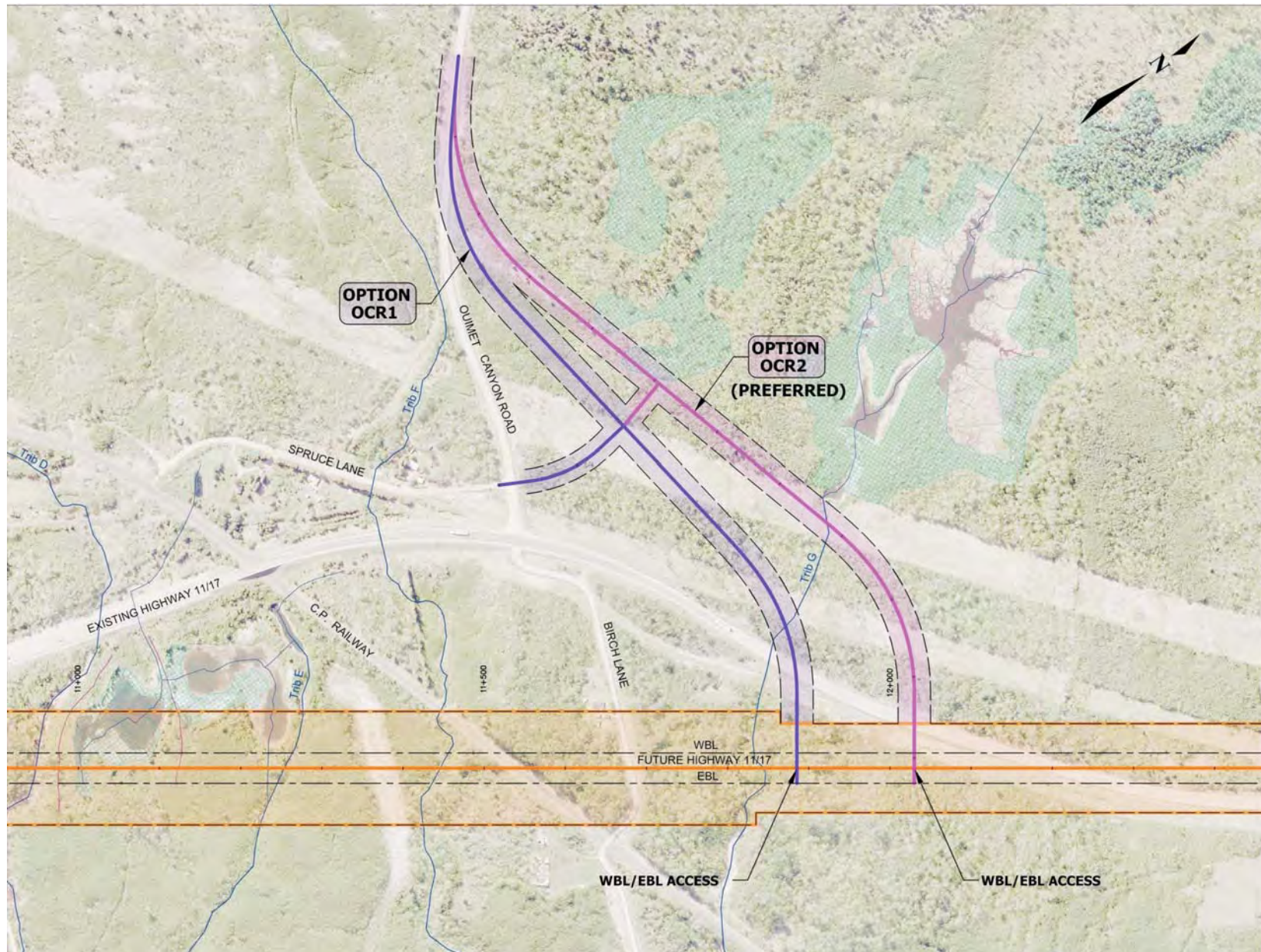
One (1) public access alternative for Ouimet Canyon Road was developed for review and evaluation against the 1997 EA Approved Concept, which is outlined in **Exhibit 3-10**. The evaluation of the alternatives is presented in **Exhibit 3-11**.

Option OCR2 was determined as the preferred public access option for Ouimet Canyon Road for the following reasons:

- No impact to Tributary G;
- Least impact to noise / air quality sensitive receptors; and
- Improved constructability / staging.

Based on the analysis / evaluation, the full access provision at Ouimet Canyon Road will be maintained. A slight alignment shift to the east is proposed to improve constructability and to maintain traffic during construction.

The Ministry's ultimate transportation plan for this section of Highway 11/17 is to provide an interchange at Ouimet Canyon Road. Side roads and public access locations may be reviewed at this time to optimize the local road network with the interchange.









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 HIGHWAY 11/17 FOUR-LANING
 From 2.83 km West of Ouimet Overhead, Easterly 8.63 km
 Environmental Study Report Addendum

Public Access Options for Ouimet Canyon Road

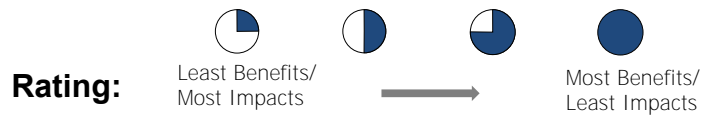
Exhibit

3-10

Exhibit 3-11: Evaluation of Ouimet Canyon Road Options

Factor / Indicator	Option OCR1 (1997 EA Approved Concept)	Option OCR2	Comments
Natural Environment			<ul style="list-style-type: none"> • OCR1 results in less habitat fragmentation than OCR2. • OCR2 encroaches into wetland areas (sensitivities not yet known). • Both options will require cut through some rock barren, which may serve as potential Whip-Poor-Will habitat. • OCR1 requires less vegetation removal than OCR2. • OCR1 crosses a portion of Tributary G, but it appears to be at its upstream origins so likely a minor crossing required and fish potential unlikely.
Summary	<ul style="list-style-type: none"> • OCR1 and OCR2 are preferred equally from a natural environment perspective. 		
Socio-Economic and Cultural Environment			<ul style="list-style-type: none"> • No residential displacements. • Both options have similar property impacts. • OCR2 realigns Ouimet Canyon Road further away from 2 noise / air quality sensitive receptors. • All options may require further archaeological assessment.
Summary	<ul style="list-style-type: none"> • OCR1 and OCR2 are preferred equally from a socio-economic and cultural perspective. 		
Transportation / Engineering			<ul style="list-style-type: none"> • The road profile approaching the proposed four-laned highway is less desirable in OCR1 given the requirement to match the existing highway grade. This will allow for less complex construction and is better achieved in OCR2. • Both OCR1 and OCR2 provide full access to Highway 11/17 and meet intersection spacing requirements. • OCR2 provides less complex staging than OCR1. • OCR2 requires a longer extension of Spruce Lane. • OCR2 crosses a swamp. • No direct impact to hydro transmission towers. Line clearances will be reviewed as the design progresses.
Summary	<ul style="list-style-type: none"> • OCR2 is preferred from a transportation / engineering perspective. 		

Factor / Indicator	Option OCR1 (1997 EA Approved Concept)	Option OCR2	Comments
Cost			<ul style="list-style-type: none"> The cost of both options is similar; neither presents issues requiring cost premiums.
Summary	<ul style="list-style-type: none"> OCR1 and OCR2 are preferred equally from a cost perspective. 		
EVALUATION SUMMARY		 PREFERRED	<p>Overall, Option OCR2 is preferred for the following reasons:</p> <ul style="list-style-type: none"> Least impact to noise / air quality sensitive receptors; and Improved constructability / staging.



3.3.3 Birch Lane

The 1997 EA Approved Plan did not provide access from the new four-lane divided highway to Birch Lane. However, four (4) public access alternatives for Birch Lane were developed for review and evaluation against the 1997 EA Approved Concept, which were presented at the first PIC held on April 13, 2016, and are included in **Appendix C**.

In light of the comments received from the local residents and the Township of Dorion following the PIC, the prime agricultural land that would otherwise be severed from the highway, and in consideration for the resultant displacement of an active residential / commercial property on Birch Lane, the Ministry has committed to further review the feasibility of providing a public road connection between Birch Lane and Meyers Road East during the Detail Design phase.

3.3.4 Service Road

There are five (5) properties on the south side of the existing highway between the proposed realignment of Ouimet Canyon Road and Poplar Lane for which direct access onto the highway was not directly provided in the recommended plan presented at the PIC. This was in consideration of the Controlled Access Criteria where private access to realigned portions of highway is not permitted. As a result, the Ministry proposed that the existing highway be used as a service road for these property owners with a single shared access onto the new highway, with right-in / right-out access. A turnaround was proposed at the west end of the Service Road. Following the first PIC and at the request of the Township of Dorion and the DFLCCC, a westerly extension of the service road was reviewed in an effort to retain access to an additional parcel. However, the extension is not recommended for the following reasons:

- Increases costs to widen the existing Highway 11/17;
- Requires additional property impacts; and
- Does not provide a minimum 110 m highway right-of-way for the new four-lane divided highway.

Converting the existing highway to the service road will also require removal of the existing passing lane to provide a 2-lane public road under municipal jurisdiction. It is understood that the Township of Dorion will assume responsibility for the maintenance of the Service Road following construction, subject to discussions and negotiations with the Township of Dorion.

In light of the full access proposed at the Service Road connection to the new four-laned highway, the preferred plan proposes to connect Poplar Lane to the Service Road. Please refer to **Section 3.3.6** for additional details. The proposed Service Road plan is presented later in **Exhibits 5-1d - 5-1e**.

3.3.5 Dorion Loop Road West

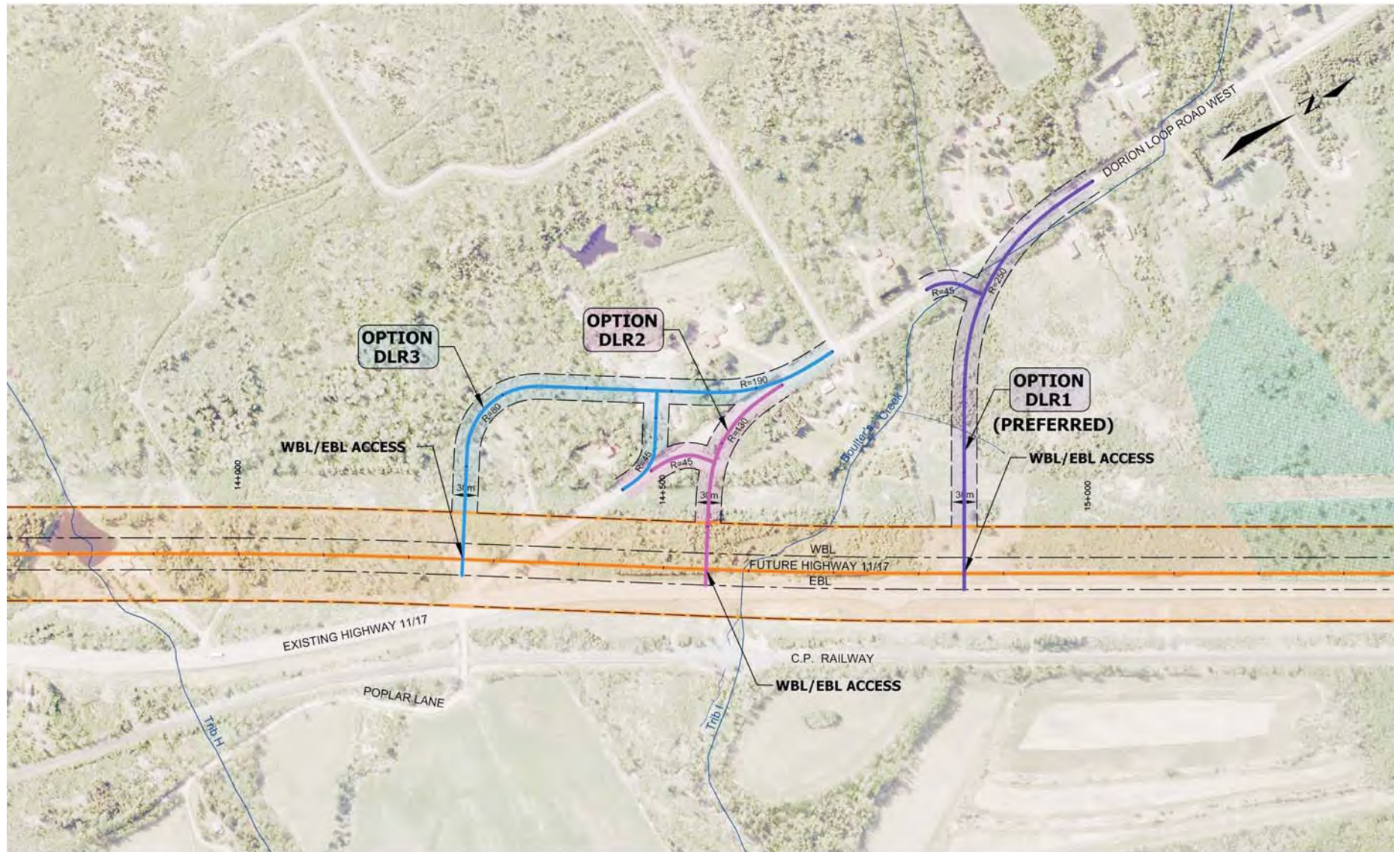
Two (2) public access alternatives for Dorion Loop Road West were developed for review and evaluation against the 1997 EA Approved Concept, which are outlined in **Exhibit 3-12**. The evaluation of the alternatives is presented in **Exhibit 3-13**.

Option DLR1 was determined as the preferred public access option for Dorion Loop Road West for the following reasons:

- Vegetation impacts consist of removal of culturally impacted second growth communities;
- Least impact to noise / air quality sensitive areas;
- Better geometrics and connection to Highway 11/17;
- Allows for a more gradual connection to existing Dorion Loop Road westerly; and
- Does not require road closure to construct.

Based on the analysis / evaluation, there are no changes to the 1997 EA Approved Plan proposed at Dorion Loop Road West.

In addition, the private entrance located 80 m easterly of the proposed Dorion Loop Road intersection will be realigned to connect to the new intersection allowing full access to the pasture land located on the south side of the Canadian Pacific Railway.









G.W.P. 135-90-00
 HIGHWAY 11/17 FOUR-LANING
 From 2.83 km West of Ouimet Overhead, Easterly 8.63 km
 Environmental Study Report Addendum

Public Access Options for Dorion Loop Road West

Exhibit

3-12

Exhibit 3-13: Evaluation of Dorion Loop Road West Options

Factor / Indicator	Option DLR1 (1997 EA Approved Concept)	Option DLR2	Option DLR3	Comments
Natural Environment				<ul style="list-style-type: none"> • DLR2 results in the least impact to the natural environment given its close proximity to existing Dorion Loop Road and shortest length. • None of the options are anticipated to impact any significant natural features. • DLR2 results in limited natural habitat fragmentation and vegetation removal compared to DLR1 and DLR3. • DLR2 has limited impacts to wildlife or wildlife habitat compared to DLR1 and DLR3. • DLR2 does not impact watercourses. DLR3 requires crossing of existing ditchlines at connections to the existing highway, and DLR1 potentially requires channel realignment of Tributary I.
Summary	• DLR2 is preferred from a natural environment perspective.			
Socio-Economic and Cultural Environment				<ul style="list-style-type: none"> • No residential or business displacements. • DLR1 results in impacts to at least 2 residential properties. DLR2 impacts 1 residential property and DLR3 impacts 3 residential properties. • DLR1 results in the least impacts to noise / air quality sensitive receptors. • All options may require further archaeological assessment.
Summary	• DLR1 is preferred from a socio-economic / cultural perspective.			

Factor / Indicator	Option DLR1 (1997 EA Approved Concept)	Option DLR2	Option DLR3	Comments
Transportation / Engineering				<ul style="list-style-type: none"> • DLR1 results in better geometrics and connection to Highway 11/17 (e.g. allows for a more gradual connection to existing Dorion Loop Road westerly). • All options provide full access to Highway 11/17 and meet intersection spacing criteria. • DLR2 requires a temporary closure of Dorion Loop Road West to enable construction. • The road profile for DLR2 is the least desirable due to steep grades and significant rock cut. • DLR3 results in the longest connection to Highway 11/17. • There is a higher risk of encountering contaminated soil as a result of past commercial land use with DLR1. • No direct impact to existing utilities with all options.
Summary	• DLR1 is preferred from a transportation / engineering perspective.			
Cost				• DLR1 is anticipated to have the lowest overall costs.
Summary	• DLR1 is preferred from a cost perspective.			
EVALUATION SUMMARY	 PREFERRED			<p>Overall, Option DLR1 is preferred for the following reasons:</p> <ul style="list-style-type: none"> • Vegetation impacts consist of removal of culturally impacted second growth communities; • Least impact to noise / air quality sensitive areas; • Better geometrics and connection to Highway 11/17; • Allows for a more gradual connection to existing Dorion Loop Road westerly; and • Does not require road closure to construct.



3.3.6 Poplar Lane

One (1) public access alternative for Poplar Lane was developed for review and evaluation against the 1997 EA Approved Concept which was presented at the first PIC (see PIC displays in **Appendix C**).

During and following the PIC, the Project Team received a number of comments from local residents, the Township of Dorion, and the DFLCCC requesting that full access at Poplar Lane be provided. A summary of this consultation has been included in **Section 4.0**.

After review of these comments, further consultation with the Township of Dorion and DFLCCC, and in consideration of the associated impacts / costs to provide full access, the preferred plan has been revised to replace the proposed partial access to Highway 11/17 at Poplar Lane with a new connection from Poplar Lane to the proposed Service Road by extending the proposed Service Road, and utilizing the existing Poplar Lane CP railway crossing. This new Service Road connection will provide full access to the new four-lane Highway 11/17 for the residents and properties located along Poplar Lane. The preferred plan for Poplar Lane is shown later in **Exhibits 5-1d - 5-1e**.

The Project Team presented the revised preferred plan for Poplar Lane to the DFLCCC on August 22, 2016. Following this meeting, the Project Team received comments from the Township of Dorion noting that Dorion Council met on September 6, 2016 to consider all study updates to date, and a special meeting was held on September 30, 2016 with Township staff, area residents, and impacted property owners to discuss the proposed changes to Poplar Lane. While Council supports the provision of full median access for the property owners on the proposed Service Road, Dorion Council, Township road staff, and local Fire Services do not support the connection location proposed for Poplar Lane and the proposed Service Road due to on-going safety concerns with the current rail crossing at Poplar Lane. Dorion Council maintains their preference for Poplar Lane is the extension of Poplar Lane eastward to the new railway crossing and median access opposite West Dorion Loop Road, as shown in the 1997 plan (**Exhibit 3-1**).

In response to the Township of Dorion's concerns, the Ministry reviewed the comments provided by Dorion Council, and the proposed plan. Following this review, the Ministry continues not to support a significant realignment of Poplar Lane to the West Dorion Loop Road intersection in consideration of ministry requirements and the associated impacts/costs. The proposed connection between Poplar Lane and the Service Road extension continues to be the preferred alternative for the following reasons:

- Provides full access to the four-laned Highway 11/17 for all residents along the Service Road and Poplar Lane;
- Minimizes impacts to natural environment;
- Reduces private property impacts;
- Avoids a new rail crossing for Poplar Lane; and
- Reduces costs by using the existing highway as a service road and avoids costs for a new road connection from Poplar Lane.

Under the proposed Service Road configuration, the existing at-grade railway crossing would be maintained and Poplar Lane would connect to a low volume, low speed road, which can accommodate the proposed 90 degree bend.

As a result of concerns, the Ministry will review opportunities to enhance the existing railway crossing in consultation with CPR and the adjacent property owners during Detail Design. This includes: site lines, approach grades and alignments. It is understood that the Township of Dorion assumes responsibility for the maintenance of the Service Road following construction, subject to discussions and negotiations with the Township of Dorion.

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4.0 Consultation / Engagement

Consultation / engagement is an integral component of the Environmental Assessment (EA) process and provides an opportunity for communication between the community and the Project Team to identify potentially significant environmental issues early in the decision making process and throughout the study.

The Project Team engaged with members of the public, property owners, Provincial and Federal Government Agencies, Municipality of Shuniah, Township of Dorion, Dorion Four-Lane Community Consultation Committee (DFLCCC), First Nations and Aboriginal groups, as well as other stakeholders.

This section provides details of the engagement that was undertaken during the Preliminary Design phase.

4.1 Initial Notification

External agencies (Municipality of Shuniah, Township of Dorion, First Nation and Aboriginal communities, local interest groups, and property owners) were notified regarding the commencement of this study by letter or email on October 7, 2015. The Ministry of Transportation (MTO) notified the local Member of Provincial Parliament (MPP) of the study commencement on September 25, 2015, and the appropriate First Nation / Aboriginal Communities and organizations on October 14, 2015.

All external agencies were provided with a form on that they could provide comments and/or background information relevant to the study, as well as the project website address (www.hwy11-17four-laningfromouimettodorion.ca). The study commencement notices were published in the *Thunder Bay Chronicle-Journal* on October 10, 2015, *Nipigon-Red Rock Gazette* on October 13, 2015, and *Thunder Bay's Source* on October 15, 2015. Copies of the newspaper notices are located in **Appendix A** while all relevant correspondence and meeting minutes can be found in **Appendix B**.

4.2 Impacted Property Owners

The Ministry contacted and met with impacted property owners throughout the study on an individual basis as required to discuss the highway alignment alternatives, public access options, and the potential impacts to their property.

The Project Team also met with the property owners on Meyers Road East and West to discuss the proposed changes to the 1997 plan.

Notification letters were hand delivered and emailed to property owners on Poplar Lane to advise of the changes to Poplar Lane since the presentation of the Preferred Plan at the PIC on April 13, 2016, and to provide an opportunity to meet with the Project Team to discuss the changes. The key comments received to date from the property owners on Poplar Lane and how they were addressed are summarized in **Exhibit 4-1**. The Project Team will continue to correspond with the property owners on Poplar Lane to respond to their comments or concerns during Detail Design.

Exhibit 4-1: Summary of Key Comments from Poplar Lane Property Owners

Summary of Comments	MTO Response
Concern with additional travel time along Highway 11/17 for farm equipment.	The Ministry noted that 3 m paved shoulders will be provided throughout the project limits to assist in accommodating farm equipment.
Concern with the existing Canadian Pacific (CP) railway crossing in terms of sightlines and approach grades.	The Ministry has committed to review opportunities to improve the existing railway crossing in consultation with the Township of Dorion and CP during Detail Design.
Concern with additional travel time for fire truck response.	The Ministry acknowledges that the four-laning may result in some minor additional travel times for some locations, but the four-laning will maintain or reduce overall travel times.
Confirmed receipt of notification letter.	Requested property owners contact the Project Team with any comments or questions, or to schedule a meeting to discuss the proposed plan for Poplar Lane.

4.3 External Agency Participation, Input, and Comments

Municipal, agency, commercial and interest group input was an integral part of the study, and assisted the Project Team to understand and incorporate federal, provincial, and local perspectives.

The following agencies, municipalities, businesses and other stakeholders were consulted with during the study:

Federal Government Agencies

- Aboriginal Affairs and Northern Development Canada
- Department of Fisheries and Oceans Canada
- Environmental Canada
- Transport Canada

Provincial Government Agencies

- Lakehead Region Conservation Authority
- Infrastructure Ontario
- Ministries of Citizenship and Immigration, Culture, Tourism and Health Promotion
- Ministry of Indigenous Relations and Reconciliation (*formerly Ministry of Aboriginal Affairs*)
- Ministry of the Attorney General
- Ministry of Community Safety and Correctional Services
- Ministry of Energy
- Ministry of Agriculture and Food & Ministry of Rural Affairs
- Ministry of the Environment and Climate Change
- Ministry of Municipal Affairs and Housing
- Ministry of Natural Resources and Forestry
- Ministry of Northern Development and Mines
- Ministry of Tourism, Culture and Sport
- Ontario Heritage Trust

Municipal / Emergency Services / District School Boards

- Municipality of Shuniah
- Ontario Provincial Police
- Superior North Catholic District School Board
- Superior North Emergency Medical Service
- Superior Greenstone District School Board
- Township of Dorion
- Dorion Four-Lane Community Consultation Committee

Utilities

- Bell Canada
- Canadian National Railway
- Canadian Pacific Railway
- Hydro One Networks
- Hydro One Distribution
- TransCanada Pipe Lines

Potentially Interested Stakeholder / Interest Groups

- North of Superior Tourism Association
- Dorion Bible Camp and Conference Centre
- Eagle Canyon Adventures
- Wolf River Park
- Ontario Federation of Snowmobile Clubs
- The Voyageur Trail Association
- Tour du Canada
- Thunder Bay District Fish & Game Association
- North Shore Steelhead Association
- Thunder Bay Adventure Trails
- Ontario Cycling Association
- Thunder Bay Cycling Club
- Thunder Bay Nordic Trails Association
- Thunder Bay Field Naturalists
- Black Sheep Cycling Club
- Thunder Bay KOA
- Trans Canada Trails Ontario
- Thunder Bay Hiking Association
- The Alpine Club of Canada
- Superior Shores RV Park

A tracking table of all communication with external agency participants was maintained during the study. A summary of these communications is included in **Exhibit 4-1**.

Copies of all external agency correspondence are provided in **Appendix B**.

4.4 Utilities Consultation

The Project Team met with representatives from Hydro One Networks Inc. (HONI) on December 2, 2015 to introduce the study, discuss the Highway 11/17 realignment alternatives, the HONI environmental assessment processes, and potential impacts to HONI facilities within the study area.

HONI indicated their facilities occur within the study area and impacts may occur with the realignment of Highway 11/17. HONI noted a Study Agreement and Purchase Order / Memorandum of Understanding will be required to proceed with this work.

Consultation with utilities is ongoing and will continue throughout the Detail Design phase for this project.

4.5 Municipal Meetings

The Project Team consulted with local municipalities throughout the Preliminary Design phase. The Project Team met with Township of Dorion staff on January 28, 2016, March 8, 2016, and March 31, 2016 to discuss the highway realignment alternatives, collect information about the public roads, and obtain input on the evaluation of the public access relocation options, including Meyers Road East and West, Ouimet Canyon Road, Birch Lane, Poplar Lane, and Dorion Loop Road West. The Township also advised the Project Team of changes to potentially impacted property owner information.

Following PIC #1, the Project Team met with the Dorion Four-Lane Community Consultation Committee (DFLCCC) on June 16, 2016 to discuss their comments and concerns with the technically preferred plan and information presented at the PIC. The DFLCCC is comprised of the Reeve, one Township Councillor, 3 residents and 1 property owner within the Township. The Project Team held another meeting with the DFLCCC on July 11, 2016 to review the additional assessment undertaken by the Ministry project team for the proposed four-laning of Highway 11/17 and associated side road connections based on their comments. A meeting between the Project Team and the DFLCCC was held on August 22, 2016 to present and discuss the new connection from Poplar Lane to the proposed Service Road and the new proposed eastbound and westbound access to Highway 11/17 from the Service Road connection. A meeting between the Township of Dorion and the Project Team has been scheduled for October 12, 2016 to continue discussions about the recommended plan proposed for Poplar Lane.

The Project Team met with the Municipality of Shuniah staff on January 29, 2016 and March 11, 2016 to discuss the highway realignment alternatives, the road designation for McTavish Lane, current development proposals, and the proposed public access locations within the study area.

The Project team also presented the proposed plans to the Municipality of Shuniah Council and to the Township of Dorion Council at a deputation on April 12, 2016 in advance of the first Public Information Centre.

A copy of all municipal meeting minutes have been included in **Appendix B**.

Exhibit 4-2: Summary of External Agency Correspondence

Agency / Participant	Comments Received	Action Taken / Response
First Nation / Aboriginal Communities and Organizations		
<p>Métis Nation of Ontario (MNO)</p> <ul style="list-style-type: none"> Joanne Meyer, Director of Intergovernmental Relations Kevin Muloin, Mineral Development Coordinator 	<p>Comments received via email on April 10, 2016 noted the following:</p> <ul style="list-style-type: none"> The MNO Region 2 Consultation Committee requesting an information session for this study as they will not be attending any public information sessions. <hr/> <p>Response received via email on May 9, 2016 noted the following:</p> <ul style="list-style-type: none"> The MNO Region 2 Consultation Committee indicated that a meeting is not necessary at this time. MNO expressed interest in future projects will involve significant water crossings on the Wolf and Black Sturgeon Rivers. 	<p>Response sent via email on May 5, 2016:</p> <ul style="list-style-type: none"> Acknowledged the Committee's request for a separate information session. Noted general follow-up questions from the Committee may be beneficial to aid in screening project for potential impacts and opportunities.
Provincial Agencies		
<p>Ministry of Tourism, Culture and Sport (MTCS)</p> <p>Paige Campbell, Archaeology Review Officer</p>	<p>Comments received via email on October 14, 2015 noted the following:</p> <ul style="list-style-type: none"> Requested confirmation on the extents of the study and requested to be kept informed of the study. 	<p>Responses sent via email on October 14, 2016 noted:</p> <ul style="list-style-type: none"> The project limits as described in the Notice of Study Commencement are accurate. The external agency contact list was updated.
<p>Infrastructure Ontario (IO)</p> <p>Lisa Myslicki, Environmental Specialist</p>	<p>Comment received via email on October 26, 2015 provided information on the next steps under the following headings:</p> <ul style="list-style-type: none"> Potential negative impacts to IO Tenants and Lands. Heritage Management Process and Class 	<p>Response sent by email on January 12, 2016 noted the following:</p> <ul style="list-style-type: none"> Lands potentially impacted by the proposed plan include lands owned by: Her Majesty the Queen, Ministry of Natural Resources and Forestry, and possibly other managed lands.

Agency / Participant	Comments Received	Action Taken / Response
	Environmental Assessment (EA) Process. <ul style="list-style-type: none"> Potential Triggers Related to MOI's Class EA. Specific Comments. 	<ul style="list-style-type: none"> Suitable notification was provided to all relevant ministries and agencies as requested.
Ministry of Tourism, Culture, and Sport (MTCS) Penny Young, Heritage Planner	Comment received via email on October 30, 2015 noted the following: <ul style="list-style-type: none"> A summary MTCS' mandate and responsibilities. All government agencies must comply with the Standards and Guidelines for Conservation of Provincial Heritage Properties. Information under the following headings: <ul style="list-style-type: none"> Archaeological Resources Built Heritage and Cultural Heritage Landscapes Environmental Assessment Reporting 	Response sent by mail on January 12, 2016 noted the following: <ul style="list-style-type: none"> Aboriginal engagement is being conducted as part of this Study. The Ouimet Overhead Bridge was screened out in accordance with the <i>Heritage Bridges – Identification and Assessment Guide</i> and was not considered to have heritage value. As such, a Cultural Heritage Evaluation Report is not required for this structure. A Stage 1 Archaeological Assessment has been completed within the study area. Further archaeological assessment will be conducted as recommended by the Stage 1 archaeological assessment.
Ontario Heritage Trust Thomas Wick, Heritage Planner	Comment received via email on November 19, 2015 noted the following: <ul style="list-style-type: none"> Concerns about potential impacts to the significant woodland located within the study area. Request to be included on the project mailing-list. <hr/> Response received via email on November 20, 2016 requested any further project information that could be shared.	Email response sent by MTO on November 19, 2016 noted the following: <ul style="list-style-type: none"> MTO has received several comments expressing concern about the potential impacts to the significant woodland with the four-laning of Highway 11/17. The review of the route alternatives will consider minimizing impacts to this feature. <hr/> Email response sent by MTO on November 20, 2016 noted: <ul style="list-style-type: none"> The first of the two Public Information Centres is tentatively scheduled for March 2016.

Agency / Participant	Comments Received	Action Taken / Response
<p>Ontario Heritage Trust</p> <p>Sean Fraser, Director of Heritage Programs and Operations</p>	<p>Comment received via email on December 6, 2015 and by mail on December 14, 2015 noted the following:</p> <ul style="list-style-type: none"> • A summary of the Ontario Heritage Trust’s responsibilities. • Concern about project impact to properties of natural heritage significance, particularly within a significant woodland area. • Request the Ontario Heritage Trust be added to the project mailing-list. <hr/> <p>Comment received by mail on June 6, 2016 noted the following:</p> <ul style="list-style-type: none"> • The Trust was represented at the PIC by Connie and Ken Hartvikensen from the Thunder Bay Field Naturalists (TBFN). • Support for the Thunder Bay Field Naturalists position as described in their letter, particular their request to allow monitoring of the significant woodland area during construction. 	<p>Response sent by mail on January 12, 2016 noted the following:</p> <ul style="list-style-type: none"> • Expressed gratitude for the Ontario Heritage Trust’s cooperation in providing reports regarding natural features through the Thunder Bay Field Naturalists. • Review of route alternatives will consider minimizing impacts to unique features within the significant woodland area. • The Project Team has been in correspondence with Mr. Thomas Wick (Ontario Heritage Trust) and Ms. Susan Bryan (Thunder Bay Field Naturalists). • Confirmed the external agency contact list has been updated.
<p>Ministry of Natural Resources and Forestry</p> <p>Ray Tyhuis</p>	<p>Comment Form received at PIC #1 noted Whip-Poor-Will should be referenced as a ‘Threatened Species’.</p> <hr/> <p>Comment received via email on May 8, 2016:</p> <ul style="list-style-type: none"> • Noted Whip-Poor-Will is a “threatened” species and info/text should be updated accordingly. • Requested MTO provide access to farmer’s property. 	<p>A survey for Eastern Whip-Poor-Will was conducted as per the <i>Ontario Ministry of Natural Resources Survey Protocol for Whip-Poor-Will (Caprimulgus vociferus), 2014</i>. The survey covered areas potentially affected by the proposed highway expansion, including entrance realignments.</p> <p>Whip-poor-wills were not detected within the vicinity of the proposed realignment of the Highway 11/17, four-lane expansion between Ouimet Canyon and Dorion Loop Road East. The</p>

Agency / Participant	Comments Received	Action Taken / Response
		proposed highway expansion project is unlikely to have significant impact on the whip-poor-will or its habitat. The project will avoid adverse effects to whip-poor-will.
Ministry of Agriculture and Food & Ministry of Rural Affairs Arthur Churchyard	<ul style="list-style-type: none"> No response to date 	Letter sent by mail on April 25, 2016: <ul style="list-style-type: none"> Noted agricultural land is impacted by the approved plan. Requested up-to-date precise soil classification mapping for the study area.
Ministry of Tourism, Culture, and Sport Joseph Muller, Heritage Planner	Comment received via email on May 13, 2016 provided information on the following: <ul style="list-style-type: none"> Archaeological Resources; Built Heritage and Cultural Heritage Landscapes; and Environmental Assessment Reporting. 	Response sent by mail on May 30, 2016 noted the following: <ul style="list-style-type: none"> A Stage 1 archaeological assessment was completed within the proposed project area and will be submitted to the MTCS for registration. A Stage 2 archaeological assessment is planned for 2016. There are no built heritage concerns within the vicinity of the study area.
Michael Gravelle, MPP Thunder Bay – Superior North	Comment received via mail on May 17, 2016 noted the following: <ul style="list-style-type: none"> Received a copy of the letter sent to Ms. D’Amico’s office from Mr. Ed Chambers, Reeve, Corporation of the Township of Dorion. Summarized contents of letter sent by Mr. Ed Chambers, Reeve, Corporation of the Township of Dorion. Support the request for further meetings between MMM Group, the MTO, Township of Dorion Council, the Dorion Four-Lane Community Consultation Committee, and citizens of Dorion. 	Comments noted. Hon. Gravelle was included in response letters to Township of Dorion. The Project Team continued to consult with the Township of Dorion and DFLCCC throughout the Preliminary Design phase and will continue to consult during the Detail Design phase.

Agency / Participant	Comments Received	Action Taken / Response
	<p>Comment received via mail on September 28, 2016 noted the following:</p> <ul style="list-style-type: none"> Request that the very specific and locally-informed input from area residents, Dorion Council, and the Dorion Four Lane Community Consultation Committee be a strong factor in all planning and decisions by the Project Team. 	
Transport Canada	<p>Comment received via email on June 14, 2016:</p> <ul style="list-style-type: none"> Noted Transport Canada does not require receipt of all Class EA related notifications. Provided information about the project proponent self-assessment process. 	No response required.
Municipalities		
<p>Municipality of Shuniah Craig Baumann, Manager of Operations</p>	<p>Agency comment form received via fax on October 20, 2015 and by mail on October 26, 2015 noted:</p> <ul style="list-style-type: none"> Interest in proposed changes to Superior Shores Road and McTavish Lane. Requested further details regarding intersection designs be provided for review. 	<p>Response sent via mail on January 12, 2016 noted the following:</p> <ul style="list-style-type: none"> Changes to the Superior Shores Road/Highway 11/17 intersection are not proposed at this time as it is beyond the current study limits. <hr/> <p>An email was sent to the Municipality of Shuniah on July 20, 2016 to provide an update on the additional assessment that has been undertaken for the proposed four-laning of Highway 11/17 and associated side road connections since the PIC was held on April 13th, 2016.</p>
<p>Township of Dorion Ed Chambers, Reeve</p>	<p>Agency comment form received via fax on October 21, 2015 noted the following:</p> <ul style="list-style-type: none"> The Township's concerns about the potential project impacts to the municipal revenues and 	<p>Response sent by mail on January 12, 2016 noted the following:</p> <ul style="list-style-type: none"> The Project Team has noted the Township's concerns.

Agency / Participant	Comments Received	Action Taken / Response
<p>Mavis Harris, Clerk-Treasurer</p> <p>Dorion Four-Lane Community Consultation Committee (DFLCCC)</p>	<p>resources.</p> <ul style="list-style-type: none"> Demolished homes from past MTO property buy-outs have resulted in a significant reduction in the Township's landfill capacity. The Township's interest in providing safe access to Highway 11/17 at Dorion Loop Road and Ouimet Canyon Road, both during and following construction. Requested the Township and property owners be informed throughout the study to resolve concerns. <hr/> <p>Comment received via email on May 5, 2016 noted the following:</p> <ul style="list-style-type: none"> The Township of Dorion Council and Four-Lane Consultation Committee do not approve of the proposed highway alignment and public access options but confident in addressing the issues and concerns effectively and expeditiously. Concern about the potential project impacts to the Township's revenues and future economic development. <hr/> <p>Comments received via email on May 18, 2016 noted the following:</p> <ul style="list-style-type: none"> The DFLCCC has reviewed the plan and requested additional mapping and property information from MMM/MTO. Noted preference to hold a committee meeting prior to meeting with MMM/MTO. 	<ul style="list-style-type: none"> There is no provincial funding commitment for this study currently. The study will include an evaluation of public access options within the study area. The tentative study schedule for the Preliminary Design phase. The Ministry will actively engage members of the public, impacted property owners, emergency service providers, municipalities, and First Nation / Aboriginal communities throughout the study. <hr/> <p>Response sent by email on May 6, 2016:</p> <ul style="list-style-type: none"> Noted the Ministry is open to the meeting request presented in that letter. Requested meeting availability. <hr/> <p>Follow-up email sent on May 20, 2016:</p> <ul style="list-style-type: none"> Reiterated the Ministry's commitment to addressing the Township of Dorion's concerns associated with this study. Provided a digital copy of the plan and associated documentation, noting a hardcopy can be made available upon request. Requested target dates / timelines for review and the subsequent Project Team meeting to discuss the Township's comments. <p>Note: A hardcopy version of the plan was subsequently couriered to the Township of Dorion, as requested.</p>

Agency / Participant	Comments Received	Action Taken / Response
	<p>Comment received via email on July 2, 2016 noted the following:</p> <ul style="list-style-type: none"> • Thanked the Project Team for meeting with the Township and Dorion Four-Lane Consultation Committee. • Reiterated strong preference to maintain full intersections along Highway 11/17 near the Ouimet overpass. <hr/> <p>Comment receive via email on August 9, 2016 noted the following:</p> <ul style="list-style-type: none"> • Noted changes to the plan presented at the Open House appear to provide a more effective and safer arrangement. • Noted the Dorion Council the DFLCCC's preference for a median crossover between the Ouimet Canyon Intersection and the Dorion Loop Road West Intersection for emergency services. • Request for the reinstatement of the original Plan which included a new railway crossing and an extension of Poplar Lane. • Noted the importance of maintaining median access to support the Township's development potential. <hr/> <p>Comment received via email on September 7, 2016 noted the following:</p> <ul style="list-style-type: none"> • Dorion Council discussed the new development to date and the Project Team's 	<p>The Project Team met with the Township of Dorion staff and the DFLCCC on June 16, 2016, and July 11, 2016.</p> <hr/> <p>Comment sent via email on July 19, 2016:</p> <ul style="list-style-type: none"> • Thanked the DFLCCC for meeting with the Project Team on July 11, 2016 and provided a summary of the assessment, meeting discussions, and ministry project team recommendations. • A copy of the latest plan was attached. <hr/> <p>The Project Team met with the Township of Dorion staff on August 22, 2016 in response to the concerns noted in the August 9, 2016 letter. A follow-up email summarizing the Project Team's responses and associated recommendation was sent on August 24, 2016:</p> <ul style="list-style-type: none"> • ESR Addendum will provide a commitment to further review a public connection between Meyers Road and Birch Lane and noted that the conceptual alignment will not be included in the ESR Addendum exhibits at this time. A second ESR Addendum addressing Birch Lane will be filed at a later date. • The Service Road intersection with Highway 11/17 was revised from partial access to full access to Highway 11/17 and will be connected to Poplar Lane to also provide full access for properties along Poplar Lane. The private

Agency / Participant	Comments Received	Action Taken / Response
	<p>discussions with the DFLCCC at the August 22-16 meeting.</p> <ul style="list-style-type: none"> • Proposal to link Poplar Lane and Service Road at the current proposed location is unacceptable due to concerns relating to safety Support for a realignment of Poplar Lane opposite West Dorion Loop Road.with a new railway crossing and median access • Request the Project continue further discussion and review of the connection between Poplar Lane and Service Road with the DFLCCC. <hr/> <p>Comment received via email on September 20, 2016 noted the following:</p> <ul style="list-style-type: none"> • The Township of Dorion has sought input from the DFLCCC about the proposed Poplar Lane / Service Road connection presented at the August 22, 2016 meeting. • Preference for a connection for the realignment of Poplar Lane to Dorion Loop Road West with a new, safer rail crossing and the provisions for median access. This particular location (i.e. Dorion Loop Road West / Poplar Lane) has been planned and awaited since the early 1990s. <hr/> <p>Comment received via email on September 26-16:</p> <ul style="list-style-type: none"> • Council will further discuss MMM's Sept. 20-16 letter and all related developments at the 	<p>entrance located 80 metres easterly of the proposed Dorion West Loop Road intersection will be realigned to connect to the new intersection.</p> <ul style="list-style-type: none"> • The proposed four-lane plan will not preclude future road connections to the south in support of potential waterfront development. • MTO will further review the access concerns for properties at Searches 24 and 25. • Overall, the DFLCCC seemed pleased with the noted changes. <hr/> <p>Key points of telephone discussion between the Ministry and Reeve Chambers on September 14, 2016:</p> <ul style="list-style-type: none"> • The Ministry has committed to review potential improvements to the existing railway crossing profile, horizontal alignment, and visibility improvements to the west in consultation with adjacent land owners and CPR. • The Ministry will consult with the property owners on Poplar Lane about the proposed Service Road extension. • The service road extension to Poplar Lane alternative is a result of access opportunities associated with the proposed new highway alignment at this location. • While the Ministry is obligated to provide reasonable access to existing and planned development, there is no obligation to enhance existing public access conditions.

Agency / Participant	Comments Received	Action Taken / Response
	<p>Oct. 4-16 Council Meeting.</p> <ul style="list-style-type: none"> • Community Consultation with unanimous support for the 1997 approved Plan for Poplar Lane. • DFLCCC does not support MTO's preferred plan for Poplar Lane and requested a meeting to discuss MTO's rationale for the new preferred plan. • DFLCCC recommends that further consultation by MMM/MTO be undertaken when there is a mutually acceptable recommendation from all involved parties. 	<ul style="list-style-type: none"> • The Project Team do not feel further discussions at this time are beneficial and will move forward with filing the Addendum to the 1997 ESR. • The Project Team is committed to working with the Township of Dorion during Detail Design. <hr/> <p>Response emailed and mailed on September 20, 2016 noted:</p> <ul style="list-style-type: none"> • Following the review of the Township of Dorion's concerns regarding the proposed link of Poplar Lane to the Service Road, the Ministry continues to not support the realignment of Poplar Lane to the West Dorion Loop Road intersection. • The Ministry determined the connection of Poplar Lane to the Service Road extension as the preferred alternative for the following reasons: <ul style="list-style-type: none"> ○ Provides full access to the four-laned Highway 11/17 for all residents along the Service Road and Poplar Lane; ○ Minimizes impacts to natural environment; ○ Reduces private property impacts; ○ Avoids a new rail crossing for Poplar Lane; and ○ Reduces costs by using the existing highway as a service road and avoids costs for a new road connection from Poplar Lane. ○ The proposed Service Road configuration

Agency / Participant	Comments Received	Action Taken / Response
		<p>accommodates the proposed 90 degree bend as Poplar Lane would connect to a low volume, low speed road.</p> <ul style="list-style-type: none"> In response to the Township's concerns, the Ministry will review potential opportunities to enhance the existing railway crossing in consultation with CPR and the adjacent property owners. The Ministry plans to move forward with the filing of the Addendum to the 1997 ESR in early October. <hr/> <p>The Project Team will meet with Township of Dorion staff and the DFLCCC to continue discussions on Poplar Lane, as requested in the Township's September 26-16 email. A meeting has been scheduled for October 12, 2016 to continue discussions on the recommended plan at Poplar Lane.</p>
Emergency Services		
Ontario Provincial Police Leslie Jean, A/Research Analyst	Agency comment form received via email on October 15, 2015: <ul style="list-style-type: none"> Requested to be kept informed of potential disruption to traffic and public safety. 	Comment was noted by the Project Team and the external agency contact list was updated accordingly.
OPP, Northwest Region Ken Mantey	Agency comment form received via fax on October 22, 2015: <ul style="list-style-type: none"> Indicated an interest in the study and provided contact information 	Response mailed on January 12, 2016 noted: <ul style="list-style-type: none"> The external agency contact list was updated accordingly.
Dawn Brizard, Administrative Assistant	Agency comment form received via fax on November 3, 2015 noted organization did not	Comment was noted by the Project Team and the external agency contact list was updated

Agency / Participant	Comments Received	Action Taken / Response
EMS District Operations Superior North EMS	wish to participate in the study.	accordingly.
Township of Dorion Volunteer Fire Department Fire Chief Dean Schaaf	Comment Form received at PIC #1 expressed importance of maintaining access to Birch Lane to preserve farms and to retain the younger generation in Northwestern Ontario.	The Ministry has committed to further review the feasibility of providing a public road connection between Birch Lane and Meyers Road East during the Detail Design phase.
Conservation Authorities		
Lakehead Region Conservation Authority (LRCA) Mervi Henttonen, General Manager / Secretary- Treasurer	Comment received via fax on October 29, 2015 noted the following: <ul style="list-style-type: none"> • LRCA are watershed advisors to the Municipality of Shuniah and the Township of Dorion • Although development within the study area is not subject to the Authority's <i>Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulations</i>, other permits/authorizations may be required by other agencies. 	Response sent by mail on January 12, 2016 noted the following: <ul style="list-style-type: none"> • The Protect Team understands the works undertaken by MTO are exempt from the Conservation Authority's <i>Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation</i>. • The Project Team has been in correspondence with relevant federal and provincial agencies and will obtain all necessary permits and authorizations as the study progresses.
Utilities		
Hydro One Networks Inc. (HONI) Secondary Land Use Transmission Asset Management	Comment received via email on October 13, 2015: <ul style="list-style-type: none"> • Confirmed HONI facilities within the study area. • Requested to be kept informed of the study. 	Response sent by email on January 12, 2016 noted: <ul style="list-style-type: none"> • Project Team has been in correspondence with representatives from Hydro One. <hr/> <ul style="list-style-type: none"> • The Project Team met with representatives of HONI on December 2, 2015 to discuss the study and potential impacts to HONI facilities. • HONI will continue to be informed of the study progress.

Agency / Participant	Comments Received	Action Taken / Response
Interested Stakeholders		
<p>Thunder Bay Field Naturalist Club</p> <p>Susan Bryan, Nature Reserves Chair</p>	<p>Webform received on November 17, 2015 following study commencement noted the following:</p> <ul style="list-style-type: none"> The Thunder Bay Field Naturalists work with the Ontario Heritage Trust for the management and stewardship of significant woodland within the study area. Requested to be kept informed of all activity regarding plans for highway construction near the significant woodland within the study area. <hr/> <p>Comment received via email on December 17, 2015 and by mail on December 23, 2015:</p> <ul style="list-style-type: none"> Provided background information about significant woodland area within the study area. Noted two (2) key suggestions for selecting the alternatives. Request the Project Team avoid any changes in hydrology and stream flow and site the new highway corridor as far as possible from the unique feature within the significant woodland area. <hr/> <p>Email correspondence between January 14 and January 22, 2016 provided further background information about the significant woodland area within the study area.</p> <hr/> <p>Email received March 4, 2016 inquired about the</p>	<p>Email response sent by MTO on November 17, 2015 noted the following:</p> <ul style="list-style-type: none"> The Project Team has noted the organization's concerns with the potential project impacts to significant woodland area. The location of this feature was provided to the Project Team by the Ministry of Natural Resources and Forestry and will be considered as part of the review of the alternatives. The first of two Public Information Centres is tentatively scheduled for March 2016. There is currently no provincial funding commitment or construction timing of this portion of four-laning of Hwy 11/17. Confirmed Ms. Susan Bryan has been added to the external agency contact list. <hr/> <p>Response sent by mail on January 12, 2016 and by email on January 13, 2016 noted the following:</p> <ul style="list-style-type: none"> Requested information on significant woodland area within the study area. <hr/> <p>Email correspondence between January 14 and January 22, 2016 requested further information about the significant woodland area within the study area.</p> <hr/> <p>Response was sent via email noting the date of the first PIC has been set for April 13-16 at the Dorion</p>

Agency / Participant	Comments Received	Action Taken / Response
	<p>timing of the public information centres.</p> <hr/> <p>Email received March 31, 2016 noted Connie and Ken Hartviksen would be attending PIC #1 and represent the Thunder Bay Field Naturalists.</p> <hr/> <p>Comments received via email on May 5 offered comments and suggestions to protect the significant woodland in the study area.</p>	<p>Community Centre and that notices advising of the PIC will be sent by letter and published in newspapers at the time.</p> <hr/> <p>Response was sent via email and mail on June 2, 2016 noted the following:</p> <ul style="list-style-type: none"> • While minimizing impacts to the significant woodland area was considered in the development of the highway alignment alternatives, impacts to the significant woodland area could not be avoided entirely. The Project Team will continue working with TBFN during Detail Design to discuss potential mitigation measures. • The Project Team has committed to further review of the connections between Meyers Road East to Birch Lane during Detail Design. • Encroachment will be minimized to the extent possible while also avoiding impacts to the hydro corridor at Ouimet Canyon Road. • A Drainage and Hydrology Assessment will be completed as part of the Detail Design phase. • OCR2 remains the preferred public access option since it has less constructability issues and better geometrics. • The Ministry will consider the possibility of allowing monitoring of the Significant Woodland Area during construction. • The Project Team carried out a joint site visit with TBFN in July 2016 to review the preferred plan.

4.6 Emergency Services Meeting

On March 15, 2016, the Project Team met with local, regional, and provincial emergency service representatives to review the 1997 EA Approved plan, highway realignment alternatives, sideroad options and proposed median cross-overs, and the potential need for emergency cross-overs.

The need for an emergency median turn-round between Superior Shores Road and Ouimet Canyon Road was discussed. It was agreed that the provision for a separate emergency turnaround was not required within the study limits.

Dorion Fire expressed concern that response times may not be reduced and that properties with no direct access to Highway 11/17 may be difficult to access in the event of fire. The Ontario Provincial Police and Superior North EMS responded by noting the benefits of having two lanes in each direction and the improved response times within sections of the corridor where four-laning has been completed. Shuniah Fire also endorsed this perspective.

Dorion Fire also suggested that mile markers would be beneficial within the entire corridor. Distance markers are not warranted on Highway 11/17 (from Shabaqua to Nipigon) given the number of cross-roads and other identifiable features that travellers can reference to determine their location. However, MTO recommended installing distance markers on the four-laning of Highway 11/17 from the east as work progresses from that end.

The emergency service providers provided overall support for the proposed Highway 11/17 four-laning.

4.7 Public Information Centre #1

Individuals and groups that expressed an interest in the project were either confirmed on or added to the study mailing list following study commencement and were notified of the Public Information Centre (PIC) #1, held on April 13, 2016, at the Dorion Public School and Community Centre from 4:30 p.m. to 8:00 p.m. A pre-PIC meeting was held from 3:30 p.m. to 4:30 p.m. for First Nation / Aboriginal communities and external agencies. The purpose of PIC #1 was to provide an opportunity for interested parties to review updated existing environmental conditions and to comment on the proposed changes to the Preliminary Design that was identified in the 1997 ESR.

PIC #1 was advertised in the *Nipigon-Red Rock Gazette* on April 5, 2016, *Thunder Bay's Source* on April 7, 2016, and *Thunder Bay Chronicle-Journal* on April 9, 2016. The Notice of PIC #1 was also published in the April 2016 edition of *The Flaming Facts* which was distributed to the residences in the Township of Dorion on April 1, 2016.

For PIC #1, notification letters were distributed to external agencies and property owners on March 30, 2016. MTO provided PIC #1 notification to the local MPP on March 22, 2016, and to the First Nations / Aboriginal communities and organizations on March 30, 2016.

PIC #1 was attended by approximately 100 people and a total of 89 participants signed the registration sheet. There were five (5) comments received prior to the PIC, thirteen (13) comment sheets submitted at the PIC, and five (5) comments were received following the PIC via email, fax, and mail. The main verbal and written comments gathered before, during, and following the PIC are summarized as follows:

- General support for the four-laning of Highway 11/17;
- Comments about the existing natural environment within the study area;
- Inquiries about the rationale for the proposed plan;
- Comments about the proposed public access modifications;
- Concerns about emergency service access with the changes with the proposed public accesses;
- Concerns with not providing median crossover and full access at Meyers Road;
- Some local residents along Meyers Road West noted their preference for a right-in / right-out to the highway;
- Requests to maintain access to Birch Lane;
- Concern about the resultant displacement of property owners on Birch Lane;
- Concern about impacts to properties as a result of the proposed plan;
- Safety concerns regarding the proposed at-grade crossing at Spruce Lane; several residences indicated poor sightlines;
- Inquiries about highway access and/or use of the highway for farming equipment;
- Inquiries about MTO's property acquisition process;
- Request for a westerly extension of the service road;
- Request for a median crossing at the service road connection;
- Concern for the loss of agricultural land;
- Inquiries about adjacent studies; and
- Inquiries about funding and timing of construction for the study and adjacent studies.

Copies of PIC #1 notification materials are included in **Appendix A**, while a copy of the newspaper notice is included in **Appendix B**. The PIC #1 display materials presented at the first PIC are provided in **Appendix C**.

4.8 First Nation / Aboriginal Community Engagement

First Nations / Aboriginal communities, Métis organizations and government agencies were contacted by the Project Team at key milestones throughout the study process. Aboriginal Affairs and Northern Development Canada and the Ministry of Indigenous Relations and Reconciliation (*formerly Ministry of Aboriginal Affairs*) were sent letters to identify any First Nation / Aboriginal communities that may have an interest in the study.

The following communities were notified of the study commencement on October 15, 2015 and sent a notice of PIC #1 on March 30, 2016:

First Nation / Aboriginal Communities

- Fort William First Nation
- Nishnawbe Aski Nation
- Nipissing First Nation
- Red Rock Indian Band
- Pays Plat First Nation
- Animbiigoo Zaagi'igan Anishinaabek
- Métis Nation of Ontario Head Office
- Thunder Bay Métis Council
- Pic Moberg First Nation
- Biinjitiwaabik Zaaging Anishinaabek First Nation (Rocky Bay)
- Bingwi Neyaashi Anishinaabek (Sand Point)
- Ojibways of the Pic River First Nation
- Michipicoten
- Long Lake No. 58 First Nation (Long Lac)
- Kiashke Zaaging Anishinaabek (Gull Bay)

The Métis Nation of Ontario (MNO) was also sent notices for study commencement and PIC #1.

On April 10, 2016, the Project Team received a request from the MNO Region 2 Consultation Committee requesting an information session for the study as MNO would not be attending the PIC. However, following further discussions between MNO and MTO, the MNO Region 2 Consultation Committee indicated that a meeting is not necessary at this time. MNO expressed interest in future projects that involve significant water crossings on the Wolf and Black Sturgeon Rivers and noted future meetings may be requested at that time.

Letters were sent by MTO to all of the above-mentioned First Nation / Aboriginal communities and organizations to inform them of the filing of the Addendum to the 1997 ESR. MTO will continue to consult with First Nation / Aboriginal communities in subsequent design stages. A summary of correspondence received from First Nation / Aboriginal communities is also included in **Exhibit 4-1**.

4.9 Integration of External Consultation / Engagement

The intent of the consultation / engagement program for the Preliminary Design phase was to ensure that the public and review agencies had an opportunity to identify any potential concerns and influence the outcome of selection the preferred plan as appropriate while also addressing the consultation principles identified in MTO Class EA Document. One of the consultation principles relates to showing how the input received in earlier stages affected the project.

Throughout the Preliminary Design phase, the Project Team has attempted to address all comments, concerns and requests for additional information from external agencies, property owners, local interest groups, stakeholders, and members of the public. **Exhibit 4-2** highlights some of the key concerns and comments provided by the public and review agencies and how they were addressed during the Preliminary Design phase.

Exhibit 4-3: Summary of Key External Agency and Public Comments and Responses

Summary of Key Comments	MTO Response
What is the timing of construction for the four-laning of Highway 11/17?	A provincial funding commitment for the construction of the four-laning of this portion of Highway 11/17 is included in the 2016 Ontario Budget. Construction of the new 4-lane highway is anticipated to start as early as 2018.
Safety concerns with the proposed at-grade crossing at Spruce Lane.	The public access option for Meyers Road West was originally revised to provide right-in / right-out access to Highway 11/17 westbound lanes only (Option MRW3) and will provide right-in/ right-out access to Highway 11/17 westbound lanes only. However, based on the comments received at and following the Public Information Centre from local residents and the Township of

Summary of Key Comments	MTO Response
	<p>Dorion, the Ministry is no longer proposing an at-grade crossing at Spruce Lane. A full median crossing will be provided at Meyers Road for the interim until the future construction of the Ouimet Canyon Road interchange.</p>
<p>Concern about the loss of agricultural land.</p>	<p>A letter was sent to the Ministry of Agriculture and Food & Ministry of Rural Affairs on April 25, 2016 noting agricultural land would be impacted by the approved plan and requested soil classification mapping and comments. No response has been received to date.</p> <p>MTO is committed to reviewing a connection between Birch Lane and Meyers Road East.</p>
<p>Request for a median cross over and full access to Highway 11/17 from Meyers Road West.</p>	<p>Access will be dependent on the needs of the community and a spacing criterion of 3 to 8 km. The proposed 4-lane highway will be classified as a Divided Principal Arterial, Fully Controlled Access Highway. Under this designation, new direct private or commercial access to the highway is generally prohibited in order to minimize traffic conflicts and maintain a safe and efficient traffic flow.</p> <p>However, based on the comments received at and following the Public Information Centre from local residents and the Township of Dorion, the Ministry will provide a full median crossing at Meyers Road for the interim until the future construction of the Ouimet Canyon Road interchange.</p>
<p>Concerns with not providing access to properties on Birch Lane.</p>	<p>The Ministry will further review the feasibility of providing a road connection to this area during Detail Design.</p>
<p>Request to reinstating the 1997 approved Poplar Lane plan into the Preferred Plan</p>	<p>The Ministry does not support a significant realignment of Poplar Lane to the West Dorion Loop Road intersection in consideration of Ministry requirements and the associated impacts/costs. The Ministry determined the connection of Poplar Lane to the Service Road extension is preferred for</p>

Summary of Key Comments	MTO Response
	the following reasons: <ul style="list-style-type: none"> • Provides full access to the four-laned Highway 11/17 for all residents along the Service Road and Poplar Lane; • Minimizes impacts to natural environment; • Reduces private property impacts; • Avoids a new rail crossing for Poplar Lane; and • Reduces costs by using the existing highway as a service road and avoids costs for a new road connection from Poplar Lane.
Safety concerns with the location of the new connection location from Poplar Lane to the proposed Service Road.	The Ministry reviewed the Township of Dorion's concerns and suggestions and does not support the suggested realignment of Poplar Lane to the West Dorion Loop Road intersection. However, in response to the Township's concerns, the Ministry has committed to review potential opportunities to enhance the existing railway crossing in consultation with CPR and the adjacent property owners (e.g. site lines, approach grades, approach alignments, etc.) during Detail Design.
Concerns about project impacts to significant environmental features within the study area.	The review of alignment and access alternatives will consider minimizing impacts to natural environmental features. Further review of minimizing impacts and the development of proposed mitigation measures will continue in the Detail Design phase.
Comment that ponds west of the CP railway were dug to provide fill for the construction of the existing highway structure crossing over the railway and is a groundwater aquifer.	Comment was noted by the Project Team.
Concern about the level of property impacts.	The development and review of highway alignment alternatives and public access options considered a number of factors including property impacts. MTO will work

Summary of Key Comments	MTO Response
	with affected property owners and compensate those owners whose private property is physically impacted by the proposed improvements on a one-on-one basis.
Impacts to Hydro One Network Inc. towers	Minimizing impacts to high voltage transmission towers was considered as part of the evaluation of the alternatives.
Property specific questions / concerns.	MTO will continue working with affected property owners and compensate those owners whose private property is physically impacted by the proposed improvements on a one-on-one basis.
Inquiries about timing of construction for the four-laning of Highway 11/17 adjacent to the study area.	<p>The Ministry provided responses regarding the proposed timing of construction:</p> <p>Birch Beach to Pass Lake (6.5 km)</p> <ul style="list-style-type: none"> • Construction Start – 2015 • Construction Complete – 2017 <p>Pass Lake to Pearl (14.6 km)</p> <ul style="list-style-type: none"> • Construction Start – 2018 • Construction Complete – 2020 <p>Coughlin Road to Red Rock Road #9 (5.0 km)</p> <ul style="list-style-type: none"> • Construction Start – 2018 • Construction Complete – 2021 <p>Coughlin Road to East Junction Hwy 582 (6.5 km)</p> <ul style="list-style-type: none"> • Construction Start - 2018 • Construction Complete - 2021 <p>Red Rock to Still Water Creek (10 km)</p> <ul style="list-style-type: none"> • Construction Start – 2015 • Construction Complete – 2021 <p>Nipigon River Bridge and approaches (3.5 km)</p> <ul style="list-style-type: none"> • Construction Start – 2013 • Construction Complete – 2018

Future consultations will continue throughout the Detail Design phase, including a second PIC. Any changes resulting from design modifications and refinements and associated mitigation measures will be addressed and discussed with affected external agencies and property owners at PIC #2 and prior to construction.

5.0 Preferred Plan / Proposed Design Changes from 1997 EA Approved Plan

Based on the review of the 1997 EA Approved Plan, the analysis / evaluation of alternative / options and integration of comments received through the consultation / engagement process, the preferred plan is shown in **Exhibits 5-1a to 5-1f**. The proposed design changes to the EA approved plan are summarized as follows:

- Some areas of twinning the existing highway;
- Some areas of new four-lane alignment, including constructing new eastbound and westbound bridges over the Canadian Pacific Railway;
- Providing connections to the new four-lane highway at Meyers Road, Ouimet Canyon Road, the proposed Service Road and Dorion Loop Road West; and
- Connection of Poplar Lane to the proposed Service Road.

The Ministry has committed to further review the feasibility of providing a public road connection between Birch Lane and Meyers Road East during the Detail Design phase.

The preferred plan balances access needs for the adjacent existing and planned development in considering the new four-lane divided facility is designated as a Controlled Access Highway to ensure its safety and operability.

Further refinements to the property requirements may be required as the Project Team progresses with the grading design as part of Detail Design, gather more detailed soils information, and undertake legal surveys of the various parcels.

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Please refer to separate links for Exhibit 5-1 a-f

6.0 Environmental Effects and Proposed Mitigation

6.1 Summary of Environmental Concerns and Proposed Mitigation

This section focuses on the direct and indirect potential environmental effects to the existing environmental, socio-economic and cultural features and sensitivities in the study area associated with the revisions to the 1997 EA Approved Plan for Highway 11/17 that were documented in the 1997 Environmental Study Report (ESR).

Exhibit 6-1 summarizes the identified concerns and proposed mitigation measures based on the identified environmental sensitivities and proposed changes to the Highway 11/17 alignment revisions in some sections, modifications to public access at Meyers Road, Ouimet Canyon Road, and Poplar Lane, as well as an increase in right-of-way from 90 m to 110 m (minimum). The criteria used in the assessment of effects reflected those used by MTO in the 1997 ESR.

The criteria used in the assessment of effects as part of this study was generally consistent with the 1997 ESR, however, the following considerations to transportation / engineering were added:

- Soil Erosion, Water Quality, Drainage
- Flexibility to Accommodate Municipal Road Connections;
- Highway Geometrics;
- Flexibility to Accommodate Future Interchanges;
- Intersection Spacing Requirements (3 - 8 km);
- Complexity and Difficulty of Construction;
- Geotechnical Suitability; and
- Structures.

The highway alignment revisions, public access modifications, and proposed increase in right-of-way width resulting from revised highway engineering guidelines allows for an overall improvement to traffic and road safety. Although additional property requirements are necessary, the design changes do not result in significant changes to the impacts on existing environmental conditions, as outlined in the 1997 ESR.

The approved mitigation measures and commitments outlined in the 1997 ESR and the Addendum to the 1997 ESR will be carried forward to the Detail Design and construction phases for this project.

Exhibit 6-1: Summary of Environmental Concerns and Proposed Mitigation

Factor	Potential Impacts Resulting From:				
	Increasing Right-of-Way Width from 90 m to 110 m	Highway Alignment Changes	Public Access Road Relocations		
			Reconfiguration of Meyers Road	Realignment of Ouimet Canyon Road	Reconfiguration / Partial Access at Dorion Loop Road West
Natural Environment					
Vegetation Wildlife Aquatic Resources	<ul style="list-style-type: none"> Increasing the right-of-way only incrementally increases the footprint from the 1997 ESR, thus, there are incremental impacts to the natural environment. 	<ul style="list-style-type: none"> Minimizes impacts to significant woodland. Specific natural environmental impacts will be determined once the detail design plan is developed 	<ul style="list-style-type: none"> Significant impacts to the natural environment are not anticipated. Specific natural environmental impacts will be determined once the detail design plan is developed. Any necessary permits and/or exemptions will be obtained from the appropriate regulatory agencies prior to start of construction. 		
Social and Cultural Environment					
Archaeology	<ul style="list-style-type: none"> A Stage 1 Archaeological Assessment was carried out in October 2015 to determine potential archaeological impacts in all previously unevaluated undisturbed areas along the Highway 11/17 realignment alternatives. Further Stage 2 Archaeological assessment required at all identified areas and carried out in Spring 2016. The Stage 2 archaeological assessment will be prepared in conformity with the MTCS' 2011 <i>Standards and Guidelines</i> and submitted for archaeological concurrence prior to construction. 				
Land Use	<ul style="list-style-type: none"> Proposed changes result in new property impacts. MTO will negotiate property purchase with individual owners for in accordance with standard MTO procedures. Changes to the highway alignment shift the highway closer to adjacent Noise Sensitive Areas. A noise impact assessment will be undertaken during detail design and the findings will be presented at PIC #2. 				

Factor	Potential Impacts Resulting From				
	Increasing Right-of-Way Width from 90 m to 110 m	Highway Alignment Changes	Public Access Road Relocations		
			Reconfiguration of Meyers Road	Realignment of Ouimet Canyon Road	Reconfiguration / Partial Access at Dorion Loop Road West
Public Access	<ul style="list-style-type: none"> No change 	<ul style="list-style-type: none"> No change 	<ul style="list-style-type: none"> Although the proposed changes may increase travel time to the adjacent development at some locations, access management is improved by limiting the number of full access intersections while balancing community needs with consideration of accommodating future interchanges. The proposed changes to full public access locations more closely comply with intersection spacing requirements. Ministry will further review the feasibility of providing a road connection between Birch Lane and Meyers Road East during Detail Design. 		
Engineering					
Utilities and Municipal Services	<ul style="list-style-type: none"> Increasing the right-of-way width does not change the conflicts identified in the 1997 ESR. 	<ul style="list-style-type: none"> Proposed changes result in fewer impacts to hydro transmission lines / towers. MTO will consult with any affected utility companies to develop relocation plans to suit the Detail Design plan. 			

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