

Schedule 'C' Municipal Class Environmental Assessment for Merritt Road (Regional Road 37) and Rice Road (Regional Road 54) in the Town of Pelham, the City of Thorold and the City of Welland

APPENDIX

L

Agency Consultation

If technical reports are required in an alternative format for accessibility needs, please contact:

Maged Elmadhoon, M.Eng., P.Eng.
Manager, Transportation Planning - Public Works, Niagara Region
Phone: 905-980-6000 ext. 3583
Email: Maged.Elmadhoon@niagararegion.ca

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APPENDIX

L-1 ***Agency/Stakeholder Committee Meeting #1***

Meeting Minutes

Date: Wednesday, January 13, 2020
2:00 PM

Meeting at: Microsoft Teams

File No.: IM20103036

Subject/purpose: Merritt Road/Rice Road Municipal Class Environmental Assessment and Detailed Transportation Study – Agency/Stakeholder Committee Meeting #1

Wood Staff and Region PM Team:

Jeff Suggett, Wood
Mir Talpur, Wood

Maged Elmadhoon, RMON
Sulaf Alkarawi, RMON

Technical Committee Members: See separate attachment

Information presented/discussed:

1. Purpose of the Meeting

Wood went through a presentation in the form of a slidedeck (**attached**).

The purpose of this meeting was to introduce the Class EA Study to the Technical Committee Members and receive preliminary feedback for consideration as the Study progresses. The Study will build on the recommendations of the Niagara Region's Transportation Master Plan, which included the following

- Extension of Merritt Road between Regional Road 54 (Rice Road) and Cataract Road;
- Capacity improvements of Merritt Road from Cataract Road to Highway 406; and,
- Capacity improvements to Regional Road 54 (Rice Road) from 200 meters north of Merritt Road to Quaker Road

2. Study Area

The Study Area includes the following four road segments:

- Segment 1: Merritt Road between Rice Road and Cataract Road
- Segment 2: Merritt Road between Cataract Road and Merrittville Highway/Niagara Street



Continued...

- Segment 3: Merritt Road between Merrittville Highway / Niagara Street and Highway 406 interchange
- Segment 4: Rice Road between Merritt Road and Quaker Road

It was noted that Segment 1 crosses a large woodlot and wetlands. A separate meeting will be held with Niagara Peninsula Conservation Authority (NPCA) regarding Natural Environment component.

Action Item: Wood to schedule meeting with NPCA and the Region.

3. Technical Objectives

The Study will be carried out in accordance with a Schedule 'C' Municipal Class EA Study, and will address Phases 1-4 (namely, Problem & Opportunity Statement, Identification and Evaluation of Alternative Solutions and Alternative Design Concepts, and development of an Environmental Study Report).

4. Overview of Work Plan

The Study Work Plan includes various tasks associated with Class EA Phases 1-4. These tasks involve consultation activities, various technical studies and associated deliverables, and Class EA process requirements.

5. Schedule

The Study was initiated in December 2020, and a Notice of Commencement was issued to the contacts on the Study Mailing List. The Study is planned for completion by December 2021.

6. Data Request

Meeting participants were requested to provide any data that may be useful for this study. Study Team is interested in any traffic, stormwater management, natural and cultural environment studies within or adjacent to the Study Area. Another item of interest are the base plan drawings for Merritt Road between Cataract Road and Merrittville Highway/Niagara Street.

Action Item: Meeting participants encouraged to send over any background information pertinent to the study.

7. Consultation Plan

The Consultation Plan is a key document that sets the framework of consultation activities for the Class EA studies. A Consultation Plan has been developed for this study

Continued...

that identifies the timelines of various consultation activities, key stakeholders, and responsibilities of the Study Team. A comprehensive Study Mailing List has been developed that includes contact information for key contacts from Niagara Region, Town of Pelham, Cities of Thorold and Welland, Niagara Peninsula Conservation Authority, Government Review Agencies, Indigenous Nations, Interest Groups within Study Area, and members of the public and area residents. There are three PICs and five Agency/Stakeholder Meetings (such as this one) are planned for the Study.

8. Health Equity Informed Planning

Staff from Niagara Region has determined that a Health Impact Assessment (HIA) is required as part of this Study. It will utilize information collected as part of the Class EA Study, and will take about 1-3 months to complete. The HIA process will complement the Class EA process, and will focus on mitigating the potential negative health impacts and maximizing potential positive health impacts. ***Separate attachment.***

9. Roundtable – Project Issues/Concerns/Opportunities

A number of items were discussed. Following is the bullet point summary of key discussions:

- **As-built Drawings:** City of Thorold staff confirmed that they do not have as-built drawings for Road Segment 2 - Merritt Road between Cataract Road and Merrittville Highway/Niagara Street.
- **Ownership of Road Segments:** The Niagara Region staff confirmed that it is the intent of the Niagara Region to take ownership of Road Segments 1 and 2. This will be a recommendation made as part of the Class EA.
- **Road Urbanization:** In response to the question whether the road segments will be urbanized, Wood staff responded the road urbanization will be considered as part of the Study but this is not confirmed at this time.
- **Servicing:** The West Port Robinson Secondary Plan has identified the need for servicing for Road Segments 2 and 3. The City of Thorold does not have funding at this time to provide servicing for these roads. Niagara Region staff noted that there will need to be an internal agreement between the City of Thorold and the Niagara Region. Niagara Region suggested that City staff reaching out by email so the Region staff can coordinate their timelines and how they can work together with the City.

Action Item: City staff to contact Regional staff regarding servicing for Road Segments 2 and 3.

- **Merritt Road:** Town of Pelham staff noted that Town's 10-year budget forecast includes urbanization of Merritt Road west of Rice Road. The Town staff is interested to see the proposed cross-section for the Merritt Road segments that will be developed by this study. The Town has received federal and provincial

funding for improvements to Pelham Street and are undertaking work on Pelham Street at the moment. There may be a signalized intersection at Pelham Street/Merritt Road intersection, this will depend on anticipated traffic on Merritt Road as a result of the extension. Wood staff noted that this Study will not be reviewing/analyzing the traffic data for Pelham Street. The Town staff will be willing to share any information that may be useful to the Study Team (i.e. design for Pelham Street).

Action Item: Wood to provide any traffic data identified over the course of this project to share with the Town of Pelham.

- **Other Projects in the area:** The City of Thorold staff noted that there are no infrastructure projects in this general area, however, there is a development planned along Port Robinson Road just east of Highway 406. City of Welland staff noted that new development applications are expected once the urban expansion boundary is approved. New accesses are planned for Rice Road but they are conceptual now. Some applications are expected in 2021 with construction starting in 2022.
- **Impacts on Highway 406:** Ministry of Transportation staff inquired if there are any planned impacts on the Hwy 406 overpass? The Study Team noted that there will be recommendations for active transportation for the bridge over Highway 406 but no widening is planned. MTO staff noted that they have some past reports for this area and will share with the Study Team.

Action Item: MTO to share any data they have of value to Wood.

- **Current Ownership of Segment 1:** It was confirmed that City of Thorold and Town of Pelham have ownership over allowance for Merritt Road however, it will be transferred to the Niagara Region.
- **Natural Environment:** Staff from NPCA noted that there is significant amount of floodplain and Provincially Significant Wetlands in the road allowance area. Staff will make sure that any data and modelling is provided to the Study Team. David Deluce will be the main contact for Niagara Peninsula Conservation Authority.
- **Public Consultation:** The Notice of Commencement was issued to the contacts on the Study Mailing List, including the area residents. It is also published on the Study webpage and is planned for publication in three newspapers. PIC #1 is planned for March 2021. Virtual consultation was discussed. City of Welland staff noted that Zoom works well in terms of virtual consultation. It allows people to call in, zoom in on materials, and participate in an interactive environment. NPCA completed two PICs in December 2020 using Webex platform. It allowed staff to see who has registered for the event, allowed attendees to submit questions, and responses were provided during the events.

https://woodplc-my.sharepoint.com/personal/mir_talpur_woodplc_com/Documents/Projects/Merrit Road and Rice Road/ESR/Appendices/Source Files/AppS-AgnCon/1_TAC #1/Minutes_merritt_rice_agency and stakeholder meeting-13-01-2021.docx

Division	Role	Staff Name	Email	Attendance at Agency Meeting #1
Regional Municipality of Niagara				
Transportation	Manager, Transportation Planning	Maged Elmadhoon	Maged.Elmadhoon@niagararegion.ca	Present
Transportation	Associate Director, Transportation Planning	Sulaf Alkarawi	Sulaf.Alkarawi@niagararegion.ca	Present
Transportation	Director of Transportation Services	Carolyn Ryall	Carolyn.Ryall@niagararegion.ca	Absent
Water/Wastewater	Associate Director Water and Wastewater Engineering	Tony Cimino	tony.cimino@niagararegion.ca	Present
Planning and Development	Director, Infrastructure Planning and Development Engineering	Phill Lambert	Phill.Lambert@niagararegion.ca	Absent
Planning and Development	Acting Director Development Approvals, Planning and Development Services	Pat Busnello	pat.busnello@niagararegion.ca	Absent
Planning and Development	Manager, Environmental Planning	Cara Lampman	Cara.Lampman@niagararegion.ca	Present
Planning and Development	Development Engineer	Susan Dunsmore	Susan.Dunsmore@niagararegion.ca	Present
Planning and Development	Landscape Architect	Vanessa Aykoryd	Vanessa.Aykroyd@niagararegion.ca	Present
Planning and Development	Planning Ecologist	Lori Karlewicz	Lori.Karlewicz@niagararegion.ca	Present
Transit	GO Implementation Office Transit Lead	Scott Fraser	Scott.Fraser@niagararegion.ca	Present
Water/Wastewater	Senior Project Manager, Water and Wastewater Engineering	Richard Gabel	Richard.Gabel@niagararegion.ca	Present
Transportation	Senior Project Manager, Transportation Engineering	Cam Milne	cam.milne@niagararegion.ca	Present
Public Health	Health Impact Assessment Intern	Jacqueline Gates	Jacqueline.Gates@niagararegion.ca	Present
Public Health	Diversity, Equity and Inclusion Program Manager	Cassandra Ogunniyi	Cassandra.Ogunniyi@niagararegion.ca	Present
Town of Pelham				
Engineering	Director of Public Works	Jason Marr	jmarr@pelham.ca	Present
Engineering	Manager of Engineering	Derek Young	dyoung@pelham.ca	Present
Engineering	Manager of Public Works	Ryan Cook	rcook@pelham.ca	Present
Community Planning	Diector, Community Planning and Development	Barbara Wiens	BWiens@pelham.ca	Present
City of Thorold				

Division	Role	Staff Name	Email	Attendance at Agency Meeting #1
Engineering	Manager of Engineering	Sean Dunsmore	sean.dunsmore@thorold.ca	Present
Engineering	Project Manager	Jaroslav Hajek	jaroslav.hajek@thorold.ca	Present
City of Welland				
Planning	Interim Manager of Planning	Rachelle Larocque	rachelle.larocque@welland.ca	Present
Planning	Interim Director of Development and Building Services	Grant Munday	grant.munday@welland.ca	Present
Engineering	Interim Director of Engineering and Public Works	Sherri-Marie Millar	sherri-marie.millar@welland.ca	Absent
Engineering		Scott Richardson	scott.richardson@welland.ca	Present
Niagara Region Conservation Authority				
N/A	Senior Manager, Planning and Regulations	David Deluce	ddeluce@npca.ca	Present
Ontario Ministry of Transportation				
Planning and Design	Project Engineer	Kyle Saulnier	Kyle.Saulnier@ontario.ca	Present
	Assistant Environmental Planner	Jenna Wolno	Jenna.Wolno@ontario.ca	Present
	Traffic Supervisor	Lance Dutchak	lance.dutchak@ontario.ca	Present

Merritt Road/Rice Road Municipal Class Environmental Assessment and Detailed Transportation Study

Agency/Stakeholder Meeting #1
Wednesday January 13th, 2021

Agenda

1. Introductions
2. Study Area
3. Project Objectives
4. Overview of Work Plan
5. Schedule
6. Data Request
7. Consultation Plan
8. Health Equity Informed Planning
9. Roundtable – Project Issues/Concerns/Opportunities

1. Introductions

Introductions

Wood Team

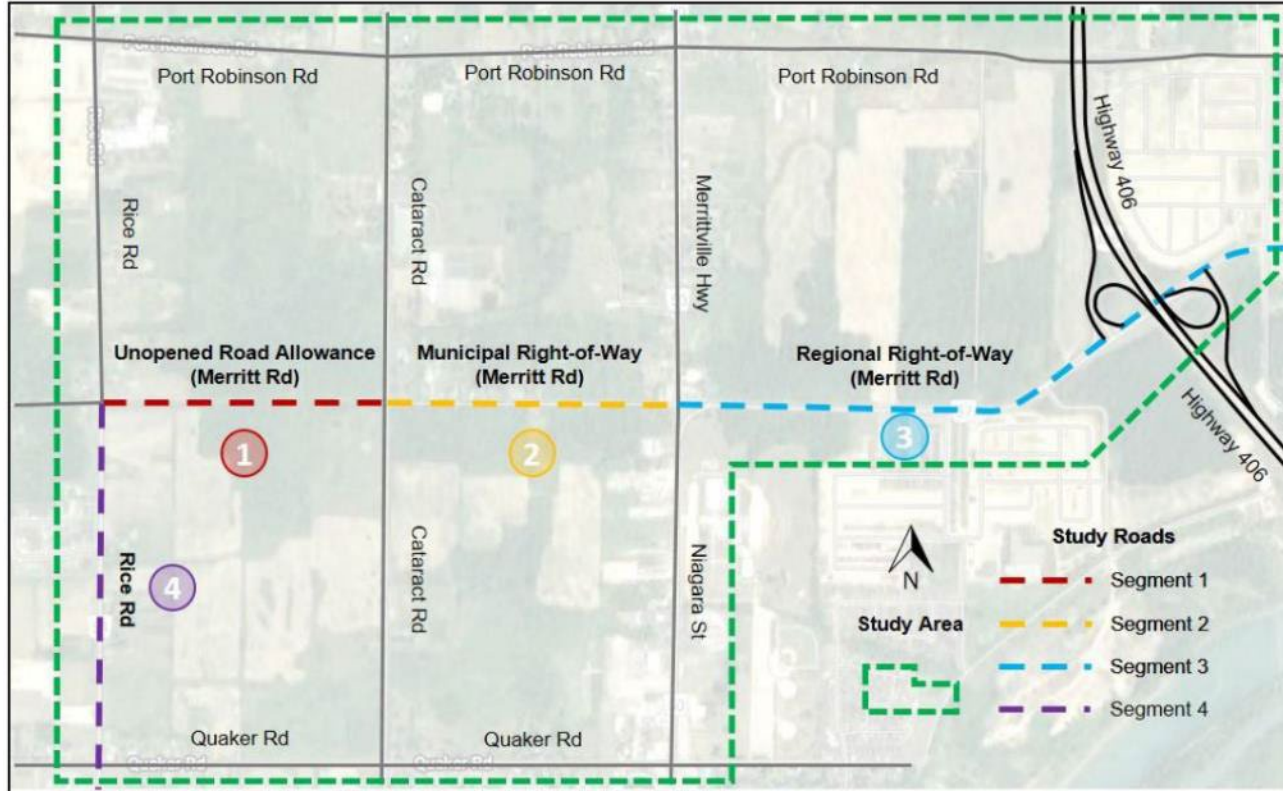
- Jeff Suggett – PM
- John McGill – Project Sponsor
- Mir Talpur – Environmental Planning
- Gordon Hui – Traffic
- Samantha Hughes – Natural Environment
- Muhammad Khan – Road Design

Region PM Team

- Maged Elmadhoun - PM
- Sulaf Alkarawi

2. Study Area

Study Area



Road Segment 1



Merritt Road between Rice Road and Cataract Road

- Portion in Town of Pelham/Portion in City of Thorold
- Unopened road allowance
- 20.0 m ROW
- Large woodlot with environmentally sensitive wetlands



Road Segment 2



Merritt Road between Cataract Road and Merrittville Highway/Niagara Street

- City of Thorold road
- Rural cross section
- 20.0 m ROW



Road Segment 3



Merritt Road between Merrittville Highway / Niagara Street and Highway 406 interchange

- Region of Niagara Road/all in City of Thorold
- Rural cross section
- 30.0 m ROW



Road Segment 4



Rice Road between Merritt Road and Quaker Road

- Region of Niagara Road
- Portion in Town of Pelham/City of Welland
- Rural cross section
- 20.0 m ROW between Quaker Road and Rosewood Crescent
- 23.0 m ROW between Rosewood Crescent and Merritt Road



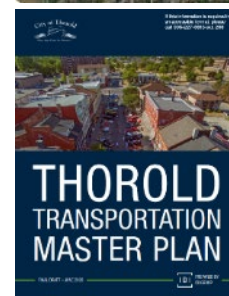
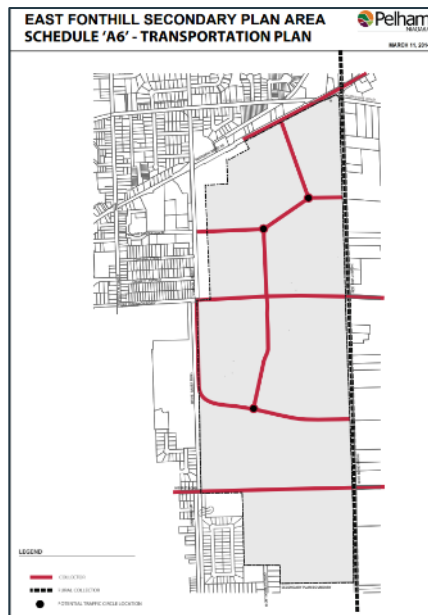
3. Technical Objectives

Technical Objectives

Study Phase	Technical Objectives
Phase 1 – Problem and/or Opportunity	Objectives: Research and understand the problem(s): <ul style="list-style-type: none">• Confirm understanding of the current issues and opportunities in the study area.• Develop a Problem and Opportunity Statement which captures key challenges and serves as the study's foundation.
Phase 2 – Alternative Solutions	Objectives: Identify and evaluate alternative solutions primarily based on technical input: <ul style="list-style-type: none">• Undertake several discipline studies to help differentiate a list of potential alternative solutions to address the challenges and opportunities.• Identify and evaluate potential options to address the problem and / or opportunities to select the most balanced solution
Phase 3 – Alternative Design Concepts for Preferred Solution	Objectives: Development of Alternative Design Concepts for the Preferred Option: <ul style="list-style-type: none">• Establishing design criteria for various key elements of the geometric design such as lane widths, horizontal alignment radii and vertical profile configuration• Confirm future improvements to road geometries and traffic operations (e.g. lane and storage requirements) based on the traffic analysis findings.
Phase 4 – Environmental Study Report	Objectives: Prepare the ESR: <ul style="list-style-type: none">• Finalize 30% Design Package• Develop cost estimates• Develop financial analysis and implementation strategy• Prepare Environmental Study Report (ESR)

Background Information

- Niagara Region's Transportation Master Plan (TMP)
- East Fonthill Secondary Plan
- West Port Robinson Secondary Plan
- North West Welland Secondary Plan
- City of Thorold Transportation Master Plan



4. Overview of Work Plan

Work Plan

Project Initiation/Phase 1

- Consultation Plan
- Stakeholder and Resident Inventory / Study Mailing
- Notice of Study Commencement (Government Agencies, the Public, area residents, Indigenous Nations)
- Agency/Stakeholder Meeting #1
- Background Review
- Identify Data Requirements
- Detailed Transportation/Active Transportation Assessment
- Define the Needs, Justification and Problem Statement
- Agency/Stakeholder Meeting #2
- PIC #1

Work Plan (cont'd)

Phase 2

- Existing Conditions (Technical Studies)
 - Natural Heritage, Stormwater Assessment, Archaeological Assessment, Built Heritage/Cultural Heritage, Socio-economic, Climate Change, Constraints/Opportunity Mapping, Urban Landscaping
- Detailed Transportation/Active Transportation Assessment
- Development of Alternative Solutions
- Evaluation of Alternative Solutions
- Agency/Stakeholder Meeting #3
- PIC #2

Work Plan (cont'd)

Phase 3

- Prepare Design Criteria for Review
- Identify/Prepare Design Concepts
- Evaluation of Alternative Design Concepts and Recommendations
- Agency/Stakeholder Meeting #4
- Preliminary Design for Preferred Design Concept
- Agency/Stakeholder Meeting #5
- PIC #3

Work Plan (cont'd)

Phase 4

- Draft ESR Report
- Staff Technical Committee Meeting #4 and Public Works Committee Meeting
- Final ESR Report
- Minimum 30-Day Public Review
- Report to Public Works Committee/Council

5. Schedule

Schedule

Meeting	Tentative Date
Project Initiation	
Project kickoff meeting	December 2, 2020
MCEA Phase 1	
Agency/Stakeholder Meeting #1	January 13, 2021
Detailed Transportation Assessment Meeting #1	February 2021
Complete Streets Workshop	February 2021
PIC #1	March 2021
Regional Council/Committee Meeting #1	April 2021
MCEA Phase 2	
Agency/Stakeholder Meeting #2	April 2021
Alternative Review Meeting #1	April 2021
Evaluation Meeting #1	May 2021
Alternative Review Meeting #2	May 2021
Evaluation Meeting #2	June 2021
Indigenous Peoples Consultation Meeting	June 2021
Agency/Stakeholder Meeting #3	June 2021
PIC #2	June 2021
MCEA Phase 3	
Agency/Stakeholder Meeting #4	June 2021
Agency/Stakeholder Meeting #5	September 2021
PIC #3	September 2021
MCEA Phase 4	
Final ESR Presentation Meeting	November 2021
Regional Council/Committee Meeting #2	December 2021



6. Data Request

Data Request

- Traffic impact studies/SWM for area development
- Natural heritage/built and cultural heritage/archeological studies
- Base plan drawings (Merritt Road between Cataract Road and Merrittville Highway)



Consultation Plan

- Study Mailing List
 - Niagara Region Staff from various departments
 - Local municipalities (Town of Pelham, City of Thorold, and City of Welland)
 - Niagara Peninsula Conservation Authority
 - Indigenous Nations
 - Mississaugas of the Credit First Nation, Haudenosaunee Confederacy and Six Nations of the Grand River
 - Members of the public and area residents
 - Interest Groups within Study Area
- Five Agency/Stakeholder Meetings, three PICs and Indigenous Engagement throughout the Study

8. Health Equity Informed Planning

9. Roundtable – Project Issues, Concerns, and Opportunities

Health Equity Informed Planning

Health Impact Assessment Process Overview

Presented by Cassandra Ogunniyi & Jacqueline Gates

Niagara Region

Health Equity Informed Planning – Overview

- This project aims to address the unintended impacts on health or health inequities that result when decisions are made in non-health sectors
- Goals:
 1. Increase considerations of health and health equity during decision making and implementation in the Niagara region during 2019–2022
 - a. Objective 1- To incorporate HIAs into regional planning and budgeting processes by June 2022
 2. Advance Health Equity and social justice
 3. Support Sustainable and Engaging government

What is a Health Impact Assessment?

HIA is “a combination of procedures, methods and tools by which a **policy, program or project** may be judged as to its **potential effects on the health** of a population”

HIA is most frequently used to assess proposals that are **outside of the traditional health** sector, and which do not target health as their principal goal.

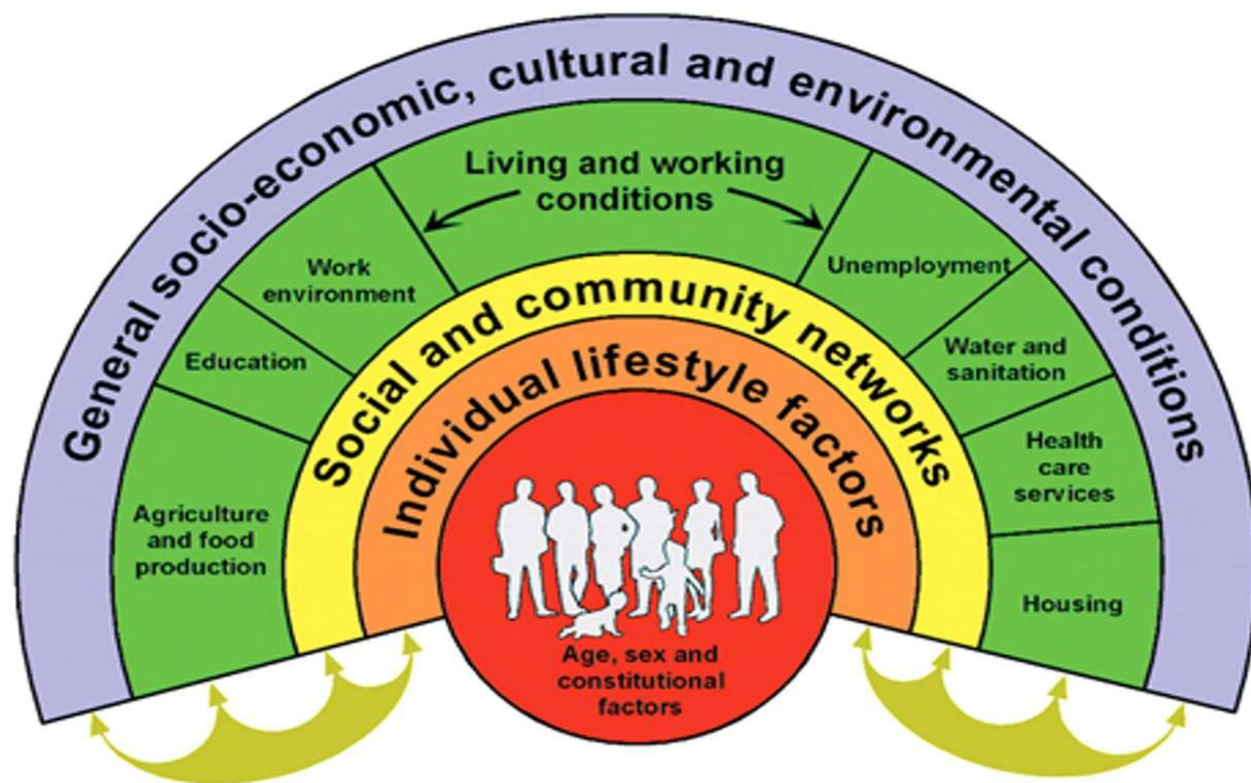
World Health Organization, Gothenburg Consensus, 1999

Important Concepts

- The application of HIA to policies is supported by the assumption that the health of a population is closely tied to the conditions in which people live and work
- All sectors share responsibility for the health of the population
- As such, two concepts warrant further explanation:
 - *Social Determinants of Health*
 - *Health Equity*

Social Determinants of Health

- Social determinants of health are the factors in your life that affect how healthy or sick you are, including your race/ethnicity, gender, sexuality, level of social supports, working and housing conditions, your education, income and more

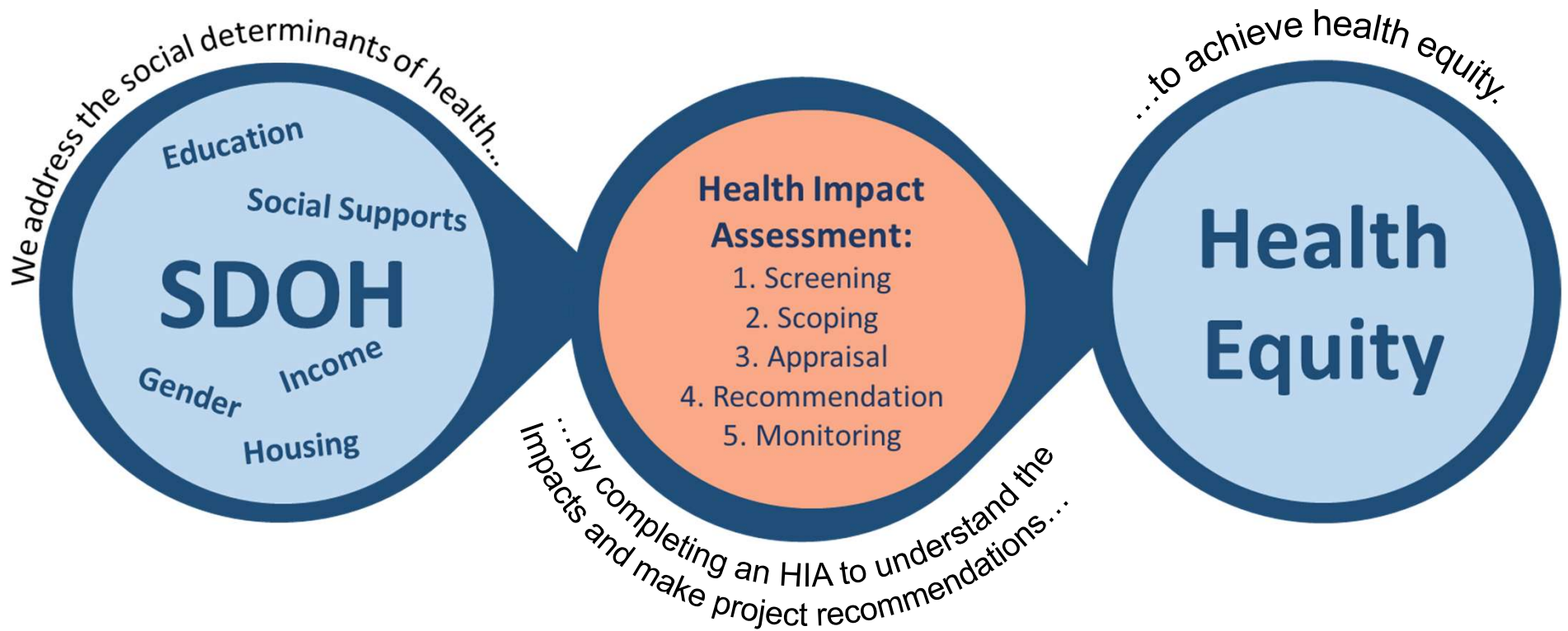


Dahlgren, G. and Whitehead, M. (1991). Policies and Strategies to Promote Social Equity in Health. Stockholm: Institute for Futures Studies.

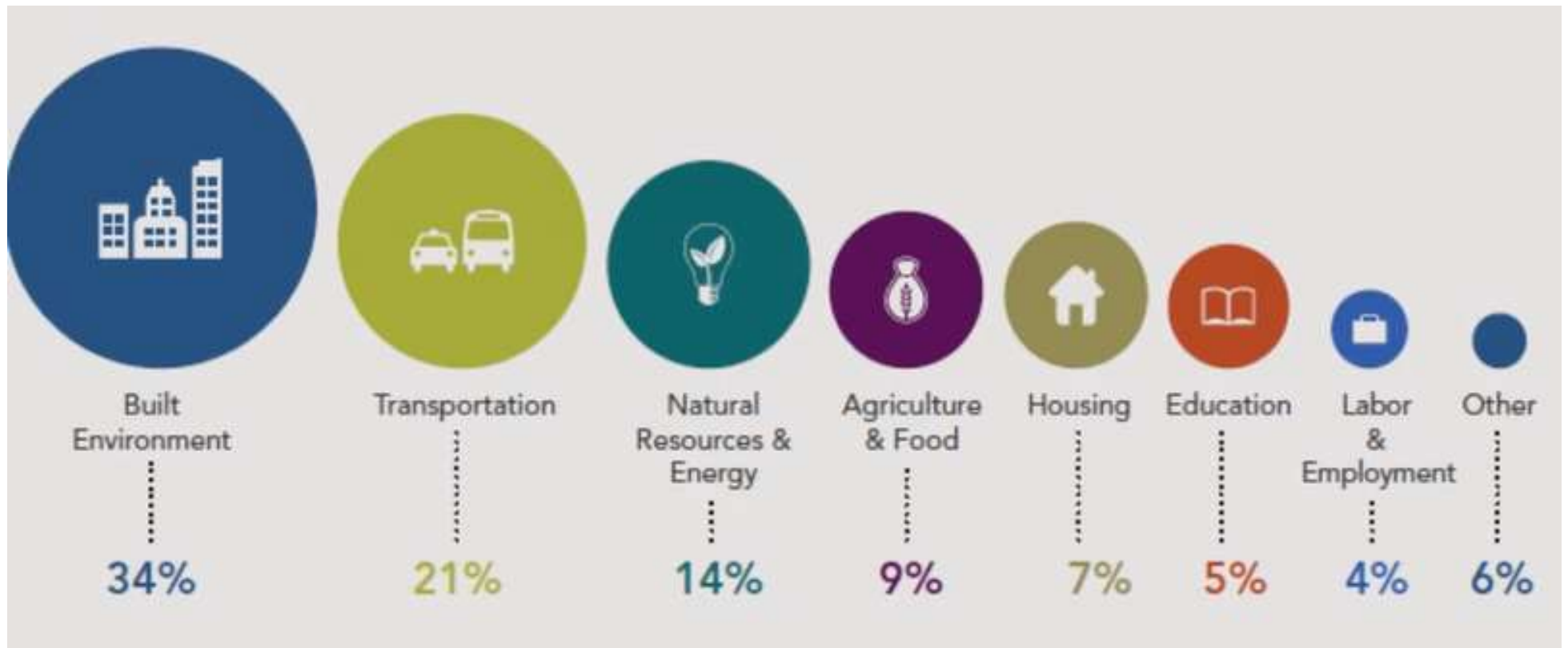
What is Health Equity?



Putting it all Together



Where have HIAs been used?



The Health Impact Resource

When should a HIA be completed?



Source: (Project Management Overview, 2017)



Merrit Rd. HIA Project

- We are currently piloting the HIA process with two projects at Niagara Region: Merrit Rd. Construction and Glendale Secondary Plan Update .

	Rapid/Desktop	Intermediate	Comprehensive
Time	2-10 days	1-3 months	6-12 months
Personnel	1 FTE	1 PT coordination, team support	1 FTE, team
Data Collection	Existing	Existing and some new data	Existing, extensive new qualitative and quantitative data
Stakeholder Involvement	Limited	Moderate	Extensive and Structured

Next Steps

- Next, we are looking to integrate the remaining steps of the HIA process into the Class EA process
 - The HIA Process compliments the EA process in that it focuses specifically on mitigating potential negative health impacts, while maximizing potential positive health impacts
 - We will be working with the Merrit Rd. Project Team to utilize the work already being completed during the EA process, in order to improve efficiency and reduce duplication of work

Questions?

For further information, or for any other questions please contact:

Cassie Ogunniyi

- Cassandra.Ogunniyi@niagararegion.ca

Jacqueline Gates

- Jacqueline.Gates@niagararegion.ca

Thank you!

Schedule 'C' Municipal Class Environmental Assessment for Merritt Road (Regional Road 37) and Rice Road (Regional Road 54) in the Town of Pelham, the City of Thorold and the City of Welland

APPENDIX

L-2 Agency/Stakeholder Committee Meeting #2

Meeting Minutes

Date: Wednesday, April 28, 2021
1:00 PM

Meeting at: Microsoft Teams

File No.: IM20103036

Subject/purpose: Merritt Road/Rice Road MCEA Agency Stakeholder Meeting #2

Wood Staff and Region PM Team:

Jeff Suggett, Wood

John McGill, Wood

Mir Talpur, Wood

Muhammad Khan, Wood

Maged Elmadhoon, Region of Niagara

Sulaf Alkarawi, Region of Niagara

To be presented/discussed:

1. Introductions

Introductions were made. A list of attendees is attached to the back of these meeting minutes.

2. Purpose of Meeting

The purpose of the meeting was to discuss existing and future planned utilities within the study area.

3. Project Overview

Wood presented an overview of the project, study limits, challenges and opportunities and existing and future ROW (*attached*).

4. Review of Plan and Profile Drawings

Wood reviewed a preliminary set of plan and profile drawings overlaid on an orthophoto along with existing utilities and showing the existing ROW and the proposed ROW based on the official plan (*attached*). No information was available for the proposed ROW for Segment 2 (Merritt Road between Cataract Road and Merrittville Highway/Niagara Street), this was assumed to be same as Segment 1 (26 m).



Continued...

5. Existing and Planned Utilities

Each agency had an opportunity to discuss existing and planned utilities in the study area. The following was noted.

a. Region of Niagara

Reconstruction of Rice Road and Merritt Road planned to be implemented within the next five years.

Sanitary sewer, watermain and culvert details have been added to the plan and profile drawings. There is a sanitary sewer/watermain line that runs along Rice Road through the study area.

b. Town of Pelham

The Town will be urbanizing Merritt Road, the section between Pelham Street and Line Road in 2023 and the section between Line Road and Rice Road in 2025. The Town wants to coordinate the work with the Region, to make sure that the cross sections match. Signals are planned for the intersection of Merritt Road and Pelham Street, in anticipation of an increase in traffic on Merritt Road. The Town wants to know how traffic will impact Merritt Road west of Rice Road and will be looking for guidance relating to this from Wood's transportation report.

c. City of Thorold

Nothing definitive planned at this point in time within the study area.

d. City of Welland

New development planned in conjunction with the Northwest Welland Secondary Plan that will result in new accesses along Rice Road.

A major new development (Northern Reach) has been proposed along the recreational canal that will impact traffic on Niagara Street/Merritt Road if approved to proceed. No TIS has been completed but one will be requested.

e. Bell

Bell provided the location of their utilities – noted on the plan and profile drawings.

f. Cogeco

Cogeco does not have any utilities in the study area.

g. Rogers

Continued...

Rogers does not have any utilities in the study area.

h. Hydro One

Hydro One provided the location of their utilities. There is a potential utility conflict on Merritt Road within the unopened road allowance.

i. Enbridge

Enbridge provided the location of their utilities – noted on the plan and profile drawings.

j. NRBN

NRCN provided the location of their utilities subsequent to the meeting. To be incorporated into the plan and profile drawings.

6. Next Steps

All agencies/stakeholders are encouraged to share any further information relating to utilities within the study area.

The third Agency/Stakeholder meeting is planned for May 20th. At that time, Wood will present findings of work completed to date and the evaluation of options in advance of PIC 2 in early June.

Continued...

List of Attendees

Jeff Suggett, Wood

Muhammad Khan, Wood

Maged Elmadhoon, Region of Niagara

Sulaf Alkarawi, Region of Niagara

Craig Mustard, Region of Niagara

Derek Young, Town of Pelham

Jason Marr, Town of Pelham

Rachelle Larocque, City of Welland

Grant Munday, City of Welland

Jaro Hajek, City of Thorold

Todd Shaw, NRBN

Jim Oriotis, Hydro One

Ralph Bruni, Hydro One

Continued...

Attendees



Stakeholder Meeting #2 – Utility Coordination

Municipal Class Environmental
Assessment Study for Merritt Road and
Rice Road in Pelham, Thorold and Welland

April 28, 2021

1:30 – 3:30 pm



**MOVING
ROADS
FORWARD**

CONNECTING MORE PEOPLE TO MORE POSSIBILITIES

Niagara  Region

Introductions

Niagara Region	Wood Environment and Infrastructure Solutions
Maged Elmadhoon, M.Eng., P.Eng. Manager, Transportation Planning	Jeff Suggett, M. Sc. Project Manager
Sulaf Alkarawi Associate Director, Transportation Planning	Muhammad Khan, M. Eng., P. Eng. Design Lead

**MOVING
ROADS
FORWARD**

CONNECTING MORE PEOPLE TO MORE POSSIBILITIES

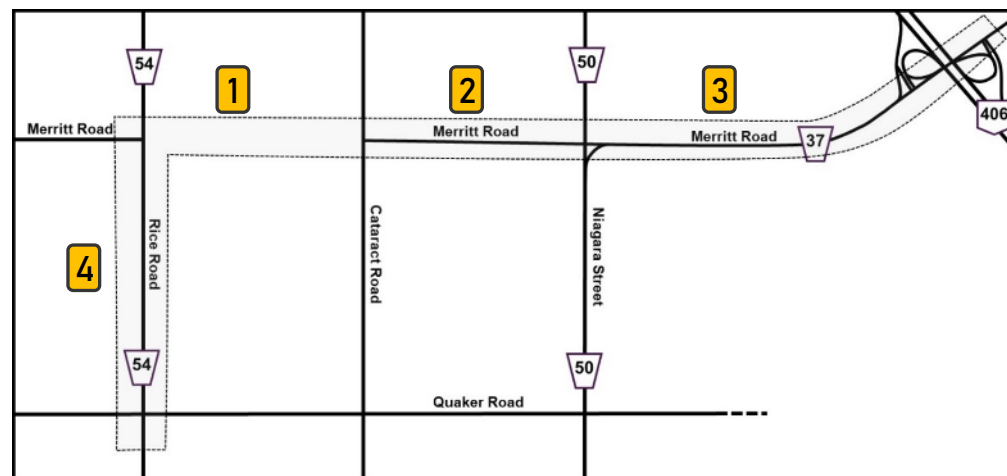
Niagara  Region

Study Overview

The Niagara Region has initiated an environmental assessment study for improvements to Merritt Road and Rice Road as a result of proposed developments in the Town of Pelham, the City of Thorold and the City of Welland. The study is being carried out as a Schedule 'C' project in accordance with the requirements of the Municipal Class Environmental Assessment process (Class EA). This study will address the requirements of Phases 1 to 4 of the Class EA process.

Building upon the recommendations of the 2017 Niagara Region Transportation Master Plan, this study will propose improvements and active transportation facilities to the following segments of Merritt Road and Rice Road:

- Segment 1 – Merritt Road between Rice Road and Cataract Road
- Segment 2 – Merritt Road between Cataract Road and Merrittville Highway / Niagara Street
- Segment 3 – Merritt Road between Merrittville Highway / Niagara Street and Highway 406
- Segment 4 – Rice Road between Merritt Road and Quaker Road



Road Segments 1 & 2

Segment 1 – Merritt Road between Rice Road (Regional Road 54) and Cataract Road

- This segment functions as an unopened road allowance between Rice Road and Cataract Road.
- It is located within the Town of Pelham and City of Thorold and spans an approximate distance of 800m.
- It was identified for new road construction along with active transportation facilities.



Segment 2 – Merritt Road between Cataract Road and Merrittville Highway (Regional Road 50)/Niagara Street



- This segment functions as a two-lane, rural, local, undivided roadway with a posted speed limit of 50km/h.
- It is located entirely within City of Thorold and spans an approximate distance of 800m.
- It was identified for improvements along with active transportation facilities.

Imagery Source: ESRI Imagery

**MOVING
ROADS
FORWARD**

CONNECTING MORE PEOPLE TO MORE POSSIBILITIES

Niagara  Region

Road Segments 3 & 4

Segment 3 – Merritt Road (Regional Road 37) between Merrittville Highway (Regional Road 50)/Niagara Street and Highway 406

- This segment functions as a two-lane, rural, arterial, undivided roadway with a posted speed limit of 60km/h.
- It is located within the City of Thorold and spans an approximate distance of 1.80km.
- This segment was identified for improvements along with active transportation facilities.



Imagery Source: ESRI Imagery

Segment 4 – Rice Road (Regional Road 54) between 200m north of Merritt Road and Quaker Road

- This segment functions as a two-lane, rural, collector, undivided roadway with a posted speed limit of 50 km/h.
- It is located in the Town of Pelham and the City of Welland and spans an approximate distance of 1.20km.
- This segment was identified for improvements along with active transportation facilities.



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Class EA Phase 1: Problem or Opportunity

Problem / Need Identification

The need for the proposed improvements was identified through the following documents:

- The Niagara Region's Transportation Master Plan;
- The Town of Pelham's East Fonthill Secondary Plan;
- The City of Thorold's Port Robinson Secondary Plan; and
- The City of Welland's Northwest Welland Secondary Plan.

Opportunity

The Niagara Region is committed to creating a safe, integrated and environmentally sustainable network of cycling and pedestrian facilities, transit, and roads. The Niagara Region is taking this opportunity to improve Merritt Road and Rice Road in the Town of Pelham, City of Thorold and City of Welland in order to:

- Address transportation capacity issues
- Address active transportation connectivity issues
- Address Complete Street theme

Existing and Future Right-of-Way Widths

The existing and future right-of-way widths for the four road segments are identified in the table below:

Road Segment	Existing Right-of-Way Width	Future Right-of-Way Width
Segment 1: Merritt Road between Rice Road (Regional Road 54) and Cataract Road	~20m	26m ¹
Segment 2: Merritt Road between Cataract Road and Merrittville Highway / Niagara Street	~20m	-
Segment 3: Merritt Road between Merrittville Highway / Niagara Street and Highway 406	~30m	35m ²
Segment 4: Rice Road between 200m north of Merritt Road and Quaker Road	~20m	26.2m ²

¹ City of Thorold Official Plan (2016)

² Identified in Niagara Region Official Plan (2014)

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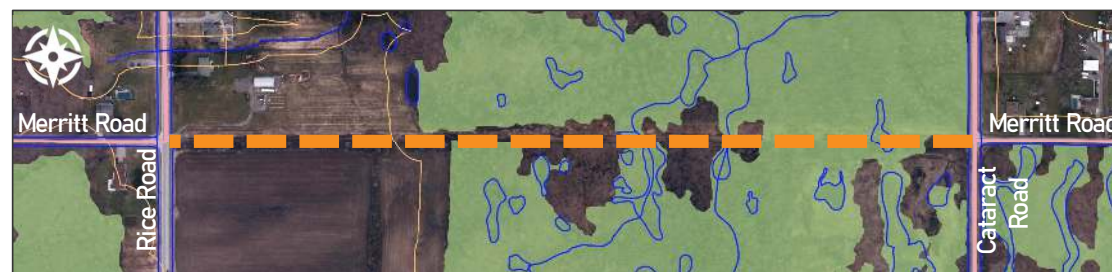
Constraints and Opportunities – Segment 1

Constraints

This unopened road allowance passes through Provincially Significant Wetland, Significant Woodland and Fish Habitat. In addition, there are low-voltage utility poles located along the north side of the road allowance.

Opportunities

In order to maintain adequate clear zone to the utility poles, there is an opportunity to provide a multi-use pathway between the utility poles and the proposed travel lanes.



- Bike Route
- Watercourse
- Regulation Wetlands
- NPCA Approximate Regulation Lands

Data Source: Niagara Peninsula Conservation Authority
Imagery Source: ESRI Imagery

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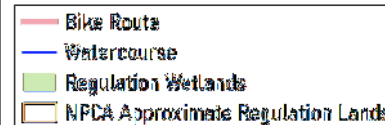
Constraints and Opportunities – Segment 2

Constraints

There are residential homes along the north side of this segment near the west end, and Provincially Significant Wetlands and Woodlands to the northeast and south. The section has narrow gravel shoulders, ditches and no active transportation facilities are provided. The existing travel lane widths are narrower than desirable for a Regional road. Trees on the south side represent a fixed object hazard.

Opportunities

There are opportunities to widen the travel lanes to meet Regional standards, provide active transportation facilities and eliminate fixed object hazards by the clearing and grubbing of trees.



Data Source: Niagara Peninsula Conservation Authority
Imagery Source: ESRI Imagery

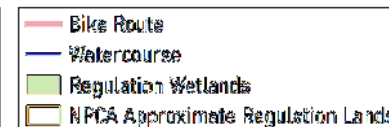
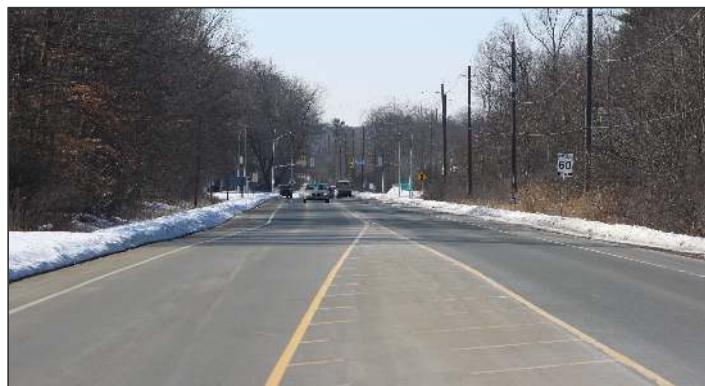
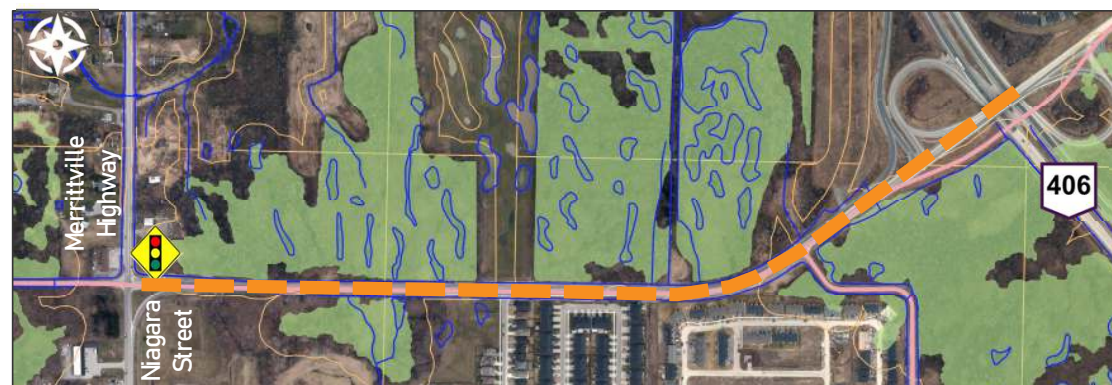
Constraints and Opportunities – Segment 3

Constraints

There are Provincially Significant Wetlands and Woodlands to the north and south of this segment. There is also a subdivision to the south (Merritt Meadows). There are limited active transportation facilities (paved shoulder for cyclists only).

Opportunities

The need to widen this section to four lanes is being investigated. There are opportunities to make the signalized intersection at the west end pedestrian friendly. As traffic volumes increase in the future, a buffer between cyclists and the adjacent travel lanes or a separate multi-use pathway will be considered.



Data Source: Niagara Peninsula Conservation Authority
Imagery Source: ESRI Imagery

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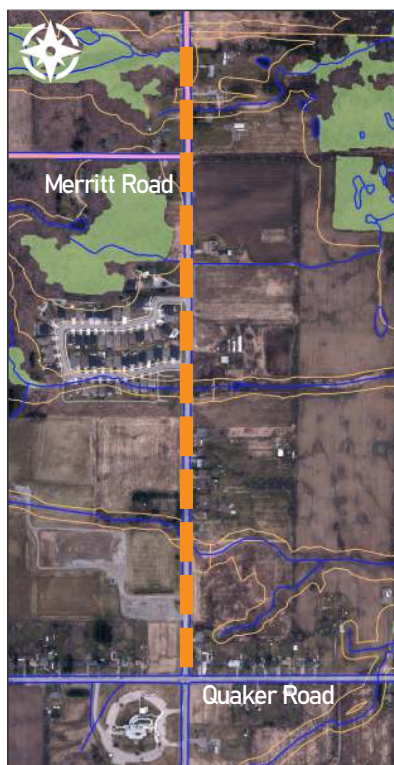
Constraints and Opportunities – Segment 4

Constraints

Lands on the east and west side of the roadway are a mixture of residential development (Rosewood Crescent subdivision), some residential homes directly fronting onto Rice Road and some vacant lands. The roadway has narrow gravel shoulders, ditches and no active transportation facilities. There are also utility poles on both sides.

Opportunities

The need to widen this section to four lanes is being investigated. There are opportunities to explore different options for active transportation (either sidewalks, bicycle lanes and/or a multi-use pathway).



- Bike Route
- Watercourse
- Regulation Wetlands
- NPCA Approximate Regulation Lands

Data Source: Niagara Peninsula
Conservation Authority
Imagery Source: ESRI Imagery

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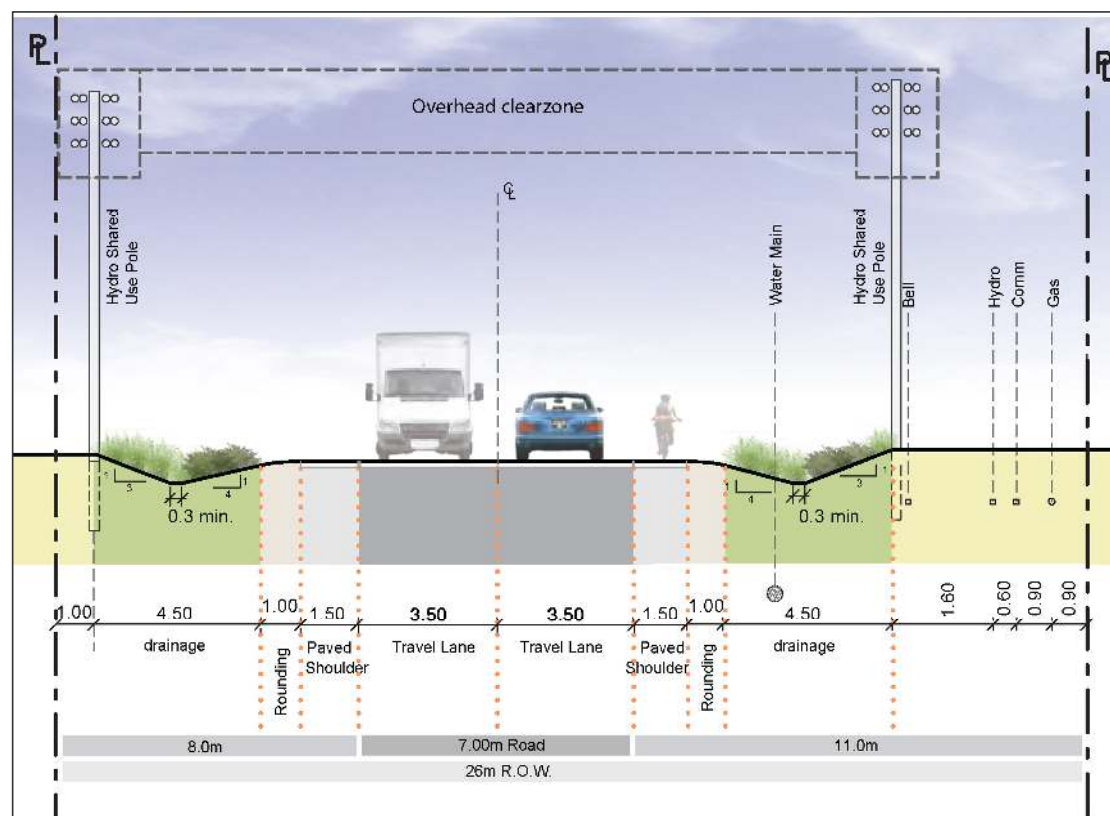
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Segment 1 – Possible Cross-section

Based on the Niagara Region's Complete Streets Design Guidelines (2017) a possible cross-section for this segment would include the following rural elements with a 26.0 metre right of way width:

- Two lanes of vehicle traffic
- Paved shoulder for bicyclists on each side of roadway*
- Possible sidewalk on one side

* Guidance in a new Complete Street Design Manual (currently underway) is to separate bicycle lanes from the vehicular traffic lanes.

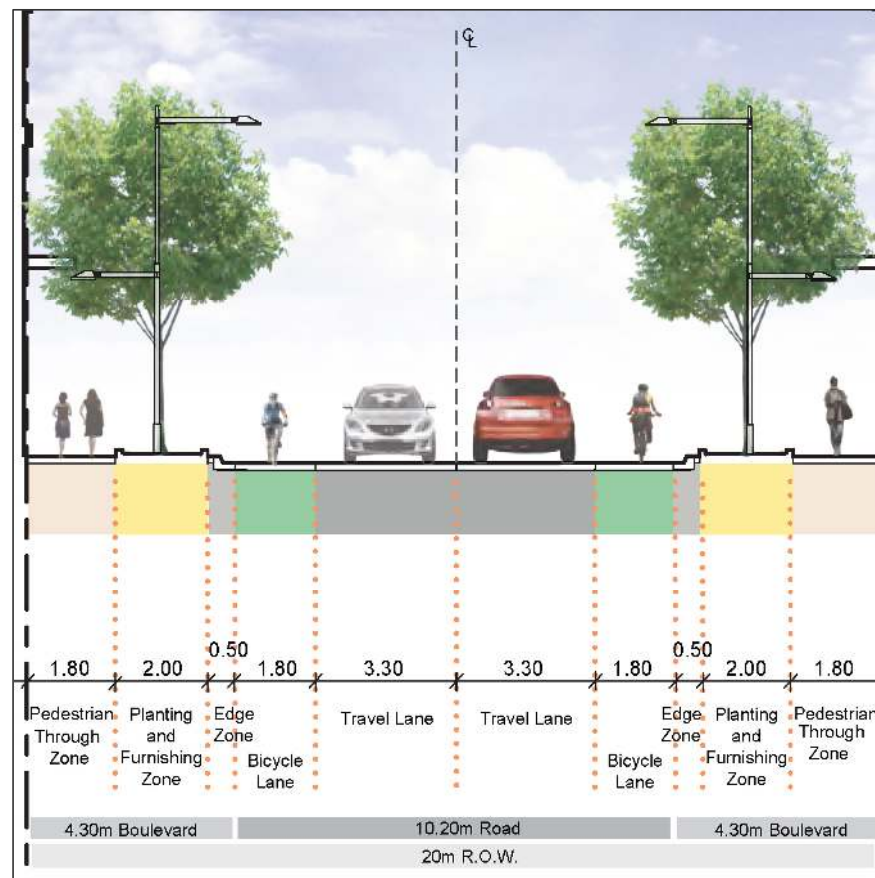


Segment 2 – Possible Cross-section

Based on the Niagara Region's Complete Streets Design Guidelines (2017) a possible cross-section for this segment would include the following Urban General (Narrow) elements with a 20.0 metre right of way width:

- Two lanes of vehicle traffic
- Bicycle lanes on each side of roadway*
- Separated pedestrian sidewalks on each side

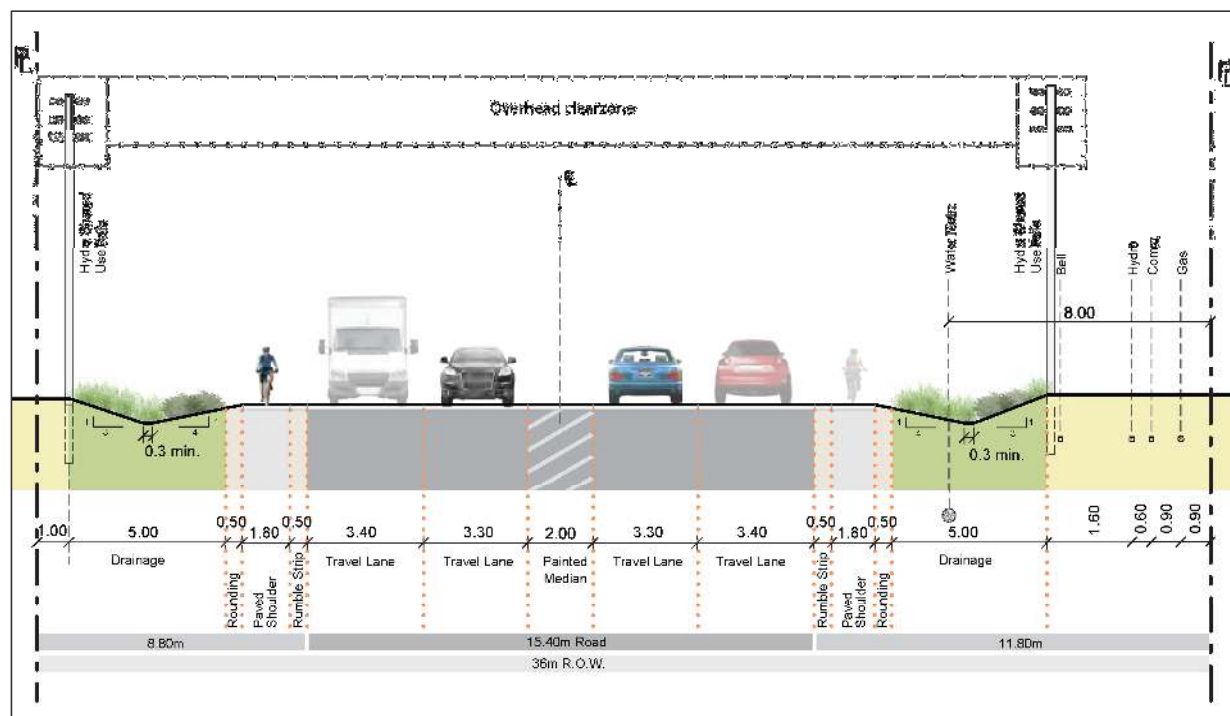
* Guidance in a new Complete Street Design Manual (currently underway) is to separate bicycle lanes from the vehicular traffic lanes.



Segment 3 – Possible Cross-section

Based on the Niagara Region's Complete Streets Design Guidelines (2017) a possible cross-section for this segment would include the following Rural elements with a 36.0 metre right of way width:

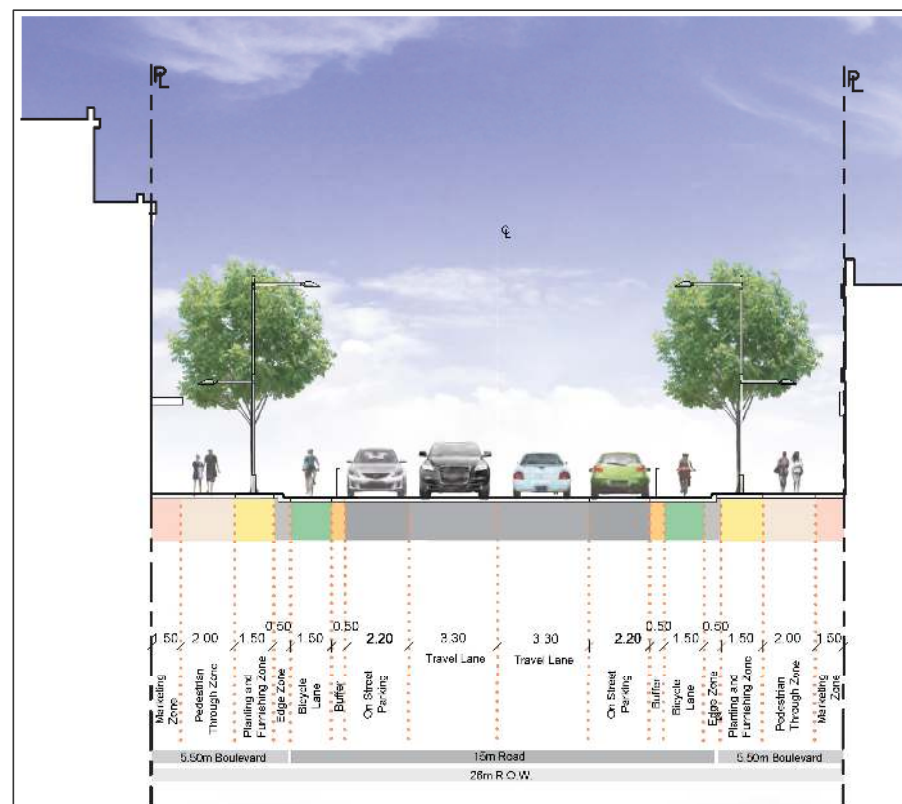
- Four lanes of vehicle traffic
- Painted median to act as barrier
- Rumble strips to separate paved shoulder from roadway
- Possible sidewalk on south side



Segment 4 – Possible Cross-section

Based on the Niagara Region's Complete Streets Design Guidelines (2017) a possible cross-section for this segment would include the following Main Street elements with a 26.0 metre right of way width:

- Four travel lanes proposed instead of two travel lanes with on-street parking
- Separated bicycle lanes on each side of roadway
- Separated sidewalks on each side of roadway



Schedule 'C' Municipal Class Environmental Assessment for Merritt Road (Regional Road 37) and Rice Road (Regional Road 54) in the Town of Pelham, the City of Thorold and the City of Welland

APPENDIX

L-3 ***Agency/Stakeholder Committee Meeting***



Meeting Minutes

Date: Thursday, May 20, 2021 9:00 AM **Meeting at:** Microsoft Teams

File No.: IM20103036

Subject/purpose: Merritt Road/Rice Road MCEA Agency Stakeholder Meeting #3

Wood Staff and Region PM Team:

Jeff Suggett, Wood

John McGill, Wood

Mir Talpur, Wood

Muhammad Khan, Wood

Maged Elmadhoon, Region of Niagara

Sulaf Alkarawi, Region of Niagara

Items Discussed:

1. Introductions

Introductions were made. A list of attendees is attached to the back of these meeting minutes.

2. Purpose of Meeting

The purpose of the meeting was to:

- Provide an update on the Class EA Study,
- Present the findings of the evaluation of alternatives, and,
- Request feedback on the evaluation of alternative solutions and the preferred solution in advance of the PIC #2.

It was noted that the slides presented at the meeting will be presented at the virtual PIC. It had been originally intended that cross-section options would have been discussed, however, WSP (the consultant working on the Complete Streets Design Manual) did not have an opportunity to complete them. Possible cross sections will be included in the PIC slidedeck after Wood meets with WSP next week.

3. Project Overview

Wood presented an overview of the Class EA Study, feedback received from the PIC #1, results of traffic analysis, evaluation of alternative solutions, planned and completed investigations (*see attached*). An overview of the preferred solution was provided, which would involve the following:

Continued...

Extension of Merritt Road between Rice Road and Cataract Road;

- Improvements to Merritt Road between Cataract Road and Highway 406;
- Improvements to Rice Road between 200m north of Merritt Road and Quaker Road; and
- Providing active transportation facilities on both Merritt Road and Rice Road.

4. Health Impact Assessment

Staff from the Niagara Region Public Health provided an update on the Health Impact Assessment being completed for this project. It was noted that recommendations from the Health Impact Assessment are being finalized. These recommendations can be incorporated into the Class EA study.

5. Open Discussion

- It was noted that PIC #2 is scheduled for June 9, at 6 PM, and stakeholder meeting attendees are invited to join the event.
- Merritt Road from Rice Road to Niagara Street will be a 2-lane cross-section, east of Niagara Street will be a 4-lane cross-section. Rice Road between Merritt Rd and Quaker Rd will require a 4-lane cross-section.
- Would the intersection improvements not change the traffic patterns? Wood staff responded that a coordinated signalized intersection network be proposed in order to maintain traffic patterns/encourage motorists to use Merritt Road rather than less desirable parallel routes.
- It was inquired whether the bike lanes will be on-road or off road? Wood staff responded that there will be a meeting next week to discuss active transportation requirements in accordance with the Region's Complete Street guidelines. It is Region's intention to propose off-road bike lanes.
- Mitigation measures to avoid/minimize impacts on the natural environment will be an important aspect for this project. As the field investigations are completed, and environmental features are identified, the next steps would be to propose mitigation measures and any monitoring requirements.
- It was noted that the detailed evaluation of alternatives document will be available for review.
- Niagara Peninsula Conservation Authority staff noted that the staff will review the evaluation of alternatives document and provide comments.

6. Next Steps

The Study Team thanked the participants that attended the meeting and noted that the information presented at the meeting will be presented at the PIC #2.

Continued...

Division	Role	Staff Name	Attendance at Agency Meeting #2
Region of Niagara			
Transportation	Manager, Transportation Planning	Maged Elmadhoon	Present
Transportation	Associate Director, Transportation Planning	Sulaf Alkarawi	Present
Transportation	Director of Transportation Services	Carolyn Ryall	Absent
Water/Wastewater	Associate Director Water and Wastewater Engineering	Tony Cimino	Present
Planning and Development Services	Director, Infrastructure Planning and Development Engineering	Phill Lambert	Absent
Planning and Development Services	Acting Director Development Approvals, Planning and Development Services	Pat Busnello	Absent
Planning and Development Services	Manager, Environmental Planning	Cara Lampman	Present
Planning and Development Services	Development Engineer	Susan Dunsmore	Absent
Planning and Development Services	Landscape Architect	Vanessa Aykoryd	Absent
Planning and Development Services	Planning Ecologist	Lori Karlewicz	Absent
Planning and Development Services	Urban Designer	Julia van der Laan de Vries	Present
Planning and Development Services	Senior Development Planner	Britney Fricke	Present
Corporate Services	Real Estate Officer	Craig Mustard	Present
Transit	GO Implementation Office Transit Lead	Scott Fraser	Present

Continued...

Water/Wastewater	Senior Project Manager, Water and Wastewater Engineering	Richard Gabel	Present
Transportation	Senior Project Manager, Transportation Engineering	Cam Milne	Absent
Public Health	Health Impact Assessment Intern	Jacqueline Gates	Present
Public Health	Strategic Initiatives Coordinator	Kate Harold	Present
Public Health	Diversity, Equity and Inclusion Program Manager	Cassandra Ogunniyi	Absent
Public Health	Health Promoter	Jackie Gervais	Absent
Town of Pelham			
Engineering	Director of Public Works	Jason Marr	Present
Engineering	Manager of Engineering	Derek Young	Present
Engineering	Manager of Public Works	Ryan Cook	Absent
Community Planning	Director, Community Planning and Development	Barbara Wiens	Present
Pelham Active Transportation Committee		Dave Nicholson	Present
City of Thorold			
Engineering	Manager of Engineering	Sean Dunsmore	Absent
Engineering	Project Manager	Jaroslav Hajek	Absent
Thorold Active Transportation Advisory Committee		Beate Wolf	Absent

Continued...

Thorold Active Transportation Advisory Committee		Donna Delvecchio	Absent
City of Welland			
Planning	Interim Manager of Planning	Rachelle Larocque	Absent
Planning	Interim Director of Development and Building Services	Grant Munday	Present
Engineering	Interim Director of Engineering and Public Works	Sherri-Marie Millar	Absent
Engineering		Scott Richardson	Absent
Niagara Region Conservation Authority			
N/A	Senior Manager, Planning and Regulations	David Deluce	Present
Ontario Ministry of Transportation			
Planning and Design	Project Engineer	Kyle Saulnier	Present
	Assistant Environmental Planner	Jenna Wolno	Absent
	Traffic Supervisor	Lance Dutchak	Absent



Agency/Stakeholder Meeting #3

Municipal Class Environmental Assessment Study
for Merritt Road and Rice Road in Pelham,
Thorold and Welland

May 20, 2021



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Presentation Outline

- Introductions
- Study Overview
- Municipal Class EA process and Timeline
- Feedback from the Public Information Centre #1
- Transportation Assessment
- Problem Statement
- Evaluation of Alternative Solutions
- Preferred Solution
- Natural Environment
- Stormwater Management
- Next Steps and Questions

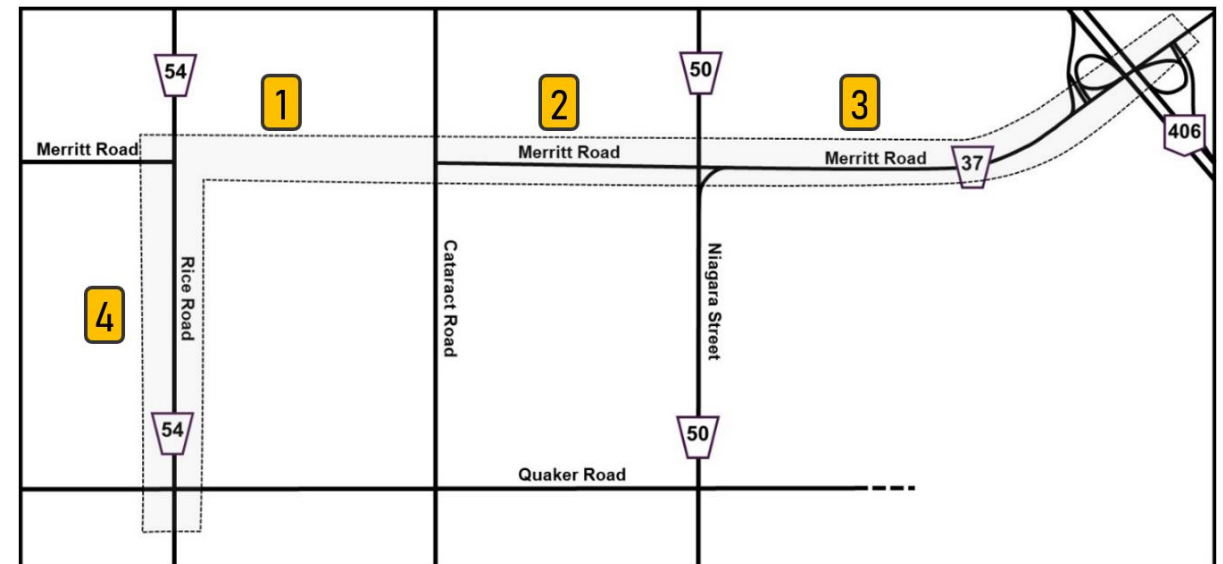
Introductions

Niagara Region	Wood Environment and Infrastructure Solutions
Maged Elmadhoon, M.Eng., P.Eng. Manager, Transportation Planning	Jeff Suggett, M. Sc. Project Manager
Sulaf Alkarawi, P.Eng., PMP Associate Director, Transportation Planning	John McGill, P.Eng., PTOE, RSP Project Advisor
	Mir Ahsan Talpur, M.Env.Sc., EP Environmental Planner

Study Overview

The Niagara Region is conducting an environmental assessment study for improvements to Merritt Road and Rice Road as a result of proposed developments in the Town of Pelham, the City of Thorold and the City of Welland. Building upon the recommendations of the 2017 Niagara Region Transportation Master Plan, this study will propose improvements and active transportation facilities to the following segments of Merritt Road and Rice Road:

- Segment 1 – Merritt Road between Rice Road and Cataract Road
- Segment 2 – Merritt Road between Cataract Road and Merrittville Highway / Niagara Street
- Segment 3 – Merritt Road between Merrittville Highway / Niagara Street and Highway 406
- Segment 4 – Rice Road between Merritt Road and Quaker Road



Municipal Class EA Process & Timeline

PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5
<ul style="list-style-type: none"> ▪ Notice of study commencement ▪ Problem or opportunity statement ▪ Public Information Centre #1 	<ul style="list-style-type: none"> ▪ Inventory natural, social and economic existing conditions ▪ Identify and evaluate alternative solutions ▪ Identify preferred solution ▪ Public Information Centre #2 	<ul style="list-style-type: none"> ▪ Inventory natural, social and economic existing conditions ▪ Identify and evaluate alternative design concepts for preferred solution ▪ Identify preferred design concept ▪ Public Information Centre #3 	<ul style="list-style-type: none"> ▪ Document Study process and findings in Environmental Study Report (ESR) ▪ Notice of Study Completion ▪ Place ESR on public record for a minimum of 30-day review period 	<ul style="list-style-type: none"> ▪ Proceed to the detailed design and construction of the project ▪ Monitor environmental provisions and commitments
Winter 2021 (Complete)	Spring 2021	Summer 2021	Fall 2021 / Winter 2022	TBD



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WHAT DID WE HEAR AT THE ONLINE PUBLIC INFORMATION CENTRE #1?

The first Public Information Centre was hosted from March 24, 2021 to April 7, 2021. Comments received from the public are summarized below:



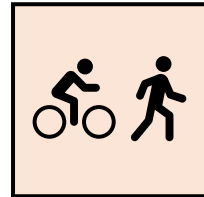
PROTECT NATURAL ENVIRONMENT



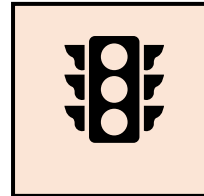
PROVIDE STORMWATER MANAGEMENT



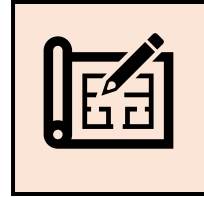
PROVIDE SAFETY FOR ROAD USERS



PROVIDE ACTIVE TRANSPORTATION FACILITIES

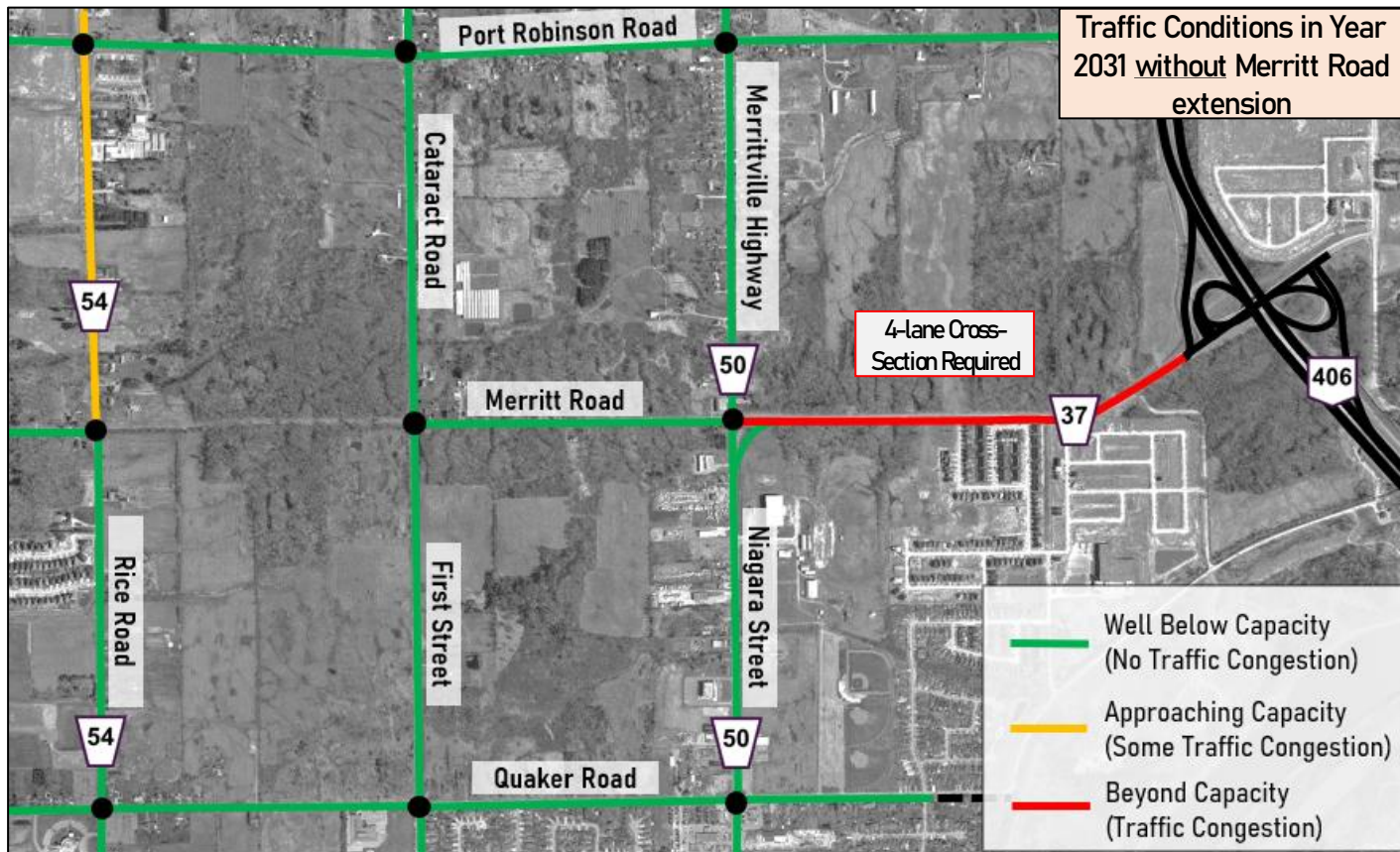


PROVIDE INTERSECTION IMPROVEMENTS



DO NOT BUILD MERRITT ROAD BETWEEN
RICE ROAD & CATARACT ROAD

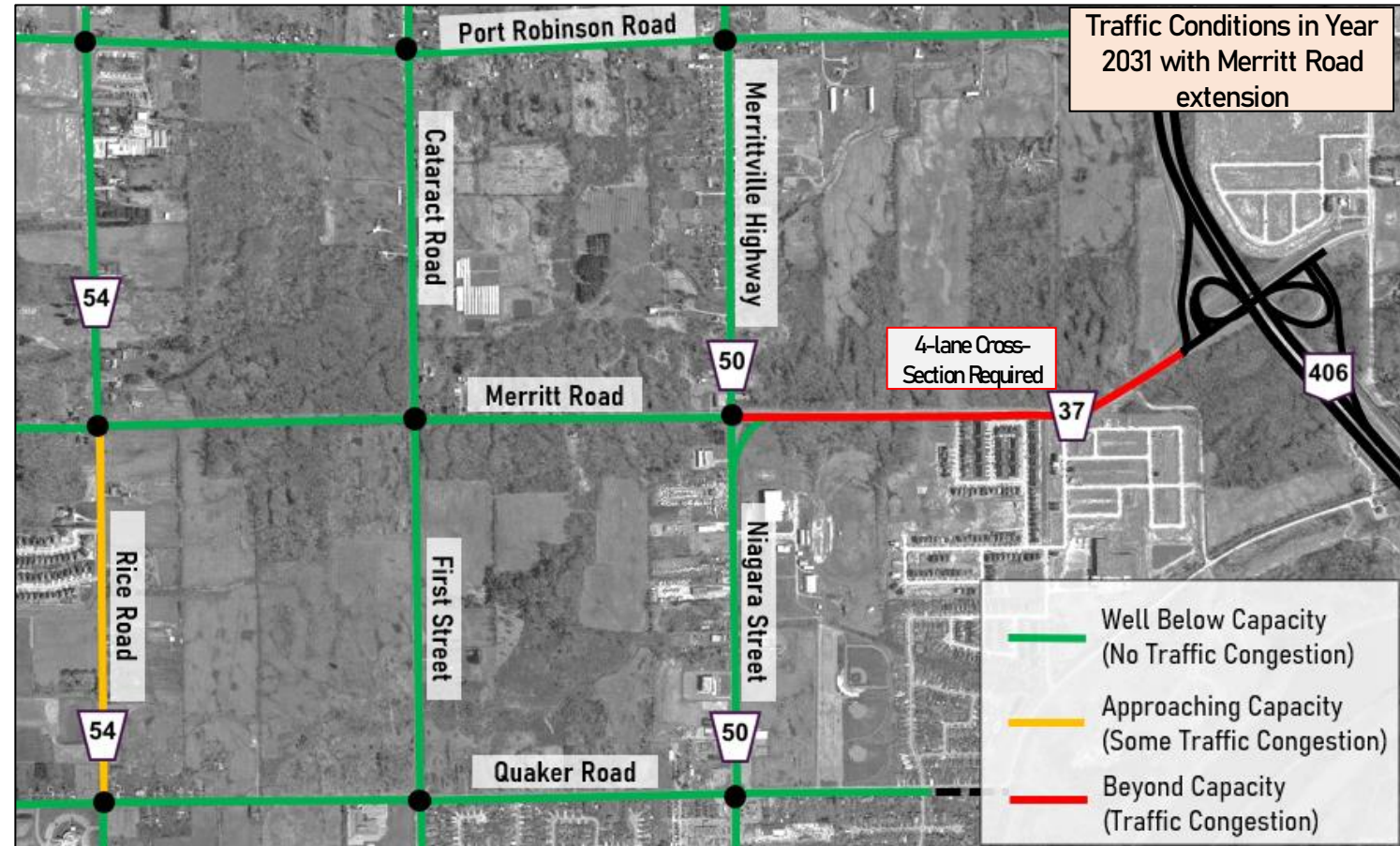
FUTURE TRAFFIC CONDITIONS (2031) – NO EXTENSION



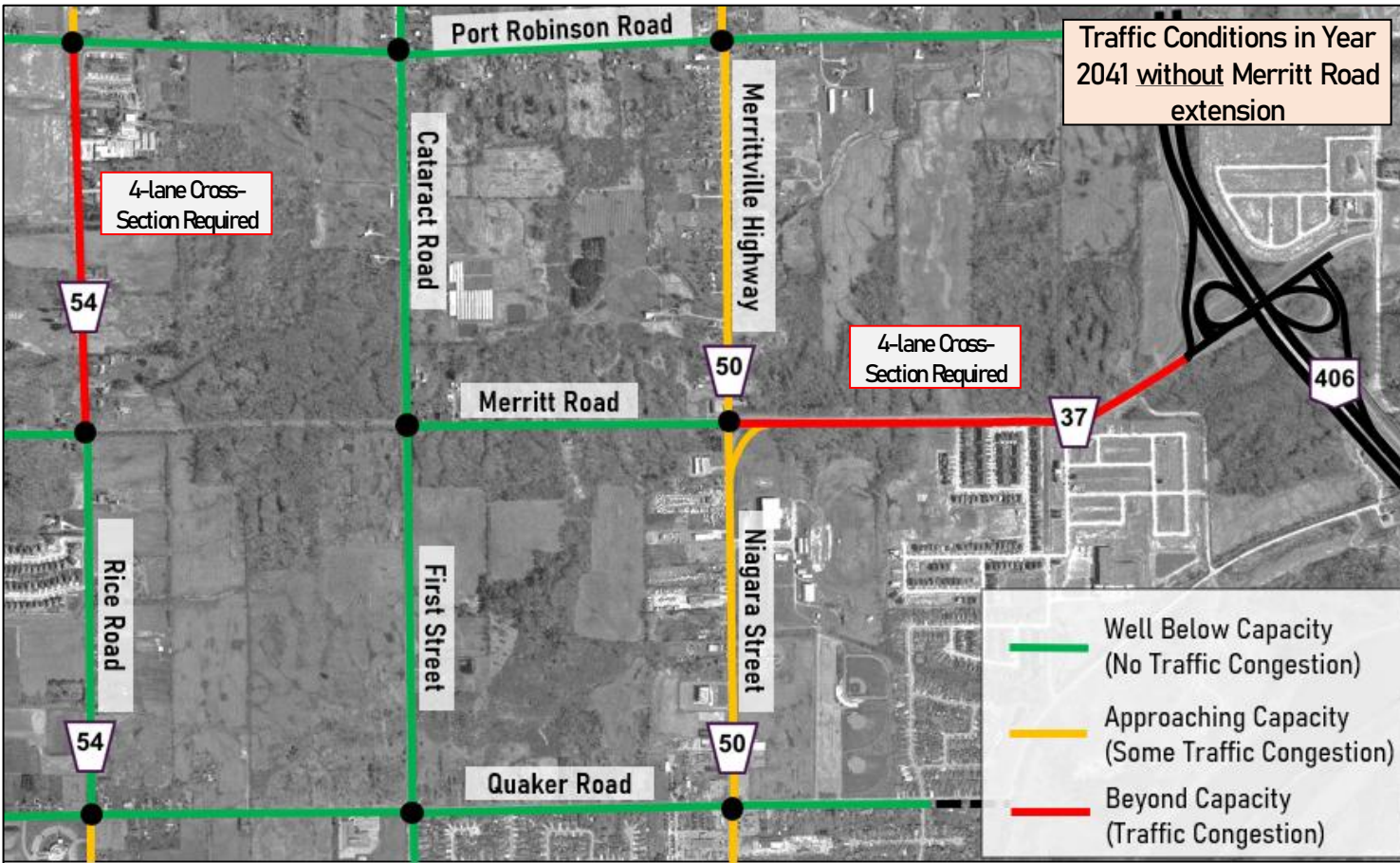
- By 2031, 4-lane cross section required on Merritt Road west of Highway 406 to accommodate future traffic
- Given there is no direct route between the Highway 406 interchange and the Town of Pelham, both Niagara Street and Quaker Road will carry a significant amount of traffic
- Rice Road north of Merritt Road will carry a significant amount of traffic (for travel via Highway 20/Highway 406) with congestion occurring

FUTURE TRAFFIC CONDITIONS (2031) – WITH EXTENSION

- By 2031, 4-lane cross section also required on Merritt Road west of Highway 406 to accommodate future traffic
- With Merritt Road opened between Rice Road and Cataract Road, a significant amount of traffic using Niagara Street and Quaker Road will be diverted away to Merritt Road
- Rice Road between Merritt Road and Quaker Road will experience an increase in traffic demand due to motorists choosing to use the new section of Merritt Road but can remain a two-lane roadway in 2031
- New route to Highway 406 will result in less traffic on Rice Road north of Merritt Road



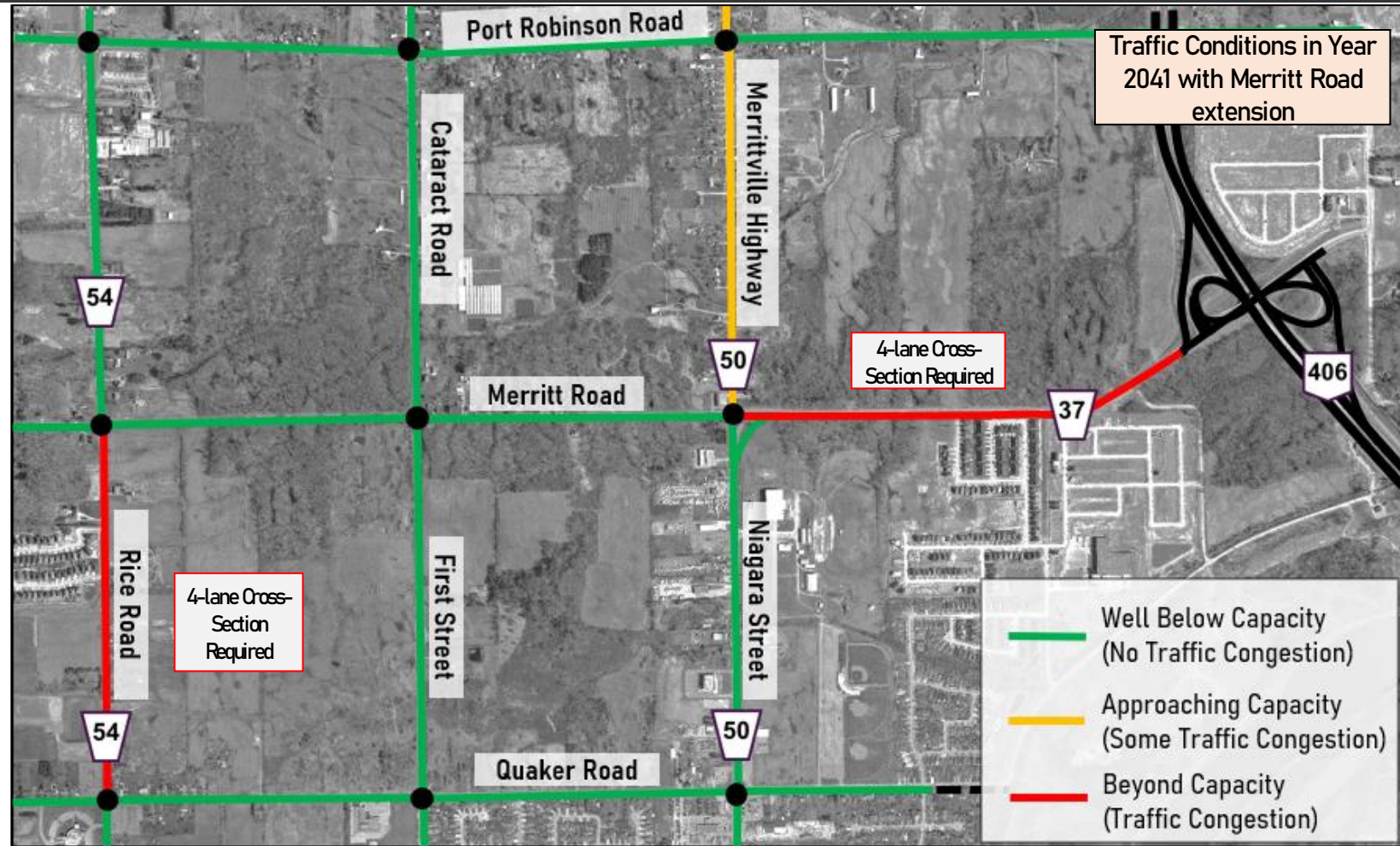
FUTURE TRAFFIC CONDITIONS (2041) – NO EXTENSION



- By 2041, traffic on Niagara Street / Quaker Road will continue to increase, with Niagara Street approaching capacity for a four-lane roadway
- Significant congestion will occur at the Quaker Road intersections (Rice Road, First Street, Niagara Street)
- Significant improvements will be required at the intersection of Quaker Road / Niagara Street to accommodate increase in traffic
- Additional traffic congestion on Rice Road between Merritt Road and Highway 20 with widening to four lanes required

FUTURE TRAFFIC CONDITIONS (2041) – WITH EXTENSION

- By 2041, short section of Rice Road between Merritt Road and Quaker Road would need to be widened to a four-lane roadway to accommodate future traffic
- Further investigation will be undertaken to determine the need for localized intersection improvements (i.e., roundabouts, traffic signals and/or additional turn lanes)



THE PROBLEM

This study is building on the recommendations of the Niagara Region's Transportation Master Plan (2017), which included the following:

- Extension of Merritt Road between Regional Road 54 (Rice Road) and Cataract Road;
- Capacity improvements of Merritt Road from Cataract Road to Highway 406; and,
- Capacity improvements to Regional Road 54 (Rice Road) from 200 meters north of Merritt Road to Quaker Road.

As a result of the proposed development, significant congestion on the road network is expected, particularly on Merritt Road between the Merrittville Highway/Niagara Street and the Highway 406 interchange by 2041. With the Merritt Road extension remaining closed, Niagara Street between Merritt Road and Quaker Road and Quaker Road between Rice Road and Niagara Street will also experience a significant increase in traffic volumes given the need for motorists to take an **indirect route** between the Town of Pelham and the Highway 406 intersection, resulting in **congestion** and the need for **significant intersection improvements**. The traffic assessment confirmed the findings of the TMP regarding the need for improvements.

THE OPTIONS

OPTION 1 DO NOTHING

Do not improve Merritt Road and Rice Road within the study area. This alternative maintains existing transportation conditions.

OPTION 2 MANAGE TRANSPORTATION DEMAND

Transportation Demand Management would improve facilities for other modes of transportation, such as, walking, cycling and transit.

OPTION 3 LIMIT GROWTH AND DEVELOPMENT

Restrict development of adjacent lands.

OPTION 4 IMPROVE OTHER NORTH-SOUTH AND EAST-WEST ROADS

Improve other north-south and east-west roads.

OPTION 4 IMPROVE MERRITT ROAD AND RICE ROAD

Extend Merritt Road between Rice Road and Cataract Road; improve Merritt Road between Cataract Road and Highway 406; and improve Rice Road between 200m north of Merritt Road and Quaker Road.

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EVALUATION CRITERIA FOR OPTIONS



TRANSPORTATION

- Alignment with Planning Policies
- Potential to improve traffic congestion
- Potential to improve road safety
- Potential to incorporate active transportation facilities
- Potential to provide a direct route between Highway 406 and areas to the west (Town of Pelham)



SOCIO-ECONOMIC ENVIRONMENT

- Property requirements
- Supports future growth
- Opportunities to enhance streetscaping, landscaping, and public realm
- Opportunities to improve accessibility and reduce barriers
- Potential impacts during construction
- Health benefits



NATURAL ENVIRONMENT

- Potential impacts to terrestrial resources and wildlife, fish and fish habitat and natural areas



CULTURAL ENVIRONMENT

- Potential impacts to cultural and archaeological resources



TECHNICAL

- Opportunities for stormwater management and resilience to changing climatic conditions



COST

- Cost to construct, operate and maintain

BEST OPTION TO ADDRESS THE PROBLEM

EVALUATION CRITERIA	DO NOTHING	MANAGE TRANSPORTATION DEMAND	LIMIT GROWTH AND DEVELOPMENT	IMPROVE OTHER NORTH-SOUTH AND EAST-WEST ROADS	IMPROVE MERRITT ROAD AND RICE ROAD
Transportation	○	○	○	○	●
Socio-economic Environment	○	◐	○	○	●
Natural Environment	●	●	●	◐	○
Cultural Environment	●	●	●	◐	◐
Technical	○	○	○	○	●
Cost	●	●	●	◐	◐
Overall Recommendation	Not Recommended	Not Recommended	Not Recommended	Not Recommended	Recommended

○	◐	●
Highest negative impacts or lowest benefits	Moderate negative impacts and benefits	Lowest negative impacts or greatest benefits

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IMPROVEMENTS TO MERRITT ROAD AND RICE ROAD

Alternative 5 – Improve Merritt Road and Rice Road was identified as the **preferred** solution. This alternative would involve the following:

- Extension of Merritt Road between Rice Road and Cataract Road;
- Improvements to Merritt Road between Cataract Road and Highway 406;
- Improvements to Rice Road between 200m north of Merritt Road and Quaker Road; and
- Providing active transportation facilities on both Merritt Road and Rice Road.

It is recognized that the Niagara Region and specifically the adjacent lands to Merritt Road and Rice Road will continue to experience population and employment growth in the near future. The proposed improvements to these two roads will help address transportation capacity and active transportation connectivity issues.

These improvements will also implement a Complete Streets approach which will improve safety for drivers; cyclists; and pedestrians of all ages and abilities, while providing opportunities for walking and cycling.

NATURAL ENVIRONMENT

The natural features within the Study Area include the following:

- Environmental Conservation Area
- Potential Natural Heritage Corridor
- Provincially Significant Wetland
- Significant Woodland
- Life Science Area of Natural and Scientific Interest
- Fish Habitat

The Niagara Region Official Plan Policy 7.B.1.14 permits projects like transportation routes within the Core Natural Heritage System where an environmental assessment for the proposed use has been completed.

This Class EA will aim to protect natural heritage features, by evaluating all potential impacts, identifying appropriate mitigation measures and complying with all other environmental protection requirements, including potential permits required by the regulatory agencies.



NATURAL ENVIRONMENT ASSESSMENT

An **Environmental Impact Study** will be prepared in accordance with the **Niagara Region Environmental Impact Study Guidelines** to document natural environmental features within the Study Area, potential project impacts, proposed mitigation measures, and permitting requirements. The following field investigations are planned as part of the natural environment assessment:

- Botanical/vegetation investigations/inventory, to inform the ecohydrology of the wetland plant lists. A discussion/analysis of the percentage of plants determined to be obligate wetland plants will be included.
- Ecological Land Classification (ELC), to delineate vegetation communities using aerial photography and field surveys. Physical characteristics and dominant vegetation species will be recorded for vegetation communities.
- Breeding bird surveys, to identify bird species.
- Amphibian surveys, to identify amphibian (e.g., frog) species.
- Incidental wildlife sightings and evidence or signs of wildlife use during other subsequent field surveys.
- Targeted investigations of the watercourses in the Study Area and those which feed into the Study Area, where accessible.

CULTURAL ENVIRONMENT

- A **Stage 1 Archaeological Assessment** was carried out in accordance with the Standards and Guidelines for Consultant Archaeologists (2011) developed by the Ministry of Heritage, Sport, Tourism and Culture Industries.
- The Stage 1 archaeological assessment indicated that the study area has general archaeological potential and requires Stage 2 archaeological assessment. A Stage 2 archaeological assessment will be completed during detailed design phase of the project to assess areas for the archaeological resources.
- A **Cultural Heritage Assessment** was completed following the information sheets contained in the Heritage Resources in the Land Use Planning Process (2006) document developed by the Ministry of Heritage, Sport, Tourism and Culture Industries.
- The cultural heritage assessment identified built heritage resources and cultural heritage landscapes within, and adjacent to the Study Area. Project's potential impacts to these resources will be identified and mitigation measures will be developed.

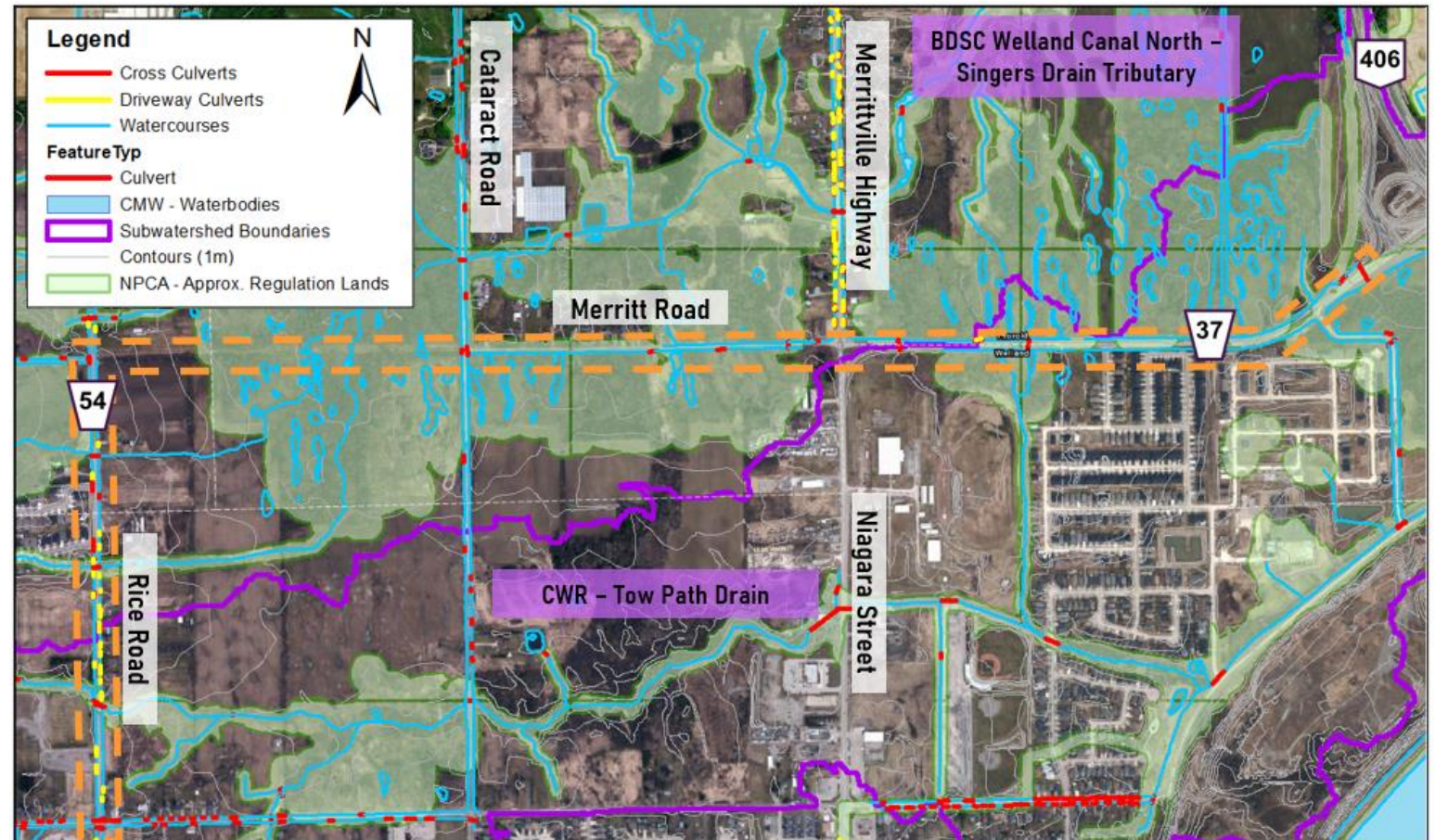


STORMWATER MANAGEMENT

The Study Area is located within two (2) Subwatersheds:

- Beaverdams Shriners Creek (BDSC) Welland Canal North - Singers Drain Tributary
- Central Welland River (CWR) - Tow Path Drain

A Stormwater Management Assessment will be completed to develop an understanding of the existing drainage conditions using hydrologic / hydraulic modelling. The Stormwater Management Report will propose stormwater management measures for the subject road segments.



NEXT STEPS



Following this Public Information Centre, the Study Team will complete the following:

- Develop a PIC Summary to document results of this PIC. The Summary Report will be posted on the project webpage.
- Continue to complete technical studies to collect existing condition information for natural, socio-economic and cultural environment.
- Develop and evaluate alternative design concepts for the road improvements and identify a preliminary preferred design
- Host PIC #3 to present the evaluation of alternatives process and the preliminary preferred solution



Questions?

Your feedback will be important to us. Your comments will be reviewed and considered, as the Study progresses. To submit questions/comments/suggestions, please use the online comment form available on the project webpage or contact one of the following Study Team Members:

Maged Elmadhoon, M.Eng., P.Eng.
Manager, Transportation Planning
Niagara Region
1815 Sir Isaac Brock Way,
Thorold, ON L2V 4Y6
Phone: 905-980-6000 (E. 3583)
Email: Maged.Elmadhoon@niagararegion.ca

Jeff Suggett, M. Sc.
Consultant Project Manager
Wood Environment & Infrastructure Solutions
3450 Harvester Road, Suite 100,
Burlington, ON L7N 3W5
Phone: 905-380-3601
Email: Jeff.Suggett@woodplc.com

Please copy: Mir Talpur, Environmental Planner
Mir.Talpur@woodplc.com

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Schedule 'C' Municipal Class Environmental Assessment for Merritt Road (Regional Road 37) and Rice Road (Regional Road 54) in the Town of Pelham, the City of Thorold and the City of Welland

APPENDIX

L-4 Agency/Stakeholder Committee Meeting #4



Meeting Minutes

Date: Wednesday, July 21, 2021, 1:30 PM

Meeting at: Microsoft Teams

File No.: IM20103036

Subject/purpose: Merritt Road/Rice Road MCEA Agency / Stakeholder Meeting #4

Wood Staff and Region PM Team:

Jeff Suggett, Wood

Mir Talpur, Wood

John Bero, Wood

Muhammad Khan, Wood

Maged Elmadhoon, Region of Niagara

Sulaf Alkarawi, Region of Niagara

Items Discussed:

1. Introductions

Introductions were made. A list of attendees is attached to the back of these meeting minutes.

2. Purpose of Meeting

The purpose of the meeting was to discuss active transportation options for this project, specifically Off-Road / In-Boulevard Cycle Tracks.

3. Project Overview

Wood presented an overview of the Class EA Study, and different types of On-Road and Off-Road active transportation facilities. An overview of the preferred solution was provided, which would involve the following:

- Off-Road cycling facility separated from motor vehicle traffic by a boulevard or a verge within the roadway right-of-way;
- Considerations for conflict zones in the study area, mainly including areas where utility poles and private driveways are present, as well as the Merritt Road - Hwy 406 ramp entry and exit points to the east of the study area;

Continued...

4. Open Discussion

- It was noted that typically when the Region updates a road, work done until the curb is a municipal cost. As these cycle tracks will be on the boulevard side of the curb – there was an inquiry as to whether it would be a regional cost or if the costs would fall to the local municipality;
- Niagara Region staff commented that it would be ideal for the local municipalities involved to be responsible for operation and maintenance of the cycle tracks as they are responsible for the sidewalk;
- Town of Pelham staff noted regarding accommodation for pedestrians; cycle tracks are exclusive to cyclists. If the Region is not going to provide a sidewalk, then pedestrians will begin to walk along the cycle tracks;
- It was also noted that cycle tracks will need to be maintained throughout the year (winter road maintenance). There are many developments around the study area, notably there has been an increase in cycling and walking, and an increase is expected with Niagara college students return to school. If active transportation is added to Rice Road, they will be used by students;
- There was an inquiry regarding continuity of the cycle tracks / integration with the overall active transportation infrastructure in adjacent areas;
- Wood staff responded noting it is the Region's mandate to separate active transportation facilities from the road, as such that is what we will be recommending off-road facilities. Sidewalks will be provided; however, they are not covered in this presentation;
- Also, as maintenance will be provided throughout the year, winter maintenance will be considered as well as the associated costs. Signage will be provided where the facility is ending. It will be up to the municipalities to assess the need for active transportation facilities on adjoining roads;
- Town of Pelham staff noted that separation of active transportation facilities from the roadway is the priority for the Town. Integration of sidewalks and cycle lanes is important. The East Fonthill area has a good active transportation network, and they would like to see this system integrated. Responsibility regarding the cost for maintenance of cycle tracks will require discussion;
- Town of Pelham staff noted that Pelham's contribution to this project is minimal. The Town will be happy to take on the maintenance service for the Cycle Tracks. If the outcome of this study is cycle track, it would be the Town's suggestion that the Region pays for construction of cycle track. Based on the outcome of this Study, the Town will assess the continuity of the cycle track further to the west;
- Staff from the Region suggest the Region will pay for construction, but are suggesting that the municipality will pay for operations and maintenance;
- City of Thorold staff state that from a construction perspective, they cannot commit to the capital investment. They will need to look into their strategic plan

Continued...

- and assess how it will impact the City financially. Jaro Hajek will initiate discussions internally;
- City of Welland staff inquired about a cross-section for the cycle tracks and stated they were expecting the Region to cover the cost of construction;
 - Wood staff stated they will identify and evaluate alternative cross-sections. They will be shared for review and input;
 - MTO staff asked about Segment 3, how active transportation infrastructure would cross over the Highway 406 bridge, also if there has been a traffic analysis conducted, and the width of proposed active transportation features crossing Highway 406;
 - Wood staff responded; we are dealing with the fixed width of the roadway so we will keep the active transportation features within the existing width. We will look for MTO's input regarding the cross-section over Highway 406. Lance from MTO shared a few previous MTO examples where a multi-use path was incorporated at an MTO interchange. Some of these are, the interchange at Centennial Parkway in Hamilton, Hwy 7 / Hwy 400, and QEW / Glendale Avenue.
 - Bea Clark from Town of Pelham gave an example of active transportation facilities existing over MTO highways: Highway 406, St. David's Road interchange in St. Catharines;
 - MTO staff noted; for any active transportation infrastructure within MTO right of way (Highway 406), the MTO recommends using MTO's Bike Manual;
 - MTO staff inquired whether Merritt Road would be widened to four-lanes up until west of Highway 406 interchange, or east of Highway 406 interchange;
 - Wood staff stated that the location where the additional lane is dropped will be determined as part of traffic assessment, which will be shared when it is finalized and reviewed by the Region;
 - It was noted that there is a general consensus regarding the use of off-road bicycle tracks in the project;
 - Jason Neudorf (WSP) noted; the new addition of OTM book 18 we are expecting to be released shortly has updated interchange guidance. This will be a helpful resource;
 - Wood staff asked if we could access a draft of the manual;
 - Lance (MTO) noted uncertainty regarding the release time of the OTM Book 18 addition, however Jason (WSP) stated that cross-sections for active transportation facilities might be available by the end of summer.

5. Next Steps

The Study Team thanked the participants that attended the meeting and noted the following action items:

- A copy of the presentation will be provided to all parties;

Continued...

- Wood will provide the estimated length of cycle tracks for review and input from the appropriate parties for the purposes of having the local municipalities estimate the cost for operations and maintenance (**attached**);
- **Local municipalities are requested to determine if they are willing to pay for the future operation and maintenance of cycle tracks within their jurisdiction based on the length;** and
- Wood will provide the cross-sections considered for the cycle tracks for review and input from the appropriate parties once finalized.

Continued...

Division	Role	Staff Name	Attendance at Agency Meeting #4
Region of Niagara			
Transportation	Manager, Transportation Planning	Maged Elmadhoon	Present
Transportation	Associate Director, Transportation Planning	Sulaf Alkarawi	Present
Transportation	Director of Transportation Services	Carolyn Ryall	Absent
Water/Wastewater	Associate Director Water and Wastewater Engineering	Tony Cimino	Absent
Planning and Development Services	Director, Infrastructure Planning and Development Engineering	Phill Lambert	Absent
Planning and Development Services	Acting Director Development Approvals, Planning and Development Services	Pat Busnello	Present
Planning and Development Services	Manager, Environmental Planning	Cara Lampman	Absent
Planning and Development Services	Development Engineer	Susan Dunsmore	Absent
Planning and Development Services	Landscape Architect	Vanessa Aykoryd	Absent
Planning and Development Services	Planning Ecologist	Lori Karlewicz	Absent
Planning and Development Services	Urban Designer	Julia van der Laan de Vries	Present
Planning and Development Services	Development Planner	Amy Shanks	Present
Planning and Development Services	Senior Development Planner	Britney Fricke	Absent
Planning and Development Services	Contract Administrator	Brittany Lauzon	Present
Corporate Services	Real Estate Officer	Craig Mustard	Present

Continued...

Transit	GO Implementation Office Transit Lead	Scott Fraser	Absent
Water/Wastewater	Senior Project Manager, Water and Wastewater Engineering	Richard Gabel	Absent
Transportation	Senior Project Manager, Transportation Engineering	Cam Milne	Present
Transportation	Project Manager, Transportation Engineering	Josh Wilson	Present
Transportation	Transportation Planner	Waad Siyam	Present
Transportation	Co-op Student	Hamed Esmaeeli	Present
Public Health	Health Impact Assessment Intern	Jacqueline Gates	Present
Public Health	Strategic Initiatives Coordinator	Kate Harold	Absent
Public Health	Diversity, Equity and Inclusion Program Manager	Cassandra Ogunniyi	Absent
Public Health	Health Promoter	Jackie Gervais	Absent
Town of Pelham			
Engineering	Director of Public Works	Jason Marr	Present
Engineering	Manager of Engineering	Derek Young	Absent
Engineering	Manager of Public Works	Ryan Cook	Absent
Community Planning	Director, Community Planning and Development	Barbara Wiens	Present
Pelham Active Transportation Committee		Dave Nicholson	Absent

Continued...

Pelham Active Transportation Committee		Bea Clark	Present
City of Thorold			
Engineering	Manager of Engineering	Sean Dunsmore	Absent
Engineering	Project Manager	Jaroslav Hajek	Present
Thorold Active Transportation Advisory Committee		Beate Wolf	Absent
Thorold Active Transportation Advisory Committee		Donna Delvecchio	Absent
City of Welland			
Planning	Interim Manager of Planning	Rachelle Larocque	Present
Planning	Interim Director of Development and Building Services	Grant Munday	Present
Engineering	Interim Director of Engineering and Public Works	Sherri-Marie Millar	Absent
Engineering		Scott Richardson	Absent
		Livia McEachern	Present
Niagara Region Conservation Authority			
N/A	Senior Manager, Planning and Regulations	David Deluce	Absent
Ontario Ministry of Transportation			
Planning and Design	Project Engineer	Kyle Saulnier	Present

Continued...

	Assistant Environmental Planner	Jenna Wolno	Absent
	Traffic Supervisor	Lance Dutchak	Present
		Hussain Kashif	Present
	Traffic Analyst	Venetia Stephen	Present
WSP			
	Project Manager	Jason Neudorf	Present



Agency/Stakeholder Meeting #4

Municipal Class Environmental Assessment Study
for Merritt Road and Rice Road in Pelham,
Thorold and Welland

July 21, 2021



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Presentation Outline

- Introductions
- Study Overview
- Municipal Class EA process and Timeline
- Cycling Facility Alternatives/Classification
- Facility Pre-selection
- Cycling Facility Implementation
- Questions

The purpose of this meeting is to obtain input from the local area municipalities and active transportation committee members on the use of cycle tracks for this project.

Introductions

Niagara Region	Wood Environment and Infrastructure Solutions
Maged Elmadhoon, M.Eng., P.Eng. Manager, Transportation Planning	Jeff Suggett, M. Sc. Project Manager
Sulaf Alkarawi, P.Eng., PMP Associate Director, Transportation Planning	John McGill, P.Eng., PTOE, RSP Project Advisor
	Muhammad Khan, P.Eng., M.Eng. Project Engineer
	Mir Ahsan Talpur, M.Env.Sc., EP Environmental Planner

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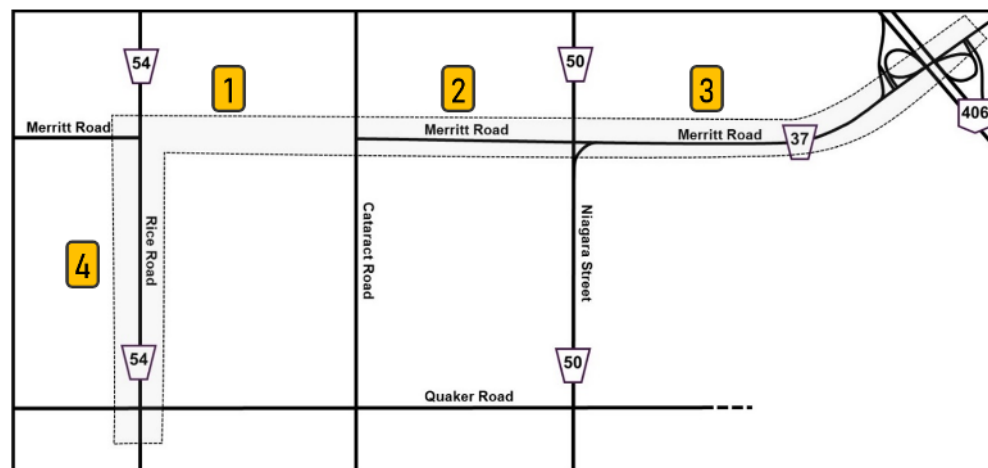
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Study Overview

The Niagara Region is conducting an environmental assessment study for improvements to Merritt Road and Rice Road as a result of proposed developments in the Town of Pelham, the City of Thorold and the City of Welland. Building upon the recommendations of the 2017 Niagara Region Transportation Master Plan, this study will propose improvements and active transportation facilities to the following segments of Merritt Road and Rice Road:

- **Segment 1** – Merritt Road between Rice Road and Cataract Road
- **Segment 2** – Merritt Road between Cataract Road and Merrittville Highway / Niagara Street
- **Segment 3** – Merritt Road between Merrittville Highway / Niagara Street and Highway 406
- **Segment 4** – Rice Road between Merritt Road and Quaker Road



Municipal Class EA Process & Timeline

PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5
<ul style="list-style-type: none"> ▪ Notice of study commencement ▪ Problem or opportunity statement ▪ Public Information Centre #1 	<ul style="list-style-type: none"> ▪ Inventory natural, social and economic existing conditions ▪ Identify and evaluate alternative solutions ▪ Identify preferred solution ▪ Public Information Centre #2 	<ul style="list-style-type: none"> ▪ Inventory natural, social and economic existing conditions ▪ Identify and evaluate alternative design concepts for preferred solution ▪ Identify preferred design concept ▪ Public Information Centre #3 	<ul style="list-style-type: none"> ▪ Document Study process and findings in Environmental Study Report (ESR) ▪ Notice of Study Completion ▪ Place ESR on public record for a minimum of 30-day review period 	<ul style="list-style-type: none"> ▪ Proceed to the detailed design and construction of the project ▪ Monitor environmental provisions and commitments
Winter 2021 (Complete)	Spring 2021 (Complete)	Summer 2021	Fall 2021 / Winter 2022	TBD



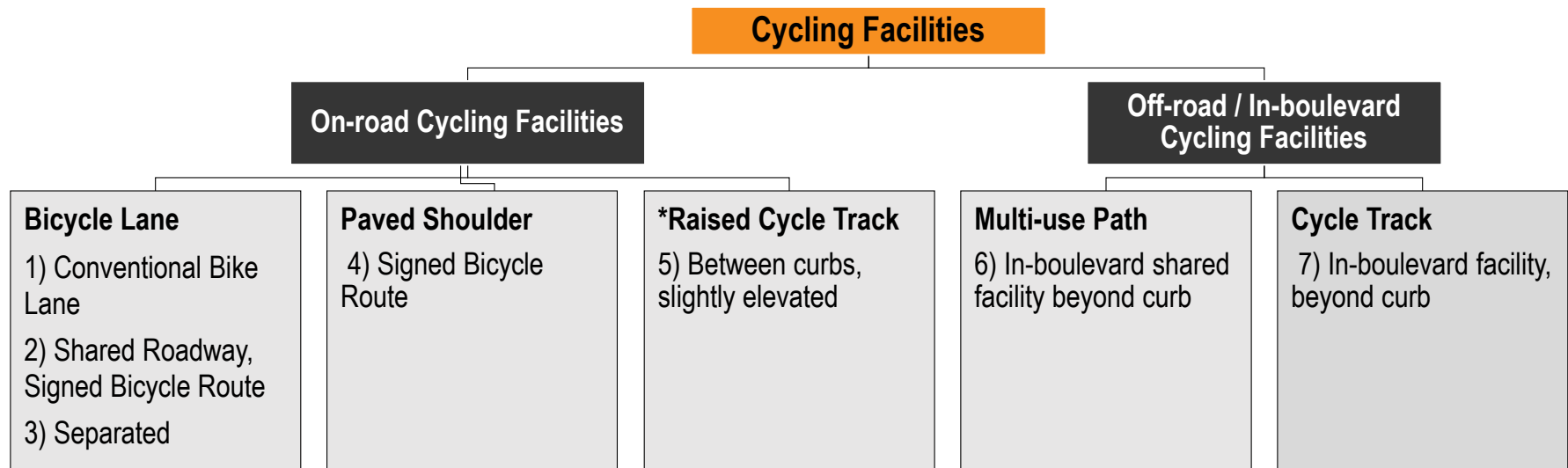
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Cycling Facility Alternatives/Classification



*Note that the Cycle Track appears in both categories. A raised cycle track can be within the roadway if it is between the curbs but slightly elevated. It can also take the form of a one-way or two-way in-boulevard facility beyond the curbs.

On-road Cycling Facilities



Source: bicycles.stackexchange.com

Conventional On-Street Bicycle Lane

- Portion of roadway designated for preferential or exclusive use of cyclists
- Designated by pavement markings and signage



Source: National Association of City Transportation Officials

Raised On-Street Cycle Track

- Designated for exclusive use by cyclists and is distinct from the sidewalk
- Adjacent to but **vertically separated from motor vehicle travel lanes** - typically curb separated to the adjacent sidewalk level or an intermediate level higher than that of the roadway
- One- or two-way travel designation



Source: active.com

Separated On-Street Bicycle Lane

- Portion of roadway designated for preferential or exclusive use of cyclists
- Designated by signage, along with a **physical or marked buffer**;
- Provides additional spatial or physical separation between motorists and cyclists

Off-road / In-boulevard Cycling Facilities



Off-Road / In-Boulevard Cycle Track

- Cycling facility separated from motor vehicle traffic by a boulevard or a verge within the roadway right-of-way
- Constructed with the bicycle path distinct from the sidewalk
- May sometimes transition to a raised cycle track that is immediately adjacent to the curb
- A 'Splash Strip' is usually provided, typically 1m wide

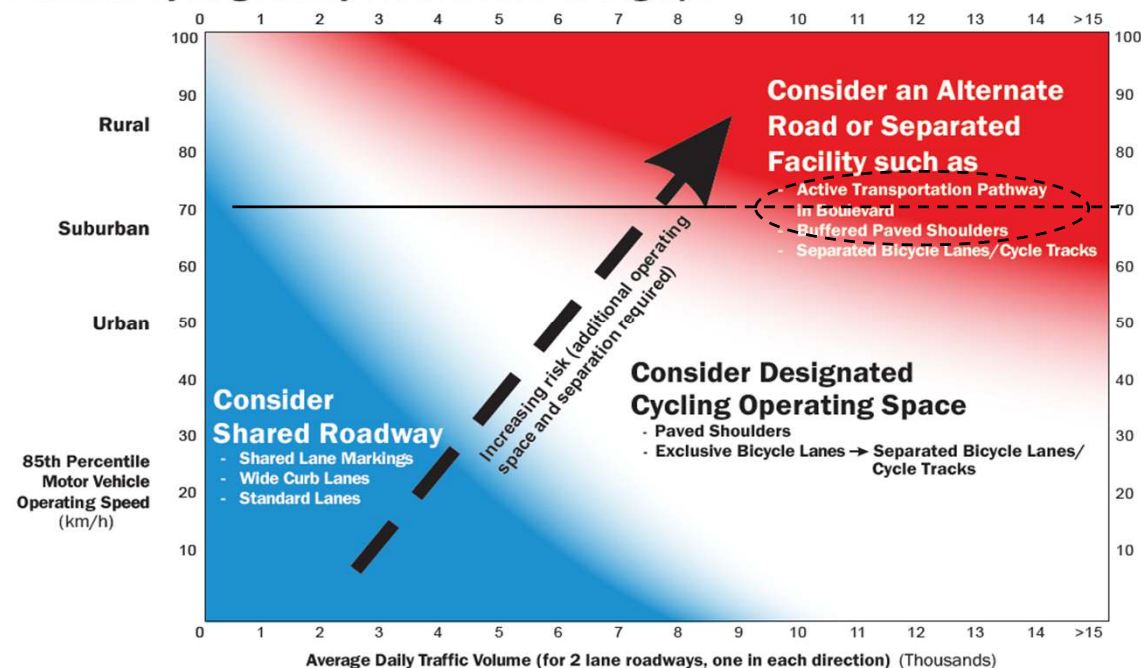


Off-Road / In-Boulevard Multi-Use Path

- Cycling facility separated from motor vehicle traffic by a boulevard or a verge within the roadway right-of-way
- Constructed with a single facility shared by cyclists and pedestrians
- A 'Splash Strip' is usually provided, typically 1m wide

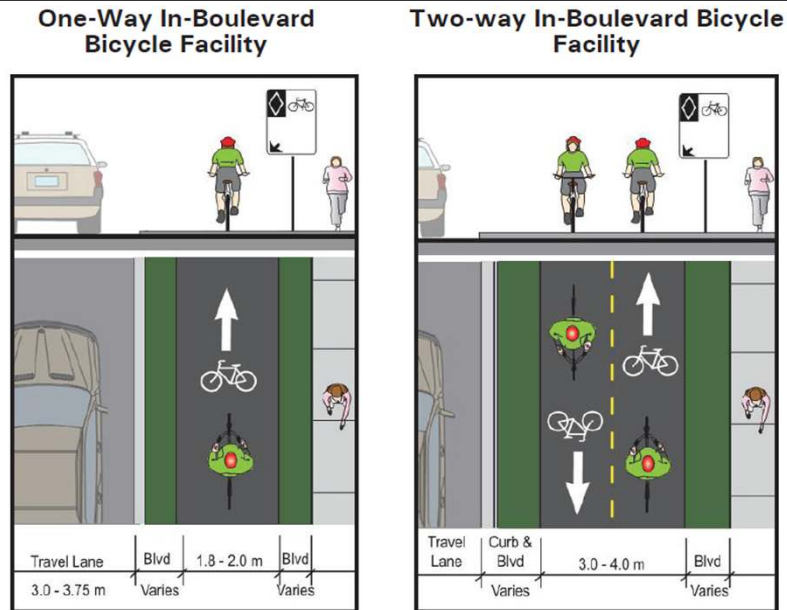
Facility pre-selection

Desirable Cycling Facility Pre-selection Nomograph



- Preselection Nomograph Source: OTM Book 18 – Cycling Facilities;
- 85th percentile motor vehicle operating speed – 70 km/h (~ Design speed +10 km/h);
- Future Total AADT in upper-middle range ~8,000 to >15,000 vehicles;
- Nomograph suggests In-Boulevard Bicycle Lanes or Cycle Tracks should be explored.

Use of Off-Road / In-Boulevard Cycle Tracks



Source: MMM, 2013

Facility	Desired Width	Suggested Minimum
One-Way In-Boulevard Bicycle Facility	2.0 m	1.8 m
Two-Way In-Boulevard Bicycle Facility	4.0 m	3.0 m ^b
Two-Way In-Boulevard Shared Facility	4.0 m	3.0 m ^b

^aExcludes splash strip (typical width 1.0 metre) where the in-boulevard facility abuts the curb.
^bThis may be reduced to 2.4 metres over very short distances in order to avoid utility poles or other infrastructure that may be costly to relocate.

Source: Based on AASHTO Guide for Planning, Design and Operation of Bicycle Facilities, 2012; NACTO Urban Bikeway Design Guide, 2011

- Practitioners should consider several geometric elements including the width, design speed, grade, stopping sight distance, horizontal curvature, crest vertical curves and lateral clear zones.
- A 'splash strip' (typically 1 metre wide) should be provided between the in-boulevard facility and the curb, to provide a buffer to keep cyclists and other users away from the hazardous vertical drop-off at the curb face.
- Signs should be sized appropriately for interpretation by both motorists and cyclists, however signs that are only intended for cyclists and other active transportation users may have a reduced size.
- Appropriate pavement markings should be used to stipulate bicycle lanes. Practitioners have the option of adding a white directional arrow to guide users on where to place themselves on bidirectional in-boulevard facilities.

Cycle Tracks – Safety Performance (CMF Clearinghouse)

Study Title: Road Factors and Bicycle-Motor Vehicle Crashes at Unsignalized Priority Intersections

Authors: Schepers et al.

Publication Date: MAY, 2011

Countermeasure: Installation of a cycle track 0-2m from the side of the main road with cyclist priority at intersections

CMF	CRF(%)	Quality	Crash Type	Crash Severity	Roadway Type	Area Type
1.03	-3	★★★☆☆	Vehicle/bicycle	All	All	Urban and suburban

Countermeasure: Installation of a cycle track 2-5m from the side of the main road with cyclist priority at intersections

CMF	CRF(%)	Quality	Crash Type	Crash Severity	Roadway Type	Area Type
0.55	45	★★★★☆	Vehicle/bicycle	All	All	Urban and suburban

Countermeasure: Installation of a cycle track over 5m from the side of the main road with cyclist priority at intersections

CMF	CRF(%)	Quality	Crash Type	Crash Severity	Roadway Type	Area Type
0.93	7	★★★☆☆	Vehicle/bicycle	All	All	Urban and suburban

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Cycling Facility Implementation within Study Area – Segment 1

Segment	Future ROW Width	Opportunities / Constraints
Segment 1	20-26m	Utility poles along north side of unopened road allowance. Wooded areas and wetlands on both north and south sides. Place cycle track between utility poles and travel lanes?

Conflict Zones

- None

North

South



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Cycling Facility Implementation within Study Area – Segment 2

Segment	Future ROW Width	Opportunities / Constraints
Segment 2	20-26m	On the north side, ~ a dozen residential homes (to the west), as well as utility poles 4m from the westbound travel lane, along the far side of the ditch. The south side is primarily wooded area.

Conflict Zones

- Driveways for residential homes on the west side of Section 2 provide a potential constraint to cycle tracks on the north side

North

South



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Cycling Facility Implementation within Study Area – Segment 3

Segment	Future ROW Width	Opportunities / Constraints
Segment 3	26-36m	North side consists of wooded area with utility poles north of the shoulder. The south side consists of a mixture of vacant lands with wooded areas and a residential subdivision (Merritt Meadows) with two access roads intersecting Merritt Road at unsignalized three-way intersections.

Conflict Zones

- High-speed, high-volume traffic off-ramp from Highway 406 southbound to Merritt Road westbound on the north side

North

South



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Cycling Facility Implementation within Study Area – Segment 4

Segment	Future ROW Width	Opportunities / Constraints
Segment 4	26-36m	Lands on the east and west side of the roadway are a mixture of residential development (Rosewood Crescent subdivision), some residential homes directly fronting onto Rice Road and some vacant lands.

Conflict Zones

- Minimal conflicts – small number of residential driveways on east side

West

East



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Cycling Facility Implementation – Final Considerations

Use of Off-Road Cycle Tracks within Study Area

- Along Merritt Road and Rice Road, opportunities exist for off-road cycling facilities on both sides of the corridors;
- Conflict zones in the study area mainly include areas where private driveways are present, as well as the Merritt Road - Hwy 406 ramp entry and exit points to the east of the study area;
- Pavement markings may be applied to provide guidance to cyclists and motorists in conflict zones;
- Dashed guide-lines (with optional bike stencils or chevrons) and green surface treatment are often used for marking bike facilities through conflict zones;
- Where utility poles, light standards, other municipal infrastructure and trees are present, it is often possible to plot a path around the obstacles with minimal relocations.



Questions?

Your feedback will be important to us. Your comments will be reviewed and considered, as the Study progresses. To submit questions/comments/suggestions, please contact one of the following Study Team Members:

Maged Elmadhoon, M.Eng., P.Eng.

Manager, Transportation Planning

Niagara Region

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Phone: 905-980-6000 (E. 3583)

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Jeff Suggett, M. Sc.

Consultant Project Manager

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Email: Jeff.Suggett@woodplc.com

Please copy: Mir Talpur, Environmental Planner Mir.Talpur@woodplc.com

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Schedule 'C' Municipal Class Environmental Assessment for Merritt Road (Regional Road 37) and Rice Road (Regional Road 54) in the Town of Pelham, the City of Thorold and the City of Welland

APPENDIX

L-5 ***Agency/Stakeholder Committee Meeting #5***



Meeting Minutes

Date: Thursday, August 19, 2021, 2:00 PM

Meeting at: Microsoft Teams

File No.: IM20103036

Subject/purpose: Merritt Road/Rice Road MCEA Agency / Stakeholder Meeting #5

Wood Staff and Region PM Team:

Jeff Suggett, Wood

Mir Talpur, Wood

Muhammad Khan, Wood

Maged Elmadhoon, Region of Niagara

Sulaf Alkarawi, Region of Niagara

Items Discussed:

1. Purpose of Meeting

The purpose of the meeting was to review preliminary road cross-section alternatives and to obtain input from the local area municipalities (Town of Pelham, City of Thorold and City of Welland) on active transportation infrastructure.

2. Introductions

Introductions were made. A list of attendees from the Niagara Region, Town of Pelham and City of Thorold is attached at the end of these meeting minutes.

3. Project Overview

Wood presented an overview of the Class EA Study. An overview of study road segments and Class EA process was provided.

4. Project Overview

Wood presented road cross-section alternatives for the four road segments. It is important to note that these road cross-section alternatives will be subject to thorough evaluation process to identify a preliminary preferred road cross-section for each road segment. The following road cross-section alternatives for each road segment were presented. The meeting attendees were invited to share their comments, so that the alternatives could be revised, if needed:

Continued...

Segment 1 – Merritt Rd (Rice Rd to Cataract Rd):

- Alternative A: 1.8m wide sidewalks on both sides, a 7m wide ditch to the north side, and a 3m wide Two-Way Cycle Track on south side.
- Alternative B: 1.8m wide sidewalks on both sides, 2m wide elevated Cycle Tracks on both sides, and a 7m wide ditch to the north side.

Segment 2 – Merritt Rd (Cataract Rd to Merrittville Hwy / Niagara St):

- Alternative A: 1.8m wide sidewalks on both sides, and a 3m wide Two-Way Cycle Track on south side.
- Alternative B: 1.8m wide sidewalks on both sides, and 2m wide elevated Cycle Tracks on both sides.

Segment 3 – Merritt Rd (Merrittville Hwy / Niagara St to Hwy 406):

- Alternative A: 1.8 m sidewalk and a 3m wide Two-Way Cycle Track on south side.
- Alternative B: 1.8m wide sidewalks and 2m wide elevated Cycle Tracks on both sides.
- Alternative C: No sidewalks. A multi-use path on south side.

Segment 4 – Rice Rd (Merritt Rd to Quaker Rd):

- Alternative A: 1.8 m sidewalks on both sides and a 3m wide Two-Way Cycle Track on north side.
- Alternative B: 1.8m wide sidewalks and 2m wide elevated Cycle Tracks on both sides.

Based on a preliminary review of the above alternative cross-sections, the possible active transportation network may include the following:

- Sidewalks on both sides of Merritt Rd between Rice Rd and Merrittville Hwy
- Sidewalk on the south side of Merritt Rd between Merrittville Hwy and Grisdale Rd
- Cycle Track on the south side of Merritt Rd between Rice Rd and Grisdale Rd
- Sidewalks on both sides and, Cycle Track on one the west side of Rice Rd

Following questions / comments were received:

Sean Dunsmore (City of Thorold): Why the cycle track and sidewalks are not being proposed across the Hwy 406 bridge? Why are they ending at Grisdale Rd? The Cycling Master Plan completed by the City of Thorold identifies Multi-use Trail across Highway 406. If the cycle track is not constructed at this time, then there is a concern that it may not be constructed later.

Continued...

Jeff and Sulaf responded that because of the safety concerns on the ramp, the cycle track is not being proposed over Highway 406 bridge at this time. Maged added that in the short-term, the cycle track will end at Grisdale Road, however, the Environmental Study Report will recognize that a future study can explore options to extend active transportation across Highway 406 bridge.

It was discussed that Sean will provide map from the Transportation Master Plan showing the Multi-use Trail in the study area.

- *Post Meeting Note:* The Study Team downloaded the City of Thorold Transportation Master Plan (2020). A review of mapping provided in this document identified the following proposed active transportation infrastructure:
 - Sidewalks on both sides of Merritt Rd, from Cataract Rd to east of Hwy 406, up to Kottmeier Rd (Segment 2 and Segment 3)
 - Multi-use Trail on Merritt Rd, from east of Rice Rd/City of Thorold boundary to east of Hwy 406, up to Kottmeier Rd (Segment 1, Segment 2 and Segment 3)
 - The above active transportation infrastructure is identified as Priority Network, which is intended to be implemented within 10 years.

Sean Dunsmore (City of Thorold): Why are the streetlights being proposed in Segment 1, given that it will be a rural cross-section?

Jeff responded that the streetlight will be appealing to the pedestrians and cyclists.

Derek Young (Town of Pelham): Alternative A for Segment 1 shows a 0.9 m median between traffic lanes and the two-way cycle track. The snow ploughed from the road will pile up on the median and the cycle track.

Jeff noted that the preference is to provide physical separation between the traffic lanes and cycle track.

Derek Young (Town of Pelham): One suggestion is to include the ditch between the cycle track and traffic lanes to avoid snow accumulation on the cycle track. He also suggested moving the cycle track to the north side.

Maged suggested that the cycle track will need to be provided on south side in order to provide continuity for Segments 2 and 3. It is important to maintain continuity.

Cam Milne (Niagara Region): Is there proper allowance for shoulders in Segment 1?

Jeff responded that there is one metre allowance for shoulders on either side in Segment 1.

Continued...

Sean Dunsmore (City of Thorold): If all the intersection will have traffic signals, then it does not matter on which side is the cycle track provided. Sean commented that continuity is not an issue. Pedestrians/cyclists can cross at the intersections. He also inquired, because Segment 1 is a rural cross-section, is there a need to provide sidewalks?

Maged responded that the Region is promoting all modes of transportation (vehicular, pedestrian, cycling). For this reason, the Region is proposing sidewalks in all road segments.

Barbara Wiens (Town of Pelham): Will there be street lights for pedestrians and cyclists on the west side of Rice Road?

The Study Team will consider cross-section alternatives for Segment 4 that incorporate streetlights on the west side of Rice Rd.

5. Next Steps:

Confirmation emails were received from the City of Throlod and Town of Pelham staff that those municipalities would be open to have cycle tracks within their boundaries and will be willing to pay for their operation and maintenance. The Study Team will connect with the City of Welland staff to confirm whether there will be any concerns with maintaining/operating the cycle tracks.

The Study Team will update the road cross-section alternatives for Segment 1 to consider either moving the ditch to the south side in Segment 1, or moving the cycle track to the north, such that the ditch is between the cycle track and traffic lanes.

The Study Team will consider cross-section alternatives for Segment 4 that incorporate streetlights on the west side of Rice Rd.

Jeff invited attendees to provide any additional comments via email so they can be incorporated into the evaluation of road cross-section alternatives.

Study Team thanked everyone for their participation. She noted that the updated cross-sections will be circulated to the attendees.

Continued...

Division	Role	Staff Name
Niagara Region		
Transportation	Manager, Transportation Planning	Maged Elmadhoon
Transportation	Associate Director, Transportation Planning	Sulaf Alkarawi
Transportation	Senior Project Manager, Transportation Engineering	Cam Milne
Transportation	Project Manager, Transportation Engineering	Josh Wilson
Transportation	Transportation Planner	Waad Siyam
Town of Pelham		
Engineering	Manager of Engineering	Derek Young
Community Planning	Director, Community Planning and Development	Barbara Wiens
City of Thorold		
Engineering	Manager of Engineering	Sean Dunsmore
Engineering	Project Manager	Jaroslav Hajek



Agency/Stakeholder Meeting #5

Municipal Class Environmental Assessment Study
for Merritt Road and Rice Road in Pelham,
Thorold and Welland

August 19, 2021



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Presentation Outline

- Introductions
- Study Overview
- Municipal Class EA process and Timeline
- Discussion on Cross Sections

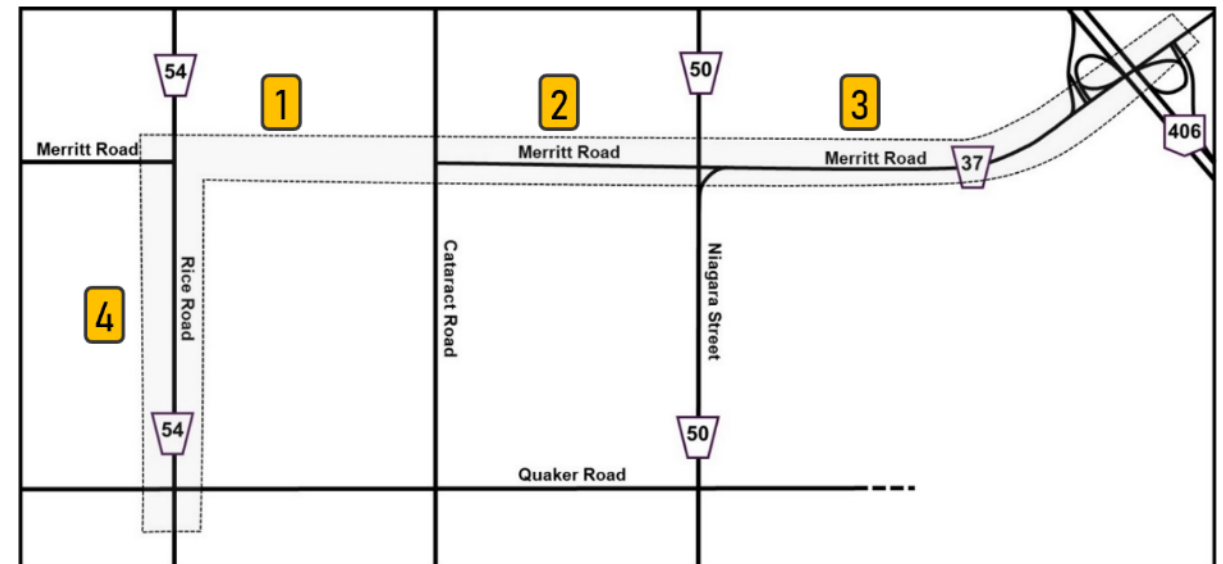
Introductions

Niagara Region	Wood Environment and Infrastructure Solutions
Maged Elmadhoon, M.Eng., P.Eng. Manager, Transportation Planning	Jeff Suggett, M. Sc. Project Manager
Sulaf Alkarawi, P.Eng., PMP Associate Director, Transportation Planning	John McGill, P.Eng., PTOE, RSP Project Advisor
	Muhammad Khan, P.Eng., M.Eng. Project Engineer
	Mir Ahsan Talpur, M.Env.Sc., EP Environmental Planner

Study Overview

The Niagara Region is conducting an environmental assessment study for improvements to Merritt Road and Rice Road as a result of proposed developments in the Town of Pelham, the City of Thorold and the City of Welland. Building upon the recommendations of the 2017 Niagara Region Transportation Master Plan, this study will propose improvements and active transportation facilities to the following segments of Merritt Road and Rice Road:

- **Segment 1** – Merritt Road between Rice Road and Cataract Road
- **Segment 2** – Merritt Road between Cataract Road and Merrittville Highway / Niagara Street
- **Segment 3** – Merritt Road between Merrittville Highway / Niagara Street and Highway 406
- **Segment 4** – Rice Road between Merritt Road and Quaker Road



Municipal Class EA Process & Timeline

PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5
<ul style="list-style-type: none"> ▪ Notice of study commencement ▪ Problem or opportunity statement ▪ Public Information Centre #1 	<ul style="list-style-type: none"> ▪ Inventory natural, social and economic existing conditions ▪ Identify and evaluate alternative solutions ▪ Identify preferred solution ▪ Public Information Centre #2 	<ul style="list-style-type: none"> ▪ Inventory natural, social and economic existing conditions ▪ Identify and evaluate alternative design concepts for preferred solution ▪ Identify preferred design concept ▪ Public Information Centre #3 	<ul style="list-style-type: none"> ▪ Document Study process and findings in Environmental Study Report (ESR) ▪ Notice of Study Completion ▪ Place ESR on public record for a minimum of 30-day review period 	<ul style="list-style-type: none"> ▪ Proceed to the detailed design and construction of the project ▪ Monitor environmental provisions and commitments
Winter 2021 (Complete)	Spring 2021 (Complete)	Summer 2021	Fall 2021 / Winter 2022	TBD






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Possible Future Active Transportation Network

-  Sidewalk
-  Bidirectional cycle track
-  Future cycling route



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Active Transportation Implementation within Study Area – Segment 1

Segment	Future ROW Width	Opportunities / Constraints
Segment 1	20-26m	Scenic rural typology. Utility poles along north side of unopened road allowance. Wooded areas and wetlands on both north and south sides. Provide continuity with Segment 2 (cycle track on south side).

Conflict Zones

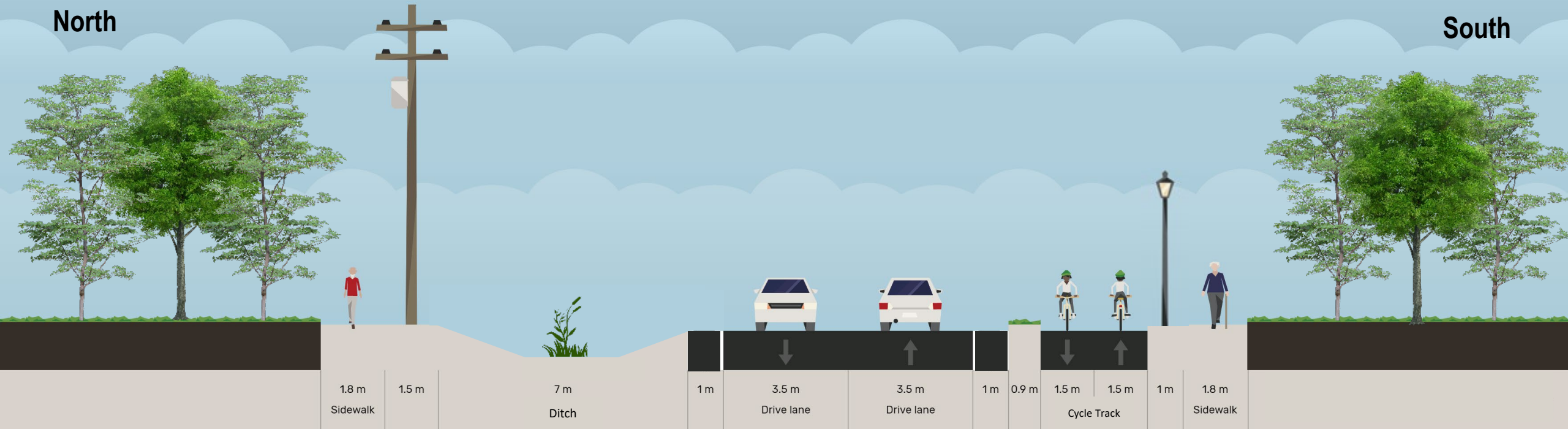
- None; however preferable to have cycle track on south side to match Segment 2/3

North

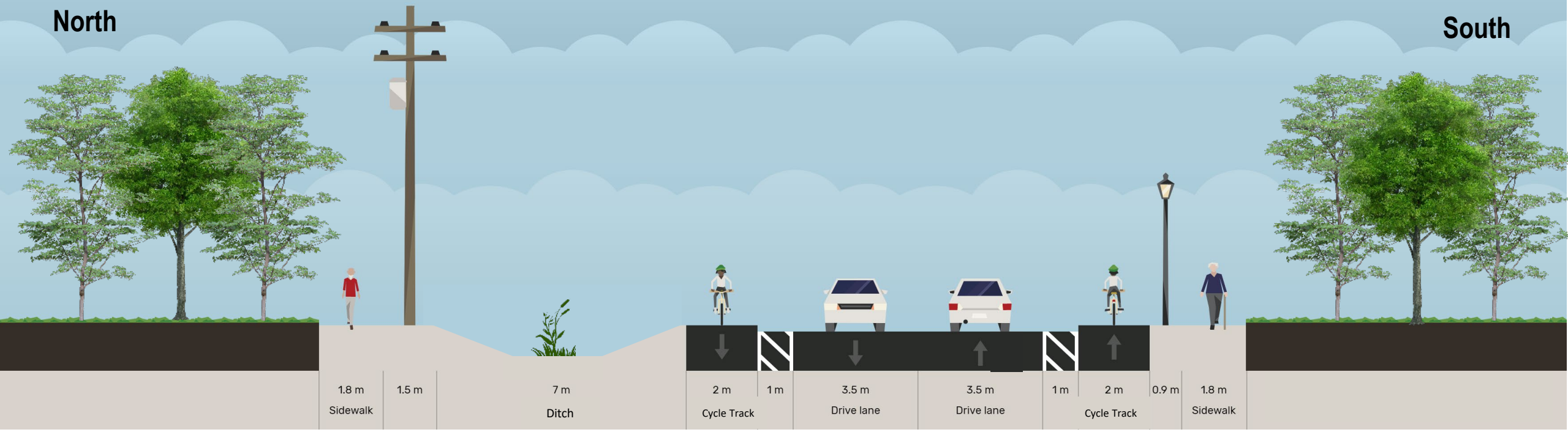
South



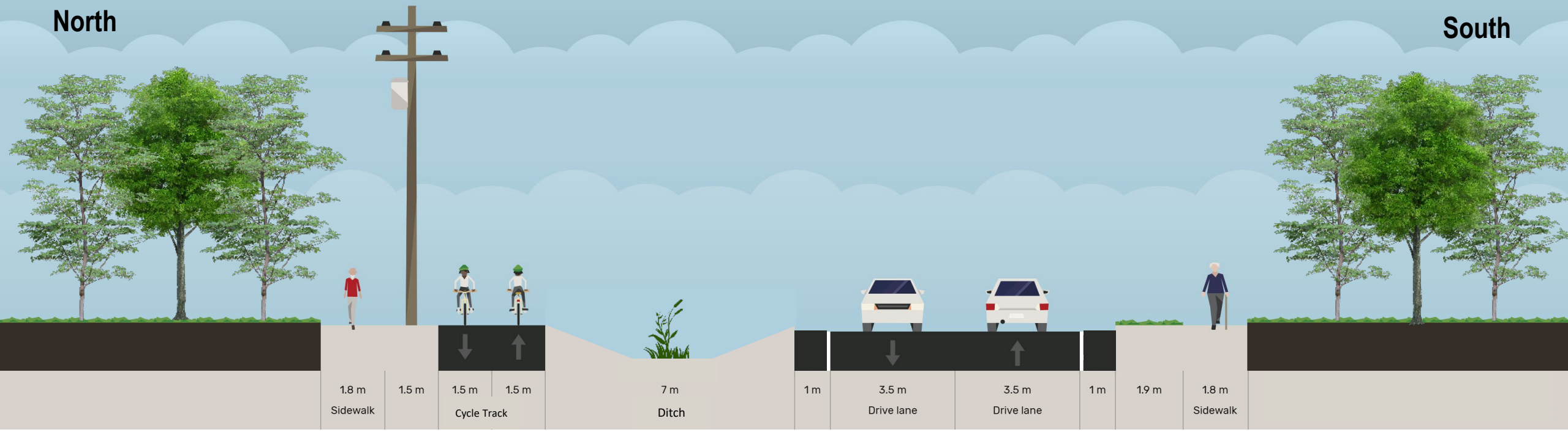
Segment 1 - Alternative A (26.0 m)



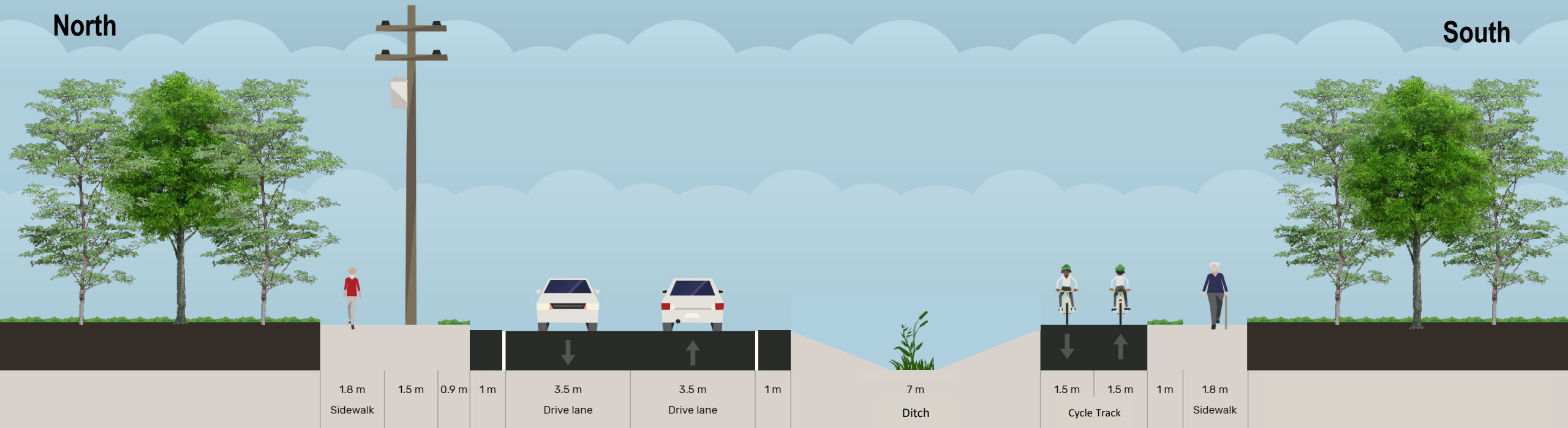
Segment 1 - Alternative B (26.0 m)



Segment 1 - Alternative C (26.0 m)



Segment 1 - Alternative D (26.0 m)



Active Transportation Implementation within Study Area – Segment 2

Segment	Future ROW Width	Opportunities / Constraints
Segment 2	20-26m	<p>Urban narrow typology</p> <p>On the north side, ~ a dozen residential homes (to the west), as well as utility poles 4m from the westbound travel lane, along the far side of the ditch. The south side is primarily a wooded area.</p>

Conflict Zones

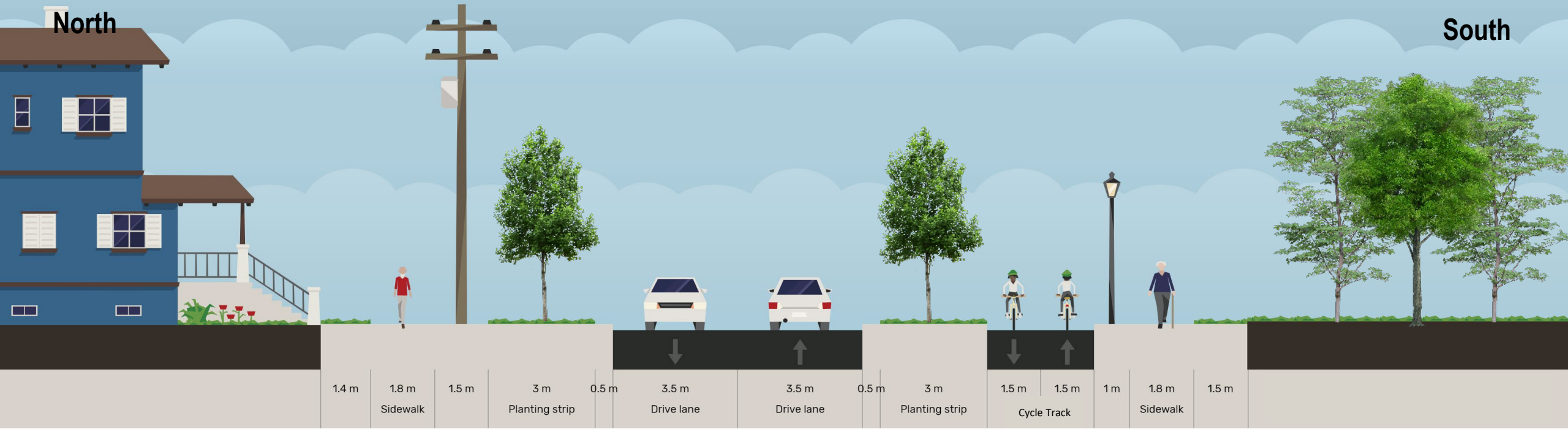
- Driveways for residential homes on the west side of Section 2 provide a potential constraint to cycle tracks on the north side
- Preferable to have cycle track on south side

North

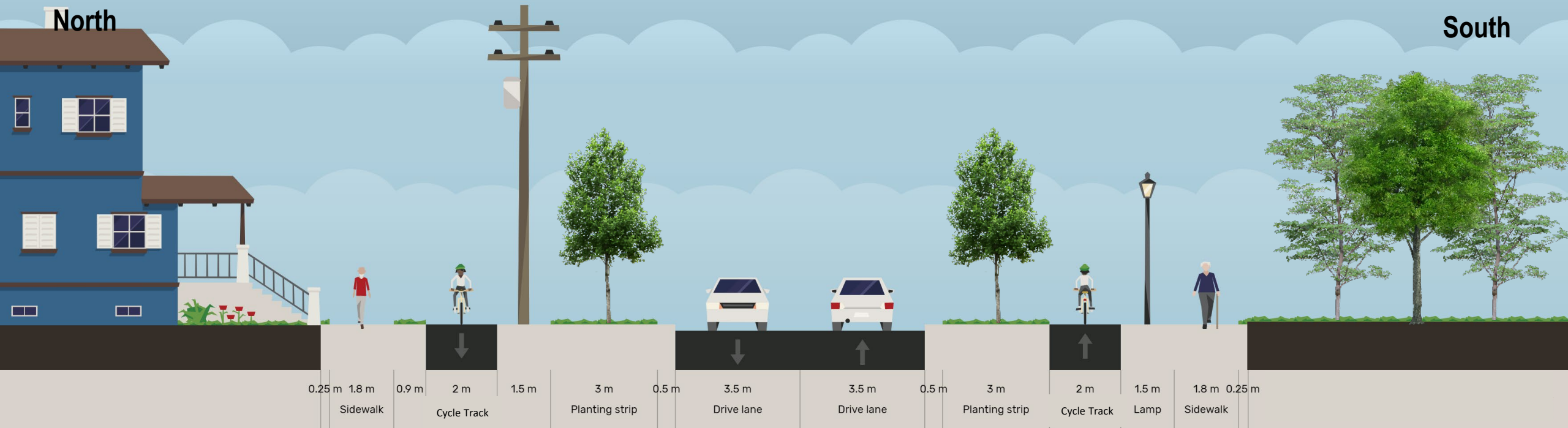
South



Segment 2 - Alternative A (26.0 m)



Segment 2 - Alternative B (26.0 m)



Active Transportation Implementation within Study Area – Segment 3

Segment	Future ROW Width	Opportunities / Constraints
Segment 3	26-36m	Urban wide typology. North side consists of wooded area with utility poles north of the shoulder. The south side consists of a mixture of vacant lands with wooded areas and a residential subdivision (Merritt Meadows) with two access roads intersecting Merritt Road at unsignalized three-way intersections.

Conflict Zones

- High-speed, high-volume traffic off-ramp from Highway 406 southbound to Merritt Road westbound on the north side
- Preferable to have all active transportation on south side

North

South



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Associated Municipality: City of Welland and City of Thorold

Segment 3 - Alternative A (36.0 m)

North

South



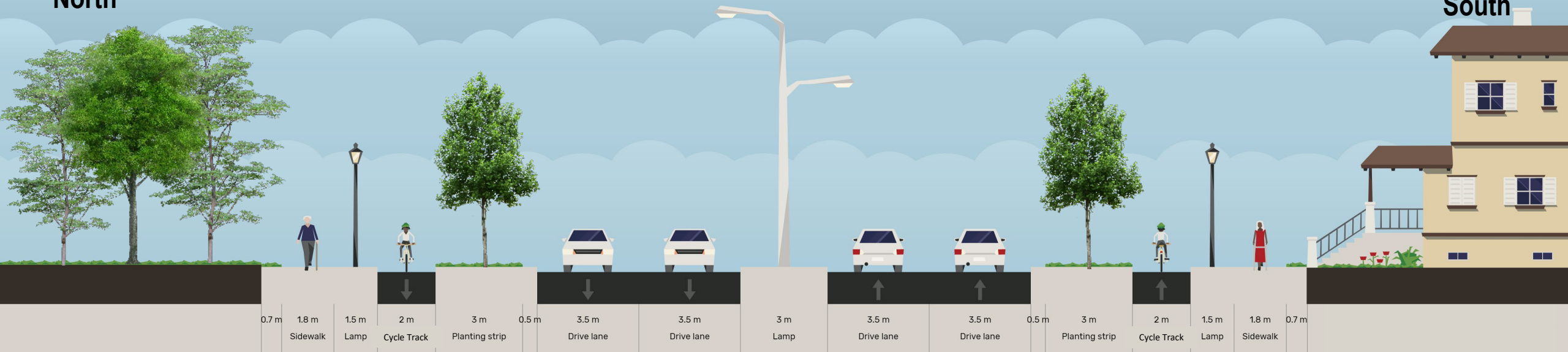
Note: Cycle track would end at Grisdale Road

Associated Municipality: City of Welland and City of Thorold

Segment 3 - Alternative B (36.0 m)

North

South



Associated Municipality: City of Welland and City of Thorold

Segment 3 - Alternative C (36.0 m)

North

South



Active Transportation Implementation within Study Area – Segment 4

Segment	Future ROW Width	Opportunities / Constraints
Segment 4	26-36m	Urban wide typology Lands on the east and west side of the roadway are a mixture of residential development (Rosewood Crescent subdivision), some residential homes directly fronting onto Rice Road and some vacant lands.

Conflict Zones

- Minimal conflicts – small number of residential driveways on east side
- Preferable to have cycle track on west side

West

East



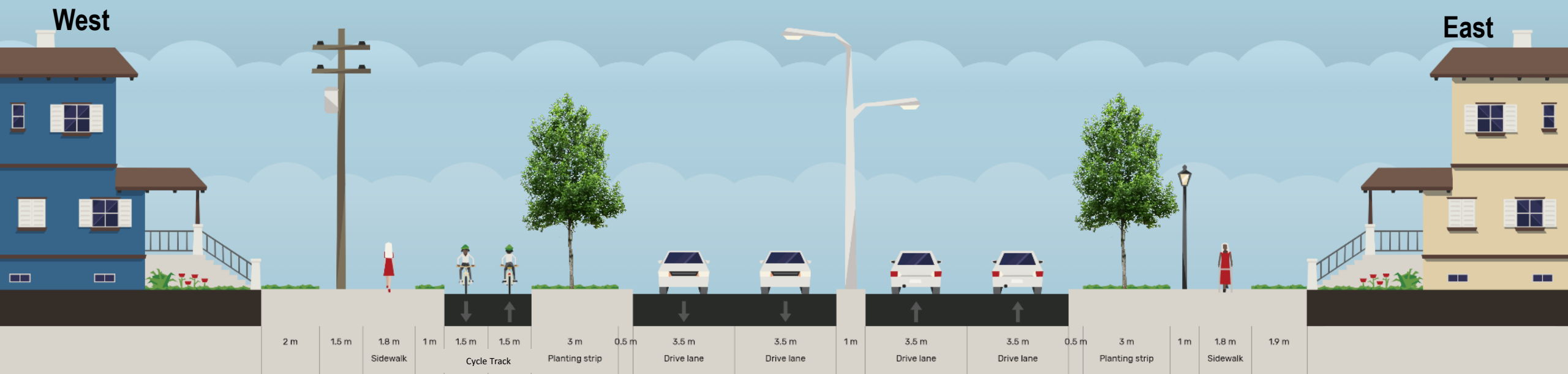
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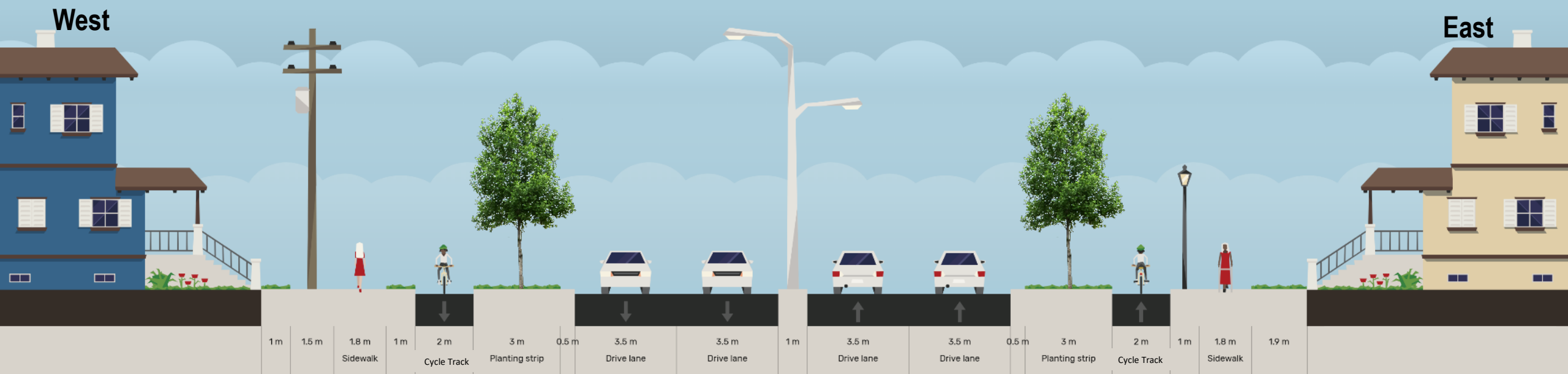
Associated Municipality: City of Welland and Town of Pelham

Segment 4 - Alternative A (36.0 m)



Associated Municipality: City of Welland and Town of Pelham

Segment 4 - Alternative B (36.0 m)



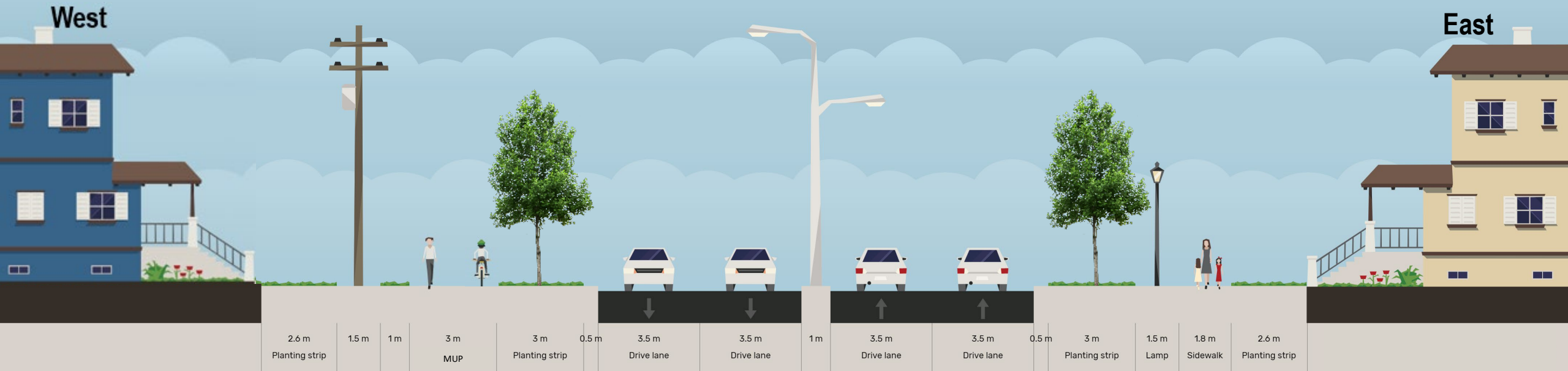
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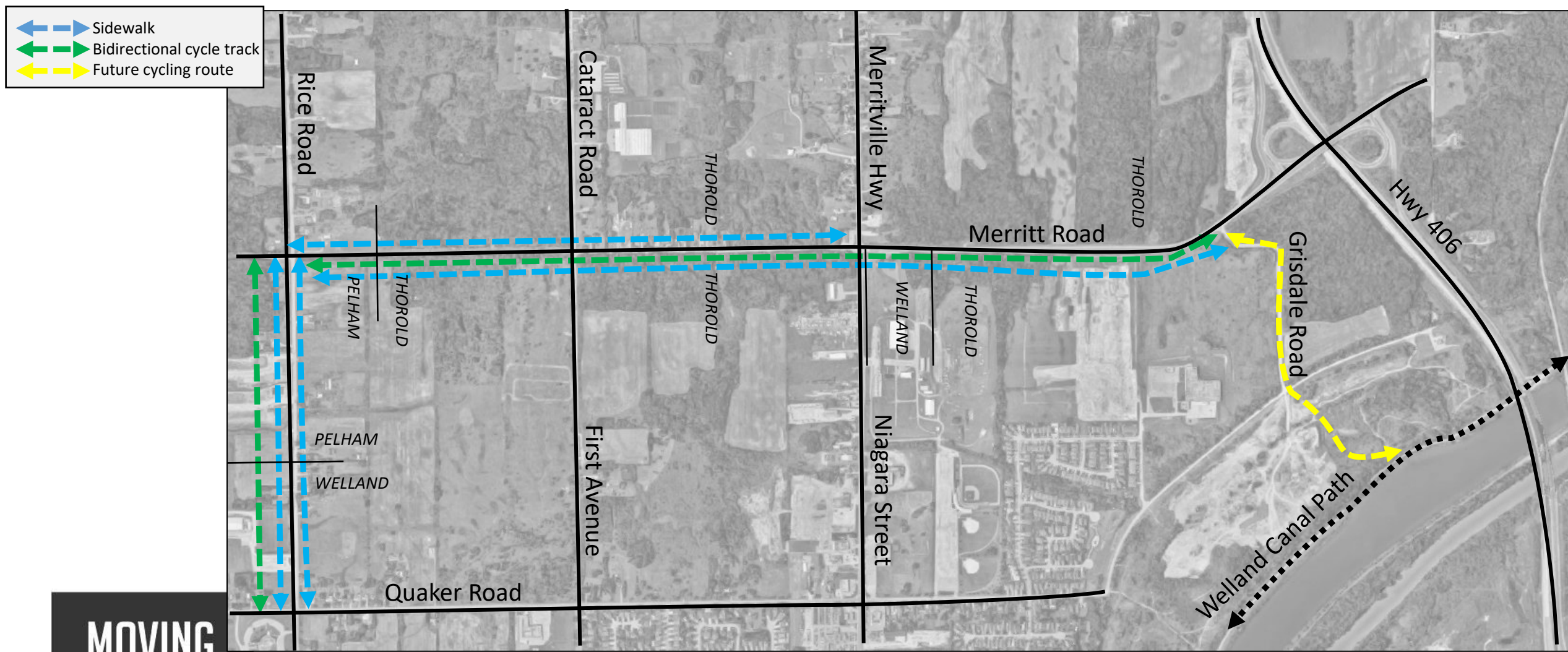
Niagara  Region

Associated Municipality: City of Welland and Town of Pelham

Segment 4 - Alternative C (36.0 m)



Possible Future Active Transportation Network





Questions?

Your feedback will be important to us. Your comments will be reviewed and considered, as the Study progresses. To submit questions/comments/suggestions, please contact one of the following Study Team Members:

Maged Elmadhoon, M.Eng., P.Eng.
Manager, Transportation Planning
Niagara Region
1815 Sir Isaac Brock Way,
Thorold, ON L2V 4Y6
Phone: 905-980-6000 (E. 3583)
Email: Maged.Elmadhoon@niagararegion.ca

Jeff Suggett, M. Sc.
Consultant Project Manager
Wood Environment & Infrastructure Solutions
3450 Harvester Road, Suite 100,
Burlington, ON L7N 3W5
Phone: 905-380-3601
Email: Jeff.Suggett@woodplc.com

Please copy: Mir Talpur, Environmental Planner Mir.Talpur@woodplc.com

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wood.

woodplc.com

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Schedule 'C' Municipal Class Environmental Assessment for Merritt Road (Regional Road 37) and Rice Road (Regional Road 54) in the Town of Pelham, the City of Thorold and the City of Welland

APPENDIX

L-6 Agency/Stakeholder Committee Meeting #6



Meeting Minutes

Date: Friday, November 19, 2021, 1:30 PM

Meeting at: Microsoft Teams

File No.: IM20103036

Subject/purpose: Merritt Road/Rice Road MCEA – Agency/Stakeholder Meeting #6

Attendees:

Maged Elmadhoon, Niagara Region

Jeff Suggett, Wood

Mir Ahsan Talpur, Wood

Muhammad Khan, Wood

James Milton, Wood

***Additional attendees provided in the
List of Attendees provided at the end

Items Discussed:

1. Purpose of Meeting

This meeting was in regards to the Municipal Class Environmental Assessment (Class EA) for improvements to Merritt Road and Rice Road in the Town of Pelham, City of Thorold and City of Welland. The purpose of the meeting was to share the preliminary preferred design and obtain input from the stakeholder group consisting of Niagara Region staff and local area municipalities (Town of Pelham, City of Thorold and City of Welland) the Ministry of Transportation and utility companies.

2. Introductions

Introductions were made. A list of attendees from the Niagara Region, Town of Pelham, City of Thorold, Ministry of Transportation, Hydro One and Cogeco is attached at the end of these meeting minutes.

3. Preliminary Preferred Design

Preliminary preferred design includes the following:

Segment 1: Merritt Rd (Rice Rd to Cataract Rd)

- New roadway
- Two 3.3 m drive lanes with curbs
- A 3.6 m separated two-way cycle track on the north side
- 1.8 m sidewalk on the north side
- Hybrid cross section (curb and gutter with ditches)

Continued...

Segment 2: Merritt Rd (Cataract Rd to Merrittville Hwy/Niagara St)

- Two 3.3 m drive lanes with curbs
- A 3.6 m separated two-way cycle track and a 1.8 m sidewalk on the north side

Hybrid cross section (curb and gutter with ditches)

Segment 3: Merritt Rd (Merrittville Hwy/Niagara St to Hwy 406)

- Four 3.3 m drive lanes separated by a 2.5 m median
- 1.8 m sidewalk on the south side
- A 3.6 m separated two-way cycle track on the south side
- Urban cross section (storm sewer)

Segment 4: Rice Road (200 m north of Merritt Road to Quaker Road)

- Four 3.3 m drive lanes with a 2.5 m median or 3.3 m two-way left turn lane in centre
- 1.8 m sidewalks on both sides
- A 3.0 m separated two-way cycle track on the west side
- Hybrid cross section (curb and gutter with ditches)

It was noted that the traffic signals are being proposed at the intersections of Quaker Road and Rice Road, Merritt Road and Rice Road and Merritt Road and Cataract Road. The right turn channel at the intersection of Merritt Road and Merrittville Highway/Niagara Street will be removed.

4. Open Discussion

Following bullets summarize key points of discussion:

Segment 1:

- Sean Dunsmore (City of Thorold): When do you expect to transfer of the ownership from the city to the Niagara Region?
Response: It will be the recommendation in the Environmental Study Report (ESR) to transfer the ownership to the Niagara Region. Once the ESR is issued, the Niagara Region and the Town of Pelham will go through an agreement to transfer the ownership to the Region.
- Livia McEachern (Welland): Why is the cycle track and sidewalk are being proposed to the north side in Segment 2? That would create conflict with the residents entering and exiting the houses.
Response: The cycle track and sidewalk are being proposed to the north side in Segment 2 to provide direct access to residences. Providing active transportation to the south side may cause conflicts with potential future development to the south side.

Continued...

- Jackie Gervais (Niagara Region): The lighting is being proposed over the roadway. It is important that the lighting should also cover the areas of cycle track and sidewalk to allow users to make facial recognition of other users at night time. The depth of ditches should consider drowning hazard associated with flooding.
- **Response:** The ditches will be shallow (approximately 1-1.5 m deep).
- Jackie Gervais (Niagara Region): Will the proposed design accommodate water underground? There are a number of schools there, and the area gets flooded. It would be ideal to reduce the depth of water to reduce drowning hazard.
Response: The flooding issue is usually observed along Cataract Road. The ditches will drain the water and not hold it, as such the risk of drowning hazard is not anticipated.

Segment 3:

- The Niagara Region and Wood will host a separate meeting with the Ministry of Transportation regarding the design over the Highway 406. Kashif Hussain (Ministry of Transportation) noted that the proposed design/works within the MTO ROW will have to be provided to MTO for review and endorsement by the senior staff. The roll plan being presented to the public will only show details up to Grisdale Road.
- Phill Lambert: Was there a traffic analysis completed for the Eastman Gateway intersection to determine need for a traffic signal?
- **Response:** Traffic impact completed for the subdivision on the south side of Merritt Road identified that a traffic signal is not required at that intersection. The need for the traffic signal would be further reviewed during detailed design.
- Sean: Did the Study Team consider previously completed traffic studies that were completed as part of the Port Robinson Secondary Plan?
- **Response:** Development associated with the Port Robinson Secondary Plan was considered in the Region's traffic model for the study area and applied as a growth factor to traffic on Merritt Road (necessitating the need for four lanes). The need for a traffic signal will be determined during detailed design (as per above).

Segment 4:

- Rachele Larocque (City of Welland) noted that development will be occurring as part of the Northwest Welland Secondary Plan on the grounds of the former soccer field. She expressed concern over the median on Rice Road resulting in a new intersection to that development becoming right-in right-out. Development will occur in the next 5 – 10 years.
- **Response:** The Region wishes to implement a median wherever feasible to limit access. However, this issue could be revisited in detailed design.

Continued...

- It was discussed that active transportation facilities at the intersections should only be provided on the two legs of an intersection, and not on all four sides. This could be considered during detailed design.

General:

- It was noted that the project will be implemented in phases. Phasing and construction strategy will be discussed in the Environmental Study Report.
- It was noted that the design will be shared with the Region's Urban Design group for review and comment.
- Stakeholders were encouraged to provide any input on the presentation (slidedeck) and the roll plan provided
- A link to a copy of the slidedeck and the roll plan have been attached to these minutes.

List of Attendees

Staff Name	Role
Niagara Region	
Maged Elmadhoon	Manager, Transportation Planning
Sulaf Alkarawi	Associate Director, Transportation Planning
Phill Lambert	Director, Infrastructure Planning and Development Engineering
Cara Lampman	Manager, Environmental Planning
Julia van der Laan de Vries	Urban Designer
Craig Mustard	Real Estate Officer
Richard Gabel	Senior Project Manager, Water and Wastewater Engineering
Brittany Lauzon	Transportation Contract Administrator
Jackie Gervais	Health Promoter
Waad Siyam	Transportation Planner
Hamed Esmaeeli	Project Manager, Transportation Planning
Johnpaul Loiacono	Development Planner
Frank Tassone	Associate Director, Transportation Engineering at Niagara Region
Amy Shanks	Development Planner
Town of Pelham	
Jason Marr	Director of Public Works
City of Thorold	
Sean Dunsmore	Manager of Engineering

Continued...

Staff Name	Role
City of Welland	
Rachelle Larocque	Interim Manager of Planning
Livia McEachern	Manager
Ontario Ministry of Transportation	
Kashif Hussain	Project Engineer
Jordan Lee	Environmental Planner
Hydro One Networks Inc.	
Ray Nepomuceno	Sr. Real Estate Coordinator
Cogeco	
Derek Black	Network Planning Department

Schedule 'C' Municipal Class Environmental Assessment for Merritt Road (Regional Road 37) and Rice Road (Regional Road 54) in the Town of Pelham, the City of Thorold and the City of Welland

APPENDIX

L-7 *Transport Canada*

Talpur, Mir

From: EnviroOnt <EnviroOnt@tc.gc.ca>
Sent: Wednesday, February 3, 2021 7:13 PM
To: Shams, Anika
Cc: Elmadhoon, Maged; Alkarawi, Sulaf; McGill, John; Suggett, Jeff; Talpur, Mir
Subject: Transport Canada response: EA for Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road) - Notice of Study Commencement
Attachments: IM20103036_Merritt-Rice_Niagara_NOC_FINAL_AODA Compliant.pdf

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Greetings,

Thank you for your correspondence.

Please note Transport Canada **does not** require receipt of all individual or Class EA related notifications. We are requesting project proponents self-assess if their project:

1. Will interact with a federal property and/or waterway by reviewing the Directory of Federal Real Property, available at www.tbs-sct.gc.ca/dfrp-rbif/; and
2. Will require approval and/or authorization under any Acts administered by Transport Canada* available at <http://www.tc.gc.ca/eng/acts-regulations/menu.htm>.

Projects that will occur on federal property prior to exercising a power, performing a function or duty in relation to that project, will be subject to a determination of the likelihood of significant adverse environmental effects, per Section 82 of the *Impact Assessment Act, 2019*.

If the aforementioned does not apply, the Environmental Assessment program should not be included in any further correspondence and future notifications will not receive a response. If there is a role under the program, correspondence should be forwarded *electronically* to: EnviroOnt@tc.gc.ca with a **brief description of Transport Canada's expected role**.

*Below is a summary of the most common Acts that have applied to projects in an Environmental Assessment context:

- **Canadian Navigable Waters Act (CNWA)** – the Act applies primarily to works constructed or placed in, on, over, under, through, or across navigable waters set out under the Act. The Navigation Protection Program administers the CNWA through the review and authorization of works affecting navigable waters. Information about the Program, CNWA and approval process is available at: <http://www.tc.gc.ca/eng/programs-621.html>. Enquiries can be directed to NPPONT-PPNONT@tc.gc.ca or by calling (519) 383-1863.
- **Railway Safety Act (RSA)** – the Act provides the regulatory framework for railway safety, security, and some of the environmental impacts of railway operations in Canada. The Rail Safety Program develops and enforces regulations, rules, standards and procedures governing safe railway operations. Additional information about the Program is available at: <https://www.tc.gc.ca/eng/railsafety/menu.htm>. Enquiries can be directed to RailSafety@tc.gc.ca or by calling (613) 998-2985.
- **Transportation of Dangerous Goods Act (TDGA)** – the transportation of dangerous goods by air, marine, rail and road is regulated under the TDGA. Transport Canada, based on risks, develops safety standards and regulations, provides oversight and gives expert advice on dangerous goods to promote public safety. Additional information

about the transportation of dangerous goods is available at: <https://www.tc.gc.ca/eng/tdg/safety-menu.htm>. Enquiries can be directed to TDG-TMDOntario@tc.gc.ca or by calling (416) 973-1868.

- **Aeronautics Act** – Transport Canada has sole jurisdiction over aeronautics, which includes aerodromes and all related buildings or services used for aviation purposes. Aviation safety in Canada is regulated under this Act and the Canadian Aviation Regulations (CARs). Elevated Structures, such as wind turbines and communication towers, would be examples of projects that must be assessed for lighting and marking requirements in accordance with the CARs. Transport Canada also has an interest in projects that have the potential to cause interference between wildlife and aviation activities. One example would be waste facilities, which may attract birds into commercial and recreational flight paths. The *Land Use In The Vicinity of Aerodromes* publication recommends guidelines for and uses in the vicinity of aerodromes, available at: <https://www.tc.gc.ca/eng/civilaviation/publications/tp1247-menu-1418.htm>. Enquires can be directed to tc.aviationservicesont-servicesaviationont.tc@tc.gc.ca or by calling 1 (800) 305-2059 / (416) 952-0230.

Please advise if additional information is needed.

Thank you,

Environmental Assessment Program, Ontario Region

Transport Canada / Government of Canada / 4900 Yonge St., Toronto, ON M2N 6A5

EnviroOnt@tc.gc.ca / Facsimile : (416) 952-0514 / TTY: 1-888-675-6863

Programme d'évaluation environnementale, Région de l'Ontario

Transports Canada / Gouvernement du Canada / 4900, rue Yonge, Toronto, ON, M2N 6A5

EnviroOnt@tc.gc.ca / télécopieur: (416) 952-0514

From: Shams, Anika [mailto:anika.shams@woodplc.com]

Sent: Thursday, January 07, 2021 4:12 PM

Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>; McGill, John <john.mcgill@woodplc.com>; Suggett, Jeff <jeff.suggett@woodplc.com>; Talpur, Mir <mir.talpur@woodplc.com>

Subject: EA for Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road) - Notice of Study Commencement

Good afternoon,

Niagara Region has initiated a Municipal Class Environmental Assessment Schedule 'C' Class EA (Class EA) to identify an implementation strategy for the transportation infrastructure requirements for Merritt Road and Rice Road. The EA study aims to reimagine the two roadways to meet the future needs of the surrounding community for all road users. The study will address active transportation needs by providing dedicated pedestrian and cyclist infrastructure that is safe, attractive, and conform to a complete streets approach.

Please find attached Notice of Commencement for the Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road) Class EA. Project information and future updates can be found on the Region's website:

<https://niagararegion.ca/projects/regional-road-37/default.aspx>

If you have any questions, please contact either the Niagara Region's Project Manager (Maged Elmadhoon, 905-980-6000 ext. 3583, Maged.Elmadhoon@niagararegion.ca) or the Consultant Project Manager (Jeff Suggett, 905-380-3601, jeff.suggett@woodplc.com).

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Schedule 'C' Municipal Class Environmental Assessment for Merritt Road (Regional Road 37) and Rice Road (Regional Road 54) in the Town of Pelham, the City of Thorold and the City of Welland

APPENDIX

L-8

***Ministry of the Environment, Conservation
and Parks***

Talpur, Mir

From: Slattery, Barbara (MECP) <barbara.slattery@ontario.ca>
Sent: Monday, January 4, 2021 3:23 PM
To: Shams, Anika
Cc: Elmadhoon, Maged; McGill, John; Suggett, Jeff; Talpur, Mir
Subject: RE: Niagara Region, MEA Class EA, Merritt Road and Rice Road EA, Schedule 'C' Municipal Class Environmental Assessment for Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road), in the Town of Pelham, City of Thorold and City of Welland

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Good afternoon, and Happy New Year to you all.

The First Nations Communities that we identify for projects being undertaken within the Region of Niagara are:

- Six Nations of the Grand River
- Haudenosaunee Confederacy Chiefs Council
- Mississaugas of the Credit First Nation

A formal acknowledgement letter including information relevant to this project will be sent to you this week.

Best regards,

Barb Slattery, EA/Planning Coordinator
Ministry of the Environment, Conservation and Parks
Project Review Unit, Environmental Assessment Branch
(365) 366-8185

We want to hear from you. How was my service? You can provide feedback at 1-888-745-8888.

From: Shams, Anika <anika.shams@woodplc.com>
Sent: January 04, 2021 3:17 PM
To: EA Notices to WCRegion (MECP) <eanotification.wcregion@ontario.ca>
Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; McGill, John <john.mcgill@woodplc.com>; Suggett, Jeff <jeff.suggett@woodplc.com>; Talpur, Mir <mir.talpur@woodplc.com>; Slattery, Barbara (MECP) <barbara.slattery@ontario.ca>
Subject: Niagara Region, MEA Class EA, Merritt Road and Rice Road EA, Schedule 'C' Municipal Class Environmental

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Good afternoon,

Niagara Region has initiated a Municipal Class Environmental Assessment (Class EA) study for improvements to Merritt Road and Rice Road as a result of proposed developments in the Town of Pelham, the City of Thorold and the City of Welland. The study is being conducted in accordance with the requirements for a Schedule 'C' project as outlined in the Municipal Engineers Association's (MEA) Municipal Class Environmental Assessment (October 2000, as amended in 2015) document. This study will address Phases 1 – 4 of the Class EA process.

Please find attached the Notice of Commencement and Project Information Form for this Project. This notice is being provided to MECP West Central Region to identify Indigenous Communities that should be consulted for this project. Please advise at your earliest convenience.

If you have any questions, please contact either Niagara Region's Project Manager (Maged Elmadhoon, 905-980-6000 ext. 3583, Maged.Elmadhoon@niagararegion.ca) or the Consultant Project Manager Jeff Suggett, 905-380-3601, Jeff.Suggett@woodplc.com).

Regards,
Aniqa

Aniqa Shams, B.E.S. RPP, MCIP
Environmental Planner
2020 Winston Park Drive, Suite #600
Oakville, Ontario, Canada, L6H 6X7
Office: +1 (905) 568-2929 ext. 4149
Mobile: (416) 357-2093
www.woodplc.com



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Talpur, Mir

From: Suggett, Jeff
Sent: Tuesday, January 5, 2021 11:23 AM
To: Shams, Anika
Cc: Talpur, Mir
Subject: FW: Niagara Region, MEA Class EA, Merritt Road and Rice Road EA, Schedule 'C' Municipal Class Environmental Assessment for Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road), in the Town of Pelham, City of Thorold and City of Welland
Attachments: RMON Merritt and Rice Road Improvements EA Acknowledgement Letter.docx; A Proponent's Introduction to the Delegated Aspects of Consultation with....pdf; Client Guide to Preliminary Screening-May 2019.pdf; Notice of Completion Wording 08-28.docx; MOECC Guide - Climate Change in EA - Rev 0 - Oct 2017.pdf

Anika,

Not sure why Barbara didn't include you in this email.....

--Jeff

From: Slattery, Barbara (MECP) <barbara.slattery@ontario.ca>
Sent: Tuesday, January 5, 2021 11:06 AM
To: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; McGill, John <john.mcgill@woodplc.com>; Suggett, Jeff <jeff.suggett@woodplc.com>; Talpur, Mir <mir.talpur@woodplc.com>
Subject: RE: Niagara Region, MEA Class EA, Merritt Road and Rice Road EA, Schedule 'C' Municipal Class Environmental Assessment for Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road), in the Town of Pelham, City of Thorold and City of Welland

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With best regards to all,

Barb Slattery, EA/Planning Coordinator
Ministry of the Environment, Conservation and Parks
Project Review Unit, Environmental Assessment Branch
(365) 366-8185

We want to hear from you. How was my service? You can provide feedback at 1-888-745-8888.

From: Shams, Anika <anika.shams@woodplc.com>
Sent: January 04, 2021 3:17 PM
To: EA Notices to WCRegion (MECP) <eanotification.wcregion@ontario.ca>
Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; McGill, John <john.mcgill@woodplc.com>; Suggett, Jeff <jeff.suggett@woodplc.com>; Talpur, Mir <mir.talpur@woodplc.com>; Slattery, Barbara (MECP) <barbara.slattery@ontario.ca>
Subject: Niagara Region, MEA Class EA, Merritt Road and Rice Road EA, Schedule 'C' Municipal Class Environmental

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Good afternoon,

Niagara Region has initiated a Municipal Class Environmental Assessment (Class EA) study for improvements to Merritt Road and Rice Road as a result of proposed developments in the Town of Pelham, the City of Thorold and the City of Welland. The study is being conducted in accordance with the requirements for a Schedule 'C' project as outlined in the Municipal Engineers Association's (MEA) Municipal Class Environmental Assessment (October 2000, as amended in 2015) document. This study will address Phases 1 – 4 of the Class EA process.

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If you have any questions, please contact either Niagara Region's Project Manager (Maged Elmadhoon, 905-980-6000 ext. 3583, Maged.Elmadhoon@niagararegion.ca) or the Consultant Project Manager Jeff Suggett, 905-380-3601, Jeff.Suggett@woodplc.com).

Regards,
Aniqa

Aniqa Shams, B.E.S. RPP, MCIP
Environmental Planner
2020 Winston Park Drive, Suite #600
Oakville, Ontario, Canada, L6H 6X7
Office: +1 (905) 568-2929 ext. 4149
Mobile: (416) 357-2093
www.woodplc.com



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**Ministry of the Environment,
Conservation and Parks**

**Ministère de l'Environnement,
de la Protection de la nature
et des Parcs**

Environmental Assessment Branch

Direction des évaluations
environnementales

1st Floor

135 St. Clair Avenue W
Toronto ON M4V 1P5

Tel.: 416 314-8001

Fax.: 416 314-8452

Rez-de-chaussée

135, avenue St. Clair Ouest
Toronto ON M4V 1P5

Tél. : 416 314-8001

Télec. : 416 314-8452

365-366-8185

Via email only

January 5, 2021

Maged Elmadhoon, M.Eng., P.Eng.
Manager, Transportation Planning
Niagara Region

Jeff Suggett, M. Sc.
Consultant Project Manager
Wood Environment & Infrastructure
Solutions

**Re: Region of Niagara: Merritt and Rice Road Improvements
 MEA Class EA – Schedule "C " Undertaking
 Response to Notice of Commencement**

This letter is in response to the Notice of Commencement for the above noted project. The Ministry of the Environment, Conservation and Parks (MECP) acknowledges that the Region of Niagara has initiated an EA process that will follow the requirements for Schedule "C" projects as it assesses improvement options for the two roadways to meet the future needs for all road users.

It is expected that the EA, will consider the following in the identification and evaluation of improvement options:

- How each alternative will address climate change adaptation and mitigation which includes resiliency to more severe storm events and the manner in which surface run-off will be addressed. A document is included with this correspondence to provide guidance in this regard; and
- Is this an area that has been assessed for the presence of any Species at Risk and their habitats? If so, is there any potential for proposed improvements to have an adverse effect that would require mitigation measures? You are encouraged to contact the ministry's Species At Risk unit at SARSOntario@ontario.ca with detailed locational information and a complete project description to obtain direction as to what needs to be done at the EA stage to facilitate the issuance of any authorizations

or permits that might be required when the project is being implemented. A guidance document has also been included to assist with this.

The Crown has a legal duty to consult Aboriginal communities when it has knowledge, real or constructive, of the existence or potential existence of an Aboriginal or treaty right and contemplates conduct that may adversely impact that right. Before authorizing this project, the Crown must ensure that its duty to consult has been fulfilled where such a duty is triggered. Although the duty to consult with Aboriginal peoples is a duty of the Crown, the Crown may delegate procedural aspects of this duty to project proponents while retaining oversight of the consultation process.

Your proposed project may have the potential to affect Aboriginal or treaty rights protected under Section 35 of Canada's *Constitution Act* 1982. Where the Crown's duty to consult is triggered in relation to your proposed project, **the MECP is delegating the procedural aspects of rights-based consultation to you through this letter.** The Crown intends to rely on the delegated consultation process in discharging its duty to consult and maintains the right to participate in the consultation process as it sees fit.

Based on information you have provided to date and the Crown's preliminary assessment you are required to consult with the following communities who have been identified as potentially affected by your proposed project:

- Mississaugas of the Credit First Nation
- Six Nations of the Grand River (Both Six Nations Elected Council and Haudenosaunee Confederacy Chiefs Council)

Steps that you may need to take in relation to Aboriginal consultation for your proposed project are outlined in the "Code of Practice for Consultation in Ontario's Environmental Assessment Process" which can be found at the following link:

<https://www.ontario.ca/document/consultation-ontarios-environmental-assessment-process>

Additional information related to Ontario's Environmental Assessment Act is available online at: www.ontario.ca/environmentalassessments

You must contact the Director of Environmental Approvals Branch under the following circumstances subsequent to initial discussions with the communities identified by MECP:

- Aboriginal or treaty rights impacts are identified to you by the communities
- You have reason to believe that your proposed project may adversely affect an Aboriginal or treaty right
- Consultation has reached an impasse
- A Part II Order request is expected

The Director of the Environmental Approvals Branch can be notified either by email with the subject line "Potential Duty to Consult" to EAASIBGen@ontario.ca or by mail or fax at the address provided below:

Email:	EAASIBGen@ontario.ca Subject: Potential Duty to Consult
Fax:	416-314-8452
Address:	Environmental Approvals Branch 135 St. Clair Avenue West, 1 st Floor Toronto, ON, M4V 1P5

The MECP will then assess the extent of any Crown duty to consult for the circumstances and will consider whether additional steps should be taken, including what role you will be asked to play in them.

Royal Assent to Bill 197 was given on July 22, 2020 changing certain aspects of the provincial environmental assessment process. Proponents are still required to prepare and issue a Notice of Completion providing at least 30 days during which documentation may be reviewed and comment and input submitted to the Proponent.

Now however, the Notice of Completion will advise that outstanding concerns are to be directed to the Proponent for a response, and that in the event the outstanding concerns relate to **potential adverse impacts to constitutionally protected Aboriginal and treaty rights**, Part II Order requests on those matters (only) should be addressed in writing to:

Minister Jeff Yurek
Ministry of Environment, Conservation and Parks
777 Bay Street, 5th Floor
Toronto ON M7A 2J3
minister.mecp@ontario.ca

and

Director, Environmental Assessment Branch
Ministry of Environment, Conservation and Parks
135 St. Clair Ave. W, 1st Floor
Toronto ON, M4V 1P5
ClassEAnotices@ontario.ca

Please note that you cannot proceed with the project until at least 30 days after the end of the comment period provided for in the Notice of Completion.

You may not proceed after this time if:

- a Part II Order request has been submitted to the ministry regarding **potential adverse impacts to constitutionally protected Aboriginal and treaty rights**, or
- the Director has issued a Notice of Proposed order regarding the project.

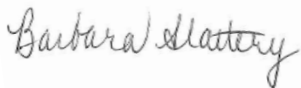
If other concerns with the ESR and/or EA process are made known to the minister, or determined following a review of the document, the Minister reserves the right to issue an order on his or her own initiative within a specified time period. Within the 30 days following the Notice of Completion, the Director would first issue a Notice of Proposed Order to you if the Minister is considering an order for the project. At that time, the Director may request additional information from you.

Once the requested information has been received, the Minister will have 30 days within which to make a decision or impose conditions on your project.

Please note that our procedure now includes a review of all Schedule "C" ESRs such as this. Accordingly, please plan on providing the ministry with a draft ESR in an electronic format with a minimum 30-day review period and incorporate this into your project timeline. Ministry staff assigned to this file will be happy to discuss this with you further when you are at a point of nearing completion of a draft document for agency review. I have also attached template wording for the Notice of Completion that describes the new process.

Should you have questions or wish to discuss these comments, please contact me at Barbara.slattery@ontario.ca or by calling me at (365) 366-8185.

With regards,

A handwritten signature in cursive script that reads "Barbara Slattery".

EA/Planning Coordinator

Encl.



Meeting Minutes

Date: Tuesday, November 16, 2021, 9:00 AM **Meeting at:** Microsoft Teams

File No.: IM20103036

Subject/purpose: Merritt Road/Rice Road MCEA – Meeting with the Ministry of the Environment, Conservation and Parks

Attendees:

Maged Elmadhoon, Niagara Region
Cara Lampman, Niagara Region
Amy Shanks, Niagara Region
Adam Boudens, Niagara Region
Joan Del Villar Cuicas, MECP

Brianne Brothers, MECP
Jeff Suggett, Wood
Mir Ahsan Talpur, Wood
Samantha Hughes, Wood
Todd Hagedorn, Wood

Items Discussed:

1. Purpose of Meeting

This meeting was in regards to the Municipal Class Environmental Assessment (Class EA) for improvements to Merritt Road and Rice Road in the Town of Pelham, City of Thorold and City of Welland. The purpose of the meeting was to share the preliminary findings of the natural environment fieldwork with the Ministry of the Environment, Conservation and Parks (MECP), and receive input on the next steps related to impacts on the species at risk and their habitat.

2. Project Overview

Niagara Region is undertaking a Municipal Class EA Study for improvements to Merritt Road and Rice Road as a result of proposed developments in Pelham, Thorold and Welland. This study is building on the recommendations of the Niagara Region's Transportation Master Plan, which included the following:

- Extension of Merritt Road between Rice Road (Regional Road 54) and Cataract Road;
- Capacity improvements of Merritt Road from Cataract Road to Highway 406; and
- Capacity improvements to Rice Road (Regional Road 54) from 200 meters north of Merritt Road to Quaker Road.

Continued...

The traffic assessment completed as part of this Class EA Study confirmed the findings of the Transportation Master Plan (2017) regarding the need for improvements to address anticipated congestion in the future (2031 and 2041 horizon years).

The Preferred Solution presented at the Public Information Centre #2 includes:

- Extension of Merritt Road between Rice Road and Cataract Road;
- Improvements to Merritt Road between Cataract Road and Highway 406;
- Improvements to Rice Road between 200m north of Merritt Road and Quaker Road; and
- Localized intersection improvements, and provision of active transportation facilities.

The Study Team has now identified a preliminary preferred design, which will be presented to the public at the Public Information Centre #3 in early December 2021. In short summary, the preliminary preferred design includes the following:

- Segment 1: A new road with a 25.1 m road ROW;
- Segment 2: Widening of road ROW from 20.4 m to 26.0 m towards south side;
- Segment 3: No widening of road ROW. Alignment shift to the north; and
- Segment 4: Widening of road ROW to 35.2 m.

Detailed evaluation of alternatives memo and species at risk mapping was shared with the Ministry of the Environment, Conservation and Parks prior to the meeting.

3. Preliminary Results of Natural Environment Fieldwork:

Field investigations completed to date include:

- Three amphibian call surveys;
- Two breeding bird surveys;
- Three season vegetation surveys; and
- Targeted species at risk surveys.

Indigenous Nations were invited to participate in the monitoring of the natural environment fieldwork.

Preliminary results of field investigations are provided below:

Vegetation Communities/ELC (preliminary findings):

- Meadows;
- Silver Maple Mineral Deciduous swamp type;
- Dry-fresh sugar maple - oak- with wetlands and pools inclusions throughout;
- Roadside/ edge communities; and
- Marsh- interspersed with treed swamp area and variable.

Continued...

Species at Risk:

- Barn Swallow (Threatened);
- Round-leaved Greenbrier (Threatened);
- White wood Aster (Threatened); and
- Eastern Flowering Dogwood (Endangered).

Special concern and S1-S3 Ranked species:

- Wood Thrush;
- Eastern wood-pewee;
- Black Gum (S3); and
- Schreber's Aster (S2).

Locally Rare species:

Slender-leaved False Foxglove (*Agalinis Tenuifolia*)

Preliminary figures were shared on the screen, showing locations of:

- General study area and Project Location;
- ELC;
- Natural Heritage (including PSW);
- Location of wildlife survey locations; and
- Location of Species at Risk and Species of Conservation Concern.

4. Open Discussion

The following bullets summarize key points of discussion:

- The MECP staff does not have any specific comments at this time. An Information Gathering Form (IGF) will be required to provide further direction. Note, IGFs are typically submitted with a detailed design (to better understand impacts). To support the project advancement Wood will submit an IGF at this stage (preliminary design) to provide a formal platform for MECP comments. Following the Information Gathering Form and the determination that SAR will be impacted, the next step would be to complete an Avoidance Alternatives Form (AAF), which will outline if there are other alternatives to implement road improvements. Support to why the chosen alternative has been selected must support the rationale to impact SAR. Once the AAF is completed and it is evaluated that the selected alternative is required and SAR impacts can not be avoided an Overall Benefit Permit application would be required.
- Once the preliminary preferred design is confirmed, Wood will submit an Information Gathering Form for Ministry's review. Ministry's advice will be included in the recommended measures for the Environmental Impact Study and

Continued...

will also become a commitment in the Environmental Impact Study. Wood will also provide advice for next steps regarding engagement with the MECP in the Environmental Impact Study.

- Ministry recommended completing aquatic and bat surveys. Wood noted that aquatic field investigations were completed as part of the Class EA Study. Further, it is being assumed that the wooded area presents habitat for bats. Accordingly, mitigation measures will be informed by MECP responses on the IGF.
- The Niagara Region's environmental planning staff noted that the public is concerned about impacts on the wetlands and species at risk, and is it practical to proceed forward with the project? Wood staff noted that the process is proponent-driven. Wood also reminded the Region that the Environmental Impact Study would be a factual report noting the existing conditions and impacts. The Environmental Impact Study will have a section on mitigation and recommendations to reduce and offset impacts to the extent possible, including but not limited to animal crossings and fencing, restoration, compensation, and transplantation. The Environmental Impact Study would then provide the Niagara Region with the information to assist in decision making whether it is appropriate to proceed with the project.
- Wood will share the Environmental Impact Study with the Ministry for review and comment. Ministry does not provide sign-off on the Environmental Impact Studies, however, the Ministry will provide comments.
- The Niagara Region's environmental planning noted that the Niagara Region will need to understand what the cost of mitigation measures will be. That will help the Niagara Region to determine whether to proceed with the project.
- The MECP staff recommended that the Indigenous Nations are appropriately engaged as part of the Class EA process, to ensure their concerns are addressed. Indigenous Consultation is very critical for the Class EA process. Wood shared that the Indigenous Consultation for this Class EA Study have included the following:
 - Sharing of Study Notices and Project Summary with the Indigenous Nations;
 - Sharing of draft Stage 1 Archaeological Assessment Report and Cultural Heritage Assessment Report for review and comments; and,
 - Invitation to participate in the natural environment fieldwork.

Talpur, Mir

From: Hughes, Samantha <samantha.hughes@wsp.com>
Sent: Monday, November 14, 2022 10:57 AM
To: Del Villar Cuicas, Joan (MECP); sarontario@ontario.ca
Cc: Talpur, Mir
Subject: RE: Municipal Class EA-Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road)
Attachments: Merritt Road_IGF_Rev2_submission.pdf

Thanks Joan.

To all, please see the attached and the below. I am forwarding the IGF for Merritt Road as requested. The plan and profile drawings can be accessed here:

- Segment 1 <https://acrobat.adobe.com/link/track?uri=urn:aaid:scds:US:06f3168d-82ff-3aee-8699-840655987291>
- Segment 2 <https://acrobat.adobe.com/link/track?uri=urn:aaid:scds:US:3a9a8afa-5a9f-3b91-b154-12bc4c65ef56>
- Segment 3 <https://acrobat.adobe.com/link/track?uri=urn:aaid:scds:US:2561c38b-facc-3976-9d02-da3aaa0c70b2>
- Segment 4 <https://acrobat.adobe.com/link/track?uri=urn:aaid:scds:US:b5c2e929-1529-3e24-972d-cc4438628c90>

The construction and timelines are presented at a high level due to the project's current stage. The project's construction will occur in phases – determined in the ESR as part of the EA. The widening of Segment 4 is not needed until 2031, so likely the first stage would be to provide active transportation along that segment, followed by the widening of Segments 2 and 3 and lastly the extension of Segment 4. This will all be a complex and multi-year/phased project, depending on approval from the Council and subject to completion of detailed design, required technical studies, acquisition of approvals and required property taking. The current design for the various segments is attached to the email as they will not fit in the IGF. Attached to the IGF are other figures to assist with the review. If the figures do not download, please let me know, and I will forward them accordingly.

To ensure all potential impacts of the project are understood, as any cumulative impacts as a result of multiple stages of construction must be considered, the IGF has been created with consideration of all four stages.

If there are any issues with the IGF, IGF attachments, or drawing links, please let me know.

Thank you,
Samantha



Samantha Hughes
Senior Biologist

From: Del Villar Cuicas, Joan (MECP) <Joan.DelVillarCuicas@ontario.ca>
Sent: Monday, 14 November, 2022 10:28 AM
To: samantha.hughes <samantha.hughes@wsp.com>
Cc: Talpur, Mir <mir.talpur@wsp.com>
Subject: RE: Municipal Class EA-Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road)

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Good morning Samantha,

Thank you for your email. Brianne Brothers is no longer with MECP. Please reach out to the SAR general email address as there have been some changes with the Niagara coverage.

Regards,

Joan Del Villar Cuicas (she/her)
Regional Environmental Planner
Project Review Unit | Environmental Assessment Branch
Ontario Ministry of the Environment, Conservation and Parks
Joan.delvillarcuicas@ontario.ca | Phone: 365-889-1180

From: Hughes, Samantha <samantha.hughes@wsp.com>
Sent: Wednesday, November 9, 2022 3:09 PM
To: Del Villar Cuicas, Joan (MECP) <Joan.DelVillarCuicas@ontario.ca>; Brothers, Brianne (MNRF) <Brianne.Brothers@ontario.ca>
Cc: Talpur, Mir <mir.talpur@wsp.com>
Subject: FW: Municipal Class EA-Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road)

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Hi Joan and Brianne,

I am not sure if you received my previous email (below). Just in case I am resending this email. If you did not get the below I will forward the drawings in a separate email but please do just let me know.

Hope all is well 😊

Thanks,
Samantha



Samantha Hughes
Senior Biologist

From: Hughes, Samantha
Sent: Wednesday, 9 November, 2022 02:56 PM
To: Del Villar Cuicas, Joan (MECP) <Joan.DelVillarCuicas@ontario.ca>; Brothers, Brianne (MECP) <Brianne.Brothers@ontario.ca>
Cc: Elmadhoon, Maged <maged.elmadhoon@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Shanks, Amy <Amy.Shanks@niagararegion.ca>; Boudens, Adam <Adam.Boudens@niagararegion.ca>; Talpur, Mir <mir.talpur@woodplc.com>
Subject: RE: Municipal Class EA-Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road)

Hello all,

It has been some time since the below-referenced meeting. As mentioned in that meeting, we have prepared an IGF for the project for MECP review and comment. I am submitting this to you (Joan and Brianne) and not the general SAROntario email, as we are hoping your previous introduction to the project will assist in the review.

As noted in the meeting, but to be restated here, the construction and timelines are presented at a high level due to the project's current stage. The project's construction will occur in phases – determined in the ESR as part of the EA. The widening of Segment 4 is not needed until 2031, so likely the first stage would be to provide active transportation along that segment, followed by the widening of Segments 2 and 3 and lastly the extension of Segment 4. This will all be a complex and multi-year/phased project, depending on approval from the Council and subject to completion of detailed design, required technical studies, acquisition of approvals and required property taking. The current design for the various segments is attached to the email as they will not fit in the IGF. Attached to the IGF are other figures to assist with the review. If the figures do not download, please let me know, and I will forward them accordingly.

To ensure all potential impacts of the project are understood, as any cumulative impacts as a result of multiple stages of construction must be considered, the IGF has been created with consideration of all four stages.

Thank you very much,
Samantha



Samantha Hughes

Senior Biologist

M+ 1 416-540-8475

WSP E&I Canada Limited
900 Maple Grove Road,
Unit 10,
Cambridge, Ontario.
N3H 4R7 Canada

wsp.com

Please be aware that, effective September 21, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP. As part of the process, our new legal name is WSP E&I Canada Limited. No other aspects of our legal entity or capabilities have changed.

From: Talpur, Mir <mir.talpur@woodplc.com>

Sent: Tuesday, 30 November, 2021 01:47 PM

To: Del Villar Cuicas, Joan (MECP) <Joan.DelVillarCuicas@ontario.ca>; Brothers, Brianne (MECP) <Brianne.Brothers@ontario.ca>

Cc: Elmadhoon, Maged <maged.elmadhoon@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Shanks, Amy <Amy.Shanks@niagararegion.ca>; Boudens, Adam <Adam.Boudens@niagararegion.ca>; Suggett, Jeff <jeff.suggett@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>; Hagedorn, Todd <todd.hagedorn@woodplc.com>

Subject: RE: Municipal Class EA-Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road)

Good afternoon,

Please find attached the minutes of the November 16 meeting held with the Ministry of the Environment, Conservation and Parks regarding the Municipal Class EA Study for improvements to Merritt Road and Rice Road. Please let me know if you have any changes.

Sincerely,

Mir

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

Mobile: +1 (647) 545 8974

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-----Original Appointment-----

From: Talpur, Mir

Sent: Wednesday, November 10, 2021 12:54 PM

To: Talpur, Mir; Del Villar Cuicas, Joan (MECP); Elmadhoon, Maged; Lampman, Cara; Suggett, Jeff; Hughes, Samantha; Hagedorn, Todd; Shanks, Amy; Boudens, Adam

Cc: Brothers, Brianne (MECP)

Subject: Municipal Class EA-Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road)

When: Tuesday, November 16, 2021 9:00 AM-10:00 AM (UTC-05:00) Eastern Time (US & Canada).

Where: Microsoft Teams Meeting

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From: Talpur, Mir

Sent: Wednesday, November 10, 2021 12:52 PM

To: 'Del Villar Cuicas, Joan (MECP)' <Joan.DelVillarCuicas@ontario.ca>

Cc: Elmadhoon, Maged <maged.elmadhoon@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Suggett, Jeff <jeff.suggett@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>; Shams, Aniq <aniqa.shams@woodplc.com>

Subject: RE: Municipal Class EA-Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road)

Hi Joan – thank you for confirming your availability. I will send out a meeting invite shortly. If you could please forward it to the appropriate Ministry staff, that would be great.

Regarding the questions, I will check internally and try to forward you some background information based on our preliminary results of field investigations. I will also share the agenda in advance of our meeting. In the meantime, there is information available on the project webpage related to Phases 1 and 2 of the Class EA process. This also includes preferred solution, that was presented at the PIC #2. Here's the link to the project webpage: <https://niagararegion.ca/projects/regional-road-37/>

Sincerely,

Mir

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

Mobile: +1 (647) 545 8974

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The logo for Wood, featuring the word "wood." in a bold, dark blue, sans-serif font.

From: Del Villar Cuicas, Joan (MECP) <Joan.DelVillarCuicas@ontario.ca>

Sent: Wednesday, November 10, 2021 9:28 AM

To: Talpur, Mir <mir.talpur@woodplc.com>

Cc: Elmadhoon, Maged <maged.elmadhoon@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Suggett, Jeff <jeff.suggett@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>; Shams, Aniq <aniqa.shams@woodplc.com>

Subject: RE: Municipal Class EA-Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road)

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Good morning Mir,

Our apologies for the delay. Tuesday the 16th works for us.

Do you have specific questions for us? We would like to be prepared, if possible.

Thanks,

Joan

Joan Del Villar Cuicas

Regional Environmental Planner

Project Review Unit | Environmental Assessment Branch

Ontario Ministry of the Environment, Conservation and Parks

Joan.delvillarcuicas@ontario.ca | Phone: 365-889-1180

From: Talpur, Mir <mir.talpur@woodplc.com>

Sent: November 1, 2021 11:43 AM

To: Del Villar Cuicas, Joan (MECP) <Joan.DelVillarCuicas@ontario.ca>

Cc: Elmadhoon, Maged <maged.elmadhoon@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Suggestt, Jeff <jeff.suggestt@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>; Shams, Anika <anika.shams@woodplc.com>

Subject: RE: Municipal Class EA-Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road)

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Thank you very much, Joan.

Sincerely,

Mir

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

Mobile: +1 (647) 545 8974

www.woodplc.com



From: Del Villar Cuicas, Joan (MECP) <Joan.DelVillarCuicas@ontario.ca>

Sent: Monday, November 1, 2021 11:25 AM

To: Talpur, Mir <mir.talpur@woodplc.com>

Cc: Elmadhoon, Maged <maged.elmadhoon@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Suggestt, Jeff <jeff.suggestt@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>; Shams, Anika <anika.shams@woodplc.com>

Subject: RE: Municipal Class EA-Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road)

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Good Morning Mir,

Thank you for your email. I will reach out to our Species at Risk unit to see if the area biologist is available to join the meeting. I will confirm our availability soon.

Regards,

Joan

Joan Del Villar Cuicas

Regional Environmental Planner

Project Review Unit | Environmental Assessment Branch

Ontario Ministry of the Environment, Conservation and Parks

Joan.delvillarcuicas@ontario.ca | Phone: 365-889-1180

From: Talpur, Mir <mir.talpur@woodplc.com>

Sent: October 29, 2021 10:55 AM

To: Del Villar Cuicas, Joan (MECP) <Joan.DelVillarCuicas@ontario.ca>; EA Notices to WCRegion (MECP) <eanotification.wcregion@ontario.ca>

Cc: Elmadhoon, Maged <maged.elmadhoon@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Suggett, Jeff <jeff.suggett@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>; Shams, Anika <anika.shams@woodplc.com>

Subject: Municipal Class EA-Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road)

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Good Morning Joan,

I am contacting you regarding the Municipal Class Environmental Assessment (Class EA) for the improvements to Merritt Road and Rice Road in the Town of Pelham, the City of Thorold and the City of Welland. Wood Environment and Infrastructure Solutions was retained by the Niagara Region to carry out this Class EA. We had previously shared the notices for this Class EA with the Ministry of the Environment, Conservation and Parks. These notices included Notices of Study Commencement, PIC#1 and PIC #2. At this time, we have identified a preliminary preferred design for the road improvements, and are planning to host PIC #3 in early December.

We wanted to touch base with you to inquire if the Ministry staff would be available to meet with us to go over the preliminary preferred design. We would also like to have a high level discussion with the Ministry regarding the impacts on Species at Risk and required actions.

If the Ministry staff is available to meet, we have identified the following availability:

- 1) Tuesday, November 16th – 9:00 am – 10:00 am
- 2) Friday, November 19th – 11:00 pm – noon

Thank you, and we look forward to hearing from you.

Sincerely,

Mir

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner
Mobile: +1 (647) 545 8974
www.woodplc.com



From: Talpur, Mir

Sent: Thursday, May 27, 2021 2:12 PM

To: EnviroOnt@tc.gc.ca; FisheriesProtection@dfo-mpo.gc.ca; joan.delvillarcuicas@ontario.ca; eanotification.wcregion@ontario.ca; MNRF.Ayl.Planners@ontario.ca; ken.cornelisse@ontario.ca; rosi.zirger@ontario.ca; karla.barboza@ontario.ca; Aldo.Ingraldi@ontario.ca; anneleis.eckert@ontario.ca; Kyle.Saulnier@ontario.ca; Jenna.Wolno@ontario.ca; lance.dutchak@ontario.ca; nancy.mott@ontario.ca; jim.avram@ontario.ca; michael.lindsay@infrastructureontario.ca; smiller@npca.ca; ddeluca@npca.ca; kfrohlich@npca.ca; aaldworth@npca.ca; mustafa.hirji@niagararegion.ca; Vanessa.Aykroyd@niagararegion.ca; Susan.Dunsmore@niagararegion.ca; Lori.Karlewicz@niagararegion.ca; Diana.Huson@niagararegion.ca; Leanna.Villella@niagararegion.ca; Tim.Whalen@niagararegion.ca; Taylor.Boyle@niagararegion.ca; Manny.Rataul@niagararegion.ca; shawn.mccauley@niagararegion.ca; Derek.McGaghey@niagararegion.ca; Jacqueline.Gates@niagararegion.ca; Cassandra.Ogunniyi@niagararegion.ca; Britney.Fricke@niagararegion.ca; jackie.gervais@niagararegion.ca; Dragan.Mrkela@niagararegion.ca; Kevin.Macdonald@niagararegion.ca; jade.anema@niagararegion.ca; Brittany.Lauzon@niagararegion.ca; jmarr@pelham.ca; rcook@pelham.ca; BWiens@pelham.ca; slarocque@pelham.ca; sean.dunsmore@thorold.ca; jaroslav.hajek@thorold.ca; rachelle.larocque@welland.ca; grant.munday@welland.ca; sherri-marie.millar@welland.ca; scott.richardson@welland.ca; kevin.smith@niagararegion.ca; psb@nrps.on.ca; blyburner@pelham.ca; terry.dixon@thorold.ca; fire@welland.ca; active@pelham.ca; beaclark01@gmail.com; batyregion@gmail.com; dnicholson41@cogeco.ca; mary.clare@outlook.com; beatewolf@yahoo.co.uk; Donna.Delvechio@thorold.ca; WATAC@welland.ca; haroldsawchuk@yahoo.ca; yang.xiao@npei.ca; steven.chappell@bell.ca; derek.black@cogeco.com; Randy.Leppert@cogeco.com; zachary.baum@rci.rogers.com; robert.donofrio@enbridge.com; Mark-Ups@enbridge.com; James.Callaghan@enbridge.com; robert.donofrio@enbridge.com; mark.kuhlmann@nrbn.ca; jeremy.smith@nrbn.ca; SecondaryLandUse@HydroOne.com; Jim.Oriotis@HydroOne.com; info@niagaraex.com; tyler.brooks@ofa.on.ca; Warren.Hoshizaki@dsbn.org; Karen.Bellamy@DSBN.ORG; Cheryl.Morgan@DSBN.ORG; info@ncdsb.com; scanjar@movingniagara.com; info@gncc.ca; admin@rinaldihomes.com; grant@niagararealtor.ca; stephen.laskowski@cantruck.ca; brhughes@niagaracollege.ca; stephanie@primont.com
Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Suggett, Jeff <jeff.suggett@woodplc.com>; Shams, Aniq <aniqa.shams@woodplc.com>; Ruck, Victoria <victoria.ruck@woodplc.com>

Subject: Notice of PIC 2 - Municipal Class EA-Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road)

**Re: Notice of Online Public Information Centre #2
Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road)
Municipal Class Environmental Assessment**

Please find attached Notice of Online Public Information Centre (PIC) #2 for the Municipal Class Environmental Assessment (Class EA) for the improvements to Merritt Road and Rice Road due to planned developments in the Town of Pelham, the City of Thorold and the City of Welland.

Building on the recommendations of the Niagara Region's Transportation Master Plan (TMP), the Niagara Region has retained Wood to undertake a Schedule 'C' Class EA to identify an implementation strategy for the transportation infrastructure requirements for Merritt Road and Rice

Road. The EA study aims to reimagine the two roadways to meet the future needs of the surrounding community for all road users. The study will address active transportation needs by providing dedicated pedestrian and cyclist infrastructure that is safe, attractive, and conform to a complete streets approach.

The Niagara Region is planning to host the PIC #2 for this study. The purpose of this PIC is to share information about the study, the evaluation of alternative solutions, the preferred solution and obtain input for consideration into the Study. The PIC #2 will be held in an online format via project webpage.

Date: Wednesday, June 9, 2021
Place: Online Presentation - project webpage: <https://niagararegion.ca/projects/regional-road-37>
Time: Starting at 6:00 p.m.

Please refer to the attached notice for more information.

Sincerely,

Mir

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

Mobile: +1 (647) 545 8974

3450 Harvester Road, Suite 100

Burlington ON L7N 3W5

www.woodplc.com

The logo for Wood Group PLC, featuring the word "wood." in a bold, dark blue, sans-serif font.

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**Ministry of the Environment,
Conservation and Parks**

**Ministère de l'Environnement,
de la Protection de la nature
et des Parcs**

Environmental Assessment
Branch

Direction des évaluations
environnementales

1st Floor
135 St. Clair Avenue W
Toronto ON M4V 1P5
Tel.: 416 314-8001
Fax.: 416 314-8452

Rez-de-chaussée
135, avenue St. Clair Ouest
Toronto ON M4V 1P5
Tél. : 416 314-8001
Télec. : 416 314-8452

Via E-mail Only

October 24, 2023

Maged Elmadhoon
Manager, Transportation Planning
Niagara Region
Maged.Elmadhoon@niagararegion.ca

Mir Ahsan Talpur
Senior Environmental Planner
WSP E&I Canada Limited
mir.talpur@wsp.com

**Re: Municipal Class Environmental Assessment for Regional Road 37 (Merritt Road) and
Regional Road 54 (Rice Road), in the Town of Pelham, City of Thorold and City of
Welland
Niagara Region
Municipal Class Environmental Assessment – Schedule C
Project Review Unit Comments – Draft Environmental Study Report**

Dear Project Team,

This letter is in response to the Notice of Completion provided for the Environmental Study Report (ESR) for the above noted Class Environmental Assessment (EA) project. Our understanding is that in order to accommodate future traffic growth in the area as a result of future developments in the Town of Pelham, the City of Thorold and the City of Welland, the Niagara Region's Transportation Master Plan and City of Thorold's Transportation Master Plan (the proponent) has determined that the preferred alternative is to improve Merritt Road and Rice Road. This would involved the extension of Merritt Road between Rice Road and Cataract

Road, improvements to Merritt Road between Cataract Road and Highway 406, improvements to Rice Road between 200m north of Merritt Road and Quaker Road, and localized intersection improvements, such as addition of dedicated turn lanes, traffic signals/roundabouts and/or improvements to the timing of the existing traffic signal at Merritt Road and Merrittville Highway/Niagara Street intersection to improve traffic operations, and to provide active transportation facilities on both Merritt Road and Rice Road. The Ministry of the Environment, Conservation and Parks (ministry) provides the following comments for your consideration.

General

- 1) Section 1.2 on Page 13 of the ESR refers to Schedule A/A+ projects, which does not reflect the changes made to project schedules outlined in the 2023-amended version of the Municipal Class EA (MCEA). Previously, projects were classified as Schedule A/A+ but are now classified as exempt. It is recommended that references to Schedules A/A+ projects from the 2015-amended MCEA be replaced as in the 2023-amended MCEA.
- 2) The proponent may wish to add a Conclusion section to the ESR that includes a short summary listing key activities and the principal decisions/conclusions.

Evaluation of Alternatives

- 3) It is recommended that the preferred Alternative Solution be highlighted in the ESR to provide more clarity (i.e., Highlight the preferred Alternative Solution in Table 6-1 on Page 168).
- 4) It is recommended that the preferred Road Alignment Alternatives for each segment also be highlighted in the ESR to provide more clarity (i.e., Highlight the preferred Alternative for Cross-Sections in Table 7-1 on Page 176 and Table 7-7 on Page 185, and highlight the preferred Alternative for Intersections in Table 7-13 on Page 188)

Notice of Completion

- 5) Please ensure that the date for the Notice of Completion and any follow- up correspondence will be included in the final Environmental Study Report.

Indigenous Consultation

- 6) Please continue reaching out to communities if there are any substantial changes to the project/process, such as findings of interest during the Stage 2 Archaeological Assessment, or if the proponent is applying for subsequent permits from the ministry that may be of interest or concern to communities. We recommend that the proponent include the record of consultation with any subsequent applications to the ministry to help in our review of those applications.

Noise and Vibration

- 7) The mitigation measures in relation to operational and construction noise in Section 9.2.3.2 of the ESR should be addressed with further detail. It is recommended to please refer to page 201 in Appendix 2 of the 2023 amended MCEA for more mitigation measures related to operational and construction noise.
- 8) Section 9.4.3.3 on page 234 of the ESR stated that *“Traffic noise from major roads may interfere with amphibian breeding choruses”*, however, Section 9.4.3.4 does not mention mitigation measures specific to this issue.

Source Water Protection

- 9) Please clearly document how the proximity of the project to sources of drinking water (municipal or other) and any delineated vulnerable areas was considered and assessed either by using the vulnerability scores assigned to the particular IPZ's, or whether there were any source protection plan policies that applied. Further information on the vulnerability score and source water protection features can be found on the Source Water Protection Atlas ([Ministry of the Environment, Conservation and Parks \(gov.on.ca\)](https://gov.on.ca))

Species at Risk

- 10) American Chestnut and Butternut were both referred to as having a high probability of occurrence within the study area although they were not observed in the initial vegetation surveys.
 - WSP recommended that a thorough tree inventory occur in the footprint and 5-10 m outside for American Chestnut, Butternut and Eastern Flowering Dogwood.
 - SARB recommends that this inventory occur up to 25m from the project footprint in order to ensure both regulated habitat and root harm prevention zones are considered.
- 11) SARB notes that there are records of Red-headed Woodpecker in the vicinity of the project.
 - SARB recommends that this species be considered.
 - SARB recommends that if suitable habitat is present, the species is surveyed for using the Wisconsin Survey Protocol.
- 12) SARB notes that Eastern Small-Footed Myotis was not considered in s. 9.4.3.1 Potential Effects on Species at Risk of the Draft Environmental Study Report even though it was listed as having a high potential to occur in the study area.
 - SAR recommends consideration of impacts to this species and its habitat.

13) WSP submitted an IGF Nov. 2022, here they identified potential impacts to Eastern Flowering Dogwood, White Wood Aster, Little Brown Myotis, Northern Myotis and Tri-coloured Bat.

- SARB requested further consideration of Blanding's Turtle which has not yet been provided.

14) Based on the information provided, it appears likely that an ESA authorization will be required

Thank you for circulating this draft Report for the ministry's consideration. Please document the provision of the draft Report to the ministry as well as this Project Review Unit Comments letter in the final report, and please provide an accompanying response letter to support our review of the final report. A copy of the final Notice should be sent to the ministry's West Central Region EA notification email account (eanotification.wcregion@ontario.ca).

Should you or any members of your project team have any questions regarding the material above, please contact me at Joan.DelVillarCuicas@ontario.ca.

Sincerely,



Joan Del Villar Cuicas
Regional Environmental Planner, West Central Region
Project Review Unit, Environmental Assessment Branch
Ontario Ministry of the Environment, Conservation and Parks

Schedule 'C' Municipal Class Environmental Assessment for Merritt Road (Regional Road 37) and Rice Road (Regional Road 54) in the Town of Pelham, the City of Thorold and the City of Welland

APPENDIX

L-9 Ministry of Citizenship and Multiculturalism

**Ministry of Heritage, Sport,
Tourism and Culture Industries**

Programs and Services Branch
401 Bay Street, Suite 1700
Toronto, ON M7A 0A7
Tel: 437.239.3404

**Ministère des Industries du Patrimoine,
du Sport, du Tourisme et de la Culture**

Direction des programmes et des services
401, rue Bay, Bureau 1700
Toronto, ON M7A 0A7
Tél: 437.239.3404



February 5th, 2021

EMAIL ONLY

Jeff Suggett, M. Sc.
Consultant Project Manager
Wood Environment & Infrastructure Solutions
3450 Harvester Road, Suite 100,
Burlington, ON L7N 3W5
Jeff.Suggett@woodplc.com

MHSTCI File : 0013564
Proponent : The Regional Municipality of Niagara
Subject : Notice of Study Commencement
Project : Municipal Class Environmental Assessment for
Merritt Rd. (RR 37) and Rice Rd. (RR 54)
Location : Town of Pelham, City of Thorold, City of Welland, Regional
Municipality of Niagara

Dear Jeff Suggett:

Thank you for providing the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) with the Notice of Study Commencement for the above-referenced project. MHSTCI's interest in this Environmental Assessment (EA) project relates to its mandate of conserving Ontario's cultural heritage.

Under the EA process, the proponent is required to determine a project's potential impact on cultural heritage resources. If any municipal bridges may be impacted by this project, we can provide additional screening documentation as formulated by the Municipal Engineers Association in consultation with MHSTCI.

Project Summary

The Regional Municipality of Niagara (Niagara Region) has initiated an Environmental Assessment Study for improvements to Merritt Road and Rice Road. This study will build on the recommendations of the Niagara Region's Transportation Master Plan (TMP), which included the following:

- Extension of Merritt Road between Regional Road 54 (Rice Road) and Cataract Road;
- Capacity improvements of Merritt Road from Cataract Road to Highway 406; and,
- Capacity improvements to Regional Road 54 (Rice Road) from 200 meters north of Merritt Road to Quaker Road.

The study is being carried out as a Schedule 'C' project in accordance with the requirements outlined in the Municipal Engineers Association (MEA) Municipal Class EA document (October 2000, as amended in 2007, 2011 & 2015), which is an approved process under the Ontario Environmental Assessment Act.

Identifying Cultural Heritage Resources

While some cultural heritage resources may have already been formally identified, others may be identified through screening and evaluation. Indigenous communities may have knowledge that can contribute to the identification of cultural heritage resources, and we suggest that any engagement with Indigenous communities includes a discussion about known or potential cultural heritage resources that are of value to these communities. Municipal Heritage Committees, historical societies and other local heritage organizations may also have knowledge that contributes to the identification of cultural heritage resources.

Archaeological Resources

This EA project may impact archaeological resources and should be screened using the MHSTCI [Criteria for Evaluating Archaeological Potential](#) to determine if an archaeological assessment is needed. MHSTCI archaeological sites data are available at archaeology@ontario.ca. If the EA project area exhibits archaeological potential, then an archaeological assessment (AA) should be undertaken by an archaeologist licenced under the *OHA*, who is responsible for submitting the report directly to MHSTCI for review.

Built Heritage Resources and Cultural Heritage Landscapes

The MHSTCI [Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes](#) should be completed to help determine whether this EA project may impact cultural heritage resources. If potential or known heritage resources exist, MHSTCI recommends that a Heritage Impact Assessment (HIA), prepared by a qualified consultant, should be completed to assess potential project impacts. Our Ministry's [Info Sheet #5: Heritage Impact Assessments and Conservation Plans](#) outlines the scope of HIAs. Please send the HIA to MHSTCI for review, and make it available to local organizations or individuals who have expressed interest in review.

Environmental Assessment Reporting

All technical cultural heritage studies and their recommendations are to be addressed and incorporated into EA projects. Please advise MHSTCI whether any technical cultural heritage studies will be completed for this EA project, and provide them to MHSTCI before issuing a Notice of Completion or commencing any work on the site. If screening has identified no known or potential cultural heritage resources, or no impacts to these resources, please include the completed checklists and supporting documentation in the EA report or file.

Thank you for consulting MHSTCI on this project and please continue to do so throughout the EA process. If you have any questions or require clarification, do not hesitate to contact Laura Hatcher.

Sincerely,

Joseph Harvey

On behalf of

Laura Hatcher

Heritage Planner

Heritage Planning Unit

laura.e.hatcher@ontario.ca

Copied to: Maged Elmadhoon, Transportation Planning, Niagara Region

It is the sole responsibility of proponents to ensure that any information and documentation submitted as part of their EA report or file is accurate. MHSTCI makes no representation or warranty as to the completeness, accuracy or quality of the any checklists, reports or supporting documentation submitted as part of the EA process, and in no way shall MHSTCI be liable for any harm, damages, costs, expenses, losses, claims or actions that may result if any checklists, reports or supporting documents are discovered to be inaccurate, incomplete, misleading or fraudulent.

Please notify MHSTCI if archaeological resources are impacted by EA project work. All activities impacting archaeological resources must cease immediately, and a licensed archaeologist is required to carry out an archaeological assessment in accordance with the *Ontario Heritage Act* and the *Standards and Guidelines for Consultant Archaeologists*.

If human remains are encountered, all activities must cease immediately and the local police as well as the Registrar, Burials of the Ministry of Government and Consumer Services (416-326-8800) must be contacted. In situations where human remains are associated with archaeological resources, MHSTCI should also be notified to ensure that the site is not subject to unlicensed alterations which would be a contravention of the *Ontario Heritage Act*.

October 22, 2021

Archaeology Reports
Culture Programs Unit
Programs & Services Branch
Ministry of Heritage, Sport, Tourism and Culture Industries
401 Bay Street, Suite 1700
Toronto, ON M7A 0A7

Attention: Administrative Coordinator

RE: In Support of a Schedule C Municipal Class Environmental Assessment and Detailed Transportation Assessment for Portions of Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road) Lots 169 to 171, 174 and 175, 216 to 221, 223 to 228, and 234 and 235, in the Town of Pelham, the City of Thorold and the City of Welland, County of Welland, Regional Municipality of Niagara, Ontario (PIF # P354-0062-2021).

To Whom It May Concern,

I am writing this letter to request an expedited review of the above-noted archaeological assessment report, which was submitted to the Ministry of Heritage, Sport, Tourism and Culture Industries on July 15, 2021. This Stage 1 assessment was triggered under the Environmental Assessment Act and was conducted as part of the ongoing Class Environmental Assessment (Class EA) for improvements to Merritt Road (Regional Road 37) and Rice Road (Regional Road 54) in the Town of Pelham, the City of Thorold and the City of Welland. As part of the Class EA Study, a preferred design will be identified for road improvements and included in the Environmental Study Report (anticipated to be completed in early 2022).

The purpose of requesting an expedited review of this report is to allow the Niagara Region to finalize the Stage 1 assessment as part of the Class EA process, and to allow the project to proceed to the detailed design phase, without causing any unexpected delays. If possible, I request that this report be reviewed by November 18, 2021. Your assistance in reviewing the report by this date would be appreciated.

Sincerely,



Maged Elmadhoon, M.Eng., P.Eng.
Manager, Transportation Planning
Public Works, Niagara Region
1815 Sir Isaac Brock Way, Thorold, ON
Maged.Elmadhoon@niagararegion.ca

**Ministry of Heritage, Sport, Tourism, and
Culture Industries**

Archaeology Program Unit
Programs and Services Branch
Heritage, Tourism and Culture Division
5th Floor, 400 University Ave.
Toronto ON M7A 2R9
Tel.: (437) 339-9231
Email: Teresa.Tremblay@ontario.ca

**Ministère des Industries du patrimoine, du sport, du
tourisme et de la culture**

Unité des programme d'archéologie
Direction des programmes et des services
Division du patrimoine, du tourisme et de la culture
5e étage, 400 ave. University
Toronto ON M7A 2R9
Tél. : (437) 339-9231
Email: Teresa.Tremblay@ontario.ca



Feb 23, 2022

Jason Seguin (P354)
Wood Environment & Infrastructure Solutions
302 - 325 James Hamilton ON L8P 3B7

**RE: Review and Entry into the Ontario Public Register of Archaeological Reports:
Archaeological Assessment Report Entitled, "Revised Report: Stage 1
Archaeological Assessment In Support of a Schedule C Municipal Class
Environmental Assessment and Detailed Transportation Assessment for Portions
of Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road) Lots 169 to
171, 174 and 175, 216 to 221, 223 to 228, and 234 and 235, in the Town of Pelham,
the City of Thorold and the City of Welland, County of Welland, Regional
Municipality of Niagara, Ontario ", Dated Feb 4, 2022, Filed with MHSTCI Toronto
Office on Feb 6, 2022, MHSTCI Project Information Form Number P354-0062-2021,
MHSTCI File Number 0013564**

Dear Mr. Seguin:

This office has reviewed the above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18.¹ This review has been carried out in order to determine whether the licensed professional consultant archaeologist has met the terms and conditions of their licence, that the licensee assessed the property and documented archaeological resources using a process that accords with the 2011 *Standards and Guidelines for Consultant Archaeologists* set by the ministry, and that the archaeological fieldwork and report recommendations are consistent with the conservation, protection and preservation of the cultural heritage of Ontario.

The report documents the assessment of the study area as depicted in Figures 7A and 7B "Stage 1 Results with Photograph Locations and Directions" of the above titled report and recommends the following:

In light of the findings of the Stage 1 archaeological assessment of the study area, the following recommendations are made, subject to the conditions outlined below and in Section 5.0:

1. Approximately 11.5 ha (26%) of the study area has been previously disturbed (Figure 7A-Figure 7B) and does not require further archaeological assessment. Additionally, 3.7 ha (8.4%) has undergone previous archaeological assessment and does not require further testing (Figure 7A-Figure 7B).
2. Approximately 5.5 ha (10%) of the study area is located within actively cultivated agricultural fields. These portions of the study area require Stage 2 property survey by means of pedestrian survey, as per

Section 2.1.1 Standard 1 of the Standards and Guidelines for Consultant Archaeologists (2011). This technique involves walking across the entire field in parallel rows at 5 m intervals and surveying the ground surface for artifacts. The agricultural land should be prepared for the pedestrian survey by ploughing to the depth of previous ploughing. The fields must be allowed to weather through one heavy rainfall to improve surface visibility. At least 80% of the ploughed ground surface must be visible after ploughing.

3. Approximately 23.5 ha (55.6%) of the study area is manicured lawns, forested or tree-lined areas where ploughing is not viable as per Section 2.1.2 Standards 1.a, 1.d and 1.e of the MHSTCI's 2011 Standards and Guidelines for Consultant Archaeologists (MHSTCI 2011). These portions of the study area should be subject to Stage 2 property survey by means of hand shovel test pitting at 5 m grid intervals. All test pits should be a minimum of 30 centimetres ("cm") in diameter and dug to a minimum of 5 cm into the subsoil. Soil fills should be screened through 6 millimetre ("mm") mesh screens in order to facilitate artifact recovery. Test pit profiles should be examined for cultural deposits prior to being backfilled. Test pitting should be conducted to within 1 m of all built structures. All test pits should be backfilled to level grade, and any sod caps replaced and tamped down by foot.

The above recommendation is subject to Ministry of Heritage, Sport, Tourism and Culture Industries' approval, and it is an offence to alter any portion of the study area without Ministry of Heritage, Sport, Tourism and Culture Industries' concurrence.

No development or site alteration (including, but not limited to, grading, excavation or the placement of fill that would change the landform characteristics) is permitted on lands containing areas of archaeological potential unless significant archaeological resources have been conserved (Government of Ontario 2020:31).

Based on the information contained in the report, the ministry is satisfied that the fieldwork and reporting for the archaeological assessment are consistent with the ministry's 2011 *Standards and Guidelines for Consultant Archaeologists* and the terms and conditions for archaeological licences. This report has been entered into the Ontario Public Register of Archaeological Reports. Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require any further information regarding this matter, please feel free to contact me.

Sincerely,

Teresa Tremblay
Archaeology Review Officer

cc. Archaeology Licensing Officer
Maged Elmadhoon, Manager, Transportation Planning Region of Niagara
Maged Elmadhoon, Transportation Planning Niagara Region

¹ In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.

Talpur, Mir

From: Hatcher, Laura (MTCS) <Laura.E.Hatcher@ontario.ca>
Sent: Friday, July 8, 2022 11:59 AM
To: Dickinson, Chelsea
Cc: Schopf, Heidy; Talpur, Mir; Khan, Muhammad; maged.elmadhoon@niagararegion.ca
Subject: FW: MHSTCI Response: Information Request: Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road) Municipal Class EA - CHAR

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Hi Chelsea,

I have reviewed the Cultural Heritage Assessment Report and have no substantial comments. I do see though that for CHR 8, the property entry on page 48 does not list the landscape elements for the CHR.

Thank you for sending the document and please do keep us updated as the study proceeds.

Thank you,

Laura

Laura Hatcher, MCIP, RPP

Heritage Planner

Heritage Planning Unit | Programs and Services Branch | Heritage, Tourism and Culture Division

Ministry of Tourism, Culture and Sport

Tel. 437-239-3404 **New** | email: laura.e.hatcher@ontario.ca

From: Barboza, Karla (MHSTCI) <Karla.Barboza@ontario.ca>
Sent: June 9, 2022 10:55 AM
To: Hatcher, Laura (MHSTCI) <Laura.E.Hatcher@ontario.ca>
Cc: Registrar (MHSTCI) <Registrar@ontario.ca>
Subject: FW: MHSTCI Response: Information Request: Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road) Municipal Class EA - CHAR

Hi Laura,

This relates to File 0013564. I saved this email in the shared drive and updated PastPort. Could you please review and provide comments by July 8? Let me know if you have any questions or concerns.

Thanks,
Karla

From: Dickinson, Chelsea <chelsea.dickinson@woodplc.com>
Sent: June-08-22 2:26 PM
To: Registrar (MHSTCI) <Registrar@ontario.ca>
Cc: Schopf, Heidy <heidy.schopf@woodplc.com>; Talpur, Mir <mir.talpur@woodplc.com>; Khan, Muhammad <muhammad.khan@woodplc.com>; maged.elmadhoon@niagararegion.ca

Subject: RE: MHSTCI Response: Information Request: Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road)
Municipal Class EA - CHAR

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Good Afternoon Karla,

Please find attached the Cultural Heritage Assessment Report (CHAR) for this project (Regional Rd 37 [Merritt Road] and Regional Rd 54 [Rice Road] Class EA) ready for MHSTCI review.

Take care and talk soon,

Chelsea Dickinson, B.A. Hons.

Cultural Heritage Specialist – Project Manager

Pronouns – She/Her/Hers

Environment and Infrastructure Solutions

Work: (226) 821-2497

chelsea.dickinson@woodplc.com

www.woodplc.com



From: Barboza, Karla (MHSTCI) <Karla.Barboza@ontario.ca> **On Behalf Of** Registrar (MHSTCI)

Sent: Friday, February 12, 2021 8:23 AM

To: Dickinson, Chelsea <chelsea.dickinson@woodplc.com>

Cc: Registrar (MHSTCI) <Registrar@ontario.ca>; Schopf, Heidy <heidy.schopf@woodplc.com>; Hatcher, Laura (MHSTCI) <Laura.E.Hatcher@ontario.ca>

Subject: MHSTCI Response: Information Request: Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road)
Municipal Class EA - CHAR

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

MHSTCI File 0013564 – Merritt Road (RR 37) and Rice Road (RR 54) Improvements in Pelham, Thorold and Welland

Hi Chelsea,

I hope this email finds you well.

As you may know, the Ministry of Heritage, Sport, Tourism and Culture and Industries (MHSTCI) developed screening checklists to assist property owners, developers, consultants and others to identify known and potential cultural heritage resources:

- [Criteria for Evaluating Archaeological Potential](#)
- [Criteria for Evaluating Marine Archaeological Potential](#)
- [Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes](#)

I have used the document above (Built Heritage and Cultural Heritage Landscapes) in order to respond to your question:

- Question 3a. i. Is the property (or project area) identified, designated or otherwise protected under the Ontario Heritage Act as being of cultural heritage value e.g. a property that is designated by order of the Minister of Heritage, Sport, Tourism and Culture Industries as being of cultural heritage value or interest of provincial significance [s.34.5]?

MHSTCI Response: To date, no properties have been designated by the Minister.

- Question 3a.v. Is the property (or project area) identified, designated or otherwise protected under the Ontario Heritage Act as being of cultural heritage value included in the Ministry of Heritage, Sport, Tourism and Culture Industries' list of provincial heritage properties?

MHSTCI Response: At this time, MHSTCI is not aware of any provincial heritage properties within or adjacent to the study area.

Please note that if the subject lands or parts of the subject lands are owned or controlled by an Ontario Ministry or Prescribed Public Body (PPB) on behalf of the Crown (the list of PPBs is available as O. Reg. 157/10), a Ministry or PPB may have responsibilities under the [Standards and Guidelines for Conservation of Provincial Heritage Properties](#).

Regarding other protected heritage properties within or adjacent to the study area, you should contact the Ontario Heritage Trust, Provincial Heritage Registrar at registrar@heritagetrust.on.ca or 416-212-7104 and the municipal clerk and/or planner.

MHSTCI would appreciate if any technical cultural heritage studies (e.g. Cultural Heritage Assessment Report, Cultural Heritage Evaluation Report, Heritage Impact Assessment) be sent for our review as part of the environmental assessment process.

I hope this helps. Let me know if you have any questions.

Regards,
Karla

Karla Barboza MCIP, RPP, CAHP | (A) Team Lead, Heritage
Ministry of Heritage, Sport, Tourism and Culture Industries
Heritage, Tourism and Culture Division | Programs and Services Branch | Heritage Planning Unit
T. 416.314.7120 | Email: karla.barboza@ontario.ca

From: Dickinson, Chelsea <chelsea.dickinson@woodplc.com>

Sent: February-10-21 8:31 AM

To: Registrar (MHSTCI) <Registrar@ontario.ca>

Cc: Schopf, Heidi <heidy.schopf@woodplc.com>

Subject: Information Request: Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road) Municipal Class EA - CHAR

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Good Morning,

Wood was retained by the Niagara Region to complete a Cultural Heritage Assessment Report (CHAR) in support of the 'Schedule C' Municipal Class Environmental Assessment (MCEA) and detailed transportation assessment for Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road), in the Town of Pelham, City of Thorold, and City of Welland, Ontario. To complete the CHAR, Wood is looking to identify protected and potential cultural heritage resources within, and adjacent to, the Study Area. Please find attached a letter and map with study details for your consideration.

Any information you could provide would be greatly appreciated.

Sincerely,

Chelsea Dickinson, B.A.

Research Archaeologist | Cultural Heritage Specialist

Environment and Infrastructure Solutions

Work: (226) 821-2497

chelsea.dickinson@woodplc.com

www.woodplc.com



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January 10, 2023

Archaeology Reports
Culture Programs Unit
Programs & Services Branch
Ministry of Citizenship and Multiculturalism
401 Bay Street, Suite 1700
Toronto, ON M7A 0A7

Attention: Administrative Coordinator

RE: Stage 2 Archaeological Assessment - Regional Road 37 (Merritt Road) Improvements Schedule C Municipal Class Environmental Assessment and Detailed Transportation Assessment, Right-of-Way and Part of Lots 169, 170, 174 and 228, Thorold Township, Welland County, now Town of Pelham and City of Thorold, Regional Municipality of Niagara, Ontario (PIF # P327-0026-2022).

To Whom It May Concern,

I am writing this letter to request an expedited review of the above-noted archaeological assessment report, which was submitted to the Ministry of Citizenship and Multiculturalism on January 6, 2023. This Stage 2 archaeological assessment was completed as part of the ongoing Municipal Class Environmental Assessment (Class EA) for improvements to Merritt Road (Regional Road 37) and Rice Road (Regional Road 54) in the Town of Pelham, the City of Thorold and the City of Welland. This Stage 2 Archaeological Assessment focused on Merritt Road - Segment 1 (from Rice Road to Cataract Road).

The purpose of requesting an expedited review of this report is to allow the Niagara Region to finalize the Stage 2 Archaeological Assessment as part of the Class EA process, and to allow the project to proceed to the detailed design phase, without causing any unexpected delays. If possible, I request that this report be reviewed by **January 30, 2023**. Your assistance in reviewing the report by this date would be appreciated.

Sincerely,



Maged Elmadhoon, M.Eng., P.Eng.

Manager, Transportation Planning

Public Works, Niagara Region

1815 Sir Isaac Brock Way, Thorold, ON

Maged.Elmadhoon@niagararegion.ca

Ministry of Citizenship and Multiculturalism (MCM)

Archaeology Program Unit
 Heritage Branch
 Citizenship, Inclusion and Heritage Division
 5th Floor, 400 University Ave.
 Toronto ON M7A 2R9
 Tel.: (416) 414-7787
 Email: Jessica.Marr@ontario.ca

Ministère des Affaires civiques et du Multiculturalisme (MCM)

Unité des programme d'archéologie
 Direction du patrimoine
 Division de la citoyenneté, de l'inclusion et du patrimoine
 5e étage, 400 ave. University
 Toronto ON M7A 2R9
 Tél. : (416) 414-7787
 Email: Jessica.Marr@ontario.ca



Jan 11, 2023

Henry Cary (P327)
 Wood Environment & Infrastructure Solutions
 PO BOX 0 Burlington ON L7N 3W5

RE: Entry into the Ontario Public Register of Archaeological Reports: Archaeological Assessment Report Entitled, "ORIGINAL REPORT: STAGE 2 ARCHAEOLOGICAL ASSESSMENT REGIONAL ROAD 37 (MERRITT ROAD) IMPROVEMENTS SCHEDULE C MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT AND DETAILED TRANSPORTATION ASSESSMENT, ROAD RIGHT-OF-WAY AND PART OF LOTS 169, 170, 174 AND 228, THOROLD TOWNSHIP, WELLAND COUNTY, NOW TOWN OF PELHAM AND CITY OF THOROLD, REGIONAL MUNICIPALITY OF NIAGARA, ONTARIO", Dated Jan 6, 2023, Filed with MCM Toronto Office on N/A, MCM Project Information Form Number P327-0026-2022, MCM File Number 0013564

Dear Dr. Cary:

The above-mentioned report, which has been submitted to this ministry as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18, has been entered into the Ontario Public Register of Archaeological Reports without technical review.¹

Please note that the ministry makes no representation or warranty as to the completeness, accuracy or quality of reports in the register.

Should you require further information, please do not hesitate to send your inquiry to Archaeology@Ontario.ca

cc. Archaeology Licensing Officer
 Maged Elmadhoon, Manager, Transportation Planning Region of Niagara
 Maged Elmadhoon, Transportation Planning Niagara Region

¹In no way will the ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report(s) or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.

Talpur, Mir

From: Talpur, Mir
Sent: Friday, October 27, 2023 2:07 PM
To: Hatcher, Laura (MCM)
Cc: Elmadhoon, Maged; Shams, Anika
Subject: RE: File 0013564: Merritt Rd-Rice Rd Class EA - Draft Environmental Study Report

Hi Laura,

Thank you for taking the time to review the Draft ESR.

We will note that the Stage 2 AA for Segment 1 was accepted by the Ministry. With regards to Stage 2 AA for segments 2, 3 and 4, it will be completed during detailed design phase of the project. There are general statements to complete Stage 2 AA during detailed design in Section 9.3.2.2 (Archaeological Resources > Mitigation Measures) and Table 10-1 (Commitments for Additional Work) of the report, however, we will update those statements to specify segments 2, 3 and 4.

Sincerely,



Mir Ahsan Talpur, RPP, MCIP, EP

Senior Environmental Planner

Environmental Impact Assessment - Energy & Resources

He/Him

M+ 1 647-545-8974

WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Hatcher, Laura (MCM) <Laura.E.Hatcher@ontario.ca>
Sent: Friday, October 27, 2023 11:46 AM
To: Talpur, Mir <mir.talpur@wsp.com>
Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Shams, Anika <anika.shams@wsp.com>
Subject: RE: File 0013564: Merritt Rd-Rice Rd Class EA - Draft Environmental Study Report

Good morning Mir,

Thank you for the opportunity to review the Draft Environmental Study Report for the above mentioned project.

I note that the discussion of stage 2 archaeological assessment can be updated to reflect that the stage 2 report (PIF# P327-0026-2022) for segment 1 is now complete, and the report has been accepted onto the Ontario Public Register of Archaeological Reports. Is stage 2 archaeological assessment work planned for segments 2-4 of the project? If so, would you be able to provide me with the Project Information Form Number(s) (PIF#) so that I may link it to this EA project in our files? I also recommend specifying that any necessary archaeological assessment work for segments 2-4 will be completed during detailed design.

These are all of the comments I have at this time.

Sincerely,

Laura

Laura Hatcher, MCIP, RPP

A/Heritage Advisor

Heritage Planning Unit | Heritage Branch | Citizenship, Inclusion and Heritage Division

Ministry of Citizenship and Multiculturalism

Tel. 437-239-3404 **New** | email: laura.e.hatcher@ontario.ca

From: Talpur, Mir <mir.talpur@wsp.com>

Sent: October-02-23 9:30 AM


To: Del Villar Cuicas, Joan (MECP) <Joan.DelVillarCuicas@ontario.ca>; EA Notices to WCRegion (MECP) <eanotification.wcregion@ontario.ca>; MNRF Ayl Planners (MNRF) <MNRF.Ayl.Planners@ontario.ca>; Barboza, Karla (MCM) <Karla.Barboza@ontario.ca>; Ingraldi, Aldo (He/Him) (MNRF) <Aldo.Ingraldi@ontario.ca>; Eckert, Anneleis (OMAFRA) <Anneleis.Eckert@ontario.ca>; Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; Lee, Jordan (MTO) <Jordan.Lee@ontario.ca>; Dutchak, Lance (MTO) <Lance.Dutchak@ontario.ca>; Lindsay, Michael (IO) <Michael.Lindsay@infrastructureontario.ca>; Steve Miller <smiller@npca.ca>; ddeluce@npca.ca; Llee-yates@npca.ca; CBain@npca.ca; aaldworth@npca.ca; jmarr@pelham.ca; dyoung@pelham.ca; rcook@pelham.ca; Barbara Wiens <BWiens@pelham.ca>; slarocque@pelham.ca; sean.dunsmore@thorold.ca; jaroslav.hajek@thorold.ca; rachelle.larocque@welland.ca; grant.munday@welland.ca; sherri-marie.millar@welland.ca; Julie.vanleur@welland.ca; livia.meachern@welland.ca; yang.xiao@npei.ca; steven.chappell@bell.ca; derek.black@cogeco.com; Randy.Leppert@cogeco.com; zachary.baum@rci.rogers.com; Mark-Ups <Mark-Ups@enbridge.com>; James.Callaghan@enbridge.com; robert.donofrio@enbridge.com; mark.kuhlmann@nrbn.ca; jeremy.smith@nrbn.ca; Raymond.Nepomuceno@hydroone.com; SecondaryLandUse@HydroOne.com; Jim.Oriotis@HydroOne.com

Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Shams, Anika <anika.shams@wsp.com>

Subject: Merritt Rd-Rice Rd Class EA - Draft Environmental Study Report

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Good Morning,

The Niagara Region is undertaking a Schedule 'C' Municipal Class Environmental Assessment for improvements to Merritt Road and Rice Road in the Town of Pelham, the City of Thorold and the City of Welland. At this time, the Study Team has completed a [draft Environmental Study Report](#). We would like to share this report with you for your review and any comments. The draft report can be downloaded from this OneDrive link:  [2023-09-29 Merritt Rd-Rice Rd Improvements - ESR](#)

We kindly request you to please submit any comments or questions on the draft report by **October 31**. Following this review period, the report will be finalized and issued for the formal public review along with a Notice of Study Completion.

Please let me know if you encounter any issues accessing the above link.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP

Senior Environmental Planner

Environmental Impact Assessment - Energy & Resources

He/Him

WSP E&I Canada Limited

3450 Harvester Road, Suite 100

Burlington, Ontario

L7N 3W5 Canada

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

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Schedule 'C' Municipal Class Environmental Assessment for Merritt Road (Regional Road 37) and Rice Road (Regional Road 54) in the Town of Pelham, the City of Thorold and the City of Welland

APPENDIX

L-10 *Ministry of Transportation*

Talpur, Mir

From: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Sent: Wednesday, January 26, 2022 11:15 AM
To: Hussain, Kashif (MTO)
Cc: Khan, Muhammad; Talpur, Mir; Alkarawi, Sulaf
Subject: RE: Merritt Rd EA/HWY 406 Design

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Hi Kashif,

We will evaluate the roundabout option as well. I would think it will be a two-lane roundabout due to the relatively high traffic volumes approaching on the southbound off-ramp during the PM peak period and high eastbound traffic volumes on Merritt Rd during the AM peak period under future conditions.

Having a two-lane roundabout will occupy a large footprint and impact trees and will bring the off-ramp terminal closure to Grisdale Rd intersection.

Thanks

Maged Elmadhoon, M.Eng., P.Eng. (he/him)

Manager, Transportation Planning
Public Works, Niagara Region
1815 Sir Isaac Brock Way, Thorold, ON
Maged.Elmadhoon@niagararegion.ca
Phone: 905-980-6000 ext. 3583
Cell: 289-407-6862
www.niagararegion.ca



From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Wednesday, January 26, 2022 10:35 AM
To: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Cc: Khan, Muhammad <muhammad.khan@woodplc.com>; Talpur, Mir <mir.talpur@woodplc.com>; Alkarawi, Sulaf <Sulaf.Alkarawi@niagararegion.ca>
Subject: RE: Merritt Rd EA/HWY 406 Design

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Hi Maged and Muhammad,

For the Highway 406 SB off-ramp, please also look at an option of Roundabout. Since couple of your options are proposing new traffic signal at the off-ramp terminal, it is the Ministry requirement to also check for a Roundabout option before proposing any new traffic signal.

Please let me know if you have any question in this regard.

Thanks
Kashif

From: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Sent: January 11, 2022 2:28 PM
To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Cc: Khan, Muhammad <muhammad.khan@woodplc.com>; Talpur, Mir <mir.talpur@woodplc.com>; Alkarawi, Sulaf <Sulaf.Alkarawi@niagararegion.ca>
Subject: RE: Merritt Rd EA/HWY 406 Design

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Thanks Kashif for your prompt response.

Muhammad: Sulaf and I are only available on Monday January 17. Please proceed and send the invite.

Thanks

Maged Elmadhoon, M.Eng., P.Eng. (he/him)

Manager, Transportation Planning
Public Works, Niagara Region
1815 Sir Isaac Brock Way, Thorold, ON
Maged.Elmadhoon@niagararegion.ca
Phone: 905-980-6000 ext. 3583
Cell: 289-407-6862

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From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Tuesday, January 11, 2022 2:08 PM
To: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Cc: Khan, Muhammad <muhammad.khan@woodplc.com>; Talpur, Mir <mir.talpur@woodplc.com>; Alkarawi, Sulaf <Sulaf.Alkarawi@niagararegion.ca>
Subject: RE: Merritt Rd EA/HWY 406 Design

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Hi Maged,

Currently we are available on the following days & times:

Monday January 17, 2022 from 1pm-2pm
Tuesday January 25, 2022 from 1pm-2pm

Friday January 28, 2022 from 11am-12pm and 1pm -2pm

Thanks
Kashif

From: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Sent: January 11, 2022 11:42 AM
To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Cc: Khan, Muhammad <muhammad.khan@woodplc.com>; Talpur, Mir <mir.talpur@woodplc.com>; Alkarawi, Sulaf <Sulaf.Alkarawi@niagararegion.ca>
Subject: RE: Merritt Rd EA/HWY 406 Design

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Hi Kashif,

Any update regarding MTO staff availability? Please let us know in order to arrange the meeting the earliest time possible.

Thanks
Maged

Maged Elmadhoon, M.Eng., P.Eng. (he/him)

Manager, Transportation Planning
Public Works, Niagara Region
1815 Sir Isaac Brock Way, Thorold, ON
Maged.Elmadhoon@niagararegion.ca
Phone: 905-980-6000 ext. 3583
Cell: 289-407-6862

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From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Thursday, January 6, 2022 4:28 PM
To: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Cc: Khan, Muhammad <muhammad.khan@woodplc.com>; Talpur, Mir <mir.talpur@woodplc.com>; Alkarawi, Sulaf <Sulaf.Alkarawi@niagararegion.ca>
Subject: RE: Merritt Rd EA/HWY 406 Design

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Happy New Year Maged,

I will check with my team about their availability and will inform you by early next week. I would suggest that we have a team meeting first to go through all the options and provide you with the team comments before we proceed further and present the options & recommended option to MTO Senior Management.

Thanks
Kashif

From: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>

Sent: January 6, 2022 2:53 PM

To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>

Cc: Khan, Muhammad <muhammad.khan@woodplc.com>; Talpur, Mir <mir.talpur@woodplc.com>; Alkarawi, Sulaf <Sulaf.Alkarawi@niagararegion.ca>

Subject: Merritt Rd EA/HWY 406 Design

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Hi Kashif,

Happy New Year.

If you recall, during the agency/stakeholder meeting on November 19, 2021 for the subject project, we discussed that Wood was going to prepare different options for carrying two eastbound lanes over Highway 406 to Toronto bound on-ramp. We will have these options ready soon and we would like to meet with MTO staff and senior to discuss the design over the Highway 406.

Please advise who from MTO will attend and your availability during the last two weeks of January. Below is a link to the project website for your reference.

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<https://www.niagararegion.ca/projects/regional-road-37/default.aspx>

Thanks
Maged

Maged Elmadhoon, M.Eng., P.Eng. (he/him)

Manager, Transportation Planning

Public Works, Niagara Region

1815 Sir Isaac Brock Way, Thorold, ON

Maged.Elmadhoon@niagararegion.ca

Phone: 905-980-6000 ext. 3583

Cell: 289-407-6862

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Meeting Minutes

Date: Tuesday, January 17, 2022, 1:00 PM

Meeting at: Microsoft Teams

File No.: IM20103036

Subject/purpose: Merritt Road/Rice Road MCEA – Meeting to discuss design options for Merritt Rd over Highway 406 bridge

Attendees:

Maged Elmadhoon, Niagara Region

Sulaf Alkarawi, Niagara Region

Cam Milne, Niagara Region

Frank Tassone, Niagara Region

Samira Fares (MTO)

Martin (MTO)

Kashif Hussain (MTO)

Jason Lee (MTO)

Calvin Fong (MTO)

Samira Farahani (MTO)

Jordan Lee (MTO)

Eric Hakomaki (MTO)

Dermot Dusauzay (MTO)

Kaitlyn Greto (MTO)

Muhammad Khan, Wood

Mir Ahsan Talpur, Wood

Items Discussed:

1. Purpose of Meeting

The purpose of this meeting was to discuss with the Ministry of Transportation (MTO) the design options for Merritt Rd over Highway 406 bridge

2. Design Options for Merritt Rd at Highway 406 Bridge

The following three design options were presented:

Option 1: This option involves right-in and right-out access for vehicles on Grisdale Road and changing the left turn lane on Highway 406 ramp to shared Thru-left turn lane. It was noted that there are concerns associated with this option as the road users on Grisdale Rd may not comply and make left turn on Merritt Rd.

MTO staff inquired whether the bike tracks on Merritt Rd will be extended over Highway 406 bridge. The Study Team clarified that the current options consider ending the bike tracks at Grisdale Rd. The Environmental Study Report will note that the future extension

Continued...

of bike tracks along Grisdale Rd to Welland Canal should be evaluated via a separate undertaking.

MTO staff inquired whether the topography of Merritt Rd and its impacts on the right in/right-out access on Grisdale Rd were reviewed. The Study Team responded that the topography and sightline distances were reviewed for this option, and it was confirmed that there will not be sight-line concerns. Changes to vertical profile are not being proposed.

Option 2: This option involves extending median along Merritt Road to Highway 406 N-E/W Off-Ramp, restricting access at Grisdale Road as Right-In/Right-Out only, and providing traffic signals at the ramp terminal. In order to make left turn, the traffic will need to use other roads, such as, Quaker Rd or Eastman Gateway.

Option 3: This option allows for traffic from Merritt Rd to make a left turn (westbound left) onto Grisdale Road, also allowing Right-In/Right-Out while a left turn off Grisdale Road (northbound left) onto Merritt Road will not be permitted. The existing right turn channel on southbound ramp on Highway 406 bridge will be replaced with two right turn lanes at the ramp terminal along with adjacent to southbound left turn lane, eliminating existing free flowing southbound channelized right turn lane.

Wood staff noted that drawings of design options will be provided to the MTO for detailed review and comment.

3. Open Discussion

Question: Did you do any split-phase analysis?

Response: No, a permitted-protected phase analysis was completed, which shows an intersection LOS B during Future 2041 AM and PM Peak hours

Question: How will the cyclists access the subdivision on the east side of the Highway 406 bridge?

Response: The Niagara Region will be willing to accommodate bike tracks across the bridge if the adequate space is available over the structure

Question: What is the proposed design speed?

Response: The proposed design speed is 70 km/h and the posted speed limit is 60 km/h. The existing posted speed limit is 60 km/h.

Continued...

Question: Is there a raised median being proposed at the Grisdale Rd and Merritt Rd intersection?

Response: The first option excludes the raised median. The second option provides raised median up to the interchange. Third option provides a raised median, with left-in access to Grisdale Rd. The option 3 is preferred as it provides access, which is similar to redesigned Montrose Rd interchange. The option 1 is not preferred because of the potential safety concerns that the road users may use the intersection to make left turn on Merritt Rd.

Comment: MTO staff thinks that this project is different from Montrose Rd as there is future development being planned to the south side.

Response: The Niagara Region staff clarified that the Niagara Region has not received any development applications at this time. The Niagara Region staff raised the question whether the existing configuration of Highway 406 interchange intended to be a long-term configuration? MTO staff noted that the current configuration of the interchange was provided following the construction of the interchange as there were traffic issues at the interchange.

The Niagara Region staff noted that there have been six rear-end collisions at Grisdale Road since 2016. The turning movements from Grisdale Rd to Merritt Rd are very low.

Question: MTO staff asked that Wood to evaluate an option to provide two through lanes while maintaining dedicated eastbound left turn lane.

Response: Wood can look into providing additional through lane and potential active transportation facility over the structure, however, widening of bridge would be required. Further, based on the traffic analysis, the opposing traffic to left turn volumes (westbound through) at the westerly off ramp are low which may not require a dedicated left turn lane. Wood to complete the sensitivity analysis for Grisdale Road and Split Phasing Analysis at N-E/W Off-Ramp terminal for future horizon 2041 (**Action Item**).

Question: Is the median being provided as far as the Niagara Street, and whether the access will be provided to Eastman Gateway? In that case, everyone in that subdivision will use Eastman Gateway.

Response: The median extends to Niagara Street, however, full-access will be maintained at Eastman Gateway.

MTO suggested contacting the local municipality to confirm if there are any development applications for the lands on the south side of Grisdale Road.

Continued...

Comment: The MTO staff noted that the area residents would be concerned when they find out that there is no active transportation facility being provided across the bridge. The MTO added that the Niagara Region should take the responsibility for not providing active transpiration infrastructure over the bridge.

Response: The Niagara Region is willing to provide the active transportation infrastructure over the bridge, however there is not enough space on the bridge. Maged noted that the Study Team will look into the provision of active transportation infrastructure across Highway 406 bridge (**Action Item**).

Maged requested that the Study Team would appreciate MTO's expedited review as the Study Team would like to complete the EA study in early spring. MTO staff noted that once design options have been provided to the MTO, the staff will review those options and provide comments and confirm the need for another meeting.

Talpur, Mir

From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Tuesday, March 1, 2022 9:41 AM
To: Khan, Muhammad; Alkarawi, Sulaf; Talpur, Mir; Milton, James; maged.elmadhoon@niagararegion.ca
Subject: RE: Khan, Muhammad shared the folder "Merritt Rd_Rice Road (Niagara Region)" with you.

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Hi Muhammad,

We will review the submission and let you know our comments. Please arrange a meeting with MTO project team to go through the options and comments in the week of March 14, 2022.

Thanks
Kashif

From: Khan, Muhammad <muhammad.khan@woodplc.com>
Sent: February 28, 2022 5:22 PM
To: Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>; Talpur, Mir <mir.talpur@woodplc.com>; Milton, James <james.milton@woodplc.com>; Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; maged.elmadhoon@niagararegion.ca
Subject: Khan, Muhammad shared the folder "Merritt Rd_Rice Road (Niagara Region)" with you.

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Khan, Muhammad shared a folder with you

Good Afternoon Kashif,

Below is a link to Merritt Road_Gridale Road & Highway 406 interchange design options memo along with the attachments for your review.

We would appreciate if MTO staff can provide comments by March 11, 2022. Should a discussion is required, Wood can arrange a call between MTO and project

team.

Since the timeline is critical for this project, we kindly request your earliest attention.

Regards,
Muhammad Khan



Merritt Rd_Rice Road (Niagara Region)



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Meeting Minutes

Date: Tuesday, March 22, 2022, 1:30 PM **Meeting at:** Microsoft Teams

File No.: IM20103036

Subject/purpose: Merritt Road/Rice Road MCEA – Meeting to discuss design options for Merritt Rd over Highway 406 bridge

Attendees:

Maged Elmadhoon (Niagara Region)
Sulaf Alkarawi (Niagara Region)
Cam Milne (Niagara Region)
Carolyn Ryall (Niagara Region)
Samera Fares (MTO)
Martin (MTO)
Kashif Hussain (MTO)
Jason Lee (MTO)
Lance Dutchak (MTO)
Ryan Hua (MTO)

Lynda Pockett (MTO)
Dermot Dusauzay (MTO)
Kaitlyn Greto (MTO)
Calvin Fong (MTO)
Corey Caple (MTO)
Ousama Shebeeb (MTO)
Muhammad Khan, Wood
James Milton, Wood
Mir Ahsan Talpur, Wood

Items Discussed:

1. Purpose of Meeting

The purpose of this meeting was to obtain comments from the Ministry of Transportation (MTO) staff regarding the design options for Merritt Rd over Highway 406 bridge. At a previous meeting with MTO staff, three options were shared.

2. Design Options for Merritt Rd at Highway 406 Bridge

The following three design options were presented:

Option 1: This option involves right-in and right-out access for vehicles on Grisdale Road via an island at Grisdale Road and Merritt Road intersection. It also involves changing the left turn lane on Highway 406 ramp to shared Thru-left turn lane. It was noted that there are concerns associated with this option as the road users on Grisdale Rd may not comply and make left turn on Merritt Rd. No changes were identified to this option.

Continued...

Option 2: This option involves right-in and right-out access for vehicles on Grisdale Road via median along Merritt Road. It also involves changing the left turn lane on Highway 406 ramp to shared Thru-left turn lane, as well as removing the right turn channel for westbound Merritt traffic from Hwy 406. This right turn channel will instead be extended to the intersection. No changes were identified to this option.

Option 3: Right-in, right-out with a left turn in from Merritt Rd. Left-turn lane is provided on Merritt Rd. Three southbound lanes on MTO southbound ramp. Two right turn lanes and one left turn lane.

3. Open Discussion

MTO staff suggested completing sensitivity analysis for maintaining the existing left turn lane on Merritt Rd. Based on Wood's analysis, Option 3B is the preferred option. It will include a 3.0 metres wide bike path. This will require widening of the bridge. Maged added that this option is being considered as a future option when the plan for bridge widening occurs.

MTO staff raised concern that if the Region does not provide active transportation across the 406 bridge, then the MTO will be repeatedly asked by the public to provide active transportation infrastructure over Highway 406 bridge. The MTO staff also raised concern that the Ministry will not be willing to accept redesign of the bridge interchange that provides less service than the existing.

MTO suggested exploring an option of removing one of the westbound lane and moving the active transportation facility to the north side.

MTO staff noted that the federal government is accepting applications for a fund for providing active transportation facilities, and that the Region may want to consider applying for that fund.

Action Items:

- Wood will investigate the option of removing the westbound lane to the north side and replacing it with a bike path.
- Wood to also complete sensitivity analysis to see how the signal will operate in future conditions.
- Wood to also set up a call with MTO and Region staff.

Talpur, Mir

From: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Sent: Wednesday, April 27, 2022 11:04 AM
To: Hussain, Kashif (MTO); Khan, Muhammad
Cc: Alkarawi, Sulaf; Talpur, Mir; Cesarone, Michael (MTO); Sneep, Martin (MTO)
Subject: RE: Khan, Muhammad shared the folder "Merritt Rd_Rice Road (Niagara Region)" with you.

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Hi Kashif,

Thanks for your consideration, much appreciated.

The Consultant team is copied on the email and will soon provide all the information you requested. Muhammad will also coordinate with Michael to arrange a meeting soon to discuss the options.

I wish you a safe and happy vacation.

Best regards
Maged

Maged Elmadhoon, M.Eng., P.Eng. (he/him)

Manager, Transportation Planning
Public Works, Niagara Region
1815 Sir Isaac Brock Way, Thorold, ON
Maged.Elmadhoon@niagararegion.ca
Phone: 905-980-6000 ext. 3583
Cell: 289-407-6862
www.niagararegion.ca



From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Wednesday, April 27, 2022 10:40 AM
To: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Khan, Muhammad <muhammad.khan@woodplc.com>
Cc: Alkarawi, Sulaf <Sulaf.Alkarawi@niagararegion.ca>; Talpur, Mir <mir.talpur@woodplc.com>; Cesarone, Michael (MTO) <Michael.Cesarone@ontario.ca>; Sneep, Martin (MTO) <Martin.Sneep@ontario.ca>
Subject: RE: Khan, Muhammad shared the folder "Merritt Rd_Rice Road (Niagara Region)" with you.

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Hi Maged,

I have discussed this with our traffic office and since the roundabout option has not been considered a feasible option for now we are ok for the consultant (Woodplc) to use SIDRA for roundabout analysis. However, please ask the consultant (Woodplc) to include in the report details regarding the use of the SIDRA instead of the ARCADY software similar to the justification that you have provided in your email. In the future, during any stage of this study if the roundabout option is selected to carry forward then the consultant (Woodplc) has to do all the analysis using ARCADY.

I would also like to inform you that I am taking vacation for a few weeks starting from tomorrow i.e. April 28, 2022. During my absence, Michael Cesarone will look after this project. Please provide signal warrants calculations and Roundabout analysis to him and Martin and cc me. Please also coordinate with Michael to arrange a meeting with the MTO team to review all the MTO comments on the options.

Thanks
Kashif

From: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>

Sent: April 26, 2022 11:29 AM

To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; Khan, Muhammad <muhammad.khan@woodplc.com>

Cc: Alkarawi, Sulaf <Sulaf.Alkarawi@niagararegion.ca>; Talpur, Mir <mir.talpur@woodplc.com>; Cesarone, Michael (MTO) <Michael.Cesarone@ontario.ca>; Sneep, Martin (MTO) <Martin.Sneep@ontario.ca>

Subject: RE: Khan, Muhammad shared the folder "Merritt Rd_Rice Road (Niagara Region)" with you.

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Hi Kashif,

Is there any chance that MTO would accept the analysis using SIDRA software since this is a planning exercise and regardless of the traffic analysis results, the roundabout has not been considered a feasible option due to major property impacts and higher cost of construction.

If the roundabout was a feasible option, and carried forward to preliminary design, I would ask the consultant to use ARCADY software to ensure MTO is satisfied with the design elements of the roundabout.

I appreciate your consideration to move this EA forward.

Best regards
Maged

Maged Elmadhoon, M.Eng., P.Eng. (he/him)

Manager, Transportation Planning

Public Works, Niagara Region

1815 Sir Isaac Brock Way, Thorold, ON

Maged.Elmadhoon@niagararegion.ca

Phone: 905-980-6000 ext. 3583

Cell: 289-407-6862

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From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Tuesday, April 26, 2022 9:37 AM
To: Khan, Muhammad <muhammad.khan@woodplc.com>
Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Alkarawi, Sulaf <Sulaf.Alkarawi@niagararegion.ca>; Talpur, Mir <mir.talpur@woodplc.com>; Cesarone, Michael (MTO) <Michael.Cesarone@ontario.ca>; Sneep, Martin (MTO) <Martin.Sneep@ontario.ca>
Subject: RE: Khan, Muhammad shared the folder "Merritt Rd_Rice Road (Niagara Region)" with you.

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Hi Muhammad,

MTO only accepts the roundabout analysis using the ARCADY software.

Regards,
Kashif

From: Khan, Muhammad <muhammad.khan@woodplc.com>
Sent: April 25, 2022 3:19 PM
To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Cc: maged.elmadhoon@niagararegion.ca; Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>; Talpur, Mir <mir.talpur@woodplc.com>; Cesarone, Michael (MTO) <Michael.Cesarone@ontario.ca>
Subject: RE: Khan, Muhammad shared the folder "Merritt Rd_Rice Road (Niagara Region)" with you.

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Hi Kashif

Unfortunately, we do not have ARCADY available, but we do have SIDRA software. Can you please advise if MTO is OK with Wood using SIDRA instead of ARCADY for roundabout analysis?

Regards,

Muhammad Khan M.Eng., P.Eng.

Mobile: +1 (905) 407 3438

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The logo for Wood, featuring the word "wood." in a bold, dark blue, sans-serif font.

From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Friday, April 22, 2022 11:26 AM
To: Khan, Muhammad <muhammad.khan@woodplc.com>
Cc: maged.elmadhoon@niagararegion.ca; Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>; Talpur, Mir <mir.talpur@woodplc.com>; Cesarone, Michael (MTO) <Michael.Cesarone@ontario.ca>
Subject: RE: Khan, Muhammad shared the folder "Merritt Rd_Rice Road (Niagara Region)" with you.

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Hi Muhammad,

The MTO team is currently reviewing the updated documents. We will let you know by next week to set up a meeting for discussion / go through our comments. Can you please also submit the Signal Warrant Calculations and Arcady analysis for the Roundabout option for our review?

Thanks
Kashif

From: Khan, Muhammad <muhammad.khan@woodplc.com>
Sent: April 21, 2022 7:38 PM
To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Cc: maged.elmadhoon@niagararegion.ca; Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>; Talpur, Mir <mir.talpur@woodplc.com>
Subject: RE: Khan, Muhammad shared the folder "Merritt Rd_Rice Road (Niagara Region)" with you.

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Hi Kashif

Just following up if MTO staff has reviewed the updated documents. The provided package includes the additional design option and supporting analysis that MTO staff has shown preference to during the meeting and it is expected that this additional option (now preferred) will be satisfactory.

As you are aware we are in process of finalizing the design and documentation for ESR filing. Should you feel necessary, we can set-up a follow-up meeting to expedite the process.

Kindly advise.

Regards,

Muhammad Khan M.Eng., P.Eng.

Mobile: +1 (905) 407 3438

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wood.

From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>

Sent: Wednesday, April 13, 2022 2:19 PM

To: Khan, Muhammad <muhammad.khan@woodplc.com>; Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>; Talpur, Mir <mir.talpur@woodplc.com>; maged.elmadhoon@niagararegion.ca

Subject: RE: Khan, Muhammad shared the folder "Merritt Rd_Rice Road (Niagara Region)" with you.

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Hi Muhammad,

Thanks for forwarding the documents. We will review them and provide you with our comments.

Regards,
Kashif

From: Khan, Muhammad <muhammad.khan@woodplc.com>

Sent: April 13, 2022 11:57 AM

To: Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>; Talpur, Mir <mir.talpur@woodplc.com>; Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; maged.elmadhoon@niagararegion.ca

Subject: Khan, Muhammad shared the folder "Merritt Rd_Rice Road (Niagara Region)" with you.

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Khan, Muhammad shared a folder with you

Good Morning Kashif

Following to our discussion regarding Highway 406 interchange at Merritt Road, attached is the revised memo with additional design as per discussion during the call alongwith supporting documents for MTO's review.

Thanks,
Muhammad Khan



Merritt Rd_Rice Road (Niagara Region)



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Meeting Minutes

Date: Tuesday, May 10, 2022, 1:00 PM **Meeting at:** Microsoft Teams

File No.: IM20103036

Subject/purpose: Merritt Road/Rice Road MCEA – Meeting to discuss design options for Merritt Rd over Highway 406 bridge

Attendees:

Maged Elmadhoon (Niagara Region)
Sulaf Alkarawi (Niagara Region)
Cam Milne (Niagara Region)
Carolyn Ryall (Niagara Region)
Samera Fares (MTO)
Martin (MTO)
Jason Lee (MTO)
Lance Dutchak (MTO)
Ryan Hua (MTO)

Lynda Pockett (MTO)
Dermot Dusauzay (MTO)
Kaitlyn Greto (MTO)
Calvin Fong (MTO)
Corey Caple (MTO)
Ousama Shebeeb (MTO)
Muhammad Khan, Wood
James Milton, Wood
Mir Ahsan Talpur, Wood

Items Discussed:

1. Purpose of Meeting

The purpose of this meeting was to obtain comments from the Ministry of Transportation (MTO) staff regarding the design options for Merritt Rd over Highway 406 Interchange. A total of six design options were shared with MTO staff, prior to the meeting.

2. Open Discussion

MTO staff suggested reviewing MTO's cycling manual to understand the height requirements for the parapet wall and barrier separation. MTO staff noted that they will share the cycling manual with the Project Team. **Post Meeting Note:** This document was subsequently shared with the project team.

The Project Team noted that the traffic analysis was completed using the recent EMME model that incorporates future traffic volumes for the next 20 years.

Continued...

Merritt Road and Highway 406 interchange Design Options:

Wood staff presented design options 1 through 6 prepared and submitted to MTO for review prior to the meeting. The preferred design option 6 was discussed in detailed, where a MUP is proposed on the southside of Merritt Road east of Grisdale Road and crosses over to northside at Highway 406 westerly ramps and continued to east by removing dedicated E-S channelized right turn lane, instead utilizing the space for a multi-use path. This option was developed based on the comments received during meeting with MTO staff on March 22, 2022.

Signal Warrant for Merritt Road and Highway 406 interchange:

It was proposed that Highway 406 westerly ramps intersection is provided with a traffic signal. Wood staff presented findings of signal warrant for future conditions. MTO staff suggested using Justification 7 from the OTM Book 12 to determine traffic signal warrant at Merritt Road and Highway 406 interchange. However, Region staff mentioned that Justification 7 may not apply as future demand project from existing counts was used. Wood to revisit analysis to check conflicting volumes and provide signal warrant. If it is warranted, then the multi-use path can stay on the north side as discussed and shown in Option 6.

Merritt Road Alignment Shift:

MTO staff suggested if traffic signal is not warranted, then the Project Team may consider option of shifting the existing Merritt Road alignment to the north side and adding a MUP on the south side, and normalizing the right turn. The Project Team raised a concern that the traffic volume eastbound is significantly high, so it would be challenging for the pedestrians and cyclists to cross the road. Also, matching road alignments west of interchange could be challenging from road geometric perspective. MTO staff noted that there are interchanges in GTA area with high traffic volumes where pedestrian and cyclist cross on/off ramps, however, pedestrian and cyclists will be required to yield to the traffic.


Action Items:

- Wood to revisit Signal Warrant from the OTM Book 12 to check conflicting volumes and provide the signal warrant.
- Region requested Wood to review MTO Cycling Manual and develop a typical cross section of preferred option over the bridge.

Talpur, Mir Ahsan Ali

From: Talpur, Mir
Sent: Tuesday, August 15, 2023 9:00 PM
To: Hussain, Kashif (MTO)
Cc: Weng, Xin (MTO); MacKinnon, John (MTO); Elmadhoon, Maged; Chipps, Steve; HaugKindellan, Emma; Azarkhish, Amin; Asif, Shahbaz (MTO)
Subject: Merritt Rd-Rice Rd EA - SWM & Hydraulic Assessment Report (Final)

Hi Kashif,

We have now finalized the Stormwater Management and Hydraulic Assessment Report for Merritt Rd-Rice Rd EA. The final report can be downloaded from this link for MTO's records:  [2023-08-15 Merritt Rd-Rice Rd - SWM & Hydraulic Assessment Report \(Final\)](#)

MTO's comments have been incorporated into Section 3.2.5 and Section 6.2.

Please let me know if you encounter any issues with the above link.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP
Senior Environmental Planner
Environmental Impact Assessment - Energy & Resources
He/Him
M+ 1 647-545-8974

WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Talpur, Mir
Sent: Friday, August 4, 2023 11:18 AM
To: 'Hussain, Kashif (MTO)' <Kashif.Hussain@ontario.ca>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; MacKinnon, John (MTO) <John.MacKinnon@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Chipps, Steve <steve.chipps@wsp.com>; HaugKindellan, Emma <emma.haugkindellan@wsp.com>; Azarkhish, Amin <amin.azarkhish@wsp.com>; Asif, Shahbaz (MTO) <Shahbaz.Asif@ontario.ca>
Subject: RE: Merritt Rd-Rice Rd EA - SWM & Hydraulic Assessment Report (DRAFT)

Hi Kashif,

Thank you for the prompt response on this. We will send you the updated final report in the next few days.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP
Senior Environmental Planner
Environmental Impact Assessment - Energy & Resources
He/Him

M+ 1 647-545-8974

WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Friday, August 4, 2023 9:09 AM
To: Talpur, Mir <mir.talpur@wsp.com>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; MacKinnon, John (MTO) <John.MacKinnon@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Chipps, Steve <steve.chipps@wsp.com>; HaugKindellan, Emma <emma.haugkindellan@wsp.com>; Azarkhish, Amin <amin.azarkhish@wsp.com>; Asif, Shahbaz (MTO) <Shahbaz.Asif@ontario.ca>
Subject: RE: Merritt Rd-Rice Rd EA - SWM & Hydraulic Assessment Report (DRAFT)

Hi Mir,

The MTO Drainage office has reviewed your responses and is fine with them. Please update the Drainage Report and add recommendations for drainage studies to be completed during the detailed design stage as noted in responses to MTO's comments. Please also forward us the final Drainage Report.

Thanks
Kashif

From: Hussain, Kashif (MTO)
Sent: August 3, 2023 9:30 AM
To: Talpur, Mir <mir.talpur@wsp.com>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; MacKinnon, John (MTO) <John.MacKinnon@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Chipps, Steve <steve.chipps@wsp.com>; HaugKindellan, Emma <emma.haugkindellan@wsp.com>; Azarkhish, Amin <amin.azarkhish@wsp.com>; Asif, Shahbaz (MTO) <Shahbaz.Asif@ontario.ca>
Subject: RE: Merritt Rd-Rice Rd EA - SWM & Hydraulic Assessment Report (DRAFT)

Hi Mir,

I will discuss it with our Drainage office and let you know our response.

Thanks
Kashif

From: Talpur, Mir <mir.talpur@wsp.com>
Sent: August 3, 2023 8:40 AM
To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; MacKinnon, John (MTO) <John.MacKinnon@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Chipps, Steve <steve.chipps@wsp.com>; HaugKindellan, Emma <emma.haugkindellan@wsp.com>; Azarkhish, Amin <amin.azarkhish@wsp.com>; Asif, Shahbaz (MTO)

<Shahbaz.Asif@ontario.ca>

Subject: RE: Merritt Rd-Rice Rd EA - SWM & Hydraulic Assessment Report (DRAFT)

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Good Morning Kashif,

We have discussed MTO's comments on the draft SWM & Hydraulic Assessment Report with Niagara Region staff. We were advised that some of the comments and additional analysis are only feasible as part of Phase 5 of the EA (Detailed Design Phase), which will be undertaken by the Region when the ESR is complete. Please see responses in red below to MTO's comments on the draft SWM & Hydraulic Assessment Report.

We would appreciate MTO staff's review of these responses and advise if these responses are satisfactory. We can then update and send you the final report.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP

Senior Environmental Planner

Environmental Impact Assessment - Energy & Resources

He/Him

M+ 1 647-545-8974

WSP E&I Canada Limited

From: Talpur, Mir

Sent: Friday, July 21, 2023 10:54 AM

To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>

Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; MacKinnon, John (MTO) <John.MacKinnon@ontario.ca>; Elmadhoon,

Maged <Maged.Elmadhoon@niagararegion.ca>; Chipps, Steve <steve.chipps@wsp.com>; HaugKindellan, Emma

<emma.haugkindellan@wsp.com>; Azarkhish, Amin <amin.azarkhish@wsp.com>; Asif, Shahbaz (MTO)

<Shahbaz.Asif@ontario.ca>

Subject: RE: Merritt Rd-Rice Rd EA - SWM & Hydraulic Assessment Report (DRAFT)

Hi Kashif,

Thank you for sharing MTO staff's comments on the SWM & Hydraulic Assessment Report. We will review these comments and will let you know if there are any questions.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP

Senior Environmental Planner

Environmental Impact Assessment - Energy & Resources

He/Him

M+ 1 647-545-8974

WSP E&I Canada Limited

From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>

Sent: Friday, July 21, 2023 10:35 AM

To: Talpur, Mir <mir.talpur@wsp.com>

Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; MacKinnon, John (MTO) <John.MacKinnon@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Chipps, Steve <steve.chipps@wsp.com>; HaugKindellan, Emma <emma.haugkindellan@wsp.com>; Azarkhish, Amin <amin.azarkhish@wsp.com>; Asif, Shahbaz (MTO) <Shahbaz.Asif@ontario.ca>

Subject: RE: Merritt Rd-Rice Rd EA - SWM & Hydraulic Assessment Report (DRAFT)

Hi Mir,

The MTO Drainage office has reviewed the draft stormwater management report and has the following comments;

1. Reference to "Roadway crossings shall be designed in accordance with the MTO Design Flood Criteria Directive B-100" is given in Stormwater Management (SWM) report whereas this document is superseded by MTO's Highway Drainage Standards (2008). They are available at the following location and should be reviewed for design criteria.

<https://www.library.mto.gov.on.ca/SydneyPLUS/TechPubs/Portal/tp/tdViews.aspx>

The report will be updated to reference MTO's Highway Drainage Standards (2008).

2. Proposed cross section of Segment 3 is Urban. provide calculations for external drainage (Minor and Major flow) from MTO's RoW and proposed changes to confirm that there is no impact on conveyance when catch basins and storm sewer system is installed.

This is considered beyond the scope of the current assessment and would be better suited to be evaluated as part of the detailed design phase of the project. The recommendation for future study as part of the detailed design will be amended in the report to include the requirement for major / minor flow assessment for MTO's RoW within the study area.

3. Provide Spread Analysis for Segment 3 and confirm if it meets Highway Drainage Standards (2008).

This is considered beyond the scope of the current assessment and would be better suited to be evaluated as part of the detailed design phase of the project. The recommendation for future study as part of the detailed design will be amended in the report to include the requirement for roadway spread assessment for MTO's RoW within the study area.

4. MTO shall review stormwater management and drainage at detail design stage to confirm that proposed road improvements do not impact MTO's drainage system.

Comment noted. MTO's review at the future detailed design stage will be acknowledged within the final report.

5. Please note that unconventional underground storage such as chambers and infiltration systems are not permitted by MTO. Underground storages provided in manholes, stormsewer, super pipe or storage tank are permitted as such storages are accessible through a manhole and can be easily inspected for their continued functionality. If unconventional storages are provided then calculations and comparison of post- to pre-development flows without

underground storages and ponding limit for 100-year storm event should be provided to confirm that the proposed development will not impact the MTO's drainage system under such condition.

Comment noted. These considerations will be added into the discussion of potential SWM practices located within MTO's RoW.

6. Please provide summary table to confirm that culverts within MTO's RoW meet standards as per Highway Drainage Standards (2008).

This is considered beyond the scope of the current assessment and would be better suited to be evaluated as part of the detailed design phase of the project. The recommendation for future study as part of the detailed design will be amended in the report to include the requirement for culvert capacity analysis for MTO's RoW within the study area.

Please update the report accordingly and submit the revised report and the required information for our review. If the above responses are satisfactory to MTO staff, we will update the report accordingly, and share the updated final report with MTO staff.

Please let us know if you have any questions.

Thanks
Kashif

Talpur, Mir

From: Talpur, Mir Ahsan Ali
Sent: Monday, July 10, 2023 2:49 PM
To: Hussain, Kashif (MTO)
Cc: Weng, Xin (MTO); MacKinnon, John (MTO); Elmadhoon, Maged; Chipps, Steve; HaugKindellan, Emma; Azarkhish, Amin
Subject: Merritt Rd-Rice Rd EA - SWM & Hydraulic Assessment Report (DRAFT)

Hi Kashif,

I hope you are doing well. We have now completed the draft Stormwater Management and Hydraulic Assessment Report for Merritt Rd-Rice Rd Class EA. We would like to share this report with you for MTO staff's review. Please use this OneDrive link to download the report: [2023-07-10 Merritt Rd-Rice Rd - SWM & Hydraulic Assessment Report](#)

The information related to proposed works at Highway 406 interchange can be found in Section 3.2.1 (page 26), Section 3.2.5 (page 45) and Section 6.2 (page 86) of the report.

We would appreciate any questions or comments by July 31, 2023.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP
Senior Environmental Planner
He/Him
M+ 1 647-545-8974

WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Friday, May 26, 2023 5:01 PM
To: Talpur, Mir <mir.talpur@wsp.com>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>; Zakrzewski, Jolanta <Jolanta.Zakrzewski@wsp.com>; MacKinnon, John (MTO) <John.MacKinnon@ontario.ca>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

Thanks Mir. I have downloaded the final memo.

Regards,
Kashif


From: Talpur, Mir <mir.talpur@wsp.com>
Sent: May 26, 2023 3:39 PM
To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>;

Zakrzewski, Jolanta <Jolanta.Zakrzewski@wsp.com>; MacKinnon, John (MTO) <John.MacKinnon@ontario.ca>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Kashif,

I have now updated the Grisdale Rd / Hwy 406 Design Options Memo to incorporate the MTO approved cross-section. We would like to share this memo with you for your records. It can be downloaded from this OneDrive link:  [13-Merritt Rd-Rice Rd - GrisdaleRd-Hwy406 Deesign Options Memo \(25-05-2023\)](#).

A summary of edits/updates to the memo is provided below:

- Page 2: Updated Section 2 to include a summary of the Executive Review Meeting and MTO's approval of Option 6.
- Page 4: Updated description of Option 6 to include the detailed design commitments (design checks of the parapet wall and structural evaluation).
- Page 10: Updated the cross-section, and included a summary of the Executive Review Meeting and MTO's approval of Option 6, and the detailed design commitments (design checks of the parapet wall and structural evaluation).
- Page 11: Updated plan drawing for preferred Option 6.
- Appendix B: Updated plan drawing for preferred Option 6 and inserted the standalone cross-section.
- Appendix G: Updated the cross-section in the design criteria.
- Appendix H: Added this new appendix to include Executive Review Meeting Minutes and presentation.

We would appreciate if you could please confirm the receipt of this final memo. Thank you, and have a nice weekend.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP

Senior Environmental Planner

He/Him

M+ 1 647-545-8974

WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Talpur, Mir

Sent: Wednesday, May 24, 2023 9:59 AM

To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>

Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>; Zakrzewski, Jolanta <Jolanta.Zakrzewski@wsp.com>; MacKinnon, John (MTO) <John.MacKinnon@ontario.ca>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

Hi Kashif,

Thank you very much for confirming that there are no further comments on the cross section. This is great news! We appreciate your support throughout this process.

We will share with you the draft reports (ESR & Stormwater Management) for MTO staff's review in the near future, and will make sure that we include the commitments noted below.

I will also insert the updated plan in the memo and will circulate it for your records sometime next week.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP
Senior Environmental Planner
He/Him

M+ 1 647-545-8974
WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Tuesday, May 23, 2023 4:59 PM
To: Talpur, Mir <mir.talpur@wsp.com>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>; Zakrzewski, Jolanta <Jolanta.Zakrzewski@wsp.com>; MacKinnon, John (MTO) <John.MacKinnon@ontario.ca>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

Hi Maged and Mir,

MTO Senior Management and team have reviewed the revised MUP cross-section details and have no more comments. You could proceed further with your EA.

When the draft EA report will be completed, please forward it to us along with the storm water and drainage report for our review and any comments. Please also add in the EA document all the commitments mentioned in your previous email dated May 1, 2023 regarding the detailed dimensions and design checks of the parapet wall and combination height railing and structural evaluation of the exterior girder to be completed during detailed design phase. Please also note that the maintenance of the widened Merritt Road and the MUP would be the Region's responsibility.

Thanks
Kashif

From: Talpur, Mir <mir.talpur@wsp.com>
Sent: May 23, 2023 4:20 PM
To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; Cesarone, Michael (MTO) <Michael.Cesarone@ontario.ca>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>; Zakrzewski, Jolanta <Jolanta.Zakrzewski@wsp.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Kashif,

We wanted to follow up on the inquiry below. Are you able to advise if MTO staff has any further input on this? Thank you.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP
Senior Environmental Planner
He/Him

M+ 1 647-545-8974
WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Tuesday, May 9, 2023 9:31 AM
To: Talpur, Mir <mir.talpur@wsp.com>; Cesarone, Michael (MTO) <Michael.Cesarone@ontario.ca>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>; Ding, Kevin <Kevin.Ding@wsp.com>; Zakrzewski, Jolanta <Jolanta.Zakrzewski@wsp.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Mir,

The MTO team is currently reviewing the revised cross-section details. As soon as I have responses from all, I will let you know if we have any comments / concerns either from our Team or Senior Management regarding the revised cross-section.

Thanks
Kashif

From: Talpur, Mir <mir.talpur@wsp.com>
Sent: May 9, 2023 8:23 AM
To: Cesarone, Michael (MTO) <Michael.Cesarone@ontario.ca>; Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>; Ding, Kevin <Kevin.Ding@wsp.com>; Zakrzewski, Jolanta <Jolanta.Zakrzewski@wsp.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Good Morning Michael and Kashif,

We wanted to follow up on our updated Option 6 submission (email below). We would appreciate Ministry's confirmation if the updated option is satisfactory at this time, and if we can proceed to incorporate it into the EA. As noted before, we would like to finalize the EA soon.

Thank you for your continued cooperation in this project.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP
Senior Environmental Planner
He/Him

M+ 1 647-545-8974
WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Talpur, Mir
Sent: Monday, May 1, 2023 2:05 PM
To: Cesarone, Michael (MTO) <Michael.Cesarone@ontario.ca>; Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>; Ding, Kevin <Kevin.Ding@wsp.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

Hi Michael and Kashif,

Please find attached the plan that was presented at the MTO Executive Review Meeting (2023-03-14). This plan showed a MUP with a concrete barrier. Based on the feedback received at the Executive Review Meeting, we have removed the concrete barrier. We have also illustrated the MUP as a Raised MUP on the attached plan and cross-section.

Provision of a raised MUP will require adjustment to the existing parapet wall and replacement of the railing system to accommodate the raised MUP. Detailed dimensions and design checks of the parapet wall and combination height railing will need to be determined during detailed design phase. This is noted on the cross-section, and will also be included in the EA Report as a commitment.

In addition, a structural evaluation of the exterior girder will be required to determine whether it can take the additional dead load from the raised MUP. We propose that this will also be completed during detailed design phase. This commitment will be noted in the EA Report.

We would appreciate if the MTO staff could confirm if the attached cross-section is satisfactory, as we would like to finalize the EA soon.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP
Senior Environmental Planner
He/Him

M+ 1 647-545-8974
WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Cesarone, Michael (MTO) <Michael.Cesarone@ontario.ca>
Sent: Monday, April 24, 2023 3:25 PM
To: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Talpur, Mir <mir.talpur@wsp.com>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>; Ding, Kevin <Kevin.Ding@wsp.com>; Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Good afternoon Maged and Mir,

Thank you for providing the standalone x-section. Just a few questions:

1. Can you please confirm that the intent is for the MUP to be raised? I recall seeing that the separation by barrier was to be replaced by a raised MUP, however the current x-section looks

as though the MUP will be at the same elevation as adjacent lanes. Can you please revise the x-section to show a raised MUP if this is the case?

2. Can you please also provide us with the original x-section presented at the last executive review meeting (March 21, 2023), which included the barrier?

Please let me know if you have any questions.

Thanks,

—
MICHAEL CESARONE | P.Eng.
MTO CR Project Delivery | Hamilton-Niagara
416 587 2999

From: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Sent: April 20, 2023 9:41 AM
To: Cesarone, Michael (MTO) <Michael.Cesarone@ontario.ca>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>; Ding, Kevin <Kevin.Ding@wsp.com>; Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; Talpur, Mir <mir.talpur@wsp.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Michael,

Thanks for your prompt response. The cross section is shown on the top right corner of the proposed Option 6. That said, I will ask Mir to provide a separate clear cross section drawing.

Thanks

Maged Elmadhoon, M.Eng., P.Eng. (he/him)

Manager, Transportation Planning
Transportation Services Division
Public Works, Niagara Region
1815 Sir Isaac Brock Way, Thorold, ON
Maged.Elmadhoon@niagararegion.ca
Phone: 905-980-6000 ext. 3583
Cell: 289-407-6862
www.niagararegion.ca



From: Cesarone, Michael (MTO) <Michael.Cesarone@ontario.ca>
Sent: Thursday, April 20, 2023 9:33 AM
To: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>; Ding, Kevin <Kevin.Ding@wsp.com>; Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; Talpur, Mir <mir.talpur@wsp.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Good Morning Maged,

I will forward this along and provide you with a response as soon as possible.

Is the cross-section mentioned in Mir's email below available so that I may send it to senior management for review as well?

Thanks,

—
MICHAEL CESARONE | P.Eng.
MTO CR Project Delivery | Hamilton-Niagara
416 587 2999

From: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Sent: April 20, 2023 8:25 AM
To: Cesarone, Michael (MTO) <Michael.Cesarone@ontario.ca>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>; Ding, Kevin <Kevin.Ding@wsp.com>; Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; Talpur, Mir <mir.talpur@wsp.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Good morning Michael,

We received a message that Kashif is off on vacation until May 2nd and your name was provided on automatic reply email.

Please see email below and attachment with respect to the subject project. Please advise if proposed Option 6 (attached) meets the MTO Senior Management expectation and the approach noted below is acceptable to MTO staff. Xin is copied on this email and she has been involved in the project.

Your cooperation is much appreciated.

Maged

Maged Elmadhoon, M.Eng., P.Eng. (he/him)

Manager, Transportation Planning
Transportation Services Division
Public Works, Niagara Region
1815 Sir Isaac Brock Way, Thorold, ON
Maged.Elmadhoon@niagararegion.ca
Phone: 905-980-6000 ext. 3583
Cell: 289-407-6862
www.niagararegion.ca



From: Talpur, Mir <mir.talpur@wsp.com>
Sent: Wednesday, April 19, 2023 5:04 PM
To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>; Ding, Kevin <Kevin.Ding@wsp.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Kashif,

We have updated the cross-section based on the feedback we received at the MTO Executive Review Meeting. At this time, we have removed the concrete barrier between the travel lanes and the MUP.

Unfortunately we still have not completed the drainage report. We will provide it to MTO along with the EA Report for review.

Since the proposed Option 6 was generally satisfactory to MTO Senior Management at the meeting, we would like to finalize this design and proceed to complete the EA.

To help maintain the project schedule, could we request that the MTO Senior Management consider any further refinements (such as provision of any physical separation) during detailed design phase? We can include clear statement related to this in our design options memo as well as the EA Report.

Please advise if this approach is acceptable to MTO staff. We appreciate MTO staff's review and input on this.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP
Senior Environmental Planner
He/Him

M+ 1 647-545-8974
WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Tuesday, April 18, 2023 10:17 AM
To: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Talpur, Mir <mir.talpur@wsp.com>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Mir,

Our Senior Management would like to see a cross-section at the bridge structure with the proposed changes to MUP design. Can you please send me a cross-section, so I forward it for their review and any comments. Please also provide us if there will be any impacts to the drainage and structural components of the bridge.

Thanks
Kashif

From: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Sent: April 3, 2023 3:40 PM
To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; Talpur, Mir <mir.talpur@wsp.com>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Good afternoon,

One more comment, the proposal is a MUP, which means cyclists and pedestrians. The idea of a raised system is not only to provide better delineation and protection to the cyclists, but also to pedestrians.

Thanks

Maged Elmadhoon, M.Eng., P.Eng. (he/him)

Manager, Transportation Planning
Transportation Services Division
Public Works, Niagara Region
1815 Sir Isaac Brock Way, Thorold, ON
Maged.Elmadhoon@niagararegion.ca
Phone: 905-980-6000 ext. 3583
Cell: 289-407-6862

MailScanner has detected a possible fraud attempt from "urldefense.com" claiming to be MailScanner has detected a possible fraud attempt from "urldefense.com" claiming to be www.niagararegion.ca



From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Monday, April 3, 2023 3:30 PM
To: Talpur, Mir <mir.talpur@wsp.com>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Thanks Mir. We will review it and discuss it with the MTO team and let you know if we have any comments / concerns regarding this approach.

Thanks
Kashif

From: Talpur, Mir <mir.talpur@wsp.com>

Sent: April 3, 2023 3:16 PM

To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>

Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Kashif,

Further to the MTO Executive Review Meeting, we have reviewed the OTM Book 18 and Bikeway Design Manual. We would like to share our findings with you and to also request MTO staff's feedback.

With posted speed along Merritt Rd Segment 3 being 60km/h, and information in MTO documents (screenshots below), it appears that a concrete median is not required.

However, we would suggest a barrier curb, or a raised system to provide better delineation and protection to the cyclists. Considering that the AT facility west of Grisdale Rd would be a raised facility, we could provide a raised facility across Hwy 406 interchange. We would appreciate MTO staff's feedback on this. If there are no concerns with this approach, we can update the design option and memo and send them to you.

Width of bi-directional is similar to raised cycle track.

Table 4-9 – Desired and Suggested Minimum Widths for Separated Bicycle Lanes

Classification	Desired Width	Suggested Minimum Width in Constrained Corridors
Buffered Bicycle Lane (pavement markings only) to the right of travel lane	1.8 m lane & 1.2 m buffer ⁵	1.5 m lane & 0.5 m buffer
Buffered Bicycle Lane with Flexible Delineators	2.0 m lane & 1.2 m buffer ⁵	1.5 m lane ^{2,4} & 0.5 m buffer
Buffered Bicycle Lane to the right of a parking lane	1.8 m lane & 1.2 m buffer ⁵	1.5 m lane & 0.8 m buffer ³
Separated Bicycle Facility	2.0 m lane & 1.2 m buffer with barrier ⁵	1.8 m lane ^{2,4} & 1.0 m buffer with barrier

¹ For bidirectional separated facilities, the same desired and minimum lane widths apply (per lane). Barrier widths are independent of the number of lanes. Where facilities are vertically separated, designers should refer to Table 4-15 – Desired and Suggested Minimum Widths for Raised Cycle Tracks]

² Designers should provide a minimum of 2.0 m effective width between the curb and the physical component of the barrier where high volumes of cyclists are anticipated. This will reduce the risk of cyclists clipping the physical buffer or curb while overtaking other cyclists.

³ Designers should provide the widest buffer possible to reduce the risk of a cyclist colliding with an opening car door, recognizing that the space available for avoiding debris or imperfections and overtaking is limited.

⁴ Maintenance procedures and costs should be considered since small street sweeper vehicles typically require 2.0 m of unobstructed running width. Designers should check the requirements for their municipality and factor in higher maintenance costs should their chosen facility widths require the use of specialized equipment or manual sweeping.

⁵ Based on OTM Book 18: Cycling Facilities, if a buffer zone is 1.2m or greater with a physical barrier, a sign may be placed on the barrier to improve visibility to motorists.

Source: Based on information from AASHTO Guide for Planning, Design and Operation of Bicycle Facilities, 2012; NACTO Urban Bikeway Design Guide, 2011

From OTM Book 18 – a vertical element is not required if we can provide the desired buffer width.

Table 4.6 – Desired and Suggested Minimum Buffer Widths for Cycle Tracks and Multi-Use Paths

Facility Type	Posted Speed Limit	Desired Width (excluding curb)	Suggested Minimum (excluding curb)
One-way	≤ 50 km/h	0.6 – 1.0 m	0.3 m ^{a,b}
	60 km/h	1.5 – 2.5 m	0.6 m ^c
	≥ 70 km/h	Outside clear zone ^d	
Two-way	≤ 60 km/h	1.5 – 2.5 m	0.6 m ^{c,e}
	≥ 70 km/h	Outside clear zone ^d	

- a Minimum 0.6 m buffer where on-street parking is adjacent to the cycling facility.
- b On roadways with speeds of 40 km/h or less, it may be acceptable to provide no buffer beyond the width of the curb. In this case, a 100 mm solid white edge line, marked 200 mm from the back of curb, is recommended to encourage cyclists to ride away from the curb edge.
- c 1.0 m is considered the practical lower limit to allow utility poles and signs to be placed in the buffer area while maintaining 0.5 m lateral clearance to the cycling facility. Providing a buffer less than 1.0 m wide may result in these roadway elements needing to be placed elsewhere, and may also hinder the use of the buffer for snow storage.
- d The clear zone distance is a function of the design speed, volumes and slopes. Refer to Table 7.3.1 of the TAC *Geometric Design Guideline for Canadian Roads* (2017). Where the facility cannot be located outside of the clear zone, engineering judgement should be applied to determine an appropriate design solution.
- e Where the suggested minimum buffer width cannot be provided, consider adding a continuous vertical element between the facility and the roadway, particularly on roads with higher traffic speeds and volumes, to protect cyclists from falling onto the roadway.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP
Senior Environmental Planner
He/Him

M+ 1 647-545-8974
WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Monday, March 27, 2023 10:15 AM
To: Talpur, Mir <mir.talpur@wsp.com>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Thanks Mir. We will forward it to the meeting attendees and will let you know if we have any comments.

Thanks
Kashif

From: Talpur, Mir <mir.talpur@wsp.com>
Sent: March 27, 2023 7:34 AM
To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Fraser,



MEETING NOTES

JOB TITLE	Merritt Road-Rice Road – Schedule ‘C’ Municipal Class Environmental Assessment		
PROJECT NUMBER	IM20103036	DATE	21 March 2023
TIME	1:00 PM	VENUE	MS Teams
SUBJECT	Ministry of Transportation Executive Review Meeting		
CLIENT	Regional Municipality of Niagara		

ATTENDEES			
Name	Company	Phone	Email
Maged Elmadhoon	Niagara Region		maged.elmadhoon@niagararegion.ca
Scott Fraser	Niagara Region		scott.fraser@niagararegion.ca
Frank Tassone	Niagara Region		frank.tassone@niagararegion.ca
Felix Wong	WSP E&I Canada Limited		felix.wong@wsp.com
Kari Fellows	WSP E&I Canada Limited		kari.fellows@wsp.com
Mir Ahsan Talpur	WSP E&I Canada Limited		mir.talpur@wsp.com
Kashif Hussain	Ministry of Transportation		kashif.hussain@ontario.ca

ADDITIONAL DISTRIBUTION			
Name	Company	Phone	Email
Other MTO Attendees	MTO		

MATTERS ARISING	ACTION
1.0 PURPOSE OF THE MEETING	
1.1 The purpose of the meeting was to seek Ministry of Transportation's approval of the preferred design for Merritt Road at Grisdale Road and Highway 406 interchange developed as part of Niagara Region's Municipal Class Environmental Assessment for Merritt Road and Rice Road in the Town of Pelham, the City of Thorold and the City of Welland. The Study Team presented the following information to MTO staff.	
2.0 PREFERRED DESIGN FOR MERRITT ROAD AT GRIDDALE ROAD AND HIGHWAY 406	
The study team provided a Presentation, documenting the project background and the preferred design of Merritt Road at Highway 406. A copy of the presentation is attached. The Study Team noted that the preferred design for Merritt Road at Grisdale Road and Highway 406 interchange was identified in consultation with MTO staff, and comments received from MTO were addressed. The Study Team highlighted the following key features of the preferred design:	

MEETING NOTES

2.1	The existing Merritt Road / Grisdale Road intersection is proposed to be converted into a left-in / right-in / right-out only access intersection. Two eastbound lanes and one left turn lane for Highway 406 southbound traffic are being proposed. In addition, there is a traffic signal being proposed at the west ramp intersection. The 2041 forecast for the west ramp intersection of Highway 406 and Merritt Road indicates that a traffic signal is warranted based on Minimum Vehicular Volume with proposed lane configuration.	
2.2	The two-way cycle-track along Merritt Road is proposed to transition to a multi-use path to the east of Grisdale Road. The multi-use path is proposed to cross to the north side of the interchange at the traffic signal to provide a safe pedestrian crossing, and continue as active transportation facility up to Kottmeier Road.	
2.3	Due to low traffic volumes, and to accommodate the multi-use path on the bridge, the existing westbound right turn channel is proposed to be removed, and a short westbound right turn lane will be provided at the intersection.	
2.4	Due to constraint of the existing bridge, the proposed westbound right turn lane length is 95m (40m parallel with 55m taper), which is substandard to the MTO design standard in accordance with TAC Supplement Exhibit 9-J (60m parallel and 70m taper).	
3.0 QUESTIONS / ANSWERS		
Following the presentation, the Study Team invited MTO staff to ask any questions or share any comments. MTO staff did not raise any significant questions or comments about the recommended design. The following summarizes questions from MTO staff and Study Team's responses:		
3.1	<p>MTO staff noted that the concrete median barriers between active transportation facilities and vehicular traffic lanes often pose challenges from maintenance point of view for MTO as well as the local municipalities. MTO staff questioned how was the requirement identified for the concrete median barrier?</p> <ul style="list-style-type: none"> — The Study Team noted the multi-use path across Highway 406 interchange was identified in accordance with <i>MTO Bikeways Design Manual (March 2014)</i>. — MTO staff noted that the concrete barrier may not be required based on MTO standard. It was suggested that the Study Team review <i>Ontario Traffic Manual - Book 18 - Cycling Facilities (June 2021)</i> and <i>MTO Bikeways Design Manual (March 2014)</i> to confirm whether a concrete barrier or a separation buffer would be appropriate between the multi-use path and the vehicular traffic lanes (Action Item). — The Study Team noted that the multi-use path will be considered as an on-road two way cycling facility as there is no curb or grade difference to the path. 	WSP
3.2	<p>MTO staff inquired how will the multiuse path be transitioned to Kottmeier Road?</p> <ul style="list-style-type: none"> — The Study Team responded that initially the cycling path was proposed until Grisdale Road along Merritt Road, where the cyclists would have been directed to use Grisdale Road. Based on MTO staff's feedback, the Study Team identified a safe active transportation facility across Highway 406 interchange that would end at Kottmeier Road. Any future active transportation facility along Kottmeier Road may be identified via a separate assignment in future. 	
3.3	<p>MTO staff sought clarification on whether any design changes were proposed east of Highway 406 northbound off ramp.</p> <ul style="list-style-type: none"> — Study Team clarified that no design changes were proposed east of Highway 406 northbound off ramp. Study Team will update the design to remove any excessive linework to avoid confusion (Action Item). 	WSP

These minutes are considered to be accurate recording of all items discussed. Written notice of discrepancies, errors or omission must be given within seven (7) days, otherwise the minutes will be accepted as written.



Ministry of Transportation Executive Review Meeting

Municipal Class Environmental Assessment Study
for Merritt Road and Rice Road in Pelham,
Thorold and Welland

March 21, 2023



**MOVING
ROADS
FORWARD**

CONNECTING MORE PEOPLE TO MORE POSSIBILITIES

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Agenda

Meeting Objective: Seek Ministry of Transportation's approval of the recommended design for Merritt Rd at Grisdale Rd and Hwy 406 developed as part of Niagara Region's Merritt Rd - Rice Rd Municipal Class EA

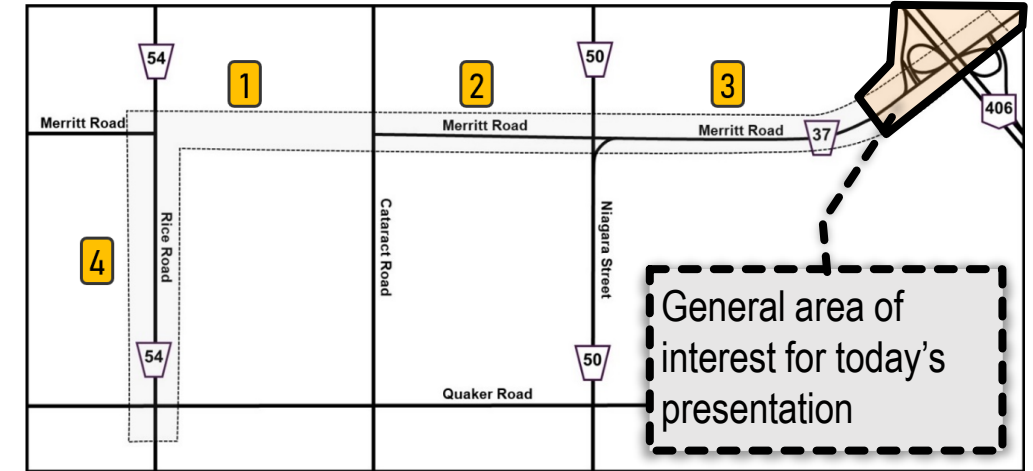
Presentation Outline:

- Merritt Rd and Rice Rd Municipal Class EA – Overview and Existing Conditions
- Merritt Rd at Grisdale Rd and Hwy 406 – Existing Conditions
- Preferred Design for Merritt Rd (Segment 3) West of Hwy 406
- Preferred Design for Merritt Rd at Grisdale Rd and Hwy 406
- Consideration of MTO Staff Feedback into the Identification of Preferred Design
- Next Steps



Merritt Rd and Rice Rd Municipal Class EA – Overview and Existing Conditions

- Building upon the recommendations of the Niagara Region Transportation Master Plan (2017).
- Capacity improvements and active transportation facilities are required to accommodate future growth a result of proposed developments in the Town of Pelham, the City of Thorold and the City of Welland.



Segment 1: Merritt Rd (Rice Rd - Cataract Rd)

- Unopened road allowance
- Located within the Town of Pelham and City of Thorold.



Segment 2: Merritt Rd (Cataract Rd - Merrittville Hwy / Niagara St)

- Minor arterial roadway
- Posted Speed Limit: 50km/h
- Located within City of Thorold



Segment 3: Merritt Rd (Merrittville Hwy / Niagara St - Hwy 406)

- Minor arterial roadway
- Posted Speed Limit: 60km/h
- Located within the City of Thorold



Segment 4: Rice Road (200 m north of Merritt Rd - Quaker Rd)

- Minor arterial roadway
- Posted Speed Limit: 50km/h
- Located in the Town of Pelham and the City of Welland

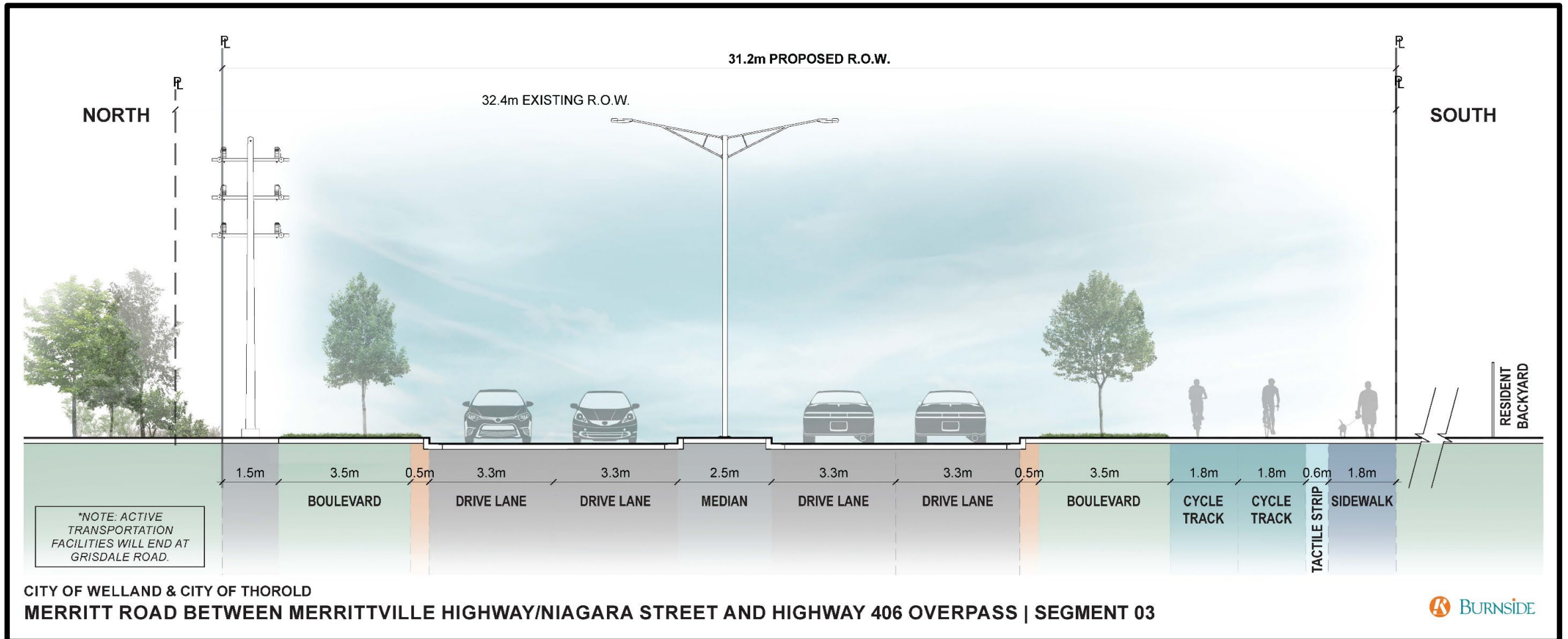


Merritt Rd at Grisdale Rd and Hwy 406 – Existing Conditions

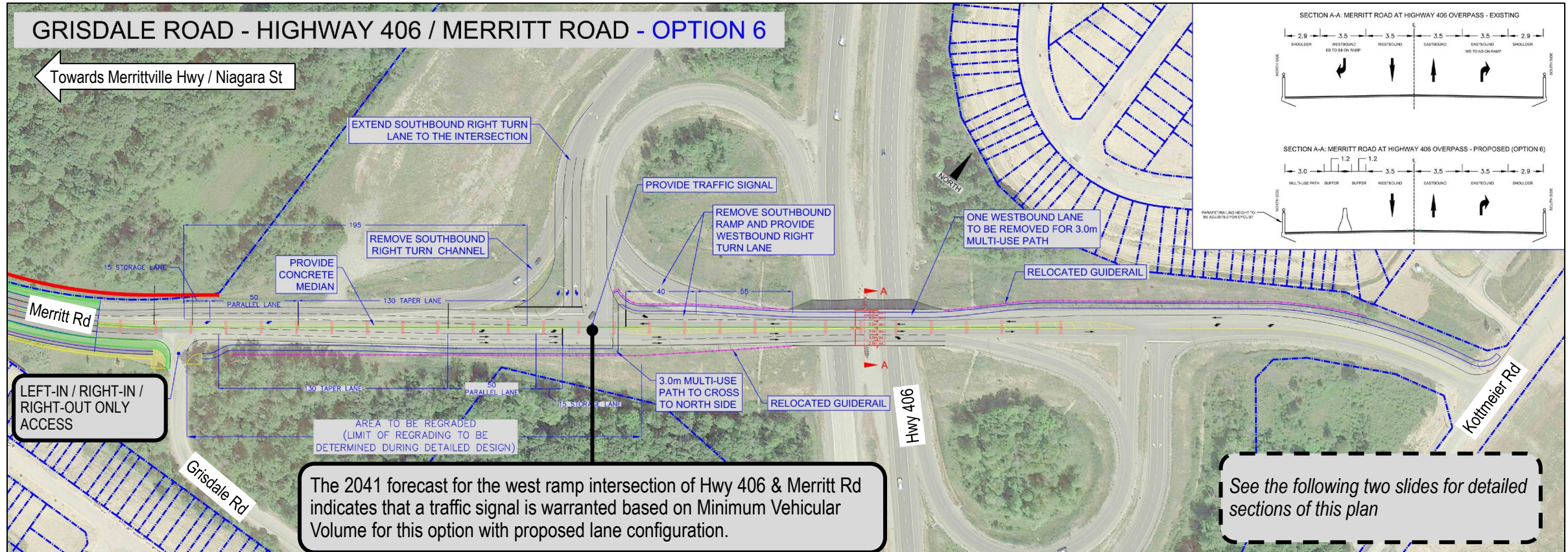


Preferred Design for Merritt Rd (Segment 3) West of Hwy 406

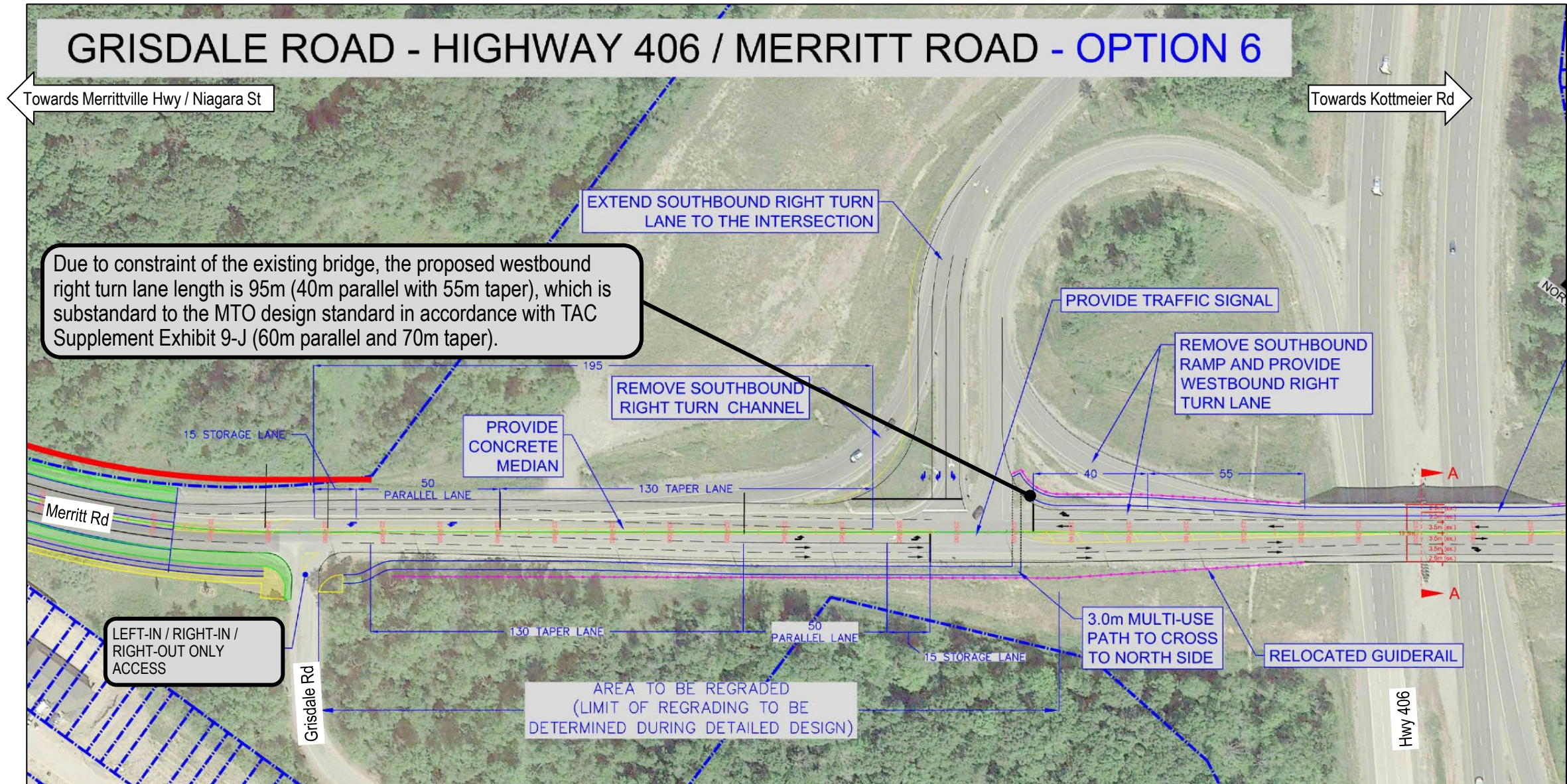
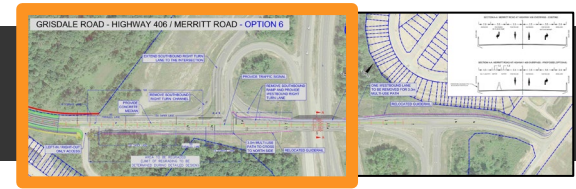
- Four 3.3 m drive lanes separated by a 2.5 m median
- 1.8 m sidewalk on the south side
- A 3.6 m separated two-way cycle track on the south side



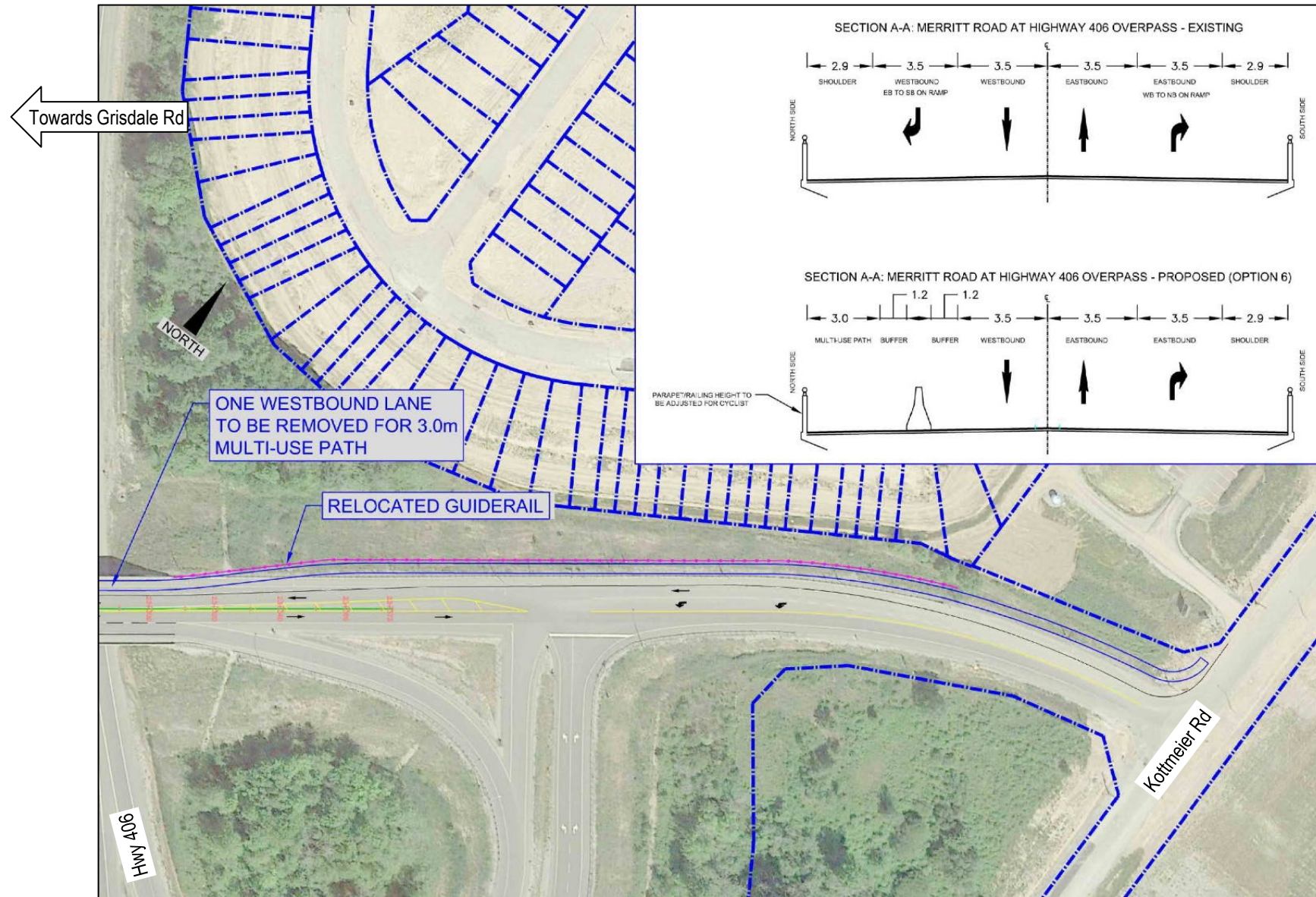
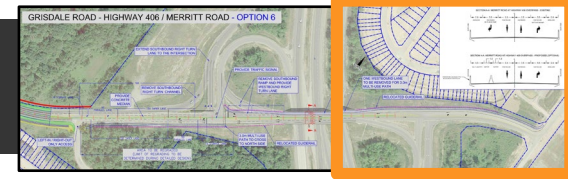
Preferred Design for Merritt Rd at Grisdale Rd and Hwy 406



Preferred Design for Merritt Rd at Grisdale Rd and Hwy 406



Preferred Design for Merritt Rd at Grisdale Rd and Hwy 406



Consideration of MTO Staff Feedback into the Identification of Preferred Design

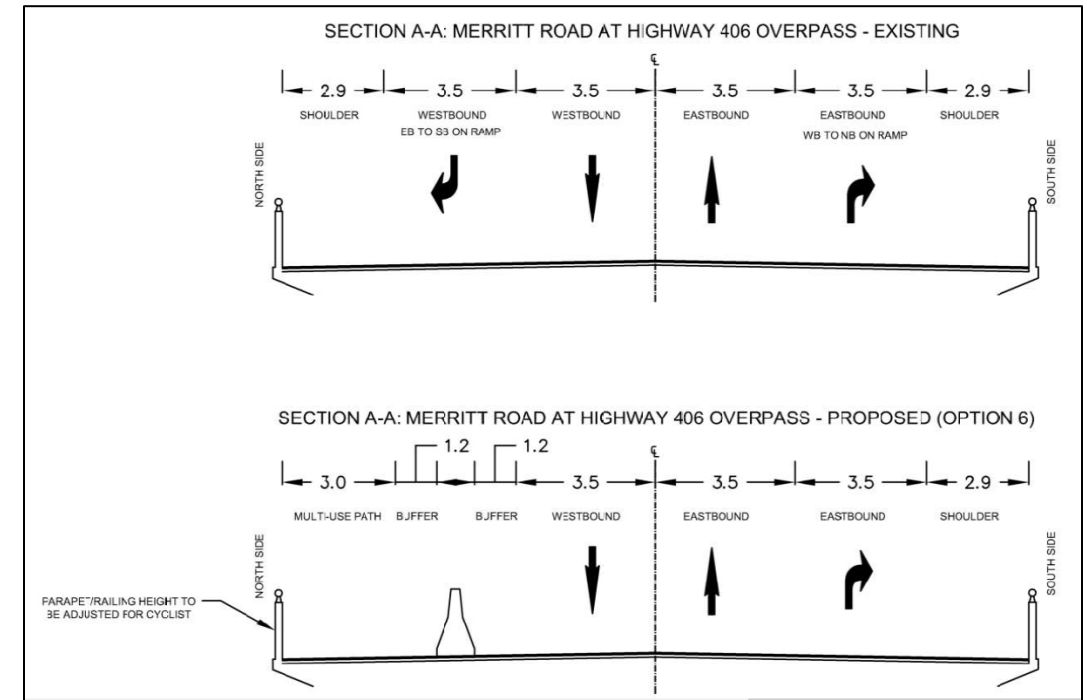
A total of six (6) design options were identified. The design presented herein was identified as preferred in consultation with MTO staff in terms of traffic safety, constructability and cost effectiveness.

The preferred design will provide a continuous active transportation connection (MUP) between Grisdale Rd and Kottmeier Rd.

The preferred design will provide safer pedestrian crossing at the proposed signalized intersection.

Due to low traffic volumes, the existing westbound right turn channel will be removed, and a short westbound right turn lane will be provided at the intersection.

A roundabout option was also identified, but it was not considered as feasible option due to significant property impacts and higher cost of construction.



Design Criteria: Standards Table: Merritt Rd at Hwy 406

DESIGN CRITERIA

Group Work Project No. GWP xxxx-xx-xx Highway No. 406 Page 2 of 9
 Work Project No(s). WP xxxx-xx-xx Date: Mar 9, 2023
 WP xxxx-xx-xx

Standards Table: Merritt Road at Highway 406

Design Year: 2031	Superelevation Maximum Rate for Determining the Radius: 6%			
	Present Conditions	Design Standards	Reference (Design Standards)	Proposed Standards
Functional Highway Classification	RAU80	UAU80	MTO design supplement 2020 (Exhibit 2-G)	UAU80
Minimum Stopping Sight Distance (m)	>105	105	TAC 2017 (2.5.3: Table 2.5.2)	>105
Crest: Minimum "K" factor for Stopping Sight Distance	TBD ¹	N/A	TAC 2017 (3.3.3.3: Table 3.3.2)	TBD ¹
Sag: Minimum "K" factor for Stopping Sight Distance	TBD ¹	N/A	TAC 2017 (3.3.3.4: Table 3.3.4)	TBD ¹
Grades Maximum (%)	TBD ¹	N/A	TAC 2017 (3.3.2.4: Table 3.3.1)	TBD ¹
Radius Minimum (m)	Tangent	290	TAC 2017 (Table 3.2.8)	Tangent
Lane Widths (m)	4 x 3.50 m	3.0 m – 3.70 m	TAC 2017 (4.2.2)	3 x 3.50 m
Shoulder Width (Left / Right) (m)	2.9 / 2.9	N/A	TAC 2017 (4.4.2)	1.2 / 2.9
Multi-Use Path (m)	N/A	3.0 m – 6.00 m	TAC 2017 (5.3.1.4: Table 5.3.5)	3.0 m
Shoulder Rounding (m)	N/A	N/A	N/A	N/A
Median Width (m)	1.00 - 3.7 (Flushed)	1.50 – 2.0 (Concrete) 1.00 – 4.00 (Flushed)	TAC 2017 (4.5.3)	1.50 - 2.0 (Concrete) 1.00 – 4.00 (Flushed)
R.O.W. Width - nominal (m)	19.8			19.8
Posted Speed - prevailing (km/h)	60 km/h	60 km/h		60 km/h
Miscellaneous	N/A	N/A	N/A	N/A

Notes:


1. Vertical profile to match existing and will be determined during detailed design.

Design Criteria: Interchange Standards Table: Highway 406 N – Merritt Road E/W Ramp

DESIGN CRITERIA

Group Work Project No. GWP xxxx-xx-xx Highway No. 406 Page 3 of 9
 Work Project No(s). WP xxxx-xx-xx Date: Mar 9, 2023
 WP xxxx-xx-xx

Interchange Standards Table: Interchange Name: Highway 406 N - Merritt Road E/W Ramp

	Ramp Name	Present Conditions	Design Standards	Reference (Design Standards)	Proposed Standards
Crossing Road Design Speed (km/h)		80 km/h	80 km/h	MTO design supplement 2020 (10.6.2.1)	80 km/h
Ramp Design Speed (km/h)		80 km/h	80 km/h	MTO design supplement 2020 (10.6.2.1: Exhibit 10-D)	80 km/h
Sight Distance Requirement for Stopping, Crossing and Turning Movements at the Crossing Road (m)		See Note 1	130	TAC 2017 (2.5.3: Table 2.5.2)	See Note 1
Crest: Minimum "K" factor for Stopping Sight Distance		See Note 1	26	TAC 2017 (3.3.3.3: Table 3.3.2)	See Note 1
Sag: Minimum "K" factor for Stopping Sight Distance		See Note 1	30	TAC 2017 (3.3.3.4: Table 3.3.4)	See Note 1
Grades Maximum (%)		See Note 1	6%	TAC 2017 (3.3.2.4: Table 3.3.1)	See Note 1
Radius Minimum (m)		250 m	130 m	MTO design supplement 2020 (10.6.2.1: Exhibit 10-D)	250 m
Superelevation Maximum Rate (%)		0.06 m/m	0.06 m/m	MTO design supplement 2020 (10.6.2.1: Exhibit 10-D)	0.06 m/m
Lane Widths (m)		2 x 4.8 m	4.8 m	TAC 2017 (10.6.2.5)	3 x 4.8 m ²
Shoulder Width (Left / Right) (m)		1.0 m left 3.0 m right	1.0 m Left 2.5 m Right	MTO design supplement 2020 (Section 4.4.2)	1.0 m Left 3.0 m Right
Shoulder Rounding (m)		0.5 m (min)	0.5 m	TAC 2017 (4.4.5)	0.5 m
Sight Distance at Exit Terminal (m)		See Note 3	-	-	See Note 3
Exit Terminal Speed-Change Lane Length (m)		See Note 3	-	-	See Note 3
Sight Distance at Entrance Terminal (m)		See Note 3	-	-	See Note 3
Entrance Terminal Speed-Change Lane Length (m)		See Note 3	-	-	See Note 3

Notes:

1. Proposed work is limited to intersection tie-in. Existing ramp profile to be maintained.
2. Existing two lanes (left/ right turn lanes) will be converted to 2 right and 1 left turning lanes approaching intersection at Merritt Road.
3. Existing entrance and exit terminal and speed-change lanes to be maintained.

Design Criteria: Hwy 406 (Beaverdams Rd to Robinson Rad)

DESIGN CRITERIA

Group Work Project No. GWP xxxx-xx-xx Highway No. 406 Page 4 of 9
 Work Project No(s). WP xxxx-xx-xx Date: Mar 9, 2023
 WP xxxx-xx-xx

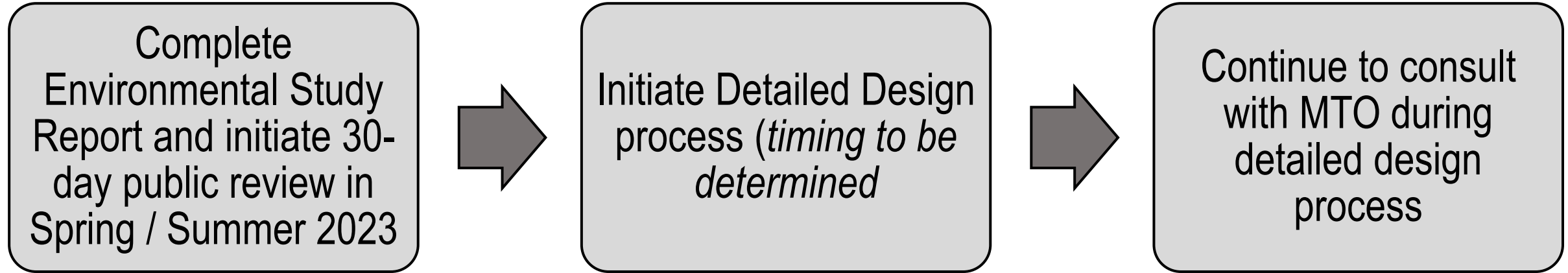
Standards Table: Highway 406 (Beaverdams Road to Robinson Road)

Design Year: 20232031	Superelevation Maximum Rate for Determining the Radius: Not Available			
	Present Conditions	Design Standards	Reference (Design Standards)	Proposed Standards ¹
Functional Highway Classification	RFD120	RFD120	RFD120	RFD120
Minimum Stopping Sight Distance (m)	245 m	250	TAC 2017 (2.5.3: Table 2.5.2)	245 m
Crest: Minimum "K" factor for Stopping Sight Distance	120 m	95	TAC 2017 (3.3.3.3: Table 3.3.2)	120 m
Sag: Minimum "K" factor for Stopping Sight Distance	60 m	63	TAC 2017 (3.3.3.4: Table 3.3.4)	60 m
Grades Maximum (%)	3%	5%	TAC 2017 (3.3.2.4: Table 3.3.1)	3%
Radius Minimum (m)	1800 m	750	TAC 2017 (Table 3.2.6)	1800 m
Lane Widths (m)	2 X 3.75 m	3.75	MTO design supplement 2020 (Exhibit 4-A)	2 X 3.75 m
Shoulder Width (Left / Right) (m)	Right – 3.0 m Left – 1.5 m	3.0	MTO design supplement 2020 (Exhibit 4-J)	Right – 3.0 m Left – 1.5 m
Shoulder Rounding (m)	1.5 m	1.0	MTO RDM 2.3.3	1.5 m
Median Width (m)	22 m	N/A	N/A	22 m
R.O.W. Width - nominal (m)	N/A	N/A	N/A	N/A
Posted Speed - prevailing (km/h)	100 km/h	100 km/h	N/A	100 km/h
Miscellaneous	N/A	N/A	N/A	N/A

Notes:

1. The existing conditions for Highway 406 will be maintained. No changes are proposed to Highway 406 mainline. Existing information listed in this table was provided to the Niagara Region by the Ministry of Transportation.

Next Steps



Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Good Morning Kashif,

Please find attached the minutes of the MTO Executive Review Meeting for the proposed design for Merritt Rd at Grisdale Rd and Hwy 406 interchange identified as part of the Niagara Region's Merritt Rd-Rice Rd Class EA. Please feel free to circulate the minutes to the meeting attendees, and let us know if there are any revisions. I have also attached a pdf version of the presentation.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP

Senior Environmental Planner

He/Him

M+ 1 647-545-8974

WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>

Sent: Tuesday, March 14, 2023 5:01 PM

To: Talpur, Mir <mir.talpur@wsp.com>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>

Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Hi Maged and Mir,

I have just sent you a formal meeting invite for next week's MTO executive review meeting. The invite has a link to the MS Teams meeting. Please make sure to join at least 10min before the start of the meeting i.e. 12:50 pm to set up the presentation etc. The meeting will start exactly at 1 pm. Please feel free to forward the invite to your team members.

Please let me know if you have any questions in this regard.

Thanks

Kashif

From: Talpur, Mir <mir.talpur@wsp.com>

Sent: March 14, 2023 12:42 PM

To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>

Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Hi Kashif,

Thank you for your patience as we were working through the updates to the memo and the presentation. Both updated documents incorporated MTO's comments from the emails of February 10, 2023 and March 8, 2023 can be downloaded from this OneDrive link: [9-Merritt Rd-Rice Rd - MTO Exec Rev Mtg Prst \(14-03-2023\)](#)

Please let me know if you encounter any issues with the download link.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP

Senior Environmental Planner

He/Him

M+ 1 647-545-8974

WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>

Sent: Tuesday, March 14, 2023 9:15 AM

To: Talpur, Mir <mir.talpur@wsp.com>

Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Hi Mir,

For the next week's MTO executive review meeting, please submit all the documents by today afternoon – before 1 pm; otherwise, the meeting will be rescheduled to another available date.

Please let me know if you have any questions or would like to reschedule the meeting to another date.

Thanks
Kashif

From: Hussain, Kashif (MTO)

Sent: March 8, 2023 1:37 PM

To: Talpur, Mir <mir.talpur@wsp.com>

Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

Hi Mir,

Thanks for sending the draft presentation. Please also add few slides for the Design Criteria (showing standard tables – outlining any items that are not meeting MTO standards and other information). We need to provide all the documents for Senior Management Review soon so would appreciate it if you submit them before the end of this week. MTO team members normally update their section

heads/managers before the meeting; however, the Senior Management may ask any question during the meeting or provide any comments; therefore, please be prepared to answer any of their questions.

Thanks
Kashif

From: Talpur, Mir <mir.talpur@wsp.com>
Sent: March 8, 2023 11:48 AM
To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Kashif,

We are finalizing the edits to the design options memo, and will be sharing it with you in the next few days. In the meantime, we have completed the draft presentation for the March 21 Executive Review meeting, and would like to share it with you. Please see attached.

I will follow up as soon as possible once we have completed all the edits to the memo (I am aiming for this week).

Apart from the above, we wanted to ask if MTO staff normally brief the Senior Management ahead of the meeting, to convey that MTO staff are satisfied with the design and their concerns have been addressed. We would appreciate your thoughts on this.

Please let me know if you have any questions, or need anything else.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP

Senior Environmental Planner

He/Him

M+ 1 647-545-8974

WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Tuesday, March 7, 2023 10:38 AM
To: Talpur, Mir <mir.talpur@wsp.com>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Ok thanks, Mir. Please also submit all the updated documents along with the presentation.

Thanks
Kashif

From: Talpur, Mir <mir.talpur@wsp.com>
Sent: March 7, 2023 10:36 AM
To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Wong, Felix <felix.wong@wsp.com>; Fellows, Kari <kari.fellows@wsp.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Hi Kashif,

I just sent you an email with a link to the presentation for the March 21 MTO Executive Review meeting, but I recalled that email immediately after sending. I wasn't sure if you received that email. If you did, please disregard that email. I just learned that there is a new reviewer that would like to review the presentation. We will share with you the presentation as soon as possible.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP

Senior Environmental Planner

He/Him

M+ 1 647-545-8974

WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Monday, February 13, 2023 3:41 PM
To: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Talpur, Mir <mir.talpur@wsp.com>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Tunio, Danial <daniel.tunio@wsp.com>; Shakeel, Meera <meera.shakeel@wsp.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Thanks, Maged.

Kashif

From: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Sent: February 13, 2023 3:38 PM
To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; Talpur, Mir <mir.talpur@wsp.com>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Tunio, Danial <daniel.tunio@wsp.com>; Shakeel, Meera <meera.shakeel@wsp.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Sounds good Kashif. I will send a place holder so that the meeting is on everyone's calendar until you send a formal invite.

Thanks

Maged Elmadhoon, M.Eng., P.Eng. (he/him)

Manager, Transportation Planning
Transportation Services Division
Public Works, Niagara Region
1815 Sir Isaac Brock Way, Thorold, ON
Maged.Elmadhoon@niagararegion.ca
Phone: 905-980-6000 ext. 3583
Cell: 289-407-6862

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From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>

Sent: Monday, February 13, 2023 3:35 PM

To: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Talpur, Mir <mir.talpur@wsp.com>

Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Tunio, Danial <daniel.tunio@wsp.com>; Shakeel, Meera <meera.shakeel@wsp.com>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Maged,

I would like to confirm that the MTO executive review meeting is rescheduled to March 21, 2023, at 1 pm (1hr meeting). I will forward you a formal meeting invite 1 week in advance of the meeting.

Thanks

Kashif

From: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>

Sent: February 13, 2023 3:28 PM

To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; Talpur, Mir <mir.talpur@wsp.com>

Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Tunio, Danial <daniel.tunio@wsp.com>; Shakeel, Meera <meera.shakeel@wsp.com>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Thanks Kashif

Maged Elmadhoon, M.Eng., P.Eng. (he/him)

Manager, Transportation Planning
Transportation Services Division

Public Works, Niagara Region
1815 Sir Isaac Brock Way, Thorold, ON
Maged.Elmadhoon@niagararegion.ca
Phone: 905-980-6000 ext. 3583
Cell: 289-407-6862

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From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Monday, February 13, 2023 3:26 PM
To: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Talpur, Mir <mir.talpur@wsp.com>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Tunio, Danial <daniel.tunio@wsp.com>; Shakeel, Meera <meera.shakeel@wsp.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Ok, Maged. I will book the meeting on March 21, 2023 (afternoon).

Thanks
Kashif

From: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Sent: February 13, 2023 2:31 PM
To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; Talpur, Mir <mir.talpur@wsp.com>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Tunio, Danial <daniel.tunio@wsp.com>; Shakeel, Meera <meera.shakeel@wsp.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Kashif,

Given that March 14 is within the school March break, let us avoid it in case some of the team members are off the last minute.

Please book Tuesday, March 21, 2023. This date works for the Region team and hopefully it works for Mir and his team.

Best regards
Maged

Maged Elmadhoon, M.Eng., P.Eng. (he/him)
Manager, Transportation Planning
Transportation Services Division
Public Works, Niagara Region
1815 Sir Isaac Brock Way, Thorold, ON

Maged.Elmadhoon@niagararegion.ca

Phone: 905-980-6000 ext. 3583

Cell: 289-407-6862

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From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>

Sent: Monday, February 13, 2023 2:05 PM

To: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Talpur, Mir <mir.talpur@wsp.com>

Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Tunio, Danial <danial.tunio@wsp.com>; Shakeel, Meera <meera.shakeel@wsp.com>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Maged,

MTO Executive Review / Senior Management Meetings are only held once a week every Tuesday Afternoon (start from 1 pm). I have checked with our staff who arrange the executive review meetings, and are keeping this project as 1st item on the agenda and will be able to start our meeting at 1 pm (1hr meeting). If the Region staff are not available on March 14 from 1 pm -2 pm, the following dates also are currently available:

Tuesday, March 21, 2023 (Afternoon)

Tuesday, March 28, 2023 (Afternoon)

Tuesday, April 4, 2023 (Afternoon)

Please confirm if March 14 (from 1 pm -2 pm) will work for you; otherwise, please let us know your availability on any of the above dates and I will book the meeting accordingly.

Thanks
Kashif

From: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>

Sent: February 13, 2023 1:10 PM

To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; Talpur, Mir <mir.talpur@wsp.com>

Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Tunio, Danial <danial.tunio@wsp.com>; Shakeel, Meera <meera.shakeel@wsp.com>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Kashif,

We always try to accommodate the MTO executive review meeting date/time, however staff calendar is already busy for the next few weeks. It is better to hold the date and time earlier. For Regional staff we are available on March 14 anytime between 10:30 am and 1:00 pm. We are not available after

2:00 pm. Assuming this time period works for MTO team and the consultant team, I recommend that we book the meeting accordingly.

Thanks for your cooperation.

Maged

Maged Elmadhoon, M.Eng., P.Eng. (he/him)

Manager, Transportation Planning
Transportation Services Division
Public Works, Niagara Region
1815 Sir Isaac Brock Way, Thorold, ON
Maged.Elmadhoon@niagararegion.ca
Phone: 905-980-6000 ext. 3583
Cell: 289-407-6862

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From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>

Sent: Monday, February 13, 2023 8:56 AM

To: Talpur, Mir <mir.talpur@wsp.com>

Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Tunio, Danial <danial.tunio@wsp.com>; Shakeel, Meera <meera.shakeel@wsp.com>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Mir,

The MTO executive review meeting will be held in the afternoon of March 14, 2023. The exact start time of the meeting will be shared one week in advance of the meeting.

Thanks
Kashif

From: Talpur, Mir <mir.talpur@wsp.com>

Sent: February 13, 2023 7:42 AM

To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>

Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Fraser, Scott <Scott.Fraser@niagararegion.ca>; Tunio, Danial <danial.tunio@wsp.com>; Shakeel, Meera <meera.shakeel@wsp.com>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Kashif,

Thank you for sharing these comments. We will incorporate these comments into the memo and will resend it to you. We will also share with you the presentation for the MTO executive review meeting by March 4.

Are you able to advise the meeting start time, so we can block off that window in our calendars? Thanks

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP

Senior Environmental Planner

He/Him

M+ 1 647-545-8974

WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>

Sent: Friday, February 10, 2023 4:41 PM

To: Talpur, Mir <mir.talpur@wsp.com>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>

Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Tunio, Danial <danial.tunio@wsp.com>; Shakeel, Meera <meera.shakeel@wsp.com>; Fraser, Scott <Scott.Fraser@niagararegion.ca>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Mir,

Please see the following ministry comments on the recent submission:

- The MTO team has reviewed the memo and has following few comments.
 - Regarding the design of the taper (length and configuration) for the left turn to Grisdale Road and to the 406 SB ramp, Table 9.17.1 is used. However, as per the MTO design supplement, this table is not applicable and is replaced with Exhibit 9-R. Therefore, please use Exhibit 9-R for taper lengths or provide justification for use of table 9.17.1
 - The other minor comment we have is regarding formatting Appendix C & D (containing traffic analysis and queuing simulation) are organized such that there is no distinction between the different options. The lack of notation (ex. Merritt Rd & Hwy 406 SB Ramp – Option 3) or title pages makes review difficult. Option 5 traffic analysis also seems to be presented following Option 6 (notable by use of HCM 2010 methodology for roundabouts) so the analyses are at least not totally organized in order of Options 3 through 6.
- For the design criteria documents – please see attached comments. Please also complete all sections of the Design Criteria and provide details. For Sections 11 (illumination) and 12 (traffic signals) please see attached the electrical design criteria memo for your reference. Please identify the requirements of both illumination and traffic signals at the ramp terminals and along Merritt Road. Please update the DC document and re-submit for MTO review.
- In the design criteria document, the design standards for Merritt Road are shown for the functional highway classification of UAU70, and the posted speed of 60km/h. As per Exhibit 2-G of the MTO design supplement, there is no UAU70 standard. the minimum is UAU80;

therefore please use UAU80 with a design speed of 80km/h and posted 60km/h. Please update the tables and design accordingly.

- When your team finalizes the Drainage and Stormwater Management report for the recommended option, please submit it for MTO's review.
- The ministry environmental office would also like to review the draft EA report for this study. Once you have the draft EA completed, please also send it to the ministry for review.

We have also booked an MTO executive review meeting on March 14, 2023 (45min) for the Niagara Region to present the EA recommendations and preferred option to MTO Senior Management for approval. Please submit all the updated documents and a presentation for the executive review meeting at least 10 days in advance of the meeting. As previously mentioned, approval of the preferred option will be required from the MTO Senior Management before the Niagara Region include it in the EA document. I will forward you the formal meeting invite for the meeting a week in advance of the meeting.

Please let me know if you have any questions in this regard.

Thanks
Kashif

From: Hussain, Kashif (MTO)
Sent: February 6, 2023 10:04 AM
To: Talpur, Mir <mir.talpur@wsp.com>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Tunio, Danial <daniel.tunio@wsp.com>; Shakeel, Meera <meera.shakeel@wsp.com>; Fraser, Scott <Scott.Fraser@niagararegion.ca>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

Hi Mir,

We are currently reviewing the updated documents and will provide our comments/questions before the end of this week.

Thanks
Kashif

From: Talpur, Mir <mir.talpur@wsp.com>
Sent: February 6, 2023 9:42 AM
To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Tunio, Danial <daniel.tunio@wsp.com>; Shakeel, Meera <meera.shakeel@wsp.com>; Fraser, Scott <Scott.Fraser@niagararegion.ca>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Good Morning Kashif,

Hope you had a nice weekend. I am sending a follow up email regarding Merritt Road / Hwy 406 interchange memo. We look forward to hearing from you if the updated memo is satisfactory, or if MTO staff has any further questions/comments.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP

Senior Environmental Planner

He/Him

M+ 1 647-545-8974

WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>

Sent: Friday, January 20, 2023 11:55 AM

To: Talpur, Mir <mir.talpur@wsp.com>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>

Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Tunio, Danial <daniel.tunio@wsp.com>; Shakeel, Meera <meera.shakeel@wsp.com>; Fraser, Scott <Scott.Fraser@niagararegion.ca>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Mir,

Thanks for letting me know. I will share the updated documents with the team.

Regards,
Kashif

From: Talpur, Mir <mir.talpur@wsp.com>

Sent: January 20, 2023 11:07 AM

To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>

Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Tunio, Danial <daniel.tunio@wsp.com>; Shakeel, Meera <meera.shakeel@wsp.com>; Fraser, Scott <Scott.Fraser@niagararegion.ca>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Kashif,

We found a typo in the design criteria, and have updated the file to correct that. I have replaced the files for the compiled memo and the design criteria in the OneDrive folder – new files include “_Updated” at the end. If you could please share these new files with your team for their review, that would be greatly appreciated.

Sorry for any confusion.

The OneDrive download link remains the same:  [Merritt Rd - 406_Updated Design Memo \(2023-01-19\)](#).

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

He/Him

M+ 1 647-545-8974

WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Friday, January 20, 2023 9:35 AM
To: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Talpur, Mir <mir.talpur@wsp.com>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Tunio, Danial <daniel.tunio@wsp.com>; Shakeel, Meera <meera.shakeel@wsp.com>; Fraser, Scott <Scott.Fraser@niagararegion.ca>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Good Morning Maged and Mir,

Thanks for submitting the revised memo and design option for the ministry review. We will review the documents and let you know if we have any comments. If there will be no major comments/concerns, we will arrange MTO executive review meeting for the Niagara Region to present the proposed recommendations to our Senior Management for their review and final approval. The MTO senior management approval will be required before the proposed changes at the interchange and the MTO right of way are included in the EA document.

Thanks
Kashif

From: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Sent: January 20, 2023 8:05 AM
To: Talpur, Mir <mir.talpur@wsp.com>; Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Cc: Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Tunio, Danial <daniel.tunio@wsp.com>; Shakeel, Meera <meera.shakeel@wsp.com>; Fraser, Scott <Scott.Fraser@niagararegion.ca>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Thanks Mir

Kashif, I trust that the revised memo and design option are satisfactory to MTO staff. Please let me know if you have any question or concern. We look forward to your collaboration to finalize this last piece of the design to enable us to file the ESR soon.

Thanks
Maged

<

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Talpur, Mir

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

From: Talpur, Mir <mir.talpur@wsp.com>

Sent: Thursday, January 19, 2023 6:12 PM

To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>


Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Tunio, Danial <danial.tunio@wsp.com>; Shakeel, Meera <meera.shakeel@wsp.com>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Kashif,

Hope you have been doing well. We have now addressed MTO's comments of November 30, 2022, on our design options memo for Merritt Road / Hwy 406 interchange. Please see our responses in **red** in the email below.

The updated memo with updated Option 6 can be downloaded from this OneDrive link:  [Merriitt Rd - 406 Updated Design Memo \(2023-01-19\)](#). For the ease of MTO staff's review and in anticipation of expediting the review, I have also saved the updated Option 6 and the design criteria as individual files.

We trust that the updates in this version of the memo are satisfactory to MTO staff, and we look forward to presenting this information to MTO Senior Management. Please let us know when a meeting with MTO's Senior Management could be scheduled.

We would greatly appreciate your feedback on this memo by February 7.

Also, an update that Muhammad is no longer with WSP. I will be the keep point of contact for this project. Please feel free to let me know if you have any questions / require additional information.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

He/Him

M+ 1 647-545-8974

WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>

Sent: Wednesday, November 30, 2022 3:10 PM

To: Khan, Muhammad <muhammad.r.khan@wsp.com>

Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Talpur, Mir <mir.talpur@wsp.com>; Tunio, Danial

<daniel.tunio@wsp.com>; Shakeel, Meera <meera.shakeel@wsp.com>; Ryall, Carolyn <carolyn.ryall@niagararegion.ca>; Weng, Xin (MTO) <Xin.Weng@ontario.ca>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Muhammad,

Please see the following comments on the updated design memo.

- As per our previous comments, the MTO recommends keeping the east ramp terminal (S-E/W ramp terminal) as per the existing configuration. The preferred Option 6 shows 2 EB lanes and 1 WB lane passing through the east ramp terminal which is contrary to the existing condition. Option 6 is also showing the MUP on the east side of the structure using the existing roadway all the way to Kottmeier road. MTO recommends on the east side of the structure, please move the MUP to the north side outside the edge of the existing roadway and make a separate MUP infrastructure to Kottmeier road similar to the MUP on the west side of the structure. For the EB lanes please force lane 2 to EB Merritt road to Hwy 406 NB loop ramp (must exit) and carry one through lane through the east ramp terminal. For the WB lanes at the east ramp terminal, please provide a separate left turn lane to access the Hwy 406 NB ramp and one through lane similar to the existing conditions. Please update option 6 accordingly and re-submit for MTO review.
- Option 6 has been updated to incorporate these comments. Please refer to the updated Option 6 in the memo.
- Bottom of page 10, please remove "...for future (2041) horizon year in order". The design memo and the EA should be clear as soon as the right turn channelization from SB Hwy 406 will be removed there will be a need to signalize the ramp terminal and construct the MUP.
- This reference has been removed.
- Under section 8 Conclusion – Active transportation, since the preferred option includes the MUP on Merritt road across highway 406 therefore please remove the last paragraph mentioning the Region has shown a willingness to implement active transportation across Highway 406 as a separate assignment.
- This statement has been removed.
- As per our previous comments, please provide a design criteria document for the updated preferred option 6 for the ministry review. Attached please see the MTO Design criteria template.
- We have completed MTO's design criteria template and included it as Attachment G to the memo.
- As per our previous comments for the Left In / Right in Right out access for Grisdale Road; please check that the design meets the MTO standards and confirm. Please also check the tapers design (length and configuration) for the left turns to Grisdale Road and to the 406 SB ramp are as per the MTO standards. Please provide the supporting design standards for MTO review.
- This option (including taper length and design) was developed in accordance with the guidelines provided in Chapter 9 (Intersections) of the Geometric Design Guidelines for Canadian Roads (2017). We have referenced this information under Section 3 (Option 6).

- Please also submit the drainage report for the preferred option for MTO review.
- The Merritt Road and Rice Road EA project includes SWM component as part of the study and WSP staff is currently working on it. However, these minor geometric changes under preferred Option # 6 do not necessarily warrant additional investigation. WSP will provide the SWM report to MTO for review once completed.

Please provide us with the updated design memo & option 6 and other required documents for our review. As previously mentioned, please note that after the MTO team review, we need to arrange MTO executive review meeting for the Niagara Region to present the proposed recommendations to our Senior Management for their review and final approval. The MTO senior management approval will be required before the proposed changes at the interchange and the MTO right of way are included in the EA document.

Please let me know if you have any questions or would require a meeting to discuss the comments in detail.

Thanks
Kashif

Talpur, Mir

From: Khan, Muhammad
Sent: Wednesday, November 16, 2022 1:47 PM
To: Hussain, Kashif (MTO)
Cc: Elmadhoon, Maged; Talpur, Mir; Tunio, Danial; Shakeel, Meera; Ryall, Carolyn; Weng, Xin (MTO)
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

Good Afternoon Kashif,

The design memo has been updated based on the comments provided by the Ministry. Please note that all the comments are addressed. You will receive a separate email to access the memo.

For the last comment regarding median, the cross section is prepared at the bridge structure where no median is proposed. The median is only proposed up to Highway 403 westerly Ramps as shown in design options plans, hence not shown in cross section.

We hope that this updated design memo with multiple events of coordination, meetings and input from MTO staff will now be satisfactory. Kindly review and provide your feedback by **November 30th** as ESR documentation is now being finalized.

Regards,



Muhammad Khan, M.Eng., P.Eng.
Senior Transportation Engineer
M+ 1 905-407-3438

From: Khan, Muhammad
Sent: Wednesday, September 7, 2022 11:55 AM
To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>; Talpur, Mir <mir.talpur@woodplc.com>; Tunio, Danial <danial.tunio@woodplc.com>; xin.weng@ontario.ca; carolyn.ryall@niagararegion.ca
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

Good Morning Kashif,

In addition to Maged's email, below is our response to MTO's comments.

Regards,

Muhammad Khan M.Eng., P.Eng.

Mobile: +1 (905) 407 3438
www.woodplc.com



From: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Sent: Wednesday, August 17, 2022 4:11 PM
To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; Khan, Muhammad <muhammad.khan@woodplc.com>
Cc: Alkarawi, Sulaf <Sulaf.Alkarawi@niagararegion.ca>; Talpur, Mir <mir.talpur@woodplc.com>; Tunio, Danial <danial.tunio@woodplc.com>; Weng, Xin (MTO) <Xin.Weng@ontario.ca>; Ryall, Carolyn <Carolyn.Ryall@niagararegion.ca>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Kashif,

Thanks for providing the Ministry's comment on the proposed option for Merritt Rd and Hwy 406.

We will review your email below in detail and respond accordingly.

Please note that the initial plan was to stop the cycle tracks at Grisdale Road and connect it to Welland Canal Path through Grisdale Road. Staff from MTO asked that the cycling facility continues east of Grisdale Road. In addition, regardless of future plan for the cycling facility, the transition of Merritt Rd from 4 lanes west of Grisdale Road to 2 lanes east of Grisdale Road was the main point of discussion that led to the development of the preferred Option #6.

There are no interim and ultimate proposed options, and the Region will proceed with Option 6 as discussed and approved in principle by MTO. We agree to your comment (bullet point # 7 below) with respect to Hwy 406 NB off-ramp terminal, especially since the MUP has now been shifted to the north side of Merritt Rd.

Thanks
Maged

Maged Elmadhoon, M.Eng., P.Eng. (he/him)

Manager, Transportation Planning
Public Works, Niagara Region
1815 Sir Isaac Brock Way, Thorold, ON
Maged.Elmadhoon@niagararegion.ca
Phone: 905-980-6000 ext. 3583
Cell: 289-407-6862
www.niagararegion.ca



From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Wednesday, August 17, 2022 3:00 PM
To: Khan, Muhammad <muhammad.khan@woodplc.com>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Cc: Alkarawi, Sulaf <Sulaf.Alkarawi@niagararegion.ca>; Talpur, Mir <mir.talpur@woodplc.com>; Tunio, Danial <danial.tunio@woodplc.com>; Weng, Xin (MTO) <Xin.Weng@ontario.ca>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

Hi Maged and Muhammad,

Please see the following ministry comments on the proposed option and the submitted files:

- If the Region is planning to stop the MUP at the Grisdale Road and connect it to the proposed Grisdale bike route, the interim plan needs to show no MUP east of Grisdale Road, no traffic signal at the SB ramp terminal, and the SB right turn channel will remain as per the existing. Please submit the interim plan for the ministry review. [Wood: As explained in the email from Maged, there are no interim and ultimate plans. Based on the discussions, the plan is to proceed with providing MUP to the east which was discussed in detail with MTO staff and illustrated as preferred Option # 6].
- The ultimate option would show the MUP through the interchange, normalization of the Hwy 406 SB off-ramp with dual right and single left, and traffic signal at the Hwy 406 SB ramp terminal (as shown in the proposed option). [Wood: The proposed plan prepared for Merritt Road will be illustrated with these changes as per preferred Option # 6].
- For the ultimate option, please also include in the Traffic signal warrants/justification that the signals will be warranted due to the proposed geometric changes (dual right turn for SB off-ramp and MUP crossing), and the MUP extension to the east of the bridge [Wood: The traffic signal warrants will be provided, proposed geometric changes and extension of MUP east of the bridge will also be shown on Merritt Road Plan drawings].
- Please demonstrate that all the design changes/elements within the ministry limits meet the MTO design standards for both the interim and ultimate proposed options. [Wood: Noted and design standards will be demonstrated].
- Please also provide prelim design criteria document for the proposed interim and ultimate options for the ministry review. [Wood: Noted and design criteria for preferred option will be included].
- MTO is ok with the Left In / Right in Right out access for the Grisdale Road; however, please check that the design meets the MTO standards and confirm. Please also check the tapers design (length and configuration) for the left turns to Grisdale Road and to the 406 SB ramp are as per the MTO standards. [Wood: Noted and supporting design standards will be provided].
- For the 406 NB off-ramp terminal, please don't remove the Merritt Road EB to Hwy 406 NB ramp. Due to the possible operational issue – (traffic from Merritt Road EB to the Hwy 406 NB loop ramp will be higher than the through traffic to the east and would create queues with the proposed right turn lane), the ministry would recommend keeping the existing lane configuration with a single through lane to the east and the 2nd lane be a must exist lane to the Merritt Road EB to Hwy 406 NB loop ramp. [Wood: Agreed and noted. The preferred plan will be updated to illustrate the suggestion].

- Please also provide the truck turning templates for the interim and the ultimate options. [Wood: Noted and turning templates will be provided for the preferred Option # 6].
- Please also submit a detailed traffic report/memo outlining both interim and ultimate scenarios. [Wood: The traffic report prepared for Merritt Road and Rice Road EA is currently being finalized and is aimed to be submitted by mid September for MTO's review once the report is internally reviewed by the Region].
- Please also submit the prelim drainage report for both options. [Wood: The Merritt Road and Rice Road EA project includes SWM component as part of the study and Wood staff is currently working on it. However, these minor geometric changes under preferred Option # 6 do not necessarily warrant additional investigation. Wood will provide the SWM report to MTO for review once completed].
- In the proposed cross-section of the structure, please confirm that the concrete barrier would be warranted as per the MTO bikeway design manual for the MUP. Also, the raised median is not shown in the cross-section, please add it. [Wood: Noted. The information requested will be provided and incorporated].

Please let us know if you have any questions or would like to have a meeting with us to discuss the comments in detail.

Thanks

Kashif Hussain, P.Eng
Project Engineer

Ministry of Transportation, Ontario
Transportation Infrastructure Management Division
Project Delivery Section, Hamilton/Niagara
Phone: 437-238-6872
E-mail: kashif.hussain@ontario.ca

From: Khan, Muhammad <muhammad.khan@woodplc.com>

Sent: August 4, 2022 1:42 PM

To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>

Cc: Alkarawi, Sulaf <Sulaf.Alskarawi@niagararegion.ca>; Talpur, Mir <mir.talpur@woodplc.com>; Tunio, Danial <danial.tunio@woodplc.com>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Good Afternoon Kashif

Any update, kindly advise.

Regards,

Muhammad Khan M.Eng., P.Eng.

Mobile: +1 (905) 407 3438
www.woodplc.com



From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Tuesday, July 26, 2022 1:12 PM
To: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Cc: Alkarawi, Sulaf <Sulaf.Alskarawi@niagararegion.ca>; Talpur, Mir <mir.talpur@woodplc.com>; Tunio, Danial <danial.tunio@woodplc.com>; Khan, Muhammad <muhammad.khan@woodplc.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Maged and Muhammad,

We are currently reviewing the options and the updated files and will provide you with our comments.

Thanks
Kashif

From: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Sent: July 26, 2022 12:15 PM
To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Cc: Alkarawi, Sulaf <Sulaf.Alskarawi@niagararegion.ca>; Talpur, Mir <mir.talpur@woodplc.com>; Tunio, Danial <danial.tunio@woodplc.com>; Khan, Muhammad <muhammad.khan@woodplc.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Kashif,

We appreciate if we can hear back from the MTO team if you have any comments on the updated memo.

Thanks
Maged

Maged Elmadhoon, M.Eng., P.Eng. (he/him)
Manager, Transportation Planning
Public Works, Niagara Region
1815 Sir Isaac Brock Way, Thorold, ON
Maged.Elmadhoon@niagararegion.ca
Phone: 905-980-6000 ext. 3583
Cell: 289-407-6862
www.niagararegion.ca

From: Khan, Muhammad <muhammad.khan@woodplc.com>
Sent: Tuesday, July 19, 2022 9:28 AM
To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Cc: Alkarawi, Sulaf <Sulaf.Algarawi@niagararegion.ca>; Talpur, Mir <mir.talpur@woodplc.com>; Tunio, Danial <danial.tunio@woodplc.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Good Morning Kashif

Just following up if the Ministry has reviewed the updated memo.

Regards,

Muhammad Khan M.Eng., P.Eng.

Mobile: +1 (905) 407 3438
www.woodplc.com



From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Tuesday, June 28, 2022 11:37 AM
To: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Khan, Muhammad <muhammad.khan@woodplc.com>
Cc: Alkarawi, Sulaf <Sulaf.Algarawi@niagararegion.ca>; Talpur, Mir <mir.talpur@woodplc.com>; Tunio, Danial <danial.tunio@woodplc.com>
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Maged,

I have already sent the revised documents to my team for their review. Once received all the comments I will forward them to you.

Regards,
Kashif

From: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>
Sent: June 27, 2022 10:31 AM
To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; Khan, Muhammad <muhammad.khan@woodplc.com>

Cc: Alkarawi, Sulaf <Sulaf.Algarawi@niagararegion.ca>; Talpur, Mir <mir.talpur@woodplc.com>; Tunio, Danial <danial.tunio@woodplc.com>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Hi Kashif,

We appreciate MTO team quick review to finalize this part of the EA Study as early as possible.

Thanks
Maged

Maged Elmadhoon, M.Eng., P.Eng. (he/him)

Manager, Transportation Planning

Public Works, Niagara Region

1815 Sir Isaac Brock Way, Thorold, ON

Maged.Elmadhoon@niagararegion.ca

Phone: 905-980-6000 ext. 3583

Cell: 289-407-6862

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From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>

Sent: Thursday, June 23, 2022 9:05 AM

To: Khan, Muhammad <muhammad.khan@woodplc.com>

Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Alkarawi, Sulaf <Sulaf.Algarawi@niagararegion.ca>;

Talpur, Mir <mir.talpur@woodplc.com>; Tunio, Danial <danial.tunio@woodplc.com>

Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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Thanks Muhammad. I will forward them to my team for review and comments.

Regards
Kashif

From: Khan, Muhammad <muhammad.khan@woodplc.com>

Sent: June 22, 2022 4:54 PM

To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>

Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>;

Talpur, Mir <mir.talpur@woodplc.com>; Tunio, Danial <danial.tunio@woodplc.com>

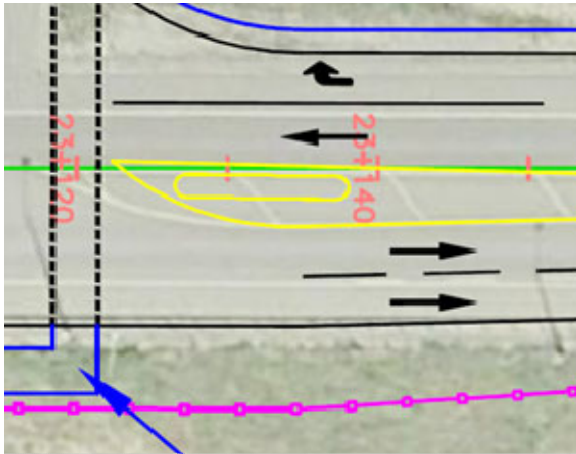
Subject: RE: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

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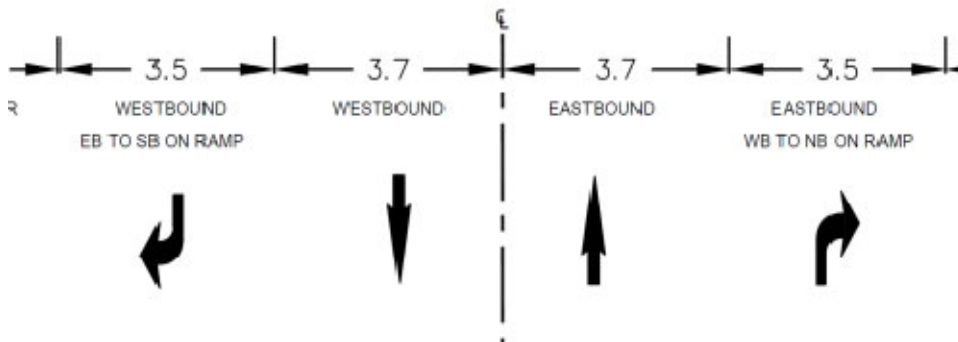
Hi Kashif

Please see attached, couple of minor modifications are made:

- In the plan, a raised median on east leg of westerly ramps intersection is shown for the installation of traffic signal



- In the cross section, corrected arrows and description for W-N and E-S On Ramps are shown for existing conditions.



Regards,

Muhammad Khan M.Eng., P.Eng.

Mobile: +1 (905) 407 3438

MailScanner has detected a possible fraud attempt from "urldefense.com" claiming to be www.woodplc.com

wood.

From: Khan, Muhammad

Sent: Wednesday, June 15, 2022 2:25 PM

To: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>

Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>; Talpur, Mir <mir.talpur@woodplc.com>

Subject: Merritt Road / Highway 406 westerly ramp - Design and Signal Warrant

Good Afternoon Kashif,

Please find attached:

- Minutes of Meeting
- Signal Warrant (Merritt Road / Highway 406 westerly ramps intersection)
- Future Total Volume Year 2041
- Design Option 6 (Preferred)
- Cross section of exiting conditions and proposed improvements under Design Option 6

We have reviewed the MTO Bikeway Design Manual (March 2014) provided by the Ministry for establishing proposed cross section over the structure under Option 6 based on **Figure 4.64 – Structure Cross-Sections with Signed Bicycle Facilities on Designated Cycling Routes (shown below)**. As per Ministry's guidance, please note that there is enough space available to provide a Multi-use path on the northside of the structure and also maintaining separation between Pedestrian/Cyclist and vehicles with buffer and barrier.

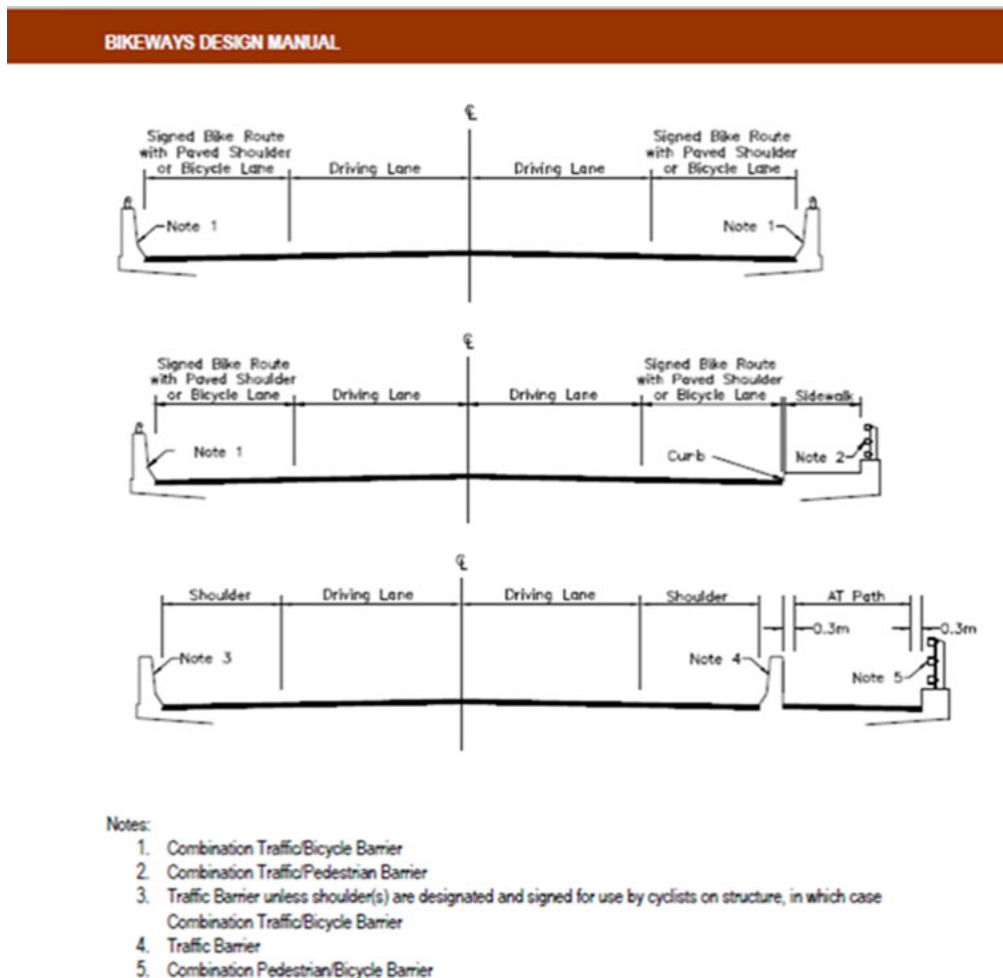


Figure 4.64 – Structure Cross-Sections with Signed Bicycle Facilities on Designated Cycling Routes

We would like to hear back from the Ministry if there are any further concerns and finalize the EA Study as early as possible. Please feel free to reach out to us, should you like to discuss.

Regards,

Muhammad Khan M.Eng., P.Eng.

Senior Transportation Engineer

Mobile: +1 (905) 407 3438

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Talpur, Mir

From: Talpur, Mir
Sent: Thursday, November 2, 2023 2:45 PM
To: Hussain, Kashif (MTO)
Cc: Pak, Margaret (MTO); Elmadhoon, Maged; Fellows, Kari
Subject: RE: Merritt Rd-Rice Rd Class EA - Draft Environmental Study Report
Attachments: FT (2041) Phase 2 MTO Interchange and Grisdale Rd Option 3 AM - Pg 520-525.syn;
FT (2041) Phase 2 MTO Interchange and Grisdale Rd Option 3 AM Split Phase - Pg 526-532.syn; FT (2041) Phase 2 MTO Interchange and Grisdale Rd Option 3 PM - Pg 533-538.syn; FT (2041) Phase 2 MTO Interchange and Grisdale Rd Option 3 PM Split Phase- Pg 539-545.syn; FT (2041) Phase 2 MTO Interchange and Grisdale Rd Option 4 AM - Pg 546-551.syn; FT (2041) Phase 2 MTO Interchange and Grisdale Rd Option 4 AM Split Phase - Pg 552-558.syn; FT (2041) Phase 2 MTO Interchange and Grisdale Rd Option 4 PM - Pg 559-564.syn; FT (2041) Phase 2 MTO Interchange and Grisdale Rd Option 4 PM Split Phase - Pg 565-571.syn; FT (2041) Phase 2 MTO Interchange and Grisdale Rd Option 5 AM - Pg 572-576.syn; FT (2041) Phase 2 MTO Interchange and Grisdale Rd Option 5 PM - Pg 577-581.syn

Hi Kashif,

Thank you for sharing MTO staff's comments on the draft ESR. We have provided our responses in red below. We will be updating the ESR and corresponding sections of the Transportation Assessment Report to incorporate these comments. Updated reports will be available for MTO staff's review during formal public review period following issuance of the Notice of Study Completion in the next couple of weeks.

We trust these responses are satisfactory.

Sincerely,



Mir Ahsan Talpur, RPP, MCIP, EP
Senior Environmental Planner
Environmental Impact Assessment - Energy & Resources
He/Him
M+ 1 647-545-8974

WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

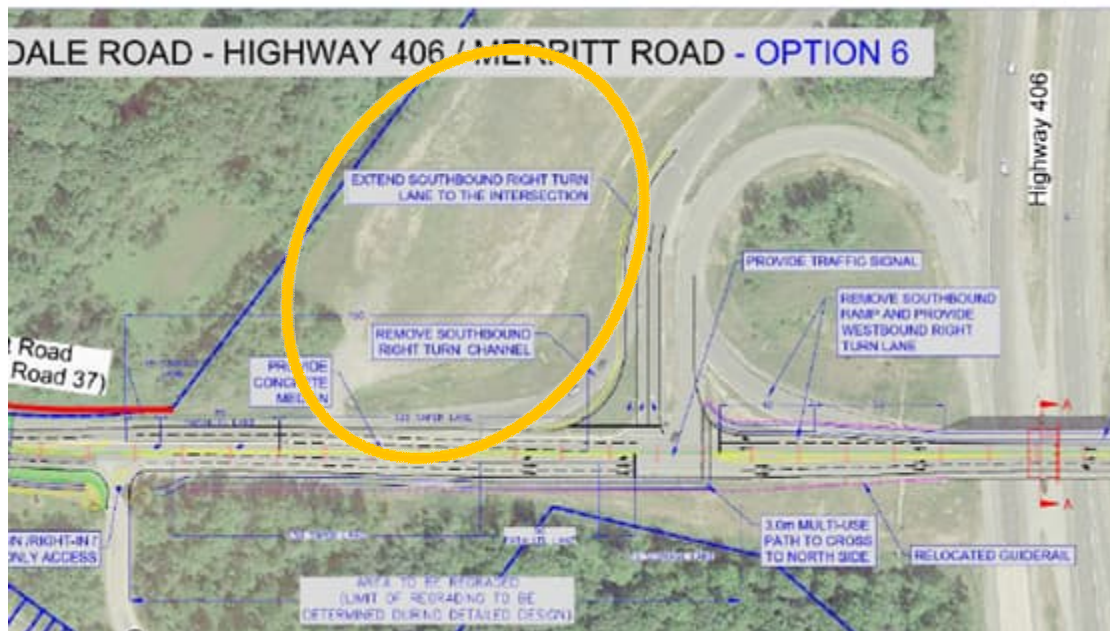
From: Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>
Sent: Thursday, October 26, 2023 4:23 PM
To: Talpur, Mir <mir.talpur@wsp.com>
Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Shams, Anika <anika.shams@wsp.com>; Pak, Margaret (MTO) <Margaret.Pak@ontario.ca>
Subject: FW: Merritt Rd-Rice Rd Class EA - Draft Environmental Study Report

Hi Mir,

Please see the following few comments on the draft Environmental Study report from our Environmental office and Traffic office. If I receive comments from any other MTO office, I will forward them to you before October 31.

Environmental office:

- There's no mention of the 2009 Transportation Environmental Study Report (TESR) for Hwy 406 from 0.2 km north of Port Robinson Road to East Main Street. The 2009 TESR Preferred Plan at Merritt Road includes entrance ramps with a future study to be carried out when required. Has Niagara Region review the 2009 TESR to confirm that their design does not preclude entrance ramps to Hwy 406. See the attached pdf. Please advise if you require a copy of the 2009 TESR. **The Project Team was not aware of the 2009 TESR and the future study for the entrance ramps. Since the entrance ramps will be subject to a future study, the Niagara Region is committed to work with the MTO during detailed design phase to review the 2009 TESR and adjust the road design to align with the design for future ramps, if required. A commitment will be added in Section 10 of the ESR in this regard.**
- Section 9.2.3 Noise:
 - It is noted that construction noise was assessed. Please clarify if a Noise Assessment was completed to determine if the approved development, i.e., Noise Sensitive Areas, shown in the Figure E6 will warranted noise mitigation, i.e., noise wall or noise berm. Or if the development/developer will be constructing a noise wall. **The development area shown in Figure E6 has already been developed with residential development. A Noise Impact Assessment was not completed as part of the Class EA Study. A noise wall or berm is not proposed as part of the proposed road improvement works.**
- Section 9.4 Natural Environment:
 - Please be advised that no compensation for fish, SAR wildlife or SAR vegetation is permitted within the MTO ROW or the MTO lands or 14 m setback. If the regulatory agency requires compensation, consultation is required with MTO, Niagara Region and the regulatory agency. **Comment noted.**
- Section 9.9 Soil:
 - Excess soil is to be managed as per the O.Reg. 406/19 and the Soil Rules 2023. The 2014 MECP Excess Soil document is now out of date. Please revise. **This reference will be updated in the report.**
 - MTO will not permit any excavated soil generated as a result of the projects within the MTO ROW or MTO lands. Any excavated soil generated as a result of this project must be managed off site as per the regulation. **This comment will be noted in Section 9.9 (Soil) of the ESR.**
 - Please be advised that MTO is using MTO lands (see the area in yellow) to stockpile soil from MTO construction projects. If during Detail Design, it is identified that Niagara Region must impact this area to facilitate their construction, approval will be required from MTO Environmental and Maintenance. **Comment noted.**



Traffic office

1. Per MTO's General Guidelines for the Preparation of Traffic Impact Studies, please highlight any v/c for ramp terminal approaches greater than 0.75 as critical. **Comment noted. Report will be updated to reflect this.**
2. Please add the missing SB LT volume for the Highway 406 SB & Merritt Rd intersection in Figure 4-19. **The SB LT volume for the Highway 406 SB & Merritt Rd intersection are shown in Figure 4-19 of the ESR (Figure 24 of the Transportation Report – Appendix A). Forecast volumes for this movement are (7 during the AM peak hour and 15 during the PM peak hour).**
3. The Intersection Operations tables for the 2041 Scenario 2 (w/ Improvements) in Section 4.2.3.2 seem to be missing a table for the Hwy 406 SB Ramp & Merritt Rd intersection. Please include. **The intersection Operations tables for the 2041 Scenario 2 (w/ Improvements) for the Hwy 406 SB Ramp & Merritt Rd intersection is included in Highway 406 Interchange Redesign Memo (Appendix M) of the Transportation Report (which is provided as Appendix A of the ESR). For the ease of reference and review, this will be added to Section 4.2.3.2 of the ESR and Section 10.1 of the Transportation Report (Appendix A).**
4. The signal warrant for the Hwy 406 SB Ramp & Merritt Rd intersection seems to use the forecasted AM & PM Peak Volumes as representative volumes for all 8 hours. This does not follow OTM Book 12 guidelines, either Average Hourly Volumes should be calculated according to Justification 7 (with adjusted thresholds) or existing 8-hour volumes be forecast as was done for all other signal warrants in Section 4.6 of Appendix A. Please correct it in the report. **We will add a table applying Justification 7 to the 2031 volumes.**
5. Following the above, are traffic signals warranted in any scenario prior to 2041. Please specify in the report **The warrant will be met for 2031 based on the volumes.**
6. Please share the final synchro files for our records. **Please find attached the Synchro files for the Highway 406 / Merritt Road options evaluation. Filenames include the Option number and time of day, and also the applicable page numbers from the pdf report.**

Please let me know if you have any questions in this regard.

Thanks

Kashif

From: Talpur, Mir <mir.talpur@wsp.com>

Sent: October 2, 2023 9:30 AM


To: Del Villar Cuicas, Joan (MECP) <Joan.DelVillarCuicas@ontario.ca>; EA Notices to WCRegion (MECP) <eanotification.wcregion@ontario.ca>; MNRF Ayl Planners (MNRF) <MNRF.Ayl.Planners@ontario.ca>; Barboza, Karla (MCM) <Karla.Barboza@ontario.ca>; Ingraldi, Aldo (He/Him) (MNRF) <Aldo.Ingraldi@ontario.ca>; Eckert, Anneleis (OMAFRA) <Anneleis.Eckert@ontario.ca>; Hussain, Kashif (MTO) <Kashif.Hussain@ontario.ca>; Lee, Jordan (MTO) <Jordan.Lee@ontario.ca>; Dutchak, Lance (MTO) <Lance.Dutchak@ontario.ca>; Lindsay, Michael (IO) <Michael.Lindsay@infrastructureontario.ca>; Steve Miller <smiller@npca.ca>; ddeluca@npca.ca; Lee-yates@npca.ca; CBain@npca.ca; aaldworth@npca.ca; jmarr@pelham.ca; dyoung@pelham.ca; rcook@pelham.ca; Barbara Wiens <BWiens@pelham.ca>; slarocque@pelham.ca; sean.dunsmore@thorold.ca; jaroslav.hajek@thorold.ca; rachelle.larocque@welland.ca; grant.munday@welland.ca; sherri-marie.millar@welland.ca; Julie.vanleur@welland.ca; livia.mceachern@welland.ca; yang.xiao@npei.ca; steven.chappell@bell.ca; derek.black@cogeco.com; Randy.Leppert@cogeco.com; zachary.baum@rci.rogers.com; Mark-Ups <Mark-Ups@enbridge.com>; James.Callaghan@enbridge.com; robert.donofrio@enbridge.com; mark.kuhlmann@nrbn.ca; jeremy.smith@nrbn.ca; Raymond.Nepomuceno@hydroone.com; SecondaryLandUse@HydroOne.com; Jim.Oriotis@HydroOne.com

Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Shams, Anika <anika.shams@wsp.com>

Subject: Merritt Rd-Rice Rd Class EA - Draft Environmental Study Report

CAUTION -- EXTERNAL E-MAIL - **Do not click links or open attachments unless you recognize the sender.**

Good Morning,

The Niagara Region is undertaking a Schedule 'C' Municipal Class Environmental Assessment for improvements to Merritt Road and Rice Road in the Town of Pelham, the City of Thorold and the City of Welland. At this time, the Study Team has completed a draft Environmental Study Report. We would like to share this report with you for your review and any comments. The draft report can be downloaded from this OneDrive link:  [2023-09-29 Merritt Rd-Rice Rd Improvements - ESR](#)

We kindly request you to please submit any comments or questions on the draft report by **October 31**. Following this review period, the report will be finalized and issued for the formal public review along with a Notice of Study Completion.

Please let me know if you encounter any issues accessing the above link.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP

Senior Environmental Planner

Environmental Impact Assessment - Energy & Resources

He/Him

WSP E&I Canada Limited

3450 Harvester Road, Suite 100

Burlington, Ontario

L7N 3W5 Canada

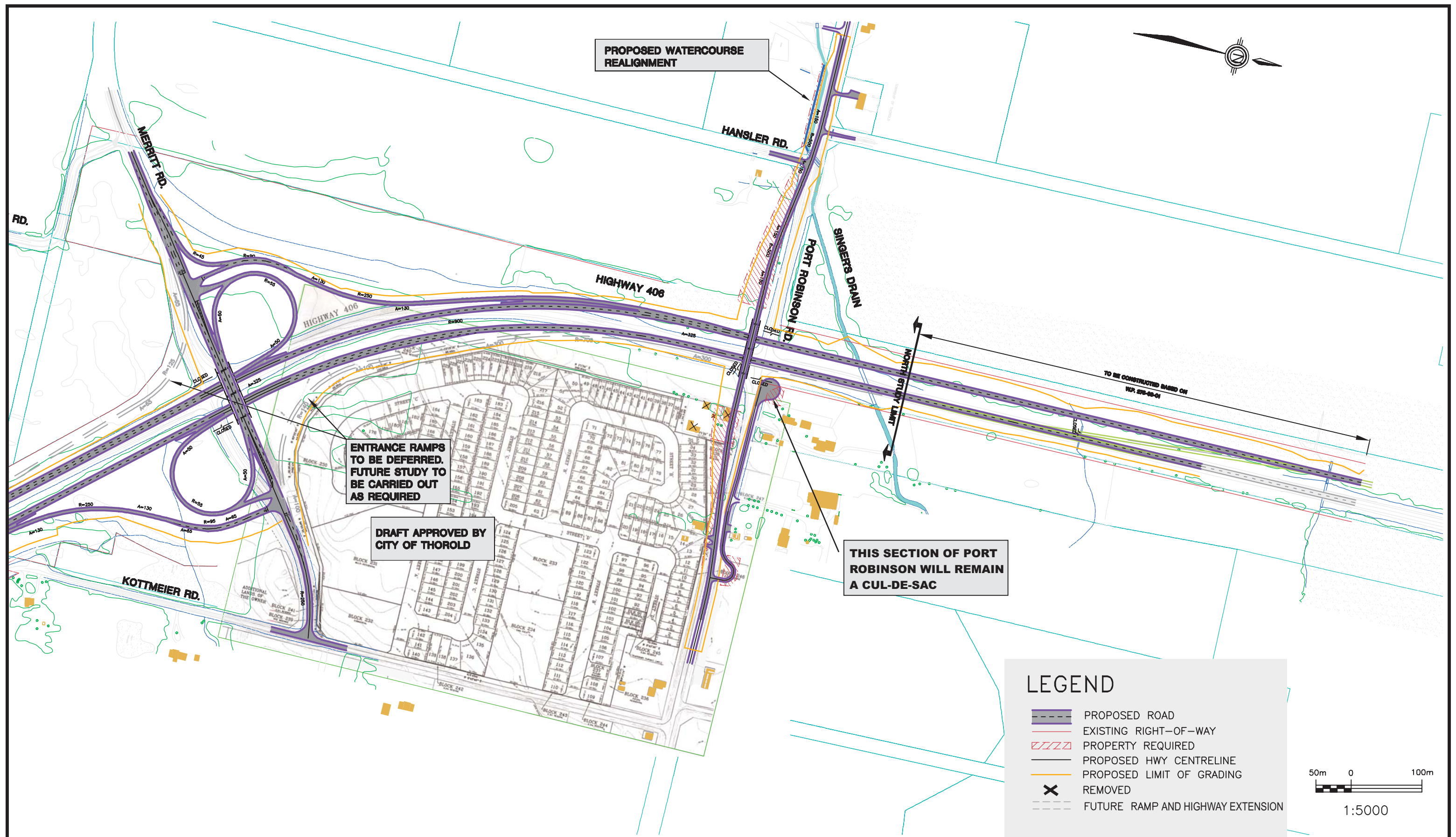
wsp.com

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

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-LAEHhHdzJzBITWfa4Hgs7pbKI



Schedule 'C' Municipal Class Environmental Assessment for Merritt Road (Regional Road 37) and Rice Road (Regional Road 54) in the Town of Pelham, the City of Thorold and the City of Welland

APPENDIX

L-11 *Niagara Peninsula Conservation Authority*

Meeting Notes

Date: 11 February 2021
10:00 AM

Meeting at: Microsoft Teams

File No.: IM20103036

Subject/purpose: Merritt Road/Rice Road Municipal Class Environmental Assessment and Detailed Transportation Study – Meeting with Niagara Peninsula Conservation Authority

Wood Staff and Region PM Team:

Jeff Suggett, Wood

Samantha Hughes, Wood

Mir Talpur, Wood

Maged Elmadhoon, RMON

Cara Lampman, RMON

David Deluce, NPCA

Adam Aldworth, NPCA

1. Introductions, Study Area and Project Objectives

- After introductions, the study area and project objectives were reviewed again

2. Natural Environment Assessment – Scope of Work

- Wood discussed the intended work for the Natural Environment Assessment
- Wood wishes to do a Pre-consultation checklist (NPCA)
- Wood has done fall vegetation surveys from within the road ROW (September 2020)
- Wood proposes to complete spring and summer vegetation, breeding bird surveys, and calling anuran surveys.
- Wood staff noticed one culvert/drainage channel that would have carried water at some point in the past
- Wood will review water flow related to accessible watercourses (OSAP or RSAT as applicable will be included in TOR).
- Wood will incorporate any hydrogeology works completed/provided into the Natural Environment Assessment
- Water balance assessment – not considered to be required for this study

[https://woodplc-my.sharepoint.com/personal/mir_talpur_woodplc_com/Documents/Projects/Merritt Road and Rice Road/ESR/Appendices/Source Files/AppS-AgnCon/11_NPCA/2021_02_05-Min_MerrittRd_RiceRd_NPCA_Meeting.docx](https://woodplc-my.sharepoint.com/personal/mir_talpur_woodplc_com/Documents/Projects/Merritt%20Road%20and%20Rice%20Road/ESR/Appendices/Source%20Files/AppS-AgnCon/11_NPCA/2021_02_05-Min_MerrittRd_RiceRd_NPCA_Meeting.docx)

- Permission to enter was discussed, it would be desirable to be able to enter some of the woodlots adjacent to the ROW along Merritt Road
- **ACTION ITEM:** Wood to prepare list of properties they wish to enter and prepare Permission to Enter letters. Note: the Mailing Address List previously provided to Wood does not include property owner information.
- **ACTION ITEM:** Wood to prepare a Terms of Reference relating to the Natural Environment Assessment that will document scope of work and proposed field work (to be sent to NPCA and RMON) – to be sent next week
- **ACTION ITEM:** Response from NPCA and RMON within two weeks

3. Data Request

- Wood discussed the data requirements for Wood to conduct the Natural Environment Assessment
- Wood will query open data sources and listed in TOR
 - NPCA has water courses mapped out
 - NPCA – ELC layers in NPCA explorer (is open access)
- NPCA NAI – collected 2006-2009 (PDF version, contains further information, Wood already has this information)
- **ACTION ITEM:** Adam Aldworth to confirm available fisheries data
- **ACTION ITEM:** NPCA will provide any background data relating to the study area, i.e. Port Robinson Sub Watershed Area Study – wetland adjacent to Highway 406 (quite a few rare species noted here)
- **ACTION ITEM:** RMON – ELC Data also available

[https://woodplc-my.sharepoint.com/personal/mir_talpur_woodplc_com/Documents/Projects/Merritt Road and Rice Road/ESR/Appendices/Source Files/AppS-AgnCon/11_NPCA/2021_02_05-Min_MerrittRd_RiceRd_NPCA_Meeting.docx](https://woodplc-my.sharepoint.com/personal/mir_talpur_woodplc_com/Documents/Projects/Merritt%20Road%20and%20Rice%20Road/ESR/Appendices/Source%20Files/AppS-AgnCon/11_NPCA/2021_02_05-Min_MerrittRd_RiceRd_NPCA_Meeting.docx)

Talpur, Mir

From: David Deluce <ddeLUce@npca.ca>
Sent: Thursday, May 13, 2021 12:40 PM
To: Hughes, Samantha
Cc: Adam Aldworth; Nigel Ward; Lampman, Cara; Maged.Elmadhoon@niagararegion.ca; Suggett, Jeff; Talpur, Mir; Nigel Ward
Subject: RE: Merritt Road/Rice Road MCEA - NPCA Comments on TOR for the EIS

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Hi Samantha,

Sorry for the delay. Here's our response:

1. Further to the response, the surface and ground water connections should be understood and maintained. This is important because if the proposed works are implemented, the water balance of the subject area can be maintained. For example, infiltration galleries, series of surface water culverts or other measure may be beneficial by assisting with achieving the maintenance of surface and subsurface connection of the wetlands.
 - a. The ecohydrology identified by the studies suggested by the proponent can be used to inform existing conditions. This information can target the conditions that should be maintained during construction activities and post development. Post construction monitoring may be an expectation of NPCA staff to demonstrate no negative effects to the hydrology and ecohydrology of the area potentially impacted by the proposed works.
2. Noted.
3. Please demonstrate reasonable efforts to gain landowner access. Should reasonable efforts not grant permission to access lands, the precautionary principle should be utilized and assume presence of salamanders that could occur in the study area. The mitigation measures should specify appropriate avoidance and mitigation measures to applicable salamander habitat. This should also include the ability for salamanders to traverse the road by a safe means, for example a wildlife passages.
4. Noted.
5. Noted.

Please note that NPCA staff reiterate that avoiding the alignment of the proposed road through wetlands is NPCA strong preference.

Please let me know if you have any questions.

David Deluce, MCIP, RPP
Senior Manager, Planning & Regulations
Niagara Peninsula Conservation Authority (NPCA)
250 Thorold Road West, 3rd Floor, Welland, ON, L3C 3W2
905-788-3135, ext. 224
ddeLUce@npca.ca
www.npca.ca

Thank you for your email. Due to the COVID-19 pandemic, the NPCA has taken measures to protect staff and public while providing continuity of services. NPCA enforcement, permitting and planning functions are continuing to operate, however there may be delays in receiving responses to inquiries or complaints due to staff restrictions and remote work locations. Updates with regards to NPCA operations and activities can be

found on our website at www.npca.ca/our-voice, the NPCA Facebook page at <https://www.facebook.com/NPCAOntario> and on Twitter at https://twitter.com/NPCA_Ontario.

For more information on Permits, Planning and Forestry please go to the Permits & Planning webpage at <https://npca.ca/administration/permits>.

For mapping on features regulated by the NPCA please go to our GIS webpage at <https://gis-npca-camaps.opendata.arcgis.com/> and utilize our Watershed Explorer App or GIS viewer.

To send NPCA staff information regarding a potential violation of Ontario Regulation 155/06 please go to the NPCA Enforcement and Compliance webpage at <https://npca.ca/administration/enforcement-compliance>.

From: Hughes, Samantha <samantha.hughes@woodplc.com>

Sent: April 26, 2021 9:51 AM

To: David Deluce <delduce@npca.ca>

Cc: Adam Aldworth <aaldworth@npca.ca>; Nigel Ward <nward@npca.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Maged.Elmadhoon@niagararegion.ca; Suggett, Jeff <jeff.suggett@woodplc.com>; Talpur, Mir <mir.talpur@woodplc.com>

Subject: RE: Merritt Road/Rice Road MCEA - NPCA Comments on TOR for the EIS

Hi David,

Have you had a chance to review? Please let me know.

Thanks,
Samantha

Samantha Hughes

Senior Biologist

Mobile: +1 (416) 540 8475

From: Hughes, Samantha

Sent: Thursday, 8 April, 2021 03:10 PM

To: David Deluce <delduce@npca.ca>

Cc: Adam Aldworth <aaldworth@npca.ca>; Nigel Ward <nward@npca.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Maged.Elmadhoon@niagararegion.ca; Suggett, Jeff <jeff.suggett@woodplc.com>; Talpur, Mir <mir.talpur@woodplc.com>

Subject: RE: Merritt Road/Rice Road MCEA - NPCA Comments on TOR for the EIS

Hi David,

Just following up on the below, and if you had further comments. I have updated the TOR based on the below and comments from the Region, this is attached. Can you please provide acceptance or let me know if there are further items to discuss? We will be mobilizing next week for anuran call surveys.

Thanks,
Samantha

Samantha Hughes

Senior Biologist

Mobile: +1 (416) 540 8475

From: Hughes, Samantha
Sent: Friday, 26 March, 2021 10:58 AM
To: David Deluce <ddeluce@npca.ca>
Cc: Adam Aldworth <aaldworth@npca.ca>; Nigel Ward <nward@npca.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Maged.Elmadhoon@niagararegion.ca; Suggett, Jeff <jeff.suggett@woodplc.com>; Talpur, Mir <mir.talpur@woodplc.com>
Subject: RE: Merritt Road/Rice Road MCEA - NPCA Comments on TOR for the EIS

Hi David,

I have received the go ahead from Maged to response directly for items relating to the TOR. My responses to your below comments are as follows:

1. NPCA stated they did not want a water balance but the design should consider watercourse connections to maintain drainage. I will note (and update the TOR) that we will be reviewing and incorporating stormwater studies as applicable, once completed by the team. As for ecohydrology, we can ensure species in the plant lists are provided with their coefficient of wetness. We will also discuss the percentage of plants determined to the facultative or obligate wetland plants; however, if we do not have access outside of the ROW, we may not have a true representation of species. Likewise, we can discuss bird species recorded and their wetland affiliation. Does the above satisfy the characterization of hydrology and ecohydrology of the unopened road allowance?
2. Thank you for the correction, yes we will be accessing watercourses adjacent to roads where possible. Will update the TOR.
3. Salamander breeding habitat is considered under amphibian breeding habitat in the SWH schedule. Calling anuran surveys is proposed, but as noted below, salamander surveys have not been proposed due to land access. Likewise, permitting for salamander trapping has not been initiated. If the species is known, we will consider this a confirmed occurrence and address impacts accordingly.
4. Accepted
5. Accepted

If you want to discuss more feel free to connect with me via phone or email. If you are okay with the above responses please let me know so I can finalize the TOR.

Thanks,
Samantha

Samantha Hughes
Senior Biologist
Mobile: +1 (416) 540 8475

From: Talpur, Mir <mir.talpur@woodplc.com>
Sent: Thursday, 11 March, 2021 01:31 PM
To: David Deluce <ddeluce@npca.ca>
Cc: Adam Aldworth <aaldworth@npca.ca>; Nigel Ward <nward@npca.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Maged.Elmadhoon@niagararegion.ca; Suggett, Jeff <jeff.suggett@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>
Subject: RE: Merritt Road/Rice Road MCEA - NPCA Comments on TOR for the EIS

Hi David,

Thank you for your review and comments on the ToR for the EIS in support of the Merritt Rd-Rice Rd EA. We will review these comments and let you know if we have any questions.

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

Mobile: +1 (647) 545 8974

www.woodplc.com



From: David Deluce <ddeluce@npca.ca>

Sent: Thursday, March 11, 2021 1:20 PM

To: Talpur, Mir <mir.talpur@woodplc.com>

Cc: Adam Aldworth <aaldworth@npca.ca>; Nigel Ward <nward@npca.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>

Subject: Merritt Road/Rice Road MCEA - NPCA Comments on TOR for the EIS

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Hi Mir,

The NPCA has the following comments with respect to the Terms of Reference for the EIS circulated to us on March 2:

1. NPCA staff note that the characterization of hydrology and ecohydrology of the wetland and watercourse features present within the Study Area has not been identified in the Terms of Reference. NPCA staff recommend that the Terms of Reference be revised to include consideration for the hydrology and ecohydrology of NPCA regulated features within the Study Area. This information could be used to ensure that the hydrology of the wetlands is not impacted and inform mitigation design in subsequent submissions.
2. NPCA staff note that assessment of watercourses is only proposed within the unopened road allowance. NPCA staff note that available mapping identifies several watercourses within the study area which are adjacent to the existing roadway or cross the roadway. NPCA staff request that the Terms of Reference be revised to include assessment of all watercourses within the study area as opposed to being limited to the unopened road allowance.
3. NPCA staff have identified wetland and forested habitat present on the site, these features indicate candidate salamander breeding habitat and/or movement corridors may be present within the study area. Blue Spotted Salamanders are known to inhabit the wetland complex. NPCA staff recognize that access to properties adjacent to the Right of Way may be limited, however an assessment of salamander habitat should be undertaken and salamander surveys should be undertaken in addition to calling anuran surveys. NPCA staff request that the Terms of Reference be revised to include salamander surveys.
4. NPCA staff recognize that access outside of the Right of Way may limit the scope of investigations. Where data gaps exist due to limited access uncertainty and risk to NPCA regulated features may exist. In these instances the NPCA staff will look for the application of the precautionary principle when evaluating preferred alternatives to minimize and mitigate potential impacts.
5. Once the features within the study area are understood, the proposed development should take these features into account when determining the preferred alternative. Please demonstrate that all other alternatives have been exhausted and that the final road footprint is minimized to the extent possible to reduce impact to the Provincially Significant Niagara Street Cataract Road Wetland Complex. If removals of wetland features are required as a result of the preferred alternative, reconfiguration options of wetlands will be required to be

explored through collaboration and agreement with NPCA staff. This can be a mitigation measure to reduce overall impacts to the wetland features within the watershed.

The comments above are specific to the project titled above. Comments are informed by the available information presented to date and therefore reflect the current best understanding of the project and anticipated impacts. They are subject to change based on the submission of new information.

I hope this information is helpful. If you have any questions and/or would like to arrange a meeting to discuss, please let me know.

Regards,

David Deluce, MCIP, RPP

Senior Manager, Planning & Regulations

Niagara Peninsula Conservation Authority (NPCA)
250 Thorold Road West, 3rd Floor, Welland, ON, L3C 3W2
905-788-3135, ext. 224

ddeluce@npca.ca

www.npca.ca

Thank you for your email. Due to the COVID-19 pandemic, the NPCA has taken measures to protect staff and public while providing continuity of services. NPCA enforcement, permitting and planning functions are continuing to operate, however there may be delays in receiving responses to inquiries or complaints due to staff restrictions and remote work locations. Updates with regards to NPCA operations and activities can be found on our website at www.npca.ca/our-voice, the NPCA Facebook page at <https://www.facebook.com/NPCAOntario> and on Twitter at https://twitter.com/NPCA_Ontario.

For more information on Permits, Planning and Forestry please go to the Permits & Planning webpage at <https://npca.ca/administration/permits>.

For mapping on features regulated by the NPCA please go to our GIS webpage at <https://gis-npca-camaps.opendata.arcgis.com/> and utilize our Watershed Explorer App or GIS viewer.

To send NPCA staff information regarding a potential violation of Ontario Regulation 155/06 please go to the NPCA Enforcement and Compliance webpage at <https://npca.ca/administration/enforcement-compliance>.

From: Talpur, Mir <mir.talpur@woodplc.com>

Sent: March 8, 2021 11:19 AM

To: David Deluce <ddeluce@npca.ca>; Adam Aldworth <aaldworth@npca.ca>

Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Suggett, Jeff <jeff.suggett@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>

Subject: RE: Merritt Road/Rice Road MCEA - Natural Environment Assessment - Meeting with NPCA

Good Morning David and Adam,

We would appreciate if you can please provide your comments on the Terms of Reference for the EIS for Merritt Rd-Rice Rd Class EA by March 10.

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

Mobile: +1 (647) 545 8974

www.woodplc.com



From: Talpur, Mir
Sent: Tuesday, March 2, 2021 11:47 AM
To: David Deluce <ddeluce@npca.ca>; Adam Aldworth <aaldworth@npca.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>
Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Suggett, Jeff <jeff.suggett@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>
Subject: RE: Merritt Road/Rice Road MCEA - Natural Environment Assessment - Meeting with NPCAShams, Aniq <aniqa.shams@woodplc.com>

Hello David/Adam/Cara,

Just wanted to send a quick follow up to ask if you have any comments on the Terms of Reference for the EIS for Merritt Rd-Rice Rd EA. We would appreciate if you can please provide any comments you may have by **Wednesday, March 10, 2021**. This will allow us time to finalize the ToR and initiate fieldwork in the fast approaching spring field season. Many thanks!

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

Mobile: +1 (647) 545 8974

www.woodplc.com



From: Hughes, Samantha <samantha.hughes@woodplc.com>
Sent: Tuesday, February 16, 2021 5:15 PM
To: Suggett, Jeff <jeff.suggett@woodplc.com>; Talpur, Mir <mir.talpur@woodplc.com>; Talpur, Mir <mir.talpur@woodplc.com>; David Deluce <ddeluce@npca.ca>; Adam Aldworth <aaldworth@npca.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>
Cc: Shams, Aniq <aniqa.shams@woodplc.com>
Subject: RE: Merritt Road/Rice Road MCEA - Natural Environment Assessment - Meeting with NPCA

Hi all,

As promised, please see the attached Terms of Reference (TOR) for the Natural Environment Assessment. Please note in Section 1, I have provided preliminary info for context, as I realize that not all may have it. The TOR is set up to also serve as a report template and some sections may be moved or added. Each section describes the content to be reflected and the attached document can be reviewed for details (a summary is provided below).

In summary, Wood will complete the following:

- Wood will review relevant background studies and reports and query all open source information, data provided, and animal atlases for species records and habitat findings;
- Fieldwork (where permitted);

- Botanical/vegetation investigations/inventory- Spring, Summer, and Fall;
 - Ecological Land Classification (ELC);
 - Breeding bird surveys;
 - Calling anuran surveys;
 - Targeted investigations will be completed of the intermittent watercourses, which run through the unopened road allowance, south to Merritt Road in Segment 2, and west to Rice Road. No fish community sampling will be completed, but investigations will follow the Environmental Guide for Fisheries, April 2020; Ministry of Transportation of Ontario (MTO Fish Guide) as opposed to the Ontario Stream Assessment Protocols (which NPCA requested). The MTO Fish Guide informs whether the project will likely cause a Harmful Alteration, Disruption or Destruction (HADD) of fish habitat;
 - NPCA does not recommend completing a water balance but requires the watercourses to remain connected, this will be carried forward in the assessment; and
 - Documentation of incidental wildlife sighting and evidence or signs of wildlife use during other subsequent field surveys.
- An evaluation and assessment of habitat features, alternatives, impacts, and mitigation.
 - Complete a policy review and conformity.

A potential Table of Contents will be as follows:

1.0	Introduction. 2
1.1	Description of the Study Area. 3
1.2	Description of the Proposed Development 4
2.0	Policy Context 5
3.0	Consultation. 5
4.0	Biophysical Description of Site (Methods and Results) 5
5.0	Evaluation of Wildlife Habitat Features. 7
6.0	Development Alternatives. 7
7.0	Assessment of Potential Impacts of the Preferred Design Choice. 7
8.0	Recommendations/ Mitigation. 8
9.0	Monitoring. 8
10.0	Policy Conformity and Discussion. 8
11.0	Conclusions. 8
12.0	References. 9

Please let me know of any comments or questions.

Thanks,
Samantha

Samantha Hughes
Senior Biologist
Mobile: +1 (416) 540 8475

From: Suggett, Jeff <jeff.suggett@woodplc.com>
Sent: Monday, 15 February, 2021 01:30 PM
To: Talpur, Mir <mir.talpur@woodplc.com>; Talpur, Mir <mir.talpur@woodplc.com>; David Deluce <ddeluce@npca.ca>; Adam Aldworth <aaldworth@npca.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Hughes, Samantha <samantha.hughes@woodplc.com>
Cc: Shams, Anika <anika.shams@woodplc.com>
Subject: Merritt Road/Rice Road MCEA - Natural Environment Assessment - Meeting with NPCA

Greetings all:

Please find attached meeting notes from our meeting last week with indicated action items.

Maged - We have also attached a Permission to Enter map with a small number of properties of interest, including another ROW closer to Highway 406 that we are assuming is owned by the City of Thorold? The mailing list provided to us earlier does not indicate property owners. We will extract from the mailing list the properties of interest and prepare a letter requesting permission to enter. Note we would like to request information on the property owner from the Region to include in the letter (i.e. if it is owned by a developer), as some of them are vacant properties.

Best Regards,

Jeff Suggett, M. Sc.

Senior Manager, Integrated Mobility Solutions

Mobile: 905-380-3601

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Talpur, Mir

From: Adam Aldworth <aaldworth@npca.ca>
Sent: Monday, August 23, 2021 9:12 AM
To: Talpur, Mir
Subject: RE: Merritt Rd-Rice Rd Class EA - NPCA Data Request

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Hi Mir,

I hope you had a great weekend. I just wanted to reach out and let you know that the floodplain mapping for Singer's Drain has now been uploaded to the sharepoint folder you shared.

Kind regards,
Adam

Adam Aldworth, BSc, EP
Planning Ecologist | Planning & Regulations
Niagara Peninsula Conservation Authority (NPCA)
250 Thorold Road West, 3rd Floor, Welland, ON, L3C 3W2
905-788-3135, ext. 248
aaldworth@npca.ca
www.npca.ca

Thank you for your email. Due to the COVID-19 pandemic, the NPCA has taken measures to protect staff and public while providing continuity of services. NPCA enforcement, permitting and planning functions are continuing to operate, however there may be delays in receiving responses to inquiries or complaints due to staff restrictions and remote work locations. Updates with regards to NPCA operations and activities can be found on our website at www.npca.ca/our-voice, the NPCA Facebook page at <https://www.facebook.com/NPCAOntario> and on Twitter at https://twitter.com/NPCA_Ontario.

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From: Talpur, Mir <mir.talpur@woodplc.com>
Sent: August 18, 2021 4:24 PM
To: Adam Aldworth <aaldworth@npca.ca>; David Deluce <ddeluce@npca.ca>
Cc: Nigel Ward <nward@npca.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Maged.Elmadhoon@niagararegion.ca; Suggett, Jeff <jeff.suggett@woodplc.com>; Godard, Michael <michael.godard@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>
Subject: RE: Merritt Rd-Rice Rd Class EA - NPCA Data Request

Thank you, Adam.

Sincerely,

Mir

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

Mobile: +1 (647) 545 8974

www.woodplc.com



From: Adam Aldworth <aaldworth@npca.ca>

Sent: Wednesday, August 18, 2021 1:30 PM

To: Talpur, Mir <mir.talpur@woodplc.com>; David Deluce <ddeluce@npca.ca>

Cc: Nigel Ward <nward@npca.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>;
Maged.Elmadhoon@niagararegion.ca; Suggett, Jeff <jeff.suggett@woodplc.com>; Godard, Michael
<michael.godard@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>

Subject: RE: Merritt Rd-Rice Rd Class EA - NPCA Data Request

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Hi Mir,

Please see attached map, my apologies for not including that the first time around. I've uploaded the Port Robinson West Subwatershed Study to the OneDrive folder.

Kind regards,
Adam

Adam Aldworth, BSc, EP

Planning Ecologist | Planning & Regulations

Niagara Peninsula Conservation Authority (NPCA)

250 Thorold Road West, 3rd Floor, Welland, ON, L3C 3W2

905-788-3135, ext. 248

aaldworth@npca.ca

www.npca.ca

Thank you for your email. Due to the COVID-19 pandemic, the NPCA has taken measures to protect staff and public while providing continuity of services. NPCA enforcement, permitting and planning functions are continuing to operate, however there may be delays in receiving responses to inquiries or complaints due to staff restrictions and remote work locations. Updates with regards to NPCA operations and activities can be found on our website at www.npca.ca/our-voice, the NPCA Facebook page at <https://www.facebook.com/NPCAOntario> and on Twitter at https://twitter.com/NPCA_Ontario.

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From: Talpur, Mir <mir.talpur@woodplc.com>
Sent: August 18, 2021 12:39 PM
To: Adam Aldworth <aaldworth@npca.ca>; David Deluce <ddeluce@npca.ca>
Cc: Nigel Ward <nward@npca.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>;
Maged.Elmadhoon@niagararegion.ca; Suggett, Jeff <jeff.suggett@woodplc.com>; Godard, Michael
<michael.godard@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>
Subject: RE: Merritt Rd-Rice Rd Class EA - NPCA Data Request

Good afternoon Adam,

I am following up regarding the request below. Could you share the an updated Port Robinson West Subwatershed Study and the map referenced in the email below? Thank you.

Sincerely,

Mir

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

Mobile: +1 (647) 545 8974


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wood.

From: Talpur, Mir
Sent: Thursday, August 5, 2021 7:36 AM
To: Adam Aldworth <aaldworth@npca.ca>; David Deluce <ddeluce@npca.ca>
Cc: Nigel Ward <nward@npca.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>;
Maged.Elmadhoon@niagararegion.ca; Suggett, Jeff <jeff.suggett@woodplc.com>; Godard, Michael
<michael.godard@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>
Subject: RE: Merritt Rd-Rice Rd Class EA - NPCA Data Request

Hi Adam,

Thank you for your response. We will let you know if we have any questions. For now, one of your responses below references a map attachment. Could you please share that?

As for the data transfer, we use OneDrive. I have set up a folder and shared access with you ( [Merritt Rd-Rice Rd - NPCA Data Request](#)). Could you try uploading files on this OneDrive folder? If this doesn't work, the other option would be using <https://wettransfer.com/>.

Thank you!

Sincerely,

Mir

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

Mobile: +1 (647) 545 8974

www.woodplc.com

wood.

From: Adam Aldworth <aaldworth@npca.ca>

Sent: Wednesday, August 4, 2021 4:15 PM

To: Talpur, Mir <mir.talpur@woodplc.com>; David Deluce <ddeluce@npca.ca>

Cc: Nigel Ward <nward@npca.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>;
Maged.Elmadhoon@niagararegion.ca; Suggett, Jeff <jeff.suggett@woodplc.com>; Godard, Michael
<michael.godard@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>

Subject: RE: Merritt Rd-Rice Rd Class EA - NPCA Data Request

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Good afternoon Mir,

Please see answers to your questions below in **green**. Please note that an updated Port Robinson West Subwatershed Study was completed by Aquafor Beech in 2014 which includes additional information.

If you can provide a DropBox (or similar) we can provide floodplain mapping for Singer's Drain as well as the most recent Subwatershed Study.

Kind regards,
Adam

Adam Aldworth, BSc, EP

Planning Ecologist | Planning & Regulations

Niagara Peninsula Conservation Authority (NPCA)

250 Thorold Road West, 3rd Floor, Welland, ON, L3C 3W2

905-788-3135, ext. 248

aaldworth@npca.ca

www.npca.ca

From: Talpur, Mir <mir.talpur@woodplc.com>

Sent: July 14, 2021 2:36 PM

To: David Deluce <ddeluce@npca.ca>

Cc: Adam Aldworth <aaldworth@npca.ca>; Nigel Ward <nward@npca.ca>; Lampman, Cara
<Cara.Lampman@niagararegion.ca>; Maged.Elmadhoon@niagararegion.ca; Suggett, Jeff <jeff.suggett@woodplc.com>;

Subject: Merritt Rd-Rice Rd Class EA - NPCA Data Request

Good Afternoon David,

I hope things are well on your side. As part of the aquatic habitat assessment background review for Merritt Rd – Rice Rd Class EA, we have reviewed the NPCA's Watershed Plan for Port Robinson (1999). This document identified the main watercourses through the Class EA Study Area as tributaries to Singers Drain and Springer Drain. The fish community surveys undertaken as part of this work captured six species (Central mudminnow, Brook stickleback, Brown bullhead, Northern Pearl dace, Fathead minnow and Pumpkinseed). There was a lot of information in that document, however, it is 22 years old. More recent (2016) LIO Aquatic Resource Area (ARA) data for the area only provides records for Brown bullhead.

We were wondering if you have any updated information for the following, and if you could kindly share it with us for use in this project?

- Water Quantity/Quality Data;
 - <https://npca.ca/watershed-health#water-quality-monitoring>
- Groundwater Discharge Areas;
- Watercourse Names, Thermal and Flow Regimes;
 - Port Robinson Creek passes through the study area as do several unnamed tributaries of this watercourse. Port Robinson Creek has been identified as Type 2 Important Fish Habitat by the MNRF. This is the only watercourse that crosses the proposed road alignment/expansion which has been evaluated for fish habitat by the MNRF.
- Fish Habitat Sensitivity;
- Fisheries Management Objectives/plans;
- Benthic Invertebrate data.

We would also like to request fish community records for the watercourses in the Study Area, and NPCA's advice related to in-water works timing windows for those watercourses. I have attached the Study Area map for reference.

Two fish sites are identified on the attached map, however no fisheries data is present within the records. MNRF side codes for the sites are as follows:

1. SinDr-01a-0609
2. SinDr-01-0609

The MNRF has identified restricted in-water timing windows for tributaries of the Welland Canal as March 1st to July 1st.

We would really appreciate any information you can share at your earliest convenience. Please let me know if you have any questions.

Sincerely,

Mir

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

Mobile: +1 (647) 545 8974

3450 Harvester Road, Suite 100

Burlington ON L7N 3W5

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From: Talpur, Mir <mir.talpur@woodplc.com>

Sent: July 27, 2021 11:41 AM

To: David Deluce <ddeluce@npca.ca>

Cc: Adam Aldworth <aaldworth@npca.ca>; Nigel Ward <nward@npca.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Maged.Elmadhoon@niagararegion.ca; Suggett, Jeff <jeff.suggett@woodplc.com>; Godard, Michael <michael.godard@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>

Subject: RE: Merritt Rd-Rice Rd Class EA - NPCA Data Request

Hello David,

I am following up regarding the request below. Please let us know if you have any questions. We would appreciate any information/data you can share.

Sincerely,

Mir

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

Mobile: +1 (647) 545 8974

www.woodplc.com

wood.

From: Talpur, Mir

Sent: Wednesday, July 14, 2021 2:36 PM

To: ddeluce@npca.ca

Cc: Adam Aldworth <aaldworth@npca.ca>; Nigel Ward <nward@npca.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Maged.Elmadhoon@niagararegion.ca; Suggett, Jeff <jeff.suggett@woodplc.com>; Godard, Michael <michael.godard@woodplc.com>; Hughes, Samantha (<samantha.hughes@woodplc.com>)

Subject: Merritt Rd-Rice Rd Class EA - NPCA Data Request

Good Afternoon David,

I hope things are well on your side. As part of the aquatic habitat assessment background review for Merritt Rd – Rice Rd Class EA, we have reviewed the NPCA's Watershed Plan for Port Robinson (1999). This document identified the main watercourses through the Class EA Study Area as tributaries to Singers Drain and Springer Drain. The fish community surveys undertaken as part of this work captured six species (Central mudminnow, Brook stickleback, Brown bullhead, Northern Pearl dace, Fathead minnow and Pumpkinseed). There was a lot of information in that document, however, it is 22 years old. More recent (2016) LIO Aquatic Resource Area (ARA) data for the area only provides records for Brown bullhead.

We were wondering if you have any updated information for the following, and if you could kindly share it with us for use in this project?

- Water Quantity/Quality Data;
- Groundwater Discharge Areas;
- Watercourse Names, Thermal and Flow Regimes;
- Fish Habitat Sensitivity;
- Fisheries Management Objectives/plans;
- Benthic Invertebrate data.

We would also like to request fish community records for the watercourses in the Study Area, and NPCA's advice related to in-water works timing windows for those watercourses. I have attached the Study Area map for reference.

We would really appreciate any information you can share at your earliest convenience. Please let me know if you have any questions.

Sincerely,

Mir

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

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Burlington ON L7N 3W5

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Meeting Minutes

Date: Friday, November 19, 2021, 11:00 AM

Meeting at: Microsoft Teams

File No.: IM20103036

Subject/purpose: Merritt Road/Rice Road MCEA – Meeting with the Niagara Peninsula Conservation Authority

Attendees:

Maged Elmadhoon, Niagara Region
Cara Lampman, Niagara Region
Amy Shanks, Niagara Region
Adam Boudens, Niagara Region
Adam Aldworth, NPCA

Jeff Suggett, Wood
Mir Ahsan Talpur, Wood
Samantha Hughes, Wood
Todd Hagedorn, Wood
Michael Godard, Wood

Items Discussed:

1. Purpose of Meeting

This meeting was in regards to the Municipal Class Environmental Assessment (Class EA) for improvements to Merritt Road and Rice Road in the Town of Pelham, City of Thorold and City of Welland. The purpose of the meeting was to share the preliminary findings of the natural environment fieldwork with the Niagara Peninsula Conservation Authority (NPCA), and receive input on the next steps related to impacts on wetlands and watercourses.

2. Project Overview

Niagara Region is undertaking a Municipal Class EA Study for improvements to Merritt Road and Rice Road as a result of proposed developments in Pelham, Thorold and Welland. This study is building on the recommendations of the Niagara Region's Transportation Master Plan, which included the following:

- Extension of Merritt Road between Rice Road (Regional Road 54) and Cataract Road;
- Capacity improvements of Merritt Road from Cataract Road to Highway 406; and
- Capacity improvements to Rice Road (Regional Road 54) from 200 meters north of Merritt Road to Quaker Road.

Continued...

The traffic assessment completed as part of this Class EA Study confirmed the findings of the Transportation Master Plan (2017) regarding the need for improvements to address anticipated congestion in the future (2031 and 2041 horizon years).

The Preferred Solution presented at the Public Information Centre #2 includes:

- Extension of Merritt Road between Rice Road and Cataract Road;
- Improvements to Merritt Road between Cataract Road and Highway 406;
- Improvements to Rice Road between 200m north of Merritt Road and Quaker Road; and
- Localized intersection improvements, and provision of active transportation facilities.

The Study Team has now identified a preliminary preferred design, which will be presented to the public at the Public Information Centre #3 in early December 2021. In short summary, the preliminary preferred design includes the following:

- Segment 1: A new road with a 25.1 m road ROW;
- Segment 2: Widening of road ROW from 20.4 m to 26.0 m towards south side;
- Segment 3: No widening of road ROW. Alignment shift to the north; and
- Segment 4: Widening of road ROW to 35.2 m.

Detailed evaluation of alternatives memo was shared with the NPCA prior to the meeting.

3. Preliminary Results of Natural Environment Fieldwork:

Field investigations completed to date include:

- Three amphibian call surveys;
- Two breeding bird surveys;
- Three season vegetation surveys;
- Targeted species at risk surveys; and
- Aquatic habitat investigations.

Indigenous Nations were invited to participate in the monitoring of the natural environment fieldwork.

Preliminary results of field investigations are provided below:

Vegetation Communities/ELC (preliminary findings):

- Meadows;
- Silver Maple Mineral Deciduous swamp type;
- Dry-fresh sugar maple - oak- with wetlands and pools inclusions throughout;

Continued...

- Roadside/ edge communities; and
- Marsh- interspersed with treed swamp area and variable.

Species at Risk:

- Barn Swallow (Threatened);
- Round-leaved Greenbrier (Threatened);
- White wood Aster (Threatened); and
- Eastern Flowering Dogwood (Endangered).

Special concern and S1-S3 Ranked species:

- Wood Thrush;
- Eastern wood-pewee;
- Black Gum (S3); and
- Schreber's Aster (S2).

Locally Rare species:

Slender-leaved False Foxglove (*Agalinis Tenuifolia*).

Preliminary figures showing locations of:

- the general Study Area and Project Location;
- ELC;
- Natural Heritage (including PSW);
- Location of wildlife survey locations; and
- Location of Species at Risk and Species of Conservation Concern.

A meeting was held with the Ministry of the Environment, Conservation and Parks on November 16, 2021, regarding impacts on the identified species at risk and their habitat.

Watercourses: A total of nine watercourse crossings were identified and assessed within the Study Area. One of them was fish habitat, one contributing fish habitat and the others identified as equalization/drainage conveyance. Study Team has contacted the Ministry of Northern Development, Mines, Natural Resources and Forestry (MNDMNRF) to request fisheries information and in-water works timing restriction windows.

4. Open Discussion

The following bullets summarize key points of discussion:

- NPCA staff noted that there are several Provincially Significant Wetlands (PSWs) along the Merritt Road. Would MNDMNRF be consulted to delineate the PSWs? Wood staff noted that there are no plans to delineate the PSWs. It is assumed that

Continued...

all features are PSWs. Accordingly, measures will be recommended in the Environmental Impact Study related to impacts on all wetlands.

- NPCA staff inquired whether any surveys were completed for salamanders. Wood staff noted that no salamander surveys were completed due to access restrictions at the time of field surveys. Wood staff mentioned that during spring surveys (i.e., from the ROW), no suitable vernal pools for salamander habitat could be seen. However, it is agreed that Blue-spotted Salamander is likely breeding in the Study Area and, therefore, will be considered confirmed breeding.
- NPCA noted that the preference is that Merritt Road is not to be extended between Rice Road and Cataract Road to avoid impacts on PSWs. However, if it is to proceed, what would be the mitigation measures for wildlife movement? Wood staff noted that various measures will be proposed in the EIS to maintain wildlife movement (e.g., wildlife tunnels and fencing or an elevated road or a large span bridge).
- NPCA staff suggested including bridges/culverts in the preferred design to maintain the existing drainage flow in Segment 1.
- NPCA staff noted that compensation would be required for any impacts to wetlands. Compensation should be factored into the selection of the preferred design, as there will be a cost associated with the property acquisition. Wood staff noted that the recommendations related to wetland compensation will be included in the EIS for the Niagara Region to implement during detailed design.
- Niagara Region staff noted that the need for proposed road improvements was identified in the Niagara Region's Transportation Master Plan and confirmed through Phases 1 and 2 of this Class EA Study.



Meeting Minutes

Date: Wednesday, December 8, 2021, 3:00 PM **Meeting at:** Microsoft Teams

File No.: IM20103036

Subject/purpose: Merritt Road/Rice Road MCEA – Meeting with the Niagara Peninsula Conservation Authority

Attendees:

Maged Elmadhoon, Niagara Region
Cara Lampman, Niagara Region
David Deluce, NPCA
Leilani Lee-Yates, NPCA
Steve Miller, NPCA
Adam Aldworth, NPCA

Jeff Suggett, Wood
Mir Ahsan Talpur, Wood
Samantha Hughes, Wood
Michael Godard, Wood
Todd Hagedorn, Wood
Emma Haug-Kindellan, Wood

Items Discussed:

1. Purpose of Meeting

The purpose of the meeting was to share the preliminary preferred design for the proposed road improvements with the Niagara Peninsula Conservation Authority (NPCA) and receive input on the next steps related to impacts on wetlands. Information from the Public Information Centre (PIC) #3 slides was presented. The PIC materials can be accessed from the project webpage: <https://niagararegion.ca/projects/regional-road-37/default.aspx>

2. Open Discussion

The following bullets summarize key points of discussion:

- Comment: The main area of focus for the NPCA is Segment 1 and Segment 2 as they abut wetlands.
- Question: Was Flooding Hazard considered in the development of preliminary preferred design?
- Response: The Study Team has reviewed the existing flooding at this time. There are existing flooding issues within the Study Area (e.g., Merritt Road/Cataract Road intersection area). We have not explicitly reviewed flood hazards. Existing flooding issues will be discussed in the Stormwater Management (SWM) Report.

Continued...

- Question: Up to 1 m of flooding can be anticipated in Segment 1 after major rain events. Cataract Road is also a known flood area. If the unopened road allowance in Segment 1 is constructed, how will it impact the hydrologic function of wetlands?
- Response: As part of the ongoing SWM assessment, we have not assessed feature-based water balances. So far, the roadway drainage has been assessed.
- Question: A lot of the detail has not been provided to the NPCA at this time. Is there monitoring/additional technical work planned in regard to wetlands? The NPCA will require more information in order to determine if the preferred design is supported by the NPCA policies.
- Response: Environmental Impact Assessment (EIS) Report and SWM Report are currently underway and will be available in early 2022. The Study Team will incorporate information from any existing hydrologic assessment reports. Hydrologic assessment was not part of the scope of the EIS. The Study Team noted that the NPCA should recommend any additional studies/investigations that should be completed to assess impacts on wetlands beyond that agreed upon in the EIS Terms of Reference provided to the NPCA at the beginning of this project. The Region will review and determine whether these studies should proceed.
- Question: The NPCA will look for information on the impacts on wetland hydrology. Is there any monitoring going on in those wetlands? Or is this new monitoring planned?
- Response: The natural environment work was completed in accordance with the EIS Terms of Reference that was shared with the NPCA early on in this project. In accordance with the terms of reference, various natural environment field investigations were completed (including vegetation surveys, breeding bird surveys, targeted species at risk surveys). In the prior meeting with the NPCA, discussions were held regarding maintaining the flow of water and wildlife crossing, however, no work was discussed regarding wetland monitoring.
- Comment: At this stage conceptual level information would help the NPCA to make determination that the preferred design is supported by the NPCA policies. The NPCA will inform the Study Team about what type of additional investigations will be required to inform impacts on wetlands.
- Comment: The NPCA can offer the hydrologic model for Singers Drain.
- Question: One of the mitigation measures would be wetland compensation. Have you located any sites where that compensation will be occurring?
- Response: The wetland impacts have been identified at a very high level at this stage. More detailed information regarding wetland impacts and recommended measures will be included in the EIS. A location for wetland compensation has not been identified yet, as the preferred design is still being reviewed and discussed.

Continued...

- Comment: The NPCA did not provide comments on the preferred solution that was presented at the PIC #2 in June 2021, as the impacts on wetlands were not identified at that time.

3. Wrap up/Next Steps

- The NPCA will inform the Study Team about what type of additional investigations will be required to inform impacts on wetlands.

Talpur, Mir

From: Talpur, Mir
Sent: Tuesday, December 21, 2021 2:34 PM
To: David Deluce; Leilani Lee-Yates; Steve Miller; Adam Aldworth; Chandra Sharma
Cc: Elmadhoon, Maged; Cara.Lampman@niagararegion.ca; Khan, Muhammad; Chipps, Steve; Hughes, Samantha; Hagedorn, Todd; Godard, Michael; HaugKindellan, Emma C
Subject: RE: Merritt Road-Rice Road MCEA - Preliminary Preferred Design
Attachments: IM20103036_MerrittRd-RiceRd_NPCA-Meeting_08-12-2021_Accessible.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Hi David et al.,

Please find attached the minutes of the meeting of December 8, 2021, regarding Merritt Rd-Rice Rd Class EA. Let me know if there are any changes to these minutes.

Based on our discussion at this meeting, we understand that the NPCA will require more information to fully understand impacts of the preferred design on wetlands. To that effect, could you please let us know at your earliest convenience as to which additional investigations are required? Thank you.

Happy Holidays!

Sincerely,

Mir

Mir Ahsan Talpur, M.Env.Sc., EP
Environmental Planner
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wood.

-----Original Appointment-----

From: Talpur, Mir
Sent: Thursday, December 2, 2021 9:53 AM
To: Talpur, Mir; David Deluce
Cc: Elmadhoon, Maged; Cara.Lampman@niagararegion.ca; Steve Miller; Adam Aldworth; Leilani Lee-Yates; Chandra Sharma; Suggett, Jeff; Khan, Muhammad; Chipps, Steve; Hughes, Samantha; Hagedorn, Todd; Godard, Michael; HaugKindellan, Emma C
Subject: Merritt Road-Rice Road MCEA - Preliminary Preferred Design

When: Wednesday, December 8, 2021 3:00 PM-4:00 PM (UTC-05:00) Eastern Time (US & Canada).

Where: Microsoft Teams Meeting

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From: Talpur, Mir

Sent: Thursday, December 2, 2021 9:38 AM

To: David Deluce <ddeluce@npca.ca>

Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Cara.Lampman@niagararegion.ca; Steve Miller <smiller@npca.ca>; Adam Aldworth <aaldworth@npca.ca>; Leilani Lee-Yates <Llee-yates@npca.ca>; Chandra Sharma <csharma@npca.ca>; Suggett, Jeff <jeff.suggett@woodplc.com>; Khan, Muhammad <muhammad.khan@woodplc.com>; Chipps, Steve <steve.chipps@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>; Hagedorn, Todd <todd.hagedorn@woodplc.com>; Godard, Michael <michael.godard@woodplc.com>

Subject: RE: Merritt Road-Rice Road MCEA - Preliminary Preferred Design

Hi David,

Thank you for your comments below. Related to the status of the Environmental Impact Study, we have completed various natural environment field investigations. Once the comment period for the Public Information Centre #3 is complete, we will review all comments received and finalize the preferred design for the proposed road improvements. The preferred design will be used to identify and confirm natural environment impacts. Project's impacts and recommended measures will be

documented in the Environmental Impact Study. The recommended measures from the Environmental Impact Study will inform commitments in the Environmental Study Report that will be implemented in the next phases of the project. At this time, the Environmental Impact Study report is being developed, and will be available in early 2022 for your review.

As for your additional comments below, we can go over these comments during the meeting. From the following availability, December 8 (from 3-4 pm) works best for us. I will send out a meeting invite shortly.

In the meantime, if you have any questions, or require anything, please feel free to contact us.

Sincerely,

Mir

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

Mobile: +1 (647) 545 8974

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wood.

From: David Deluce <ddeluce@npca.ca>

Sent: Tuesday, November 30, 2021 5:20 PM

To: Talpur, Mir <mir.talpur@woodplc.com>

Cc: Suggett, Jeff <jeff.suggett@woodplc.com>; Hagedorn, Todd <todd.hagedorn@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>; Godard, Michael <michael.godard@woodplc.com>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Steve Miller <smiller@npca.ca>; Adam Aldworth <aaldworth@npca.ca>; Leilani Lee-Yates <Llee-yates@npca.ca>; Chandra Sharma <csharma@npca.ca>

Subject: RE: Merritt Road-Rice Road MCEA - Preliminary Preferred Design

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Hi Mir,

We have reviewed the minutes and have no corrections to note. Would you please clarify the status of the EIS and how it will inform the EA process moving forward. NPCA staff have been anticipating the detailed environmental work to determine whether the preferred alternative would be supported by our Regulation and Policies. Staff have noted our concerns in meetings with potential impacts to the wetland, watercourse and floodplain, however, we have not yet had an opportunity to have a fulsome discussion on our policies as they relate to public infrastructure. The more detailed environmental information from the EIS will inform our review and help us determine if our policies will be met. In particular, NPCA polices would allow for public infrastructure through wetlands (including PSWs) subject to the following criteria:

- The proposed infrastructure is supported by the completion of an appropriate Environmental Assessment or a Comprehensive EIS to the satisfaction of the Authority;
- No reasonable alternate location for the infrastructure exists outside of the wetland;
- Any impacts to flood flows, flood storage or groundwater movement are mitigated;
- The proposed infrastructure is designed to fully address impacts to the existing hydrological function, hydrological regime and ecological function of the wetland and adjacent lands; and
- Infrastructure approved through an environmental assessment process shall require a work permit to develop from the NPCA.

To assist us with making sure that the preferred design alternative meets our policy requirements, we would like to have a further discussion with your team about the timing of more detailed EIS and design work and other questions we have to ensure our policies will be addressed. Following these discussions and reviewing the EIS, we would be in a better position to offer more complete comments.

Presently our availability is:

December 3 (9am – 10 am or 1 pm – 2 pm)

December 6 (9am – 10:30 am)

December 7 (11 am – 12 pm, 1 pm – 2 pm or 3 pm – 4:30 pm)

December 8 (2 pm – 4 pm)

December 9 (9 am – 11 am)

Please let us know if any of these times work for you.

Cheers,

David Deluce, MCIP, RPP
Senior Manager Planning & Regulations
Niagara Peninsula Conservation Authority
250 Thorold Road West, 3rd Floor
Welland, Ontario, L3C 3W2
905-788-3135 ext. 224
ddeluce@npca.ca

From: Talpur, Mir <mir.talpur@woodplc.com>

Sent: November 30, 2021 1:47 PM

To: Adam Aldworth <aaldworth@npca.ca>; David Deluce <ddeluce@npca.ca>

Cc: Maged <Maged.Elmadhoon@niagararegion.ca>; Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Shanks, Amy <Amy.Shanks@niagararegion.ca>; Boudens, Adam <Adam.Boudens@niagararegion.ca>; Suggett, Jeff <jeff.suggett@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>; Godard, Michael <michael.godard@woodplc.com>; Hagedorn, Todd <todd.hagedorn@woodplc.com>

Subject: RE: Merritt Road-Rice Road MCEA - Preliminary Preferred Design

Good afternoon,

Please find attached the minutes of the November 19 meeting held with the Niagara Peninsula Conservation Authority regarding the Municipal Class EA Study for improvements to Merritt Road and Rice Road. Please let me know if you have any changes.

Sincerely,

Mir

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

Mobile: +1 (647) 545 8974

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-----Original Appointment-----

From: Talpur, Mir

Sent: Wednesday, November 3, 2021 4:47 PM

To: Talpur, Mir; ddeluce@npca.ca; Adam Aldworth; Nigel Ward; Maged; Alkarawi, Sulaf; Lampman, Cara; Suggett, Jeff; Hughes, Samantha; Hagedorn, Todd; Godard, Michael; Shanks, Amy; Boudens, Adam

Subject: Merritt Road-Rice Road MCEA - Preliminary Preferred Design

When: Friday, November 19, 2021 11:00 AM-12:00 PM (UTC-05:00) Eastern Time (US & Canada).

Where: Microsoft Teams Meeting

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December 23, 2021

Via Email Only - Maged.Elmadhoon@niagararegion.ca

Maged Elmadhoon, M.Eng., P.Eng.
Manager, Transportation Planning
Niagara Region
1815 Sir Isaac Brock Way, PO Box 1042
Thorold, ON L2V 4T7

Our File: PLEA202100316

Dear Mr. Elmadhoon

**Re: Niagara Peninsula Conservation Authority (NPCA) Comments
Municipal Class Environmental Assessment for Merritt Road and Rice Road
Town of Pelham, City of Thorold and City of Welland
Consultant: Wood Environmental & Infrastructure Solutions**

Niagara Region is undertaking a Schedule C Municipal Class Environmental Assessment (MCEA), including a detailed transportation assessment for Merritt Road (Regional Road 37) and Rice Road (Regional Road 54) in the Town of Pelham, City of Thorold and City of Welland. The MCEA is intended to identify improvements to the two roadways to meet the future needs of the surrounding community for all road users. The MCEA builds on the recommendations of the Niagara Region's Transportation Master Plan which included the following:

- Extension of Merritt Road between Regional Road 54 (Rice Road) and Cataract Road;
- Capacity improvements of Merritt Road from Cataract Road to Highway 406; and,
- Capacity improvements to Regional Road 54 (Rice Road) from 200 meters north of Merritt Road to Quaker Road.

The NPCA has reviewed the materials provided to date and offers the following comments.

NPCA Policies

The NPCA regulates watercourses, flood plains (up to the 100 year flood level), Great Lakes shorelines, hazardous land, valleylands, and wetlands under *Ontario Regulation 155/06* of the *Conservation Authorities Act*. The *NPCA Policy Document: Policies for the Administration of Ontario Regulation 155/06 and the Planning Act* (NPCA policies) provides direction for managing NPCA regulated features. The study area contains the Niagara Street Cataract Road Woodlot

Wetland Complex, which is a provincially significant wetland (PSW) as well as the 100 year Flood Plain for Singers Drain.

The study area is broken up into different segments. The two segments that the NPCA is most concerned with are Segments 1 and 2. Segment 1 includes an unopened portion of Merritt Road between Rice Road and Cataract Street. This unopened road allowance bisects the above noted PSW and the 100 year Flood Plain for Singers Drain. It is also our understanding that different alternative solutions have been evaluated and the preferred alternative involves extending Merritt Road through Segment 1.

NPCA Policies normally would not support development within a PSW, however, Section 8.2.4 allows for public infrastructure through wetlands subject to the following criteria:

- a) The proposed infrastructure is supported by the completion of an appropriate Environmental Assessment or a Comprehensive EIS to the satisfaction of the Authority;
- b) No reasonable alternate location for the infrastructure exists outside of the wetland;
- c) Any impacts to flood flows, flood storage or groundwater movement are mitigated;
- d) The proposed infrastructure is designed to fully address impacts to the existing hydrological function, hydrological regime and ecological function of the wetland and adjacent lands; and
- e) Infrastructure approved through an environmental assessment process shall require a work permit to develop from the NPCA.

In order for the NPCA to support the selected alternative, we need to ensure that the above criteria have been met and/or can be met. This is also required for the NPCA to be able to issue Permits at the time of construction.

An evaluation of the impacts to the watercourses and wetlands as a result of the proposed development has not been provided to the NPCA for consideration. The hydrology of the watercourses and PSW must be characterized to the satisfaction of the NPCA to ensure that the hydrology and ecology of the wetlands and watercourses are not impacted as a result of the proposed development. As such, the NPCA is requiring the following additional monitoring and characterization be completed and submitted prior to the NPCA providing comments on the preferred option:

1. Please prepare and submit to the NPCA for approval a hydrological monitoring plan to characterize the surface overland flow within Segment 1;
2. Please undertake the appropriate hydrological monitoring plan within Segment 1 and provide a monitoring report with recommendations for maintaining the hydrological and ecohydrological functions of the watercourses and wetlands during and post-construction of the proposed development;
3. Please provide an ecohydrological impact assessment that incorporates the findings of the hydrological monitoring with the ecological characterization of the watercourses and PSW (e.g. field surveys).


We are also concerned with the potential impact of the Singers Drain 100 year Flood Plain to the proposed road. Our current information indicates that flood depths could reach 1 metre during a 100 year flood event. Section 4.2.2 (i) of the NPCA Policies allows for public infrastructure (including roads) within a flood plain where the impacts of flooding have been addressed. To date, we have not seen any information to demonstrate how impacts of the flood plain to the proposed road will be mitigated nor how the proposed road will impact the flood plain. A hydraulic analysis will need to be completed to properly assess flooding impacts.

Upon reviewing the required information noted above, NPCA staff will be in a position to provide final comments on the preferred option for the Merritt Road extension EA project.

Conclusion

At this time, NPCA staff recommend that additional study of the impacts to the watercourses, PSW and 100 year flood plain be completed and reviewed by the NPCA to our satisfaction prior to the Region filing the MCEA with the Minister. I trust this information is of assistance to continue to advance the MCEA process. If you have any questions, please let me know.

Regards,



Leilani Lee-Yates, BES, MSPL.RPD, MCIP, RPP
Director, Watershed Management

cc: Mr. Jeff Suggett, M.Sc, Wood (email only)
Mr. Mir Ahsan Talpur, M.Env.Sc., EP, Wood (email only)
Ms. Chandra Sharma, MCIP, RPP, NPCA
Mr. David Deluce, MCIP, RPP, NPCA (email only)
Mr. Steve Miller, P.Eng., NPCA (email only)
Mr. Adam Aldworth, NPCA (email only)



Meeting Minutes

Date: Friday January 28, 2022, 10:00 AM **Meeting at:** Microsoft Teams

File No.: IM20103036

Subject/purpose: Merritt Road/Rice Road MCEA – Meeting with the Niagara Peninsula Conservation Authority

Attendees:

Maged Elmadhoon, Niagara Region
Cara Lampman, Niagara Region
David Deluce, NPCA
Leilani Lee-Yates, NPCA
Steve Miller, NPCA
Adam Aldworth, NPCA

Muhammad Khan, Wood
Mir Ahsan Talpur, Wood
Samantha Hughes, Wood
Steve Chipps, Wood
Emma Haug-Kindellan, Wood
Nick Schmidt, Wood

Items Discussed:

1. Purpose of Meeting

The purpose of this meeting was to discuss NPCA's comments related to wetland and flooding impacts. The Study Team acknowledged receipt of comments letter (dated December 23, 2021) from NPCA. It was noted that the Niagara Region intends to finalize this Class EA Study in early 2022. The Study Team is concerned that the requirements for hydrological monitoring plan and associated impact assessment were not identified by NPCA previously. The Study Team would want to discuss with NPCA the potential for completing these additional assessments during detailed design phase of the project such that the Class EA Study can be finalized on schedule in early 2022.

2. Open Discussion

Flooding Hazard:

The NPCA staff noted that the Conservation Authority is interested in seeing if the impact assessment completed sufficiently to inform whether the NPCA policy supports the preferred design. It is important to understand the flooding impacts from a risk and liability perspective for the NPCA as well as the Region. The Province would also be

Continued...

interested in reviewing this information. There is some flexibility to work on the monitoring plan. With regards to the timeline, the NPCA would be willing to review the proposal for the monitoring plan, and work with the Study Team.

The Study Team noted that the model for Singer's Drain is a high-level model, hence it would not provide hydrologic characterization for the area. Based on the hydraulic model, the flow depths in Segment 1 are approximately 1m high during a 100-year storm event. The road profile would be required to be fairly close to the existing grade, and tie into existing connecting roadways. In addition, this area has wetlands and it does not drain very well (flat). Wood provided direction that in order to reduce water surface elevations, improvements will need to be identified outside of the road ROW on private properties, and beyond the current study area. That was not assessed as part of the Class EA Study, as Wood's scope was to look at the stormwater management and drainage requirements for Merritt Road right of way.

There are also wetlands along other road segments. The Study Team inquired if the NPCA is requiring to complete investigations for wetlands along Segment 1 alone, or all four road segments. The Study Team also asked if there is a specific protocol that should be followed to completed wetland assessments.

The NPCA staff noted that in order for them to response, NPCA would need to understand what the proposed level of service for this road will be (i.e., arterial or collector). The Study Team noted that Segment 1 would be considered a minor arterial road.

The NPCA inquired if there is expectation to keep this road operational during a 100-year event. If that is the expectation, the vertical profile will need to be raised.

The Study Team responded that the road would need to be operable during the 100-year event. At this point, the Study Team has tried to maintain the proposed road grade with the existing grades.

The Conservation Authority needs to understand what the impacts of the flooding hazards are as a result of the project and how these can be mitigated, implying that the additional assessments are required at this time. The NPCA would like to avoid the issue of changing the design during detailed design phase to accommodate flooding.

The Study Team inquired if there have been any investigations to determine options to address flooding issues in this area. The NPCA staff responded that no such investigations have been completed.

Continued...

It was noted that the Niagara Region would like to complete the Environmental Study Report soon. The Study Team has been in consultation with the NPCA since the study commencement, and flood plain data was provided by the NPCA on August 23, 2021. NPCA staff noted that during study commencement meeting, NPCA noted that there is floodplain within the Study Area.

Niagara Region staff noted that this is preliminary design. The Environmental Study Report will include clear wording that the monitoring and other concerns will be completed during detailed design.

NPCA staff reiterated that these impact assessments must be demonstrated at this time as to there will be safe access. The NPCA want to understand what the impacts on the wetlands and flooding will be, how those impacts will be mitigated and whether the road will be operational during a 100-year storm event. These issues have not been assessed at this time.

The Study Team noted that there are other solutions that may be implemented outside of the road right of way to address flooding issues. Offsite improvements will be required. This is something that will need to be discussed with the Region. The Study Team will look at the MTO criteria for minor arterial to see what culvert sizing would be required. However, those would not address offsite flooding impacts. That is something the Study Team will need to discuss with the Region.

NPCA commented that there is a common goal here to avoid the new road being impacted by flooding.

Maged inquired that all of this area under floodplain zone and if so, what is the difference between having the existing road within the floodplain and the proposed road within the floodplain. Floodplain map was reviewed on screen. It was discussed that the floodplain extends along the Segment 1 and Cataract Road. The Cataract Road present a constraint to the floodplain; the roadway generates a back up to the floodplain. Even if the crossings at Segment 1 are proposed, there is no guarantee that the road segment would not be flooded under the 100-year event due to downstream conditions.

NPCA staff suggested supplementing the existing hydraulic model for Singer's Drain with topographic data to better understand the flooding levels. NPCA staff also suggested modifying the model to add additional cross-sections within the subject area to confirm whether the flood levels are valid.

Continued...

NPCA staff raised that the Study Team should consider if the route requires closure during significant flooding.

Wetlands:

The Study Team noted that there are also wetlands along other road segments, and inquired if the NPCA is only interested in the assessment for the wetlands along Segment 1. The NPCA staff confirmed that the monitoring and wetland impact assessment is not required for Segments 2, 3 and 4. Because there will be new infrastructure through Segment 1, the NPCA is mostly interested in impacts associated with this segment.

It was inquired as to what type of hydrologic assessment is required for assessing the wetlands. Wood has completed a high-level review of the hydrogeological conditions; soils are low permeability soils in Segment 1 so the hydrogeologic function is assumed to be limited, and the wetlands are presumed to be primarily surface water fed. Select number of monitoring wells can be installed to confirm this assumption. NPCA noted that this is an area where two soil types (sandy and clayey soils) meet and would require additional investigation to confirm. There are some questions that cannot be answered without doing any borehole investigations. Wood agreed that some hydrogeological assessment can be completed along with the geotechnical investigation to confirm the groundwater flow.

Wood added that bathymetric data is required for the wetland to understand underlying conditions. NPCA noted that there is no bathymetric data available for the wetland areas.

3. Wrap up/Next Steps

The Study Team will prepare a high-level approach for completing wetland and flooding impact assessments. Once the approach is agreed upon, the Study Team will prepare a detailed work plan to undertake the work. This work plan will be subject to approval by the Niagara Region and NPCA.

Talpur, Mir

From: Talpur, Mir
Sent: Thursday, July 28, 2022 4:27 PM
To: David Deluce; Leilani Lee-Yates; Steve Miller; Adam Aldworth
Cc: Elmadhoon, Maged; Alkarawi, Sulaf; Ding, Maggie; Lampman, Cara; Khan, Muhammad; Chipps, Steve; HaugKindellan, Emma C; Schmidt, Nick; Hughes, Samantha
Subject: RE: NPCA March 2 2022 Response - Merritt Road and Rice Road Municipal Class EA
Attachments: 2022-07-28 Merritt and Rice MCEA - Hydraulic Analysis.pdf

Hi David,

Please find attached for NPCA staff review the draft existing conditions hydraulic analysis memo for Merritt Road-Rice Road Class EA. The key elements for which we are seeking NPCA's confirmation / feedback include:

- The approaches / methodologies outlined for the existing conditions base hydraulic model development.
- The preferred source of steady flow data to be used in the hydraulic analysis (future calibrated PCSWMM model versus previous modeling).
- The option for including versus excluding the wetland storage attenuation as part of the hydraulic analysis.

We would appreciate any feedback/comments by August 19, or earlier, so we can complete the next steps outlined in the memo. Please let us know if the NPCA staff would like to have a meeting once they have completed their review of this memo. Thank you.

Sincerely,

Mir

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

Mobile: +1 (647) 545 8974

www.woodplc.com



From: Talpur, Mir
Sent: Monday, June 13, 2022 9:44 AM
To: David Deluce <ddeluce@npca.ca>; Leilani Lee-Yates <llee-yates@npca.ca>; Steve Miller <smiller@npca.ca>; Adam Aldworth <aaldworth@npca.ca>; Ding, Maggie Maggie.Ding@niagararegion.ca
Cc: Elmadhoon, Maged Maged.Elmadhoon@niagararegion.ca; Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>;

Lampman, Cara <Cara.Lampman@niagararegion.ca>; Khan, Muhammad <muhammad.khan@woodplc.com>; Chipps, Steve <steve.chipps@woodplc.com>; HaugKindellan, Emma C <emma.c.haugkindellan@woodplc.com>; Schmidt, Nick <nick.schmidt@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>; Brian Lee <blee@npca.ca>
Subject: RE: NPCA March 2 2022 Response - Merritt Road and Rice Road Municipal Class EA

Hi David,

Thank you for sharing NPCA staff's comments.

With regards to your first point, we received a similar comment from the Niagara Region staff as well, and wanted to note that we did think about installing a monitor at Cataract Road crossing.

We recognize that the stream crossing location at Cataract Road would have been preferred given the proximity to the wetland. However, the channel downstream and upstream of the road crossing is heavily vegetated and is not conducive to flow gauges (see screenshots below). The flow gauges have to be in open watercourses. There is also the issue of the backwater in the channel from downstream which impacts depth readings and can make it difficult to determine flows. Due to these reasons, we did not identify the stream crossing location at Cataract Road for surface water monitoring.

Please let us know if NPCA staff finds these rational satisfactory for not including a monitor in the culvert at Cataract Road.





Sincerely,

Mir

Mir Ahsan Talpur, M.Env.Sc., EP
Environmental Planner
Mobile: +1 (647) 545 8974
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wood.

From: David Deluce <ddeluce@npca.ca>

Sent: Monday, June 13, 2022 9:30 AM

To: Talpur, Mir <mir.talpur@woodplc.com>; Leilani Lee-Yates <Llee-yates@npca.ca>; Steve Miller <smiller@npca.ca>;

Adam Aldworth <aaldworth@npca.ca>; Ding, Maggie <Maggie.Ding@niagararegion.ca>
Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Khan, Muhammad <muhammad.khan@woodplc.com>; Chipps, Steve <steve.chipps@woodplc.com>; HaugKindellan, Emma C <emma.c.haugkindellan@woodplc.com>; Schmidt, Nick <nick.schmidt@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>; Brian Lee <blee@npca.ca>
Subject: RE: NPCA March 2 2022 Response - Merritt Road and Rice Road Municipal Class EA

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Hi Mir,

I've received all comments from internal staff and offer the following:

1. The NPCA requests that a fourth monitor be installed in the culvert at Cataract Road to capture flows in this area in addition to the two proposed at Rice Road and one proposed at Merrittville Highway.
2. The NPCA has no objection to the proposal for Wood to produce a scoped hydraulic model for the watercourses in Segment 1 and 2 as noted below.

I trust this information is helpful. If you have any questions, please let me know.

Best Regards,

David Deluce, MCIP, RPP
Senior Manager, Environmental Planning & Policy
Niagara Peninsula Conservation Authority
250 Thorold Road West, 3rd Floor
Welland, Ontario, L3C 3W2
905-788-3135 ext. 224
ddeluce@npca.ca

From: Talpur, Mir <mir.talpur@woodplc.com>
Sent: June 8, 2022 11:12 AM
To: David Deluce <ddeluce@npca.ca>; Leilani Lee-Yates <Llee-yates@npca.ca>; Steve Miller <smiller@npca.ca>; Adam Aldworth <aaldworth@npca.ca>; Ding, Maggie <Maggie.Ding@niagararegion.ca>
Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Khan, Muhammad <muhammad.khan@woodplc.com>; Chipps, Steve <steve.chipps@woodplc.com>; HaugKindellan, Emma C <emma.c.haugkindellan@woodplc.com>; Schmidt, Nick <nick.schmidt@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>; Brian Lee <blee@npca.ca>
Subject: RE: NPCA March 2 2022 Response - Merritt Road and Rice Road Municipal Class EA

Hi David,

I am following up on our request related to NPCA's review of surface water monitoring locations. Have you received input from the staff on this? We would like to initiate the surface water monitoring program as soon as possible.

On a side note, we will be installing monitoring wells in the unopened road allowance on June 27 as part of the groundwater monitoring program.

Sincerely,

Mir

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

Mobile: +1 (647) 545 8974

www.woodplc.com



From: David Deluce <ddeluce@npca.ca>

Sent: Friday, June 3, 2022 3:23 PM

To: Talpur, Mir <mir.talpur@woodplc.com>; Leilani Lee-Yates <Llee-yates@npca.ca>; Steve Miller <smiller@npca.ca>; Adam Aldworth <aaldworth@npca.ca>; Ding, Maggie <Maggie.Ding@niagararegion.ca>

Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Khan, Muhammad <muhammad.khan@woodplc.com>; Chipps, Steve <steve.chipps@woodplc.com>; HaugKindellan, Emma C <emma.c.haugkindellan@woodplc.com>; Schmidt, Nick <nick.schmidt@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>; Brian Lee <blee@npca.ca>

Subject: RE: NPCA March 2 2022 Response - Merritt Road and Rice Road Municipal Class EA

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Hi Mir,

I still need to get internal comments from some reviewers but a clarity question was brought up:

1. Are the proposed monitoring locations for informing the flood plain modelling or wetland hydrology characterization?

With respect to our DEM, we have just received our newest DEM, which has not yet been posted to our open data portal. I've copied Brian Lee (GIS Administrator) and ask that he follow up to provide you with access to our newest DEM.

With respect to the minutes, we have no further concerns.

I anticipate having a complete response to you by Tuesday June 7. Please let me know if you have any questions.

Best Regards,

David Deluce, MCIP, RPP
Senior Manager, Environmental Planning & Policy
Niagara Peninsula Conservation Authority
250 Thorold Road West, 3rd Floor
Welland, Ontario, L3C 3W2
905-788-3135 ext. 224
ddeluce@npca.ca

From: Talpur, Mir <mir.talpur@woodplc.com>
Sent: June 1, 2022 8:11 AM
To: David Deluce <ddeluce@npca.ca>; Leilani Lee-Yates <Llee-yates@npca.ca>; Steve Miller <smiller@npca.ca>; Adam Aldworth <aaldworth@npca.ca>; Chandra Sharma <csharma@npca.ca>; Ding, Maggie <Maggie.Ding@niagararegion.ca>
Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Khan, Muhammad <muhammad.khan@woodplc.com>; Chipps, Steve <steve.chipps@woodplc.com>; HaugKindellan, Emma C <emma.c.haugkindellan@woodplc.com>; Schmidt, Nick <nick.schmidt@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>
Subject: RE: NPCA March 2 2022 Response - Merritt Road and Rice Road Municipal Class EA

Good Morning David,

I am following up on the email below, and wanted to check in if the NPCA staff had a chance to review the proposed surface water monitoring plan (outlined below). Please let us know if it looks satisfactory to you – we will then proceed to install the loggers ASAP.

In addition to above, if the NPCA staff could share with us the DEM/DTM file at the earliest convenience, that would be greatly appreciated. Thank you.

Feel free to let me know if you have any questions.

Sincerely,

Mir

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

Mobile: +1 (647) 545 8974

www.woodplc.com

wood.

From: Talpur, Mir
Sent: Wednesday, May 25, 2022 1:58 PM
To: ddeluce@npca.ca; Leilani Lee-Yates <Llee-yates@npca.ca>; Steve Miller <smiller@npca.ca>; Adam Aldworth <aaldworth@npca.ca>; Chandra Sharma <csharma@npca.ca>; Ding, Maggie <Maggie.Ding@niagararegion.ca>
Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Khan, Muhammad <muhammad.khan@woodplc.com>; Chipps, Steve <steve.chipps@woodplc.com>; HaugKindellan, Emma C <emma.c.haugkindellan@woodplc.com>; Schmidt, Nick <nick.schmidt@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>
Subject: RE: NPCA March 2 2022 Response - Merritt Road and Rice Road Municipal Class EA

Hi David et al.,

We would like to provide you an update on the Municipal Class Environmental Assessment for improvements to Merritt Road and Rice Road.

Firstly, please find attached the updated minutes of the meeting of January 28, 2022. These minutes incorporate your suggested wording from the email response of March 2, 2022.

Project Update:

After receiving NPCA's response of March 2, 2022, we prepared a proposal/scope change request for Region's review and received approval to undertake various tasks in accordance with the approach outlined in our email below (dated February 18, 2022).

We are now planning the initiation of these various and wanted share with you the proposed locations for surface water monitoring and request DEM/DTM file. Once we have received your input and data, we will complete some analysis and then set up a meeting to discuss outcomes/next steps. We anticipate that would occur in around early-mid July.

In the meantime, if you could please provide a response to the following by early next week, that would be greatly appreciated.

Proposed Surface Water Monitoring:

- We are proposing a surface water monitoring program, which will consist of three (3) in-stream levelloggers, and one (1) barologger for air pressure. The surface water loggers are proposed to be located within the road ROW such that two (2) are upstream of the PSW (along Rice Road), and one (1) is located further downstream of the PSW. Proposed monitoring location plan is attached.
 - Please note, locations along Rice Road will either be installed on the west or east side of the roadway, depending upon the vegetation density and channel formation to ensure sufficient flow / survey data. This will be confirmed in the field during installation.
 - For the location downstream of the wetland, the watercourse crossing at Cataract Road has dense vegetation and is a largely flat / undefined channel, therefore this area is considered to be unsuitable for monitoring. Further downstream at Merrittville Hwy, the channel is more defined and should have improved conditions for data capture; the monitoring gauge is proposed to be installed on the upstream side of the culvert crossing due to vegetation on the downstream side, however this will be confirmed in the field.
 - Wood is prepared to install the gauges now (as soon as possible) however, we will require the Region's & NPCA's approval of locations prior to heading out on site.

Scoped Hydraulic Modelling:

- A scoped hydraulic model is proposed for the watercourses within Segment 1 and 2, and will require more refined digital elevation data to develop the base modelling.
 - Wood is requesting a DEM/DTM file be provided (higher resolution – preferably min. 1 m) to support the development of the base hydraulic modelling.

- The outer extents of the hydraulic modelling focus area (Segment 1 & 2) are approximately bound by Pelham Street to the west, Highway 406 to the east, Port Robinson Road to the north, and Quaker Road to the south. These can be used to clip the DEM/DTM file, or alternatively Wood can clip the original file once received.

Please let me know if you have any questions.

Sincerely,

Mir

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

Mobile: +1 (647) 545 8974

www.woodplc.com

The logo for Wood PLC, featuring the word "wood" in a bold, lowercase, sans-serif font. The "w" is stylized with a thick stroke, and the "d" has a small dot above it.

From: Talpur, Mir

Sent: Wednesday, March 2, 2022 9:21 AM

To: David Deluce <dldeluce@npca.ca>; Leilani Lee-Yates <Llee-yates@npca.ca>; Steve Miller <smiller@npca.ca>; Adam Aldworth <aaldworth@npca.ca>; Chandra Sharma <csharma@npca.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Alkarawi, Sulaf <Sulaf.Alkarawi@niagararegion.ca>; Ryall, Carolyn <Carolyn.Ryall@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Ding, Maggie <Maggie.Ding@niagararegion.ca>; Khan, Muhammad <muhammad.khan@woodplc.com>; Chipps, Steve <steve.chipps@woodplc.com>; HaugKindellan, Emma C <emma.c.haugkindellan@woodplc.com>; Schmidt, Nick <nick.schmidt@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>; Godard, Michael <michael.godard@woodplc.com>

Subject: RE: NPCA March 2 2022 Response - Merritt Road and Rice Road Municipal Class EA

Hi David,

Thank you for your review and feedback. We will review and let you know if there are any questions.

Sincerely,

Mir

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

Mobile: +1 (647) 545 8974

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From: David Deluce <ddeluce@npca.ca>

Sent: Wednesday, March 2, 2022 9:15 AM

To: Talpur, Mir <mir.talpur@woodplc.com>; Leilani Lee-Yates <Llee-yates@npca.ca>; Steve Miller <smiller@npca.ca>; Adam Aldworth <aaldworth@npca.ca>; Chandra Sharma <csharma@npca.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Alkarawi, Sulaf <Sulaf.Alkarawi@niagararegion.ca>; Ryall, Carolyn <Carolyn.Ryall@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Ding, Maggie <Maggie.Ding@niagararegion.ca>; Khan, Muhammad <muhammad.khan@woodplc.com>; Chipps, Steve <steve.chipps@woodplc.com>; HaugKindellan, Emma C <emma.c.haugkindellan@woodplc.com>; Schmidt, Nick <nick.schmidt@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>; Godard, Michael <michael.godard@woodplc.com>

Subject: NPCA March 2 2022 Response - Merritt Road and Rice Road Municipal Class EA

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Good Morning Mir,

Thank you for your response to our concerns. We have reviewed the response and offer the following.

With respect to the proposed Hydraulic Floodplain Analysis:

1. The NPCA has no objection to the generation of a new floodplain model from Merrittville Highway to Rice Road utilizing refined elevation data acquired as part of this study. I've no objections to the new model utilizing the previous flow and boundary conditions from the June 2011 Amec floodplain report. This will serve to confirm the regulatory flood elevation in the vicinity of Merritt Road Segment 1.
2. The NPCA can provide elevation data (DEM/DTM) that we have should the Region not be able to provide it. The 2011 Amec study had indicated the dimensions of the relevant culvert crossings, however we would recommend that these be confirmed in the field and the inverts and road crowns be tied into the refined elevation data proposed to be utilized for the new floodplain model.
3. We recommend that the NPCA, Wood, and the Region meet to discuss the preliminary level of detail, model extent, and application of flows prior to finalizing the hydraulic model in order to ensure that we are all on the same page. This would then define the existing flood condition.
4. After the existing flood condition is confirmed, the NPCA will require an understanding of the impact to the floodplain as a result of the proposed condition as the required Level of Service for a Minor Arterial Road does not allow for overtopping during the 100 year event.

With respect to the Wetland Hydrologic Characterization and the Preliminary Hydrogeological Investigation:

1. The NPCA is satisfied with the proposed approach to the wetland hydrologic characterization and supportive of the approach to complete a Wetland Water Balance Risk Evaluation. Should a medium risk or higher (as outlined in Wood's communication) be determined through completion of the risk evaluation, wetland hydrologic monitoring will be required as outlined in the Wetland Water Balance Monitoring Protocol and a continuous hydrologic model will be required to characterize the wetlands. Once the hydrologic function and anticipated impacts to the wetlands have been established mitigation measures will need to be proposed to ensure no negative impact is incurred to the ecological and/or hydrological function of the wetlands as a result of the proposed development. Further discussions should be had with NPCA staff prior to finalizing mitigation measures.

2. As baseline ecological studies were reportedly completed in conformance with the TOR, therefore no further ecological studies are required at this time.

Minutes from January 28, 2022 Meeting:

We have reviewed the minutes and generally agree that they properly characterize the discussion. We disagree, however, with the following:

It was noted that the Niagara Region would like to complete the Environmental Study Report soon. The Study Team has been in consultation with the NPCA since the study commencement, and these concerns were not shared with the team before. NPCA staff noted that during study commencement meeting, NPCA noted that there is floodplain within the Study Area. It was further added that the NPCA has not commented consistently thought the study.

In addition to advising at the study commencement meeting about the presence of the flood plain, the NPCA did make the flood plain data on August 23, 2021 (see attached email).

We request the wording be revised as follows:

It was noted that the Niagara Region would like to complete the Environmental Study Report soon. The Study Team has been in consultation with the NPCA since the study commencement, and flood plain data was provided by the NPCA on August 23, 2021. NPCA staff noted that during study commencement meeting, NPCA noted that there is floodplain within the Study Area.

We trust this information is helpful. If you have any questions, please let us know.

Best Regards,

David Deluce, MCIP, RPP
Senior Manager Planning & Regulations
Niagara Peninsula Conservation Authority
250 Thorold Road West, 3rd Floor
Welland, Ontario, L3C 3W2
905-788-3135 ext. 224
ddeluce@npca.ca

From: Talpur, Mir <mir.talpur@woodplc.com>

Sent: February 18, 2022 3:39 PM

To: Leilani Lee-Yates <Llee-yates@npca.ca>; David Deluce <ddeluce@npca.ca>; Steve Miller <smiller@npca.ca>; Adam Aldworth <aaldworth@npca.ca>; Chandra Sharma <csharma@npca.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Alkarawi, Sulaf <Sulaf.Alkarawi@niagararegion.ca>; Ryall, Carolyn <Carolyn.Ryall@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Ding, Maggie <Maggie.Ding@niagararegion.ca>; Khan, Muhammad <muhammad.khan@woodplc.com>; Chipps, Steve <steve.chipps@woodplc.com>; HaugKindellan, Emma C <emma.c.haugkindellan@woodplc.com>; Schmidt, Nick <nick.schmidt@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>; Godard, Michael <michael.godard@woodplc.com>

Subject: RE: Merritt Road and Rice Road Municipal Class EA - NPCA Comments

Good Afternoon,

Further to our meeting of January 28 (minutes attached for reference), we have developed the following strategy to propose additional work to address NPCA's comments related to wetland impacts and flooding impacts as part of the Class EA Study for Merritt Rd-Rice Rd.

As discussed, we would like to confirm if the following proposed approach is satisfactory to the NPCA. Following Authority's confirmation, we will proceed to execute these tasks and will share reporting as they become available. To avoid delays to the project, we would appreciate if you could kindly review the following and provide feedback by **Monday, February 28**.

Feel free to reach out to me if you have any questions. Have a nice Family Day Weekend!

Hydraulic Floodplain Analyses:

- The existing HEC-RAS model provided by NPCA for the study area is too coarse to represent a meaningful characterization of flood limits within Segment 1.
- It is proposed to generate a new scoped HEC-RAS model, focusing on watercourse reaches passing upstream of Merrittville Hwy through Segment 1 to Rice Road – this model would be developed using refined elevation data, and would incorporate results / data input from the existing model provided by NPCA (flows, boundary conditions, etc.).
- Confirmation of the following with NPCA and the Region is required: Elevation Data (DTM/DEM), Culvert Sizing (road/structure drawings), Application of Flows (approved vs new), Level of Detail / Model Extent, among others. It is noted that although there are multiple tributaries crossing Segment 1, only 1 is in the HEC-RAS model and only 1 drainage catchment was prepared to determine peak flows (ref. Singer's Drain Floodplain Update Report – Amec, June 2011). The current PCSWMM model built for the ongoing Class EA is more discretized.

Wetland Hydrologic Characterization:

- Hydrogeologic assessment to be completed by others in Study Team to confirm the presence/absence and characterization of groundwater flow contribution to the PSWs within Segment 1.
- Ecological assessment to be completed by others in Study Team based upon the outcomes / findings from the hydrogeologic and hydrologic analyses of the water contribution to PSWs – baseline characterization will help to inform the water balance criteria based upon existing terrestrial / aquatic species. Ecology is to provide any data requirements for both the hydrologic and hydrogeologic assessments.
- For the Hydrologic Assessment (surface water) – the following would be completed:
 - TRCA's Wetland Water Balance Risk Evaluation will be completed to determine the required level of analysis / management – the proposed approach will be confirmed with NPCA. This is to be confirmed with Ecology.
 - Under the assumption that at minimum, a "medium risk" evaluation will be required given wetland fragmentation:
 - A surface water hydrologic model (PCSWMM) has already been completed for assessing the surface water drainage conditions with respect to the roadway design. As per the hydraulic assessment, confirmation on the Elevation Data (DTM/DEM) is required from NPCA and Region. Bathymetric data for either semi-permanent or permanent ponding

areas should be collected, with areas to be identified and land owners to be approached; this should be tied into any field work required by ecology and hydrogeology.

- This PCSWMM model could be refined to provide further detail / definition with respect to the PSWs in Segment 1 – it could then be used to conduct continuous simulation using publicly available rainfall data and temperature data, to better characterize the volume of surface water flow entering the PSWs on an annual and/or seasonal basis under existing conditions. Ecology to provide input on data requirements for their assessment.
- This model can be used to evaluate the potential impacts of the proposed roadway, and inform aspects of the design such as number of crossings and wetland management opportunities.
- The results from the pre-development wetland monitoring (TBC) can be used to further calibrate the PCSWMM models as part of the detailed design process, and refine aspects of the detailed design using field data confirmation of existing drainage patterns.

Preliminary Hydrogeological Investigation:

A preliminary hydrogeological investigation of Segment 1, between Rice Road and Cataract Road, would involve the following: drilling and monitoring well installation, groundwater level monitoring, and hydraulic conductivity testing to characterize the hydrogeological conditions.

- Three (3) monitoring wells installed to a depth of 6.1 mbgs, see attached.
 - One (1) well being installed on the west end of the segment
 - Two (2) wells being installed within the wetland area of the east/center
- Hydraulic Conductivity testing conducted on all the monitoring wells.
- Groundwater level monitoring to determine seasonal fluctuations.

It is noted that further hydrogeological work may be required at a later date in combination with geotech to support design / permitting if permeable soils are encountered in this area and or the other segments of the project.

Stage 2 Archaeological Assessment:

A Stage 2 Archaeological Assessment will required prior to conducting any ground disturbance activities (e.g., borehole drilling). Stage 2 AA will be completed for Segment 1.

Ecological Investigations:

Baseline ecological surveys were completed in 2021 in accordance with the terms of reference for the EIS that was approved by the NPCA. No additional ecological surveys are being proposed for year 2022, unless suggested by the NPCA.

Sincerely,

Mir

Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner
Mobile: +1 (647) 545 8974
www.woodplc.com



Due to the COVID-19 pandemic, the NPCA has taken measures to protect staff and public while providing continuity of services. The NPCA main office is open by appointment only with limited staff, please refer to the [Staff Directory](#) and reach out to the staff member you wish to speak or meet with directly. Our Conservation Areas are currently open, but may have modified amenities and/or regulations.

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Talpur, Mir

From: David Deluce <ddeLUce@npca.ca>
Sent: Friday, August 19, 2022 3:36 PM
To: Talpur, Mir
Cc: Leilani Lee-Yates; Steve Miller; Adam Aldworth; Elmadhoon, Maged; Alkarawi, Sulaf; Maggie Ding; Chipps, Steve; HaugKindellan, Emma C; Lampman, Cara
Subject: Merritt Road/Rice Road EA - NPCA Comments on Draft Hydraulic Analysis

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Hi Mir,

Please see our comments below regarding the draft hydraulic analysis provided to us. If you have any questions, please let me know.

Best Regards,

David Deluce, MCIP, RPP
Senior Manager, Environmental Planning & Policy
Niagara Peninsula Conservation Authority
250 Thorold Road West, 3rd Floor
Welland, Ontario, L3C 3W2
905-788-3135 ext. 224
ddeLUce@npca.ca

From: Steve Miller <smiller@npca.ca>
Sent: August 19, 2022 10:32 AM
To: David Deluce <ddeLUce@npca.ca>
Cc: Leilani Lee-Yates <llee-yates@npca.ca>
Subject: Merritt Road and Rice Road Municipal Class EA Draft Existing Conditions - NPCA Comments

Hey David;

The NPCA has reviewed the 'Merritt Road & Rice Road Municipal Class Environmental Assessment Hydraulic Analysis – Draft Existing Conditions' (dated July 28, 2022) by Wood Canada. Based on our review, the NPCA offers the following comments:

- 1) The NPCA understands that this Hydraulic Analysis has been undertaken to better refine the location of the existing 100-year flood hazard within the study area as the existing Singer's Drain floodplain mapping (AMEC, June 2011) is too coarse to undertake a detailed study of the potential impacts of a future road network. The NPCA has no objection to this.
- 2) The NPCA has no objection to the methodology utilized to generate the draft existing conditions hydraulic analysis.
- 3) The NPCA understands that topographic survey information is presently being collected for the Cataract Road and Merrittville Highway culverts and road profiles. The NPCA would request that once this detailed information has been collected and utilized in the hydraulic analysis, the 'Final Existing Conditions' brief be circulated to the NPCA for review.

- 4) The NPCA understands that revisions to the peak flows utilized in this 'Draft Existing Conditions Brief' are anticipated as the hydrologic modelling is further refined through calibration based upon the field flow monitoring program presently underway. The NPCA would request that once this detailed information has been collected and utilized in the hydraulic analysis, the 'Final Existing Conditions' brief be circulated to the NPCA for review. As the hydrologic and hydraulic modelling for the portion of Singer's Drain within the study area has been undertaken in much greater detail than the 2011 Singer's Drain floodplain mapping, the NPCA has no objection to the utilization of this study's calibrated peak flows.
- 5) The NPCA would prefer to remove any storage attenuation of the adjacent wetlands. As a conservative approach, the NPCA would prefer to assume that the wetlands are saturated prior to the 100-year event and do not have the ability to provide significant flood storage.

Do not hesitate to contact this office should you have any questions.

Cheers!

Steve Miller, P.Eng.

Senior Manager, Water Resources

Niagara Peninsula Conservation Authority (NPCA)

250 Thorold Road West, 3rd Floor | Welland, ON L3C 3W2

Tel: 905-788-3135 | extension 231

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Talpur, Mir

From: Talpur, Mir
Sent: Friday, April 28, 2023 8:57 AM
To: 'David Deluce'; 'Leilani Lee-Yates'; 'Steve Miller'; 'Adam Aldworth'
Cc: 'Elmadhoon, Maged'; 'Lampman, Cara'; 'Ding, Maggie'; 'Hughes, Samantha'; 'Chipps, Steve'; 'HaugKindellan, Emma C'
Subject: Merritt Road and Rice Road Municipal Class EA

Good Morning David,

I hope things are well on your end. I wanted to provide a quick update that we are working through the wetland, hydraulic and SWM assessment for Merritt Rd-Rice Rd Class EA, and will be submitting that combined report for NPCA staff review soon.

At this time, we have completed the draft EIS Report and wanted to share it with you for NPCA staff review. The draft EIS and its appendices can be downloaded from this OneDrive link: [12-11-Merritt Rd-Rice Rd - EIS \(16-03-2023\)](#).

We would appreciate if NPCA staff could review the draft EIS and provide any comments by May 19. Thank you.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP
Senior Environmental Planner
He/Him

M+ 1 647-545-8974
WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Talpur, Mir
Sent: Wednesday, November 2, 2022 1:12 PM
To: David Deluce <ddeluce@npca.ca>; Leilani Lee-Yates <llee-yates@npca.ca>; Steve Miller <smiller@npca.ca>; Adam Aldworth <aaldworth@npca.ca>
Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Ding, Maggie <Maggie.Ding@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Khan, Muhammad <muhammad.r.khan@wsp.com>; Chipps, Steve <steve.chipps@wsp.com>; HaugKindellan, Emma C <emma.haugkindellan@wsp.com>; Schmidt, Nick <nick.schmidt@wsp.com>; Hughes, Samantha <samantha.hughes@wsp.com>
Subject: RE: NPCA March 2 2022 Response - Merritt Road and Rice Road Municipal Class EA

Hi David,

Thank you for letting us know that NPCA does not have any concerns related to the Preliminary Hydrogeological Investigation.

With regards to our question, we confirm that we will be applying the NPCA's comments for removal of wetland storages as part of the **hydraulic analysis** (floodplain). However, subcatchment delineation / storage outlined in our original email was for the purposes of the base hydrologic modelling. This would include calibration of field conditions and then to complete a continuous simulation to characterize the existing wetlands, determine any potential impacts to the wetland features and identify SWM measures. As noted below, we had proposed

the Bathymetric survey for select wetland features along the Unopened Road Allowance to determine the water depth below the surface and to further refine the estimations generated by the DEM. We attempted to complete this survey in summer, however, the vegetation cover / foliage limited the opportunities to collect elevation data.

In order to maintain the project progress and project schedule, we are proposing to move forward with the modelling using the current estimations from the DEM, which gives a reasonable representation of the storage available within the PSW system, and advance with model calibration using the data collected this summer. **We will defer detailed Bathymetric survey and associated refinements to modelling / mitigation as a requirement for the detailed design phase.**

We hope that the above approach is satisfactory to NPCA staff.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

He/Him

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WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: David Deluce <ddeluce@npca.ca>

Sent: Monday, October 24, 2022 4:43 PM

To: Talpur, Mir <mir.talpur@wsp.com>; Leilani Lee-Yates <Lee-yates@npca.ca>; Steve Miller <smiller@npca.ca>; Adam Aldworth <aaldworth@npca.ca>

Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>; Ding, Maggie <Maggie.Ding@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Khan, Muhammad <muhammad.r.khan@wsp.com>; Chipps, Steve <steve.chipps@wsp.com>; HaugKindellan, Emma C <emma.haugkindellan@wsp.com>; Schmidt, Nick <nick.schmidt@wsp.com>; Hughes, Samantha <samantha.hughes@wsp.com>

Subject: RE: NPCA March 2 2022 Response - Merritt Road and Rice Road Municipal Class EA

CAUTION: External email. Please do not click on links/attachments unless you know the content is genuine and safe.

Hi Mir,

The NPCA has reviewed the 'Preliminary Hydrogeological Investigation – Segment 1, Merritt Road and Rice Road Class EA' (dated September 13, 2022) by WSP and has no objection to the investigation's methodology. We note that the groundwater monitoring has been undertaken for 3 months and is proposed to continue for a total of 12 months. We also have no objection to the preliminary conclusion that due to the presence of impermeable soils near the surface, groundwater is not a significant source of water for the adjacent wetlands.

With respect to the questions, we note that in our previous comments (attached) the NPCA would prefer to remove any storage attenuation of the adjacent wetlands. As a conservative approach, the NPCA would prefer to assume that the wetlands are saturated prior to the 100-year event and do not have the ability to provide significant flood storage. As such, the NPCA would object to including the wetland's storage capacity in WSP's analysis.

I trust this information is useful. If you have any questions, please let me know.

Best Regards,

David Deluce, MCIP, RPP
Senior Manager, Environmental Planning & Policy
Niagara Peninsula Conservation Authority
250 Thorold Road West, 3rd Floor
Welland, Ontario, L3C 3W2
905-788-3135 ext. 224
ddeluce@npca.ca

From: Talpur, Mir <mir.talpur@wsp.com>
Sent: October 17, 2022 2:04 PM
To: David Deluce <ddeluce@npca.ca>; Leilani Lee-Yates <Llee-yates@npca.ca>; Steve Miller <smiller@npca.ca>; Adam Aldworth <aaldworth@npca.ca>
Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>; Ding, Maggie <Maggie.Ding@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Khan, Muhammad <muhammad.r.khan@wsp.com>; Chipps, Steve <steve.chipps@wsp.com>; HaugKindellan, Emma C <emma.haugkindellan@wsp.com>; Schmidt, Nick <nick.schmidt@wsp.com>; Hughes, Samantha <samantha.hughes@wsp.com>
Subject: RE: NPCA March 2 2022 Response - Merritt Road and Rice Road Municipal Class EA

Good afternoon David,

I am following up on our inquiry below. We would really appreciate NPCA staff's feedback on our email of September 22. Thank you.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP
Environmental Planner
He/Him
M+ 1 647-545-8974

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Talpur, Mir
Sent: Thursday, October 6, 2022 9:20 AM
To: David Deluce <ddeluce@npca.ca>; Leilani Lee-Yates <Llee-yates@npca.ca>; Steve Miller <smiller@npca.ca>; Adam Aldworth <aaldworth@npca.ca>
Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>; Ding, Maggie <Maggie.Ding@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Khan, Muhammad <muhammad.khan@woodplc.com>; Chipps, Steve <steve.chipps@woodplc.com>; HaugKindellan, Emma C <emma.c.haugkindellan@woodplc.com>; Schmidt, Nick <nick.schmidt@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>
Subject: RE: NPCA March 2 2022 Response - Merritt Road and Rice Road Municipal Class EA

Good Morning David,

I am sending a gentle follow up reminder related to our inquiry for the bathymetric survey. We would appreciate if NPCA staff could provide feedback on this item this week please – this will help us continue to advance our work on this project.

The NPCA staff may provide comments on the preliminary hydrogeological assessment later next week.

Thank you for NPCA staff's continued cooperation and feedback on this project.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

He/Him

M+ 1 647-545-8974

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Talpur, Mir

Sent: Friday, September 30, 2022 4:04 PM

To: David Deluce <ddeluce@npca.ca>; Leilani Lee-Yates <Llee-yates@npca.ca>; Steve Miller <smiller@npca.ca>; Adam Aldworth <aaldworth@npca.ca>

Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>; Ding, Maggie <Maggie.Ding@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Khan, Muhammad <muhammad.khan@woodplc.com>; Chipps, Steve <steve.chipps@woodplc.com>; HaugKindellan, Emma C <emma.c.haugkindellan@woodplc.com>; Schmidt, Nick <nick.schmidt@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>

Subject: RE: NPCA March 2 2022 Response - Merritt Road and Rice Road Municipal Class EA

Hi David,

I am following up on our inquiry related to the bathymetric survey below (yellow highlighted text). We would really appreciate NPCA staff's feedback on this matter at staff's earliest convenience please.

Many thanks, and have a nice weekend.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

He/Him

M+ 1 647-545-8974

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Talpur, Mir

Sent: Thursday, September 22, 2022 4:00 PM

To: David Deluce <ddeluce@npca.ca>; Leilani Lee-Yates <Llee-yates@npca.ca>; Steve Miller <smiller@npca.ca>; Adam Aldworth <aaldworth@npca.ca>

Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Alkarawi, Sulaf <sulaf.alkarawi@niagararegion.ca>; Ding, Maggie <Maggie.Ding@niagararegion.ca>; Lampman, Cara <Cara.Lampman@niagararegion.ca>; Khan, Muhammad <muhammad.khan@woodplc.com>; Chipps, Steve <steve.chipps@woodplc.com>; HaugKindellan, Emma C <emma.c.haugkindellan@woodplc.com>; Schmidt, Nick <nick.schmidt@woodplc.com>; Hughes, Samantha <samantha.hughes@woodplc.com>

Subject: RE: NPCA March 2 2022 Response - Merritt Road and Rice Road Municipal Class EA

Hi David,

Please find attached for NPCA staff's review the **preliminary hydrogeological assessment** for Merritt Road – Segment 1 (unopened road allowance). We would appreciate if NPCA staff could please review this report and let us know if there are any questions by **October 12, or earlier**.

In addition, as identified in the Existing Conditions Hydraulic Analysis Memo (dated July 28th, 2022), we had outlined next steps in hydrologic modelling to further refine the PCSWMM model which was initially developed for the assessment of the roadway drainage, to incorporate the storage provided by the wetlands located within the unopened road allowance of Merritt Road (Segment 1). We would like to provide an update with respect to the model development, and seek feedback from the NPCA as to the current approach for representing the wetland features. We would greatly appreciate NPCA staff's feedback on the yellow highlighted bullets below by **September 29**:

- In order to generate a baseline representation of the hydrologic storage capacity of the wetland features within Segment 1, a review of both the NPCA's Contemporary Mapping of Watercourses and the DTM (2020) has been completed, which identified several pockets / depressions of ponding areas throughout the PSW.
- Using the Storage Creator tool in PCSWMM, the 2015 Southwestern Ontario Orthophotography Project (SWOOP), DEM has been processed to identify the storage capacities based upon the local topography available in the DEM, located within the PSW. The resulting boundaries have been determined through an iterative analysis to produce storage areas delineations which are consistent with the ponded area limits identified in the NPCA mapping and/or the watercourse mapping (to the best extent possible). The results of this mapping analysis is represented in the **attached figure**.
- The resulting storage areas identified from the DEM have been processed by the tools in PCSWMM to generate stage-storage curves for each of the individual wetland pockets. As some of these smaller wetland pockets are hydrologically connected (flow paths are demonstrated in the attached figure) and fall within consistent subcatchments / drainage areas, these features are proposed to be lumped into single storage units (on a case by case basis) to more appropriately represent the combined storages and simplify the modelling.
- Although the calculated storage units (as per DEM) can generally estimate the storage capacity of the wetland units, the DEM is unlikely to be able to accurately represent the storage volumes for the depressional areas below the water surface; this is likely only to impact the larger ponded areas which may have more standing water, but it's important to note that the conditions of the site at the time of the SWOOP data collection is unknown.
- Bathymetric survey was proposed for select wetland features to determine the water depth below the surface and to further refine the estimations generated by the DEM. However, our survey crew have attempted to complete surveys within the unopened road allowance and has identified that the current vegetation cover / foliage is limiting the opportunities to collect elevation data at this time. They have suggested postponing the additional survey to later in the fall, when vegetation coverage has reduced and the survey equipment can function accordingly.
- As such, in order to maintain the project progress and project schedule, we are proposing to move forward with the modelling using the current estimations from the DEM, which gives a reasonable representation of the storage available within the PSW system, and advance with model calibration using the data collected this summer. We have identified the **following options** to move forward with, and would appreciate NPCA staff's feedback on which option they would prefer:
 - The survey team can continue to wait for improved field conditions (later this fall), and should the survey data be collected, Wood can either:
 - **Option A)** Review the collected survey data and complete a **qualitative assessment** to characterize the data collected and provide a professional opinion to identify any needs for refinement to the modelling – these potential model refinements would be deferred to the subsequent detailed design stage.
 - **Option B)** Should the representation of the wetland features from the DEM alone (as described above) be considered sufficient for the current assessment, detailed surveys

and associated refinements to modelling / mitigation can be deferred as a requirement for the detailed design stage.

Thank you.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP

Environmental Planner

He/Him

M+ 1 647-545-8974

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

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Talpur, Mir

From: David Deluce <delduce@npca.ca>
Sent: Thursday, June 15, 2023 9:20 AM
To: Talpur, Mir
Cc: Leilani Lee-Yates; Amy Parks; Elmadhoon, Maged; Hughes, Samantha; Lampman, Cara
Subject: Merritt Road/Rice Road EA: NPCA Response to Wood Comments
Attachments: Merritt Crayfish Chimney.jpg

Hi Mir,

Thank you for your comments. Our response on each item is in green font below. Please let me know if you have any questions.

Best Regards,

David Deluce, MCIP, RPP
Senior Manager, Environmental Planning & Policy
Niagara Peninsula Conservation Authority
250 Thorold Road West, 3rd Floor
Welland, Ontario, L3C 3W2
905-788-3135 ext. 224
delduce@npca.ca

From: Talpur, Mir <mir.talpur@wsp.com>
Sent: Tuesday, June 6, 2023 4:06 PM
To: David Deluce <delduce@npca.ca>
Cc: Leilani Lee-Yates <Llee-yates@npca.ca>; Adam Aldworth <aaldworth@npca.ca>; Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Cara.Lampman@niagararegion.ca; Hughes, Samantha <samantha.hughes@wsp.com>; Godard, Michael <michael.godard@wsp.com>
Subject: RE: NPCA Comments - Draft EIS

Hi David,

We have reviewed NPCA staff's comments on the Environmental Impact Study for Merritt Rd-Rice Rd Class EA, and provided responses in *red* below. We would appreciate if you could advise if these responses are satisfactory. We can then append this email to the EIS and provide you the final copy of the report. Thank you for your continued input on this project!

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP
Senior Environmental Planner
He/Him

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WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: David Deluce <ddeluce@npca.ca>

Sent: Tuesday, May 23, 2023 2:45 PM

To: Talpur, Mir <mir.talpur@wsp.com>

Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Cara.Lampman@niagararegion.ca; Hughes, Samantha <samantha.hughes@wsp.com>; Leilani Lee-Yates <Llee-yates@npca.ca>; Adam Aldworth <aaldworth@npca.ca>

Subject: RE: NPCA Comments - Draft EIS

Hi Mir,

Thank you for the opportunity to review the Environmental Impact Study prepared by WSP E&I for the Schedule C Municipal Class Environmental Assessment for Merritt Road and Rice Road and dated March 17, 2023. The following comments are offered for your consideration on the EIS.

Comments:

1. *Figure 4-2 Aquatic Habitat Assessment Areas* identifies 3 watercourse crossings within Segment 1, consistent with available NPCA mapping. However, only 2 watercourse crossings are characterized within the EIS (Crossing 4 and Crossing 5). Please provide additional information regarding the westernmost watercourse crossing identified on Figure 4-2 and NPCA's mapping. *At the time of assessment, this crossing was not identified as being present as mapped by NPCA. Descriptions within crossings 2 and 5 attempt to describe this lack of flow/water/conveyance. Additional surveys could be completed in conjunction with the spring freshet surveys as requested in comment 2 during detailed design.*
 - a. It is noted that Figure 4-2 identifies 3 watercourse crossings within Segment 1, however, Crossing 4 is not identified on all figures. Please revise the appropriate figures to accurately depict watercourses within Segment 1. *Figures have been updated to include Crossing 4.*
2. Per Table 4-1, aquatic habitat assessments were completed on July 21, 2021. The findings of these assessments noted that no flow was observed within the watercourse crossings in Segment 1. It is recommended that additional aquatic habitat characterization be completed during the spring to document flow conditions and flow paths within Segment 1 to inform avoidance and mitigation measures through the detailed design phase. Given the relatively flat topography within this region, a detailed understanding of surface hydrology is imperative to ensure post development flow paths match pre-development conditions to mitigate anticipated negative impacts to the adjacent Provincially Significant Wetlands. *Additional surveys could be completed during the spring freshet during detailed design.*
NPCA staff look forward to the review of additional characterization of these features and incorporation of findings through detailed design.
3. NPCA staff completed a site reconnaissance of the unopened road allowance through Segment 1 on May 18, 2023. During the site walk a single crayfish chimney was observed within the study area along the unassessed watercourse crossing. It is recommended that additional targeted surveys be completed to document the extent of terrestrial crayfish habitat within the study area to delineate the extent of terrestrial crayfish habitat and inform avoidance and mitigation measures through the detailed design process.
Targeted surveys for chimney's can occur throughout detailed design. However, the presence of 1 chimney confirms SWH. The SWH is mapped as the eco element of meadow marsh or swamp within the larger ecosite. Essentially, this finding adds to the layer of importance of the already designated PSW but additional fieldwork to confirm SWH is not required. The mitigation measures to maintain this SWH type are also already reflected in the EIS under Section 8.2.6 Wetland Form And Function.

*Is NPCA willing to share photographs of the chimney or post on iNaturalist? A terrestrial crayfish would be a unique find for the Niagara Region. The two listed species in the SWH 7e guide, Chimney or Digger Crayfish *Fallicambarus fodiens* (aka *Creaserinus fodiens*) and Devil Crayfish or Meadow Crayfish *Cambarus Diogenes* (aka *Lacunicambarus**

diogenes) are not documented in the Region on iNaturalist and have varying degrees of range mapping in publications (IUCN illustrates Digger Crayfish range in the Region but the Ontario Crayfish PDF indicates it is Devil Drayfish). Also of note the SWH guide for 7e states that "Terrestrial Crayfish are only found within SW Ontario in Canada and their habitats are very rare." WSP acknowledges that within the GTA terrestrial crayfish occur and that within Niagara Region, Cambarus species occur. Just a note on the potential uniqueness of the find and that it could be an important find to include on iNaturalist.

A photo of the chimney has been included and has been uploaded to iNaturalist
(<https://www.inaturalist.org/observations/166242058>)

4. The EIS has characterized a large portion of MNRF delineated Provincially Significant Wetland areas within the Study Area as upland forest (FODM5-3). Per the November 19, 2021 meeting between Wood (WSP), NPCA and Niagara Region it is understood that re-delineation of these wetlands is not proposed through the EA process. However, a joint site visit between WSP and the NPCA is requested to review Ecological Land Classifications within the Study Area to ensure consensus on wetland delineation within the Study Area.

Section 6.2 discussed how PSWs are mapped from the provincial data as they encompass the Port Robinson SWS delineation (Aquafor Beech Limited, 2014 which was confirmed with NPCA), and the OP, and NPCA delineations/ELC are based on the PSWs. The PSWs are mapped very inclusively/encompass vast areas. As stated, a re-delineation is not proposed as changing the PSW boundaries (beyond any minor shifts) requires a resubmission and consultation with the MNRF and the exercise to eliminating small areas of upland habitat would not necessarily reduce overall wetland impacts/mitigation/recommendation. However, if the NPCA wishes, site visits could be conducted during detailed design.

The NPCA is ok with this approach, however reserve the right to request a site visit to verify wetlands as detailed design progresses and detailed calculations for wetland removals are being completed in conjunction with Comment #8.

5. Figure 5-5 has identified 'wetland pockets' within the mapped Provincially Significant Wetland within Segment 1. Please confirm that the entirety of the mapped wetlands within Segment 1 will be considered with respect to hydrologic impacts (ie. Not just those identified on Figure 5-5) associated with the proposed development.

In line with the response to #4 above, yes, the entirety of the mapped PSWs are considered the significant features and all impacts/mitigations/recommendations are made based on this layer. The nuances of ELC are discussed to inform the mosaic of the ecosystem located in the Study Area.

6. As identified throughout the EIS report, changes in hydrology associated with this project represent a significant risk to the wetlands adjacent to the proposed road alignment. Evidence of inadequate mitigation and consideration for anticipated impacts are documented associated with the construction at Highway 406 and Merritt. In order to mitigate anticipated impacts to the form and function of wetlands within the Study Area section 8.2.6 recommends spanning watercourses with bridges and ensuring that adequate culverts and gravel base are installed to maintain the flow of surface water and shallow groundwater. The NPCA is supportive of these design recommendations in principle and looks forward to reviewing further detailed designs which incorporate these recommendations.

Comment noted.

7. Section 8.2.2 recommends the installation of amphibian exclusion fencing and ecopassages to direct amphibians underneath roadways to mitigate anticipated negative impacts to local populations due to road mortality and habitat fragmentation. NPCA staff are supportive of this recommendation and recommend that this be explored in all segments of the project, not just limited to Segment 1 to improve ecological function and habitat connectivity within the Study Area. The NPCA looks forward to reviewing further detailed designs which incorporate these recommendations.

- a. It is noted that a long term maintenance plan for ecopassages and fencing will be required to maintain efficacy (per section 8.2.4).

Comment noted.

8. Section 8.2.6 recommends that the removal of wetland areas should be compensated for, with the objective of net gain within the watershed. NPCA staff are supportive of this objective, and acknowledge that avoidance of wetland removal is not possible should the works proposed in the MCEA be carried out. It is noted that compensation of swamps is not typically permitted by the NPCA due to the lag effect between feature removal and feature recreation and the inherent challenges associated with effectively recreating swamp communities. As such the NPCA recommends a compensation ratio of not less than 2:1 to be achieved to compensate for the loss of swamps within the study area and 1:1 for marsh habitats removed from the study area. While the NPCA is supportive of wetland enhancements, enhancement is not considered a substitute for wetland recreation when considering compensation for impacts of wetland removal.
- a. At this time the amount of wetland loss has not been quantified. Please provide a preliminary calculation of how much wetland loss is anticipated as a result of the proposed undertaking. NPCA staff acknowledge that this area will be refined as detailed design progresses.

Comment noted. A) Wetland loss has not be quantified as several aspects of detailed design will contribute to it. i.e., grading impacts, staging/storing areas, restoration on-site leading to temporary impacts (if possible), tree removals to accommodate construction, re-evaluation of the estimated post-construction conditions determine from detailed design to determine how far impacts will occur, etc. To avoid frivolous numbers wetland loss should be calculated at 90% design based on temporary and permanent impacts as well as direct removal and indirect impacts and compensated for accordingly. A dedicated SOW for wetland compensation planning is recommended to the proponent.

Per Comment #4, the NPCA reserves the right to conduct a site visit to verify the extent of wetlands required to be removed to facilitate the construction.

9. Section 8.2.2 recommends that runoff from the road should not be allowed to run directly into wetlands, and that stormwater detention areas should be installed to intercept water prior to discharging to wetlands. NPCA staff are supportive of this recommendation and look forward to seeing potential design options at future planning stages.
- a. Additionally, splash guards are proposed to further minimize introduction of contaminants (such as salt) into the adjacent wetlands. NPCA staff are supportive of this recommendation and look forward to seeing potential design options at future planning stages.

Comment noted.

10. As detailed design progresses, a Tree Protection Plan is recommended to be developed which inventories trees within the proposed development footprint. This plan should identify tree size, species and health, propose reasonable and implementable mitigation measures to mitigate anticipated impacts to retained trees and propose compensation for trees to be negatively impacted and/or removed from NPCA regulated areas.

Comment noted.

11. Section 9 of the EIS has recommended comprehensive compliance monitoring (Section 9.1) and effectiveness monitoring (Section 9.2). Collectively these monitoring programs intend to demonstrate that proposed mitigation measures have been implemented as designed and function as intended in order to mitigate short and long term impacts associated with the undertaking. Further, long term monitoring is proposed to extend for a period of 15 years following completion of construction to document changes within the adjacent natural communities. NPCA staff are supportive of this monitoring program and request that a detailed monitoring plan be developed which includes regular reporting to the NPCA and other stakeholders involved in the project.

Comment noted.

12. Section 4.7 indicates that a Wetland Water Balance Risk Evaluation is being completed under separate cover for the project with preliminary results presented in Section 5.5. Section 5.5.1 and 8.2.6 have identified that the Wetland Water Balance Risk Evaluation prescribed monitoring with an emphasis on understanding groundwater interaction, however recommendations to conduct surface water monitoring are not included. The NPCA looks forward to reviewing the Water Balance Risk Evaluation to inform additional monitoring requirements to characterize the hydrology of wetland features within Segment 1.

Comment noted.

13. NPCA staff have observed Snapping Turtles traversing from the north side of Merritt Road to the south within Segment 2 in 2011. It is recommended that detailed design consider the presence of this species of turtle.

In line with #7 the recommendation of the installation of amphibian exclusion fencing and ecopassages will be expanded to consider all fauna and explored in all segments of the project, not just limited to Segment 1 during detailed design.

In the EIS Snapping Turtle was evaluated as low potential for occurrence as no records in the last ten years have occurred in the Study Area and with the presence of roads and increased traffic it is possible that turtles have been extirpated from the area. But further road mortality and ecological connectivity work during detailed design should address this.

The NPCA looks forward to reviewing these aspects of the detailed design process.

The comments above are specific to the project titled above. Comments are informed by the available information presented to date and therefore reflect the current best understanding of the project and anticipated impacts. They are subject to change based on the submission of new information. Please let me know if you have any questions.

Best Regards,

David Deluce, MCIP, RPP
Senior Manager, Environmental Planning & Policy
Niagara Peninsula Conservation Authority
250 Thorold Road West, 3rd Floor
Welland, Ontario, L3C 3W2
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-LAEhHhHzdJzBITWfa4Hgs7pbKl

Talpur, Mir

From: Talpur, Mir Ahsan Ali
Sent: Monday, July 10, 2023 2:49 PM
To: ddeluce@npca.ca
Cc: Leilani Lee-Yates; Elmadhoon, Maged; Chipps, Steve; HaugKindellan, Emma; Azarkhish, Amin
Subject: Merritt Rd-Rice Rd EA - SWM & Hydraulic Assessment Report (DRAFT)

Hi David,

We have now completed the draft Stormwater Management and Hydraulic Assessment Report for Merritt Rd-Rice Rd Class EA. We would like to share this report with you for NPCA staff's review. Please use this OneDrive link to download the report: [2023-07-10 Merritt Rd-Rice Rd - SWM & Hydraulic Assessment Report](#)

We would appreciate any questions or comments by July 31, 2023.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP
Senior Environmental Planner
He/Him
M+ 1 647-545-8974

#

WSP E&I Canada Limited
3450 Harvester Road, Suite 100
Burlington, Ontario
L7N 3W5 Canada

wsp.com

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP. #

**Responses to Niagara Peninsula Conservation Authority (NPCA) Comments
Merritt Road/Rice Road Municipal Class Environmental Assessment**

#	Section	NPCA Comments (January 17, 2024)	WSP Response (February 13, 2024)
Environmental Study Report, Draft, dated September 29, 2023			
1	3.2.6 NPCA Policy Document	This section refers to NPCA's Policy Document from September 2018, which was superseded in November 2022. As this EA started before the 2022 policies were in effect, referencing our previous policies is fine. However, please include a note that NPCA updated its policies in November 2022.	A note has been added to the ESR.
Appendix E, Environmental Impact Study, dated June 16, 2023			
2	8.2.6 Wetland Form and Function	NPCA is supportive of enhancement opportunities to increase ecological resilience and function of natural heritage features. However, NPCA does not consider enhancement as a substitute for wetland re-creation when considering compensation for the impacts of this degree of wetland removal. Please clarify how the proposed compensation clearly demonstrates conformance with NPCA's Policy, specifically 2.5.2 k. Please note that NPCA may consider areas under agricultural production AND areas that do not contain a permanent form of development as possible areas for wetland compensation.	<p>As noted in comment 1, the NPCA allows a policy document from 2018 to be used in this EA. Comment 2 references a policy document from 2022. However, as NPCA is a public commenting body for EAs and has a Protocol for Planning Services with the Region dated January 2018, their input to the project is valued and considered.</p> <p>Policy 2.5.2 k) recommends that the decision to pursue compensation be subject to:</p> <ul style="list-style-type: none"> i. all efforts to protect the feature being exhausted first; ii. the feature is not protected by any other applicable federal, provincial or municipal requirement(s); and iii. it taking place in consultation with the municipality or the proponent. <p>In response:</p> <ul style="list-style-type: none"> i), the Region led EA considered the options of the road alignment in this location. A background transportation master plan was completed (by others) and is the factor in selecting this location. ii) Provincial and municipal requirements protect the feature iii) The project is led by the Region, and their staff from various departments (including environmental planning) was engaged. <p>The Region will consult with the NPCA during detailed design phase to confirm wetland compensation requirements and location. The Region will also discuss with MNRF as the wetland is a PSW.</p>
3	8.2.6 Wetland Form and Function	<p>Please provide the total area of wetland proposed for removal due to the proposed undertaking and the total area of wetland proposed for compensation. NPCA staff acknowledge that this area will be refined as detailed design progresses.</p> <p>a. As previously commented, compensation of swamps is not typically allowed by NPCA due to the lag effect between feature removal and feature recreation and the inherent challenges associated with effectively recreating swamp communities. As such NPCA recommends a compensation ratio of not less than 2:1 to be achieved to compensate for the loss of swamps within the study area and 1:1 for marsh habitats removed from the study area.</p>	The scope of this study was limited to an EA. The detailed design will be completed under a subsequent separate phase. The EA presented a preliminary option for road design. The roadway design may be subject to further refinement during detailed design, along with the delineation of the grading limits, which may impact the area of wetland removal. As such, it was WSP's opinion that, to avoid confusion or misrepresentation, no estimates of impact area were provided. In our experience, providing numbers preemptively makes updates difficult. Therefore, WSP felt it was preemptive to provide areas of loss. The Region will undertake consultation with the NPCA during detailed design to confirm wetland compensation requirements and location. A detailed compensation plan is recommended based on the detailed design (NPCA also notes this in comment #4).
4	8.2.6 Wetland Form and Function	<p>NPCA staff request that a Wetland Compensation Monitoring Plan be developed to demonstrate that wetland compensation has been achieved.</p> <ul style="list-style-type: none"> a. This Plan must be implemented for the re-configured/re-created wetland feature(s), to accurately monitor any changes in the wetland community over time and to measure the success of the re-configuration/restoration and management actions. b. Monitoring must be conducted annually at a similar time of year (i.e., late July). c. All plants identified as part of the Wetland Compensation Monitoring Program must be categorized by the wetness index based on the Floristic Quality Assessment System for Southern Ontario. d. The results of the Wetland Compensation Monitoring Program must be submitted to NPCA annually prior to December 31, until planting of the wetland compensation area is complete. It is recommended that a monitoring plan be implemented for a minimum of 5-years upon completion of the wetland compensation plantings. e. Details regarding this Plan can be submitted at the detailed design stage for review and comment. 	WSP agrees that a detailed Wetland Compensation Plan must be developed. As noted in Comment response #3, the compensation plan should be conducted after EA completion and during detailed design. NPCA seems to agree with this timeline based on comment #4e. NPCA will need to provide necessary input for the plan. It is also recommended that compensation requirements be tailored to the compensation location.
Appendix F, Stormwater Management and Hydraulic Assessment Report (Draft), dated August 2023			
5	2.2.1 Singers Drain	Singers Drain is erroneously classed as a municipal drain, please revise.	Text has been updated.

**Responses to Niagara Peninsula Conservation Authority (NPCA) Comments
Merritt Road/Rice Road Municipal Class Environmental Assessment**

#	Section	NPCA Comments (January 17, 2024)	WSP Response (February 13, 2024)
6	2.2.2 Towpath Drain	Towpath Drain is erroneously classed as a municipal drain, please revise.	Text has been updated.
7	6.2 Recommendations & Requirements for Future Study; HEC-RAS Model	As noted within Key Comment #3, the area of segment 1 (wetlands south of the unopened road allowance) does not have clear channels and required the use of levees, and staff note that cross sections 313 and 284 could benefit from levees on the right-hand side of the cross sections. NPCA is in support of the assessment that further 2D modeling would be beneficial.	The HEC-RAS model has been updated to incorporate levees along the right-hand side of cross sections 313 and 284. The hydraulics modelling results have remained the same.
8	HEC-RAS	Model The utilized terrain file appears to use a 2m grid, please provide clarification regarding why this was selected.	Two sets of LiDAR data have been received/sourced and reviewed accordingly. These include the 2 m resolution SWOOP DEM, which was based upon Orthophotography collected by MNR in 2015 (ref. Land Information Ontario, 2015), and a 5 m resolution DEM provided by the NPCA in 2022. In comparing the two data sets, it was found that the SWOOP DEM had a better resolution (2 m) and had the potential to provide further detail in the areas of focus. Accordingly, SWOOP DEM was used for model development. Nonetheless, the NPCA DEM was also used to compare the findings from the SWOOP DEM and confirm the understanding of the features of interest.
9	HEC-RAS	Several cross sections have an artificially deepened channel, please clarify if surveying was completed to establish creek bed depths.	Channel elevations were determined at locations where survey data was available in proximity to cross-road culverts.
10	HEC-RAS	Cross section 1171 LOB length and cross section 65 ROB length were unexpectedly long, please provide clarification.	The cross-section 65 could not be found in the model. The HEC-Ras model has been updated accordingly. The modelling results were not impacted by the change in the model.



Niagara Peninsula
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January 17, 2024

Via Email Only

Mir Ahsan Talpur, M.Env.Sc., EP
Senior Environmental Planner
WSP E&I Canada Limited
3450 Harvester Road, Suite 100
Burlington, Ontario L7N 3W5

NPCA File: PLEA202100316

To Mir Talpur,

**Re: Niagara Peninsula Conservation Authority (NPCA) Comments
Merritt Road/Rice Road Municipal Class Environmental Assessment
Regional Municipality of Niagara
Environmental Study Report**

Proposal

NPCA received and reviewed the above noted Environmental Study Report (ESR) and Appendices regarding Niagara Region's Schedule C Municipal Class Environmental Assessment for Merritt Road and Rice Road, dated September 29, 2023, prepared by WSP E&I. Staff offer the following **Key Comments** below, and **Detailed Comments** within **Appendix A** to be addressed within the next submission.

Key Comments

1. NPCA Planning Ecology staff have reviewed the *Environmental Impact Study for the Schedule C Municipal Class Environmental Assessment for Merritt Road and Rice Road*, dated June 16, 2023. At this time, NPCA requires additional information on wetland compensation to ensure that there will be no net loss to the form and function of the wetlands.

Detailed Comments related to wetland compensation have been provided within **Appendix A**.

2. NPCA Engineering staff have reviewed the *Stormwater Management and Hydraulic Assessment Report (Draft) Merritt Road & Rice Road Schedule 'C' Municipal Class Environmental Assessment*, dated August 2023, and the accompanying HEC-RAS model files, and have no objection to:



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- The revised 100-year floodplain under existing conditions;
 - The utilization of the study's calibrated peak flows;
 - The conclusion that the proposed road and associated culvert crossings have no negative impact on the floodplain;
 - The concluded 100-year floodplain under proposed conditions; and
 - The assessment that area of segment 1 (wetlands south of the unopened road allowance) would benefit from 2D modeling. The area does not have clear channels and required the use of levees, NPCA notes cross sections 313 and 284 could benefit from levees on the right-hand side of the cross sections.
3. NPCA Engineering staff require a few revisions and details to be clarified, which are specified within **Appendix A**.

Conclusion

NPCA staff hopes this information is helpful and looks forward to reviewing the next submission. We request that the next submission include a comment response matrix including the **Detailed Comments** within **Appendix A**. If you have any questions or would like to discuss further, please contact the undersigned.

Sincerely,

Colleen Bain, MES Planning
Senior Watershed Planner,
Environmental Planning and Policy, NPCA
cbain@npca.ca

cc: Leilani Lee-Yates, NPCA (email only)
David Deluce, NPCA (email only)
Amy Parks, NPCA (email only)
Theresa Bukovics, NPCA (email only)
Carly Mason, NPCA (email only)
Maged Elmadhoon, Niagara Region (email only)

Appendix A: Detailed Comments



Appendix A: Detailed Comments

NPCA staff have reviewed the Environmental Study Report (ESR) and Appendices prepared by WSP E&I regarding Niagara Region's Schedule C Municipal Class Environmental Assessment for Merritt Road and Rice Road, dated September 29, 2023, and offer the following comments to be addressed in the next submission. Please include a comment matrix using the format below.

#	Section	NPCA Comments, January 2024
<i>Environmental Study Report, Draft, dated September 29, 2023</i>		
1.	3.2.6 NPCA Policy Document	This section refers to NPCA's Policy Document from September 2018, which was superseded in November 2022. As this EA started before the 2022 policies were in effect, referencing our previous policies is fine. However, please include a note that NPCA updated its policies in November 2022.
<i>Appendix E, Environmental Impact Study, dated June 16, 2023</i>		
2.	8.2.6 Wetland Form and Function	NPCA is supportive of enhancement opportunities to increase ecological resilience and function of natural heritage features. However, NPCA does not consider enhancement as a substitute for wetland re-creation when considering compensation for the impacts of this degree of wetland removal. Please clarify how the proposed compensation clearly demonstrates conformance with NPCA's Policy, specifically 2.5.2 k. Please note that NPCA may consider areas under agricultural production AND areas that do not contain a permanent form of development as possible areas for wetland compensation.



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3.	8.2.6 Wetland Form and Function	<p>Please provide the total area of wetland proposed for removal due to the proposed undertaking and the total area of wetland proposed for compensation. NPCA staff acknowledge that this area will be refined as detailed design progresses.</p> <p>a. As previously commented, compensation of swamps is not typically allowed by NPCA due to the lag effect between feature removal and feature recreation and the inherent challenges associated with effectively recreating swamp communities. As such NPCA recommends a compensation ratio of not less than 2:1 to be achieved to compensate for the loss of swamps within the study area and 1:1 for marsh habitats removed from the study area.</p>
4.	8.2.6 Wetland Form and Function	<p>NPCA staff request that a Wetland Compensation Monitoring Plan be developed to demonstrate that wetland compensation has been achieved.</p> <p>a. This Plan must be implemented for the re-configured/re-created wetland feature(s), to accurately monitor any changes in the wetland community over time and to measure the success of the re-configuration/restoration and management actions.</p> <p>b. Monitoring must be conducted annually at a similar time of year (i.e., late July).</p> <p>c. All plants identified as part of the Wetland Compensation Monitoring Program must be categorized by the wetness index based on the Floristic Quality Assessment System for Southern Ontario.</p> <p>d. The results of the Wetland Compensation Monitoring Program must be submitted to NPCA annually prior to December 31, until planting of the wetland compensation area is complete. It is recommended that a</p>



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		<p>monitoring plan be implemented for a minimum of 5-years upon completion of the wetland compensation plantings.</p> <p>e. Details regarding this Plan can be submitted at the detailed design stage for review and comment.</p>
Appendix F, Stormwater Management and Hydraulic Assessment Report (Draft), dated August 2023		
5.	2.2.1 Singers Drain	Singers Drain is erroneously classed as a municipal drain, please revise.
6.	2.2.2 Towpath Drain	Towpath Drain is erroneously classed as a municipal drain, please revise.
7.	6.2 Recommendations & Requirements for Future Study; HEC-RAS Model	As noted within Key Comment #3 , the area of segment 1 (wetlands south of the unopened road allowance) does not have clear channels and required the use of levees, and staff note that cross sections 313 and 284 could benefit from levees on the right-hand side of the cross sections. NPCA is in support of the assessment that further 2D modeling would be beneficial.
8.	HEC-RAS Model	The utilized terrain file appears to use a 2m grid, please provide clarification regarding why this was selected.
9.	HEC-RAS Model	Several cross sections have an artificially deepened channel, please clarify if surveying was completed to establish creek bed depths.
10.	HEC-RAS Model	Cross section 1171 LOB length and cross section 65 ROB length were unexpectedly long, please provide clarification.

Talpur, Mir Ahsan Ali

From: Colleen Bain <CBain@npca.ca>
Sent: Wednesday, January 17, 2024 2:03 PM
To: Talpur, Mir Ahsan Ali
Cc: Leilani Lee-Yates; David Deluce; Amy Parks; Theresa Bukovics; Carly Mason; Elmadhoon, Maged
Subject: NPCA Comments - Merritt Rice Rd Municipal Class EA, Draft ESR
Attachments: NPCA Comments Draft ESR - 2024-01-17 - PLEA202100316 Merritt Rice Rd Municipal Class EA (WORD).docx; NPCA Comments Draft ESR - 2024-01-17 - PLEA202100316 Merritt Rice Rd Municipal Class EA.pdf

Good afternoon Mir,

I hope you're having a great start to 2024! My apologies for the delay, please see the attached letter with NPCA's comments regarding the Merritt Rice Rd Municipal Class EA, Draft ESR.

Should you have any questions, please feel free to reach out to discuss.

Kind regards,



Colleen Bain, MES Planning
Senior Watershed Planner, Environmental Planning & Policy
Niagara Peninsula Conservation Authority (NPCA)
250 Thorold Road West, 3rd Floor | Welland, ON L3C 3W2

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Schedule 'C' Municipal Class Environmental Assessment for Merritt Road (Regional Road 37) and Rice Road (Regional Road 54) in the Town of Pelham, the City of Thorold and the City of Welland

APPENDIX

L-12 *Town of Pelham*

Talpur, Mir

From: Talpur, Mir
Sent: Thursday, October 26, 2023 12:58 PM
To: Shannon Larocque
Cc: Barbara Wiens; Jason Marr; Derek Young; Elmadhoon, Maged
Subject: RE: Merritt Rd-Rice Rd Class EA - Draft Environmental Study Report

Hi Shannon,

Thank you for sharing Town of Pelham's comments on the draft ESR for Merritt Rd-Rice Rd EA. We will incorporate Town's comments within the ESR as well as add a note on the drawings to extend the MUP northerly and Town's intent to extend the MUP along Rice Rd.

Sincerely,



Mir Ahsan Talpur, RPP, MCIP, EP
Senior Environmental Planner
Environmental Impact Assessment - Energy & Resources
He/Him
M+ 1 647-545-8974

WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Shannon Larocque <SLarocque@pelham.ca>
Sent: Thursday, October 26, 2023 12:26 PM
To: Talpur, Mir <mir.talpur@wsp.com>
Cc: Barbara Wiens <BWiens@pelham.ca>; Jason Marr <JMarr@pelham.ca>; Derek Young <DYoung@pelham.ca>
Subject: RE: Merritt Rd-Rice Rd Class EA - Draft Environmental Study Report

Hello Mir,

Town staff have reviewed the draft Environmental Study report and have the following comments:

- Page iii of the Executive Summary indicates that segment 4 of Rice Road in the Town of Pelham is a 50 km/hr road. This segment of road is 60 km/hr.
- Please integrate the multi-use path on the west side of Rice Road, north of Merritt Road into the road design. 235 Merritt Road should be identified for road widening to obtain the final segment of the multi-use path.
- The Town intends to extend the multi-use path on the north side of Merritt Road west of Rice Road. The intersection design at Merritt and Rice Road should consider this multi-use path on the north side of Merritt Road west of Rice Road.

Best Regards,
Shannon



Shannon Larocque, MCIP, RPP.

Senior Planner

Town of Pelham

D: 905-980-6661 | E: slarocque@pelham.ca

T: 905-892-2607 x319

20 Pelham Town Square | PO Box 400 | Fonthill, ON | L0S 1E0

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From: Talpur, Mir <mir.talpur@wsp.com>

Sent: Monday, October 16, 2023 8:36 AM

To: joan.delvillarcuicas@ontario.ca; eanotification.wcregion@ontario.ca; MNRF.Ayl.Planners@ontario.ca; karla.barboza@ontario.ca; Aldo.Ingraldi@ontario.ca; anneleis.eckert@ontario.ca; Hussain, Kashif (MTO) <kashif.hussain@ontario.ca>; Pak, Margaret (MTO) <Margaret.Pak@ontario.ca>; lance.dutchak@ontario.ca; michael.lindsay@infrastructureontario.ca; Steve Miller <smiller@npca.ca>; ddeluce@npca.ca; Llee-yates@npca.ca; CBain@npca.ca; aaldworth@npca.ca; Jason Marr <JMarr@pelham.ca>; Derek Young <DYoung@pelham.ca>; Ryan Cook <RCook@pelham.ca>; Barbara Wiens <BWiens@pelham.ca>; Shannon Larocque <SLarocque@pelham.ca>; sean.dunsmore@thorold.ca; jaroslav.hajek@thorold.ca; grant.munday@welland.ca; sherri-marie.millar@welland.ca; livia.meachern@welland.ca; yang.xiao@npei.ca; steven.chappell@bell.ca; derek.black@cogeco.com; Randy.Leppert@cogeco.com; zachary.baum@rci.rogers.com; mark.kuhlmann@nrbn.ca; jeremy.smith@nrbn.ca; Raymond.Nepomuceno@hydroone.com; SecondaryLandUse@HydroOne.com; alan.liu@hydroone.com; greg.gowan@hydroone.com; Paul.Shllaku@hydroone.com

Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Shams, Anika <anika.shams@wsp.com>

Subject: RE: Merritt Rd-Rice Rd Class EA - Draft Environmental Study Report

Good Morning,

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Sincerely,



Mir Ahsan Talpur, RPP, MCIP, EP

Senior Environmental Planner

Environmental Impact Assessment - Energy & Resources

He/Him

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Sent: Monday, October 2, 2023 9:30 AM

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Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Shams, Anika <anika.shams@wsp.com>

Subject: Merritt Rd-Rice Rd Class EA - Draft Environmental Study Report

Good Morning,

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Please let me know if you encounter any issues accessing the above link.

Sincerely,



Mir Ahsan Talpur, M.Env.Sc., EP

Senior Environmental Planner

Environmental Impact Assessment - Energy & Resources

He/Him

WSP E&I Canada Limited

3450 Harvester Road, Suite 100

Burlington, Ontario

L7N 3W5 Canada

wsp.com

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Schedule 'C' Municipal Class Environmental Assessment for Merritt Road (Regional Road 37) and Rice Road (Regional Road 54) in the Town of Pelham, the City of Thorold and the City of Welland

APPENDIX

L-13 *City of Welland*

Regional Municipality of Niagara Schedule 'C' Municipal Class Environmental Assessment for Regional Road 37 (Merritt Road) and Regional Road 54 (Rice Road) Draft Environmental Study Report September 29, 2023
City of Welland Comments

Comment No.	Section No.	City of Welland Comments	Study Team Responses
1	4.2	The Regional Official Plan projects growth to 2051 but the transportation modeling for the EA only reflected 2031 to 2041 horizon years.	The established scope for the study was to evaluate expected 2031 and 2041 conditions; Regional traffic forecast modelling for these years was provided by the Region and used in the analysis.
2	4.2.1	This section refers count data for the 2020 base year. 2020 is likely not an accurate depiction of traffic volumes.	Traffic data from prior to 2020 was available for each intersection (see table 3 of Transportation Assessment Report provided in Appendix A) and a rigorous review of data was conducted to approximate expected traffic volumes for 2020 had the pandemic not occurred. This section of the ESR has been updated.
3	5.4	Welland is not included in the table for utility coordination. City has local water on Rice Road.	The table in Section 5.4 has been updated to list City of Welland and its local water main.
4	7.3.1.4	For segment 4 (Rice) the preferred alignment is a hybrid - widening to the west in Welland and then to the east in Thorold to avoid property acquisition. Is the intent for the road to shift at the boundary or Rosewood Crescent?	The preferred alignment (as shown in Appendix Q) starts to shift eastely just south of the Rosewood Crescent.
5	7.3.2.4	Rice Road is in the Welland Urban Boundary. The Northwest Secondary Area Plan will be incorporating storm sewers in lieu of ditches on Quaker Road as the area develops. The storm sewer will extend north on Rice to the water crossing. A culvert replacement will also be required across Rice Road at the current crossing location north of Quaker, as well as new sanitary servicing and an upsized watermain on Rice Road. Future coordination is required.	Comment noted. The Niagara Region will coordinate with the three local area municipalities for their projects, as required, during next phases of this project. A commitment has been added in Table 10-1.
6	8.3.3	Illustrates the preferred cross-section on Segment 3 with a two-way cycle track and sidewalk on the south boulevard (Welland ownership across Regional fairground). There is no mention of Welland's request to have the Region/Region's Consultant facilitate a maintenance (snow removal) agreement with Thorold.	The Niagara Region will execute maintenance agreements with the three local area municipalities during detailed design phase. A commitment has been added in Table 10-1 of this report.
7	8.3.3, 8.7	On Segment 3, what material will the 0.6m textured, coloured tactile strip be comprised of and how will this impact maintenance?	Material of the tactile strip will be determined during detailed design phase.
8	8.3.3	The proposed road is platform is illustrated as raised above existing for Segment 3. Is there a preliminary grade or increase in cover that can be shared?	The general profile of Segment 3 generally follows that of the existing. A copy of the plan and profile can be found in Appendix Q, which illustrates both the proposed roadway and the existing ground profiles.
9	8.3.4	Illustrates the preferred cross-section on Segment 4. As noted previously there will be a need to coordinate for the installation of new sanitary servicing, an upsized watermain, storm sewers and a culvert crossing.	Comment noted. The Niagara Region will coordinate with the three local area municipalities for their projects, as required, during next phases of this project. A commitment has been added in Table 10-1.
10	8.3.4	The proposed road is platform is illustrated as raised above existing for Segment 4, Rice Road. Is there a preliminary grade or increase in cover that can be shared?	The general profile of Segment 4 generally follows that of the existing with some adjustments to provide a smooth roadway profile. A copy of the plan and profile can be found in Appendix Q, which illustrates both the proposed roadway and the existing ground profiles.
11	8.9	As noted previously, new developments are anticipated along Rice Road as part of the Northwest Secondary Area Plan. Coordination will be required to ensure a 2.5m raised median is not placed at future entrance locations.	Comment noted. The Niagara Region will coordinate with the three local area municipalities during detailed design phase.
12	8.10.1	The proposed servicing plans referenced (Figures 8-7) for the Northwest Secondary Area in Welland is undergoing a review and revision by area developers and their Consultant. Future coordination will be required to ensure that the revised plan is captured.	Comment noted. The Niagara Region will coordinate with the three local area municipalities during detailed design phase.
13	8.11.4.1	As noted previously, a culvert replacement will be required north of Quaker and development in the Northwest Secondary Area will need to be considered. Coordination will be required.	Comment noted. The Niagara Region will coordinate with the three local area municipalities during detailed design phase.
14	8.13.1	Improvements along Rice Road in Welland, including the Quaker Road intersection, are identified for "by 2041" timeline. It is anticipated that development in the Northwest Secondary Area will significantly precede this milestone. Coordination will be required.	Comment noted. The Niagara Region will coordinate with the three local area municipalities during detailed design phase.
15	8.13.1	Improvements include a recommendation for the City of Welland/City of Thorold to signalize the intersection of First Avenue/Cataract Road and Quaker Road by 2041, as well as a recommendation for the City of Welland to add a southbound lane on Quaker Road through the intersection of Niagara Street and Quaker Road beyond 2041. The recommendations and associated timelines seem out of scope with the EA purpose. As noted previously, it is anticipated that development in the Northwest Secondary Area will significantly precede these milestones and need and timing will be confirmed as development moves forward.	Roads under the jurisdiction of Welland and Thorold were considered in the study to understand travel patterns on the broader network. Recommendations regarding these roads are for consideration. Future geodemographic related assumptions for 2031 and 2041 were guided by the Niagara Region model. The municipalities will have more detailed information about development timelines, and can make suitable decisions in their own jurisdictions.
16	8.13.2	The proposed staging does not include a discussion or mention of coordination of servicing installation for Segment 4.	A commitment has been added in Table 10-1 for the Niagara Region to coordinate with the three local area municipalities for their projects, as required, during next phases of this project.
17	Appendix Q	The depth of the ditch is quite deep in some locations. What is the separation with the proposed sidewalk and multi-use path on Rice Road?	The ditch profile has been set to allow for overland drainage from both the roadway and the grade of the adjacent land. In some areas, the roadway is higher than the adjacent land, thus increasing the height between the top of roadway to bottom of ditch. The low points of the ditches are set based on the drainage outlets (i.e., culverts or drainage courses). The ditch profile will be refined and finalized during detailed design. For Rice Road, as shown on the typical section in Section 8.3.4, there will be a MUP on the west side and a SW on the east side. It is on Merritt Road (Segment 3), where there are cycle tracks separated by a 0.6m wide buffer beside the SW, as illustrated in Section 8.3.3.
18	Appendix Q	The depth of the ditch is quite deep in some locations, particularly on Rice Road as it approaches Merritt Road where a significant depth of almost 5m is shown. Furthermore, this ditch is partially aligned on private property.	The ditch profile has been set to allow for overland drainage from both the roadway and the grade of the adjacent land. In some areas, the roadway is higher than the adjacent land, thus increasing the height between the top of roadway to bottom of ditch. The low points of the ditches are set based on the drainage outlets (i.e., culverts or drainage courses). The ditch profile will be refined and finalized during detailed design. In some areas, the ditch does extend outside of the current roadway ROW. As noted in Section 9.2.1 of the report, some additional property may be required to accommodate the current roadway grading design.

Talpur, Mir Ahsan Ali

From: Talpur, Mir
Sent: Thursday, November 9, 2023 10:28 AM
To: Livia McEachern
Cc: Sherri-Marie Millar; Elmadhoon, Maged
Subject: RE: Merritt Rd-Rice Rd Class EA - Draft Environmental Study Report
Attachments: MerrittRd-RiceRd-Draft-ESR_Welland-Comments_2023-10-31_StudyTeam Responses.xlsx; MerrittRd-RiceRd-Draft-ESR_Welland-Comments_2023-10-31_StudyTeam Responses.pdf

Hi Livia,

Attached is the updated table that includes Study Team's responses to City of Welland's comments on the draft ESR for Merritt Rd and Rice Rd improvements. Where edits are noted to the report, those edits will be reflected in the updated report that will be made available for public review following the issuance of the Notice of Study Completed.

Please let us know if you have any questions. Thanks.

Sincerely,



Mir Ahsan Talpur, RPP, MCIP, EP
Senior Environmental Planner
Environmental Impact Assessment - Energy & Resources
He/Him
M+ 1 647-545-8974

WSP E&I Canada Limited

Please be aware that, effective September 21st, 2022, Wood Environment & Infrastructure Solutions Canada Limited was acquired by WSP.

From: Livia McEachern <livia.mceachern@welland.ca>
Sent: Monday, October 30, 2023 6:32 PM
To: Talpur, Mir <mir.talpur@wsp.com>
Cc: Sherri-Marie Millar <sherri-marie.millar@welland.ca>
Subject: RE: Merritt Rd-Rice Rd Class EA - Draft Environmental Study Report

Hello,

Please find attached comments from the City of Welland's engineering department.


Thank you



Livia McEachern, P.Eng.

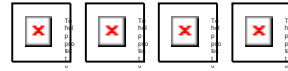
Manager of Engineering
Infrastructure Services

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 engagewelland.ca



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From: Talpur, Mir <mir.talpur@wsp.com>

Sent: Monday, October 23, 2023 2:08 PM

To: joan.delvillarcuicas@ontario.ca; eanotification.wcregion@ontario.ca; MNRF.Ayl.Planners@ontario.ca; karla.barboza@ontario.ca; Aldo.Ingraldi@ontario.ca; anneleis.eckert@ontario.ca; Hussain, Kashif (MTO) <kashif.hussain@ontario.ca>; Pak, Margaret (MTO) <Margaret.Pak@ontario.ca>; lance.dutchak@ontario.ca; michael.lindsay@infrastructureontario.ca; Steve Miller <smiller@npca.ca>; ddeluce@npca.ca; Llee-yates@npca.ca; CBain@npca.ca; aaldworth@npca.ca; jmarr@pelham.ca; dyoung@pelham.ca; rcook@pelham.ca; Barbara Wiens <BWiens@pelham.ca>; slarocque@pelham.ca; sean.dunsmore@thorold.ca; jaroslav.hajek@thorold.ca; Grant Munday <grant.munday@welland.ca>; Sherri-Marie Millar <sherri-marie.millar@welland.ca>; Livia McEachern <livia.mceachern@welland.ca>; yang.xiao@npei.ca; steven.chappell@bell.ca; derek.black@cogeco.com; Randy.Leppert@cogeco.com; zachary.baum@rci.rogers.com; mark.kuhlmann@nrbn.ca; jeremy.smith@nrbn.ca; Raymond.Nepomuceno@hydroone.com; SecondaryLandUse@HydroOne.com; alan.liu@hydroone.com; greg.gowan@hydroone.com; Paul.Shllaku@hydroone.com

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Subject: RE: Merritt Rd-Rice Rd Class EA - Draft Environmental Study Report

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Good afternoon,

This is a gentle reminder regarding the review of the draft Environmental Study Report for Merritt Rd-Rice Rd EA for the Niagara Region. We kindly request you to please submit any comments or questions on the draft report by **October 31**, as we are targeting to file the ESR in mid-November. The agencies will have further opportunity to review the ESR during the public review period.

Please disregard this email if you have already provided a response.

Sincerely,



Mir Ahsan Talpur, RPP, MCIP, EP

Senior Environmental Planner

Environmental Impact Assessment - Energy & Resources

He/Him

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Raymond.Nepomuceno@hydroone.com; SecondaryLandUse@HydroOne.com; Jim.Oriotis@HydroOne.com

Cc: Elmadhoon, Maged <Maged.Elmadhoon@niagararegion.ca>; Shams, Anika <anika.shams@wsp.com>

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Mir Ahsan Talpur, M.Env.Sc., EP

Senior Environmental Planner

Environmental Impact Assessment - Energy & Resources

He/Him

WSP E&I Canada Limited

3450 Harvester Road, Suite 100

Burlington, Ontario

L7N 3W5 Canada

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