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Meeting Notes

Ministry of Natural Resources and Forestry (MNRF)
Ministry of Environment, Conservation and Parks (MECP)

Highway 401 Planning Study from Cobourg to Colborne
Preliminary Design & Class Environmental Assessment
GWP 4060-11-00 and Nagle Road Interchange Study GWP 4059-17-00

Assignment Number 4015-E-0033, / Stantec File 165001090 & 165001106

Date/Time:	November 12, 2019 / 10:30 AM	
Place:	Conference Call	
Next Meeting:	TBD	
Attendees:	Muhammad Waseem	MTO Project Manager
	Erin Pipe	MTO Environmental Planner
	Elizabeth Spang	Ministry of Natural Resources and Forestry
	Catherine Warren	Ministry of Natural Resources and Forestry
	Colin Higgins	Ministry of Natural Resources and Forestry
	Monique Charette	Ministry of Environment, Conservation and Parks
	Gregg Cooke	Stantec Project Manager
	Nevena Gazibara	Stantec Environmental Team Lead
	Debra Giesbrecht	Stantec Terrestrial Ecologist
Distribution:	Project Team	

Item: **Action:**

1. All attendees were introduced.

2. Gregg Cooke provided a presentation that included an overview of the study purpose and scope of projects and the environmental assessment processes being completed and consultation programs. A copy of the presentation is attached to the meeting notes.

3. The scope of the two current studies includes:

   - Rehabilitation and replacement of bridges and structural culverts
   - Interchange modifications at Lyle Street and Percy Street
   - Commuter parking lot expansions and relocations
   - Establishing footprints of Highway 401 for future six and eight lanes
   - A new interchange near Nagle Road and rehabilitation or replacement of the existing Nagle Road bridge to accommodate the new interchange and future Highway 401 widening

4. Gregg Cooke provided an overview of the preliminary design alternatives that were presented at the first Public Information Centre. The first PIC was held on September 18, 2019.

5. Nevena Gazibara provided an overview of the environmental investigations completed to-date, and in particular the terrestrial and aquatic existing conditions investigations, results, and reports.

Item: **Action:**

a. It was noted that the existing conditions report were completed in 2018 and shared with the MNRF and MECP.

b. The terrestrial fieldwork program for the project and reports was completed in the summer of 2017, in advance of the formal commencement of the project. The field investigations included identifying significant wildlife habitats, completing ecological land classifications based on observations, observations of wildlife, birds and nests. The study area was determined to be 120 m from the ROW and fieldwork was conducted from the Highway 401 ROW.

c. The fisheries fieldwork program was completed in the spring and summer of 2017 and included fish habitat and ecological conditions identification and fish inventories for all watercourses within the study area.

d. The project team identified a Provincially Significant Wetland (Cranberry Lake) within the study area, phragmites within the ROW, individual Barn Swallows flying around the study area (but no nests), Eastern Pheobe nests at Shelter Valley Creek, possible turtle wintering areas and amphibian breeding habitats and animal movement corridors.

e. The fisheries investigations identified 17 watercourses with potential to provide fish habitat with most watercourses classified as permanent coldwater thermal regime watercourses with sensitive species present. One Species at Risk (American Eel) was recorded in background information in Shelter Valley Creek. As the study continues and a preferred plan is identified at Shelter Valley Creek the potential impacts to this SAR will be identified and the need for an ESA permit will be identified through consultation with the MECP.

6. Stantec noted that they have received MNRF's comments on the existing conditions reports and will update the items identified in the Impact Assessment reports, scheduled to be completed once preferred plans are selected. MECP noted that they will provide their comments on the reports within the next month.

7. MNRF and MECP asked why targeted species surveys were not completed as part of the fieldwork. Stantec noted that targeted species surveys were not included in this Planning and Preliminary Design stage and scope of work. These detailed surveys are typically completed during Detail Design, once the recommended plan is finalized and construction details are known.

8. MNRF noted that there is no information regarding deer wintering areas within the terrestrial existing conditions report. MNRF noted that they will provide that information to Stantec to include in the Impact Assessment Report.

9. MNRF noted that there are opportunities and potential for eco-passages at the Unnamed Creek crossing that is 1.4 km West of the Cranberry Lake PSW (21-469) and the Graft Creek culvert, near Craig Road, and possibly near Shelter Valley Creek.

10. Stantec discussed wildlife collision data provided by the MTO within the corridor and noted that there are not any significant patterns observed but that there are clusters of accidents near Lyle Street, Percy

Item:	Action:

Street and Shelter Valley Road. MNRF and MECP requested that the wildlife collision data be shared with them. *Following the meeting, Stantec provided the wildlife collision data with MNRF and MECP.*

11. Stantec and MTO noted that within the study area there are six structural culverts that have been identified for rehabilitation or replacement as part of this study and design alternatives have been developed (as shown on the PIC displays). At this early design stage there may be opportunities to identify culverts that could be used as eco-passages for wildlife if wildlife habitat and movement corridors are identified and topographical conditions are suitable for eco-passages. Stantec noted that they have designed upsized culverts on other projects to create eco-passages but that the success of the eco-passage depends on the length of the culvert, light availability, and ability to create and install funnel fencing adjacent to the culvert.

12. As an example, there are two culverts at Shelter Valley Creek (one road culvert and one watercourse culverts. One of the alternatives that Stantec has developed and is shown on the PIC displays is a new bridge to replace the two existing culverts. This may provide an opportunity for an eco-passage, when compared to the other design alternatives at Shelter Valley Creek. MNRF noted that the new bridge alternative is probably a better option for wildlife- less restricted area. MNRF and MECP requested copies of the PIC displays. *Following the meeting, Stantec provided the PIC displays to MNRF and MECP.*

13. MNRF noted that they will review the wildlife collision data provided and share deer wintering areas that will assist Stantec with identifying potential opportunities to use the structural culverts included in this study as eco-passages. — MNRF

14. A future meeting will be scheduled with the MNRF and MECP once preferred plans have been identified and to confirm if there are opportunities for culvert eco-passages within the study area.

The meeting adjourned at 11:50 AM

The foregoing is considered to be a true and accurate record of all items discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Stantec Consulting Ltd.

on behalf of

Nevena Gazibara, B.Sc., MREM, ENV SP
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Highway 401 Planning Study from Cobourg to Colborne

GWP 4060-00-00

Nagle Road Interchange Study

GWP 4059-17-00

Study Update

MNRF and MECP

November 12, 2019

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Agenda

1 Study Areas, Study Process

2 Highway 401 Planning Study

3 Nagle Road Interchange Planning Study

4 Environmental Investigations & Studies

5 Schedule

6 Questions

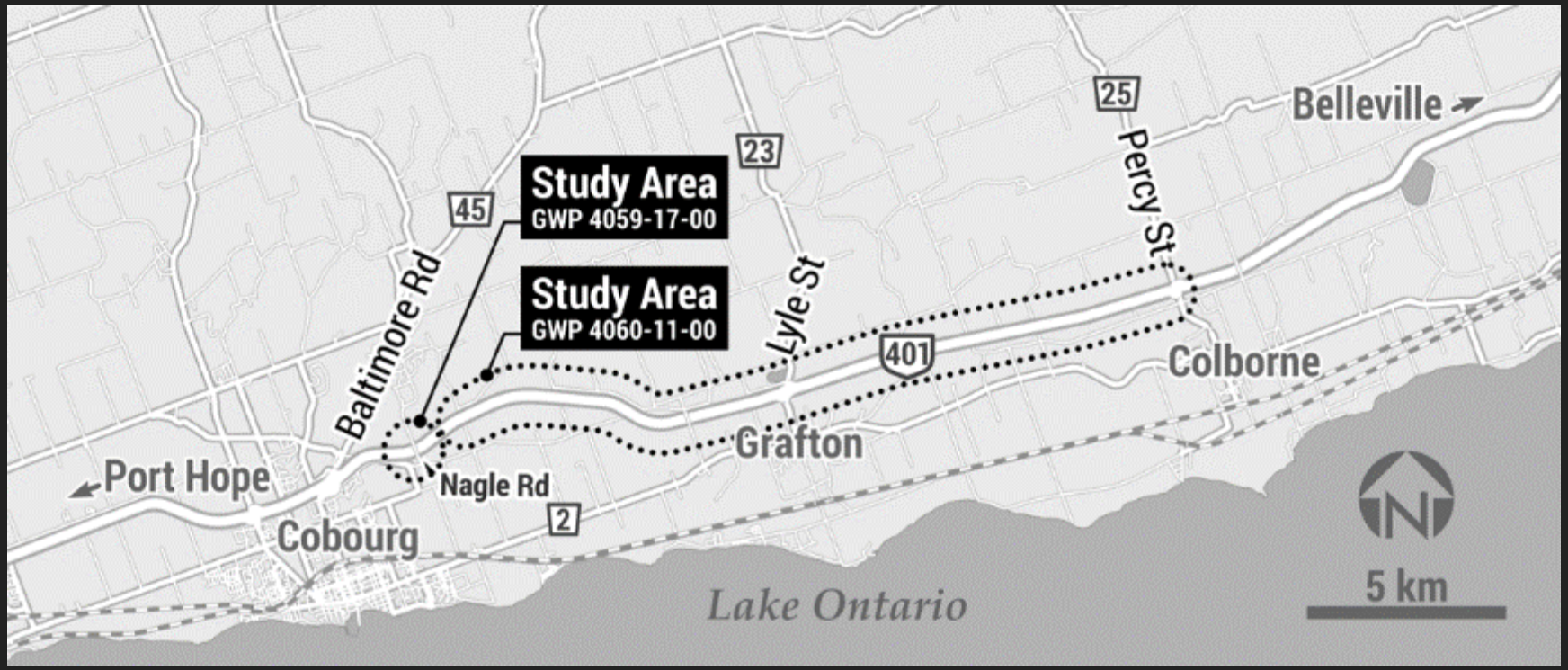
Study Areas, Study Process

Study Areas

- The Ontario Ministry of Transportation (MTO) has retained Stantec Consulting Ltd. to undertake a Planning, Preliminary Design, and Class Environmental Assessment (Class EA) Study for Highway 401 between Cobourg and Colborne

- The Ontario Ministry of Transportation (MTO) and the Town of Cobourg have retained Stantec Consulting Ltd. to undertake a Planning, Preliminary Design, and Class Environmental Assessment (Class EA) Study for a new Highway 401 interchange near Nagle Road in the Town of Cobourg and the Township of Hamilton, in Northumberland County

Study Areas


Study Area
GWP 4059-17-00
Study Area
GWP 4060-11-00
45
23
25
Belleville
Percy St
Baltimore Rd
Lyle St
401
Colborne
Grafton
Port Hope
Nagle Rd
2
Cobourg
Lake Ontario
N
5 km

Environmental Assessment Process

- Both studies are being carried out under the requirements of the Class Environmental Assessment (EA) for Provincial Transportation Facilities (2000)

- The studies fall within the scope of a Group “B" project, which includes highway improvements that provide/cause a significant modification in traffic access

- Both of the studies will share the same Public Information Centres (PIC) and Municipal Advisory Committees (MAC), however a separate TESR will be published for each study

Highway 401 Planning Study

Study Purpose

The purpose of the Highway 401 Planning Study is to identify a Recommended Plan that addresses current and future transportation needs in the study area as part of the Ministry's ongoing review of safety and operational needs for the provincial highway network.

- Rehabilitation and replacement of bridges and structural culverts
- Interchange modifications at Lyle Street and Percy Street
- Commuter parking lot expansions or relocations
- Establish the footprint of future six and eight lanes on Highway 401 to ensure appropriate design of bridge replacements

PIC 1 Alternatives

1. Danforth Road Bridge Improvement Alternatives
2. Gully Road Bridge Improvement Alternatives
3. Lyle Street Interchange Alternatives
4. Shelter Valley Road & Creek Culvert Improvement Alternatives
5. Vernonville Road Bridge Improvement Alternatives
6. Boyce Road Bridge Improvement Alternatives
7. Percy Street Interchange Alternatives
8. Highway 401 Alternatives
9. Drainage Improvements

Nagle Road Interchange Study

Study Purpose

The purpose of the Nagle Road Interchange Study is to identify a Recommended Plan that addresses future transportation and planning needs in the study area.

- New interchange in the vicinity of Nagle Road to provide access to the Cobourg East Community
- Rehabilitation or replacement of the existing Nagle Road bridge to accommodate the new interchange
- The proposed interchange is the Town of Cobourg's initiative as identified in the Towns of Cobourg's Transportation Mater Plan (TMP) and Official Plan
- The Town of Cobourg is bearing the full cost associated with this preliminary design study

PIC 1 Alternatives

1. New Interchange at Nagle Road
2. New Interchange East of Nagle Road

Environmental Investigations and Studies

Environmental Investigations & Studies

- Stage 1 Archaeological Assessment
- Cultural Heritage Studies
- Terrestrial Ecosystems Existing Conditions and Impact Assessments
- Fish and Fish Habitat Existing Conditions and Impact Assessments
- Noise Assessment
- Erosion and Sedimentation Overview Risk Assessment
- Air Quality and Greenhouse Gas Assessment
- Contamination Overview Study
- Groundwater Overview Study

Natural Heritage- Existing Conditions

- 17 watercourses within study area with potential to provide fish habitat
- Most watercourses are permanent coldwater with sensitive species present
- American Eel – SAR records in Shelter Valley Creek
- Cranberry Lake Provincially Significant Wetland
- Turtle wintering areas observed adjacent to ROW
- Potential habitat for Snapping turtle and Blanding's Turtle in proximity to ROW
- Possible amphibian animal movement corridors present due to suitable breeding wetlands in close proximity of ROW

Schedule

Key Dates

Notice of Study Commencement	April-May 2018
Municipal Advisory Committee Meeting 1	May 16, 2019
Public Information Centre 1	September 18, 2019
Municipal Advisory Committee Meeting 2	March 2020 (tentative)
Public Information Centre 2	May 2020 (tentative)
Transportation Environmental Study Reports	August 2020 (tentative)

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Meeting Notes

Study Update and Eco-Passage Opportunities Review

Highway 401 Planning Study from Cobourg to Colborne, Preliminary Design and Class Environmental Assessment (GWP 4060-11-00) / 165001090

Date/Time:	June 17, 2020 / 10:00 AM
Place:	Web Meeting
Attendees:	Muhammad Waseem, MTO Project Manager Erin Pipe, MTO Environmental Planner Catherine Warren, Ministry of Natural Resources and Forestry Colin Higgins, Ministry of Natural Resources and Forestry Julie Formsma, Ministry of Natural Resources and Forestry Forestry Monique Charette, Ministry of Environment, Conservation and Parks Gregg Cooke, Stantec Project Manager Diana Addley, Stantec Environmental Team Lead Melissa Cameron, Stantec Terrestrial Ecologist
Distribution:	All Attendees

Item: **Action:**

1. Stantec shared a presentation that provided an overview of the project, including the purpose of the undertaking, the Class Environmental Assessment process and key features of the Preferred Plan. It was noted that the purpose of this meeting was to provide an update on the study, and to provide an overview of the findings of Stantec's review of potential wildlife eco-passage opportunities and constraints in the study area. A copy of the presentation is attached to the meeting notes. Info

2. The series of technical and environmental studies that have been carried out as part of this project was reviewed. It was noted that these studies are intended to gather an understanding of existing study area conditions, and that reporting is currently being completed to document potential impacts associated with the project and associated mitigation measures. This information will be shared as part of an upcoming virtual Public Information Centre, tentatively scheduled for August 2020, and documented within the Transportation Environmental Study Report, tentatively scheduled for January 2021.

3. Terrestrial and aquatic investigations were completed in 2018 to determine Ecological Land Classification and Significant Wildlife Habitat in the area. The findings of the investigations identified a number of natural heritage sensitivities.

4. A summary of the highway modifications was provided, including interchange and carpool lots, structural and interchange improvements, Highway 401 curve improvements and the future widening of Highway 401 to an interim 6-lane and ultimate 8-lane configuration. It was noted that MTO does not currently have any funding to proceed with detail design or construction of this project, therefore the timing of implementation is not presently known. In addition, replacement of the bridges will be based on the condition, funding and approvals.

5. Stantec presented an overview of the findings of the eco-passage opportunities and constraints memorandum that was previously circulated to attendees for review and

Item: **Action:**

consideration in advance of the meeting. It was noted that, as part of this activity, Stantec reviewed the MNRF Best Management Practices for Mitigating the Effects of Road Mortality on Amphibian and Reptile Species at Risk in Ontario and recent/relevant literature. Stantec also reviewed 2012 to 2016 wildlife-vehicle collision data provided by MTO, as well as existing natural heritage features including deer wintering areas and habitat for species at risk and species of conservation concern that may benefit from eco-passages in the area.

6. Based on the existing and future width of the corridor and associated structural improvements planned as part of this undertaking, two (2) excellent and one (1) good eco-passage opportunities were identified:
   - Shelter Valley Creek (excellent)
   - Grafton Creek (excellent)
   - Culvert 21X-0468/CO, west of the Gully Road Underpass (good)

7. Based on the species reviewed, the remaining culverts were not anticipated to encourage wildlife use, although it was clarified that this is only based on existing literature and does not necessarily suggest that these remaining culverts could not accommodate wildlife.

8. MNRF indicated that the culverts identified as having limited opportunity could be improved by implementing directional/exclusion fencing. MNRF recognized that MTO funding/priorities would direct if/when these types of improvements could be implemented, but wanted to clarify that there is still an ability to make improvements at these locations. The recommendations shall be further reviewed during the detail design stage of the project, pending funding and approvals. The timing of the detail design is currently unknown.

9. MTO noted that these opportunities will be documented within the Transportation Environmental Study Report, and further reviewed at the detail design stage of the project, at which time they would continue to engage MNRF and MECP to discuss further. Stantec/MTO

The meeting adjourned at 10:50 am

The foregoing is considered to be a true and accurate record of all items discussed. If any discrepancies or inconsistencies are noted, please contact the writer immediately.

Stantec Consulting Ltd.

Diana Addley
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Attachment: Meeting Presentation

Highway 401 Planning Study
Cobourg to Colborne, GWP 4060-11-00

Study Update and Eco-Passage Opportunities Review

June 17, 2020

Stantec

Agenda

1. Introductions
2. Study Overview
3. Preferred Plan
4. Ecopassage Opportunities and Constraints
5. Conclusions and Recommendations
6. Next Steps
7. Questions

Project Team

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Study Overview

Study Area


Study Area
GWP 4060-11-00
Baltimore Rd
45
23
Lyle St
25
Percy St
Belleville
401
Colborne
Grafton
Port Hope
Nagle Rd
2
Cobourg
Lake Ontario
N
5 km

Study Purpose

- The purpose of the study is to identify a Recommended Plan that addresses current and future transportation needs for Highway 401, from 2 km east of Nagle Road to Percy Street (approximately 18 km)

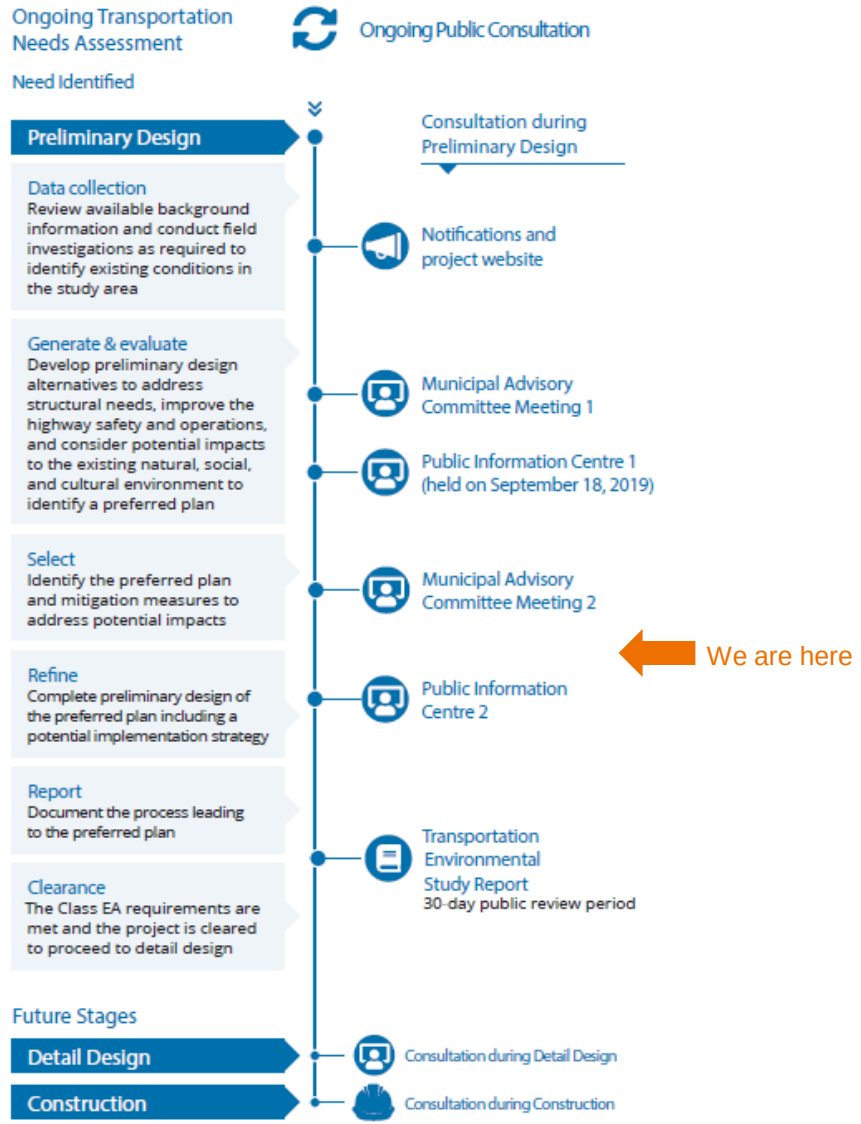
- This Highway 401 Planning Study includes:
  - Replacement and/or rehabilitation of bridges and structural culverts
  - Interchange modifications at Lyle Street and Percy Street
  - Establishing the Highway 401 future footprint for interim 6-lanes and ultimate 8-lanes
  - Commuter parking lot expansions or relocations

- The timing of construction is currently not known

Environmental Assessment Process

- This study is being carried out under the requirements of the Class Environmental Assessment (EA) for Provincial Transportation Facilities (2000)

- The study falls within the scope of a Group “B" project, which includes highway improvements that provide/cause a significant modification in traffic access



Existing Study Area Conditions

- Cultural Heritage Assessment
- Natural Heritage Assessment
- Sediment and Erosion Risk Assessment
- Stage 1 and 2 Archaeological Assessments

- Contamination Overview Study
- Groundwater Overview Assessment
- Landscape Composition Plan
- Noise Impact Assessment
- Air Quality Assessment

- Rural area of Northumberland County
- A number of properties were identified as containing potential heritage
- Areas having the potential for the recovery of archaeological resources are present
- Candidate Significant Wildlife Habitat for a number of species identified, including turtle wintering and nesting areas, deer wintering areas, amphibian breeding habitat and animal movement corridors
- 15 potential watercourse crossings have been investigated, most of which provide fish habitat
- All water crossings involve cold water streams, and include both spring and fall spawning fish species
- Aquatic and terrestrial species at risk have been recorded in the study area



Natural Heritage Summary - Terrestrial

Wetlands	• Cranberry Lake PSW • Other wetlands identified in the Study Area during ELC surveys
Significant Valleylands	• Gully Creek Valley and Shelter Valley
Candidate habitat for species of conservation concern	• Snapping Turtle • Northern Map Turtle • Red-headed Woodpecker • Eastern Wood-pewee • Wood Thrush • Louisiana Waterthrush • Grasshopper Sparrow • Canada Warbler
Suitable habitat of endangered or threatened species	• Eastern Meadowlark – species and habitat confirmed in Study Area • Blanding's Turtle • Eastern Whip-poor-will • Least Bittern • Bank Swallow • Barn Swallow • Bobolink • Little Brown Myotis • Small-footed Myotis • Northern Myotis • Tri-coloured Bat

- Migratory bird nests
- Significant woodlands throughout the Study Area
- Significant wildlife habitat (confirmed Deer Wintering Areas, other candidate habitats)

Natural Heritage Summary - Fisheries

- Majority of watercourse crossings investigated provide fish habitat
- 8 are Type D Drains (permanent coldwater, sensitive species present), 1 is Type E Drain (permanent warmwater, sensitive species present) and 5 do not have an assigned drain classification (MNRF 2018a)
- Primarily consist of Brook Trout, Rainbow Trout and numerous small-bodied fish species
- 1 species at risk (American Eel) has been recorded in Shelter Valley Creek
- American Eel is Endangered and protected by the ESA, 2007

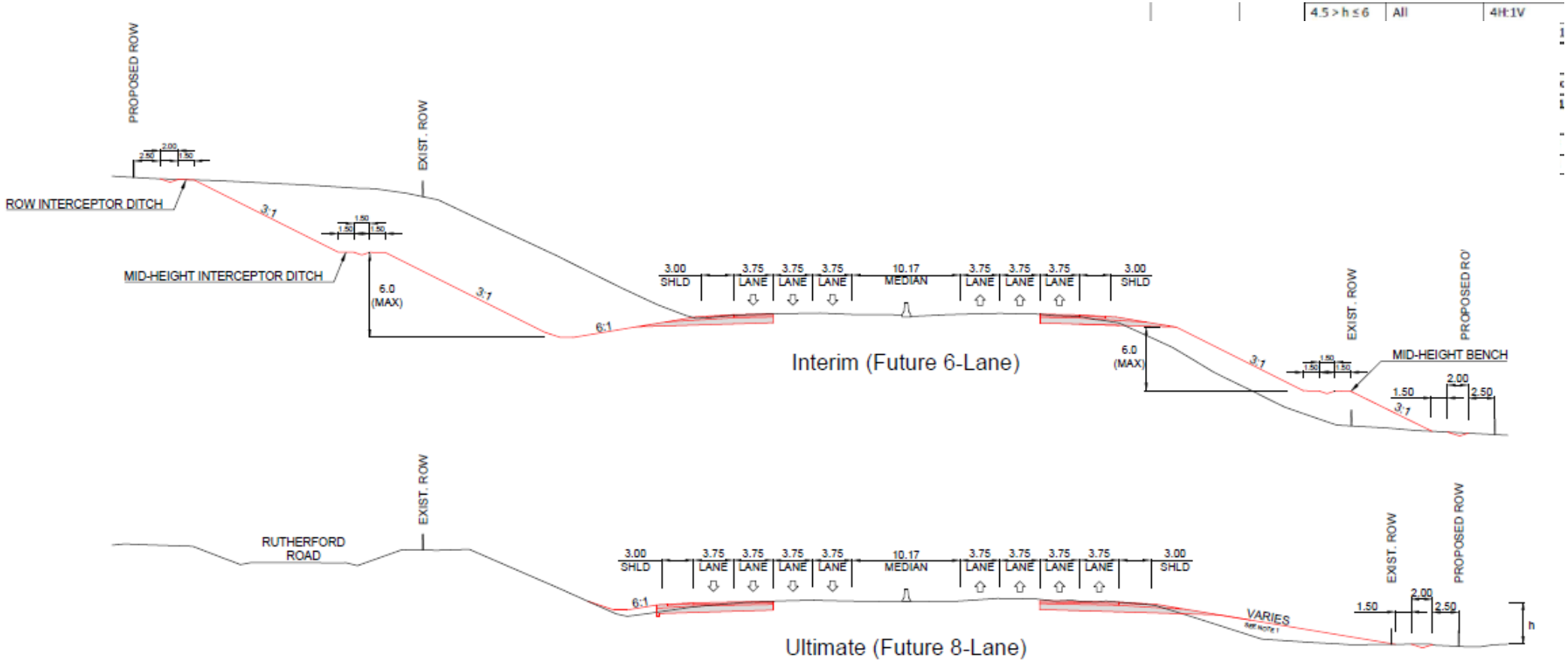
Preferred Plan

Summary of Highway Improvements

1. Lyle Street interchange and carpool lot improvements
2. Percy Street interchange and carpool lot improvements
3. Highway 401 vertical curve improvements (sags and crests)
4. Highway 401 horizontal curve improvements at Gully curves
5. Future widening of Highway 401 to six lanes (interim)
6. Future widening of Highway 401 to eight lanes (ultimate)

Preferred Plan

Typical Future Highway 401 Widening

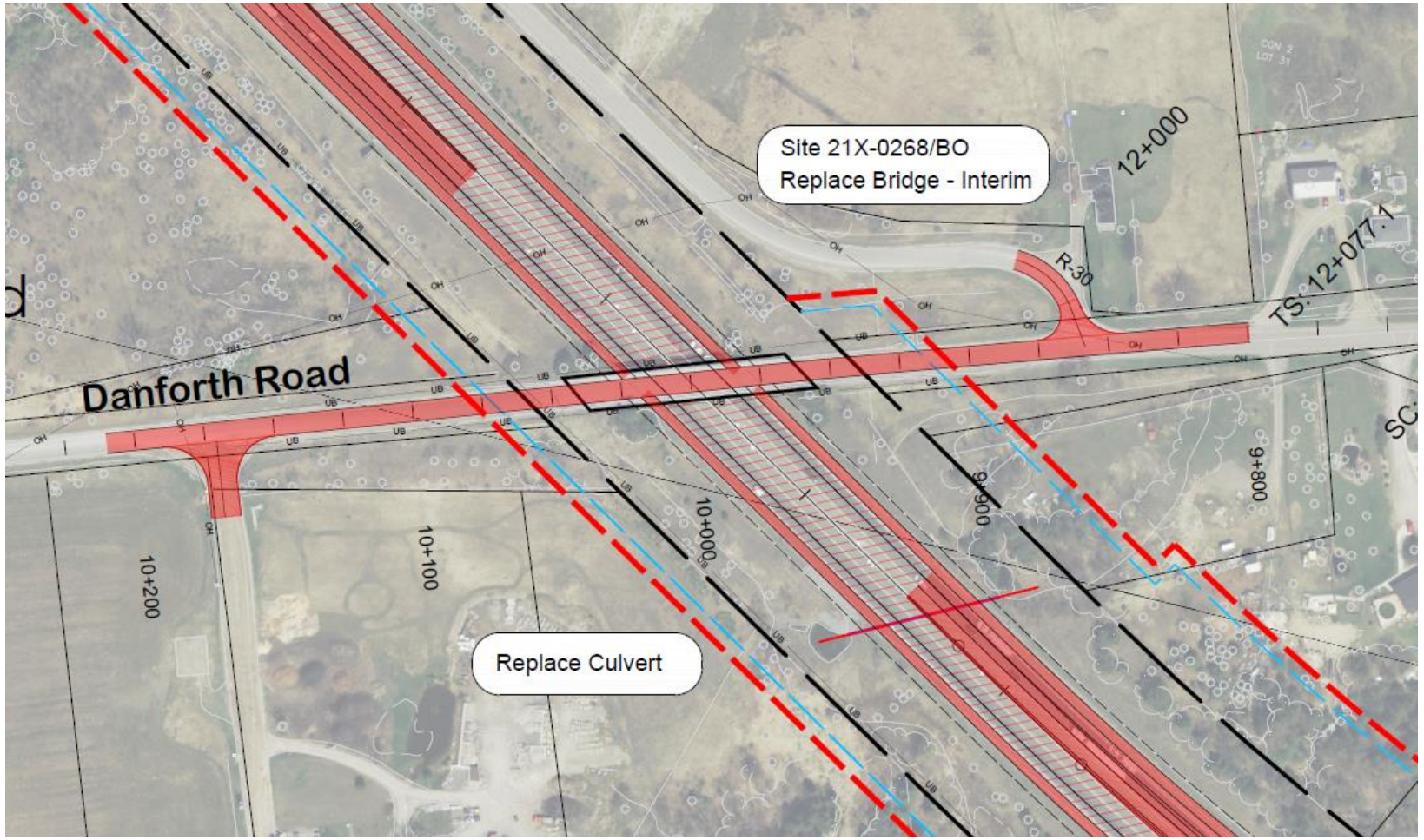


Summary of Bridge Improvements

Structure	Interim Strategy	Ultimate Strategy
Danforth Road Underpass	Replace	Rehabilitate
Gully Road Underpass	Replace	Rehabilitate
Lyle Street Underpass	Replace	Rehabilitate
Shelter Valley Road Culvert 21X-0273/CO	Rehabilitate	Replace with bridge
Vernonville Road Overpass	Rehabilitate and widen	Replace
Boyce Road Overpass	Rehabilitate and widen	Replace
Percy Street Underpass	Replace	Rehabilitate

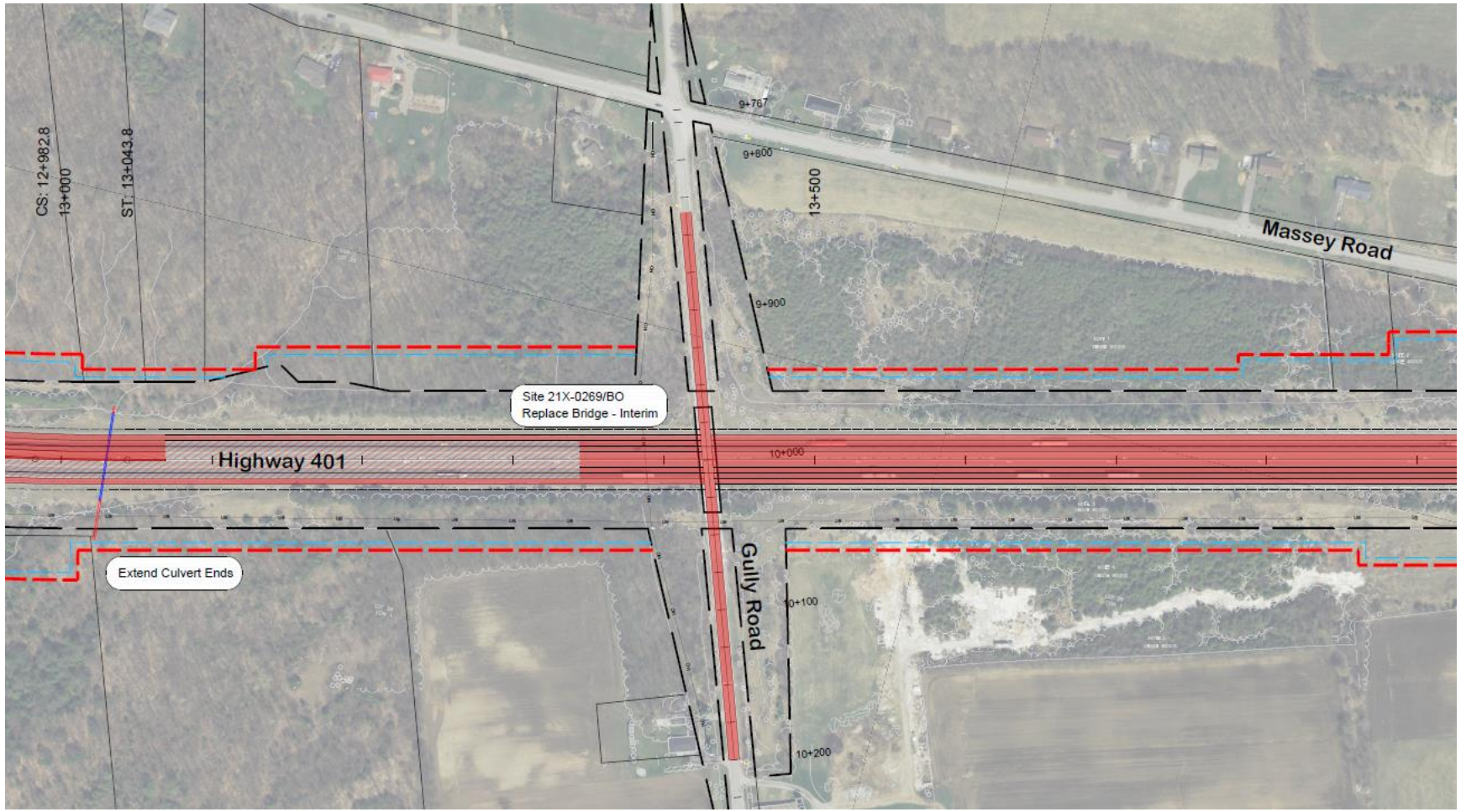
Preferred Plan

Danforth Road



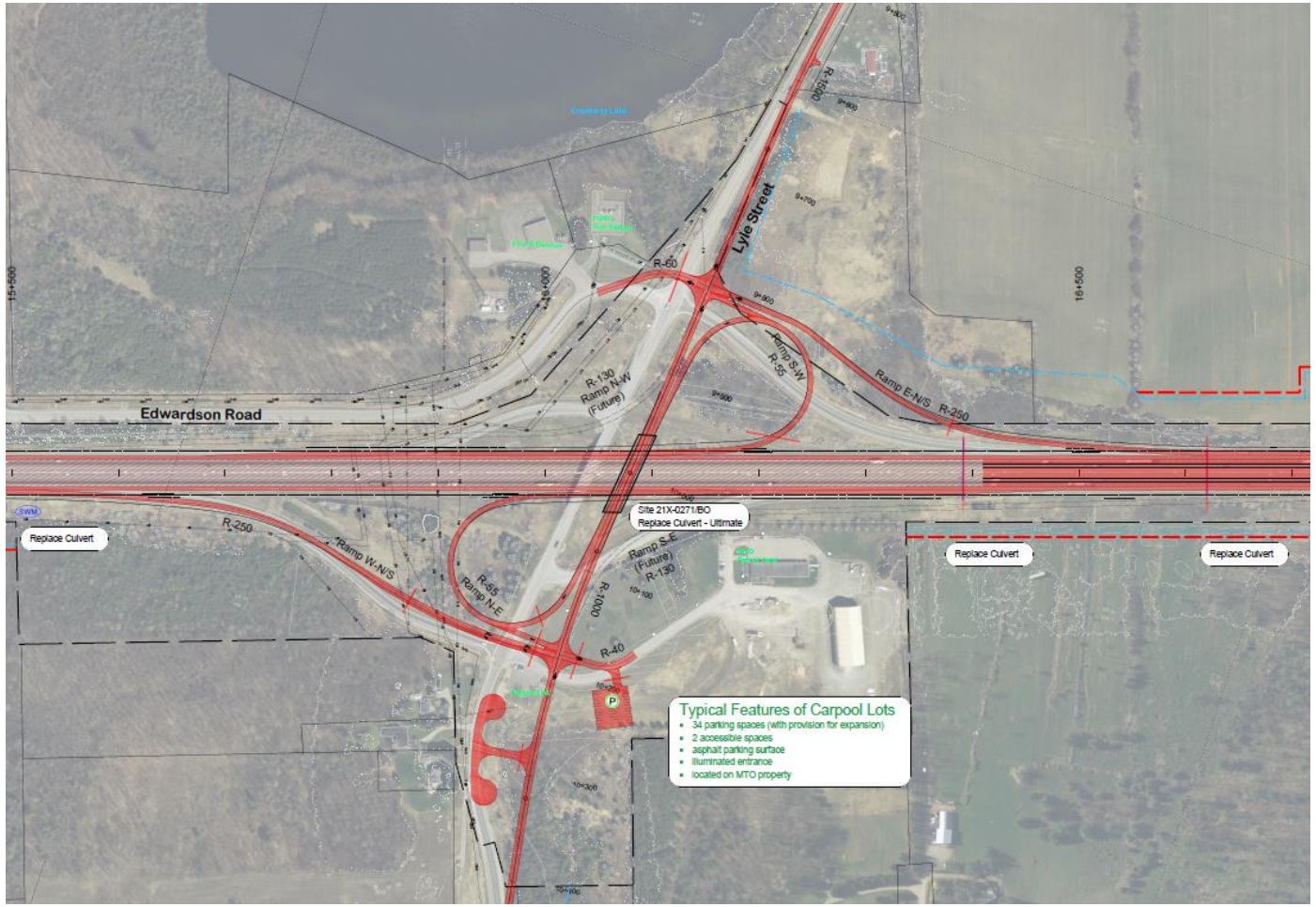
Preferred Plan

Gully Road



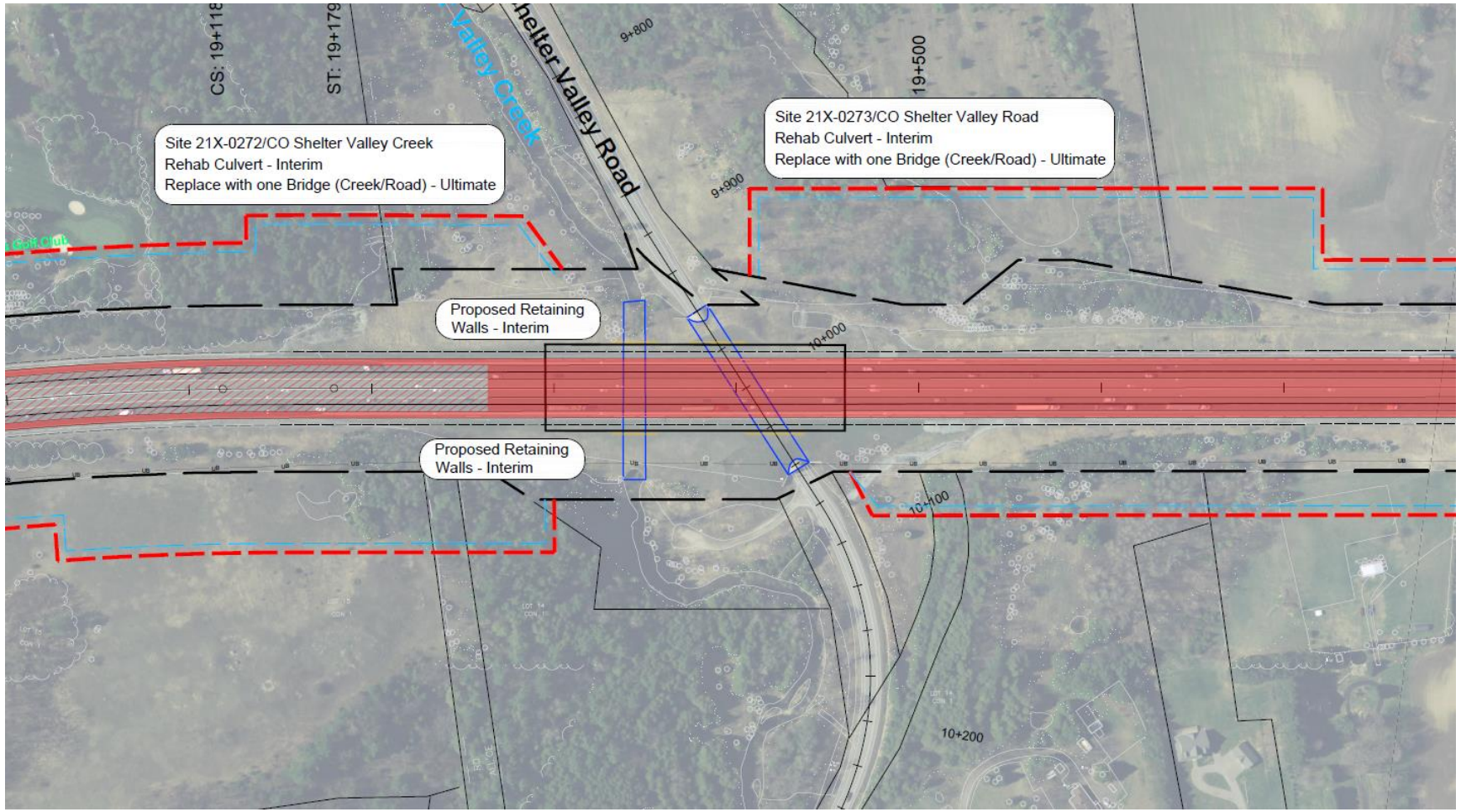
Preferred Plan

Lyle Street Interchange



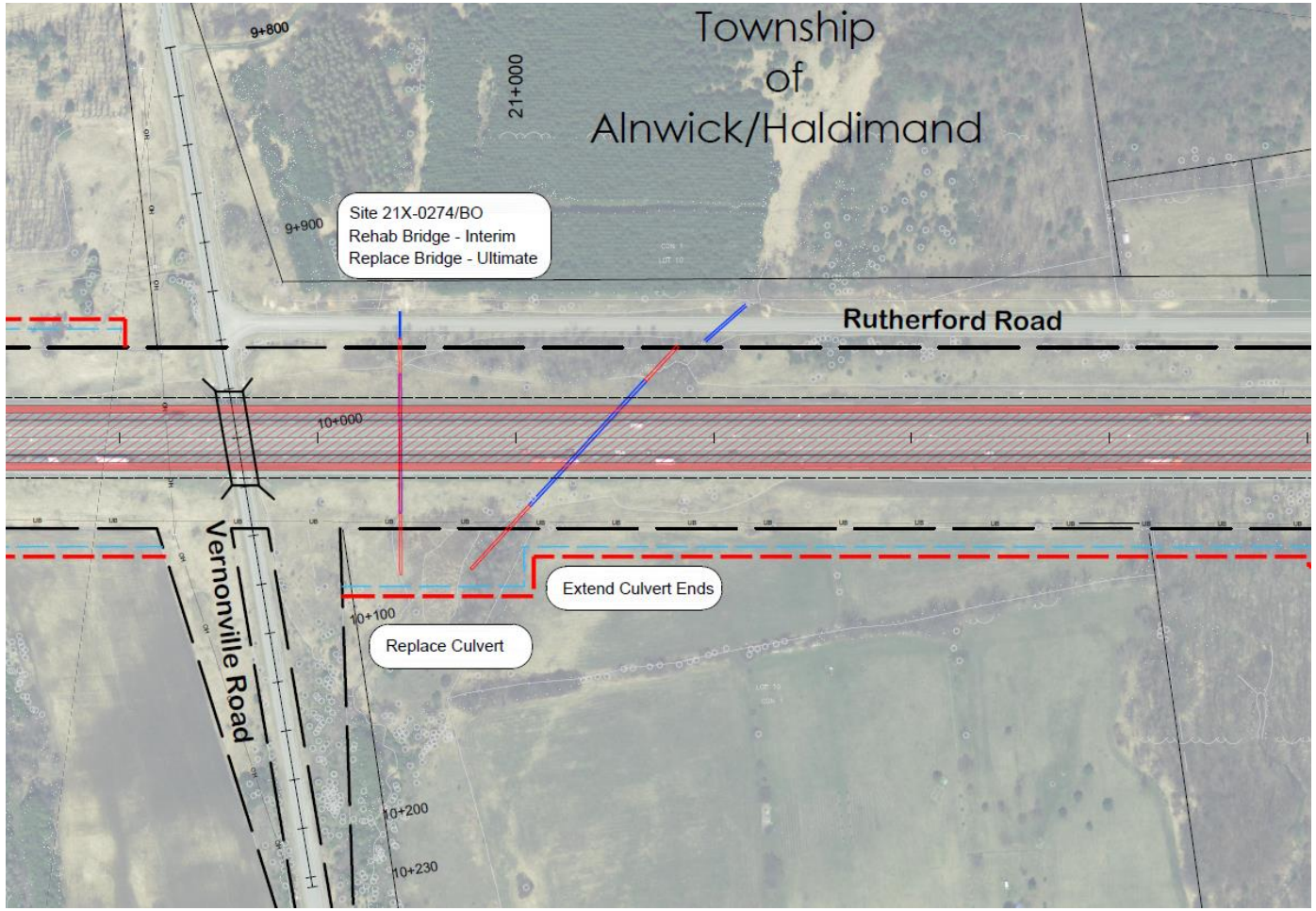
Preferred Plan

Shelter Valley



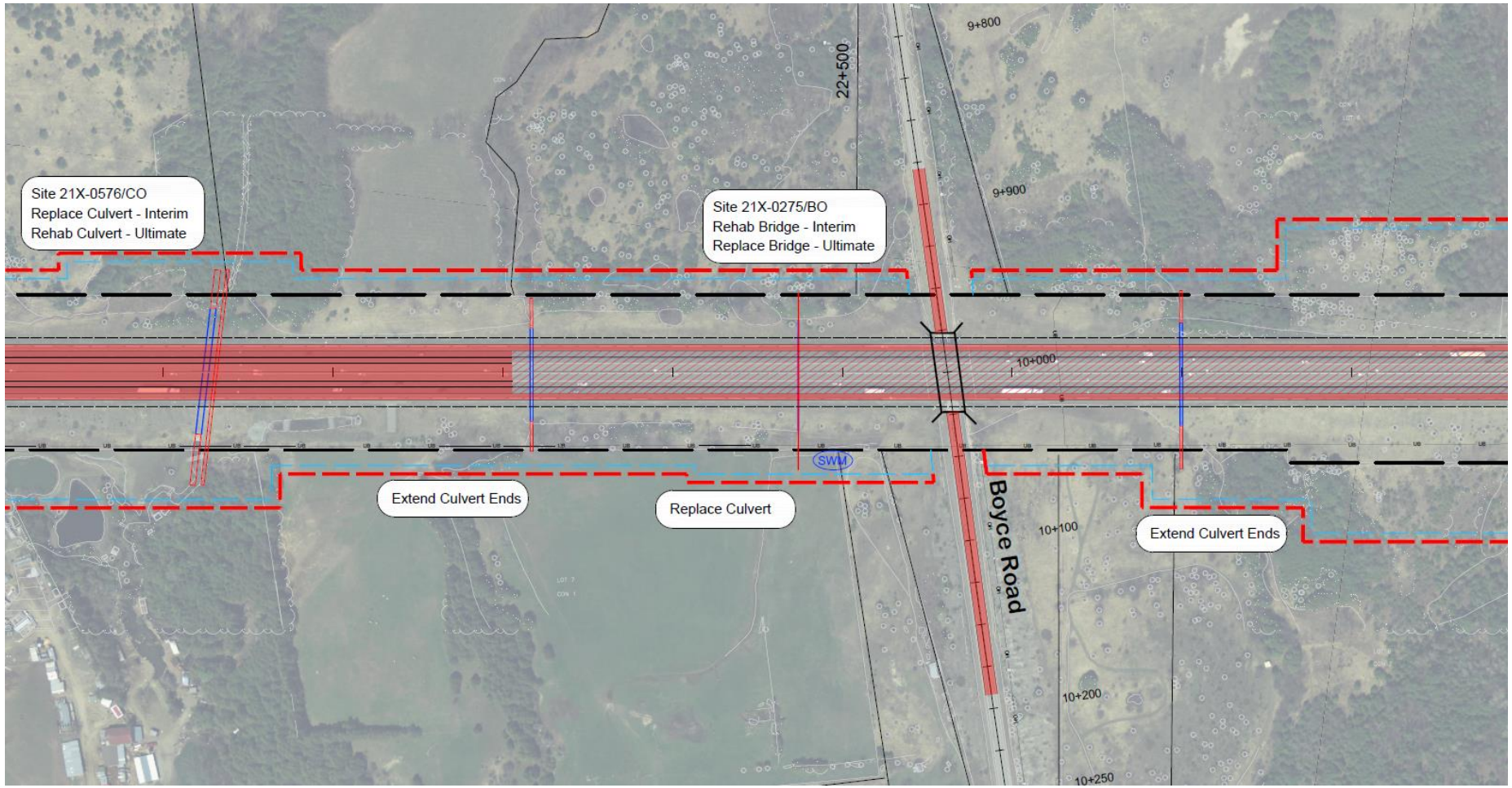
Preferred Plan

Vernonville Road



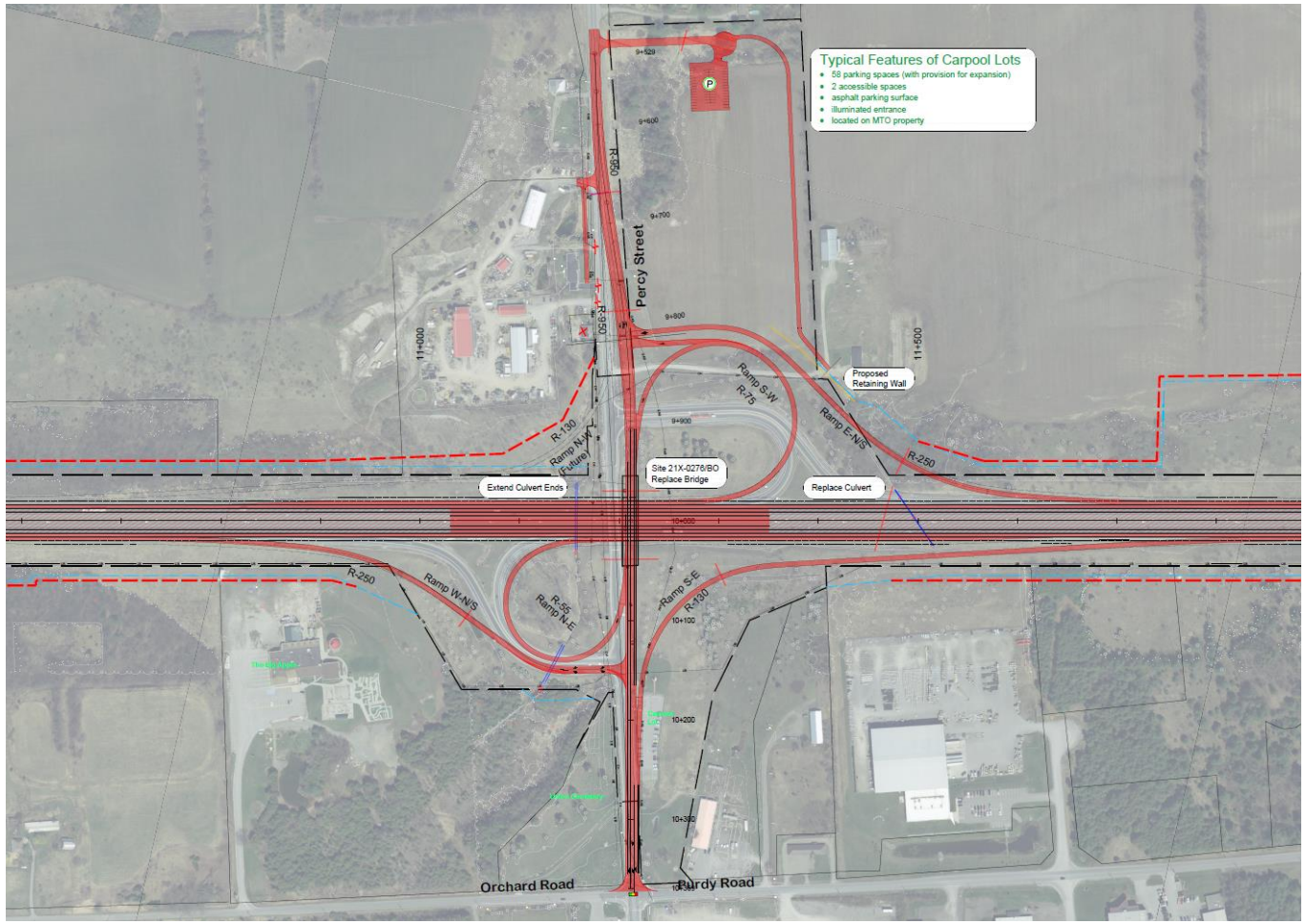
Preferred Plan

Boyce Road



Preferred Plan

Percy Street Interchange



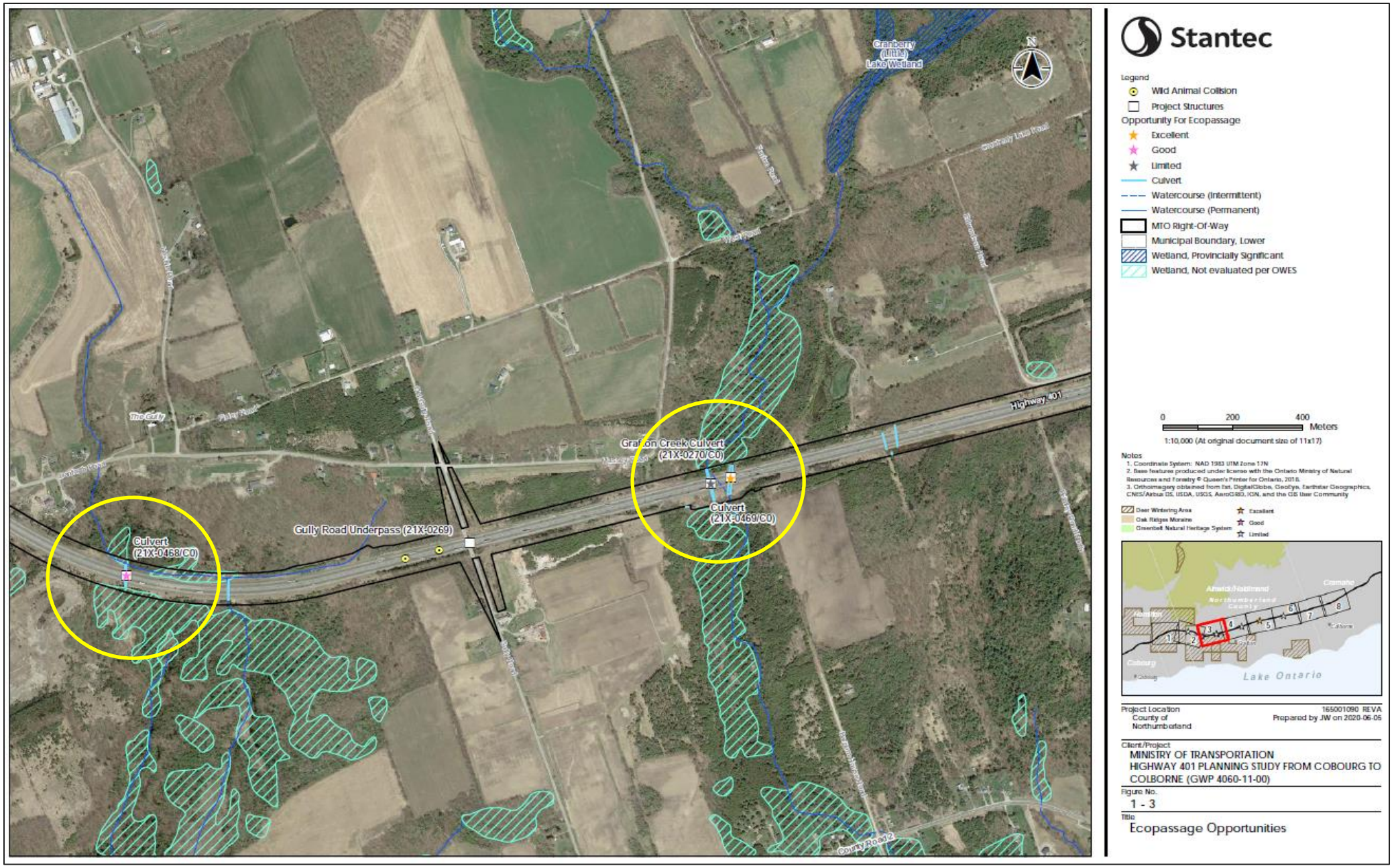
Summary of Culvert Improvements

Structure	Interim Strategy	Ultimate Strategy
Culvert 21X-0467/C0	Replace (trenchless)	Rehabilitate
Culvert 21X-0468/C0	Rehabilitate Add retaining walls	Replace
Culvert 21X-0469/C0	Replace (line and extend)	Rehabilitate
Grafton Creek Culvert 21X-270/C0	Rehabilitate Add retaining walls	Replace with bridge
Northumberland Culvert 21-470/C0	Replace (trenchless)	Rehabilitate
Shelter Valley Creek Culvert 21X-0272/C0	Rehabilitate Add retaining walls	Replace with bridge
Boyce's Road Culvert 21X-0576/C0	Rehabilitate and strengthen Add retaining walls	Replace (trenchless)

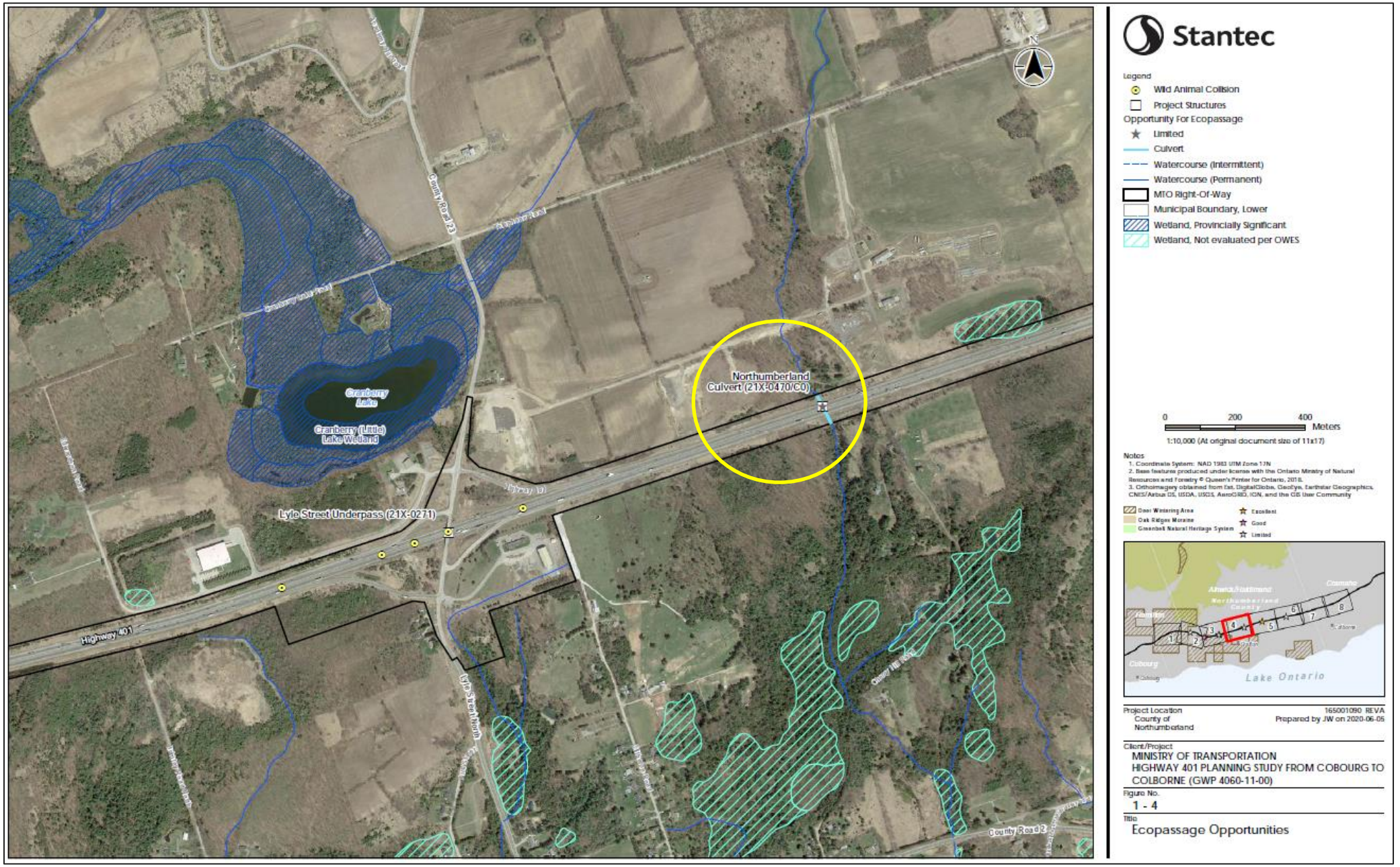
Ecopassage Opportunities and Constraints

Ecopassage Opportunities and Constraints

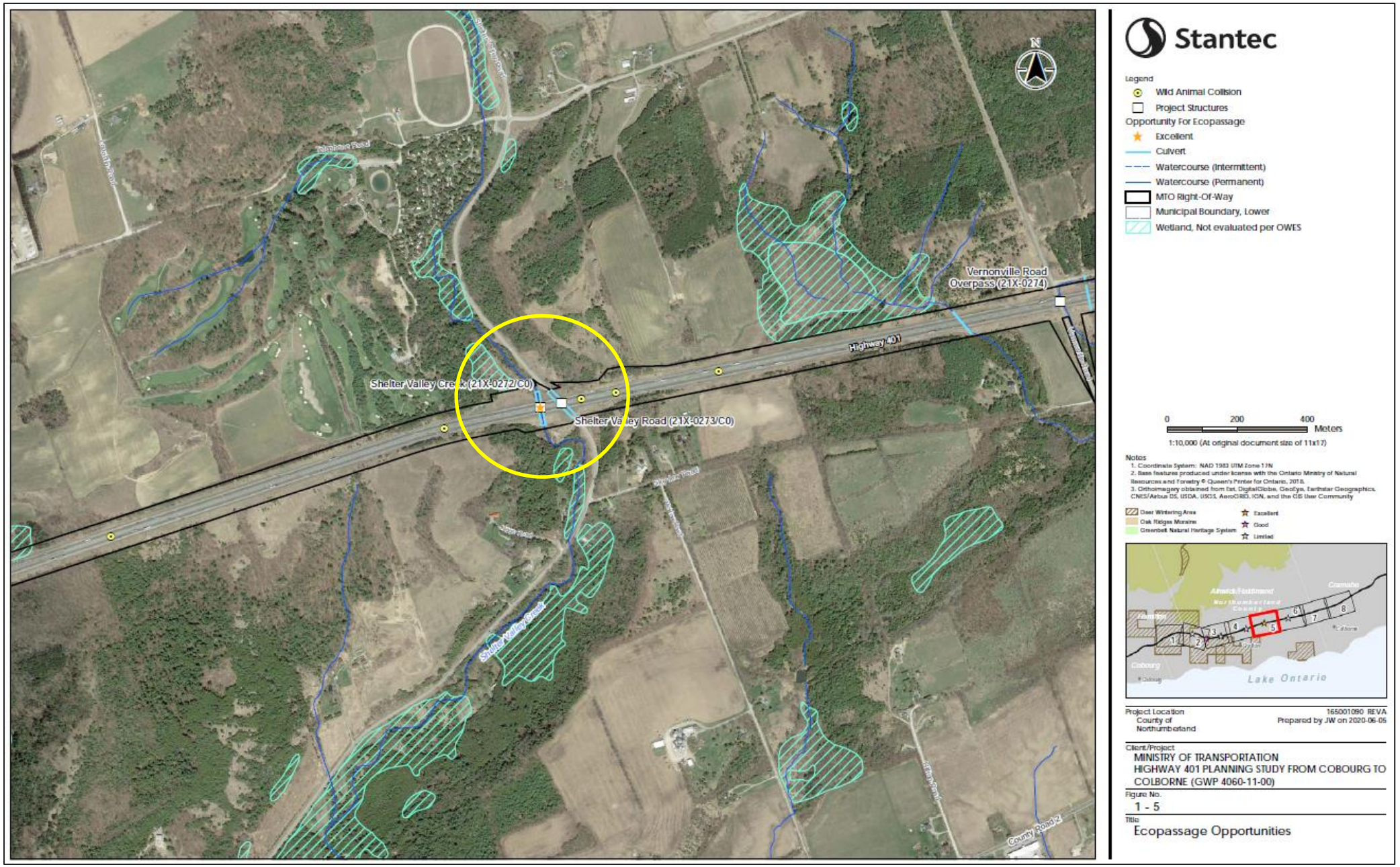
Ecopassage Opportunities and Constraints



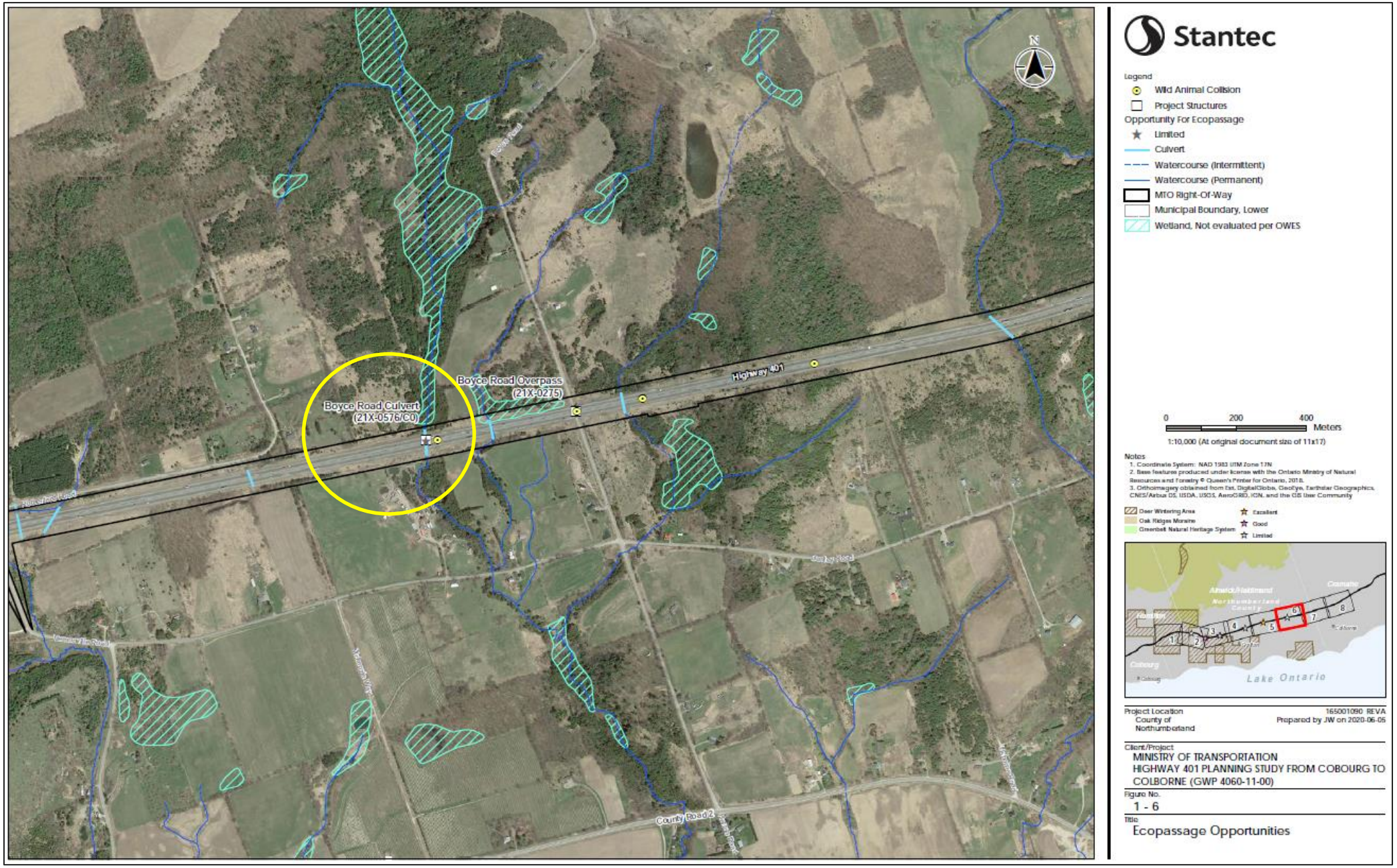
Ecopassage Opportunities and Constraints



Ecopassage Opportunities and Constraints



Ecopassage Opportunities and Constraints



Ecopassage Opportunities and Constraints

Summary of Findings

Culvert ID	Existing Culvert Dimensions (width x height)	Interim Improvement Strategy	Long-term Improvement Strategy	Landscape Feature	Opportunity for Ecopassage
21X-0467/C0[2]	3.1 m x 1.8 m box	• slip-line with new culvert 2.7 m x 1.8 m	• possible rehab	• wooded valley; unnamed tributary 02	• Limited, due to culvert size and length
21X-0468/C0	3.1 m x 1.5 m box	• culvert rehabilitation	• culvert replacement; opportunity to increase size	• woodland and wetland, primarily to south; unnamed tributary 03	• Good, but not a key landscape feature and no replacement for 30 yrs
21X-0469/C0	3.7 m x 1.8 m box	• Culvert replacement (line and extend)	• Possible rehab	• wooded valley: Barnum House Creek	• Limited, due to culvert size and length but adjacent to large culvert/ future bridge
21X-0270/C0[2]	9.8 m x 4.9 m arch	• culvert rehabilitation and retaining walls	• replace with bridge	• wooded valley: Barnum House Creek	• Excellent, existing large diameter culvert/future bridge and follows key landscape feature
21X-0470/C0	3.1 m x 1.8 m box	• slip-line with new culvert 2.7 m x 1.8 m	• possible rehab	• wooded valley; unnamed tributary 06	• Limited, due to culvert size and length
21X-0272/C0[2]	15.2 m x 7.7 m arch	• none	• replace with bridge	• wooded valley: Shelter Valley Creek	• Excellent, existing large diameter culvert/future bridge and follows key landscape feature
21X-0576/C0	3.1 m x 2.5 m box	• Culvert rehabilitation	• Culvert replacement	• wooded valley and wetland, primarily to north; unnamed tributary 09	• Limited, due to culvert size and length

Conclusions/Recommendations

- Two excellent opportunities for an ecopassage
- Existing large open-bottom arch culverts connect two significant natural corridors across Highway 401
- Function could be improved through fencing to direct wildlife toward culvert openings
- Length and placement of fencing determined by priorities, such as a reduction in deer-vehicle collisions or movement of small wildlife across Highway 401
- These two culverts will be replaced by bridges as part of the ultimate/long-term strategy
- These recommendations will be further reviewed during the detail design, pending funding and approvals, the timing of which is not known

Next Steps

Next Steps

Virtual Council Presentations

- Tentatively scheduled for August 2020

Virtual Public Information Centre 2

- Present the Evaluation of Alternatives and selection of Preferred Plan
- Tentatively scheduled for August 2020

Transportation Environmental Study Report

- 30-day public review period
- Tentatively scheduled for January 2021

Questions?