

# **EXTERNAL AGENCY AND STAKEHOLDER MEETING MINUTES**

**Date:** July 12, 2017      **Project Number:** PR-3130A  
**Location:** Conservation Halton – Committee Room 1      **Project: 1650-10586**      Regional Road 25 Municipal Class Environmental Assessment (MCEA) Study  
**Time:** 9:00 a.m. to 11:00 a.m.      **Author:** Paula Burnard, Stantec

**Attendees:**

Jeffrey Reid	Halton Region
Walter Scattolon	Halton Region
Jason Alfred	Halton Region
Gord Murray	Stantec Consulting
Paula Burnard	Stantec Consulting
Sean Spisani	Stantec Consulting
Sean Stuart	Stantec Consulting
Roy Johnson	Stantec Consulting
David Moura	Stantec Consulting
Tawnia Martel	Conservation Halton
Holly Anderson	Conservation Halton
Paul Bond	Conservation Halton
Cory Harris	Conservation Halton

**Distribution:** Attendees, Bohdan Kowalyk, MNRF; Ann Larkin, Halton Region

**Purpose:** Conservation Halton Meeting #1 (revised – February 2018)

Item	Details	Action By
<b>1.0</b>	<b>Introductions &amp; Project Background</b>	
1.1	All attendees were introduced.	
1.2	Stantec provided an overview of the Municipal Class EA study, project background and existing environmental conditions. Presentation attached.	
<b>2.0</b>	<b>Environmental Existing Conditions</b>	
2.1	Terrestrial <ul style="list-style-type: none"> <li>- Consultation with MNRF and Conservation Halton underway.</li> <li>- A single season terrestrial assessment will be completed for this study based on the urban and highly disturbed nature of the corridor.</li> <li>- ELC mapping and existing conditions review is complete. No ESA/ANSIs within the study area. Few natural areas present, except in areas of watercourse crossings.</li> <li>- No rare terrestrial species identified.</li> </ul> Aquatic <ul style="list-style-type: none"> <li>- Redside Dace habitat present in two locations - north of Highway 401 (C4) and south of Chisholm Drive (C2)</li> </ul>	



Item	Details	Action By
	<ul style="list-style-type: none"> <li>- All Regional road crossings are regulated and a permit from CH will be required.</li> <li>- CSP located in vicinity of Chisholm Drive is being replaced and will tie into the existing box culvert on the west side of Regional Road 25.</li> </ul> <p>Water Quality/Quantity</p> <ul style="list-style-type: none"> <li>- For C4 (Tributary N-2B), 70% TSS removal from OGS and dry pond increases this up to 80%.</li> <li>- Pond north of Highway 401 is designed as a dry pond for quantity but is acting more as a wet pond.</li> <li>- A treatment train approach is likely required. Need to address increased surface area associated with the road expansion.</li> </ul>	
3.0	<b>Other</b>	
3.1	CH/MNRF liaison meeting is scheduled within the next two weeks and CH will add this project to the agenda for discussion. <b><i>[Post meeting note: A combined CH/MNRF meeting is scheduled for January 23, 2018.]</i></b>	CH
3.2	HEC/RAS model may not include CSP culvert replacement work on west side of Reg. Rd. 25. Stantec will work with current version of model provided by CH.	
4.0	<b>Site Walk with CH</b>	
4.1	<p>Following the in-person meeting, a site walk was conducted, including each culvert location, with staff from CH, the Region and Stantec. See presentation (page 6), Key Areas of Focus map.</p> <p>Crossing #1 (C1) – North of Steeles Avenue</p> <ul style="list-style-type: none"> <li>- Redside Dace habitat</li> <li>- Monarch Butterfly habitat identified (milkweed) in corridor. The Monarch is designated as “endangered” under the federal <i>Species at Risk Act</i> and “special concern” under the <i>Endangered Species Act</i>. The species is under review and may be “up-listed” from “special concern” to “threatened” under the <i>Endangered Species Act</i>.</li> <li>- Remove abandoned ESC measures (filter sox, silt fencing) downstream (east side) of crossing</li> </ul> <p>CH requested the Region consider a metal wildlife passage “shelf”</p> <p>Crossing #2 (C2/C3)– C2 south of Chisholm Drive / C3 at Chisholm Drive (west side)</p> <ul style="list-style-type: none"> <li>- Redside Dace habitat</li> <li>- Downstream CN culvert is undersized, which increases risk of flooding at the Correctional facility. CH suggested that this could be an opportunity to address the issue with CN. Consider tying into existing infrastructure</li> </ul>	

Item	Details	Action By
	<ul style="list-style-type: none"> <li>- Use higher retaining walls on the west side to avoid encroachment on the watercourse</li> <li>- Maximize the hydraulic capacity (don't pinch the low flow channel)</li> </ul> <p>Crossing #3 (C4) – North of Highway 401 (Tributary N-2B)</p> <ul style="list-style-type: none"> <li>- Redside Dace habitat present</li> <li>- Upstream – looking for low flow/rubble enhancement</li> <li>- Upstream Headwall and small wing walls may be required to accommodate road widening</li> <li>- Barn Swallow nest observed at downstream Headwall</li> <li>- Will require enhanced ESC due to Redside Dace</li> <li>- Treatment train concept will be incorporated</li> <li>- LIDs, tree pits, rain gardens to be considered in Reg. Rd. boulevards</li> <li>- Fish habitat assessment is required</li> </ul>	

Encl. 1. Overview presentation (dated July 12, 2017)  
2. Table with project team responses to Conservation Halton EA Checklist

## Environmental Assessment Checklist

*The following list identifies the areas of interest or concern that Conservation Halton may have with the subject EA:*

### **Regional Road 25 Corridor Improvements – Steeles Ave. to 5 Side Road, Milton/Halton Hills PR-3130A CH File MPR 708**

Conservation Halton Comment		Project Team Response
<b>Ontario Regulation 162/06</b>		
<input checked="" type="checkbox"/>	The study area contains tributaries and channels of Sixteen Mile Creek. Conservation Halton regulates the erosion hazards, flooding hazards and associated allowance within 15m associated with this feature. Ontario Regulation 162/06 requires that a Permit be obtained from Conservation Halton prior to development, interference with wetlands or alterations to shorelines and watercourses. A copy of Ontario Regulation 162/06 and the associated Policy document, <i>Policies and Guidelines for the Administration of Ontario Regulation 162/06 and Land Use Planning Policy Document</i> can be found at <a href="http://www.conservationhalton.ca">www.conservationhalton.ca</a> . Please ensure that the EA contains sufficient information to allow Conservation Halton staff to determine whether a Permit could be issued at detailed design.	<p>Noted – the ESR will contain sufficient information to allow Conservation Halton staff to determine whether a permit could be issued at detailed design.</p> <p>The preliminary design plan will include Conservation Halton’s regulation limits.</p>
<input checked="" type="checkbox"/>	The EA should identify areas where Permits pursuant to Ontario Regulation 162/06 will be required and include such Permits as future commitments in the ESR. Some details related to future Permits may not be deferred to detailed design. Please review the requirements of Policy 3.51 (Public Infrastructure – Utilities, Trails and Transportation) of Conservation Halton’s <i>Policies and Guidelines for the Administration of Ontario Regulation 162/06 and Land Use Planning Policy Document</i> (see enclosed).	<p>Noted – the ESR will identify areas where permits pursuant to Ontario Regulation 162/06 will be required and include such permits as future commitments.</p> <p>All commitments in the ESR will be summarized as a separate section in the ESR, and/or referred to in the executive summary.</p>



<input checked="" type="checkbox"/>	Please survey all drainage features, watercourse ditch lines, culverts, etc.	A topographic survey of the study corridor and adjacent area has been undertaken by the Region as part of this study. A more detailed survey will be undertaken during detailed design.
<input checked="" type="checkbox"/>	Please plot all areas regulated by Conservation Halton on drawings. ARL mapping may be utilized if more detailed study is not required at this time, however, please ensure that drawings indicate that limits shown are an approximation of the regulated area. Staff has enclosed Approximate Regulation Limit (ARL) mapping for your information.	Noted – the project team will incorporate Conservation Halton regulation limits in project maps of the study area, where applicable.  The preliminary design plan will include Conservation Halton's regulation limits.
<input checked="" type="checkbox"/>	A Data Request Form is required for all digital information requests. This form and additional information on data holdings can be found in the "GIS & Mapping" section of Conservation Halton's website: <a href="http://www.conservationhalton.ca">www.conservationhalton.ca</a> . Staff notes that the following modeling is available for the study area: <ul style="list-style-type: none"> <li>• <b>Hydraulic models are available for Culverts 1 and 2</b></li> </ul>	Noted. A Data Request Form was submitted to CH and data has been obtained by the project team.
<input checked="" type="checkbox"/>	It is recommended that 'potential impacts to natural hazards' (flooding and/or erosion hazards) should be one of the evaluation criteria. At a minimum, a proposed alternative must have no negative impacts on flooding and erosion hazards in order for Conservation Halton to issue a future approval under Ontario Regulation 162/06. Opportunities to improve any deficiencies with respect to flooding and erosion should be investigated.	Noted – a criterion for Natural Hazards with the suggested indicators will be included in the evaluation. It is our understanding that minor negative impacts on flooding can be tolerated with the landowner's permission.
<input checked="" type="checkbox"/>	The EA should assess all flood plain impacts associated with each alternative including consideration of any change in storage, velocity and up and down stream water levels for a variety of flow conditions.	Flood plain impacts will be assessed where the preferred design causes a change to the flood lines/elevations.
<input type="checkbox"/>	Please identify any potential areas of unstable bedrock, karst or unstable soils within the study area. These areas are regulated by Conservation Halton pursuant to Ontario Regulation 162/06.	

<input checked="" type="checkbox"/>	A hydrologic and/or hydraulic analysis <i>may be required</i> in the Environmental Study Report. Hydraulic analyses may be required for culvert modifications and any flood plain grading. A hydraulic analysis will be needed for the CNR crossing to assess possible improvements to remove the backwater caused by the CNR (that floods the Maplehurst Correctional Facility).	Noted. Calculations will be included in the stormwater management report where there are significant changes as a result of the preferred design.
<input checked="" type="checkbox"/>	Please consider MTO's flooding criteria, guidelines and/or the municipal engineering standards for flooding along/over roads. At a minimum, safe access & egress as defined in the MNR's 2002 <i>Technical Guide: River &amp; Stream Systems – Flooding Hazard Limit</i> , should be provided.	Noted.
<input checked="" type="checkbox"/>	If a roadway is considered by the Province or local municipality to be an Emergency Route then there should be no overtopping of the road with flood waters.	Regional Road 25 is an Emergency Detour Route. The Region will not allow overtopping of the road with flood waters under Regional Storm conditions.
<input type="checkbox"/>	A fluvial geomorphological assessment ( <i>is required/may be required</i> ) to assess erosion hazards in the Environmental Study Report. MNRF guidelines should be followed.	
<input checked="" type="checkbox"/>	A fluvial geomorphological assessment is required to verify that crossing designs have adequately allowed for natural channel migration, fish/terrestrial passage, and sediment transport, as well as minimizes the risk to infrastructure. A fluvial geomorphic assessment will be needed as part of any modifications to channels, culverts or flood plain/overbank areas.	The project team will complete a geomorphic assessment for this project where significant changes to the stream are required. It should be noted that it is our intention to avoid such changes to the existing watercourses.
<input type="checkbox"/>	Please contact staff to arrange a site visit to stake the ( <i>Physical Top of Bank/Wetland</i> ). An OLS must be present during this site visit.	
<input type="checkbox"/>	A geotechnical assessment of slope stability ( <i>is required/may be required</i> ) in the Environmental Study Report. MNRF guidelines should be followed. Please consult staff before the geotechnical assessment is initiated to establish a Terms of Reference.	



<input type="checkbox"/>	A hydrologic evaluation ( <i>is required/may be required</i> ) to determine if there is an impact to the hydrological functions of the wetland as a result of the proposed works.	
<input type="checkbox"/>	A geotechnical and coastal engineering report ( <i>is required/may be required</i> ) to identify soil properties to determine the long term stable slope allowance associated with the Lake Ontario shoreline.	
<input checked="" type="checkbox"/>	A topographic survey is required to identify the lands impacted by the flooding hazard associated with Sixteen Mile Creek upstream of the CNR tracks.	We suggest that a topographic survey would only be necessary if significant changes were anticipated to existing flood lines/elevations.
<input checked="" type="checkbox"/>	Other: The flood impacts to the Maplehurst Correctional Facility should be considered in the hydraulic assessment of the CNR crossing. Staff strongly encourage the Region to explore the possibility of increasing the hydraulic capacity of the CNR culvert, in partnership with the CNR, to reduce extent of flooding of the facility under Regional Storm conditions. The installation of new or additional culverts under the CNR tracks is particularly feasible should a temporary diversion track be considered to increase the span of the RR25 bridge.	The Region will discuss this possibility with CN, as owners of the culvert, however, the culvert and watercourse are on privately held lands and outside of Region jurisdiction/control.
<b>Natural Heritage</b>		
While Conservation Halton recognizes that Environmental Assessments are not subject to and/or limited to the policies outlined in the Provincial Policy Statement (PPS), we do believe that the PPS provides Provincial direction on how natural resources should be managed in Ontario. Furthermore, it is useful for identifying some of the key natural heritage features, water resources, and natural hazards that should be considered when evaluating any sort of development proposal. As such, some PPS related items have been outlined below, as we believe these items should be acknowledged and addressed as part of the EA study.		
<input checked="" type="checkbox"/>	When undertaking any fieldwork and/or when making recommendations related to natural heritage and/or natural hazards,	The project team met with Conservation Halton to discuss the scope of work for the environmental assessment. The study has



	staff recommend that reference be made to the following guidelines prepared by the Ministry of Natural Resources and Forestry (MNRF): <i>Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005, 2<sup>nd</sup> Edition, 2010; Significant Wildlife Habitat Technical Guideline; and, Natural Hazards Technical Guide and Understanding Natural Hazards.</i>	been undertaken in accordance with the outcome of that meeting and with Conservation Halton's <i>Guidelines for Ecological Studies, March 2017</i> . Single season habitat assessments to confirm existing background information and identify natural features were completed. Aquatic habitat surveys in summer 2017 confirmed existing conditions at the three creek crossings. Fish community sampling was not completed given the availability of data from CH and MNRF.
<input type="checkbox"/>	The study area may contain or pass between natural features. As per Policy 2.1.2 of the Provincial Policy Statement, the diversity and connectivity of natural features in an area, and the long-term ecological function and biodiversity of natural heritage systems, should be maintained, restored or, where possible, improved, recognizing linkages between and among natural heritage features and areas, surface water features and groundwater features. Where applicable, the use of ecopassages or other measures to facilitate wildlife movement should be evaluated.	
<input type="checkbox"/>	As noted above, the study area contains a ( <i>provincially/locally significant</i> ) wetland. As per Policy 2.1.3 of the Provincial Policy Statement, development and site alteration shall not be permitted in significant wetlands or significant coastal wetlands.	
<input checked="" type="checkbox"/>	The study area may contain the habitat of Endangered or Threatened species. As per Policy 2.1.7 of the Provincial Policy Statement, development and site alteration shall not be permitted in the habitat of endangered species and threatened species, except in accordance with provincial and federal requirements. The provincial <i>Endangered Species Act</i> and/or federal <i>Species at Risk Act</i> may also apply. Please contact the Ministry of Natural Resources and Forestry (MNRF) at <a href="mailto:esa.aurora@ontario.ca">esa.aurora@ontario.ca</a> for further information on Endangered Species Act requirements.	Noted. Stantec will make contact with MNRF.



<input type="checkbox"/>	The study area contains the ( <i>name</i> ) area of natural and scientific interest (ANSI). As per Policy 2.1.5 of the Provincial Policy Statement, development and site alteration shall not be permitted in an ANSI unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions. Please contact the MNR for further information on ANSI's.	
<input type="checkbox"/>	The study area may contain significant wildlife habitat. As per Policy 2.1.5 of the Provincial Policy Statement, development and site alteration shall not be permitted in significant wildlife habitat unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions. Please refer to the Ministry of Natural Resource's <i>Significant Wildlife Habitat Technical Guidelines</i> .	
<input type="checkbox"/>	The study area contains a significant valleyland ( <i>Bronte/Sixteen/Grindstone</i> ). As per Policy 2.1.5 of the Provincial Policy Statement, development and site alteration shall not be permitted in significant valleylands unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions.	
<input type="checkbox"/>	The study area contains a Candidate Significant Woodland. As per Policy 2.1.5 of the Provincial Policy Statement, development and site alteration shall not be permitted in significant woodlands in Ecoregions 6E and 7E (excluding islands in Lake Huron and the St. Marys River) unless it has been demonstrated that there will be no negative impacts on the natural features or their ecological functions. Please contact the ( <i>Region of Halton/City of Hamilton/Mississauga/County of Wellington</i> ) for further information on significant woodlands.	
<input type="checkbox"/>	Development and site alteration shall not be permitted on adjacent lands to the natural heritage features and areas identified in Policies 2.1.4, 2.1.5 and 2.1.6 of the Provincial Policy Statement unless the	



	ecological function of the adjacent lands has been evaluated and it has been demonstrated that there will be no negative impacts on the natural features or on their ecological functions. The Ministry of Natural Resources' Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement 2005, Second Edition (2010) considers adjacent lands to be within 120 metres.	
<input type="checkbox"/>	The study area contains the ( <i>name</i> ) ESA. The Environmental Study Report must address impacts to the ESA. Please contact the ( <i>Region of Halton/City of Hamilton/County of Wellington/City of Mississauga</i> ) for further information on the ESA.	
<input checked="" type="checkbox"/>	Please use Ecological Land Classification to map natural and semi-natural features to vegetation type and identify protection/mitigation measures. ELC data sheets are required with the ESR submission (please include digital species spreadsheets).	Noted.
<input checked="" type="checkbox"/>	Please refer to Conservation Halton's <i>Environmental Impact Study Guidelines</i> for information on general study requirements, impact assessment and appropriate timing and protocols for surveys. These guidelines can be found at <a href="http://www.conservationhalton.ca">www.conservationhalton.ca</a> .	Noted.
<input checked="" type="checkbox"/>	Conservation Halton's <i>Landscape Guidelines</i> should be consulted at detailed design. These guidelines can be found at <a href="http://www.conservationhalton.ca">www.conservationhalton.ca</a> .	Noted. The project team will add a commitment to the ESR to apply Conservation Halton landscape guidelines during detailed design within the Regulated Area.
<input checked="" type="checkbox"/>	<b>Other:</b> Milkweed was observed at Culvert C3 on our site walk, providing habitat to the Monarch Butterfly (species to be up-listed). Please re-plant/re-instate Milkweed as part of the restoration works post construction. Also, a small "natural" bench was observed along one side of C3 to assist with wildlife passage. If possible, consideration to installation of a second "metal shelf" animal passage would be beneficial for long term wildlife passage.	Noted. These provisions require further discussion with CH staff to determine details of milkweed planting and animal passage installation.
<b>Fish Habitat</b>		

<input checked="" type="checkbox"/>	As per Policy 2.1.6 of the Provincial Policy Statement, development and site alteration shall not be permitted in fish habitat except in accordance with provincial and federal requirements.	Noted. Stantec will contact MNRF and DFO in this regard.
<input type="checkbox"/>	Staff note that there is a local drainage feature/hydrologic connection within the study area. Please be advised that although this drainage feature is not regulated under Ontario Regulation 162/06, future development may be subject to review or approvals under the Fisheries Act.	
<input type="checkbox"/>	Staff note that a fisheries setback of (15/30) metres from the high water level applies for (coldwater/warmwater) creeks.	
	<b>Other:</b> Please complete a Fish Habitat Assessment at C1.	A fish habitat assessment will be completed at C1.
<b><u>Groundwater</u></b>		
<input type="checkbox"/>	Please identify groundwater recharge/discharge areas. Please identify recommended mitigation measures for groundwater impacts and if appropriate, any opportunities to improve infiltration.	
<input type="checkbox"/>	Please identify hydrological impacts.	
<input type="checkbox"/>	Please complete a water balance assessment to determine any infiltrative deficit. If a deficit is identified, all potential impacts should be identified and assessed.	
<input type="checkbox"/>	All proposed works should consider Policies 2.2.1 and 2.2.2 of the Provincial Policy Statement regarding Water ( <i>highlight specific policy elements where relevant</i> ).	
<b><u>Stormwater Management/Drainage</u></b>		
<input checked="" type="checkbox"/>	Please discuss quality/quantity/erosion controls within the Stormwater Management Section of the Environmental Study Report. Please examine the potential to combine SWM with adjacent development.	Stormwater management for the preferred design alternative will be outlined in the ESR.
<input checked="" type="checkbox"/>	As per the <i>Sixteen Mile Creek Subwatershed Study and Functional Stormwater and Environmental Management Strategy – Hwy 401 Industrial/Business Park Secondary Plan Area</i> please be advised that	Noted. Thermal impacts/mitigation will be considered.



	the quality requirements are <i>enhanced</i> . Please discuss the mitigation of thermal impacts.	
<input checked="" type="checkbox"/>	As per the <i>Sixteen Mile Creek Subwatershed Study and Functional Stormwater and Environmental Management Strategy – Hwy 401 Industrial/Business Park Secondary Plan Area</i> please be advised that the quantity requirements are post to pre-controls.	Noted.
<input checked="" type="checkbox"/>	As per the <i>Sixteen Mile Creek Subwatershed Study and Functional Stormwater and Environmental Management Strategy – Hwy 401 Industrial/Business Park Secondary Plan Area</i> please be advised that the erosion control requirements are 25mm detention over 24 hours wherever possible.	Noted.
<input type="checkbox"/>	Please identify existing vs. proposed drainage areas. Every effort should be taken to maintain existing drainage divides. Any proposed diversions must be clearly identified and the potential impacts fully assessed as part of the project's evaluation.	
<b>Other</b>		
<input type="checkbox"/>	Recommendations and requirements from the following Watershed/Subwatershed Studies should be followed: <ul style="list-style-type: none"> <li>• Sixteen Mile Creek Subwatershed Study (Areas 2 and 7)</li> <li>• Functional Stormwater and Environmental Management Strategy – Hwy 401 Industrial/Business Park Secondary Plan Area</li> </ul>	
<input type="checkbox"/>	Conservation Halton owns ( <i>name of landholding</i> ) within the study area. Please identify any potential impacts to Conservation Halton landholdings (direct – adjacent to, and indirect – road closures, detours etc.). Any questions regarding Conservation Halton landholdings should be directed to ( <i>name</i> ).	
<input type="checkbox"/>	Is infrastructure proposed within existing easements/r-o-w or are there additional property requirements? Please assess the impacts of utility relocation (i.e. telephone poles, union gas, etc.) on natural heritage	

	features, natural hazard areas and fish habitat. This should not be left to detailed design as the relocation can have a significant impact on natural heritage features.	
<input type="checkbox"/>	Please note that Conservation Halton staff do not screen on behalf of MNRF for <i>Lakes and Rivers Improvement Act</i> implications. We recommend you contact the MNRF to determine if this Act will apply to the proposed works.	
<input type="checkbox"/>	The Province and Crown Corporations do not require permits from Conservation Halton under Ontario Regulation 162/06. We do however appreciate any efforts that the Province and these Corporations can take to meet the requirements of our Regulation and to address areas of provincial interest.	
<input checked="" type="checkbox"/>	In order to allow sufficient time to review the Draft Environmental Study Report, staff would appreciate it if a review timeline of 4 weeks could be incorporated into the project schedule. We would like to request 4 hard copies of the ESR for review.	Noted.
<input checked="" type="checkbox"/>	Please provide a figure with proposed works and/or alternatives overlaid on an airphoto.	Noted. The preferred preliminary plan outlining proposed works will be overlaid on an airphoto.

Preliminary for D

# **MCEA Regional Road 25 Transportation Corridor Improvements Steeles Avenue to 5 Side Road Town of Milton/Town of Halton Hills**

Site Review Meeting with Conservation Halton  
July 12, 2017





# Agenda

1. Introductions
2. Study Area and Project Background
3. Class EA & Schedule
4. Key Areas of Focus
5. Environmental Field Program
6. Existing Conditions
7. Conservation Halton Background Information & Areas of Concern
8. Site Walk

# Study Area

- Steeles Avenue to 5 Side Road  
Town of Milton
- Includes the Highway 401 interchange and a CN Rail structure

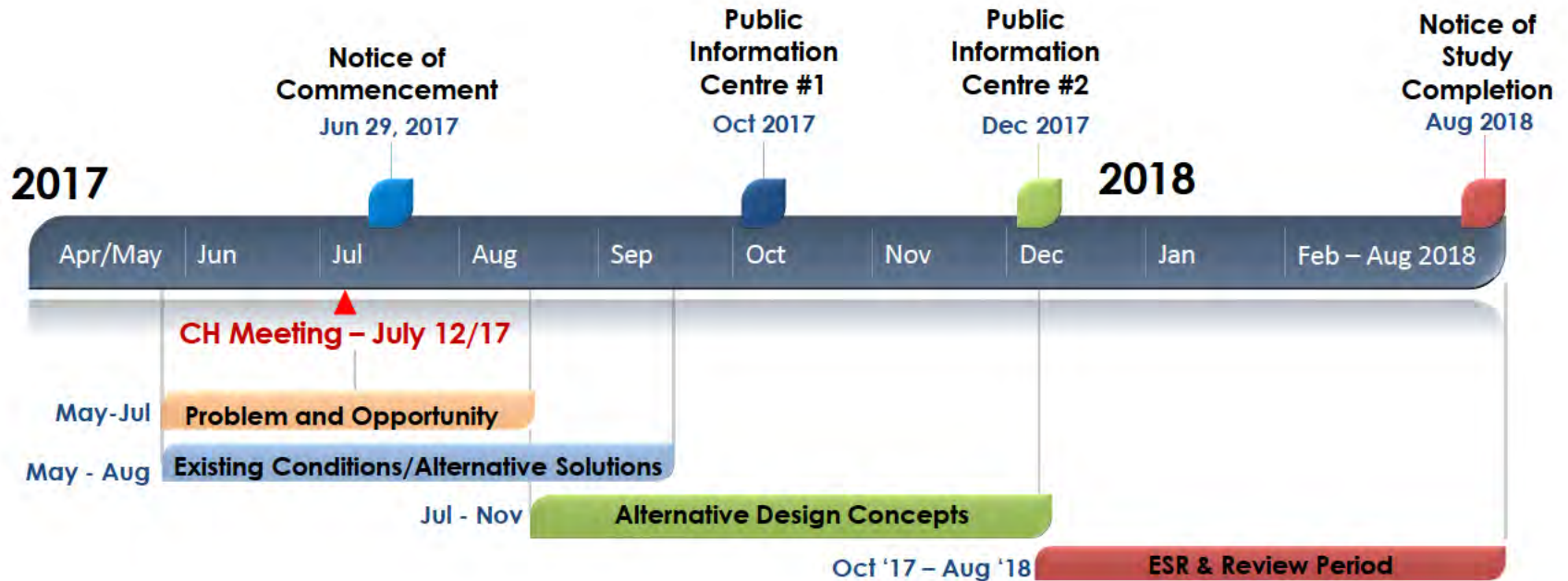


# Project Background

- Need for additional capacity was identified in the Region's Transportation Master Plan – The Road to Change
- A number of road improvement alternatives will be examined, including:
  - Active transportation
  - Intersection operations
- Structural, drainage, cross-sectional and natural environment requirements will be assessed through the study



# Class EA & Schedule

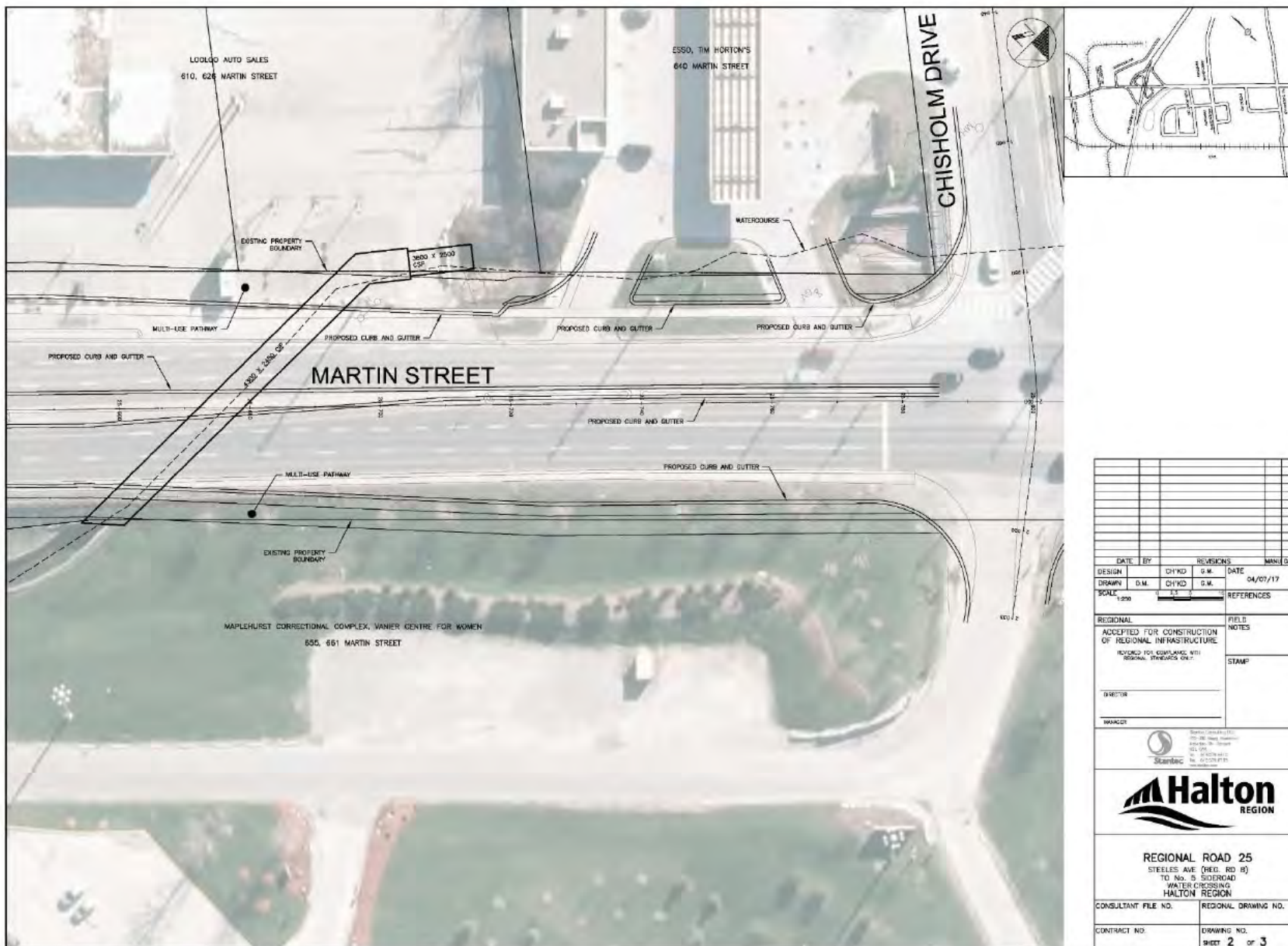


# Key Areas of Focus

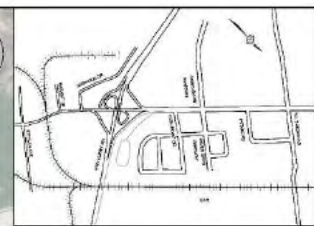












DATE		BY		REVISIONS		MANU. GR.	
DESIGN	CH'D	CH'D	S.M.	DATE	04/07/17		
DRAWN	D.M.	CH'D	S.M.				
SCALE	1:500			REFERENCES			
REGIONAL				FIELD NOTES			
ACCEPTED FOR CONSTRUCTION OF REGIONAL INFRASTRUCTURE				STAMP			
BEYOND THE CROWN LAND WITH REGIONAL FINANCIAL ONLY							
DIRECTOR							
MANAGER							
<b>REGIONAL ROAD 25</b> STEELES AVE (REG. RD. R) TO No. 5 SOCRAD WATER CROSSING HALTON REGION							
CONSULTANT FILE NO.				REGIONAL DRAWING NO.			
CONTRACT NO.				DRAWING NO.			
				SHEET 3 OF 3			

# Environmental Field Program

- Single season habitat assessments to confirm existing background information and identify natural features
- Aquatic habitat surveys in summer 2017 to confirm existing conditions at the 3 creek crossings
- Fish community sampling is not proposed given the availability of data from CH and MNRF

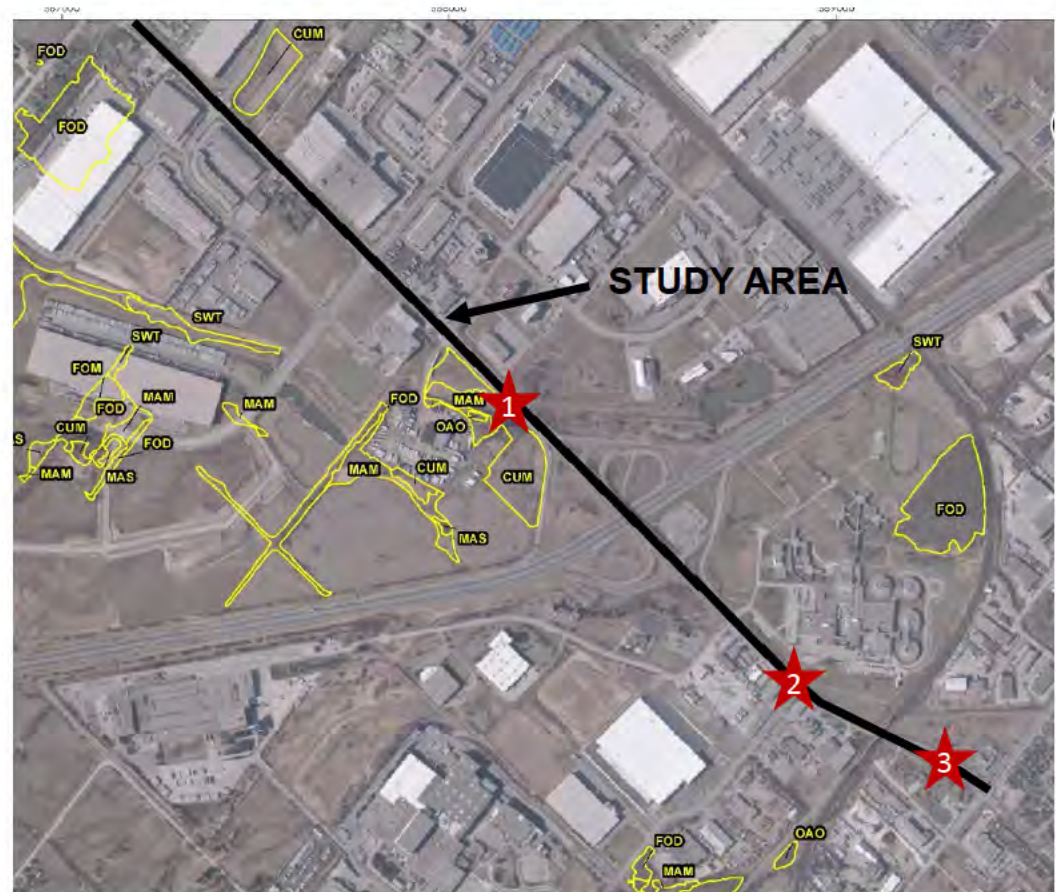


March 2017



# Terrestrial Resources

- No ESAs, ANSIs or evaluated wetlands
- Areas around tributaries of Sixteen Mile Creek are designated as Greenlands/ Open Space
- Limited vegetation communities within study area
- Field review will be completed in late July



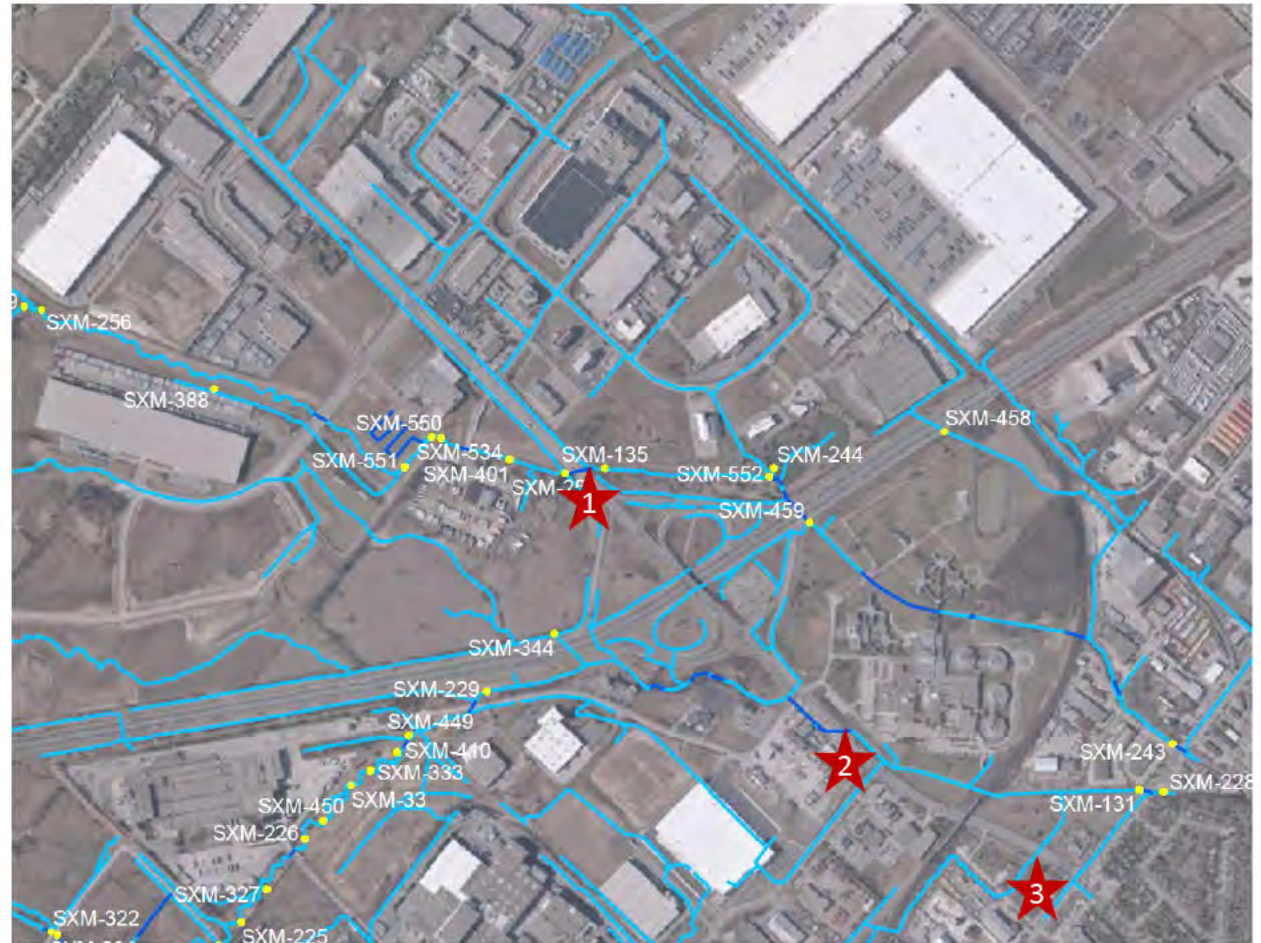
FOD – Deciduous Forest  
CUM – Cultural Meadow  
MAM – Meadow Marsh

OAO – Open Aquatic  
SWT – Thicket Swamp



# Aquatic Resources

- Coldwater thermal regime
- In-water construction window is July 1 to September 15 (to be confirmed with CH and MNRF)
- Presence of regulated Redside Dace habitat
- Potential for Silver Shiner (found in Sixteen Mile Creek) – to be confirmed with MNRF
- Field review will be completed in late July





# Drainage/SWM

- Hydraulic analysis and floodline assessment is required for crossings

## SWM criteria:

- Water quantity will be control post development road flows to existing levels
- Quality control will be Enhanced Level (80% TSS Removal) for additional road areas



# **CONSERVATION HALTON - BACKGROUND INFORMATION & AREAS OF CONCERN**

# SITE WALK

<b>Date:</b>	January 23, 2018	<b>Project Number:</b>	PR-3130A
<b>Location:</b>	Conservation Halton – Grindstone Room	<b>Project: 1650-10586</b>	Regional Road 25 Municipal Class Environmental Assessment (MCEA) Study
<b>Time:</b>	1:00 p.m. to 2:45 p.m.	<b>Author:</b>	David Moura, Stantec

**Attendees:**

Jeffrey Reid	Halton Region
Ann Larkin	Halton Region
Gord Murray	Stantec Consulting
Paula Burnard	Stantec Consulting
Sean Stuart	Stantec Consulting
Debbie Giesbrecht	Stantec Consulting
Roy Johnson	Stantec Consulting
David Moura	Stantec Consulting
Tawnia Martel	Conservation Halton
Holly Anderson	Conservation Halton
Paul Bond	Conservation Halton
Kate Sapozhnikova	Conservation Halton
Bohdan Kowalyk	MNRF

**Distribution:** Attendees

**Purpose:** Conservation Halton Meeting #2

Item	Details	Action By
1.0	<b>Introductions &amp; Project Background</b>	
1.1	All attendees were introduced.	
1.2	Stantec provided an overview of the Municipal Class EA study, project background and existing environmental conditions. Presentation attached.	
2.0	<b>Existing Conditions Review</b>	
2.1	<p>Existing Culverts</p> <ul style="list-style-type: none"> <li>• Culvert C1 – north of Steeles Avenue <ul style="list-style-type: none"> <li>○ To be considered as contributing Redside Dace habitat as per MNRF email correspondence.</li> <li>○ Channel appears to have been previously straightened as part of culvert installation.</li> </ul> </li> </ul>	

Item	Details	Action By
	<ul style="list-style-type: none"> <li>• Culvert C2/C3 – south of Chisholm Drive / C3 @ Chisholm Drive (west side) <ul style="list-style-type: none"> <li>○ Appears to have been previously altered and straightened, including lined with gabion baskets</li> </ul> </li> <li>• Culvert C4 – north of Highway 401 <ul style="list-style-type: none"> <li>○ Recently realigned as part of Redside Dace habitat mitigation.</li> <li>○ Downstream end was naturalized as part of Regional Road 25 widening to 4 lanes (2014).</li> <li>○ Culvert already quite long. Therefore, impacts should be minimal.</li> </ul> </li> </ul> <p>No anticipated impacts to existing culvert at ESSO &amp; Tim Hortons entrances between C2 and C3, and therefore was not included in culvert numbering.</p> <p>MNRF inquired if it is assumed that culverts C1 and C4 will not require extensions and Region responded that this will be confirmed.</p>	
<b>3.0</b>	<b>SWM/ Drainage Existing Conditions Review</b>	
3.1	<p>Areas south of Highway 401, Culverts C2 and C3 overtop under Regional Storm conditions and are governed by backwater from the downstream CNR culvert. Unless there are changes to this culvert (e.g. upsizing or twinning) flooding will persist under Regional Storm conditions.</p> <p>CH advised that flooding at Maplehurst Correctional Complex goes beyond the parking lot and affects the building. Maplehurst Correctional Complex has an evacuation plan in place in case of flooding</p> <p>Stantec to explore options to eliminate flooding caused by the restrictions at the CNR culvert.</p> <p>CNR Bridge (BR-02) to be reconstructed (or replaced) to accommodate road widening as well as active transportation facilities.</p>	Stantec
3.2	<p>At least 2 lanes in both directions along Regional Road 25 are to remain dry during a Regional Storm event for emergency vehicles (although MNRF guidelines advise 30cm of freeboard is safe).</p>	
3.3	<p>CH noted that recent site plan applications near Pond S36 showed that the pond was not designed to meet current quality and quantity control standards. Stantec to request these reports to determine if they pre-date Stantec's previous work.</p>	Stantec



3.4	Stantec must demonstrate no increase in flood levels, including a summary illustrating existing/proposed flood levels on a map (CH requested HEC_RAS sections, flood levels), channel velocities, shear stresses, depth, etc. for the entire range of storms, as part of the SWM Report. Stantec to provide a drawing showing impacts to landowners' properties.	Stantec
3.5	CH requested that Stantec consider the use of LIDs. The Project Team responded that the use of LIDs will be explored, recognizing there may be limited opportunities due to constrained right-of-way.	Stantec
4.0	<b>Planning Alternatives</b>	
4.1	"Do Nothing" and "Limit Development" alternatives were not carried forward for further consideration (screened out) as they will not address travel demand to 2031.	
4.2	Travel Demand Management (TDM) Measures, Improved Transit Service, Active Transportation (AT), Intersection and/or Operational Improvements, Improvements to Other Roads, and Improvements to Regional Road 25 have been carried forward as a recommended combination of alternative solutions.	
4.3	TDM, Transit, AT are already part of the Region's overall transportation strategy.	
5.0	<b>Next Steps</b>	
5.1	CH requested drafts of the drainage/hydrology report as well as the Natural Environment report to review prior to the TAC meeting.	Stantec
5.2	Region advised that, due to this being an election year, project completion may be delayed, depending on public response at the PIC.	
6.0	<b>Evaluation of Design Alternatives</b>	
6.1	Region and CH agreed that natural hazards and policy areas would be key for CH. It was noted that these criteria are included for the evaluation of design alternatives.	
7.0	<b>Draft Cross Section Discussion</b>	
7.1	A conceptual landscape plan will be produced and circulated to CH for comment, once a preferred solution is developed.	Stantec
8.0	<b>Schedule</b>	
8.1	Meetings with Agencies are ongoing. TAC meeting #1 scheduled for February 22 <sup>nd</sup> and PIC#1 is scheduled for March 8 <sup>th</sup> .	
8.2	ESR to be finalized in the fall, with filing in 2019 (depending on receipt of stakeholder comments).	
9.0	<b>CH Checklist Review</b>	
9.1	Consideration of wildlife passages to be included in commitments in ESR. Passages are to be explored during detailed design.	Stantec/ Region

9.2	Milkweed may be “up-listed” and therefore highlighted to be tracked during EA and detailed design.	
9.3	CH asked that a topographic survey be completed that captures all drainage features and culverts. Region responded indicating that in advance of the EA, a full topographic survey was completed by the Region, and is being used by Stantec to develop the preliminary design plan.	
9.4	Shaded rows (unchecked items) to be removed from CH Environmental Assessment Checklist for subsequent submissions. Culverts are to be numbered south to north. They noted there may be some minor confusion on any notes or comments from before this numbering scheme came into effect. As the MCEA progresses, the culvert numbering will be consistent. Meeting Minutes from July 12, 2017 CH Meeting will be updated regarding the numbering and will be re-issued.	Stantec
9.5	<u>Flooding concerns</u> <ul style="list-style-type: none"> <li>CH requires details of specific properties impacted by increase/decrease of flooding.</li> <li>Details and impacts of flood line changes cannot be deferred to detailed design.</li> </ul> CH will make the determination of flooding significance based on information provided. In addition, the road vertical alignment is not anticipated to change. Typically when widening a road from 4 to 6 lanes, the crown of the road is traditionally maintained.	
<b>10.0</b>	<b>Road Geometry</b>	
10.1	CH inquired if the vertical or horizontal road alignment would be reviewed as part of the generation of alternatives and mitigation of impacts. Region responded indicating that there are not a lot of benefits to shifting the alignment, however minor shifts in alignment will be considered to minimize impacts.	
10.2	MNRF inquired if the road median would be 5.5m in most locations along Regional Road 25. Stantec responded indicating that the median would not typically be 5.5m due to left turn lanes and corridor restrictions. Stantec will review opportunities for reducing the median width between intersections (primarily north of Highway 401).	Stantec
10.3	MNRF requires the areas (m <sup>2</sup> ) of impacted Redside Dace habitat be determined at each culvert location.	Stantec
<b>Meeting adjourned at 2:45 p.m.</b>		

# **Regional Road 25 Transportation Corridor Improvements Municipal Class EA Study**

**Steeles Avenue to 5 Side Road  
Town of Milton/Town of Halton Hills**

Conservation Halton & MNRF Meeting  
January 23, 2018





# AGENDA

1. Introductions
2. Project Overview
3. Problem & Opportunities
4. Existing Conditions
  - Natural Environment & Drainage
5. CH Checklist
6. Planning Alternatives
7. Next Steps
8. Design Alternatives/Project Schedule

# STUDY AREA

Halton Region is carrying out a Municipal Class Environmental Assessment (MCEA) Study for improvements to the Regional Road 25 corridor from Steeles Avenue to 5 Side Road in the Town of Milton/ Town of Halton Hills.

- Study area from Steeles Avenue to 5 Side Road, approximately 3 km in length;
- Serves local and inter-regional travel demand, as well as agricultural equipment and goods movement;
- Two structures are located within the study area:
  1. CNR Overpass, north of Steeles Avenue
  2. Highway 401 Overpass (currently under construction)
- A tributary of Sixteen Mile Creek traverses the study area (south of Chisholm Drive).

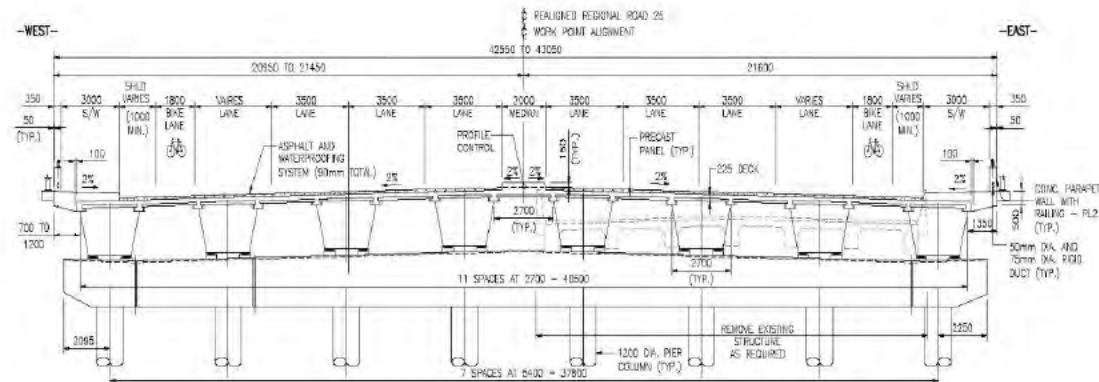




## RELATED STUDIES AND PROJECTS

Regional Road 25/Highway 401 Interchange Improvements, Ministry of Transportation (2016)

Future Regional Road  
25 Cross Section over  
Highway 401  
(Interchange  
currently under  
construction)



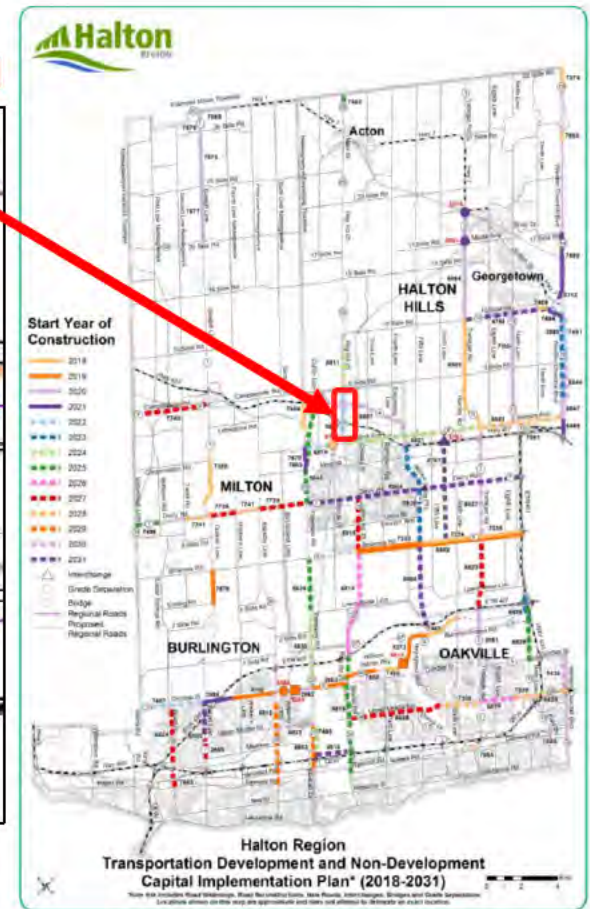
# Steeles Avenue Municipal Class Environmental Assessment (2010)

Typical Cross  
Section Steeles  
Avenue MCEA  
(currently under  
construction)





## Study Area



# PROBLEM AND OPPORTUNITY

- Regional Road 25 is currently experiencing delays during peak periods and delays will increase at intersections in the future.
- Future traffic is expected to grow by 2031.
- To support future growth and travel demands, improvements to the Regional Road 25 corridor are required.
- The improved corridor should support all modes of transportation (i.e. active transportation, transit services, inter-regional travel, agricultural vehicles and goods movement).
- Therefore, Halton Region is carrying out this study to address these requirements in accordance with the MCEA process.



# EXISTING CONDITIONS - REVIEW

- Site walk with CH on July 12, 2017
- Review of existing conditions complete
- Draft Natural Environment and Stormwater Management reports available for review (Winter 2018)
- Meetings with agencies (CH, MNRF, CN, MTO, Milton) - ongoing





# EXISTING CONDITIONS – NATURAL ENVIRONMENT



ELC Code	Description
SWDM4-1	Willow Mineral Deciduous Swamp Type
CUW1	Cultural Woodland
MEMM4	Fresh - Moist Mixed Meadow Ecosite
CUT1-1	Sumac Deciduous Shrub Thicket Type
MA S2-1	Cattail Mineral Shallow Marsh Type
MA SMI-12	Common Reed Mineral Shallow Marsh Type
SWT2-5	Red-osier Dogwood Mineral Deciduous Thicket Swamp Type
THDM2-11	Hawthorn Deciduous Shrub Thicket Type
MEGM3	Dry - Fresh Graminoid Meadow Ecosite
CUT1-4	Gray Dogwood Deciduous Shrub Thicket Type
MA M2-3	Red-top Graminoid Mineral Meadow Marsh Type
MEMM3	Dry - Fresh Mixed Meadow Ecosite
MA MM1	Graminoid Mineral Meadow Marsh Ecosite
MA SMI-12	Willow Mineral Deciduous Swamp Type
SWM	Stormwater Management Facility

## Legend

- Study Area
- Species Observation
- Site Plan
- ELC Vegetation Community
- Regulation Limit (Approximate)

# EXISTING CONDITIONS – NATURAL ENVIRONMENTAL FEATURES

- One recent (1987) SAR/provincially rare species (Redside Dace)
- No designated natural features within the study area
- Cultural woodlands, thickets and meadows are associated with vacant lots, railway embankments and watercourses
- Wetland vegetation is associated with watercourses and SWM facilities
- Notable species observations include Barn Swallow (threatened), potential Monarch habitat (special concern), and Big Bluestem (locally uncommon)



# EXISTING CONDITIONS – AQUATIC HABITAT/WATERCOURSES



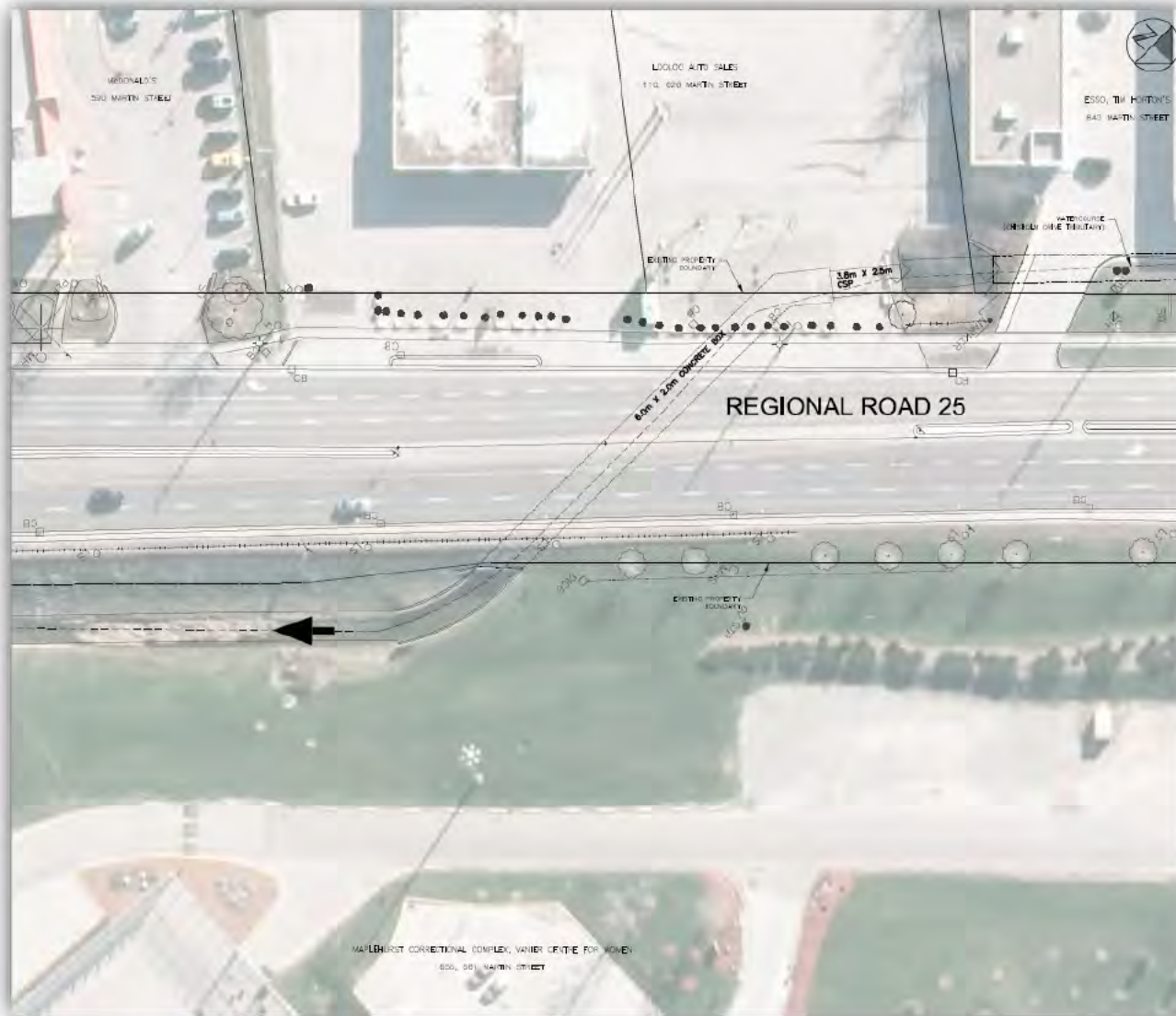
- Unnamed tributary to Sixteen Mile Creek (C1); Chisholm Drive Tributary (C2 and C3), Tributary N-2B of Sixteen Mile Creek (C4)
- Culverts C1, C2, C3 and C4 are Regulated Redside Dace habitat



# CULVERT C1 – NORTH OF STEELES AVE.



# CULVERT C2 – NORTH OF MARKET DR.





# CULVERT C3 – AT CHISHOLM DRIVE





# CULVERT C4 – NORTH OF HWY 401



# EXISTING CONDITIONS – REGIONAL ROAD 25 DRAINAGE

- Study area contains tributaries and channels of Sixteen Mile Creek that ultimately drain to Lake Ontario
- 2 SWM ponds in the vicinity of the study area provide quantity and quality control, including:
  - S34 - southwest of the Regional Road 25/James Snow Parkway intersection
  - S36/Milton Pond - northeast the Highway 401/Regional Road 25 intersection
- Road runoff between Highway 401 and 5 Side Road collects via storm sewers on Regional Road 25 and outlets to the Milton Pond
- Road runoff between Highway 401 and Steeles Avenue collects via storm sewers, and drains to a tributary of Sixteen Mile Creek





# EXISTING CONDITIONS – REGIONAL ROAD 25 DRAINAGE



2018/01/23 10:11 AM By: Dyerhdt, Ayse



300 - 675 Cochrane Drive West Tower  
Markham, Ontario L3R 0B6  
www.stantec.com

## Legend

- CROSSING 3 DRAINAGE BOUNDARY
- SITE BOUNDARY
- CREEKS
- FOAK 11\_DAT SECTIONS

Client/Project  
HALTON REGION  
REGIONAL ROAD 25  
STEELES AVE (REG. RD 8) to NO. 5 SIDEROAD

Figure No.  
1

Title  
BACKGROUND GEOGRAPHIC  
INFORMATION

Scale  
1:15000



# EXISTING CONDITIONS – REGIONAL ROAD 25 DRAINAGE

Culvert	Span Size	Length	Type	Drainage Area	Events	Flow	TWL	Computed	Freeboard	Overtopping
ID	(mm)	(m)	(material)	(ha)		(m <sup>3</sup> /s)	(m)	HWL (m)		(Y/N)
C1	2100 x 1200	50	concrete box	58.9	5-Year	1.65	203.4	203.89	2.11	No
					50-Year	3.61	203.5	204.36	1.64	No
					100-Year	4.25	203.5	204.48	1.52	No
					Region Storm	6.86	203.6	204.95	1.05	No
C2	6000 x 2000	40	concrete box	362.9	10-Year	2.91	203.34	203.54	3.21	No
					50-Year	4.24	203.43	203.63	3.12	No
					100-Year	4.74	203.47	203.66	3.09	No
					Region Storm	30.32	207.04	207.06	-0.31	Yes
C3	3000 x 2400	19	concrete box	362.9	10-Year	2.91	204.69	204.79	2.01	No
					50-Year	4.24	204.89	204.97	1.83	No
					100-Year	4.74	204.95	205.24	1.56	No
					Region Storm	30.32	207.22	207.31	-0.51	Yes
C4	3000 x 2400	60	concrete box	658.0	10-Year	5.2	208.83	209.07	2.98	No
					50-Year	7.27	208.9	209.36	2.69	No
					100-Year	8.19	208.92	209.48	2.57	No
					Region Storm	36.29	209.21	211.83	0.22	No

# EXISTING CONDITIONS – CN RAIL CROSSING

- The Canadian National Railway built a new spur line in 1963 that crosses over Regional Road 25 (north of Steeles Avenue).
- Two lanes of traffic, in each direction are accommodated under the overpass.
- Improvement to the overpass will be required to accommodate a widened cross-section, including active transportation facilities.





# CH CHECKLIST DISCUSSION

- Wildlife passages
- Milkweed planting/Monarch Butterfly at C1
- Ensure topographic survey completed and to include all drainage features, etc.
- Flooding concerns associated with Maplehurst property and CNR bridge
- Fluvial geomorphological assessment requirements



# PLANNING ALTERNATIVES

Improvements to the Regional Road 25 corridor are required to support existing and future transportation needs while respecting the social, cultural and natural environment. The following Planning Alternatives are being considered.

Alternatives	Description of Planning Alternatives	Evaluation	Recommendation
Do Nothing	Status quo; only planned improvements will be in place, including the widening of Steeles Avenue, James Snow Parkway extension, and the Tremaine Road realignment (with interchange)	Does not address future needs within the study area.	Not recommended for further consideration (for comparison purposes only)
Limit Development	Limit development within the Town of Milton/Town of Halton Hills	Future projections based on approved future urban area within the Halton Region and local municipal Official Plans	Do not carry forward



# PLANNING ALTERNATIVES

Alternatives	Description of Planning Alternatives	Evaluation	Recommendation
Travel Demand Management Measures	Measures to manage travel demand, such as carpooling, flexible work hours, telecommute, etc.	On their own, TDM measures do not address the problem, while part of the Region's overall transportation strategy	Carry forward within overall strategy
Improved Transit Service (GO Transit)/ Active Transportation	Upgrade GO Transit services on the Milton/Cambridge Line, and provide facilities for active transportation use to accommodate pedestrians and cyclists	On their own, these measures do not address the problem, while part of the Region's overall transportation strategy	Carry forward within overall strategy
Intersection and/or Operational Improvements	Enhance operations of roadway through minor improvements (i.e. traffic signals, provision of turning lanes, etc.)	On their own, do not address the problem while part of the Region's overall transportation strategy	Carry forward within overall strategy
Improvements to Other Roadways	Widen regional roadways in the immediate study area beyond planned improvements (e.g. Steeles Avenue, James Snow Parkway, and Tremaine Road).	Part of the Region's overall transportation strategy (Transportation Master Plan)	Part of overall Regional transportation strategy
Improvements to Regional Road 25	Improvements to the Regional Road 25 corridor, including provision for active transportation.	Needs identified in Halton Region Transportation Master Plan to support future growth	Carry forward within overall strategy

A combination of improvements to be carried forward and design alternatives to be developed.

# NEXT STEPS

- Review and incorporate the input received from review agencies, the public, and Indigenous Communities
  - Meetings with Agencies - ongoing
  - TAC Meeting #1 – February 22 (9:00 – 11:00am)
  - PIC #1 – March 8 (drop-in from 6:30 – 8:30pm)
- Confirm preferred alternative solution
- Develop design alternatives to implement the preferred solution
- Continue to consult with technical agencies and other stakeholder groups
- Conduct PIC #2 to receive input on the preferred preliminary design



# DESIGN ALTERNATIVES

Design alternatives will be developed and reviewed based on comments received from Agencies, Stakeholders and members of the Public, and evaluated based on the following factors:

## Socio-Economic Environment



- Existing and Future Land Uses
- Industrial/Commercial Operations
- Institutional/Recreational Uses
- Potential Property Requirements
- Property Access
- Noise Levels
- Provisions for Pedestrians and Cyclists
- Illumination
- Air Quality

## Cultural Environment



- Built Cultural Heritage
- Cultural Heritage Landscapes
- Archaeological Resources

## Natural Environment



- Vegetation
- Wildlife
- Creek Crossings
- Natural Hazards
- Policy Areas

## Transportation



- Corridor Capacity and Operations
- Intersection Capacity and Operations
- Geometric Standards
- Access Management
- Construction Staging

## Engineering Considerations



- Structural Requirements (CNR Overpass, Culverts)
- Municipal Services/Utilities
- Construction Staging
- Drainage and Stormwater Management

## Preliminary Cost Estimate

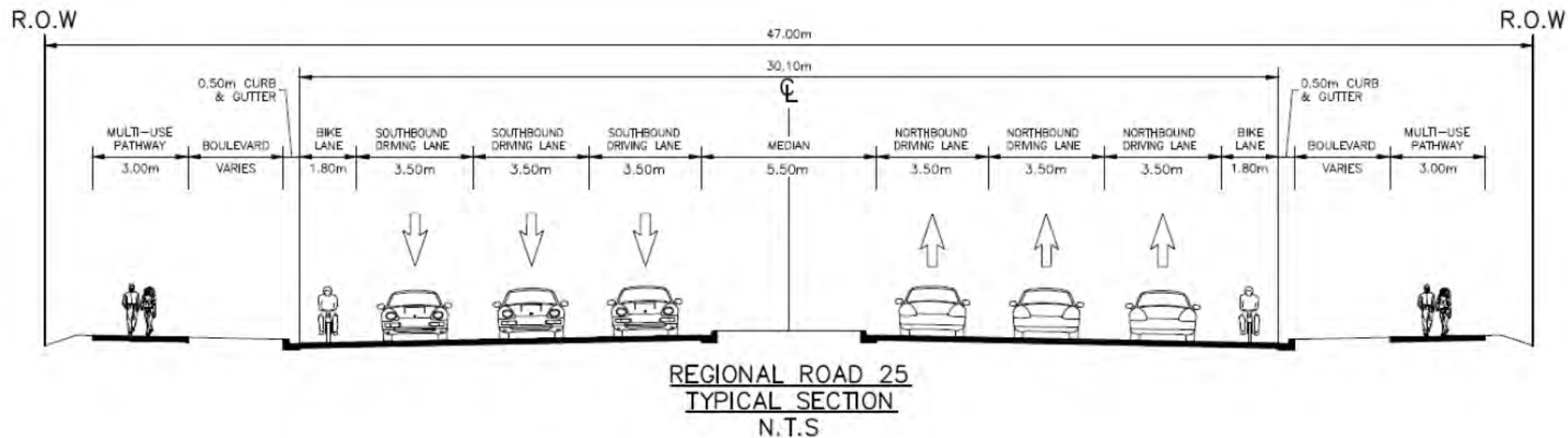


- Construction
- Operations and Maintenance
- Utility Relocation



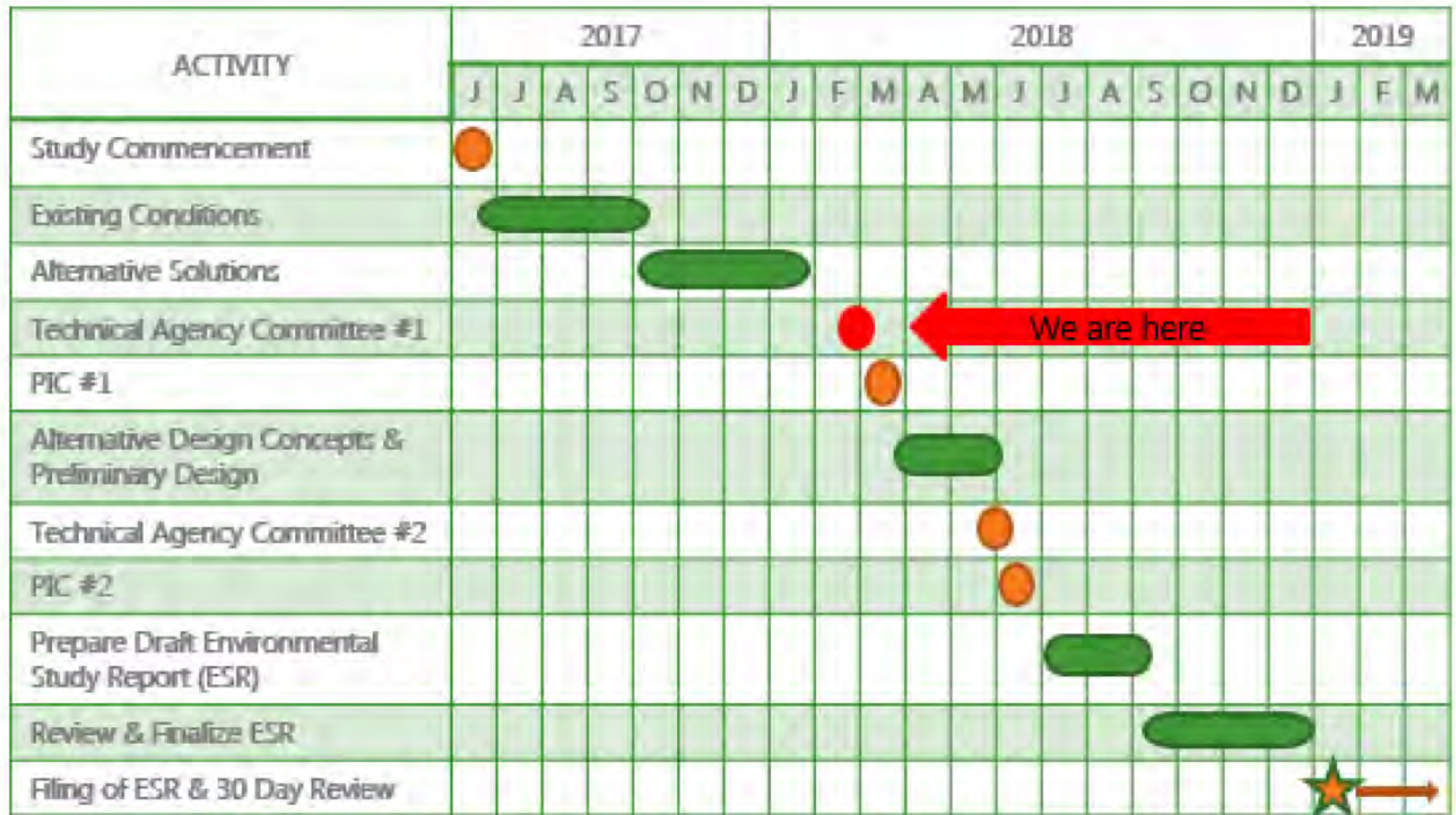
# TYPICAL 6 LANE CROSS-SECTION

C(4) Urban – 47m ROW





# PROJECT SCHEDULE



**Date:** June 25, 2018      **Project Number:** PR-3130A  
**Location:** Conservation Halton – Committee Room 1      **Project: 1650-10586**      Regional Road 25 Municipal Class Environmental Assessment (MCEA) Study  
**Time:** 1:30 p.m. to 3:30 p.m.      **Author:** Paula Burnard, Stantec  
**Attendees:**  
 Ann Larkin      Halton Region  
 Jeffrey Reid      Halton Region  
 Gord Murray      Stantec Consulting  
 Paula Burnard      Stantec Consulting  
 Mustafa Mukhtar      Stantec Consulting  
 Sean Stuart      Stantec Consulting  
 Tawnia Martel      Conservation Halton  
 Holly Anderson      Conservation Halton  
 Paul Bond      Conservation Halton  
 Kate Sapozhnikova      Conservation Halton  
 April Currie      Ministry of Natural Resources and Forestry

**Distribution:** Attendees, Bohdan Kowalyk, MNRF, project team  
**Purpose:** Conservation Halton Meeting #3

Item	Details	Action By
<b>1.0</b>	<b>Introductions &amp; Project Background</b>	
1.1	All attendees were introduced.	
1.2	Stantec provided an overview and update of the Municipal Class EA Study, project background and existing environmental conditions. Presentation attached.	
<b>2.0</b>	<b>Review of Previous Minutes</b>	
2.1	MNRF indicated that if Pond S36 is to be modified, then a permit may be required and that a co-ordination meeting should be scheduled with all participants to understand the project details and timelines. The Region is not proposing any modifications to Pond S36 as part of the Regional Road 25 MCEA project. If required, the Region can attend a future meeting with the Town of Milton, MTO, CH and MNRF. Stantec to contact Town of Milton regarding an update on the High Point pond (S36). [Post Meeting Note: The Town confirmed that modifications to Pond S36 are not moving forward at this time due to the timing restrictions of available federal funding and required permits.]	Stantec



Item	Details	Action By
3.0	<b>Stormwater Management Report</b>	
3.1	<p>The draft SWM report, dated March 6, 2018, was provided to Conservation Halton on March 22, 2018 for review. Conservation Halton provided comments to the project team via letter dated April 23, 2018. Stantec provided a response to Conservation Halton via letter dated June 15, 2018.</p> <p>Conservation Halton reported that they are satisfied with the responses received from Stantec. The Region committed to provide an updated SWM Report which incorporates all CH/MNRF comments. [Post Meeting Note: an updated SWM Report is attached].</p>	Region
3.2	<p>The following items from the comment/response table (Slides 17 to 25) in the attached presentation were discussed:</p> <p>#1 – Stantec to follow Conservation Halton’s requirements for HEC-RAS and flood mapping models. Conservation Halton offered to discuss further with Stantec if required.</p> <p>#4 – Conservation Halton’s comments related to pond capacity/performance as it exists today. Stantec confirmed that capacity exists in the pond to accommodate the proposed improvements. Stantec will reference original pond design in the final SWM report.</p> <p>#5 – Stantec confirmed orifice sizes will not be provided in the SWM report, rather a commitment will be included in the ESR. Conservation Halton agreed.</p> <p>#6 – StormTech is the recommended Low Impact Development (LID) approach and will be documented in the revised SWM report and ESR as a commitment (i.e., treatment train to include StormTech chamber and Jellyfish filters).</p> <p>#12 – Conservation Halton questioned if the CN structure replacement and relief culvert work is planned at the same time as the road improvements. Region indicated that this would be confirmed by CN but that is the intent. The project team will be meeting with CN over the summer to discuss. Conservation Halton requested that the relief culverts be installed at CN at the time of the road widening. Conservation Halton referred to this item as a “show stopper” for permits and a commitment must be included in the ESR (see items #14 and #15).</p> <p>#14 &amp; #15 – Conservation Halton reiterated the importance of not increasing the existing flooding conditions throughout the corridor, with the proposed improvements.</p> <p>#16 – Stantec is proposing retaining walls at Culvert C2 to prevent a 3:1 slope and to maintain the existing culvert. Conservation Halton requested cross sections in the area of Culvert C2 (between Chisholm Drive and Market Drive). [Post Meeting Note: Cross-sections at Culvert C2 are attached.]</p>	<p>Stantec</p> <p>Stantec</p> <p>Stantec</p>

Item	Details	Action By
<b>4.0</b>	<b>Design Alternatives</b>	
4.1	Project team noted that design alternatives are still under review. There will be a raised centre median included with the proposed 6 lane cross section.  Property owner meetings will occur following the election of October 22, 2018.	
<b>5.0</b>	<b>Other</b>	
5.1	Conservation Halton and Region will review the approved modifications related to the culvert at the auto sales establishment, for any impacts and incorporate into the Regional Road 25 corridor improvements.	CH/Region
5.2	The updated SWM report and Natural Environment report will include a section on the CN bridge replacement and relief culvert improvements. S. Stuart noted the need to review the CN track realignment for area of impact calculations for permitting needs.	Stantec
5.3	MNRF requested that Bohdan Kowalyk be copied on correspondence.	All
5.4	The Environmental Study Report (ESR) is anticipated to be filed in Spring 2019.	
5.5	Conservation Halton requested Stantec to review page 2.2, 4 <sup>th</sup> paragraph in the draft SWM report. Specifically, clarify how the storm sewers and channel outlet to the pond. [Post Meeting Note: Stantec addressed this comment in the attached updated SWM report.]	Stantec

**Encl. 1. Overview presentation**



# **Regional Road 25 Transportation Corridor Improvements Municipal Class EA Study**

**Steeles Avenue to 5 Side Road  
Town of Milton/Town of Halton Hills**

Conservation Halton & MNRF Meeting  
June 25, 2018



# AGENDA

1. Introductions
2. Project Overview and Update
3. SWM Report Comments/Responses
4. Design Alternatives
5. Quality Control Approach
6. Potential LID Measures
7. Next Steps
8. Project Schedule



# PROJECT OVERVIEW AND UPDATE



# STUDY AREA

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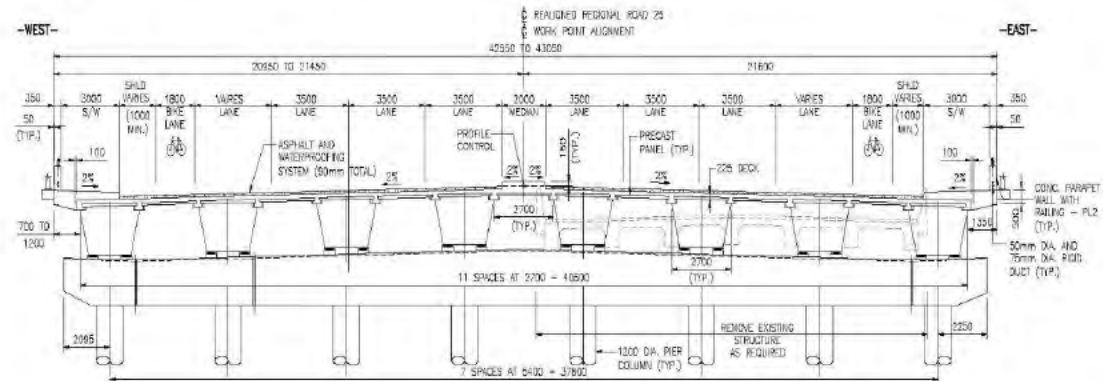




## RELATED STUDIES AND PROJECTS

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(Interchange  
currently under  
construction)

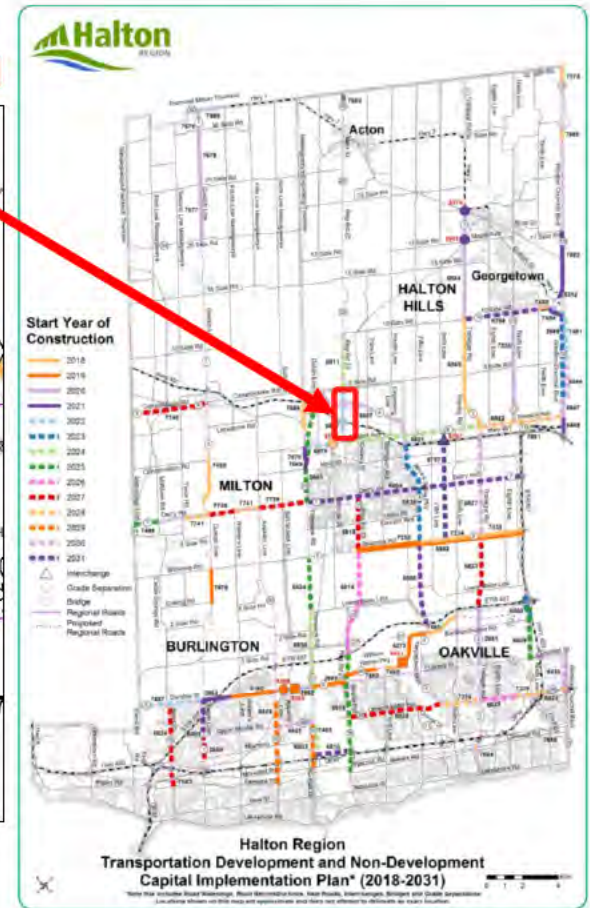


# Steeles Avenue Municipal Class Environmental Assessment (2010)

Typical Cross  
Section Steeles  
Avenue MCEA  
(currently under  
construction)



## Study Area



# PROBLEM AND OPPORTUNITY

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- Future traffic is expected to grow by 2031.
- To support future growth and travel demands, improvements to the Regional Road 25 corridor are required.
- The improved corridor should support all modes of transportation (i.e. active transportation, transit services, inter-regional travel, agricultural vehicles and goods movement).
- Therefore, Halton Region is carrying out this study to address these requirements in accordance with the MCEA process.



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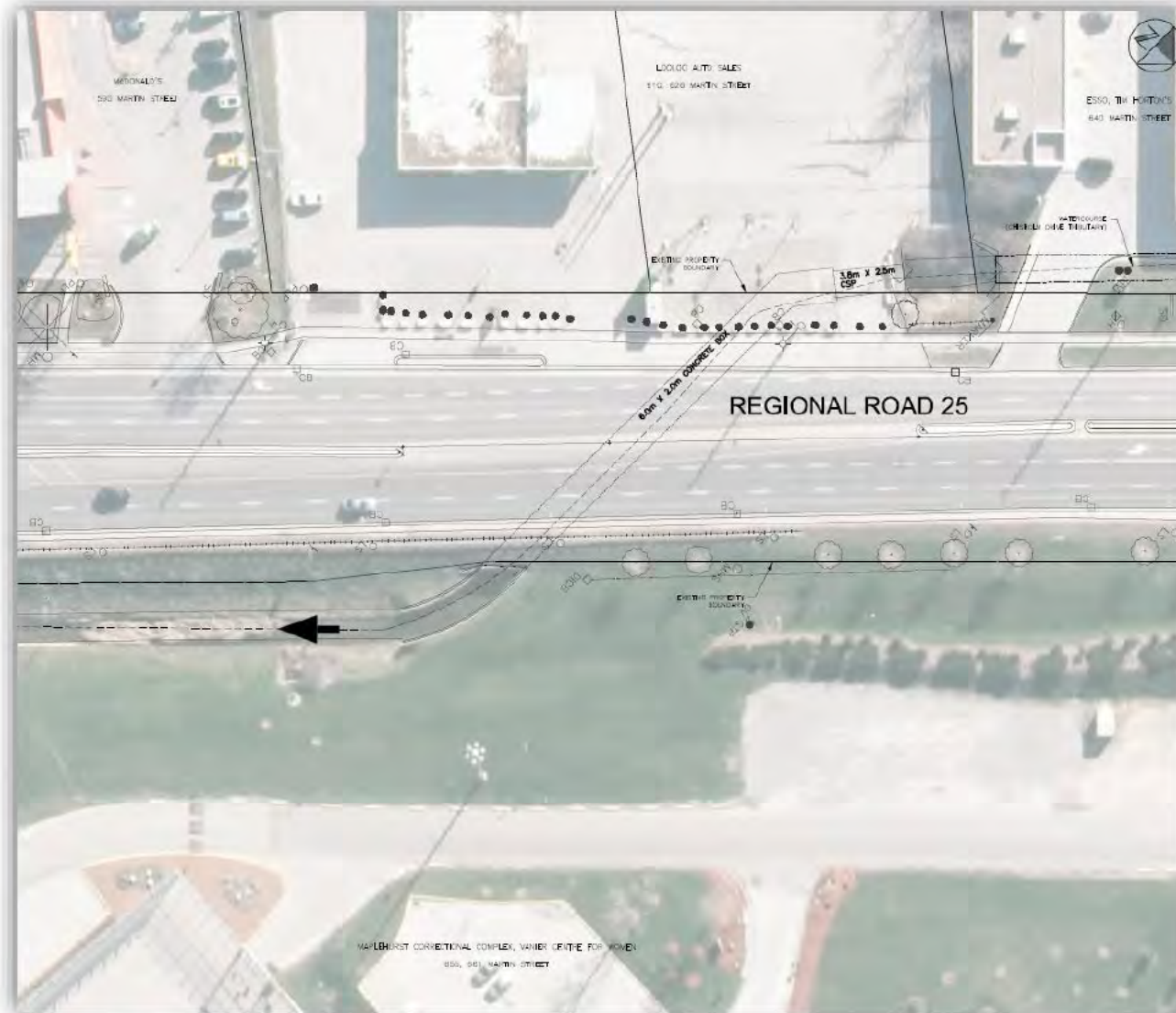
- 
- Halton**  
REGION

# CULVERT C1 – NORTH OF STEELES AVE.





# CULVERT C2 – NORTH OF MARKET DR.

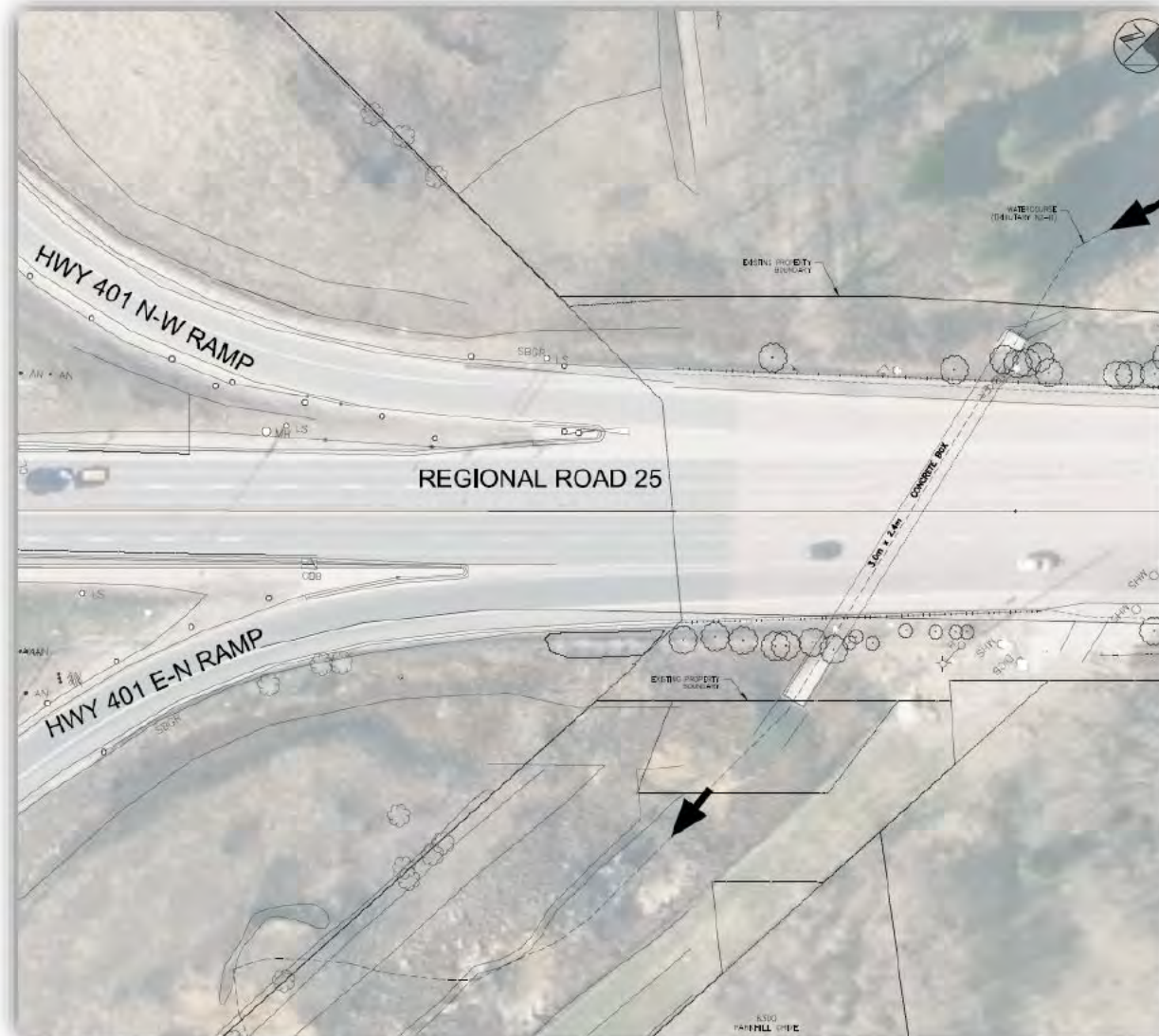




# CULVERT C3 – AT CHISHOLM DRIVE



# CULVERT C4 – NORTH OF HWY 401





# EXISTING CONDITIONS – REGIONAL ROAD 25 DRAINAGE

- Study area contains tributaries and channels of Sixteen Mile Creek that ultimately drain to Lake Ontario
- 2 SWM ponds in the vicinity of the study area provide quantity and quality control, including:
  - S34 - southwest of the Regional Road 25/James Snow Parkway intersection
  - S36/Milton Pond - northeast the Highway 401/Regional Road 25 intersection
- Road runoff between Highway 401 and 5 Side Road collects via storm sewers on Regional Road 25 and outlets to the Milton Pond
- Road runoff between Highway 401 and Steeles Avenue collects via storm sewers, and drains to a tributary of Sixteen Mile Creek



# PROGRESS TO DATE

- Site walk with CH on July 12, 2017
- Draft technical reports - Natural Environment, SWM, Stage 1 Archaeology, Cultural Heritage
- Meetings with agencies (CH, MNRF, CN, MTO, Milton) - ongoing
- PIC #1 held March 8, 2018





# **SWM REPORT COMMENTS & RESPONSES**



# DRAFT SWM REPORT COMMENTS

A table summarizing CH comments (rec'd March 6, 2018) and Project Team responses was prepared for discussion and includes the following topics:

- Watercourse Crossings and Bridges
- Quality Control
- Drainage
- CNR Watercourse Crossing Analysis
- Flood Elevations and Velocities (private property)
- OGS Sizing
- Flood Impact Analysis





# CH Comments – March 6, 2018

Comment	Response
1. On Pg. 2.4 please provide a direct link between the HEC-RAS model analyzed and Crossing/Culvert # as specified earlier in the Section to identify which model was used to confirm the hydraulic conditions at which Crossing/Culvert.	A direct link between the HEC-RAS model analyzed and Crossing/Culvert # will be provided.
2. Digital models must be provided for staff review as part of SWM report. The models should be prepared in accordance with the General Comments on HEC-RAS modelling and report (see “Attachment” comments on page 4 herein).	Digital models will be provided with the revised SWM report.
3. Please review and revise the name of the tributary that flows through crossings C1, C2, and C3 as it appears there may be an error. Based on Figure 1, it appears that Tributary N1-A flows through crossing C2 and C3 and an unidentified branch of Tributary N1-A flows through crossing C1.	Names of tributaries will be revised and updated.

# CH Comments – March 6, 2018 Cont'd

Comment	Response
<p>4. Given the time of the pond S36 construction, verification of the design conditions of the pond (i.e. drainage area, as-built details) are needed as its performance will be required at the detailed stage of the project to confirm that the pond possesses the capacity to accommodate the increased quantity of flow resulting from the future road conditions.</p>	<p>It has come to our attention that the Town of Milton will be making modifications to Pond S36 to convert it to an “offline pond”, including a realignment of the existing naturalized channel at its downstream end. Stantec will be contacting the Town and their design consultant to attempt to ascertain the details of these modifications, and what, if any, provisions have been made for existing/proposed drainage from Regional Road 25. In addition, a note will be added to the report that the Town of Milton, owner of Pond S36, should be contacted during the detailed design stage to verify the pond improvements and the design capabilities of the pond with respect to quality and quantity control.</p>



# CH Comments – March 6, 2018 Cont'd

Comment	Response
5. Details and a summary table of the proposed super-pipes, orifices and stage-storage-discharge tables will be required at the detailed design stage.	The commitments table in the ESR will identify the need for a summary table of the proposed super-pipes, orifices and stage-storage-discharge tables to be provided at the detailed design stage.
6. Bullet 3, notes that “Potential opportunities to implement infiltration measures/low impact developments (LIDs) should be identified and implemented wherever feasible and appropriate.” It is noted that the report does not provide any discussion to the potential opportunities to implement LID features. Staff recommend a section be added to the report.	A section will be added to the SWM report to discuss potential LID opportunities which are applicable for the project. Most likely options will include infiltration trenches and/or underground storage chambers with infiltration capabilities.

# CH Comments – March 6, 2018 Cont'd

Comment	Response
7. Please note that staff are unable to support 80% TSS removal by two proposed OGS units (stand-alone units). We note that typically, to achieve 80% TSS removal, a treatment train approach is required which includes an OGS unit sized accordingly based on the entire drainage area (assumed as 50% TSS removal), <u>plus</u> an additional BMP (any type of LID). Please revise.	Quality control approach will be revised to add Jellyfish filters and/or treatment train including LID measures (e.g., catchbasin shields, infiltration trenches, underground chambers, enhanced swales).
8. Alternatively, units combining gravitational pre-treatment (sedimentation and floatation) and membrane filtration (for example Jellyfish® Filter units) can be considered as part of the design, which was verified to obtain 80% TSS removal subject to proper design and maintenance procedure.	Noted. Jellyfish filters and LID measures will be added as treatment train options to achieve “first flush” and TSS removal targets. To be confirmed during detailed design.
9. Last sentence in first paragraph reads “ <i>no additional quantity control</i> ”, when it should read “ <i>no additional quality control</i> ”. Please revise.	The sentence will be revised as noted.



# CH Comments – March 6, 2018 Cont'd

Comment	Response
10. Staff recommend that the titles of Figure 4 – Water Crossing 1 and Figure 6 – Water Crossing 3 be revised to reflect the crossing/culvert numbering depicted in Figure 1. Figure 4 notes the culvert as Crossing 1 when it should be culvert/crossing 4, similar with Figure 6, the titles notes Crossing 3 when it should be culvert/crossing 1.	Culverts numbering will be revised and updated, as noted.
11. According to Figures 7A and 8A, the existing outlets downstream of Crossing 1 through roadside ditches will be replaced with two new source point outlets to a branch of Tributary N2-B. Please note that Permits from CH under Ontario Regulation 162/06 will be required prior to construction of the outlets.	A note will be added to the Environmental Study Report commitments table, requiring the permits.

# CH Comments – March 6, 2018 Cont'd

Comment	Response
12. Staff support the proposed mitigation measure, i.e. installation of relief culverts, to reduce flooding at Maplehurst Correctional Complex as part of the proposed Regional Road 25 widening. Confirmation is required that CN is accepting the proposed design including an indication of the timing of the relief culvert works at the CN culvert (BR02).	The proposed mitigation measures were previously discussed with CN and have been accepted in-principle, including increasing the existing culvert's capacity by adding two more culverts under the railway embankment. The matter will be further discussed and confirmed with CN following the completion of the flood impact analysis. The two additional relief culverts would be installed at the time the CN tracks are diverted to facilitate bridge replacement (simultaneous with the widening of Regional Road 25 to six lanes).
13. Summary of Culverts, Pg. 3.2. (note: there appeared to be a typo in the page number for the Section).	Will be revised.



# CH Comments – March 6, 2018 Cont'd

Comment	Response
14. The provided summary table indicated overtopping for Crossings 2 and 3 under the Regional Storm Event. Please confirm which conditions (existing or proposed) this table represents. Please provide summary tables for both existing and proposed conditions to confirm the flooding impact of the proposed road widening on the adjacent properties.	The table will be updated to include both the existing and proposed conditions.
15. <b>IMPORTANT:</b> Please note that Conservation Halton accepts <b>no</b> increase on flood elevation or velocities on privately owned neighbouring properties resulting from a new road construction unless there is no increased risk to structures or decreased access/egress to the property <u>and</u> the property owner accepts and signs off on the increases. We will require a detailed review to assess the increases and associated impact on private lands prior to forwarding the information to the affected landowner for the final decision. <u>This cannot be deferred to detail design</u> and must be resolved as part of the EA process.	Flood impact details will be provided to confirm that there will be no increase in floodline elevations or velocities on privately owned properties, including no increased risk to structures, nor decreased access/egress, due to the proposed road widening.

# CH Comments – March 6, 2018 Cont'd

Comment	Response
16. It appears that the proposed widening will extend to the watercourse centreline (long dashed line) as shown in Figure 5. Please confirm the proposed mitigation for the watercourse disturbance in this area as part of the EA. Please note that CH Permits under Ontario Regulation 162/06 will be required should any creek works be required as part of the road construction.	The dashed line was not intended to represent the grading limit, but the centerline of the existing channel. It is shown in error and will be removed. The impact of the additional roadway embankment widening will be mitigated by installation of a retaining wall on the east side of Regional Road 25.
17. Staff support the proposed sizing for oil-grit separators downstream of Crossing C1 as drainage area characteristics match drainage plan presented in Figure 8A.	Noted.



# CH Comments – March 6, 2018 Cont'd

Comment	Response
18. It is understood that there is an existing OGS between MHS6 and MHS5 (CST9000) that serves drainage directed to the existing Pond S36. Please provide a re-evaluation of the unit to confirm its sizing and performance under the proposed conditions.	The existing unit OGS between MHS6 and MHS5 (CST9000) will be re-evaluated to confirm its sizing and updated in the SWM report.
19. Specific grading details associated with the widening of a portion of the road along Maplehurst Correctional Complex are required at the EA stage due to the sensitivity of the area from a flooding perspective. According to Fig 5 "Water Crossing 2", the proposed road widening will encroach into the floodplain at Crossing C2 due to a location of the watercourse (run parallel to the road both upstream and downstream of C2). As a result, floodplain impact assessment will need to be prepared in order to confirm the impact on the existing flooding conditions (from both conveyance and storage perspectives, under both man-made and riparian conditions). It is assumed that grading details, as well as proposed crossing details, will be essential for such analysis. Therefore, the analysis is required at the EA stage as the result of the assessment may influence the preferred road design details and mitigation measures.	Flood impact analysis will be provided upon completion of the preliminary design for the preferred alternative design, at the EA stage.

See roll plans for discussion

# DESIGN ALTERNATIVES





# DESIGN ALTERNATIVES

The development of design alternatives is underway and will be evaluated based on the following factors:

## Socio-Economic Environment



- Existing and Future Land Uses
- Industrial/Commercial Operations
- Institutional/Recreational Uses
- Potential Property Requirements
- Property Access
- Noise Levels
- Provisions for Pedestrians and Cyclists
- Illumination
- Air Quality

## Cultural Environment



- Built Cultural Heritage
- Cultural Heritage Landscapes
- Archaeological Resources

## Natural Environment



- Vegetation
- Wildlife
- Creek Crossings
- Natural Hazards
- Policy Areas

## Transportation



- Corridor Capacity and Operations;
- Intersection Capacity and Operations;
- Geometric Standards
- Access Management
- Construction Staging

## Engineering Considerations



- Structural Requirements (CNR Overpass, Culverts)
- Municipal Services/Utilities
- Construction Staging
- Drainage and Stormwater Management

## Preliminary Cost Estimate



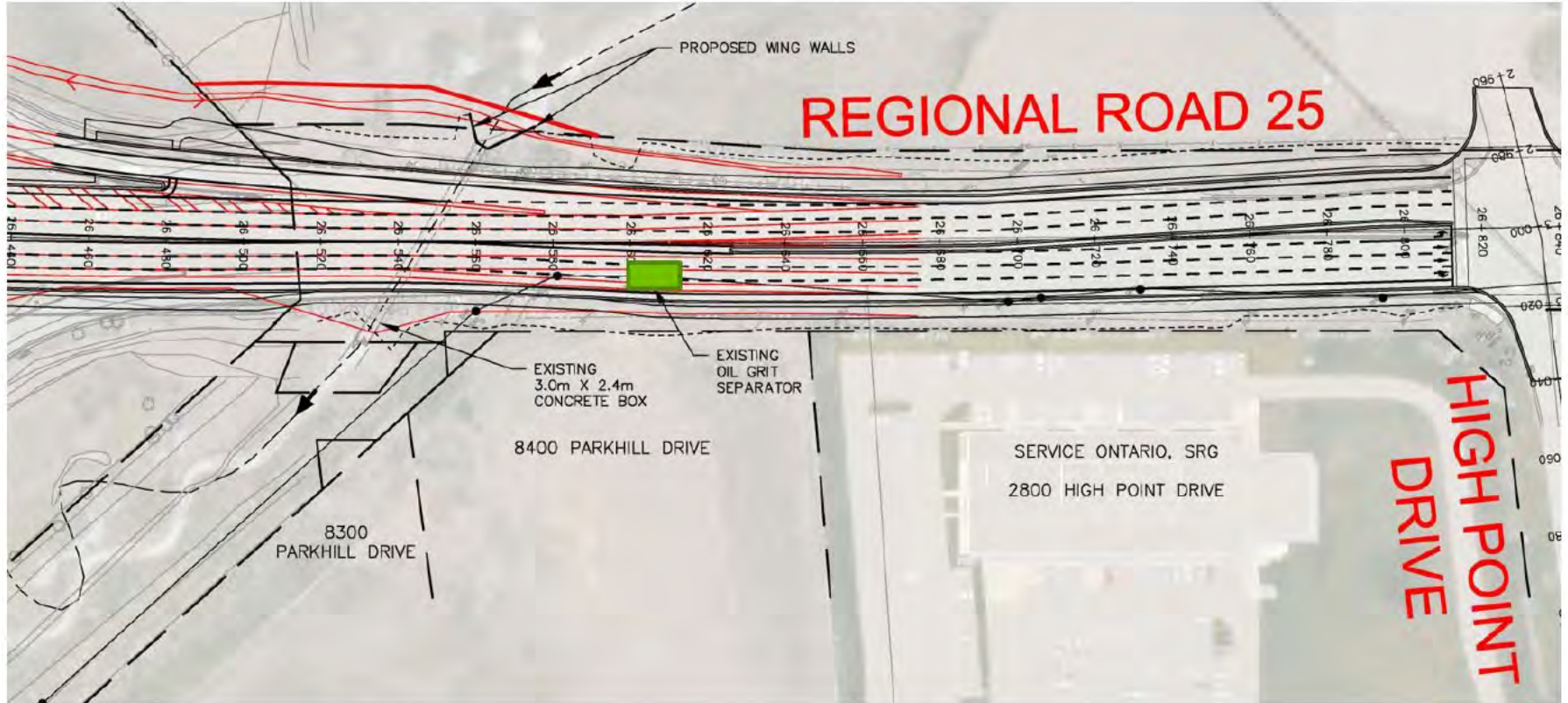
- Construction
- Operations and Maintenance
- Utility Relocation



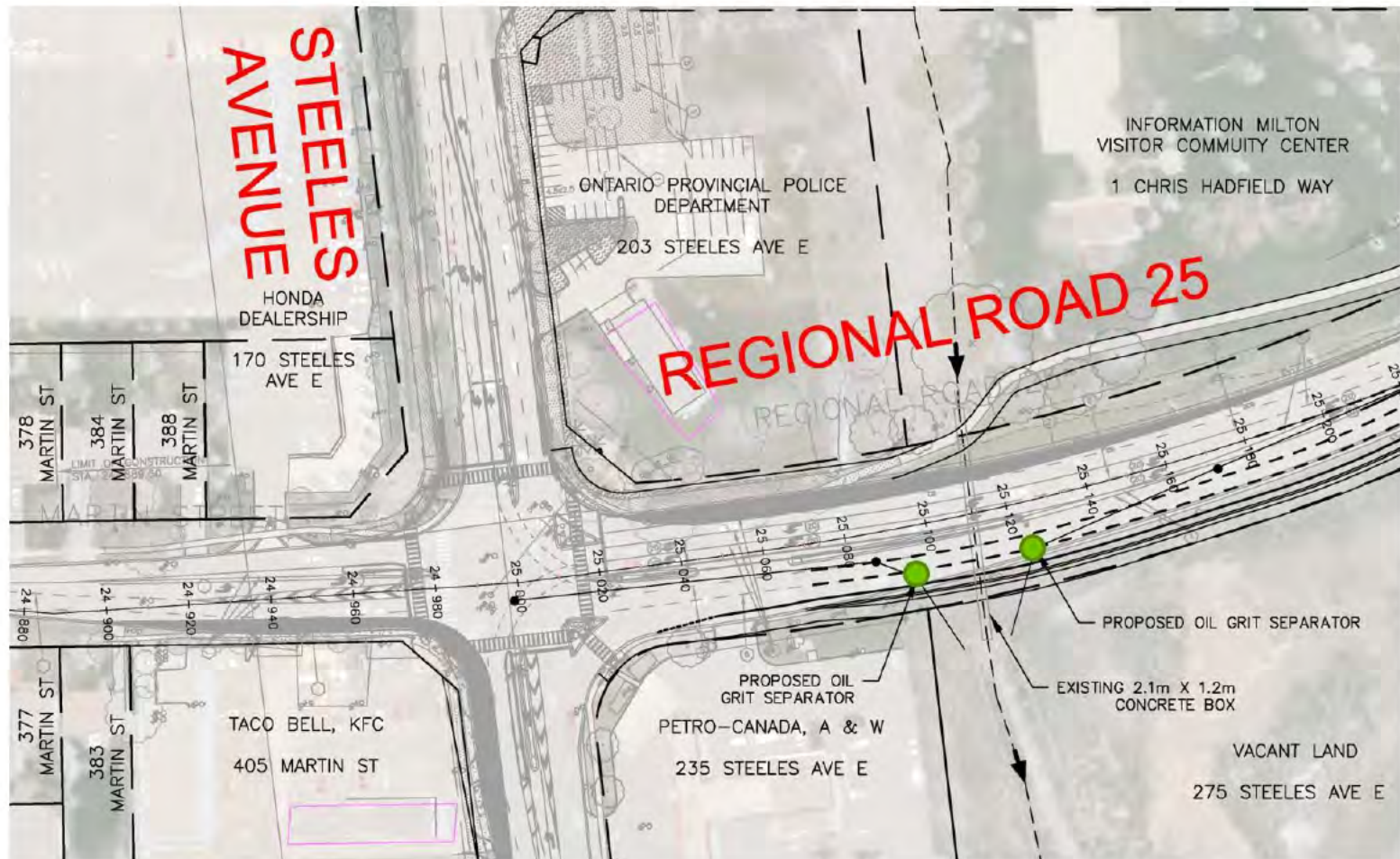
# QUALITY CONTROL APPROACH & LID MEASURES



# Existing OGS (at Culvert 4)

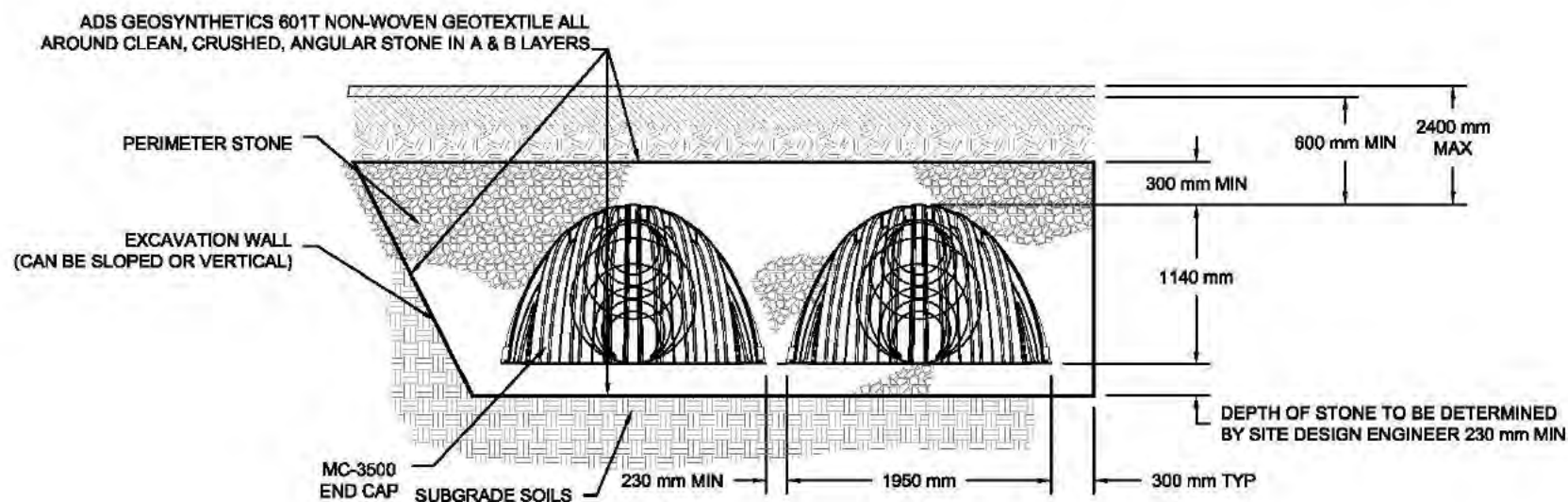


# Proposed OGS (at Culvert 1)





# Potential Low Impact Development (LID)



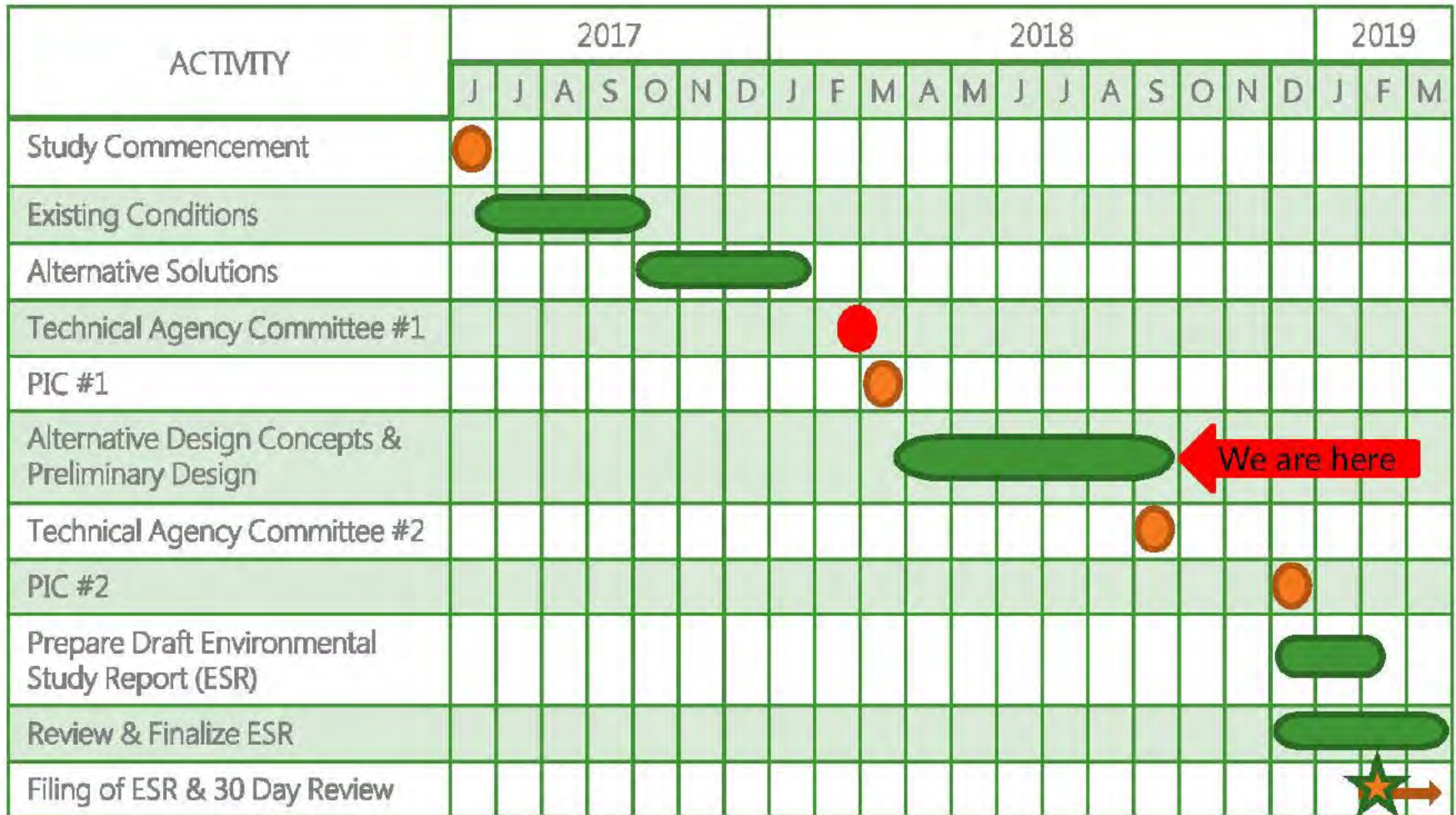
## STORMTECH MC-3500 CHAMBER SYSTEMS

# NEXT STEPS

- Review and incorporate the input received from review agencies, the public, and Indigenous Communities
  - Meetings with Agencies - ongoing
  - TAC Meeting #2 – mid September
  - PIC #2 – December 2018 (tentative)
- Continue developing design alternatives to implement the preferred solution
- Continue to consult with technical agencies and other stakeholder groups
- Conduct PIC #2 to receive input on the preferred preliminary design



# PROJECT SCHEDULE



**Date:** February 21, 2018      **Project Number:** PR-3130A  
**Location:** Teleconference      **Project: 1650-10586**      Regional Road 25 Municipal Class Environmental Assessment (MCEA) Study  
**Time:** 9:00 a.m. to 10:00 a.m.      **Author:** Paula Burnard, Stantec

**Attendees:**

Jeffrey Reid	Halton Region
Ann Larkin	Halton Region
Gord Murray	Stantec Consulting
Steve Donald	Stantec Consulting
Paula Burnard	Stantec Consulting
Michael Vallins	CN
David Cook	CN

**Distribution:** Attendees  
**Purpose:** CN Meeting #1

Item	Details	Action By
<b>1.0</b>	<b>Introductions &amp; Project Background</b>	
1.1	All attendees were introduced.	
1.2	Stantec provided a brief overview of the Municipal Class EA study and project background. Presentation attached.	
<b>2.0</b>	<b>Drainage at CNR</b>	
2.1	The project team explained there are no planned changes to the watercourse crossings as a result of the proposed Regional Road 25 improvements. Flooding concerns are associated with the CN culvert just east of Regional Road 25, with floodwaters backing up onto the Maplehurst Correctional Facility property and Regional Road 25 to Chisholm Drive as shown on Slide 11 of the presentation. Existing pipe culvert is 2.75 m diameter.	
2.2	The Region noted the CN culvert is located outside of the Region's right-of-way. CN indicated the culvert was originally designed in 1963 to accommodate regional flows. Since that time, new developments and road improvements have taken place in the area, that are likely related to flooding impacts. At this time CN is not interested in cost sharing or undertaking culvert improvements.	



Item	Details	Action By
<b>3.0</b>	<b>CN Bridge Replacement Options</b>	
3.1	<p>CN bridge replacement options were reviewed with CN including:</p> <p>Option 1 - Support existing tracks &amp; expand opening under structure. This option includes temporarily supporting the tracks behind the existing abutments and building new abutments for the longer span; and replacing the deck and associated tracks in a single weekend.</p> <p>Option 2 - Track diversion with new structure. This option includes building a temporary structure south of the existing structure, using a single-track rail diversion.</p> <p>CN indicated a preference for Option 2 but requested the Project Team review a third option – replacing the structure on a new alignment to the south (permanent realignment) using a 50mph speed. Option 1 is deemed unacceptable to CN due to the long duration track closure required during construction. A maximum 8-hour track blockage should be possible, with the occasional 12-hour track block to do the tie-ins.</p>	Stantec
3.2	CN will provide written comments and will confirm the existing condition information relating to the culvert and bridge.	CN
3.3	CN will enter into an agreement with the Region prior to design and construction. CN indicated a preference to lead track design, track construction, and overall construction management.	
<b>4.0</b>	<b>Schedule and Next Steps</b>	
4.1	Stantec will review the permanent realignment option, (Option 3) prepare a high-level cost estimate, and evaluate design options for review with CN in late April/early May.	Stantec
4.2	Minutes from the Technical Agency Committee meeting #1 will be forwarded to CN.	Stantec
4.3	The MCEA is scheduled to be completed by the end of 2018, with the review period for the Environmental Study Report (ESR) commencing in early 2019.	

**Encl. Overview presentation (dated February 21, 2018)**

# **Regional Road 25 Transportation Corridor Improvements Municipal Class EA Study**

**Steeles Avenue to 5 Side Road  
Town of Milton/Town of Halton Hills**

CNR Meeting  
February 21, 2018





# AGENDA

1. Introductions
2. Project Overview
3. Problem and Opportunity
4. Existing Conditions
  - Transportation
  - Watercourse Crossings
  - Drainage
  - CNR Crossing
5. CNR Bridge Replacement Options
6. Schedule
7. Next Steps

# STUDY AREA

Halton Region is carrying out a Municipal Class Environmental Assessment (MCEA) Study for improvements to the Regional Road 25 corridor from Steeles Avenue to 5 Side Road in the Town of Milton/ Town of Halton Hills.

- Study area from Steeles Avenue to 5 Side Road, approximately 3 km in length;
- Serves local and inter-regional travel demand, as well as agricultural equipment and goods movement;
- Two structures are located within the study area:
  1. CNR Overpass, north of Steeles Avenue
  2. Highway 401 Overpass (currently under construction)
- A tributary of Sixteen Mile Creek traverses the study area and crosses the CNR just east of Regional Road 25

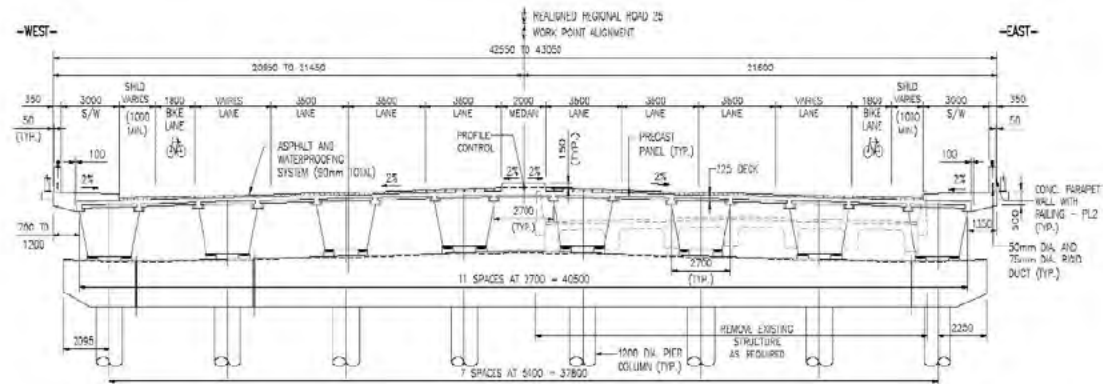




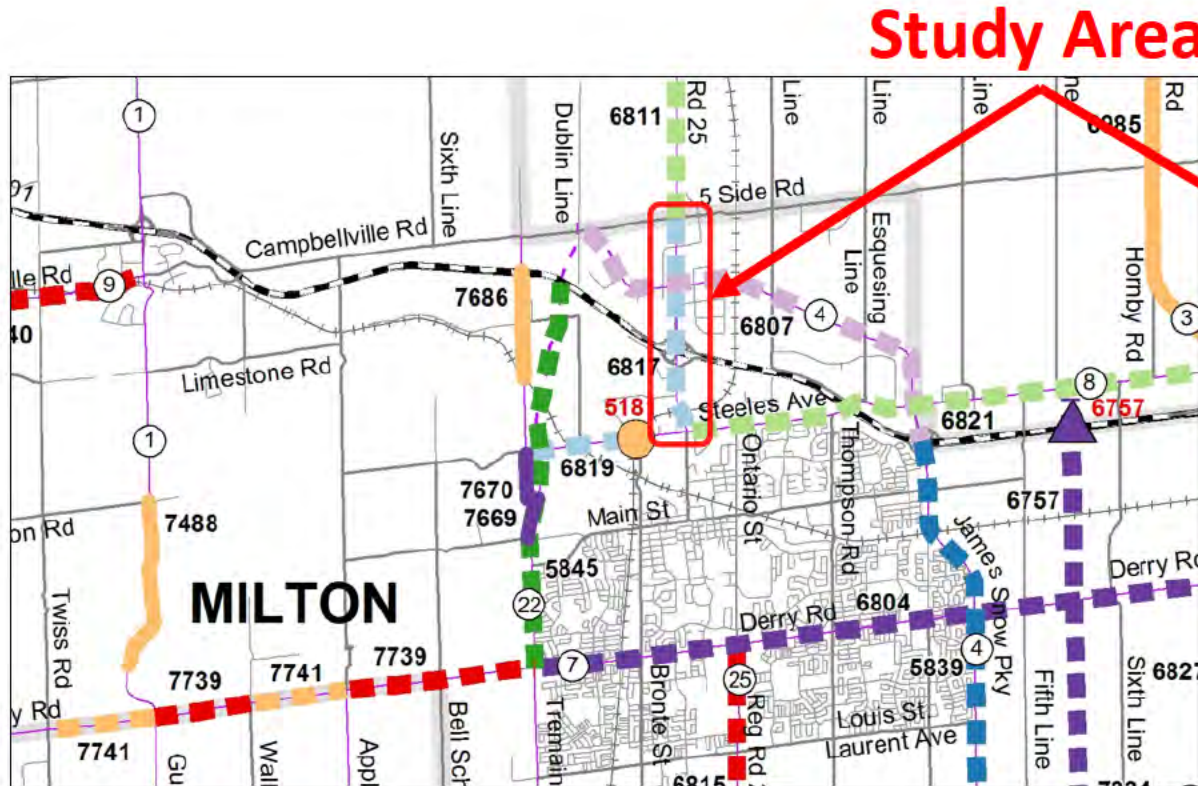
# RELATED STUDIES AND PROJECTS

## Regional Road 25/Highway 401 Interchange Improvements, Ministry of Transportation (2016)

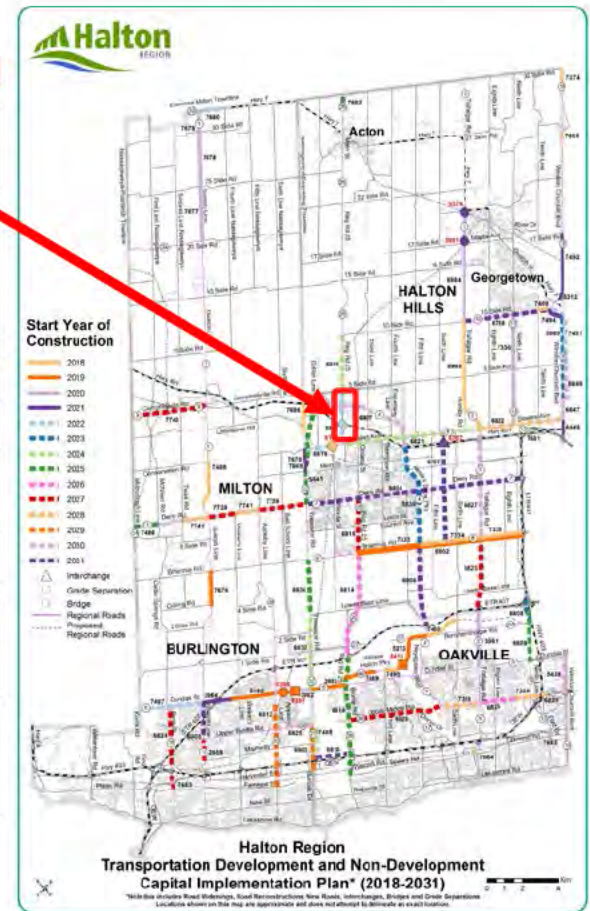
Future Regional Road 25 Cross Section over Highway 401 (Interchange currently under construction)



# HALTON REGION ROADS CAPITAL PROJECTS

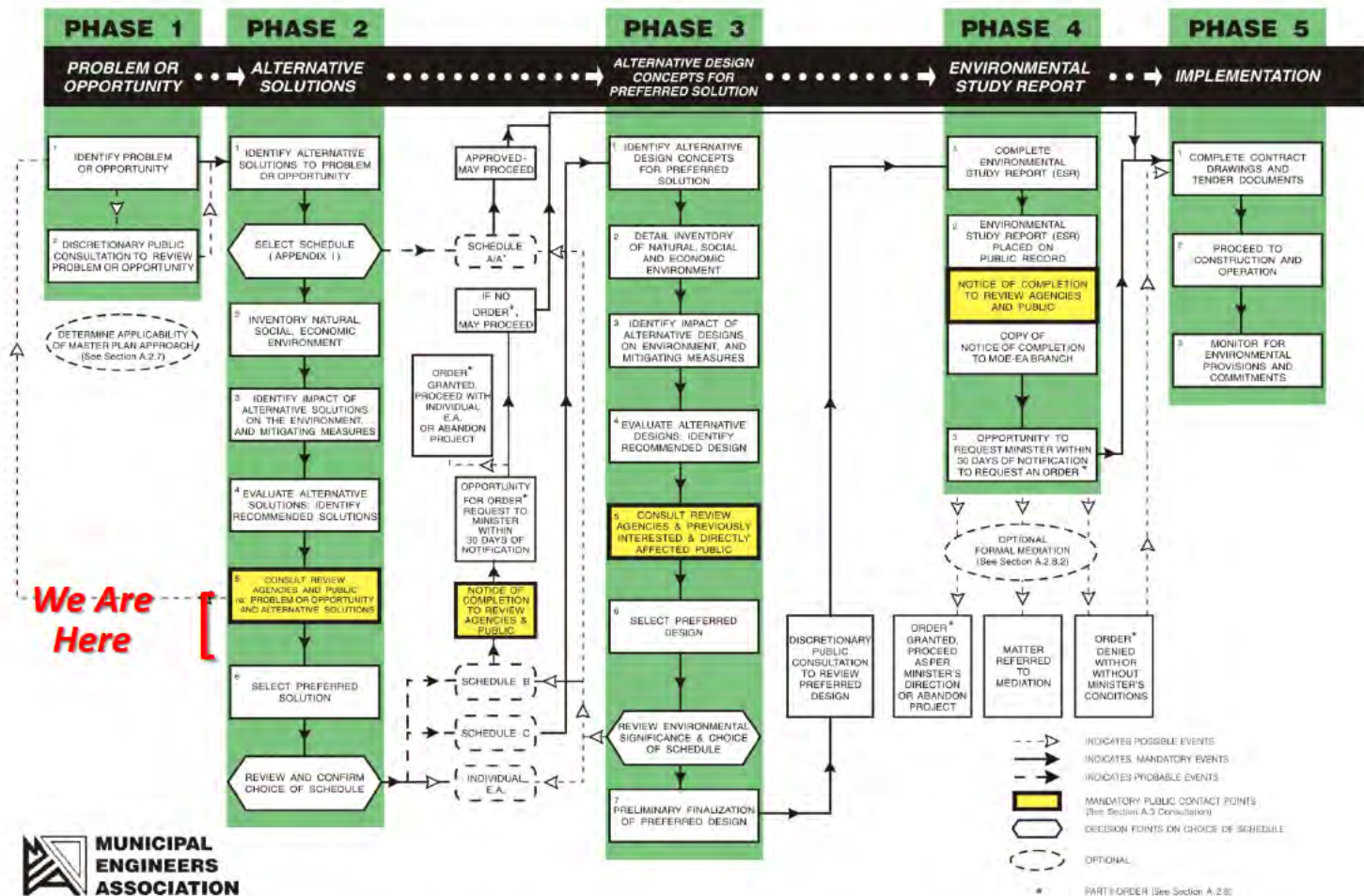


Note: The Road Capital Projects plan is subject to annual Regional Council review





# STUDY PROCESS



Based on the scope of this project, the Regional Road 25 MCEA Study is being planned as a Schedule 'C' project, which will complete Phases 1 to 4 outlined above.



# PROBLEM AND OPPORTUNITY

- Regional Road 25 is currently experiencing delays during peak periods and delays will increase at intersections in the future.
- Future traffic is expected to grow significantly by 2031.
- To support future growth and travel demands, improvements to the Regional Road 25 corridor are required.
- The improved corridor should support all modes of transportation (i.e. active transportation, transit services, inter-regional travel, agricultural vehicles and goods movement).
- Therefore, Halton Region is carrying out this study to address these requirements in accordance with the Municipal Class EA process.

# TRANSPORTATION CONDITIONS

- Providing additional capacity in the Regional Road 25 corridor (i.e., widening to 6 lanes) will alleviate capacity issues at major intersections and will support future growth and development.





# WATERCOURSE CROSSINGS



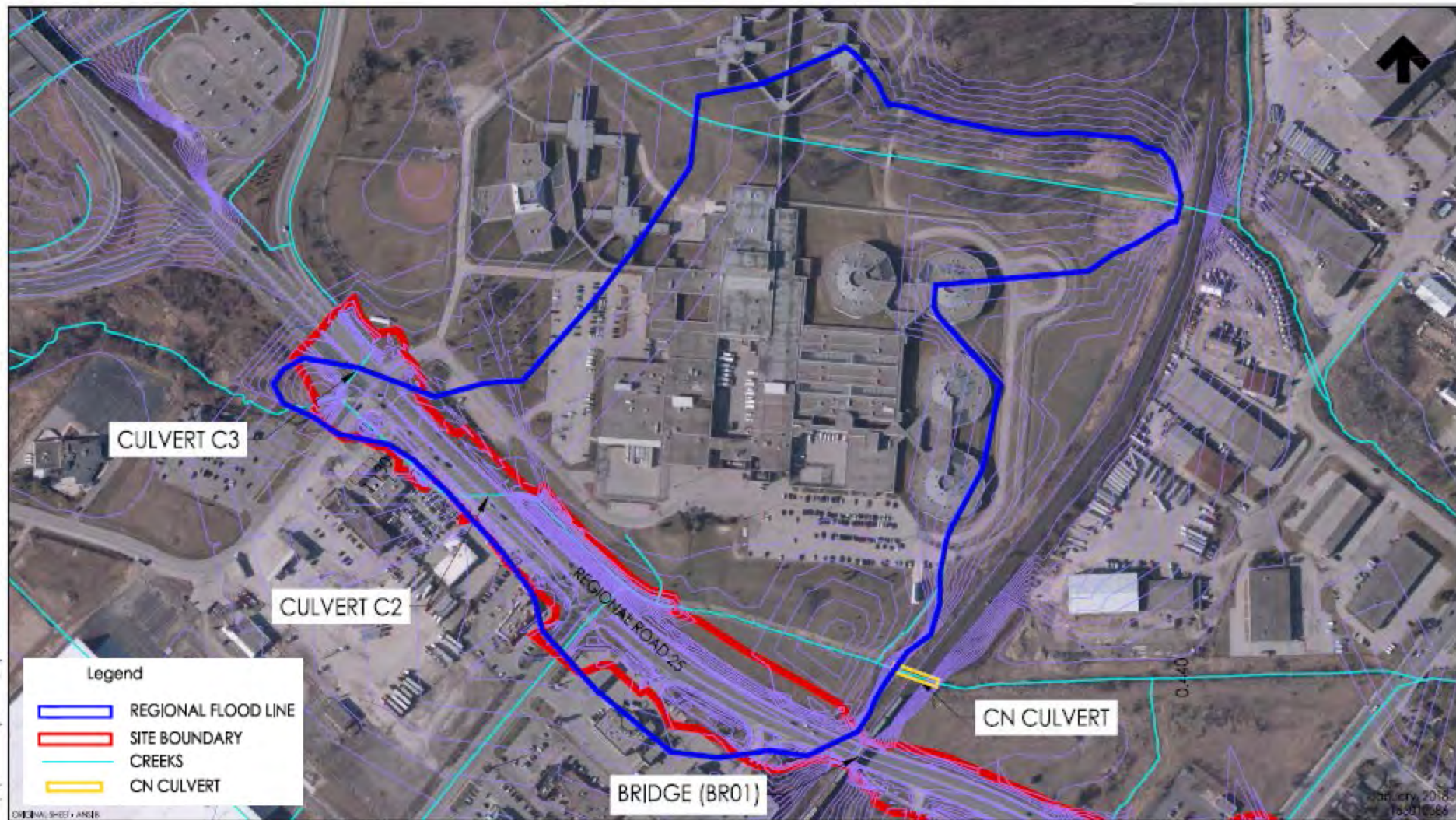
- Tributary to Sixteen Mile Creek crosses Chisholm Drive and Reg. Rd. 25 (C2 and C3)
- N-1A is Regulated Redside Dace habitat and crosses CNR downstream of C2

# EXISTING CONDITIONS – REGIONAL ROAD 25 DRAINAGE

Culvert	Span Size	Length	Type	Drainage Area	Events	Flow	TWL	Computed	Freeboard	Overtopping
ID	(mm)	(m)	(material)	(ha)		(m <sup>3</sup> /s)	(m)	HWL (m)		(Y/N)
C1	2100 x 1200	50	concrete box	58.9	5-Year	1.65	203.4	203.89	2.11	No
					50-Year	3.61	203.5	204.36	1.64	No
					100-Year	4.25	203.5	204.48	1.52	No
					Region Storm	6.86	203.6	204.95	1.05	No
C2	6000 x 2000	40	concrete box	362.9	10-Year	2.91	203.34	203.54	3.21	No
					50-Year	4.24	203.43	203.63	3.12	No
					100-Year	4.74	203.47	203.66	3.09	No
					Region Storm	30.32	207.04	207.06	-0.31	Yes
C3	3000 x 2400	19	concrete box	362.9	10-Year	2.91	204.69	204.79	2.01	No
					50-Year	4.24	204.89	204.97	1.83	No
					100-Year	4.74	204.95	205.24	1.56	No
					Region Storm	30.32	207.22	207.31	-0.51	Yes
C4	3000 x 2400	60	concrete box	658.0	10-Year	5.2	208.83	209.07	2.98	No
					50-Year	7.27	208.9	209.36	2.69	No
					100-Year	8.19	208.92	209.48	2.57	No
					Region Storm	36.29	209.21	211.83	0.22	No



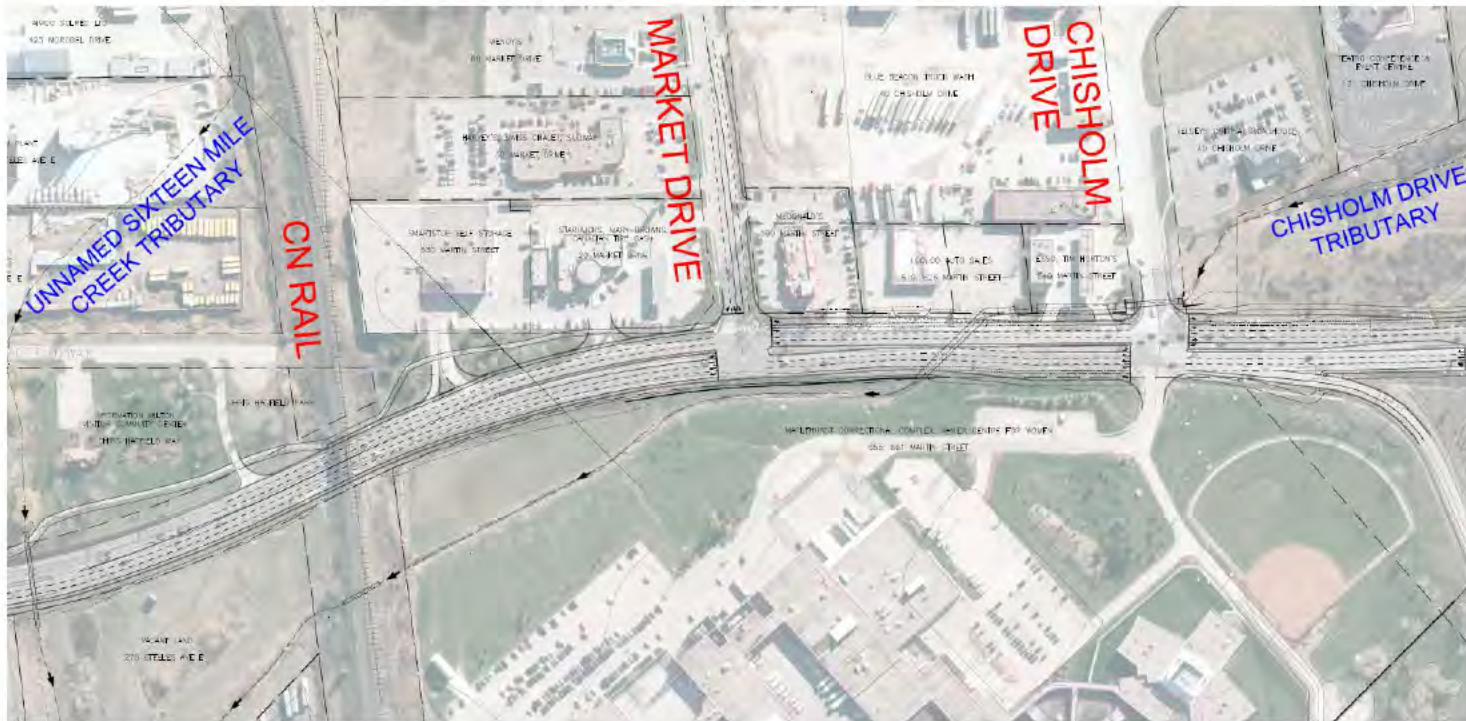
# TRIBUTARY N-1A CULVERT





# REGIONAL ROAD 25 WIDENING

- To accommodate a 6-lane widening option along the corridor (pending outcome of Class EA)





# EXISTING CONDITIONS – CN RAIL CROSSING

- Canadian National built a new spur line in 1963 that crosses over Regional Road 25 (north of Steeles Avenue).
- Two lanes of traffic in each direction are currently accommodated under the overpass.



# REHABILITATION & REPAIR HISTORY– CN RAIL CROSSING

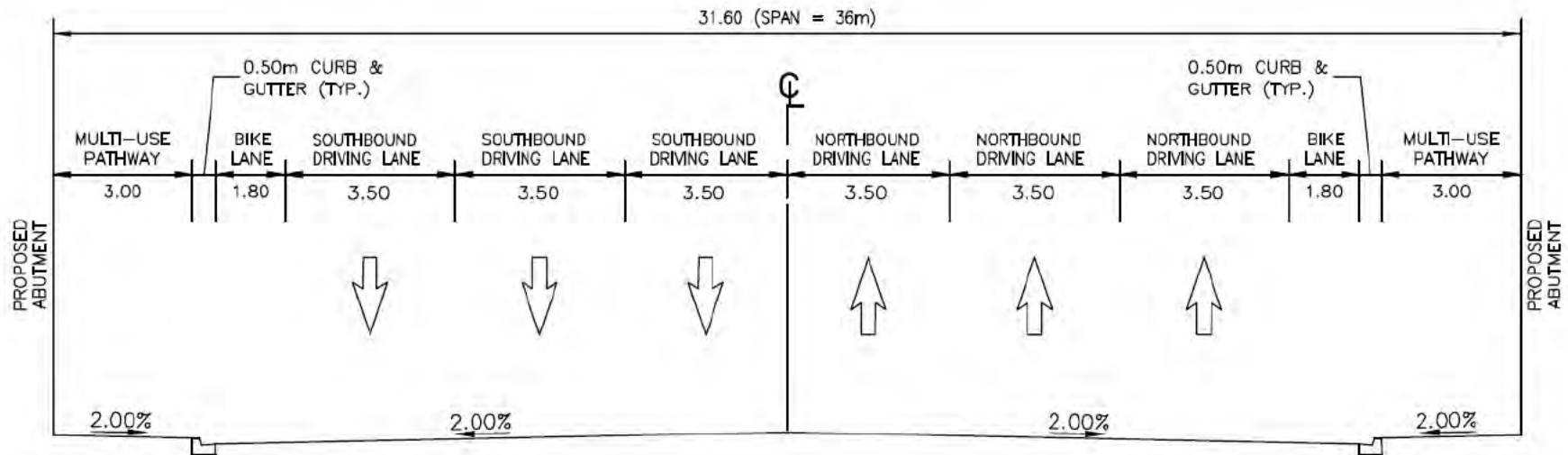
- Built in 1963
- Last major rehabilitation was completed in 1982
- Patch repair of abutments and retaining walls, replacement of missing rivets, touch up of steel coating in 2016





# CNR Underpass

## Proposed Roadway Cross-Section



TYPICAL SECTION – CN RAIL UNDERPASS  
(NTS)

# Options for CNR Underpass

## Option 1 - Support existing tracks & expand opening under structure

- Temporarily supporting the tracks behind the existing abutments and building new abutments for the longer span
- Replace deck and associated tracks in a single weekend
- New structure opening same as Option 1

## Option 2 - Track diversion with new structure

- Build temporary structure south of the existing structure
- Single-track rail diversion
- Structure opening to permit 6 lanes plus on-road bike lanes and 3m wide multi-use pathways on both sides



# Rail Diversion



# Option 1 – Expand Opening Under Structure

## Advantages & Disadvantages

### Advantages

- New bridge span will allow for 6 lanes, as well as on-road bike lanes and multi-use pathways on both sides
- Existing track alignment will not be affected

### Disadvantages

- Highest complexity of bridge construction
- Numerous night work blocks over an extended period to build piling for temporary track supports and new abutments
- 48-72 hr. track closure to remove and replace deck



# Option 2 – Track Diversion/New Structure

## Advantages & Disadvantages

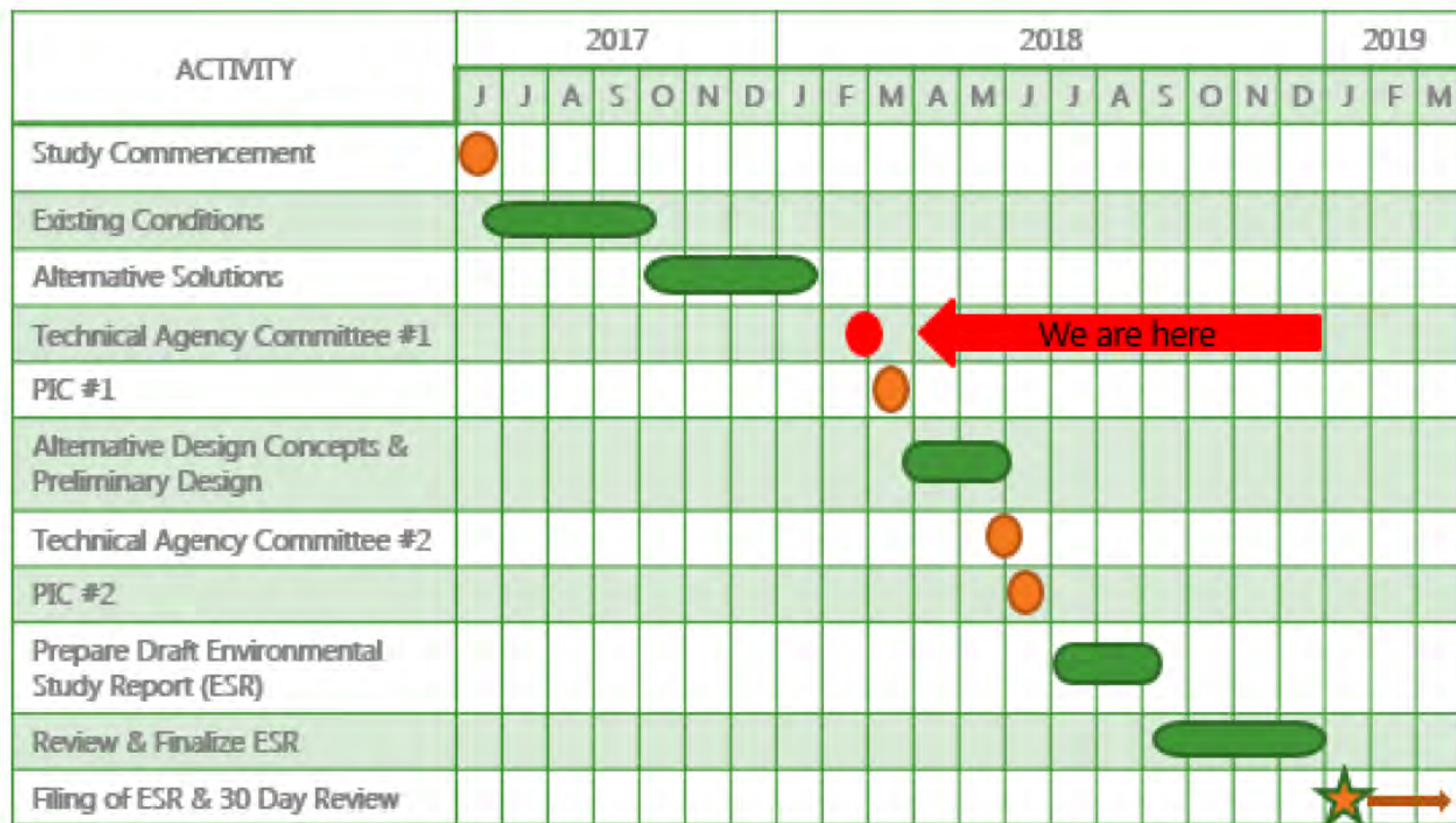
### Advantages

- New bridge span will allow for 6 lanes as well as on-road bike lanes and multi-use pathways on both sides
- Extended service life of bridge (new structure)

### Disadvantages

- Geometric challenges due to curvature at both ends of diversion
- Long section of track impacted
- Two new switches needed and existing switches removed
- Construction of temporary diversion would require a number of work blocks
- 2 - 12hr track closures to construct tie-ins

# PROJECT SCHEDULE





# NEXT STEPS

- Review and incorporate the input received from review agencies, the public, and Indigenous Communities
  - Meetings with Agencies - ongoing
  - TAC Meeting #1 – February 22 (9:00 – 11:00am)
  - PIC #1 – March 8 (drop-in from 6:30 – 8:30pm)
- Confirm preferred alternative solution and design alternatives
- Continue to consult with technical agencies and other stakeholder groups
- Conduct PIC #2 to receive input on the preferred preliminary design

**Date:** July 26, 2018      **Project Number:** PR-3130A  
**Location:** 1 Administration Road, Concord, ON      **Project: 1650-10586**      Regional Road 25 Municipal Class Environmental Assessment (MCEA) Study  
**Time:** 9:30 a.m. to 10:30 a.m.      **Author:** Gord Murray, Stantec  
**Attendees:**  
Michael Vallins      CN Rail  
Ann Larkin      Halton Region  
Jeffrey Reid      Halton Region  
Steve Donald      Stantec  
Gord Murray      Stantec  
**Distribution:** Attendees, Paula Burnard, David Moura  
**Purpose:** CN Rail Meeting #2

Item	Details	Action By
<b>1.0</b>	<b>Project Status Update</b>	
1.1	All attendees were introduced.	
1.2	<p>Previous teleconference with CN staff (February 21, 2018) provided a summary of alternatives for the rail crossing that the Regional Road 25 Project Team had been developing.</p> <p>Stantec provided a brief presentation (attached) of the Regional Road 25 Municipal Class Environmental Assessment (MCEA) Study. The Project Team presented the following items:</p> <ul style="list-style-type: none"> <li>• Project Overview</li> <li>• Development of Preliminary Alternative Designs</li> <li>• Review of Design Considerations</li> <li>• CNR Bridge Replacement Options</li> <li>• CNR Culvert</li> <li>• Next Steps</li> </ul> <p>Overall, there is a need to widen Regional Road 25 from 4 to 6 lanes, including intersection improvements and active transportation (both on-road and off-road) facilities.</p>	
<b>2.0</b>	<b>Preliminary Alternative Designs</b>	
2.1	Within the Regional Road 25 Corridor, the development of the preliminary alternative designs considered the following widening alternatives, from 4 to 6 lanes:	



Item	Details	Action By
	<ul style="list-style-type: none"> <li>Alternative 1 – widen symmetrically on both sides of existing centreline</li> <li>Alternative 2 – widen to the east of existing centreline (holding west property line)</li> <li>Alternative 3 – widen to the west of existing centreline (holding east property line)</li> <li>Alternative 4 – “Best Fit” (combination of Alternatives 1, 2 &amp; 3)</li> </ul> <p>Along Regional Road 25, the preliminary alternative designs considered the cross-section elements, property constraints, access, drainage considerations, etc.</p> <p>In addition to developing preliminary alternative designs for the roadway widening, a number of alternatives for the reconstruction of the railway crossing have been developed that will address the need for a widened roadway on Regional Road 25. This includes six through lanes, 1.0 m centre median, 1.8 m on-road bike lanes and 3.0 metre multi-use pathways (both sides of the road).</p>	
3.0	<b>CNR Bridge Replacement Options</b>	
3.1	The four options developed for the rail crossing include:	
	<ul style="list-style-type: none"> <li><b>Option 1</b> – Maintain the existing bridge structure, which permits 3 northbound and 2 southbound lanes underneath it, plus two new pedestrian/cyclist tunnels behind the abutments.</li> </ul>	
	<ul style="list-style-type: none"> <li><b>Option 2</b> – Construct new abutments and lengthen bridge, Remove the fill embankment sufficiently to construct new abutments, remove the existing abutments and rail deck and place the new deck and track on the new abutments.</li> </ul>	
	<ul style="list-style-type: none"> <li><b>Option 3</b> – Construct a temporary single-track rail diversion to the south (of the existing bridge), by temporarily diverting rail traffic to the bridge and replace the existing bridge with a new structure (i.e. – temporary diversion).</li> </ul>	
	<ul style="list-style-type: none"> <li><b>Option 4</b> – Construct a new (permanent) bridge south of the existing bridge and divert the tracks to the new bridge (i.e. – permanent diversion).</li> </ul>	
3.2	CN cannot support Options 1 and 2, as the anticipated track closures of 48 to 72 hours are not acceptable to rail operations. The impact is too great to consider such long closures. Even with considering the potential use of GEXR/Metrolinx tracks for train storage, these are not viable options. Equally important, these Options pose safety issues during the construction stage as workers would be required to work within a ‘live’ track, and inside the required setbacks from rail traffic for much of the time.	
	At this time, the preliminary recommendation is Option 4 (permanent realignment on new southerly bridge) based on the results of an evaluation of a number of factors, including rail safety, worker safety, constructability, cost, and ability to meet the Region's transportation objectives.	

Item	Details	Action By
	CN indicated that either Option 3 or 4 are viable options, and acceptable from both a constructability and safety perspective. Cutting a track and relocating it on a new alignment is relatively commonplace. In addition, from a safety perspective, workers would be able to work outside the required rail setbacks for the vast majority of the work.	
3.3	<p>Additional details of the proposed alignment and construction were discussed, including matching to the proposed alignment for the upcoming Steeles Avenue overpass reconstruction, and permanent track realignment (also on the south side of the existing track). The track realignment required for the Steeles Avenue reconstruction will be accommodated "and matched" as part of the Regional Road 25 improvements.</p> <p>The Regional Road 25 Environmental Study Report (ESR) will highlight that both Options 3 and 4 are acceptable to CN. While the ESR will recommend Option 4, this will be confirmed during detail design, through further consultation with CN.</p>	
4.0	<b>CNR Culvert</b>	
4.1	<p>There is an existing culvert (east of Regional Road 25) along the CN tracks, which has insufficient capacity to accommodate a Regional storm event. As such, under Regional storm events, both Regional Road 25 and the Maplehurst Correctional Complex are subject to severe flooding.</p> <p>To mitigate flooding during a Regional storm event, the Region is proposing to increase the flow capacity of the culvert by adding two relief culverts adjacent to the existing CN culvert.</p> <p>CN indicated that they would pay for either the rehabilitation or replacement of the existing culvert (if required), which will be confirmed during detail design.</p>	
5.0	<b>Next Steps</b>	
5.1	As identified in the Region's approved Roads Capital Program (2018-2031), the Regional Road 25 improvements are currently identified for start of construction in 2022.	
5.2	The Region will provide CN Rail a formal letter requesting confirmation that Options 3 or 4 are both acceptable, and acknowledge that relief culvert(s) are required.	Region
<b>Meeting adjourned at 10:30 a.m.</b>		

**STANTEC CONSULTING LTD.**


Gord Murray, P.Eng., PTOE  
Principal, Transportation  
gordon.murray@stantec.com



# **Regional Road 25 Transportation Corridor Improvements Municipal Class EA Study**

**Steeles Avenue to 5 Side Road  
Town of Milton/Town of Halton Hills**

CNR Meeting  
July 26, 2018



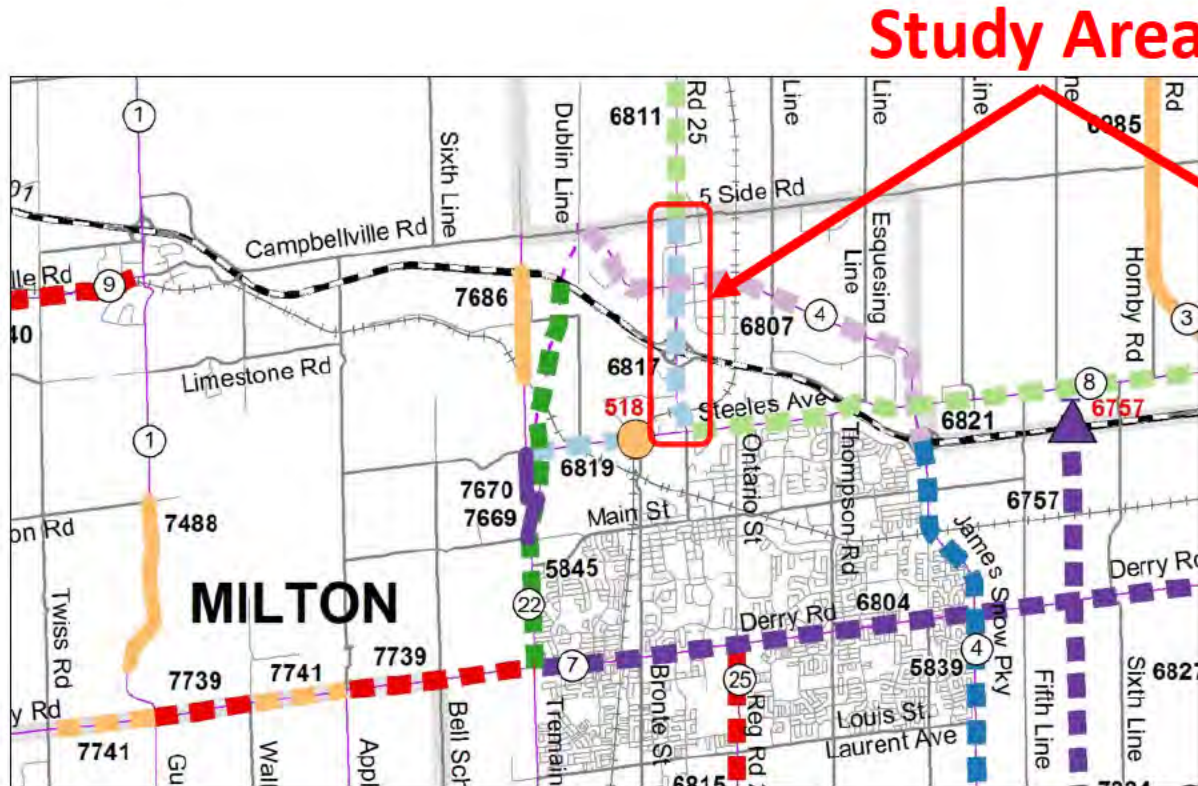
# AGENDA

1. Introductions
2. Project Overview
3. Development of Preliminary Alternative Designs
4. Review of Design Considerations
5. CNR Bridge Replacement Options
6. CNR Culvert
7. Next Steps

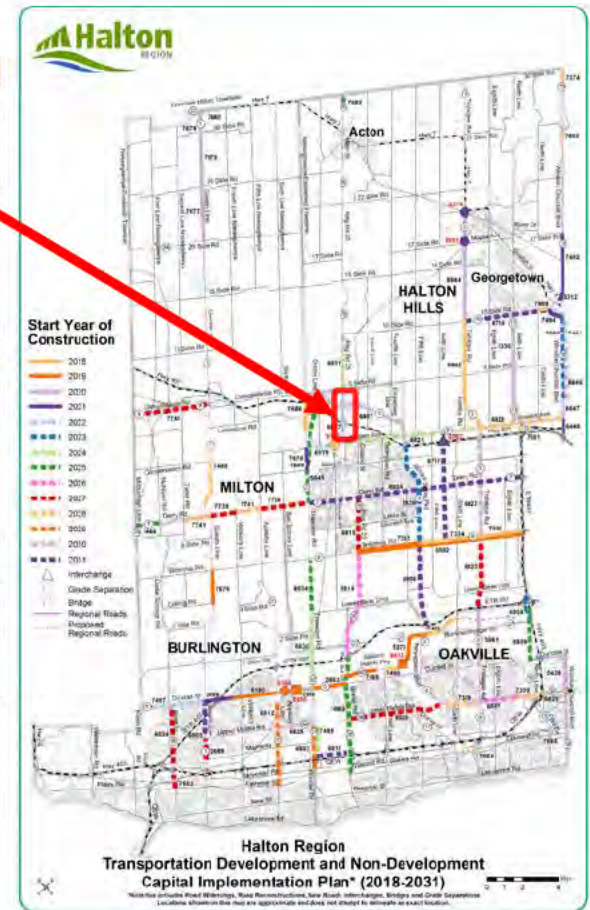




# HALTON REGION ROADS CAPITAL PROJECTS

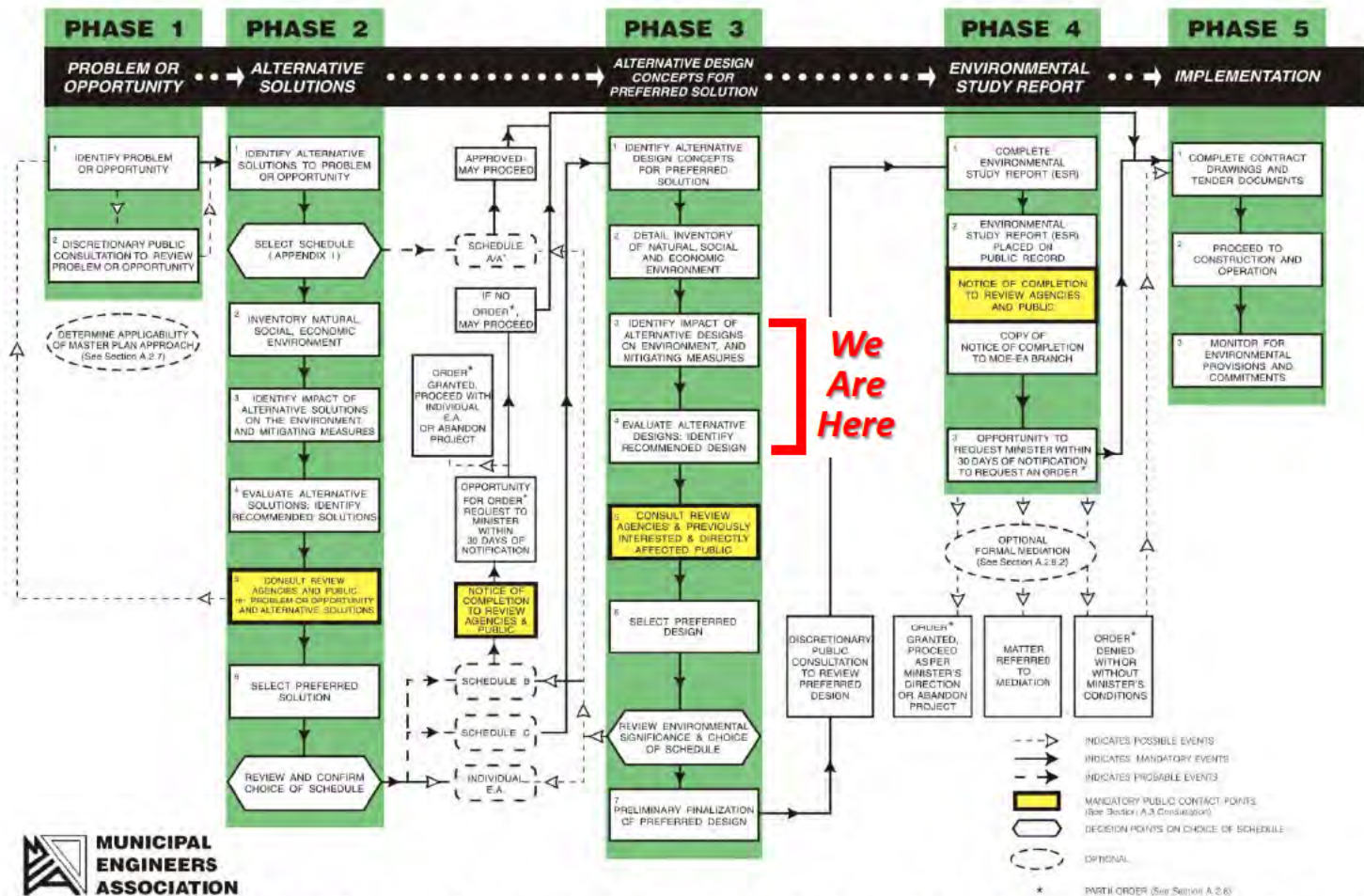


*Note: The Road Capital Projects plan is subject to annual Regional Council review*





# STUDY PROCESS



Based on the scope of this project, the Regional Road 25 MCEA Study is being planned as a Schedule 'C' project, which will complete Phases 1 to 4 outlined above.





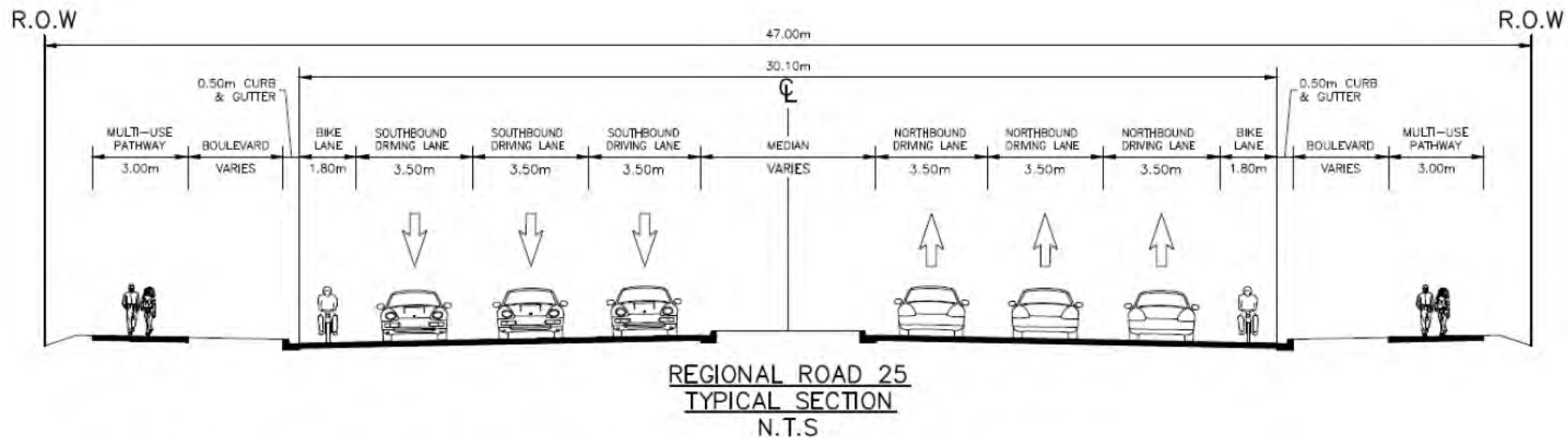
# PLANNING ALTERNATIVES

The following Planning Alternatives have been considered:

A combination of improvements to be carried forward and preliminary alternative designs to be developed.

Alternatives	Description	Evaluation Summary	Recommendation
<b>Do Nothing</b>	Status quo; only planned improvements will be in place, including the widening of Steeles Avenue, the James Snow Parkway extension, and the Tremaine Road realignment (with interchange)	Does not address needs within the study area	Not recommended for further consideration (for comparison purposes only)
<b>Limit Development</b>	Limit development within the Town of Milton/Town of Halton Hills	Future projections have been based on approved future urban area within the Halton Region and local municipal Official Plans	Do not carry forward
<b>Travel Demand Management Measures</b>	Measures to manage travel demand, such as carpooling, flexible work hours, telecommute, etc.	On their own, TDM measures do not address the problem, and are part of the Region's overall transportation strategy	Carry forward within overall strategy
<b>Improved Transit Service/ Other Modes of Transportation</b>	Continue to support transit services and provide facilities for active transportation use to accommodate pedestrians and cyclists	On their own, these measures do not address the problem, while part of the Region's overall transportation strategy	Carry forward within overall strategy
<b>Intersection and/or Operational Improvements</b>	Enhance operations of roadways through minor improvements (i.e. traffic signals, provision of turning lanes, etc.)	On their own, do not address the problem while part of the Region's overall transportation strategy	Carry forward within overall strategy
<b>Improvements to Other Roadways</b>	Widen regional roadways in the immediate study area beyond planned improvements (e.g. Steeles Avenue, James Snow Parkway, and Tremaine Road)	Part of the Region's overall transportation strategy (Transportation Master Plan)	Part of overall Regional transportation strategy
<b>Improvements to Regional Road 25</b>	Improvements to the Regional Road 25 corridor, including provision for active transportation	Needs identified in Halton Region Transportation Master Plan to support future growth	Carry forward within overall strategy

# TYPICAL 6 LANE CROSS-SECTION



The typical cross-section will accommodate the following improvements:

- 47 m right-of-way
- 6-lane roadway
- Accommodates continuous pedestrian and cycling facilities
  - 3.0 m multi-use trail (both sides of the road)
  - 1.8 m exclusive bike lane (both sides of the road)
- Opportunity for landscaping within right-of-way



# Development of Preliminary Alternative Designs

- Consideration was given to the following widening alternatives (four to six lanes) for Regional Road 25 between Steeles Avenue and 5 Side Road:
  - **Alternative 1** - Widen symmetrically on both sides of existing centreline
  - **Alternative 2** - Widen to the east of existing centerline (holding west property line)
  - **Alternative 3** - Widen to the west of existing centerline (holding east property line)
  - **Alternative 4** - “Best Fit” (combination of Alternates 1, 2 & 3)

# Preliminary Alternative Designs – Steeles Avenue to Market Drive

- Approach to development of preliminary alternative designs used a “Best Fit” approach considering:
  - Cross section elements
  - Property constraints
  - Access management considerations
  - Sixteen Mile Creek Tributary with SAR habitat
  - Drainage considerations

# FACTORS/CRITERIA FOR EVALUATION

Design alternatives will be developed and reviewed based on comments received from Agencies, Stakeholders and members of the Public, and evaluated based on the following factors:

## Socio-Economic Environment



- Existing and Future Land Uses
- Industrial/Commercial Operations
- Institutional/Recreational Uses
- Potential Property Requirements
- Property Access
- Noise Levels
- Illumination
- Air Quality

## Cultural Environment



- Built Cultural Heritage
- Cultural Heritage Landscapes
- Archaeological Resources

## Natural Environment



- Vegetation
- Wildlife
- Creek Crossings
- Natural Hazards
- Policy Areas

## Transportation



- Corridor Capacity and Operations
- Intersection Capacity and Operations
- Geometric Standards
- Access Management
- Construction Staging
- Active Transportation

## Engineering Considerations



- Structural Requirements (CNR Overpass, Culverts)
- Municipal Services/Utilities
- Construction Staging
- Drainage and Stormwater Management

## Preliminary Cost Estimate

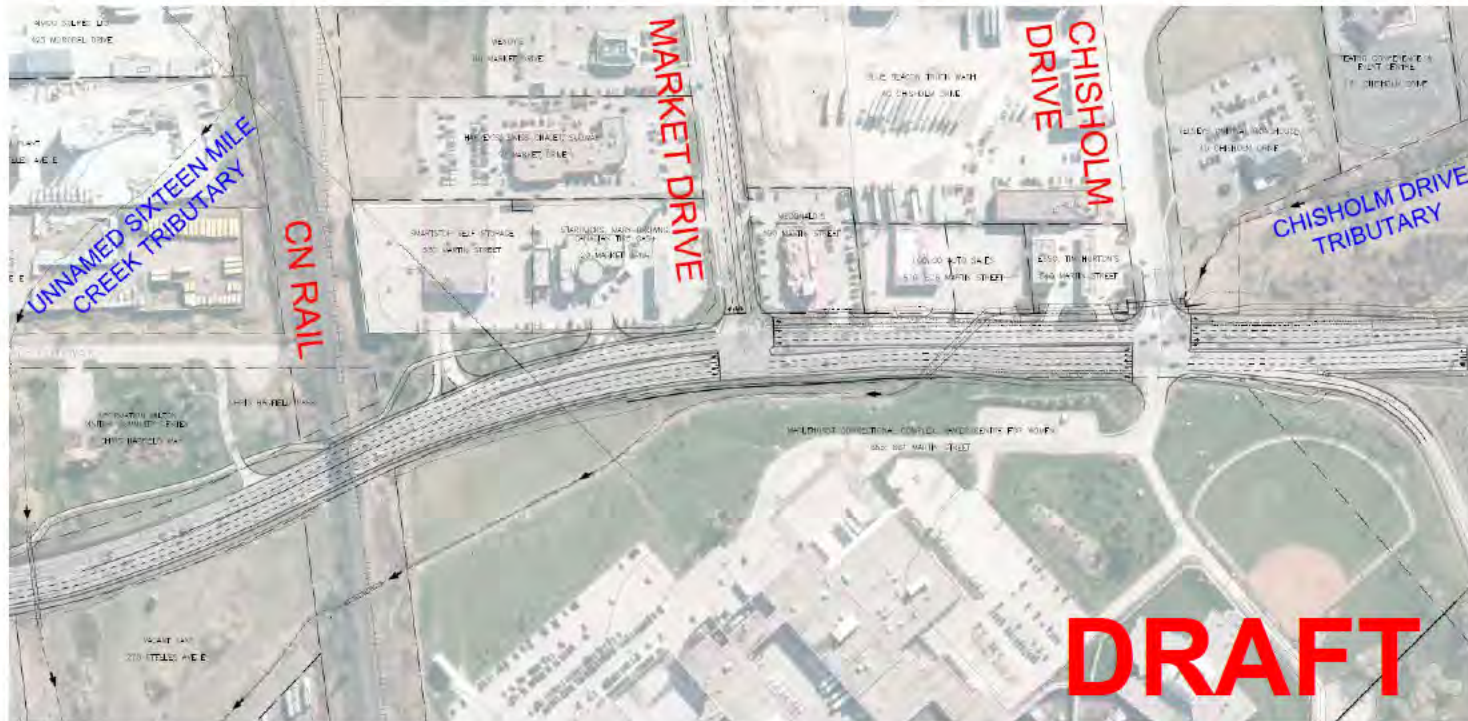


- Construction
- Operations and Maintenance
- Utility Relocation



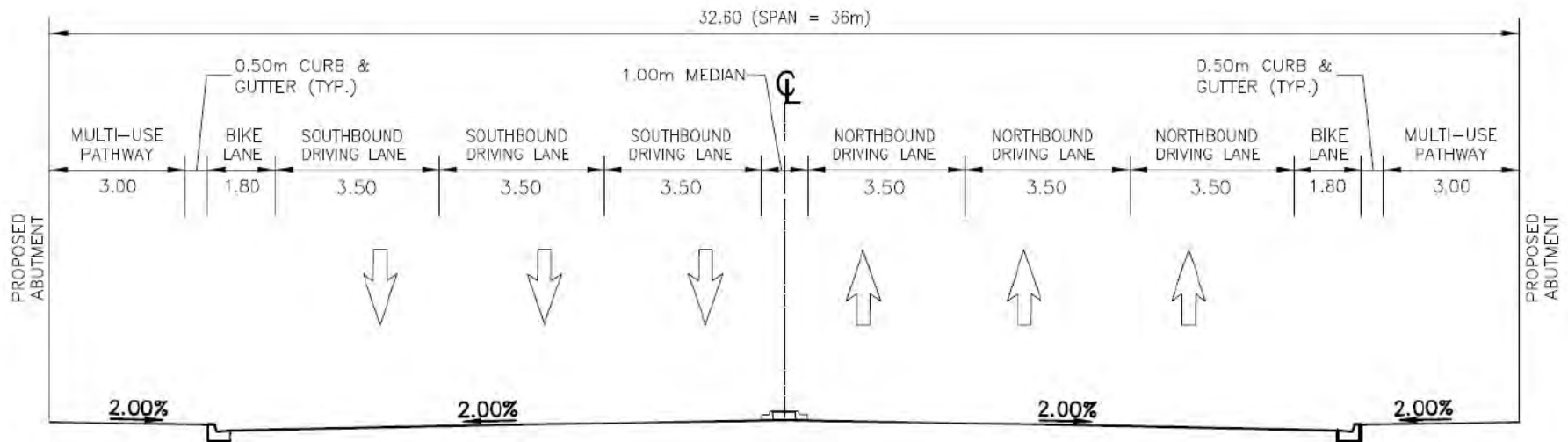
# REGIONAL ROAD 25 WIDENING

- To accommodate a 6-lane widening option along the corridor (pending outcome of MCEA Study)



# CNR Underpass

## Proposed Roadway Cross-Section



TYPICAL SECTION – CN RAIL UNDERPASS  
(NTS)

# Option 1: Maintain the Existing Bridge Structure (Do Nothing)

- Existing 21m wide opening accommodates 5 through lanes ( $5 \times 3.5\text{m} = 17.5\text{m}$ )
- Requires open-cutting or tunneling 4m x 3m box structures into the embankments on either side of structure for pedestrian/cyclist pathways
- Tunneling requires very few work blocks, with a low potential to impact railway operations
- Open-cutting requires a 48hr track closure
- Option does not accommodate full cross-section
- Substantially less costly than the other options



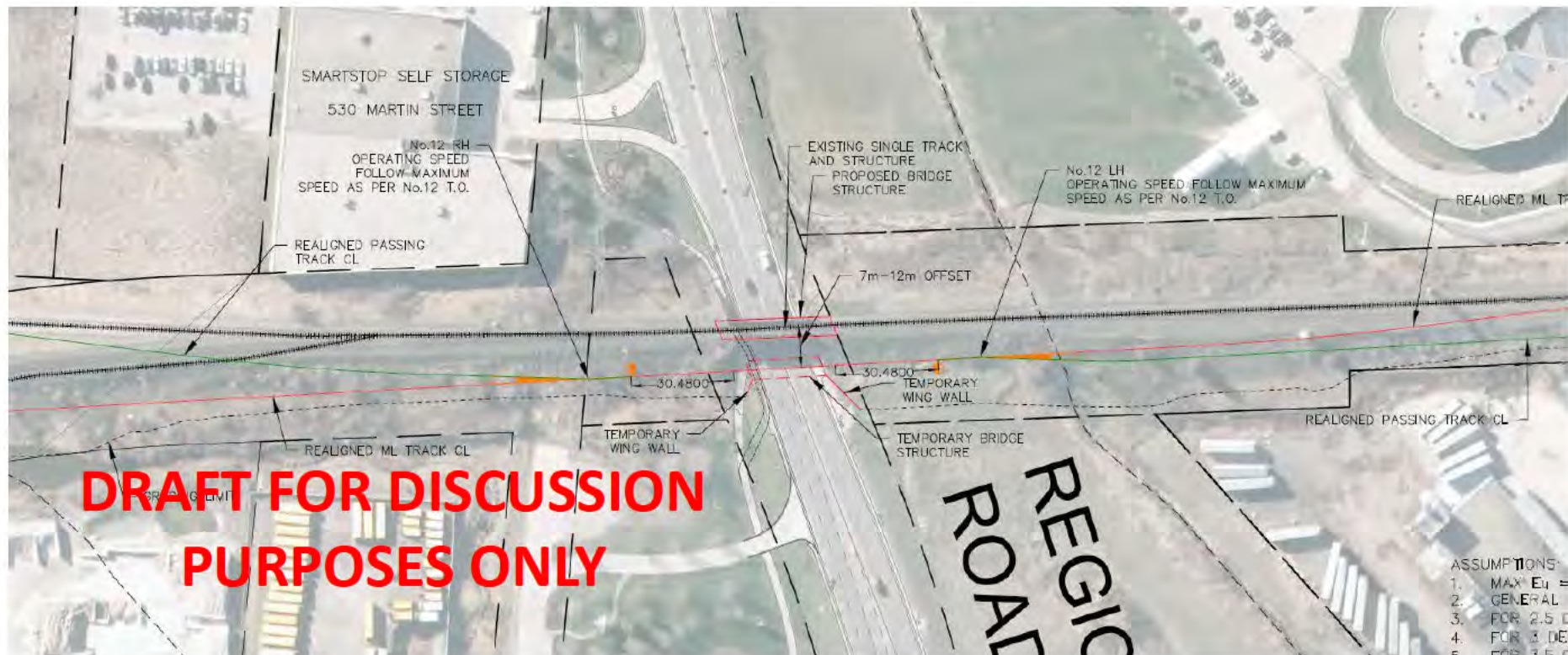
# Option 2: Construct New Abutments and Lengthen Bridge (In-Place)

- Bridge construction complex
- Track alignment not impacted
- Replace deck and associated tracks in a single weekend
- Requires numerous nightly work blocks over an extended period (for temporary track supports and new abutments)
- Requires a 48 – 72hr closure to remove and replace the track deck

# Option 3: Temporary Single-Track Rail Diversion to the South

- No impact to existing (permanent) track alignment
- Diversion track meets CN minimum standards and 45 mph operating speed
- Requires construction of temporary bridge, rebuilding of track and two switches
- Requires a number of night-time work blocks and two – 12hr track closures
- Allows for new relief culverts under the railway embankment
- Highest capital costs

# Temporary Single-Track Rail Diversion to the South (Option 3)

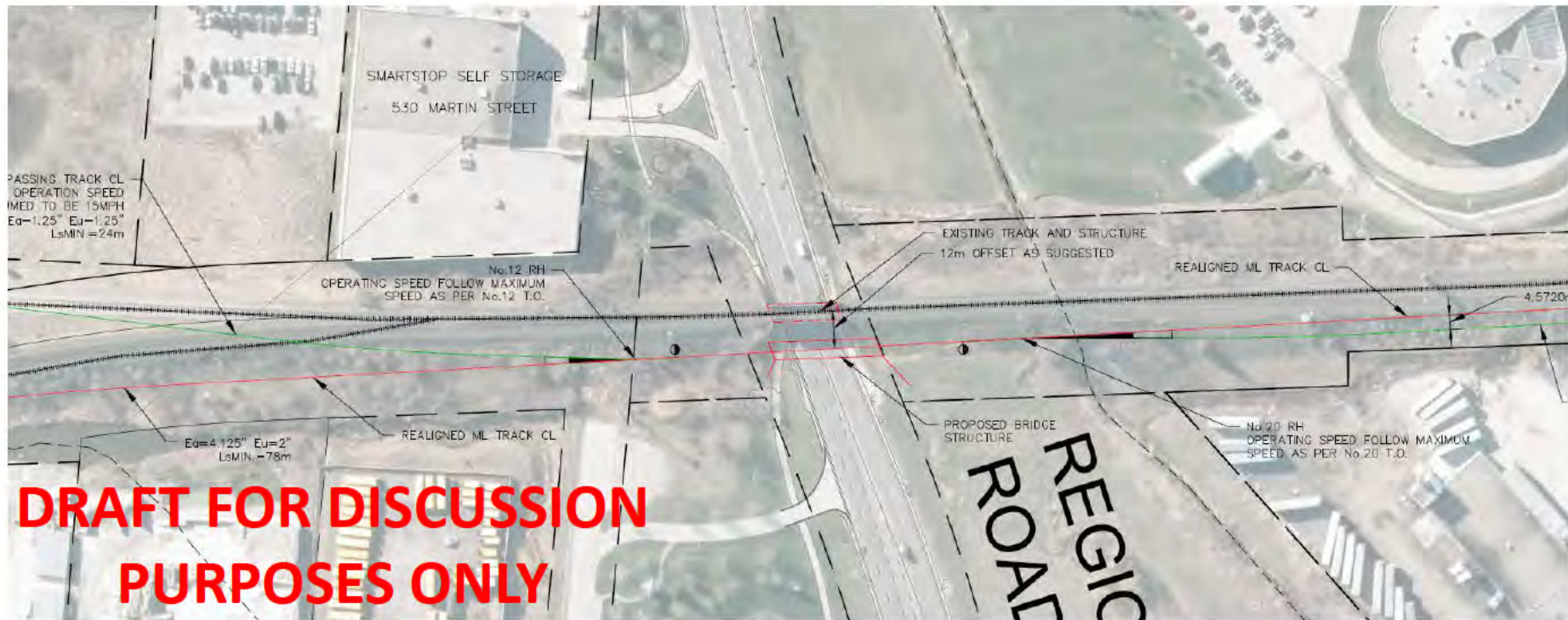




# Option 4: Single-Track Permanent Realignment on a New Bridge

- Introduces minor impacts on private properties south of the existing rail corridor
- Impacts long section of track and two existing switches
- Requires a number of work blocks and notably two – 12hr track closures
- Similar to Option 2, allows for new relief culverts under the railway embankment
- Lower capital cost than Option 2

# Permanent Single-Track Permanent Realignment on New Bridge (Option 4)





# CN Options – Summary Table

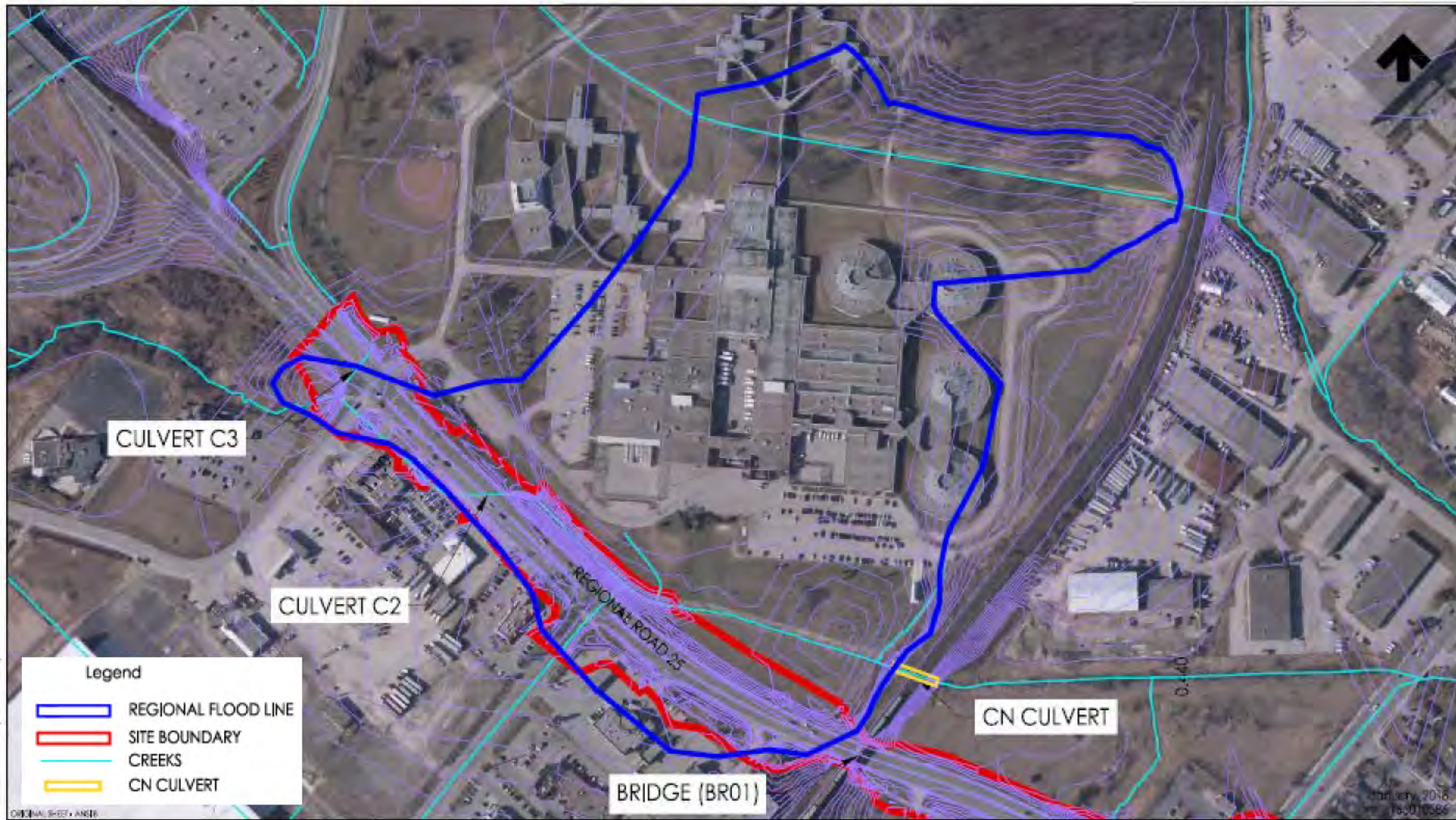
	<u>Option 1</u> Maintain the Existing Bridge Structure (Do Nothing)	<u>Option 2</u> Construct New Abutments and Lengthen Bridge (In Place)	<u>Option 3</u> Temporary Single- Track Rail Diversion to the South	<u>Option 4</u> Single-Track Permanent Realignment on a New Bridge
<b>Accommodates RR25 Cross-section</b>	No	Yes	Yes	Yes
<b>Closures (Track/Road)</b>	Long duration track closure required during construction	Numerous nightly work blocks and 48 – 72hr track closure	Night-time work blocks and two 12hr track closures Minimizes the impact on rail operations and roadway disruption	
<b>Constructability</b>	Open-cutting or tunneling required for pathways	Highest bridge construction complexity	Rebuild of long section of diversion track, plus passing track and two switches replaced	
<b>Cost</b>	Lowest Cost compared to all options	“throw-away costs”	Highest capital cost	Lower capital cost compared to Option 3
<b>Summary</b>	<b>Not Recommended</b>	<b>Not Recommended</b>	<b>Not Recommended</b>	<b>Recommended</b>



# CNR Culvert (BR02)

- Existing Conditions HEC-RAS model shows water at elevation 207.08m during a Regional storm event causing flooding of the following areas:
  - Regional Road 25: the road will be flooded from south of Steeles Avenue to Chisholm Drive
  - Maplehurst Correctional Complex: The facility will be subject to severe flooding impacts during Regional storm events
  - Developments west of Regional Road 25: this includes about 20 to 60 m wide strip to the west of Regional Road 25

# CNR Culvert (BR02)



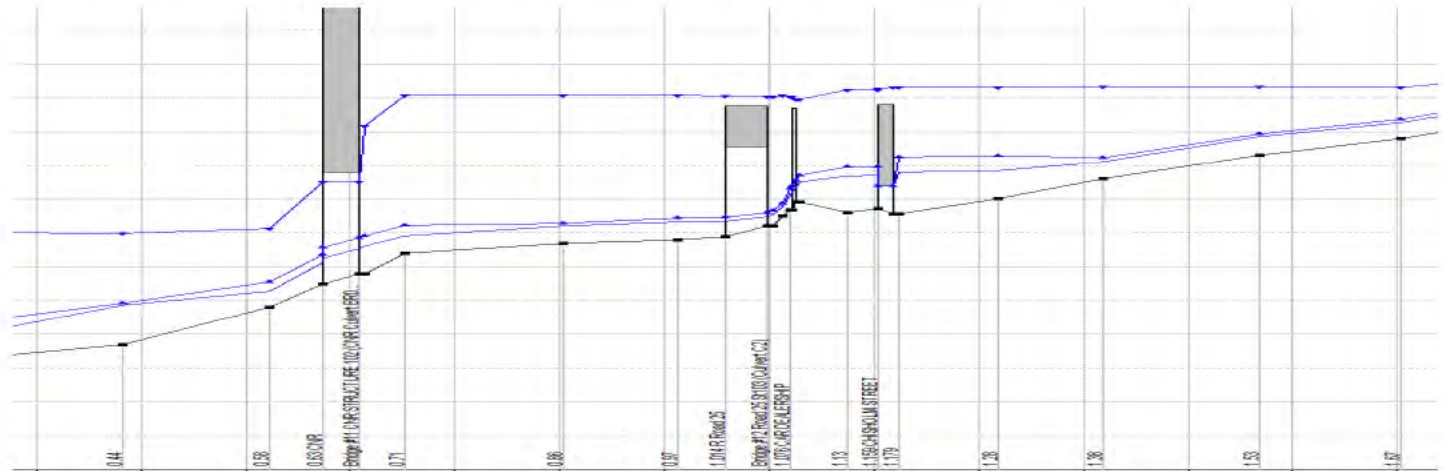
# Proposed Flood Mitigation

- To mitigate the flooding during the Regional storm event, it is proposed to increase the flow capacity of the culvert by adding two 2.4 m relief circular, side culverts
- The model results show that the water elevation upstream of the CNR culvert will drop to an elevation of 205.18m and the flood impact will be mitigated as follows:
  - Regional Road 25: will be completely free of flooding for all storms up to the Regional storm event
  - Maple Hurst Correctional Complex: only portion of the south parking lot will be subject to flooding, however the water depth will be considerably reduced

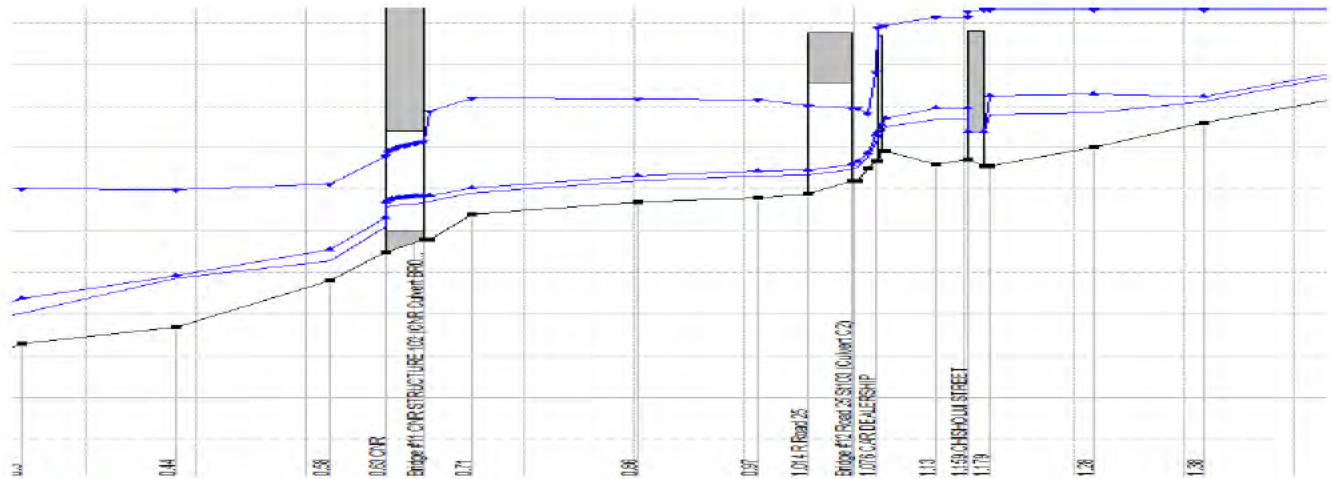


# CNR Culvert (BR02)

Existing



Proposed



# NEXT STEPS

- Review and incorporate input received from review agencies, the public, and Indigenous Communities
- Continue developing preliminary alternative designs to implement the preferred solution
- Continue to consult with technical agencies and other stakeholder groups
- Conduct PIC #2 to receive input on the preferred preliminary design



<b>Date:</b>	February 28, 2018	<b>Project Number:</b>	165010586
<b>Location:</b>	Town of Milton	<b>Project: 1650-10586</b>	Regional Road 25 Municipal Class Environmental Assessment (MCEA) Study
<b>Time:</b>	10:00 a.m. – 11:00 a.m.	<b>Author:</b>	Paula Burnard, Stantec

**Attendees:**

Jeffrey Reid	Halton Region
Ann Larkin	Halton Region
Gord Murray	Stantec Consulting
Paula Burnard	Stantec Consulting
Heide Schlegl	Town of Milton
John Brophy	Town of Milton

**Distribution:** All attendees

**Purpose:** Town of Milton Meeting #1

Item	Details	Action By
1.0	<b>Introductions &amp; Project Background</b>	
1.1	<ul style="list-style-type: none"> <li>All attendees were introduced.</li> </ul>	
1.2	<ul style="list-style-type: none"> <li>Stantec provided a brief overview of the Municipal Class Environmental Assessment (MCEA) Study and project background. Presentation attached.</li> </ul>	
2.0	<b>Discussion</b>	
2.1	<ul style="list-style-type: none"> <li>Town of Milton asked if the signalized intersections along the Regional Road 25 corridor are coordinated. Region to confirm with Road Operations. <i>[Post Meeting Note: Region's Road Operations Department confirms that Regional Road 25 is currently not coordinated due to the MTO's on-going construction at Highway 401 Ramps. However, coordination will be implemented after Highway 401 construction is complete.]</i></li> </ul>	Region
2.2	<ul style="list-style-type: none"> <li>Town of Milton is planning to convert the High Point pond (S36) from a quantity pond to a quality/quantity pond. Region indicated that when Regional Road 25 is widened from 4 to 6 lanes, both quantity and quality improvements will be required. Stantec's draft SWM report will be forwarded for review. <i>[Post Meeting Note: MTO has revised drainage reports available for SWM Pond S36 and will provide to Stantec. Stantec will share with the Town when received.]</i></li> <li>Town of Milton noted the outlet structure associated with S36 is impacted by the Highway 401 expansion project. No impact to the pond itself is anticipated. Town will share information as it becomes available.</li> </ul>	Stantec  Town
2.3	<ul style="list-style-type: none"> <li>Town of Milton inquired whether roundabouts will be reviewed as part of the Regional Road 25 corridor improvements. The Town noted that if a</li> </ul>	Stantec/ Region



Item	Details	Action By
	<p>raised median was to be implemented, then roundabouts may have the potential to reduce the need for u-turns at signalized intersections. <i>[Post Meeting Note: To potentially eliminate the existing no Right-Turn On Red (RTOR) restriction (eastbound direction) at Regional Road 25 and 5 Side Road intersection, the Region's Roundabout Screening Criteria will be completed. If screening criteria is met, then additional operational analysis to be undertaken.]</i></p>	
2.4	<ul style="list-style-type: none"> <li>• Town of Milton asked for confirmation that the Region's EMME model takes into account the opening of the Tremaine Road interchange.</li> <li>• The Region responded that the EMME model (by 2031) includes all MTO improvements (i.e., widening Highway 401) and all Regional capital improvements (i.e., widening Steeles Avenue to 6 lanes, east of Regional Road 25, etc.), as well as the new Tremaine Road interchange are incorporated.</li> <li>• Town of Milton inquired about the anticipated construction timing for the new Tremaine Road interchange. As the Regional Road 25 improvements are currently identified for start of construction in 2022, the Town requested confirmation that both the Regional Road 25 and Tremaine Road corridors will not be under construction at the same time. <i>[Post Meeting Note: The Region confirmed with the Tremaine Road Project Manager (Dave Collum) that WSP has been retained to complete the detail design from Main Street to 5 Side Road. The current Tremaine Road improvements are anticipated to be completed is 2022].</i></li> </ul>	

Encl. Overview presentation (dated February 28, 2018)

# **Regional Road 25 Transportation Corridor Improvements Municipal Class EA Study**

**Steeles Avenue to 5 Side Road  
Town of Milton/Town of Halton Hills**

Town of Milton Meeting #1  
February 28, 2018



# AGENDA

1. Introductions
2. Project Overview
3. Problem & Opportunities
4. Existing Conditions
5. Planning Alternatives
6. Design Alternatives
7. Project Schedule
8. Next Steps



# STUDY AREA

Halton Region is carrying out a Municipal Class Environmental Assessment (MCEA) Study for improvements to the Regional Road 25 corridor from Steeles Avenue to 5 Side Road in the Town of Milton/ Town of Halton Hills.

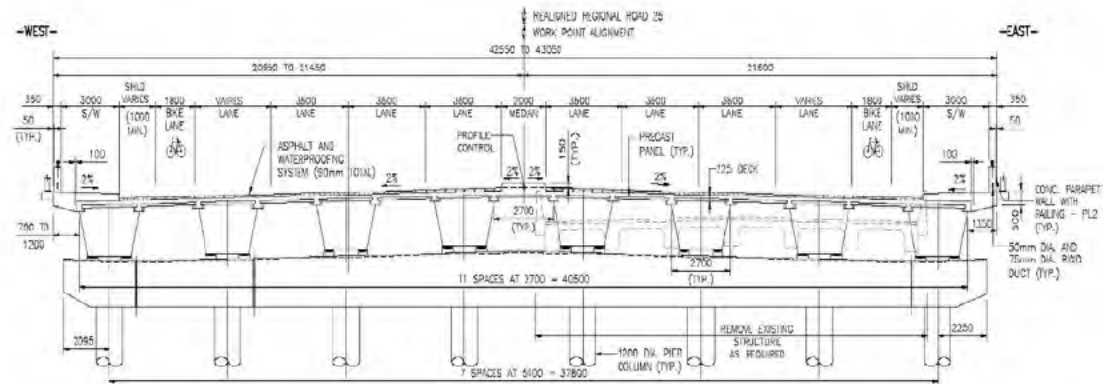
- Study area is approximately 3 km in length;
- Serves local and inter-regional travel demand,
- Two structures are located within the study area:
  1. CNR Overpass, north of Steeles Avenue
  2. Highway 401 Overpass (currently under construction)
- A tributary of Sixteen Mile Creek traverses the study area (south of Chisholm Drive).



# RELATED STUDIES AND PROJECTS

## Regional Road 25/Highway 401 Interchange Improvements, Ministry of Transportation (2016)

Future Regional Road 25 Cross Section over Highway 401 (Interchange currently under construction)



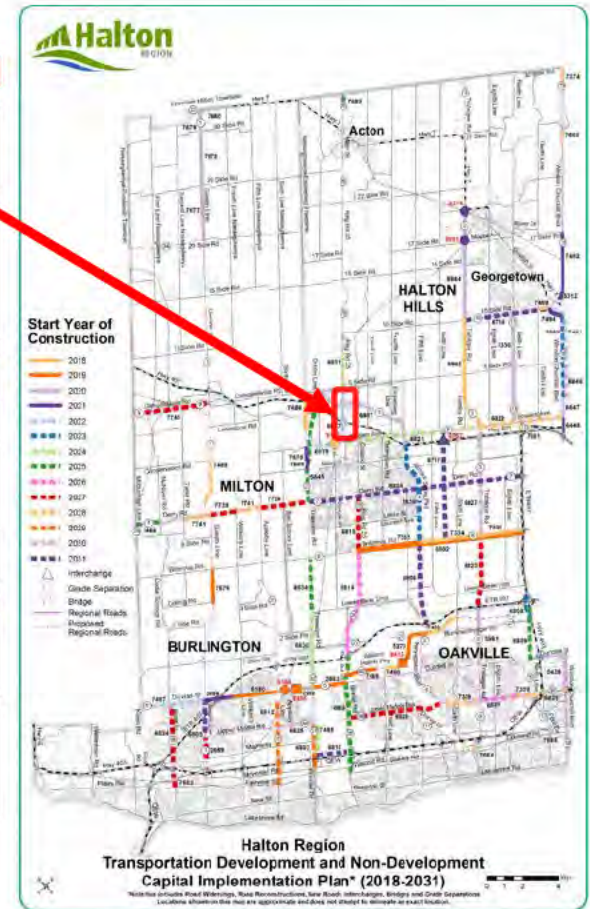
## Steeles Avenue Municipal Class Environmental Assessment (2010)

Typical Cross Section Steeles Avenue MCEA (currently under construction)



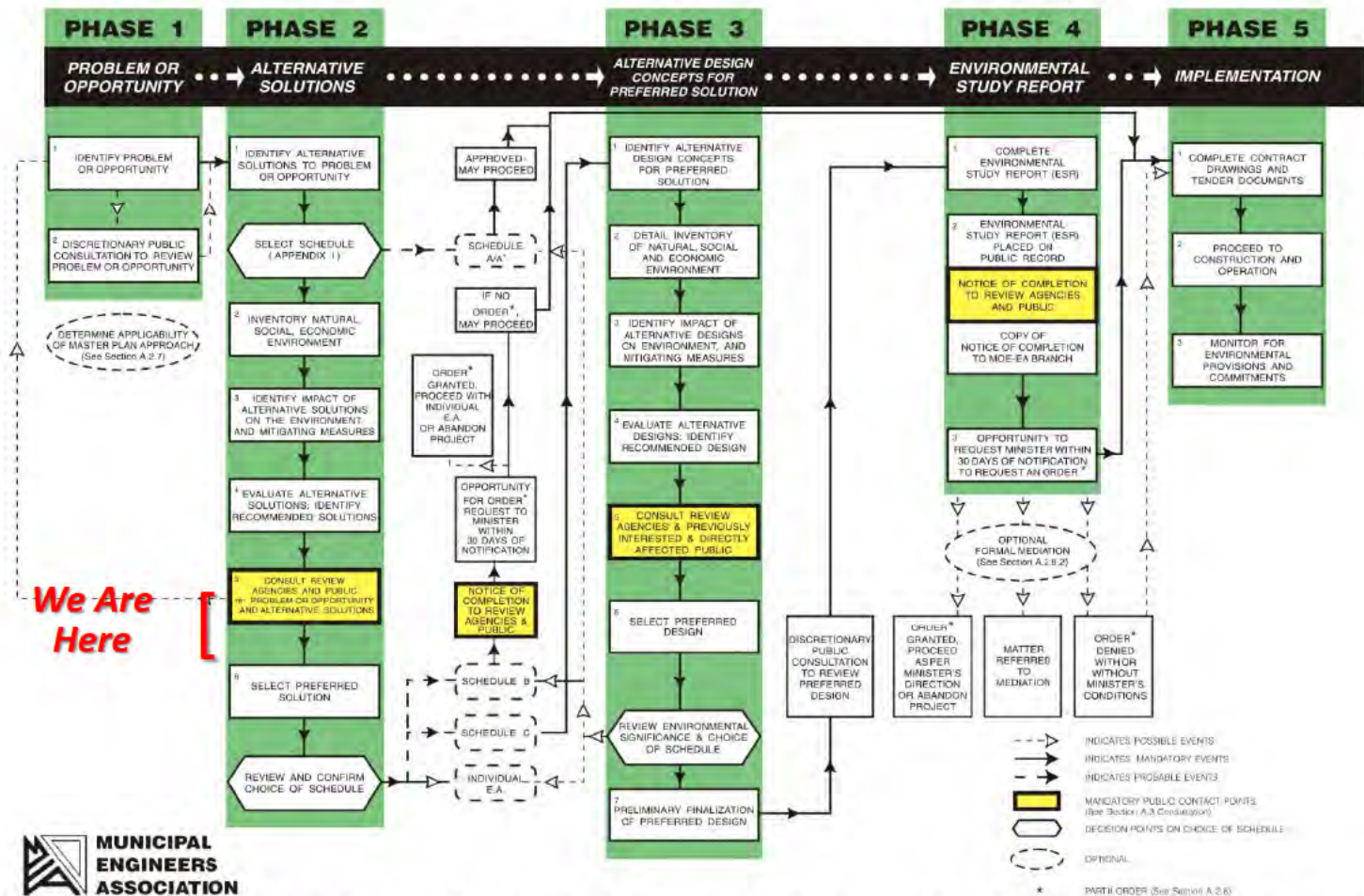


## Study Area





# STUDY PROCESS



Based on the scope of this project, the Regional Road 25 MCEA Study is being planned as a Schedule 'C' project, which will complete Phases 1 to 4 outlined above.



# PROBLEM AND OPPORTUNITY

- Regional Road 25 is currently experiencing delays during peak periods and delays will increase at intersections in the future.
- Future traffic is expected to grow by 2031.
- To support future growth and travel demands, improvements to the Regional Road 25 corridor are required.
- The improved corridor should support all modes of transportation (i.e. active transportation, transit services, inter-regional travel, agricultural vehicles and goods movement).
- Therefore, Halton Region is carrying out this study to address these requirements in accordance with the MCEA process.



# TRANSPORTATION – EXISTING CONDITIONS

- Regional Road 25 is an existing four-lane major arterial, with a posted speed limit of 50 km/h between Steeles Avenue and James Snow Parkway), and 70 km/h between James Snow Parkway and 5 Side Road.
- There is a CNR over-pass rail crossing on Regional Road 25, north of Steeles Avenue
  - CNR: 25 daily trains (freight only, may vary)
- There are limited provisions for cyclists and pedestrians.
- Daily travel demand ranges between 18,000 (near 5 Side Road) to 34,000 vehicles (near Steeles Avenue)
- Trucks are approximately 8% to 13% of all traffic





# TRANSPORTATION – 2031 CONDITIONS

- Future corridor traffic growth to 2031 reflects average peak hour growth rate between approximately 2% and 4% per year
- Daily travel demand projections to 2031 based on peak hour traffic growth rate – estimated to range between 27,000 to 52,000 vehicles:
  - Steeles Avenue to Hwy 401 WB Off-Ramp
    - 49,000 to 52,000 vehicles
  - Hwy 401 WB Off-Ramp to 5 Side Road
    - 52,000 to 27,000 vehicles



# TRANSPORTATION CONDITIONS

- Providing additional capacity in the Regional Road 25 corridor (i.e., widening to 6 lanes) will alleviate capacity issues at major intersections and will support future growth and development.





# EXISTING CONDITIONS – NATURAL ENVIRONMENT



ELC Code	Description
SWDM4-1	Willow Mineral Deciduous Swamp Type
CUW1	Cultural Woodland
MEMM4	Fresh - Moist Mixed Meadow Ecotype
CUT1-1	Sumac Deciduous Shrub Thicket Type
MA-S2-1	Cattail Mineral Shallow Marsh Type
MA-SM1-12	Common Reed Mineral Shallow Marsh Type
SWT2-5	Red-osier Dogwood Mineral Deciduous Thicket Swamp Type
THDM2-11	Hawthorn Deciduous Shrub Thicket Type
MEGM3	Dry - Fresh Graminoid Meadow Ecotype
CUT1-4	Gray Dogwood Deciduous Shrub Thicket Type
MA-M2-3	Red-top Graminoid Mineral Meadow Marsh Type
MEMM3	Dry - Fresh Mixed Meadow Ecotype
MA-MM1	Graminoid Mineral Meadow Marsh Ecotype
MA-SM1-12	Willow Mineral Deciduous Swamp Type
SWM	Stormwater Management Facility

## Legend

- Study Area
- Species Observation
- Site Plan
- ELC Vegetation Community
- Regulation Limit (Approximate)

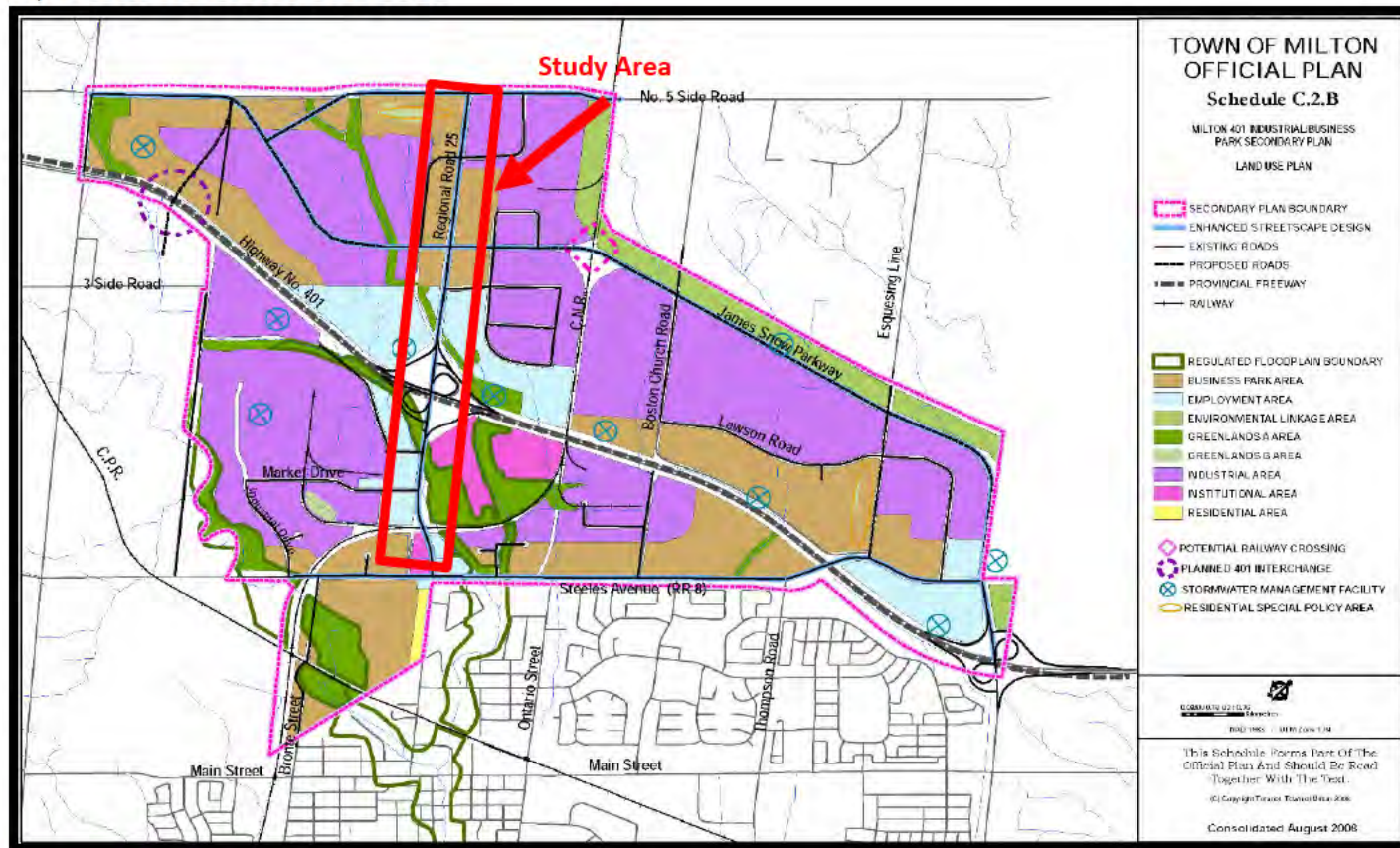


# EXISTING CONDITIONS – NATURAL ENVIRONMENTAL FEATURES

- One recent (1987) SAR/provincially rare species (Redside Dace)
- No designated natural features within the study area
- Cultural woodlands, thickets and meadows are associated with vacant lots, railway embankments and watercourses
- Wetland vegetation is associated with watercourses and SWM facilities
- Notable species observations include Barn Swallow (threatened), potential Monarch habitat (special concern), and Big Bluestem (locally uncommon)

# EXISTING CONDITIONS – SOCIAL-ECONOMIC ENVIRONMENT

The study area is located within the Milton 401 Industrial/Business Park Planning Area. Land uses along the corridor include Employment, Industrial, and Institutional.





# EXISTING CONDITIONS – CULTURAL ENVIRONMENT

A review of potential built heritage and cultural heritage landscapes within the study area was undertaken. Two heritage resources were identified:

## Milton Train Station



## Maplehurst Correctional Complex and Vanier Centre for Women



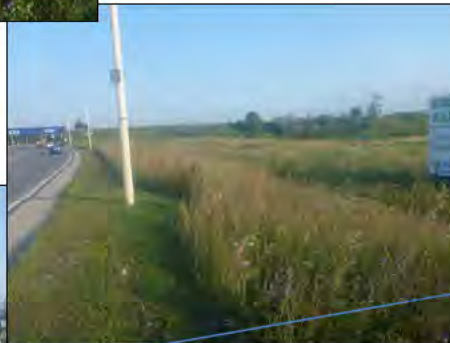


# EXISTING CONDITIONS – CULTURAL ENVIRONMENT

A Stage 1 Archaeological Assessment has been completed along the corridor to identify areas of archaeological potential:



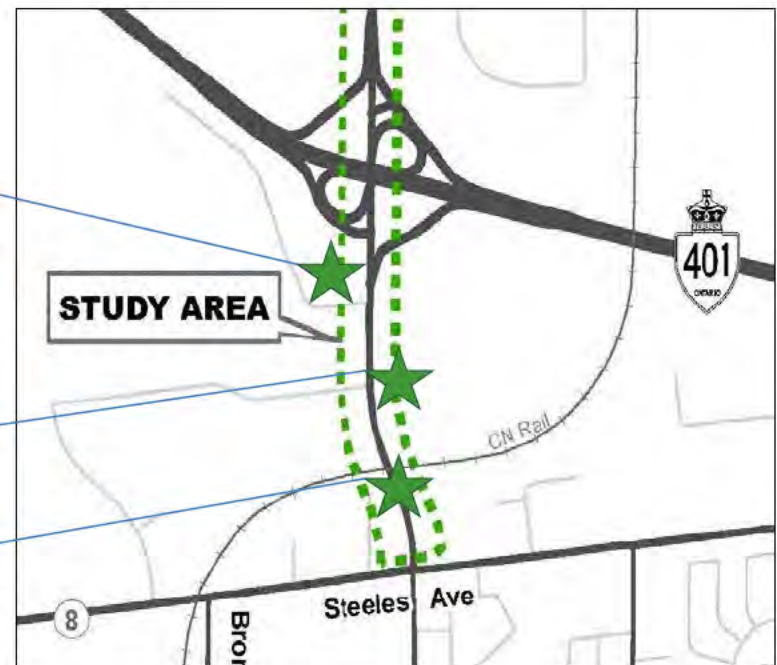
Regional Road 25 Looking South



Regional Road 25 Looking South



Regional Road 25 Looking South – Chris Hadfield Park



★ Areas of archaeological potential  
(Stage 2 Archaeological Assessment required)

# EXISTING CONDITIONS – MUNICIPAL SERVICING & UTILITIES

## Municipal Services

- Watermain and sanitary sewers are buried within the right-of-way in order to service adjacent properties.

## Utilities

- Milton Hydro – overhead power lines from Steeles Avenue to 5 Side Road
- Bell Canada – buried cables within the right-of-way
- Union Gas – buried gas distribution lines within the right-of-way
- Rogers Cable – overhead wires, mounted on hydro poles





# EXISTING CONDITIONS – REGIONAL ROAD 25 DRAINAGE

- Study area contains tributaries and channels of Sixteen Mile Creek that ultimately drain to Lake Ontario
- 2 SWM ponds in the vicinity of the study area provide quantity and quality control, including:
  - S34 - southwest of the Regional Road 25/James Snow Parkway intersection
  - S36/Milton Pond - northeast the Highway 401/Regional Road 25 intersection
- Road runoff between Highway 401 and 5 Side Road collects via storm sewers on Regional Road 25 and outlets to the Milton Pond
- Road runoff between Highway 401 and Steeles Avenue collects via storm sewers, and drains to a tributary of Sixteen Mile Creek





# EXISTING CONDITIONS – REGIONAL ROAD 25 DRAINAGE

Culvert	Span Size	Length	Type	Drainage Area	Events	Flow	TWL	Computed	Freeboard	Overtopping
ID	(mm)	(m)	(material)	(ha)		(m <sup>3</sup> /s)	(m)	HWL (m)		(Y/N)
C1	2100 x 1200	50	concrete box	58.9	5-Year	1.65	203.4	203.89	2.11	No
					50-Year	3.61	203.5	204.36	1.64	No
					100-Year	4.25	203.5	204.48	1.52	No
					Region Storm	6.86	203.6	204.95	1.05	No
C2	6000 x 2000	40	concrete box	362.9	10-Year	2.91	203.34	203.54	3.21	No
					50-Year	4.24	203.43	203.63	3.12	No
					100-Year	4.74	203.47	203.66	3.09	No
					Region Storm	30.32	207.04	207.06	-0.31	Yes
C3	3000 x 2400	19	concrete box	362.9	10-Year	2.91	204.69	204.79	2.01	No
					50-Year	4.24	204.89	204.97	1.83	No
					100-Year	4.74	204.95	205.24	1.56	No
					Region Storm	30.32	207.22	207.31	-0.51	Yes
C4	3000 x 2400	60	concrete box	658.0	10-Year	5.2	208.83	209.07	2.98	No
					50-Year	7.27	208.9	209.36	2.69	No
					100-Year	8.19	208.92	209.48	2.57	No
					Region Storm	36.29	209.21	211.83	0.22	No

# EXISTING CONDITIONS – CN RAIL CROSSING

- The Canadian National Railway built a new spur line in 1963 that crosses over Regional Road 25 (north of Steeles Avenue).
- Two lanes of traffic, in each direction are accommodated under the overpass.
- Improvement to the overpass will be required to accommodate a widened cross-section, including active transportation facilities.





# PLANNING ALTERNATIVES

Improvements to the Regional Road 25 corridor are required to support existing and future transportation needs while respecting the social, cultural and natural environment. The following Planning Alternatives are being considered.

Alternatives	Description of Planning Alternatives	Evaluation	Recommendation
Do Nothing	Status quo; only planned improvements will be in place, including the widening of Steeles Avenue, James Snow Parkway extension, and the Tremaine Road realignment (with interchange)	Does not address future needs within the study area.	Not recommended for further consideration (for comparison purposes only)
Limit Development	Limit development within the Town of Milton/Town of Halton Hills	Future projections based on approved future urban area within the Halton Region and local municipal Official Plans	Do not carry forward



# PLANNING ALTERNATIVES

Alternatives	Description of Planning Alternatives	Evaluation	Recommendation
Travel Demand Management Measures	Measures to manage travel demand, such as carpooling, flexible work hours, telecommute, etc.	On their own, TDM measures do not address the problem, while part of the Region's overall transportation strategy	Carry forward within overall strategy
Improved Transit Service (GO Transit)/ Active Transportation	Upgrade GO Transit services on the Milton/Cambridge Line, and provide facilities for active transportation use to accommodate pedestrians and cyclists	On their own, these measures do not address the problem, while part of the Region's overall transportation strategy	Carry forward within overall strategy
Intersection and/or Operational Improvements	Enhance operations of roadway through minor improvements (i.e. traffic signals, provision of turning lanes, etc.)	On their own, do not address the problem while part of the Region's overall transportation strategy	Carry forward within overall strategy
Improvements to Other Roadways	Widen regional roadways in the immediate study area beyond planned improvements (e.g. Steeles Avenue, James Snow Parkway, and Tremaine Road).	Part of the Region's overall transportation strategy (Transportation Master Plan)	Part of overall Regional transportation strategy
Improvements to Regional Road 25	Improvements to the Regional Road 25 corridor, including provision for active transportation.	Needs identified in Halton Region Transportation Master Plan to support future growth	Carry forward within overall strategy

A combination of improvements to be carried forward and design alternatives to be developed.

# DESIGN ALTERNATIVES

Design alternatives will be developed and reviewed based on comments received from Agencies, Stakeholders and members of the Public, and evaluated based on the following factors:

## Socio-Economic Environment



- Existing and Future Land Uses
- Industrial/Commercial Operations
- Institutional/Recreational Uses
- Potential Property Requirements
- Property Access
- Noise Levels
- Provisions for Pedestrians and Cyclists
- Illumination
- Air Quality

## Cultural Environment



- Built Cultural Heritage
- Cultural Heritage Landscapes
- Archaeological Resources

## Natural Environment



- Vegetation
- Wildlife
- Creek Crossings
- Natural Hazards
- Policy Areas

## Transportation



- Corridor Capacity and Operations;
- Intersection Capacity and Operations;
- Geometric Standards
- Access Management
- Construction Staging

## Engineering Considerations



- Structural Requirements (CNR Overpass, Culverts)
- Municipal Services/Utilities
- Construction Staging
- Drainage and Stormwater Management

## Preliminary Cost Estimate



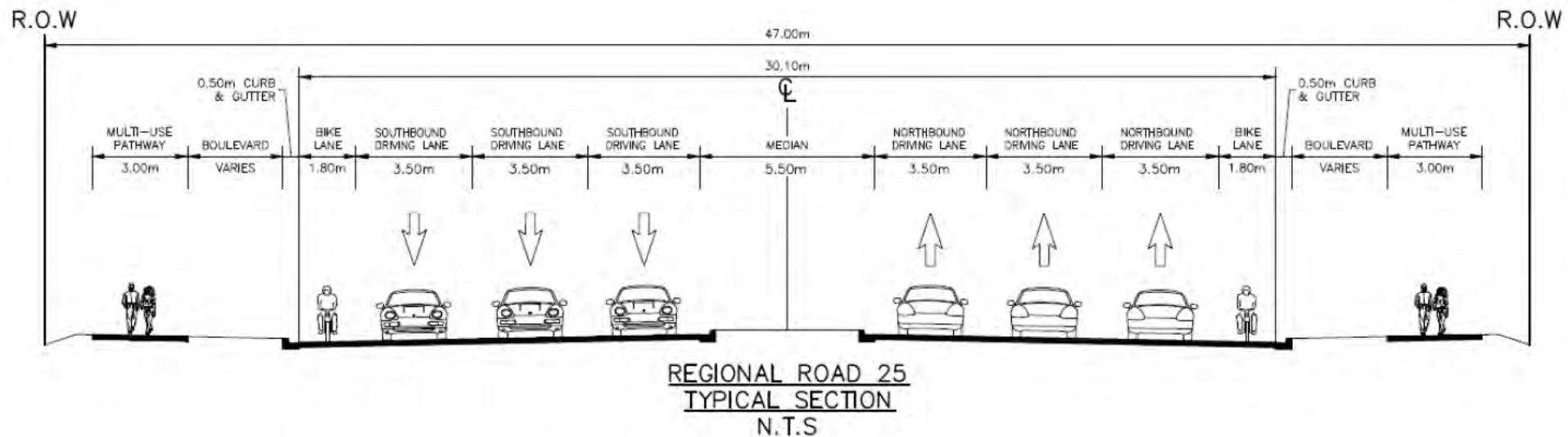
- Construction
- Operations and Maintenance
- Utility Relocation





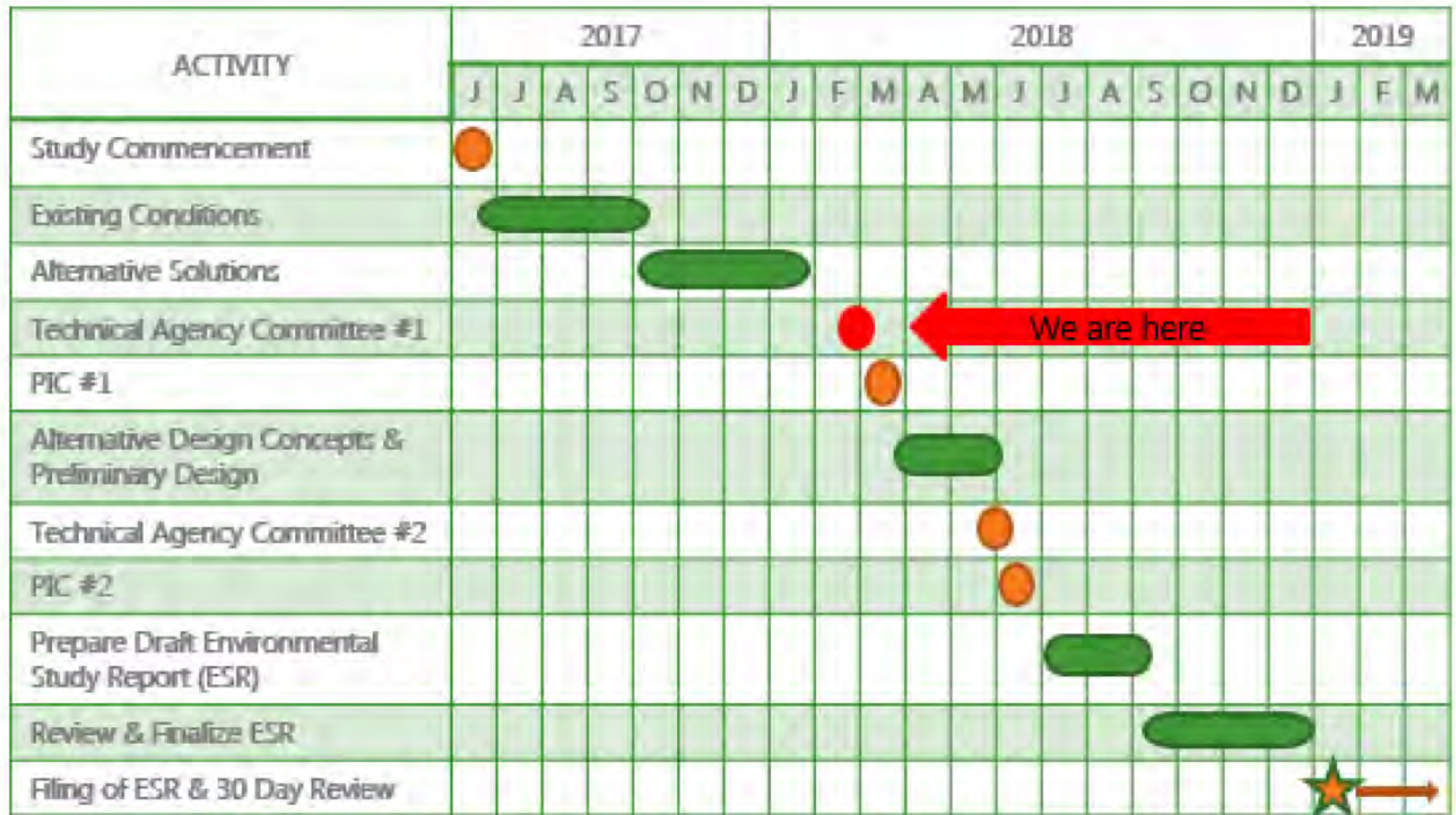
# TYPICAL 6 LANE CROSS-SECTION

C(4) Urban – 47m ROW





# PROJECT SCHEDULE



# NEXT STEPS

- Review and incorporate the input received from review agencies, the public, and Indigenous Communities
  - Meetings with Agencies - ongoing
  - TAC Meeting #1 – February 22 (Completed)
  - PIC #1 – March 8 (drop-in from 6:30pm – 8:30pm)
- Confirm preferred alternative solution
- Develop design alternatives to implement the preferred solution
- Continue to consult with technical agencies and other stakeholder groups
- Conduct PIC #2 to receive input on the preferred preliminary design



**Date:** April 2, 2019      **Project Number:** 165010586  
**Location:** Town of Halton Hills      **Project: 1650-10586**      Regional Road 25 Municipal Class Environmental Assessment (MCEA) Study  
**Time:** 2:00 p.m. – 3:30 p.m.      **Author:** Paula Burnard, Stantec

**Attendees:**

Jeffrey Reid	Halton Region
Ann Larkin	Halton Region
Maureen Van Ravens	Town of Halton Hills
Heide Schlegl	Town of Milton
Gord Murray	Stantec Consulting
Paula Burnard	Stantec Consulting

**Distribution:** All attendees

**Purpose:** Town of Milton/Town of Halton Hills Meeting #2

Item	Details	Action By
<b>1.0</b>	<b>Introductions &amp; Project Background</b>	
1.1	<ul style="list-style-type: none"> <li>Stantec provided a brief overview of the Municipal Class Environmental Assessment (MCEA) Study, focusing on the development and evaluation of Preliminary Alternative Designs and the Recommended Design Alternative. Presentation attached.</li> </ul>	
<b>2.0</b>	<b>Discussion</b>	
2.1	<ul style="list-style-type: none"> <li>Town of Milton asked for confirmation that truck traffic and gravel trucks will be able to navigate the proposed roundabout at Regional Road 25 and 5 Side Road. Stantec noted that the preliminary design for the proposed roundabout is based on 2031 traffic projections and will allow for large trucks (WB-20) to make all manoeuvres, as there will be 2 lanes within the roundabout and a truck apron in the centre median. 'Do Not Pass Trucks' signage will also be placed at the entrance of the roundabout.</li> </ul>	Stantec/ Region
2.2	<ul style="list-style-type: none"> <li>Town of Halton Hills inquired about the potential for a new off-road active transportation facility on 5 Side Road, east of Regional Road 25 to Peddie Road/Mansewood Court. It was noted that new pedestrian heads were installed at the intersection of Peddie Road/Mansewood Court and 5 Side Road, as Amazon now has an office on 5 Side Road and thus, there are more pedestrians in this area. The Town inquired whether the construction of a new Multi-Use Path (MUP) could be 'bundled' into the road works for Regional Road 25 improvements. [Post Meeting Note: the Region's Engineering &amp; Construction Department indicated that if the Town completed the preliminary design and verified that the multi-use trail could be accommodated within the Town's ROW, in principle the Region could include the construction of the MUP. The cost of the MUP would be 100% the Local municipalities (Town of Milton/Town of Halton Hills)].</li> </ul>	Region

Item	Details	Action By
2.3	<ul style="list-style-type: none"><li>Town of Milton/Town of Halton Hills were pleased with the proposed PXO (Pedestrian Crossover) treatment at the roundabout (vehicles will yield to pedestrians). Town of Halton Hills inquired whether the Region will be retrofitting existing roundabouts with PXO's [Post Meeting Note: the Region's Road Operations Department is currently undergoing the retrofit of PXO's at channelized right-turn locations. It is envisioned that existing Regional roundabouts will also undergo a future retrofit to include PXO's. There is currently no timing associated with these improvements].</li></ul>	Region
2.4	<ul style="list-style-type: none"><li>Town of Halton Hills requested to review the roundabout screening analysis for their information. Draft roundabout screening analysis memo attached. It is also noted that the roundabout screening analysis memo will be included within the Transportation Report of the Environmental Study Report (ESR).</li></ul>	Region

**Encl. Overview presentation (dated April 2, 2019)**  
**Roundabout Screening Analysis Memo (dated December 24, 2018)**



# **Regional Road 25 Transportation Corridor Improvements Municipal Class EA Study**

**Steeles Avenue to 5 Side Road  
Town of Milton/Town of Halton Hills**

Town of Milton/Town of Halton Hills Meeting #2  
Tuesday, April 2, 2019



# AGENDA

1. Introductions
2. Study Area & Background
3. Problem & Opportunities
4. Factors for Analysis and Evaluation
5. Development and Evaluation of Preliminary Alternative Designs
6. Recommended Design Alternative
7. Proposed Mitigation Measures
8. Next Steps



# STUDY AREA

Halton Region is carrying out a Municipal Class Environmental Assessment (MCEA) Study for improvements to the Regional Road 25 corridor from Steeles Avenue to 5 Side Road in the Town of Milton/ Town of Halton Hills.

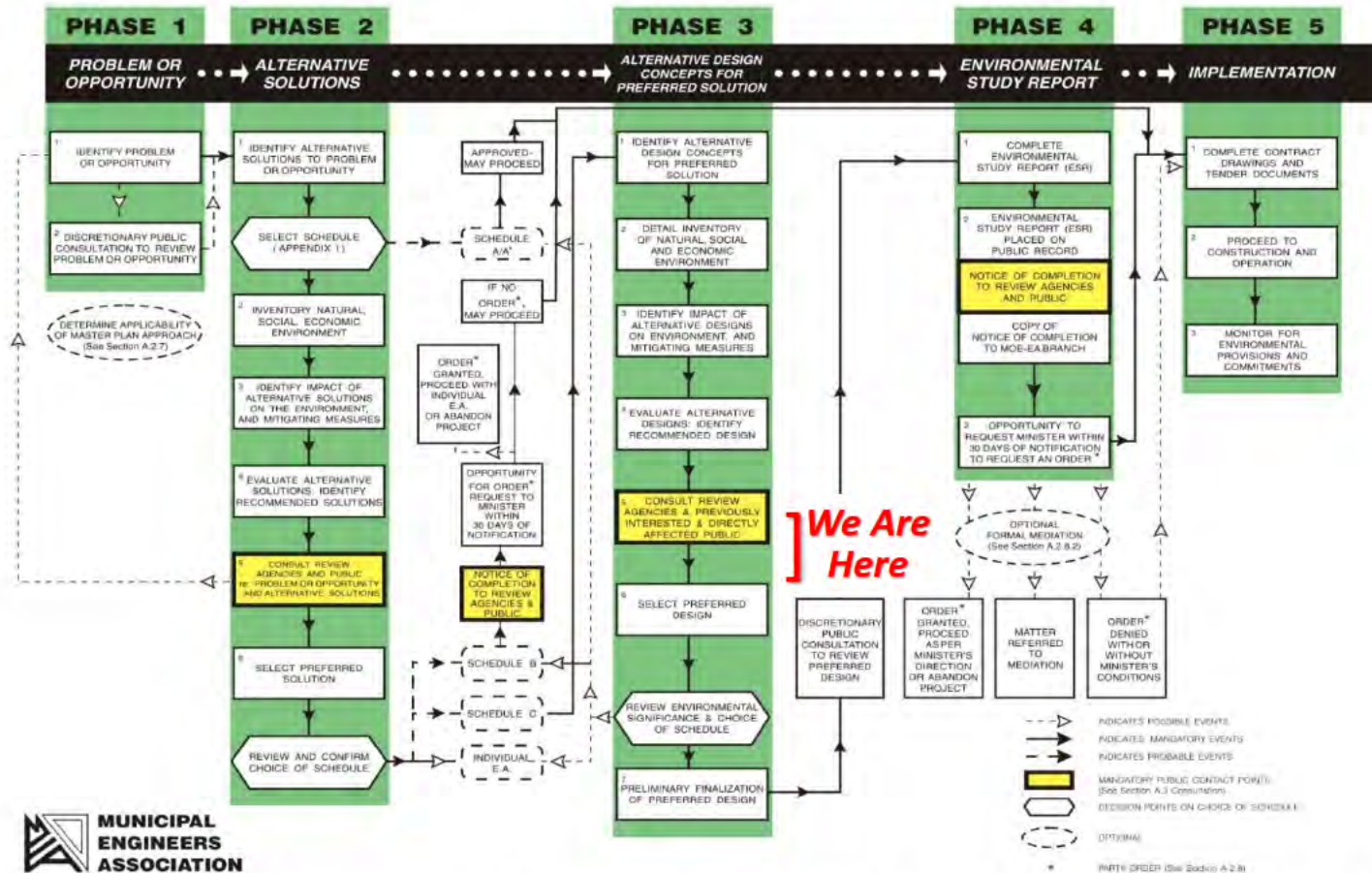
- Study area from Steeles Avenue to 5 Side Road, approximately 3 km in length;
- Serves local and inter-regional travel demand, as well as agricultural equipment and goods movement;
- Two structures are located within the study area:
  1. CNR Overpass, north of Steeles Avenue
  2. Highway 401 Overpass
- A tributary of Sixteen Mile Creek crosses the study area (north of Hwy 401).



# PROBLEM AND OPPORTUNITIES

- Regional Road 25 is currently experiencing delays during peak periods and delays will increase at intersections in the future.
- Travel demand is expected to increase by 2031.
- To support future growth and travel demands, improvements to the Regional Road 25 corridor are required.
- The improved corridor should support all modes of transportation (i.e. active transportation, transit services, inter-regional travel, agricultural vehicles and goods movement).

# STUDY PROCESS



Based on the scope of this project, the Regional Road 25 MCEA Study is being planned as a Schedule 'C' project, which will complete Phases 1 to 4 outlined above.



# TAC MEETING #1 SUMMARY

- TAC #1 – February 22, 2018
- Presented study background and existing conditions: natural environment, socio-economic, cultural and transportation conditions
- Presented alternative planning solutions, factors for evaluation and analysis and the proposed typical cross-section
- A summary of the comments raised and discussed are listed below:
  - Town of Milton was provided confirmation that EMME modeling included all planned improvements, including Region and MTO
  - Maplehurst Correctional Complex highlighted the importance of maintaining power (hydro), as well as access to facility during construction
  - MTO provided update on interchange improvements at Regional Road 25
  - Union Gas noted an 8” gas service on east side and 4” gas service on west side
  - Milton Fire noted importance of maintaining access to Maplehurst Correctional Facility during construction and existing congestion at Highway 401

# ACTIVITIES SINCE TAC #1

- Public Information Centre #1 – March 8, 2018
- Reviewed and responded to comments received to date from agencies, stakeholders and general public
- Confirmed the preferred solution of widening Regional Road 25 from 4 to 6 lanes
- Developed alternative design concepts for the preferred solution, and completed analysis and evaluation to determine the preliminary technically preferred design

# FACTORS FOR ANALYSIS AND EVALUATION

The design alternatives were developed based on comments received from Agencies, Stakeholders and members of the Public, and evaluated based on the following factors:

## Socio-Economic Environment



- Existing and Future Land Uses
- Industrial/Commercial Operations
- Institutional/Recreational Uses
- Potential Property Requirements
- Property Access
- Noise Levels
- Provisions for Pedestrians and Cyclists
- Illumination
- Air Quality

## Cultural Environment



- Built Cultural Heritage
- Cultural Heritage Landscapes
- Archaeological Resources

## Natural Environment



- Vegetation
- Wildlife
- Creek Crossings
- Natural Hazards
- Policy Areas

## Transportation



- Corridor Capacity and Operations;
- Intersection Capacity and Operations;
- Geometric Standards
- Access Management
- Construction Staging

## Engineering Considerations



- Structural Requirements (CNR Overpass, Culverts)
- Municipal Services/Utilities
- Construction Staging
- Drainage and Stormwater Management

## Preliminary Cost Estimate



- Construction
- Operations and Maintenance
- Utility Relocation





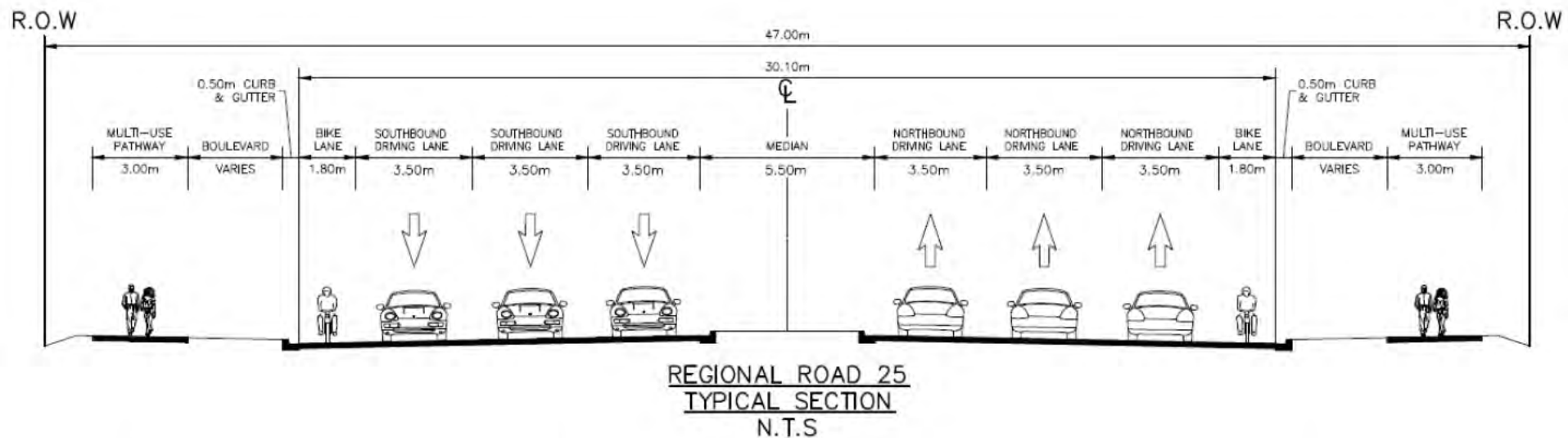
# DEVELOPMENT OF ALTERNATIVE DESIGNS

- Consideration was given to the following widening alternatives (four to six lanes) for Regional Road 25 between Steeles Avenue and 5 Side Road:
  - **Alternative 1** - Widen to the west of existing centerline (holding east property line)
  - **Alternative 2** - Widen to the east of existing centerline (holding west property line)
  - **Alternative 3** - Widen symmetrically on both sides of existing centerline
  - **Alternative 4** - “Best Fit” (combination of Alternates 1, 2 & 3)

# ALTERNATIVE DESIGN EVALUATION SUMMARY TABLE

	ALTERNATIVE 1 WIDEN TO THE WEST	ALTERNATIVE 2 WIDEN TO THE EAST	ALTERNATIVE 3 WIDEN SYMMETRICALLY	ALTERNATIVE 4 BEST FIT
Transportation	No preference – all alternatives meet transportation objectives			
Cultural Environment	Moderately Preferred	Moderately Preferred	Most Preferred	Most Preferred
Socio-economic Environment	Least Preferred	Least Preferred	Moderately Preferred	Most Preferred
Natural Environment	Least Preferred	Least Preferred	Moderately Preferred	Most Preferred
Engineering	Moderately Preferred	Least Preferred	Least Preferred	Most Preferred
Preliminary Cost Estimate	Least Preferred	Least Preferred	Most Preferred	Moderately Preferred
SUMMARY	NOT RECOMMENDED	NOT RECOMMENDED	NOT RECOMMENDED	RECOMMENDED

# TYPICAL 6 LANE CROSS-SECTION



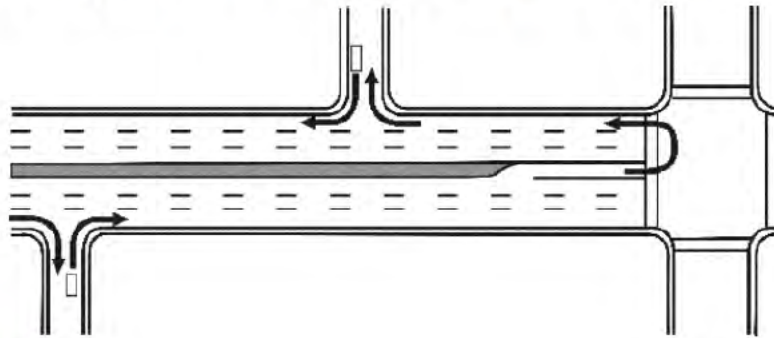
The typical cross-section will accommodate the following improvements:

- C(4) Urban Road Classification
- 47m right-of-way
- Accommodates continuous pedestrian and cycling facilities:
  - 3.0m multi-use trail (both sides of the road)
  - 1.8m exclusive bike lane (both sides of the road)
- Opportunity for landscaping within right-of way



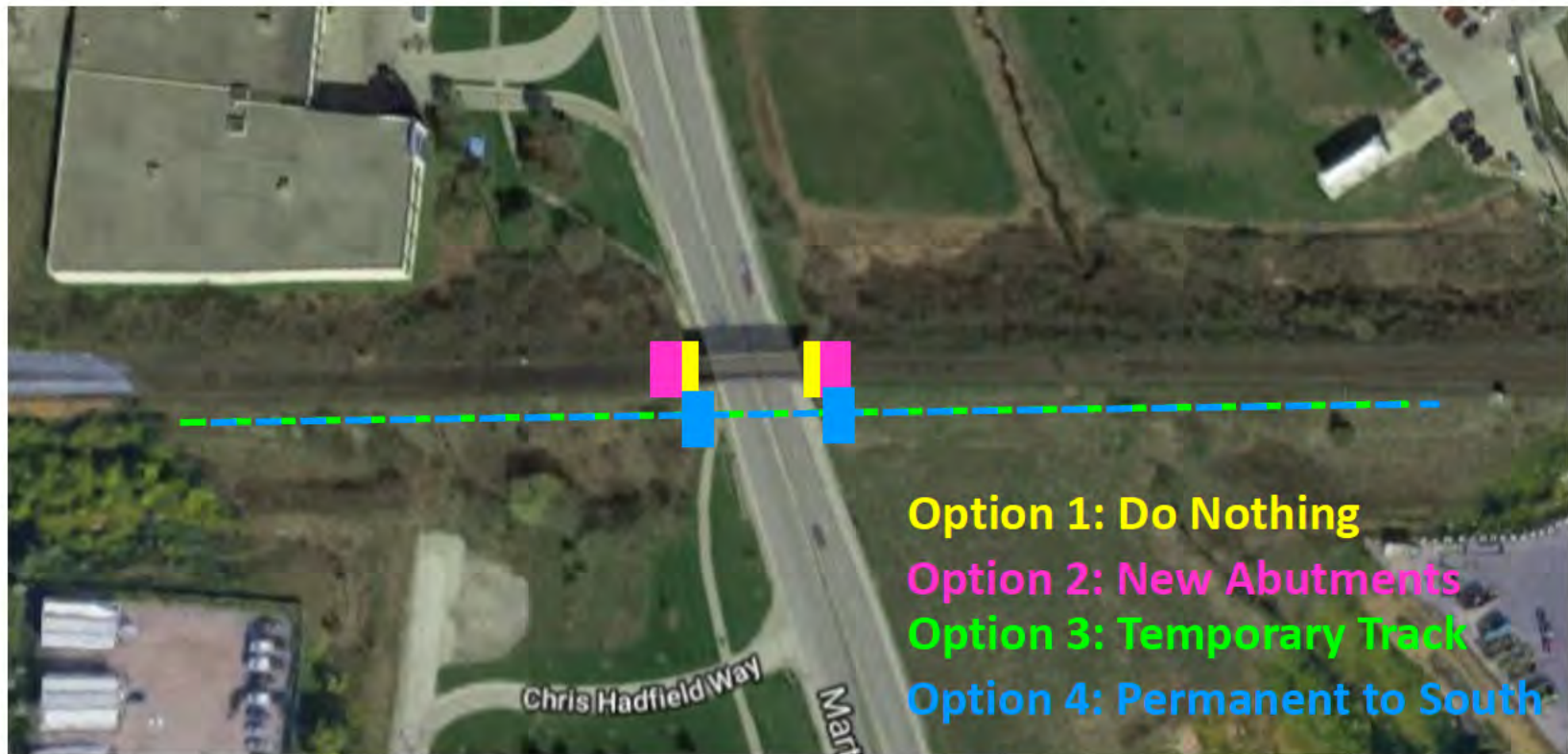
# REGIONAL ROAD 25 - ACCESS

- As a major arterial, Regional Road 25 will include left and right turn lanes at most signalized intersections
- There are existing commercial and residential properties along Regional Road 25 that currently have full move access (i.e. can turn left and right)
- However, when Regional Road 25 is widened, there will be a raised median throughout its length except at signalized intersections
- Access to all commercial and residential properties will become right-in/right-out access only
- Private residences and businesses will require alternate ways to access/egress – including “U” Turns at signalized intersections
- By limiting access, Regional Road 25 will be more efficient and will operate safely



# CN Rail - Options

<u>Option 1</u> Maintain the Existing Bridge Structure (Do Nothing)	<u>Option 2</u> Construct New Abutments and Lengthen Bridge (In Place)	<u>Option 3</u> Temporary Single- Track Rail Diversion to the South	<u>Option 4</u> Single-Track Permanent Realignment on a New Bridge
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# ANALYSIS AND EVALUATION

## CN RAIL CROSSING

	<b>Option 1</b> <b>Maintain the Existing</b> <b>Bridge Structure</b> <b>(Do Nothing)</b>	<b>Option 2</b> <b>Construct New</b> <b>Abutments and</b> <b>Lengthen Bridge</b> <b>(In Place)</b>	<b>Option 3</b> <b>Temporary Single-</b> <b>Track Rail Diversion</b> <b>to the South</b>	<b>Option 4</b> <b>Single-Track</b> <b>Permanent</b> <b>Realignment on a</b> <b>New Bridge</b>
<b>Accommodates</b> <b>RR25 X-Section</b>	No	Yes	Yes	No
<b>Closures</b> <b>(Track/Road)</b>	Long duration track closure required during construction	Numerous nightly work blocks and 48 – 72hr track closure	Night-time work blocks and two 12hr track closures Minimizes the impact on rail operations and roadway disruption	
<b>Constructability</b>	Open-cutting or tunneling required for pathways	Highest bridge construction complexity	Rebuild of long section of diversion track, plus passing track and two switches replaced	
<b>Cost</b>	Lowest Cost compared to all options	“throw-away costs”	Highest capital cost	Lower capital cost compared to Option 3
<b>Summary</b>	<b>Not Recommended</b>	<b>Not Recommended</b>	<b>Recommended</b>	<b>Recommended</b>



# ANALYSIS AND EVALUATION

## ARCHAEOLOGICAL ASSESSMENT

- A Stage 1 Archaeological Assessment was completed as part of this project.
- A Stage 2 Archaeological Assessment will be completed during detailed design at areas identified with archaeological potential.





# ANALYSIS AND EVALUATION

## CULTURAL HERITAGE ASSESSMENT

- Two cultural heritage resources were identified within the study area. These resources will be avoided during the proposed road improvements:

Milton Train Station



Maplehurst Correctional Complex  
and Vanier Centre for Women





# ANALYSIS AND EVALUATION

## NATURAL HERITAGE ASSESSMENT

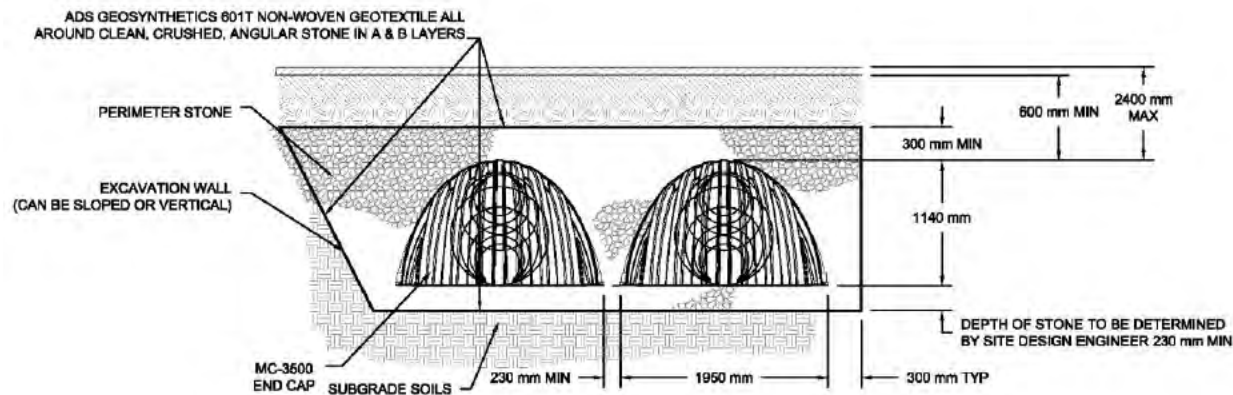
- The results of the Natural Heritage Assessment are as follows:
  - All vegetation communities identified in the study area are considered common in southern Ontario.
  - Barn swallow nesting is confirmed in culvert C4. The other 3 culverts are also suitable for nesting.
  - Redside Dace habitat is confirmed in the three Sixteen Mile Creek tributaries crossed by culverts C1, C2, C3, and C4.
  - One potential habitat for species of conservation concern (Monarch) and one candidate amphibian breeding habitat was identified in the study area.





# ANALYSIS AND EVALUATION DRAINAGE

- A Stormwater Management (SWM) study was completed to evaluate existing SWM performance and provide recommendations to mitigate potential impacts.
- Proposed conditions include upgrades to water quantity control and water quality control, as well as the implementation of infiltration measures/low impact development (LIDs) wherever feasible and appropriate.



**STORMTECH MC-3500 CHAMBER SYSTEMS**

# ANALYSIS AND EVALUATION DRAINAGE (Regional Storm Event)

Existing Conditions



Proposed Conditions



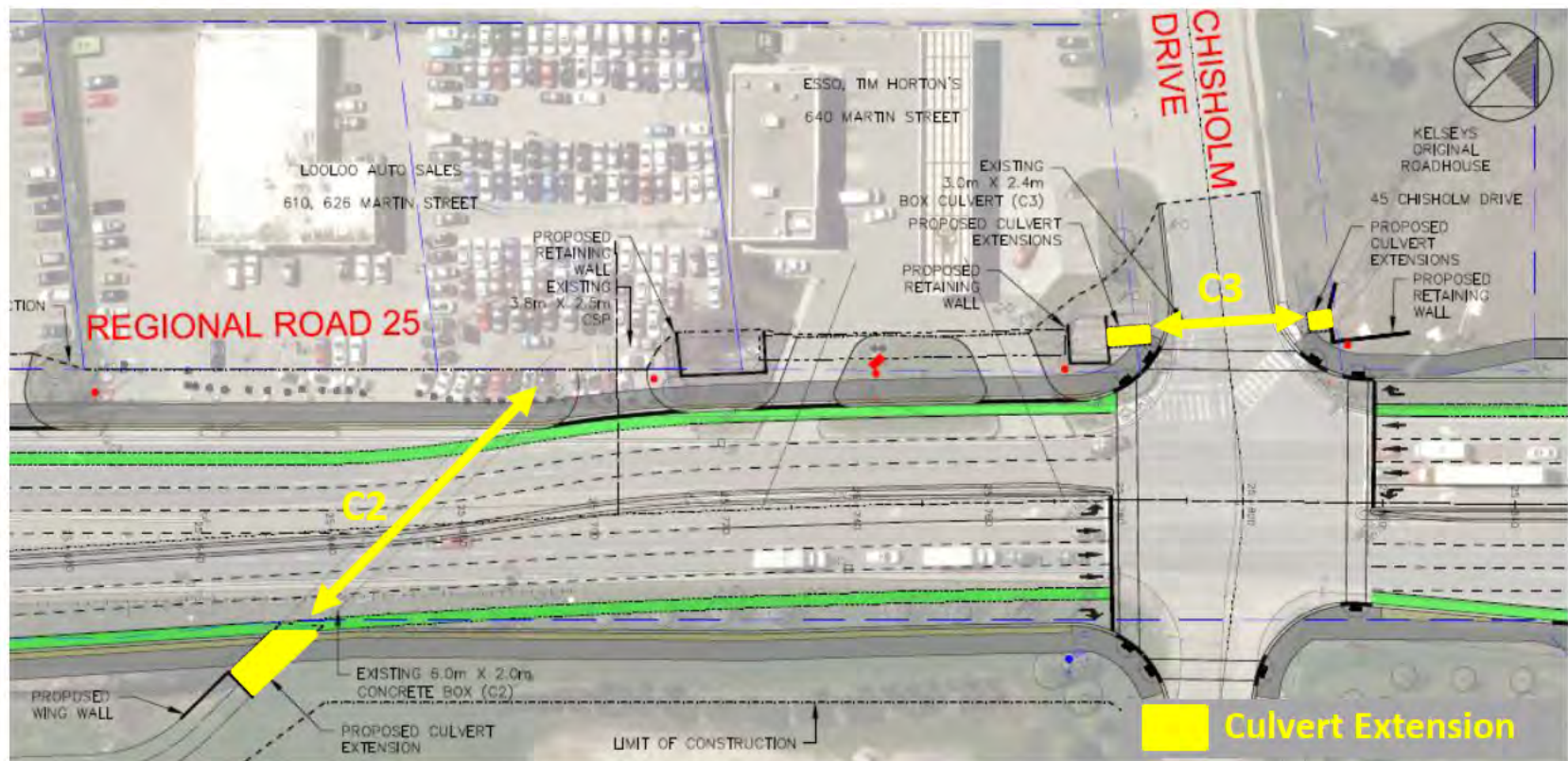
Legend

- REGIONAL FLOODLINE
- SITE BOUNDARY
- 16 MILE CREEK TRIB N1-A
- FOAK 11\_DAT SECTIONS
- CULVERTS



# ANALYSIS AND EVALUATION DRAINAGE

- Culverts C2 and C3 will be extended to accommodate the road widening in these sections. Culverts C1 and C4 do not require upgrades or improvements.





# ANALYSIS AND EVALUATION

## MUNICIPAL SERVICING & UTILITIES

### Municipal Services

- The preferred widening alternative results in minimal impacts to existing watermain infrastructure.
- Moderate impacts to sewers are expected and mitigation measures will be confirmed during detailed design.

### Utilities

- Overhead Hydro – Will be impacted, particularly south of Highway 401 where 6 hydro poles will be relocated. The total number of pole relocations will be confirmed during detailed design.
- Underground Hydro – Will be impacted north of Highway 401, on both the east and west sides of the corridor.
- Gas Main – Low potential for impacts to existing gas main.

# ANALYSIS AND EVALUATION

## NOISE ASSESSMENT

- Noise modelling was carried out to compare the potential increase in noise level as a result of the proposed Regional Road 25 improvements.
- Noise modelling was carried out for 3 receiver locations identified throughout the study area; these are private residential houses (west side) located adjacent to or in close proximity to Regional Road 25.
- Findings from the noise analysis indicated that as a result of the proposed Regional Road 25 improvements, the receiver locations are not expected to experience an increase in noise level greater than 5 dBA.

Therefore, the consideration of noise mitigation is not warranted under the MTO/MECP Noise Protocol

# PROPOSED MITIGATION MEASURES

## Socio-Economic Environment

### Property Requirements

- Secure required right-of-way through development process within areas of active development .
- Where property is required, negotiate with property owners at fair market value.
- Continue to work with property owners during detailed design to confirm mitigation measures.

### Noise

- During construction, the contractor is to abide by the municipal noise control by-laws. The contractor will be required to keep idling of construction equipment to a minimum and maintain equipment in good working order to reduce noise from construction activities.

### Air Quality

- An air quality assessment is being carried out as part of the MCEA Study



# PROPOSED MITIGATION MEASURES

## Cultural Environment

Archaeology	<ul style="list-style-type: none"><li>• A Stage 2 Archaeological Assessment will be carried out during detailed design, as required.</li></ul>
Built Heritage	<ul style="list-style-type: none"><li>• The proposed improvements have been developed to minimize impact to heritage features.</li><li>• Provisions will be made to minimize disruption to cultural landscapes during construction.</li></ul>

# PROPOSED MITIGATION MEASURES

## Natural Environment

### General

- Limit encroachment of natural vegetation through design and construction methods.
- Application of standard environmental best management practices during construction for all works.
- Develop and implement comprehensive erosion and sediment control plan to protect aquatic and terrestrial resources.

### Aquatic

- Implement Department of Fisheries and Oceans (DFO) “Measures to Avoid Harm”
- Adhere to in-water work timing windows and undertake in-channel works in the dry, where possible. The presence of Redside Dace in Sixteen Mile Creek requires work to be completed between July 1 and September 15.
- Proposed work on culverts should be completed in accordance with the *Guidance for Development Activities in Redside Dace Protected Habitat* report published by the MNRF (2016).
- Use enhanced erosion and sediment control measures where required.

# PROPOSED MITIGATION MEASURES

## Natural Environment Cont'd

### Vegetation

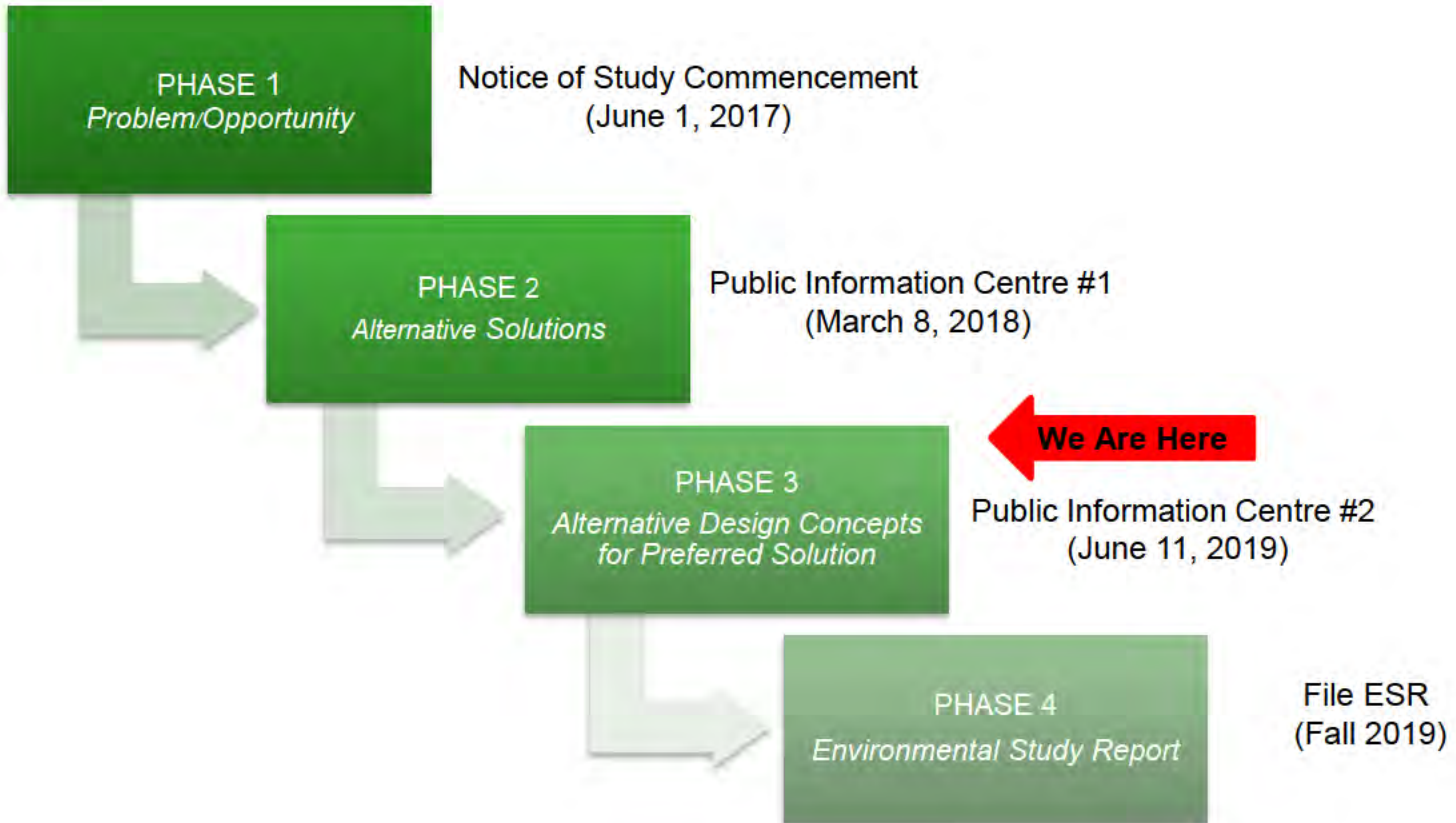
- Minimize removal of vegetation and re-stabilize and re-vegetate disturbed areas following construction.
- Utilize silt fencing and/or barriers along all construction areas adjacent to natural areas.
- All sediment and erosion controls will be monitored regularly and properly maintained, as required. Controls are to be removed only after soils of the construction area have been stabilized and adequately protected, or until cover is re-established.
- Disturbed natural areas will be restored to pre-construction conditions.

### Wildlife

- Works to be completed in accordance with the *Migratory Birds Conservation Act*, *Endangered Species Act*, and other applicable legislations.
- Vegetation clearing and removal activities to avoid breeding bird period to avoid direct impacts to wildlife anticipated to use these areas.
- Culvert design and construction to consider wildlife movement, in particular at locations identified as candidate movement corridors.



# STUDY SCHEDULE



# NEXT STEPS

- TAC #2 – Thursday, April 25, 2019
- Continue to meet with agencies and stakeholders as required
- PIC #2 – Tuesday, June 11, 2019 (drop-in from 6:30 pm – 8:30 pm)
- Review and incorporate the input received from review agencies, the public, and Indigenous communities
- Confirm and complete preferred alternative design
- Prepare an Environmental Study Report (ESR) to document the Class EA process
- Circulate draft ESR to agencies, including the Ministry of Environment Conservation and Parks (MECP) and Conservation Halton
- Finalize ESR and make available for public review for a minimum of 30 days (Fall 2019).

**Date:** February 22, 2018      **Project Number:** 165010586  
**Location:** 1151 Bronte Road,  
 Oakville ON –      **Project: 1650-10586**      Regional Road 25 Municipal  
 Glen Lawson/ Mansewood      Class Environmental  
 Room      Assessment (MCEA) Study  
**Time:** 10:00 a.m. – 11:30 a.m.      **Author:** David Moura, Stantec

**Attendees:**

Jeffrey Reid	Halton Region
Tarek Abul-Fotouh	Halton Region
Elyse Hosein	Halton Region
Ann Larkin	Halton Region
Gord Murray	Stantec Consulting
Paula Burnard	Stantec Consulting
David Moura	Stantec Consulting
Maureen Van Ravens	Town of Halton Hills
Krista Short	Town of Milton
Heide Schlegl	Town of Milton
Bill Klemmensen	Milton Fire
Fayyaz Siddiqui	Ministry of Transportation
Paul Kesner	Maplehurst Correctional Complex
Amanda McQuay	Bell Canada
Michael Reales	Cogeco
David Gadbois	Union Gas

**Distribution:**

**Purpose:** TAC Meeting #1

Item	Details	Action By
<b>1.0</b>	<b>Introductions &amp; Project Background</b>	
1.1	<ul style="list-style-type: none"> <li>All attendees were introduced.</li> </ul>	
1.2	<ul style="list-style-type: none"> <li>Stantec provided a brief overview of the Municipal Class Environmental Assessment (MCEA) Study and project background. Presentation attached.</li> </ul>	
<b>2.0</b>	<b>Town of Milton</b>	
2.1	<ul style="list-style-type: none"> <li>Town of Milton asked about modelling and if all planned improvements were included in the MCEA Study. The Town noted concerns about Steeles Avenue/Regional Road 25 congestion and transit impacts. Halton Region confirmed that the EMME model includes all population and employment (by traffic zone) to 2031 and includes all MTO and Regional capital improvements.</li> </ul>	
<b>3.0</b>	<b>Maplehurst Correctional Complex</b>	
3.1	<ul style="list-style-type: none"> <li>Maplehurst Correctional Complex highlighted concerns regarding utility impacts, construction coordination required, and potential power (hydro) interruptions. Backup power generator can be used but only covers roughly 30% of the facility's power requirements.</li> </ul>	



Item	Details	Action By
3.2	<ul style="list-style-type: none"> <li>It was noted that two watermain supply the facility: 1) under Highway 401 and goes north of the property, and 2) under Chisholm Drive. If one shuts off, the other is sufficient to supply the facility.</li> </ul>	
3.3	<ul style="list-style-type: none"> <li>There was discussion that there is only one access point into the Maplehurst Correctional Complex, via Chisholm Drive. Access is required for admitting, public visits, employees, and emergencies. Halton indicated access would be maintained at all times during construction.</li> </ul>	
3.4	<ul style="list-style-type: none"> <li>No flooding impacts were noted to date with recent rainfall events.</li> </ul>	
<b>4.0</b>	<b>Ministry of Transportation</b>	
4.1	<ul style="list-style-type: none"> <li>Schedule for Highway 401 widening and interchange improvements, (approximately 5-7 years) is based on successful proponent's schedule to complete ramps, etc. The RFP to be released next week for design-build assignment. The on-going Regional Road 25 bridge construction to be completed in late 2018 (under current design build contract).</li> <li>Expansion of carpool lot to be completed in 2018 (by Metrolinx). Go Bus and Milton Transit also use carpool lot.</li> <li>Regional Road 25 bridge construction will "tie in" just north and south of the ramp terminal intersection.</li> <li>Some work is occurring at Tributary N1-A, as well as ramp realignment as part of design-build contract.</li> </ul>	Halton and MTO
4.2	<ul style="list-style-type: none"> <li>MTO's preliminary design (revised version from General Arrangement (GA)) was received by the project team. This will need to be updated to reflect the 6-lane bridge now under construction.</li> </ul>	
4.3	<ul style="list-style-type: none"> <li>Region is managing the construction of the new Tremaine Road interchange. Miao Zhou is the MTO representative.</li> <li>Region has retained WSP for the detail design phase, which includes the Tremaine Road assignment from Main Street to 5 Side Road.</li> </ul>	Halton
<b>5.0</b>	<b>Union Gas</b>	
5.1	<ul style="list-style-type: none"> <li>A Union Gas utility conflict exists on the westbound Highway 401 on-ramp that must be addressed as part of the MTO contract. Union Gas would like to know how the Regional Road 25 design will "tie into" the MTO design in order to plan for relocation of the gas line. Halton, MTO and Union Gas to coordinate plans moving forward.</li> <li>Union Gas noted there is 8-inch gas service on the east side of Regional Road 25 and 4-inch gas service on the west side of Regional Road 25. Union Gas expressed that their preference is to move the 4-inch gas service on the west side of Regional Road 25. Halton Region indicated the project team is reviewing different design options for Regional Road 25 widening.</li> </ul>	Halton, MTO and Union Gas

Item	Details	Action By
<b>6.0</b>	<b>Milton Fire</b>	
6.1	<ul style="list-style-type: none"> <li>Milton Fire noted a large number of trucks are associated with Magna Karmax on Market Drive.</li> <li>Milton Fire noted importance of maintaining access to Maplehurst Correctional Facility.</li> <li>Milton Fire concerned with existing congestion in the vicinity of Highway 401 (currently under construction).</li> </ul>	
<b>7.0</b>	<b>Halton Region</b>	
7.1	<ul style="list-style-type: none"> <li>Halton Region noted that full movement access from Regional Road 25 will be removed, unless at signalized intersection, due to the proposed 6-lane cross section that will include a raised centre median. Property owners may be engaged at a later date to discuss access impacts.</li> </ul>	

Encl. Overview presentation (dated February 22, 2018)

# **Regional Road 25 Transportation Corridor Improvements Municipal Class EA Study**

**Steeles Avenue to 5 Side Road  
Town of Milton/Town of Halton Hills**

Technical Agency Committee Meeting #1  
February 22, 2018





# AGENDA

1. Introductions
2. Role of Technical Agency Committee
3. Project Overview
4. Existing Conditions
5. Problems & Opportunities
6. Planning Alternatives
7. Design Alternatives
8. Project Schedule
9. Next Steps

# Role of TAC

- An invitation to join the TAC was distributed to Federal and Provincial Ministries and review agencies, local municipalities, utilities, and other stakeholders identified on the project mailing list in conjunction with the Notice of Study Commencement.
- To facilitate discussions among relevant agencies and approval bodies
- To provide technical input into existing conditions and opportunities for the project, and to provide input into the alternatives and preliminary design.

# STUDY AREA

Halton Region is carrying out a Municipal Class Environmental Assessment (MCEA) Study for improvements to the Regional Road 25 corridor from Steeles Avenue to 5 Side Road in the Town of Milton/ Town of Halton Hills.

- Study area from Steeles Avenue to 5 Side Road, approximately 3 km in length;
- Serves local and inter-regional travel demand, as well as agricultural equipment and goods movement;
- Two structures are located within the study area:
  1. CNR Overpass, north of Steeles Avenue
  2. Highway 401 Overpass (currently under construction)
- A tributary of Sixteen Mile Creek traverses the study area (south of Chisholm Drive).

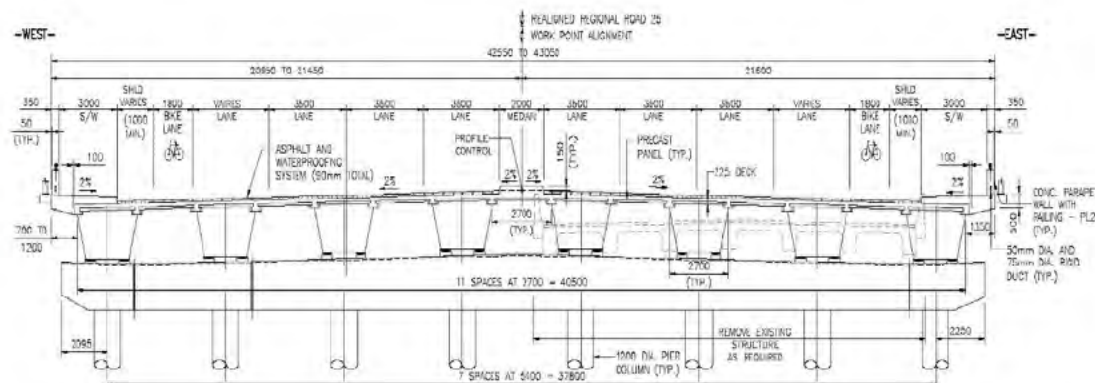




# RELATED STUDIES AND PROJECTS

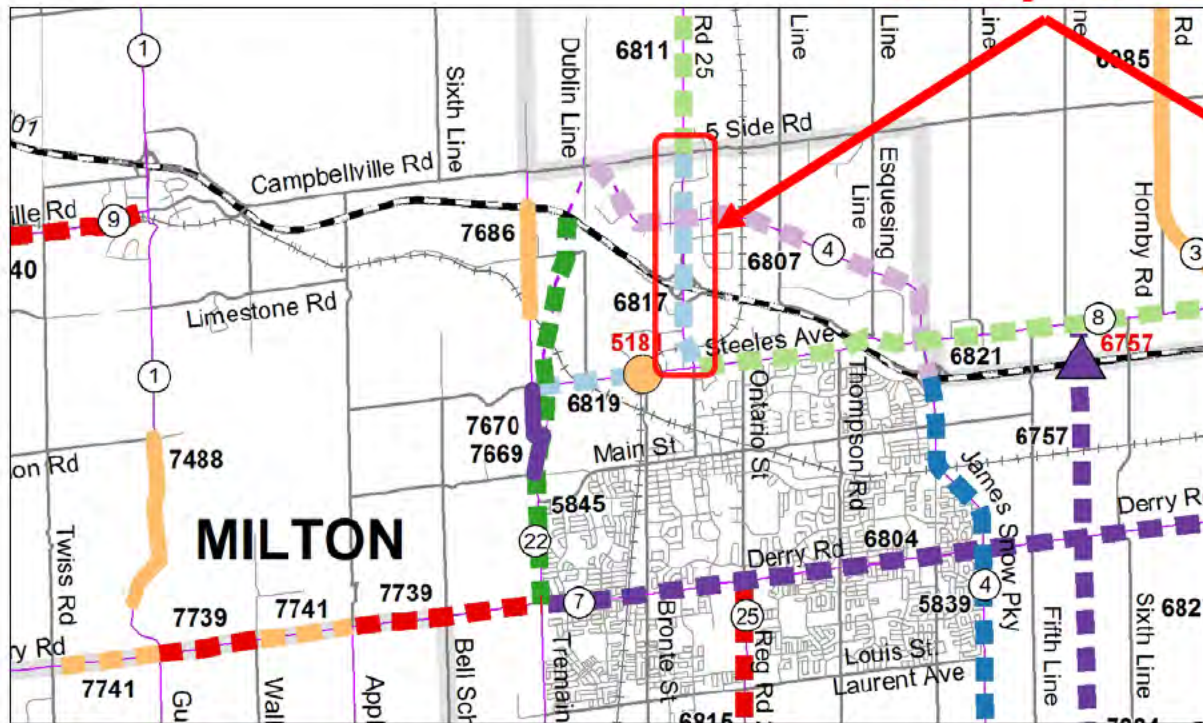
## Regional Road 25/Highway 401 Interchange Improvements, Ministry of Transportation (2016)

Future Regional Road 25 Cross Section over Highway 401 (Interchange currently under construction)

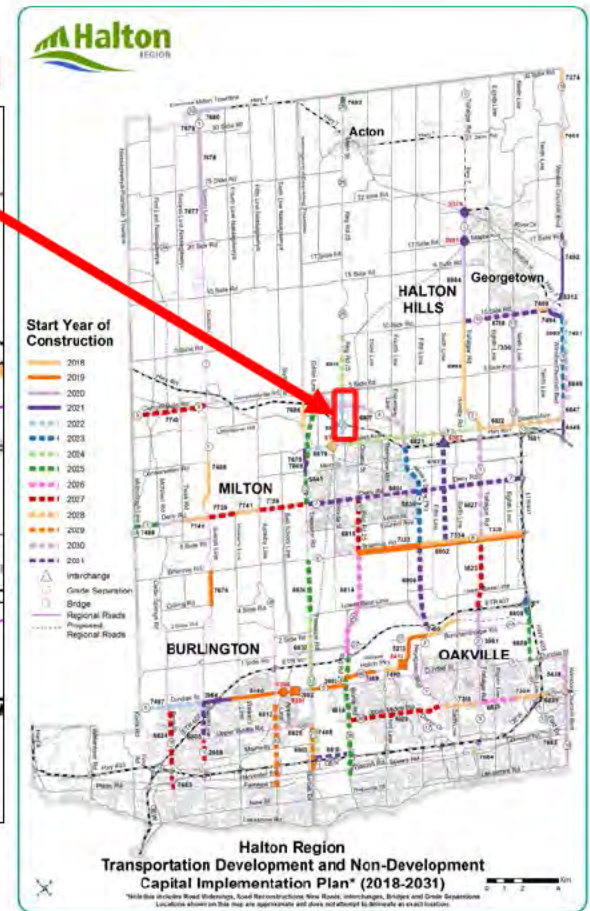


# HALTON REGION ROADS CAPITAL PROJECTS

Study Area

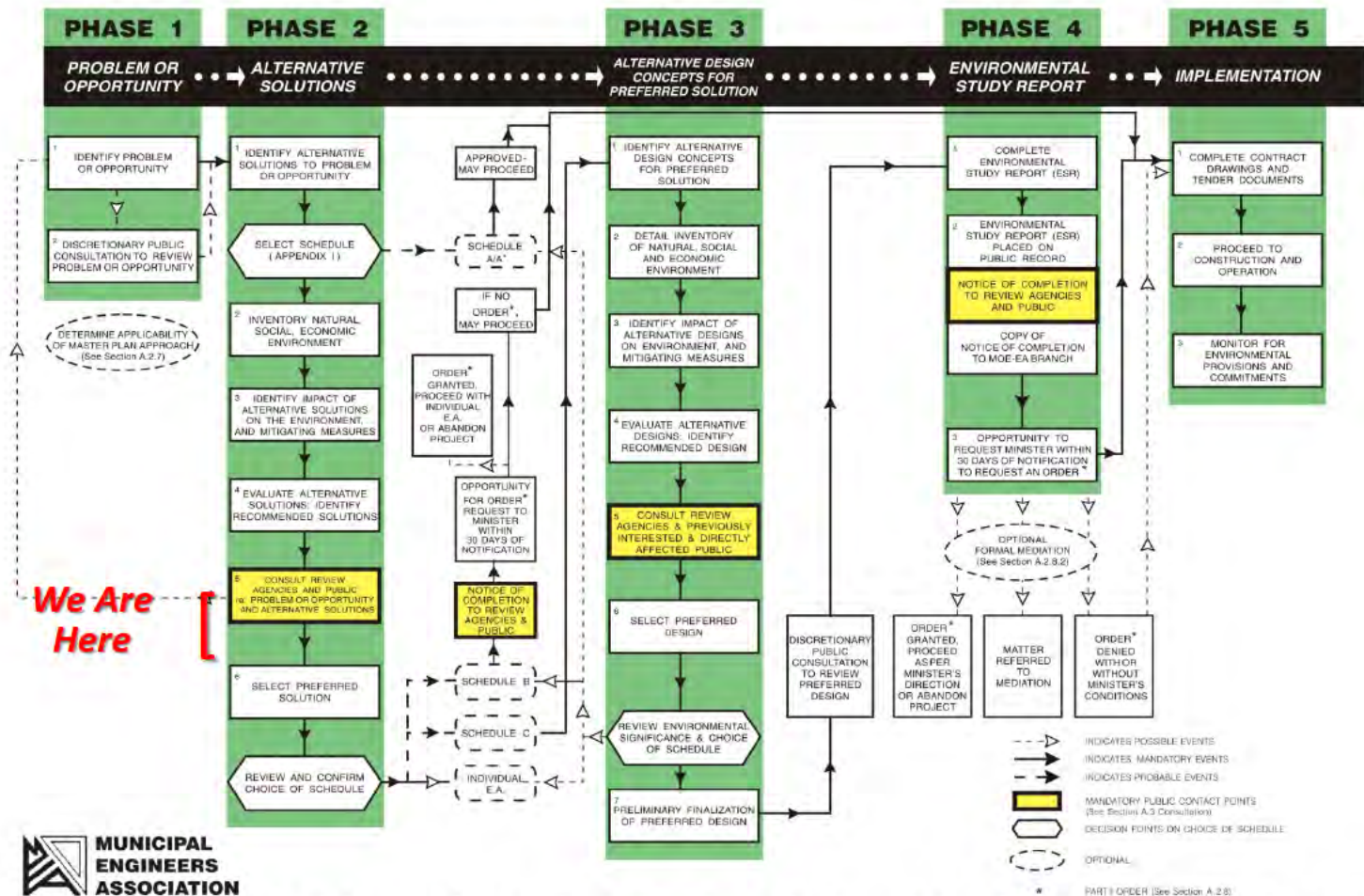


Note: The Road Capital Projects plan is subject to annual Regional Council review





# STUDY PROCESS

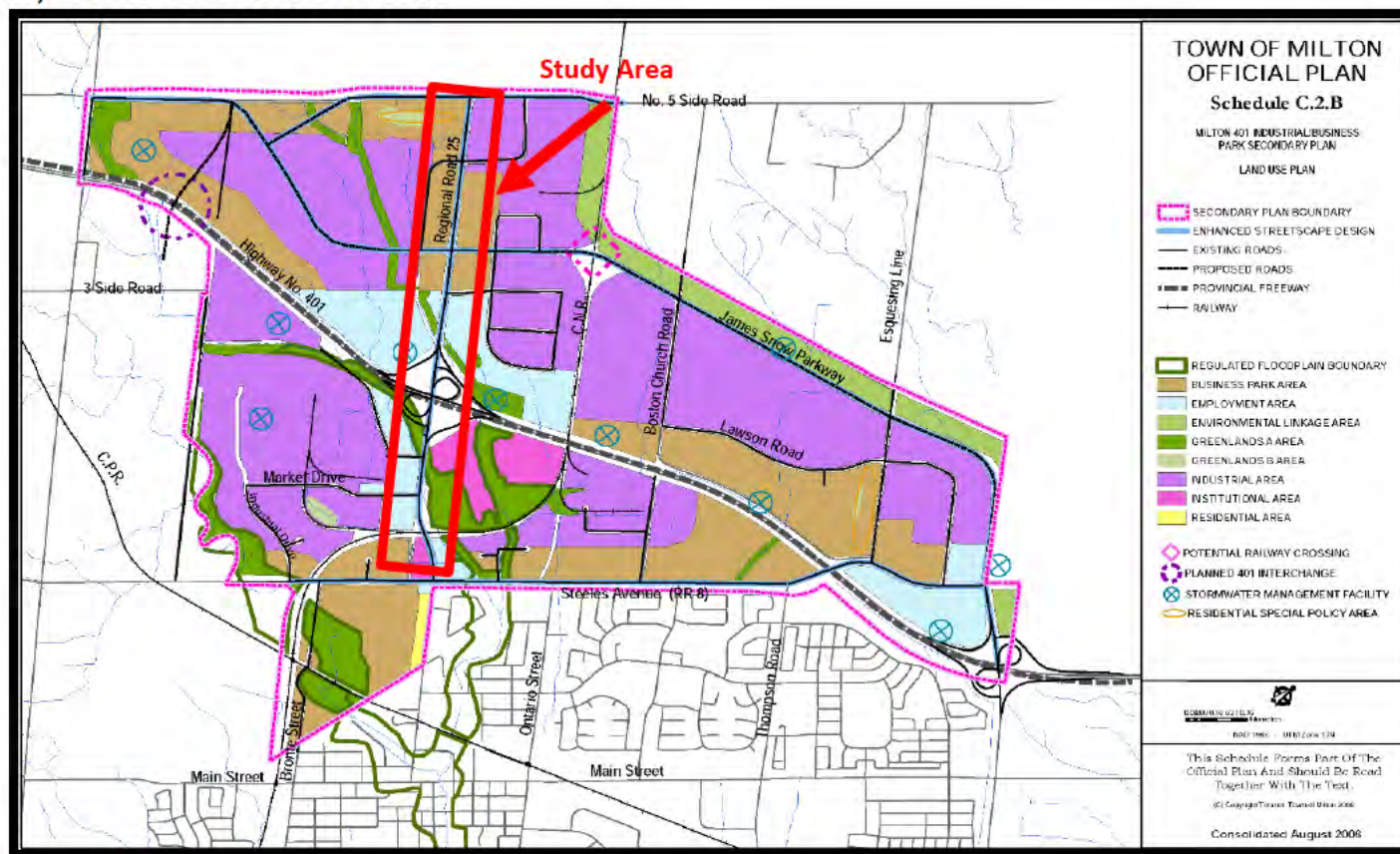


Based on the scope of this project, the Regional Road 25 MCEA Study is being planned as a Schedule 'C' project, which will complete Phases 1 to 4 outlined above.



# EXISTING CONDITIONS – SOCIO-ECONOMIC ENVIRONMENT

The study area is located within the Milton 401 Industrial/Business Park Planning Area. Land uses along the corridor include Employment, Industrial, and Institutional.





# EXISTING CONDITIONS – CULTURAL ENVIRONMENT

A review of potential built heritage and cultural heritage landscapes within the study area was undertaken. Two heritage resources were identified:

## Milton Train Station



## Maplehurst Correctional Complex and Vanier Centre for Women

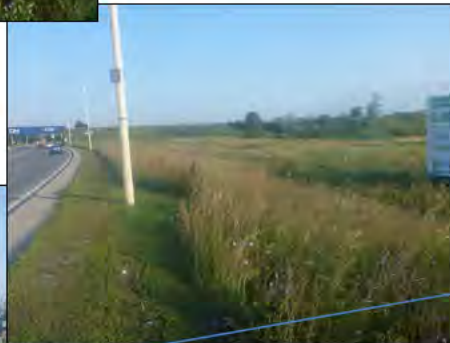


# EXISTING CONDITIONS – CULTURAL ENVIRONMENT

A Stage 1 archaeological assessment has been completed along the corridor to identify areas of archaeological potential:



Regional Road 25 Looking South



Regional Road 25 Looking South



Regional Road 25 Looking South – Chris Hadfield Park



★ Areas of archaeological potential  
(Stage 2 assessment required)



# EXISTING CONDITIONS – NATURAL ENVIRONMENT



ELC Code	Description
SWDM4-1	Willow Mineral Deciduous Swamp Type
CUW1	Cultural Woodland
MEMM4	Fresh - Moist Mixed Meadow Ecosite
CUT1-1	Sumac Deciduous Shrub Thicket Type
MA S2-1	Cattail Mineral Shallow Marsh Type
MA SM1-12	Common Reed Mineral Shallow Marsh Type
SWT2-5	Red-osier Dogwood Mineral Deciduous Thicket Swamp Type
THDM2-11	Hawthorn Deciduous Shrub Thicket Type
MEGM3	Dry - Fresh Graminoid Meadow Ecosite
CUT1-4	Gray Dogwood Deciduous Shrub Thicket Type
MA M2-3	Red-top Graminoid Mineral Meadow Marsh Type
MEMM3	Dry - Fresh Mixed Meadow Ecosite
MA MM1	Graminoid Mineral Meadow Marsh Ecosite
MA SM1-12	Willow Mineral Deciduous Swamp Type
SWM	Stormwater Management Facility

## Legend

- Study Area
- Species Observation
- Site Plan
- ELC Vegetation Community
- Regulation Limit (Approximate)

# EXISTING CONDITIONS – NATURAL ENVIRONMENTAL FEATURES

- One recent (1987) SAR/provincially rare species (Redside Dace)
- No designated natural features within the study area
- Cultural woodlands, thickets and meadows are associated with vacant lots, railway embankments and watercourses
- Wetland vegetation is associated with watercourses and SWM facilities
- Notable species observations include Barn Swallow (threatened), potential Monarch habitat (special concern), and Big Bluestem (locally uncommon)



# TRANSPORTATION – EXISTING CONDITIONS

- Regional Road 25 is an existing four-lane major arterial, with a posted speed limit of 50 km/h between Steeles Avenue and James Snow Parkway), and 70 km/h between James Snow Parkway and 5 Side Road.
- There is a CNR over-pass rail crossing on Regional Road 25, north of Steeles Avenue
  - CNR: 25 daily trains (freight only, may vary)
- There are limited provisions for cyclists and pedestrians.
- Daily travel demand ranges between 18,000 (near 5 Side Road) to 34,000 vehicles (near Steeles Avenue)
- Trucks are approximately 8% to 13% of all traffic





# TRANSPORTATION – 2031 CONDITIONS

- Future corridor traffic growth to 2031 reflects average peak hour growth rate between approximately 2% and 4% per year
- Daily travel demand projections to 2031 based on peak hour traffic growth rate – estimated to range between 27,000 to 52,000 vehicles:
  - Steeles Avenue to Hwy 401 WB Off-Ramp
    - 49,000 to 52,000 vehicles
  - Hwy 401 WB Off-Ramp to 5 Side Road
    - 52,000 to 27,000 vehicles



# TRANSPORTATION CONDITIONS

- Providing additional capacity in the Regional Road 25 corridor (i.e., widening to 6 lanes) will alleviate capacity issues at major intersections and will support future growth and development.





# EXISTING CONDITIONS – CN RAIL CROSSING

- The Canadian National Railway built a new spur line in 1963 that crosses over Regional Road 25 (north of Steeles Avenue).
- Two lanes of traffic, in each direction are accommodated under the overpass.
- Improvement to the overpass will be required to accommodate a widened cross-section, including active transportation facilities.





# EXISTING CONDITIONS – MUNICIPAL SERVICING & UTILITIES

## Municipal Services

- Watermain and sanitary sewers are buried within the right-of-way in order to service adjacent properties.

## Utilities

- Milton Hydro – overhead power lines from Steeles Avenue to 5 Side Road
- Bell Canada – buried cables within the right-of-way
- Union Gas – buried gas distribution lines within the right-of-way
- Rogers Cable – overhead wires, mounted on hydro poles



# EXISTING CONDITIONS – REGIONAL ROAD 25 DRAINAGE

- Study area contains tributaries and channels of Sixteen Mile Creek that ultimately drain to Lake Ontario
- 2 SWM ponds in the vicinity of the study area provide quantity and quality control, including:
  - S34 - southwest of the Regional Road 25/James Snow Parkway intersection
  - S36/Milton Pond - northeast the Highway 401/Regional Road 25 intersection
- Road runoff between Highway 401 and 5 Side Road collects via storm sewers on Regional Road 25 and outlets to the Milton Pond
- Road runoff between Highway 401 and Steeles Avenue collects via storm sewers, and drains to a tributary of Sixteen Mile Creek





# WATERCOURSE CROSSINGS



- Tributary to Sixteen Mile Creek crosses Chisholm Drive and Reg. Rd. 25 (C2 and C3)
- N-1A is Regulated Redside Dace habitat and crosses CNR downstream of C2



# EXISTING CONDITIONS – REGIONAL ROAD 25 DRAINAGE

Culvert	Span Size	Length	Type	Drainage Area	Events	Flow	TWL	Computed	Freeboard	Overtopping
ID	(mm)	(m)	(material)	(ha)		(m <sup>3</sup> /s)	(m)	HWL (m)		(Y/N)
C1	2100 x 1200	50	concrete box	58.9	5-Year	1.65	203.4	203.89	2.11	No
					50-Year	3.61	203.5	204.36	1.64	No
					100-Year	4.25	203.5	204.48	1.52	No
					Region Storm	6.86	203.6	204.95	1.05	No
C2	6000 x 2000	40	concrete box	362.9	10-Year	2.91	203.34	203.54	3.21	No
					50-Year	4.24	203.43	203.63	3.12	No
					100-Year	4.74	203.47	203.66	3.09	No
					Region Storm	30.32	207.04	207.06	-0.31	Yes
C3	3000 x 2400	19	concrete box	362.9	10-Year	2.91	204.69	204.79	2.01	No
					50-Year	4.24	204.89	204.97	1.83	No
					100-Year	4.74	204.95	205.24	1.56	No
					Region Storm	30.32	207.22	207.31	-0.51	Yes
C4	3000 x 2400	60	concrete box	658.0	10-Year	5.2	208.83	209.07	2.98	No
					50-Year	7.27	208.9	209.36	2.69	No
					100-Year	8.19	208.92	209.48	2.57	No
					Region Storm	36.29	209.21	211.83	0.22	No

# PROBLEM AND OPPORTUNITY

- Regional Road 25 is currently experiencing delays during peak periods and delays will increase at intersections in the future.
- Future traffic is expected to grow by 2031.
- To support future growth and travel demands, improvements to the Regional Road 25 corridor are required.
- The improved corridor should support all modes of transportation (i.e. active transportation, transit services, inter-regional travel, agricultural vehicles and goods movement).
- Therefore, Halton Region is carrying out this study to address these requirements in accordance with the MCEA process.

# PLANNING ALTERNATIVES

Improvements to the Regional Road 25 corridor are required to support existing and future transportation needs while respecting the social, cultural and natural environment. The following Planning Alternatives are being considered.

Alternatives	Description of Planning Alternatives	Evaluation	Recommendation
Do Nothing	Status quo; only planned improvements will be in place, including the widening of Steeles Avenue, James Snow Parkway extension, and the Tremaine Road realignment (with interchange)	Does not address future needs within the study area.	Not recommended for further consideration (for comparison purposes only)
Limit Development	Limit development within the Town of Milton/Town of Halton Hills	Future projections based on approved future urban area within the Halton Region and local municipal Official Plans	Do not carry forward



# PLANNING ALTERNATIVES

Alternatives	Description of Planning Alternatives	Evaluation	Recommendation
Travel Demand Management Measures	Measures to manage travel demand, such as carpooling, flexible work hours, telecommute, etc.	On their own, TDM measures do not address the problem, while part of the Region's overall transportation strategy	Carry forward within overall strategy
Improved Transit Service (GO Transit)/ Active Transportation	Upgrade GO Transit services on the Milton/Cambridge Line, and provide facilities for active transportation use to accommodate pedestrians and cyclists	On their own, these measures do not address the problem, while part of the Region's overall transportation strategy	Carry forward within overall strategy
Intersection and/or Operational Improvements	Enhance operations of roadway through minor improvements (i.e. traffic signals, provision of turning lanes, etc.)	On their own, do not address the problem while part of the Region's overall transportation strategy	Carry forward within overall strategy
Improvements to Other Roadways	Widen regional roadways in the immediate study area beyond planned improvements (e.g. Steeles Avenue, James Snow Parkway, and Tremaine Road).	Part of the Region's overall transportation strategy (Transportation Master Plan)	Part of overall Regional transportation strategy
Improvements to Regional Road 25	Improvements to the Regional Road 25 corridor, including provision for active transportation.	Needs identified in Halton Region Transportation Master Plan to support future growth	Carry forward within overall strategy

A combination of improvements to be carried forward and design alternatives to be developed.

# DESIGN ALTERNATIVES

Design alternatives will be developed and reviewed based on comments received from Agencies, Stakeholders and members of the Public, and evaluated based on the following factors:

## Socio-Economic Environment



- Existing and Future Land Uses
- Industrial/Commercial Operations
- Institutional/Recreational Uses
- Potential Property Requirements
- Property Access
- Noise Levels
- Provisions for Pedestrians and Cyclists
- Illumination
- Air Quality

## Cultural Environment



- Built Cultural Heritage
- Cultural Heritage Landscapes
- Archaeological Resources

## Natural Environment



- Vegetation
- Wildlife
- Creek Crossings
- Natural Hazards
- Policy Areas

## Transportation



- Corridor Capacity and Operations;
- Intersection Capacity and Operations;
- Geometric Standards
- Access Management
- Construction Staging

## Engineering Considerations



- Structural Requirements (CNR Overpass, Culverts)
- Municipal Services/Utilities
- Construction Staging
- Drainage and Stormwater Management

## Preliminary Cost Estimate



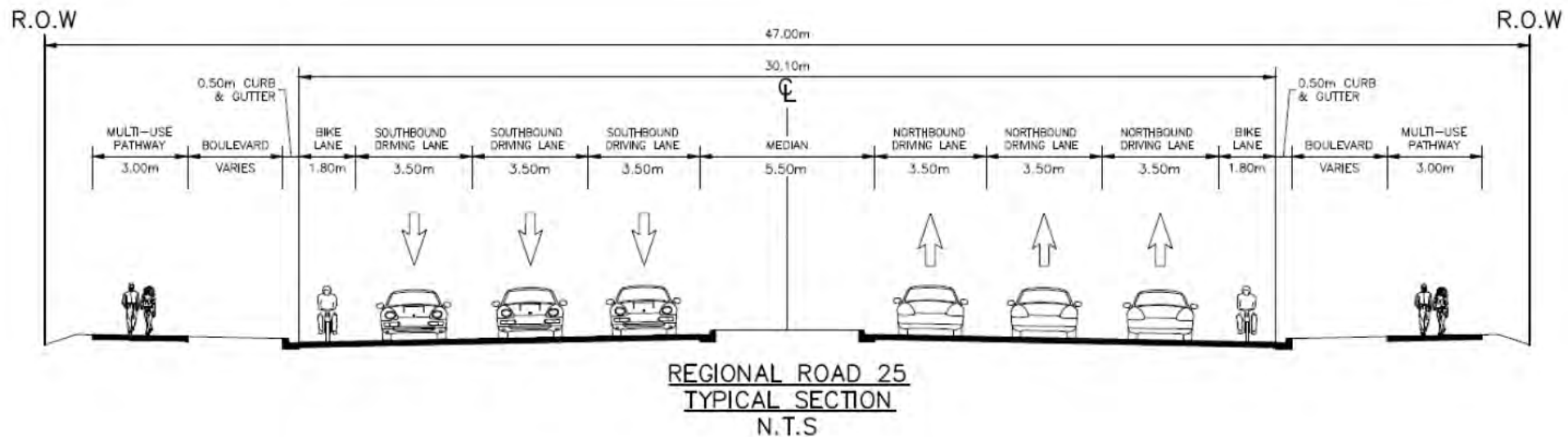
- Construction
- Operations and Maintenance
- Utility Relocation





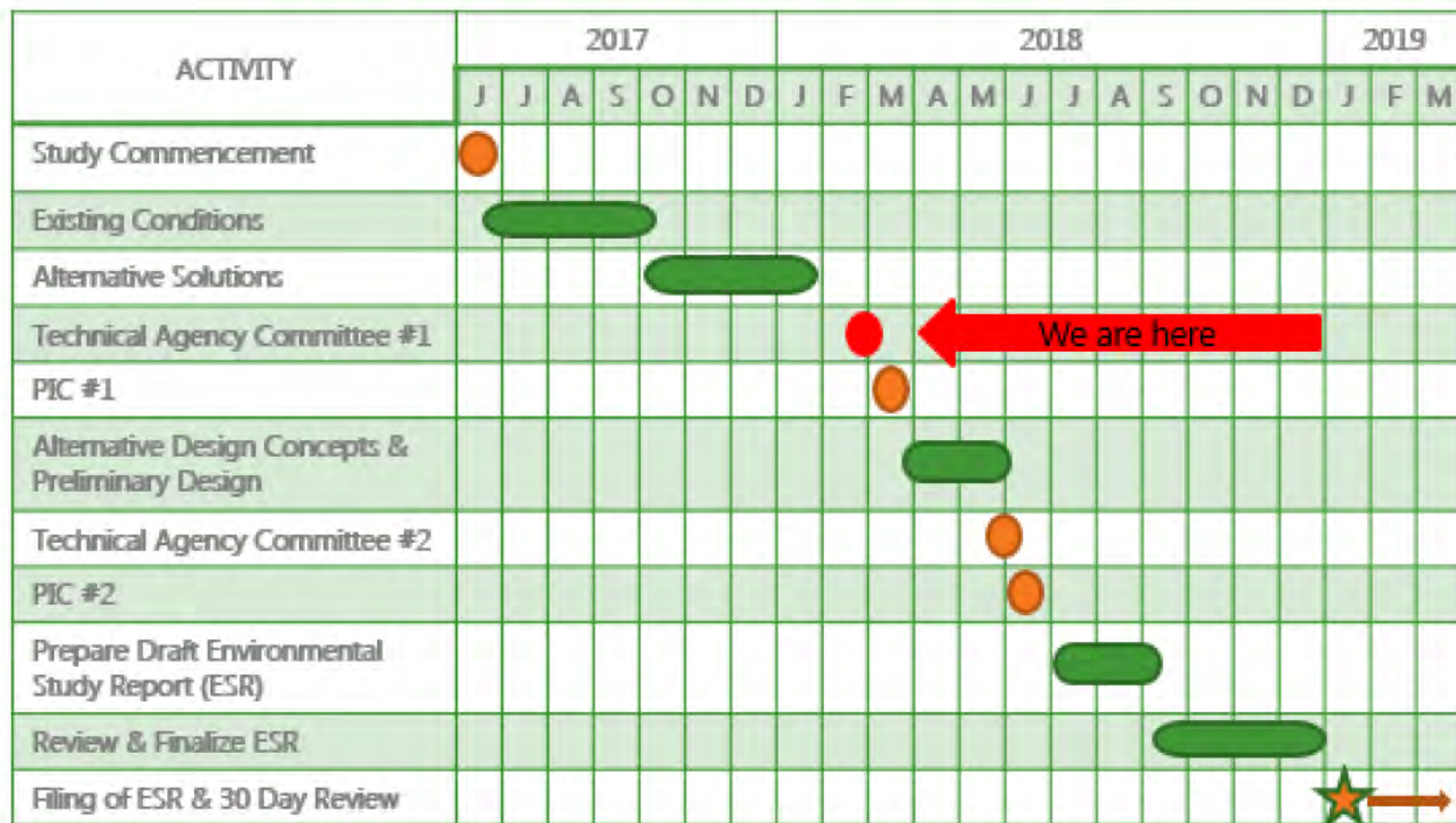
# TYPICAL 6 LANE CROSS-SECTION

C(4) Urban – 47m ROW





# PROJECT SCHEDULE



# NEXT STEPS

- PIC #1 – March 8 (drop-in from 6:30 – 8:30pm)
- Review and incorporate the input received from review agencies, the public, and Indigenous Communities
- Confirm preferred alternative solution
- Develop design alternatives to implement the preferred solution
- Continue to consult with technical agencies and other stakeholder groups
- Conduct PIC #2 to receive input on the preferred preliminary design

**Date:** April 25, 2019      **Project Number:** 165010586  
**Location:** 1151 Bronte Road,      **Project: 1650-10586**      Regional Road 25 Municipal  
                  Oakville ON –                Class Environmental  
                  Glen Lawson/ Mansewood                Assessment (MCEA) Study  
                  Room  
**Time:** 1:30 p.m. – 3:00 p.m.      **Author:** Paula Burnard, Stantec

**Attendees:**

Jeffrey Reid	Halton Region
Ann Larkin	Halton Region
Marek Braczek	Halton Region
Elyse Hosein	Halton Region
Gord Murray	Stantec Consulting Ltd.
Paula Burnard	Stantec Consulting Ltd.
Matt Howatt	Conservation Halton
Kate Sapozhnikova	Conservation Halton
Tawnia Martel	Conservation Halton
Holly Anderson	Conservation Halton
Don Matthews	Halton Hills Hydro
Amanda McQuay	Bell Canada
David Gadbois	Union Gas

**Distribution:** Project Team and Technical Agency Committee (TAC) Members

**Purpose:** TAC Meeting #2

Item	Details	Action By
<b>1.0</b>	<b>Introductions &amp; Project Background</b>	
1.1	<ul style="list-style-type: none"> <li>All attendees were introduced.</li> </ul>	
1.2	<ul style="list-style-type: none"> <li>Stantec provided a brief overview of the Regional Road 25 Municipal Class Environmental Assessment (MCEA) Study, focusing on the development and evaluation of Preliminary Alternative Designs and the Recommended Design Alternative. Presentation attached.</li> </ul>	
<b>2.0</b>	<b>Discussion</b>	
2.1	<ul style="list-style-type: none"> <li>Halton Region noted that the ultimate cross-section for Regional Road 25 will include a raised centre-median. This will restrict all existing full movement accesses/driveways to Right-In/Right-Out. Therefore, left-turns will only be permitted at signalized intersections.</li> <li>Individual property owner meetings have been scheduled, prior to Public Information Centre (PIC) #2 to discuss any potential impacts.</li> </ul>	
2.2	<ul style="list-style-type: none"> <li>Although there is currently no Region standard for placement of streetlighting, median poles and non-frangible poles (e.g., Hydro poles), should be avoided (if possible) in the clear zone. The preliminary preferred design for Regional Road 25 is proposing that streetlighting will be placed behind the multi-use path (if possible).</li> </ul>	
2.3	<ul style="list-style-type: none"> <li>Construction staging has yet to be developed and will be confirmed during detail design. However, it is likely that some temporary widening will be</li> </ul>	



Item	Details	Action By
	required in order to maintain traffic during construction, particularly in the section between Highway 401 and the CN Railway crossing.	
2.4	<ul style="list-style-type: none"> <li>The timing for Regional Road 25 is currently identified for start of construction in 2022. It is envisioned that new Tremaine Road, with interchange at Highway 401, will be open before construction commences on Regional Road 25.</li> </ul>	
<b>3.0</b>	<b>Bell Canada</b>	
3.1	<ul style="list-style-type: none"> <li>Bell is in the process of obtaining more accurate information on the concrete conduit and manholes located between High Point Road and James Snow Parkway.</li> </ul>	Bell
<b>4.0</b>	<b>Halton Hills Hydro</b>	
4.1	<ul style="list-style-type: none"> <li>Halton Hills Hydro shares a single pole line with Milton Hydro that runs east-west along 5 Side Road. Coordination meetings take place regularly and would be an option during detailed design.</li> </ul>	Stantec
<b>5.0</b>	<b>Conservation Halton</b>	
5.1	<ul style="list-style-type: none"> <li>CH requested the project team take the opportunity to review the option of designing a new structure under CN Rail versus the proposed relief culverts on either side of the existing structure. During detail design both the type of culvert(s) and sizing will be confirmed, in consultation with CH.</li> </ul>	Halton
<b>6.0</b>	<b>General</b>	
6.1	<ul style="list-style-type: none"> <li>Draft ESR is anticipated to be circulated to Agencies in Summer 2019 for a 6-week review period.</li> </ul>	
6.2	<ul style="list-style-type: none"> <li>Utilities requested a copy of the draft preliminary design plan for Regional Road 25. Attached.</li> </ul>	Stantec/ Halton

Encl. Overview presentation (dated April 25, 2019)  
Draft Preliminary Design Plan (dated April 8, 2019)

# **Regional Road 25 Transportation Corridor Improvements Municipal Class EA Study**

**Steeles Avenue to 5 Side Road  
Town of Milton/Town of Halton Hills**

Technical Agency Committee (TAC) Meeting #2  
April 25, 2019



# STUDY AREA

Halton Region is carrying out a Municipal Class Environmental Assessment (MCEA) Study for improvements to the Regional Road 25 corridor from Steeles Avenue to 5 Side Road in the Town of Milton/ Town of Halton Hills.

- Study area from Steeles Avenue to 5 Side Road, approximately 3 km in length;
- Serves local and inter-regional travel demand, as well as agricultural equipment and goods movement;
- Two structures are located within the study area:
  1. CNR Overpass, north of Steeles Avenue
  2. Highway 401 Overpass
- A tributary of Sixteen Mile Creek crosses the study area (north of Hwy 401).

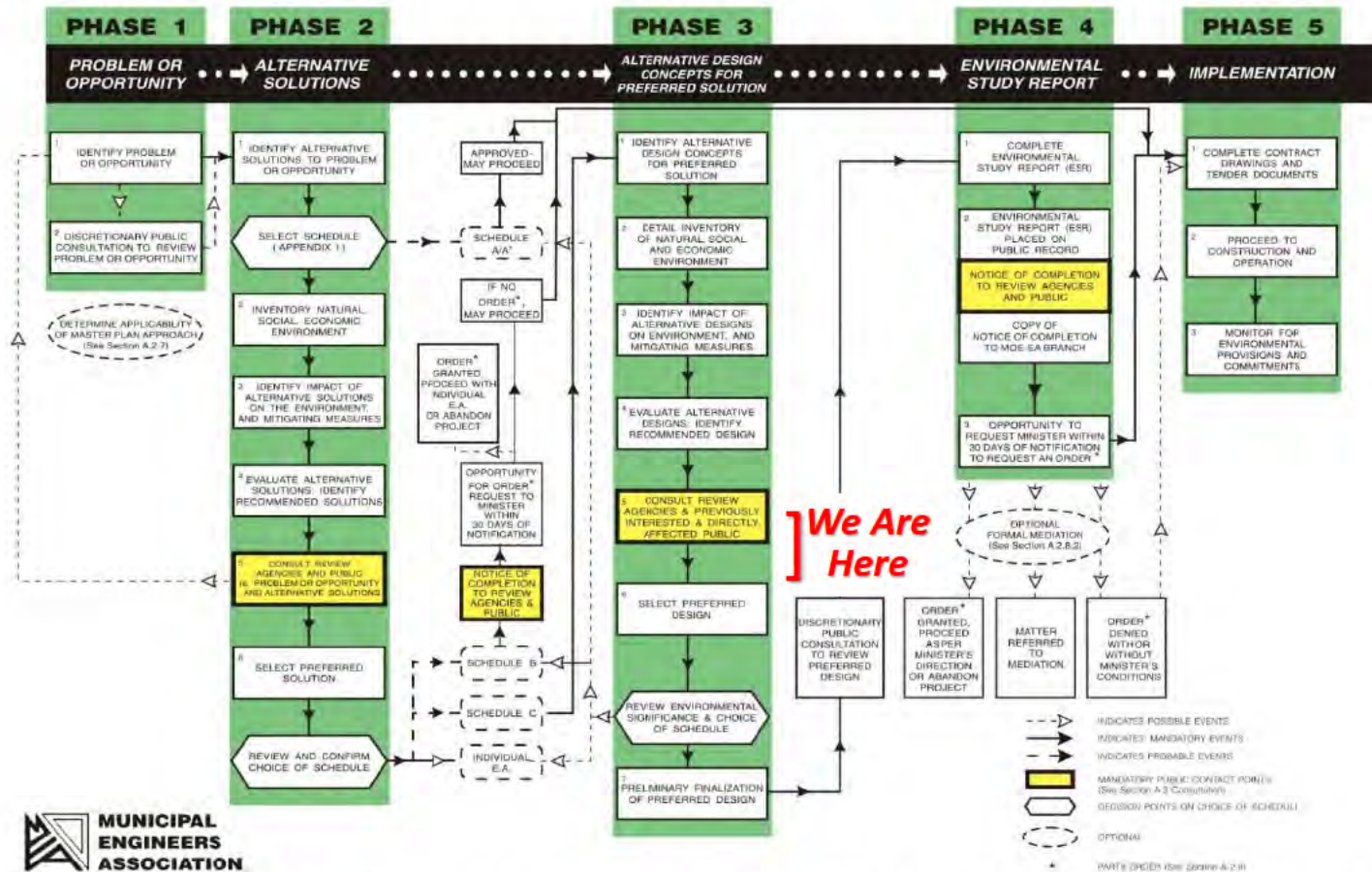




# PROBLEM AND OPPORTUNITIES

- Regional Road 25 is currently experiencing delays during peak periods and delays will increase at intersections in the future.
- Travel demand is expected to increase by 2031.
- To support future growth and travel demands, improvements to the Regional Road 25 corridor are required.
- The improved corridor should support all modes of transportation (i.e. active transportation, transit services, inter-regional travel, agricultural vehicles and goods movement).

# STUDY PROCESS



Based on the scope of this project, the Regional Road 25 MCEA Study is being planned as a Schedule 'C' project, which will complete Phases 1 to 4 outlined above.

# TAC MEETING #1 SUMMARY

- TAC #1 – February 22, 2018
- Presented study background and existing conditions: natural environment, socio-economic, cultural and transportation conditions
- Presented alternative planning solutions, factors for evaluation and analysis and the proposed typical cross-section
- A summary of the comments raised and discussed are listed below:
  - Town of Milton was provided confirmation that EMME modeling included all planned improvements, including Region and MTO
  - Maplehurst Correctional Complex highlighted the importance of maintaining power (hydro), as well as access to facility during construction
  - MTO provided update on interchange improvements at Regional Road 25
  - Union Gas noted an 8” gas service on east side and 4” gas service on west side
  - Milton Fire noted importance of maintaining access to Maplehurst Correctional Facility during construction and existing congestion at Highway 401



# ACTIVITIES SINCE TAC #1

- Public Information Centre #1 – March 8, 2018
- Reviewed and responded to comments received to date from agencies, stakeholders and general public
- Confirmed the preferred solution of widening Regional Road 25 from 4 to 6 lanes
- Developed alternative design concepts for the preferred solution, and completed analysis and evaluation to determine the preliminary technically preferred design

# FACTORS FOR ANALYSIS AND EVALUATION

The design alternatives were developed based on comments received from Agencies, Stakeholders and members of the Public, and evaluated based on the following factors:

## Socio-Economic Environment



- Existing and Future Land Uses
- Industrial/Commercial Operations
- Institutional/Recreational Uses
- Potential Property Requirements
- Property Access
- Noise Levels
- Provisions for Pedestrians and Cyclists
- Illumination
- Air Quality

## Cultural Environment



- Built Cultural Heritage
- Cultural Heritage Landscapes
- Archaeological Resources

## Natural Environment



- Vegetation
- Wildlife
- Creek Crossings
- Natural Hazards
- Policy Areas

## Transportation



- Corridor Capacity and Operations
- Intersection Capacity and Operations
- Geometric Standards
- Access Management
- Construction Staging

## Engineering Considerations



- Structural Requirements (CNR Overpass, Culverts)
- Municipal Services/Utilities
- Construction Staging
- Drainage and Stormwater Management

## Preliminary Cost Estimate



- Construction
- Operations and Maintenance
- Utility Relocation

# DEVELOPMENT OF ALTERNATIVE DESIGNS

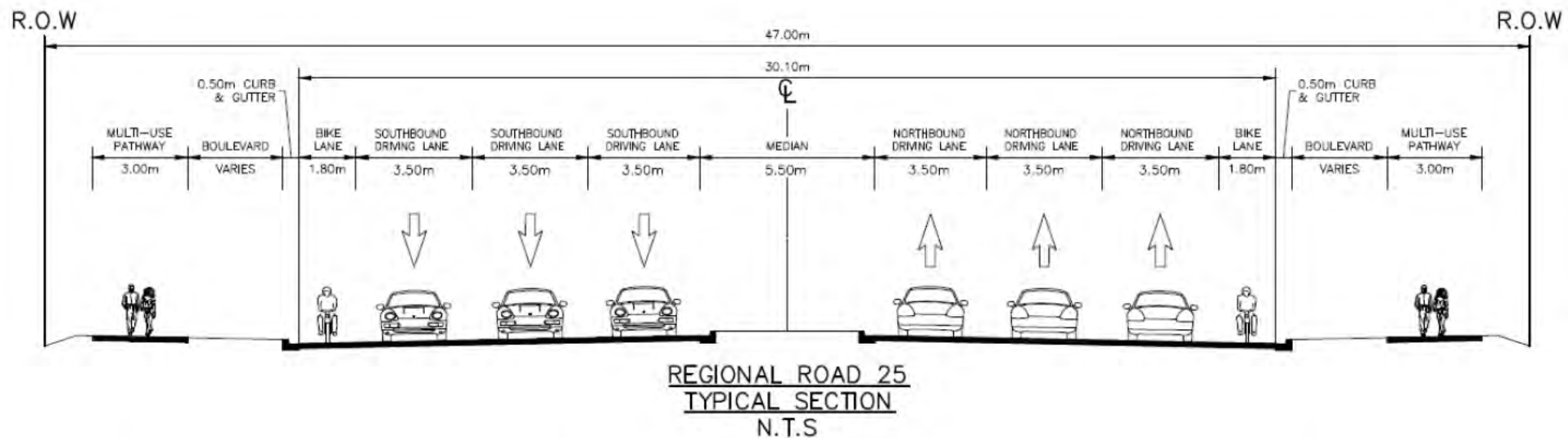
- Consideration was given to the following widening alternatives (four to six lanes) for Regional Road 25 between Steeles Avenue and 5 Side Road:
  - **Alternative 1** - Widen to the west of existing centerline (holding east property line)
  - **Alternative 2** - Widen to the east of existing centerline (holding west property line)
  - **Alternative 3** - Widen symmetrically on both sides of existing centerline
  - **Alternative 4** - “Best Fit” (combination of Alternates 1, 2 & 3)



# ALTERNATIVE DESIGN EVALUATION SUMMARY TABLE

	ALTERNATIVE 1 WIDEN TO THE WEST	ALTERNATIVE 2 WIDEN TO THE EAST	ALTERNATIVE 3 WIDEN SYMMETRICALLY	ALTERNATIVE 4 BEST FIT
Transportation	No preference – all alternatives meet transportation objectives			
Cultural Environment	Moderately Preferred	Moderately Preferred	Most Preferred	Most Preferred
Socio-economic Environment	Least Preferred	Least Preferred	Moderately Preferred	Most Preferred
Natural Environment	Least Preferred	Least Preferred	Moderately Preferred	Most Preferred
Engineering	Moderately Preferred	Least Preferred	Least Preferred	Most Preferred
Preliminary Cost Estimate	Least Preferred	Least Preferred	Most Preferred	Moderately Preferred
SUMMARY	NOT RECOMMENDED	NOT RECOMMENDED	NOT RECOMMENDED	RECOMMENDED

# TYPICAL 6 LANE CROSS-SECTION



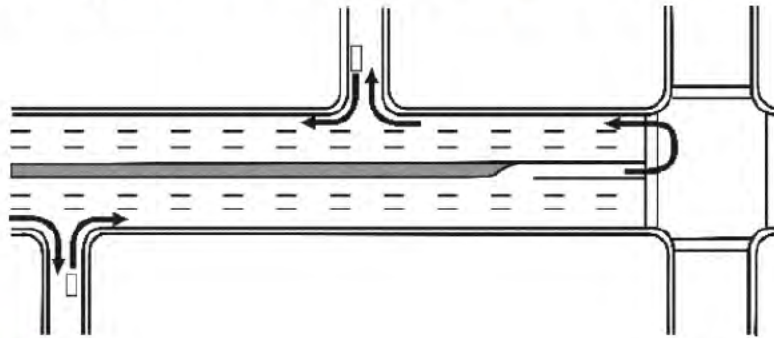
The typical cross-section will accommodate the following improvements:

- C(4) Urban Road Classification
- 47m right-of-way
- Accommodates continuous pedestrian and cycling facilities:
  - 3.0m multi-use trail (both sides of the road)
  - 1.8m exclusive bike lane (both sides of the road)
- Opportunity for landscaping within right-of way



# REGIONAL ROAD 25 - ACCESS

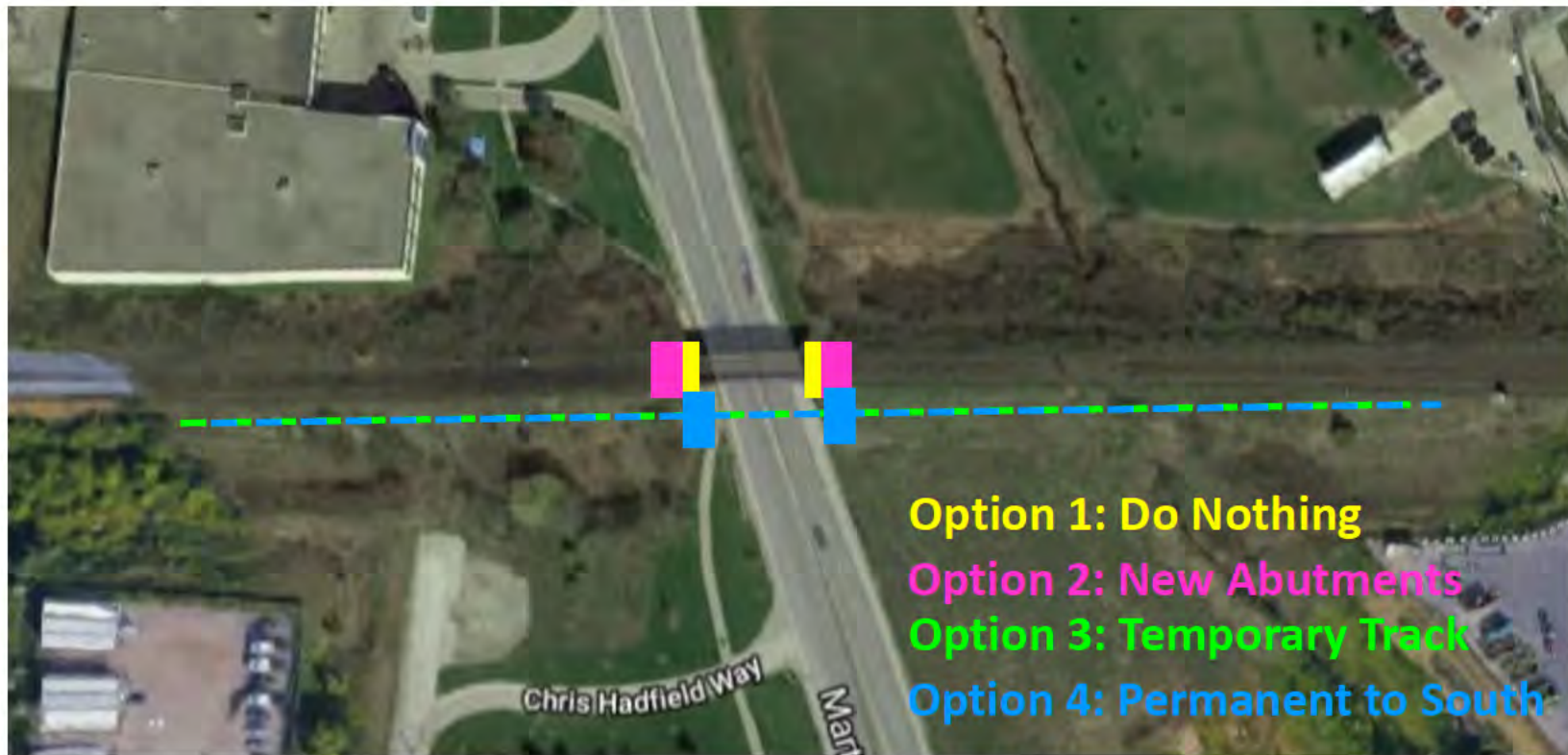
- As a major arterial, Regional Road 25 will include left and right turn lanes at most signalized intersections
- There are existing commercial and residential properties along Regional Road 25 that currently have full move access (i.e. can turn left and right)
- However, when Regional Road 25 is widened, there will be a raised median throughout its length except at signalized intersections
- Access to all commercial and residential properties will become right-in/right-out access only
- Private residences and businesses will require alternate ways to access/egress – including “U” Turns at signalized intersections
- By limiting access, Regional Road 25 will be more efficient and will operate safely





# CN Rail - Options

<u>Option 1</u> Maintain the Existing Bridge Structure (Do Nothing)	<u>Option 2</u> Construct New Abutments and Lengthen Bridge (In Place)	<u>Option 3</u> Temporary Single- Track Rail Diversion to the South	<u>Option 4</u> Single-Track Permanent Realignment on a New Bridge
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# ANALYSIS AND EVALUATION

## CN RAIL CROSSING

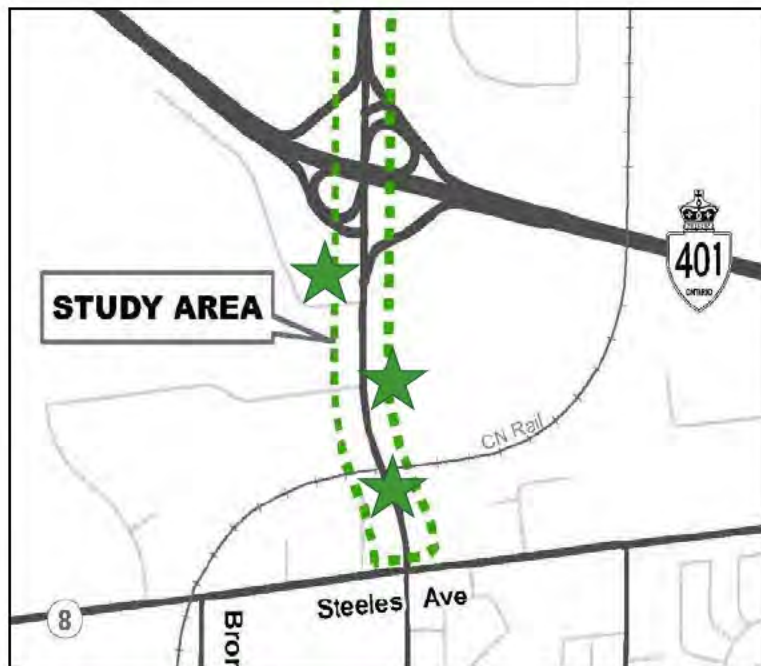
	<b>Option 1</b> <b>Maintain the Existing</b> <b>Bridge Structure</b> <b>(Do Nothing)</b>	<b>Option 2</b> <b>Construct New</b> <b>Abutments and</b> <b>Lengthen Bridge</b> <b>(In Place)</b>	<b>Option 3</b> <b>Temporary Single-</b> <b>Track Rail Diversion</b> <b>to the South</b>	<b>Option 4</b> <b>Single-Track</b> <b>Permanent</b> <b>Realignment on a</b> <b>New Bridge</b>
<b>Accommodates</b> <b>RR25 X-Section</b>	No	Yes	Yes	No
<b>Closures</b> <b>(Track/Road)</b>	Long duration track closure required during construction	Numerous nightly work blocks and 48 – 72hr track closure	Night-time work blocks and two 12hr track closures Minimizes the impact on rail operations and roadway disruption	
<b>Constructability</b>	Open-cutting or tunneling required for pathways	Highest bridge construction complexity	Rebuild of long section of diversion track, plus passing track and two switches replaced	
<b>Cost</b>	Lowest Cost compared to all options	“throw-away costs”	Highest capital cost	Lower capital cost compared to Option 3
<b>Summary</b>	<b>Not Recommended</b>	<b>Not Recommended</b>	<b>Recommended</b>	<b>Recommended</b>



# ANALYSIS AND EVALUATION

## ARCHAEOLOGICAL ASSESSMENT

- A Stage 1 Archaeological Assessment was completed as part of this project.
- A Stage 2 Archaeological Assessment will be completed during detailed design at areas identified with archaeological potential.



Regional Road 25 Looking South



Regional Road 25 Looking South



Regional Road 25 Looking South – Chris Hadfield Park



# ANALYSIS AND EVALUATION

## CULTURAL HERITAGE ASSESSMENT

- Two cultural heritage resources were identified within the study area. These resources will be avoided during the proposed road improvements:

Milton Train Station



Maplehurst Correctional Complex  
and Vanier Centre for Women





# ANALYSIS AND EVALUATION

## NATURAL HERITAGE ASSESSMENT

- The results of the Natural Heritage Assessment are as follows:
  - All vegetation communities identified in the study area are considered common in southern Ontario.
  - Barn swallow nesting is confirmed in culvert C4. The other 3 culverts are also suitable for nesting.
  - Redside Dace habitat is confirmed in the three Sixteen Mile Creek tributaries crossed by culverts C1, C2, C3, and C4.
  - One potential habitat for species of conservation concern (Monarch) and one candidate amphibian breeding habitat was identified in the study area.





# ANALYSIS AND EVALUATION DRAINAGE (Regional Storm Event)

Existing Conditions



Proposed Conditions



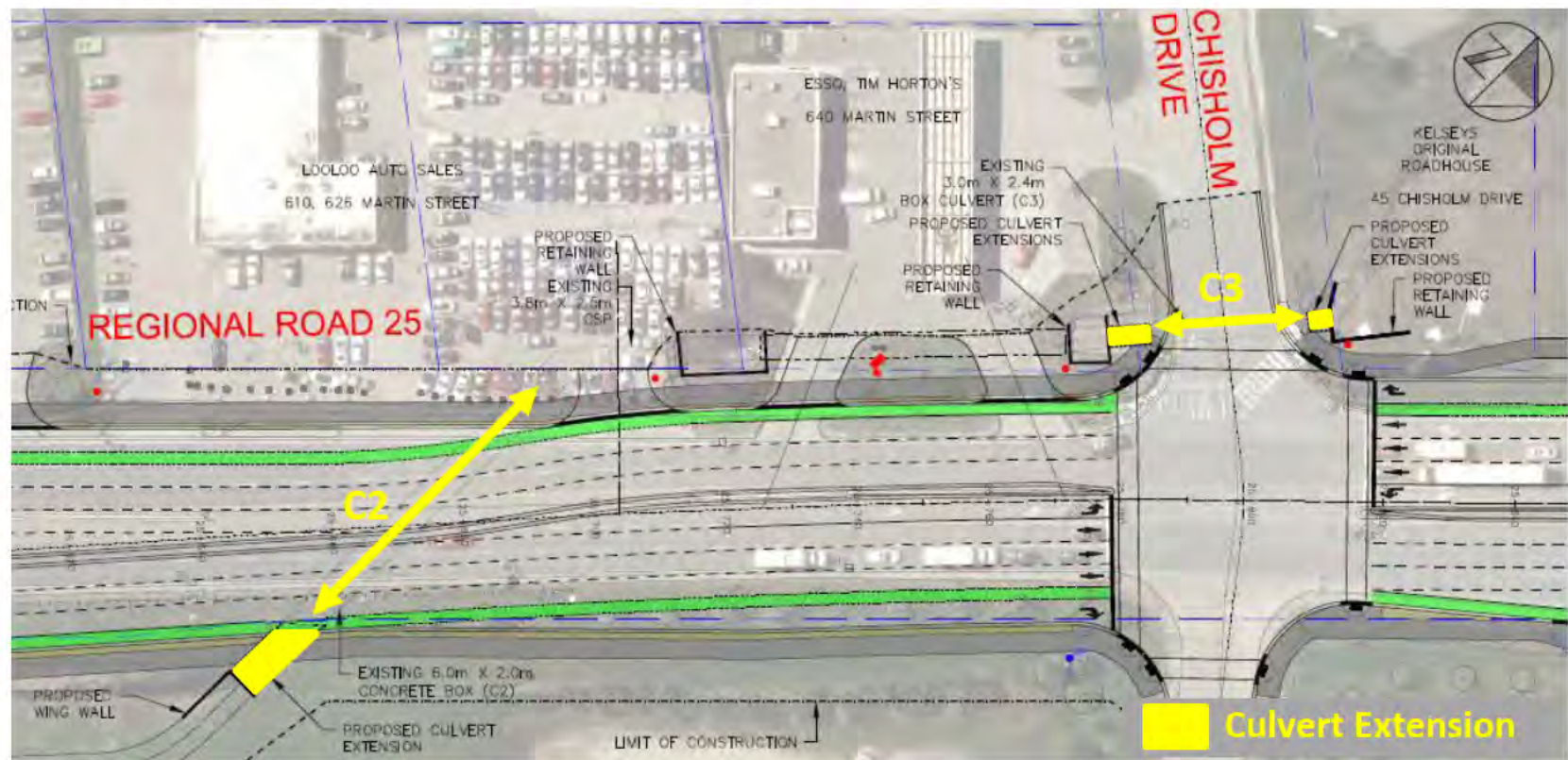
Legend

- REGIONAL FLOODLINE
- SITE BOUNDARY
- 16 MILE CREEK TRIB N1-A
- FOAK 11\_DAT SECTIONS
- CULVERTS



# ANALYSIS AND EVALUATION DRAINAGE

- Culverts C2 and C3 will be extended to accommodate the road widening in these sections. Culverts C1 and C4 do not require upgrades or improvements.



# ANALYSIS AND EVALUATION

## MUNICIPAL SERVICING & UTILITIES

### Municipal Services

- The preferred widening alternative results in minimal impacts to existing watermain infrastructure.
- Moderate impacts to sewers are expected and mitigation measures will be confirmed during detailed design.

### Utilities

- Overhead Hydro – Will be impacted, particularly south of Highway 401 where 6 hydro poles will be relocated. The total number of pole relocations will be confirmed during detailed design.
- Underground Hydro – Will be impacted north of Highway 401, on both the east and west sides of the corridor.
- Gas Main – Low potential for impacts to existing gas main.

# ANALYSIS AND EVALUATION

## NOISE ASSESSMENT

- Noise modelling was carried out to compare the potential increase in noise level as a result of the proposed Regional Road 25 improvements.
- Noise modelling was carried out for 3 receiver locations identified throughout the study area; these are private residential houses (west side) located adjacent to or in close proximity to Regional Road 25.
- Findings from the noise analysis indicated that as a result of the proposed Regional Road 25 improvements, the receiver locations are not expected to experience an increase in noise level greater than 5 dBA.

Therefore, the consideration of noise mitigation is not warranted under the MTO/MECP Noise Protocol



# PROPOSED MITIGATION MEASURES

## Socio-Economic Environment

### Property Requirements

- Secure required right-of-way through development process within areas of active development .
- Where property is required, negotiate with property owners at fair market value.
- Continue to work with property owners during detailed design to confirm mitigation measures.

### Noise

- During construction, the contractor is to abide by the municipal noise control by-laws. The contractor will be required to keep idling of construction equipment to a minimum and maintain equipment in good working order to reduce noise from construction activities.

### Air Quality

- An air quality assessment is being carried out as part of the MCEA Study

# PROPOSED MITIGATION MEASURES

## Cultural Environment

Archaeology	<ul style="list-style-type: none"><li>• A Stage 2 Archaeological Assessment will be carried out during detailed design, as required.</li></ul>
Built Heritage	<ul style="list-style-type: none"><li>• The proposed improvements have been developed to minimize impact to heritage features.</li><li>• Provisions will be made to minimize disruption to cultural landscapes during construction.</li></ul>

# PROPOSED MITIGATION MEASURES

## Natural Environment

### General

- Limit encroachment of natural vegetation through design and construction methods.
- Application of standard environmental best management practices during construction for all works.
- Develop and implement comprehensive erosion and sediment control plan to protect aquatic and terrestrial resources.

### Aquatic

- Implement Department of Fisheries and Oceans (DFO) “Measures to Avoid Harm”
- Adhere to in-water work timing windows and undertake in-channel works in the dry, where possible. The presence of Redside Dace in Sixteen Mile Creek requires work to be completed between July 1 and September 15.
- Proposed work on culverts should be completed in accordance with the *Guidance for Development Activities in Redside Dace Protected Habitat* report published by the MNRF (2016).
- Use enhanced erosion and sediment control measures where required.



# PROPOSED MITIGATION MEASURES

## Natural Environment Cont'd

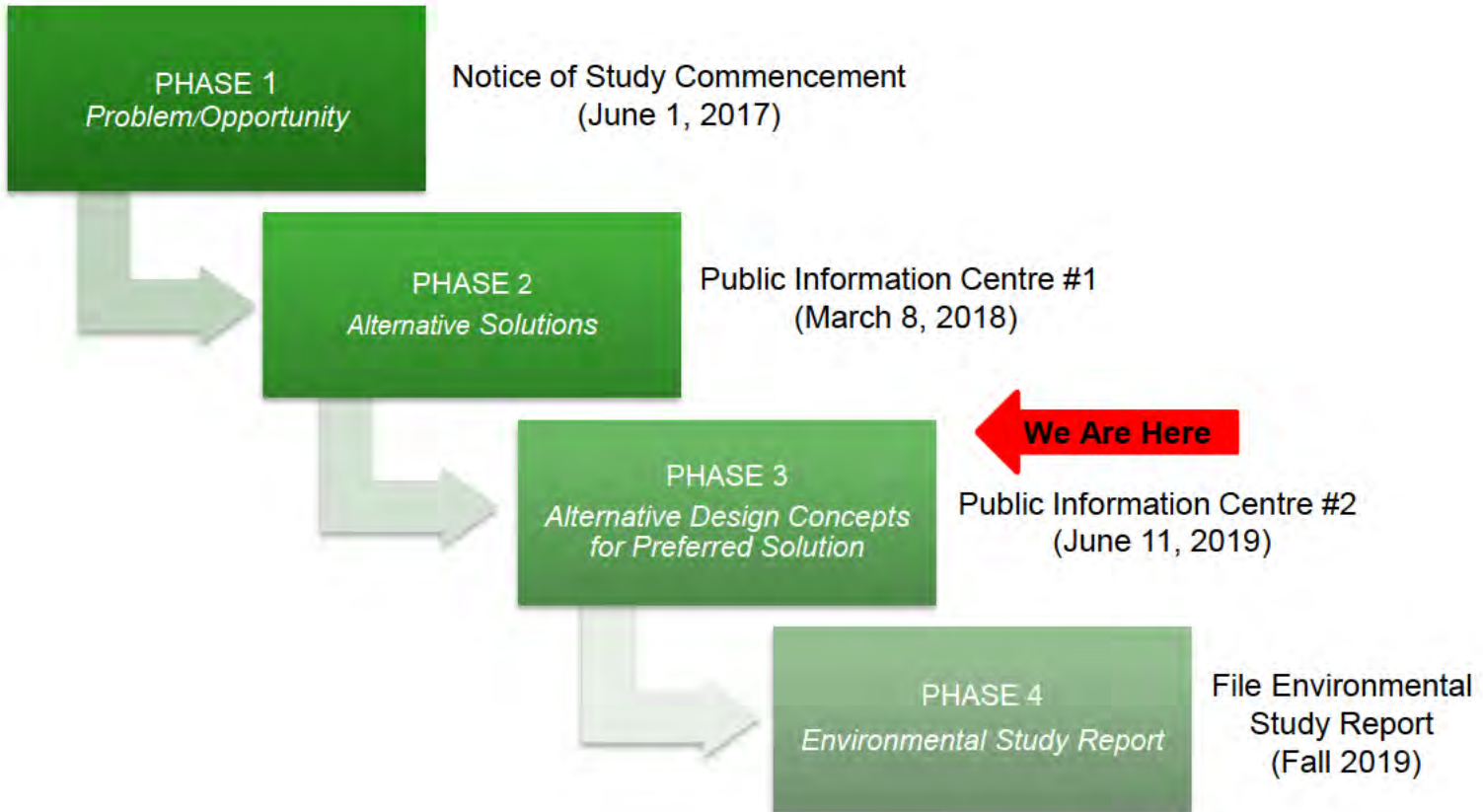
### Vegetation

- Minimize removal of vegetation and re-stabilize and re-vegetate disturbed areas following construction.
- Utilize silt fencing and/or barriers along all construction areas adjacent to natural areas.
- All sediment and erosion controls will be monitored regularly and properly maintained, as required. Controls are to be removed only after soils of the construction area have been stabilized and adequately protected, or until cover is re-established.
- Disturbed natural areas will be restored to pre-construction conditions.

### Wildlife

- Works to be completed in accordance with the *Migratory Birds Conservation Act*, *Endangered Species Act*, and other applicable legislations.
- Vegetation clearing and removal activities to avoid breeding bird period to avoid direct impacts to wildlife anticipated to use these areas.
- Culvert design and construction to consider wildlife movement, in particular at locations identified as candidate movement corridors.

# STUDY SCHEDULE



# NEXT STEPS

- Continue to meet with agencies and stakeholders as required
- PIC #2 – Tuesday, June 11, 2019 (drop-in from 6:30 pm – 8:30 pm)
- Review and incorporate the input received from review agencies, the public, and Indigenous communities
- Confirm and complete preferred alternative design
- Prepare an Environmental Study Report (ESR) to document the Class EA process
- Circulate draft ESR to agencies, including the Ministry of Environment Conservation and Parks (MECP) and Conservation Halton
- Finalize ESR and make available for public review for a minimum of 30 days (Fall 2019)



**Date:** March 6, 2018      **Project Number:** 165010586  
**Location:** Downsview – 3<sup>rd</sup> Floor Boardroom      **Project: 165010586**      Regional Road 25 Municipal Class Environmental Assessment (MCEA) Study  
**Time:** 10:00am – 12:00pm      **Author:** David Moura, Stantec

**Attendees:**

Jeffrey Reid	Halton Region
Ann Larkin	Halton Region
Gord Murray	Stantec Consulting
Paula Burnard	Stantec Consulting
David Moura	Stantec Consulting
Francois Tomeo	Stantec Consulting
Fayyaz Siddiqui	MTO
Miao Zhou	MTO
Graham Routledge	MTO

**Distribution:**

**Purpose:** MTO Meeting #1

Item	Details	Action By
<b>1.0</b>	<b>Introductions &amp; Project Background</b>	
1.1	<ul style="list-style-type: none"> <li>All attendees were introduced</li> </ul>	
1.2	<ul style="list-style-type: none"> <li>Stantec provided a brief overview of the Municipal Class Environmental Assessment (MCEA) Study and project background. Presentation attached.</li> </ul>	
<b>2.0</b>	<b>Tremaine Road</b>	
2.1	<ul style="list-style-type: none"> <li>MTO requested information on the anticipated construction timing for the Tremaine Road interchange. <i>[Post Meeting Note: The Region confirmed with the Tremaine Road Project Manager (Dave Collum) that WSP has been retained to complete the detail design from Main Street to 5 Side Road. The current Tremaine Road improvements are anticipated to be completed in 2022].</i></li> </ul>	Halton Region
<b>3.0</b>	<b>Drainage</b>	
3.1	<ul style="list-style-type: none"> <li>It was confirmed through discussions that Culvert C4 (MTO refers to this as Culvert C16) is owned by the Region. MTO mentioned that this culvert may fall into their new right-of-way.</li> </ul>	
3.2	<ul style="list-style-type: none"> <li>No impacts are anticipated for the storm sewer located along the north side of Tributary N-2B.</li> </ul>	
3.3	<ul style="list-style-type: none"> <li>Stantec raised the issue that there is a possible impact to the watercourse running next to the W-N/S off ramp.</li> </ul>	
3.4	<ul style="list-style-type: none"> <li>MTO has revised drainage reports available for SWM Pond S36.</li> </ul>	

Item	Details	Action By
3.5	MTO advised to contact Darlene Proudfoot, MTO Environmental Planner, for details of work underway at culvert C4, drainage reports, and watercourse impacts.	Stantec
<b>4.0</b>	<b>Traffic</b>	
4.1	<ul style="list-style-type: none"> <li>Region noted the project horizon is 2031 <ul style="list-style-type: none"> <li>MTO informed the Region that the 2041 model is available, and that Shane Giguere, MTO Traffic Supervisor, should be contacted.</li> </ul> </li> </ul>	Halton Region
4.2	<ul style="list-style-type: none"> <li>MTO requested to review the draft Traffic Study for Regional Road 25 MCEA Study. Region noted that the EMME model takes into account all population and employment statistics (by traffic zone), to develop 2031 'future' traffic projections.</li> </ul>	Stantec
4.3	<ul style="list-style-type: none"> <li>Stantec commented that the EB off-ramp does not appear to be the "Ultimate" condition, with only three lanes proposed. To be confirmed by traffic numbers.</li> </ul>	Stantec
<b>5.0</b>	<b>Geotechnical</b>	
5.1	<ul style="list-style-type: none"> <li>MTO advised that if geotechnical work is required, an encroachment permit needs to be attained. Anyone working within the MTO right-of-way needs to be RAQs approved. The encroachment permit takes approximately 28 days to obtain and can be submitted through Fayyaz Siddiqui.</li> </ul>	Stantec
<b>6.0</b>	<b>Highway 401 Widening</b>	
6.1	<ul style="list-style-type: none"> <li>RFP for the Highway 401 widening project was released on February 28, 2018. The Consortium is to be on-board by January 2019. The RFP indicates that ProjectCo must coordinate with Halton Region as part of the design preparation of the interchange at Regional Road 25. There will be two addendums released in the next 4 months. All 3 bidders will complete up to 30% design. Region can provide Projectco with preliminary design of Regional Road 25 interchange by early summer of 2017 for coordination of MTO design process.</li> </ul>	Halton Region
<b>7.0</b>	<b>MTO Schedule</b>	
7.1	<ul style="list-style-type: none"> <li>Carpool lot located in the southeast quadrant of Regional Road 25 and Highway 401 interchange is to be completed this year.</li> </ul>	
7.2	<ul style="list-style-type: none"> <li>Regional Road 25 structure is anticipated to be completed in Fall 2017.</li> </ul>	

Encl. Overview presentation (dated March 6, 2018)

# **Regional Road 25 Transportation Corridor Improvements Municipal Class EA Study**

**Steeles Avenue to 5 Side Road  
Town of Milton/Town of Halton Hills**

Ministry of Transportation Meeting #1  
March 6, 2018





# AGENDA

1. Introductions
2. Study Area & Background
3. Problems & Opportunities
4. Existing Conditions
5. Highway 401 Widening
6. Review of Planning & Design Alternatives
7. Factors/Criteria for Evaluation
8. Next Steps

# STUDY AREA

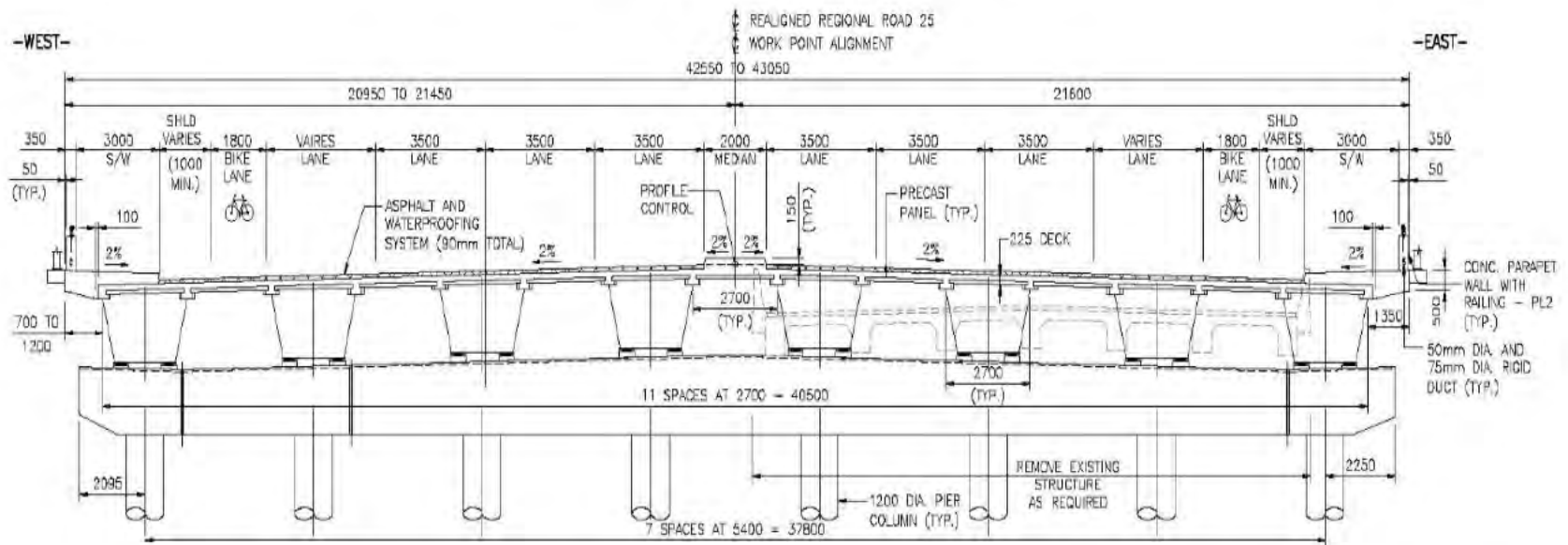
Halton Region is carrying out a Municipal Class Environmental Assessment (MCEA) Study for improvements to the Regional Road 25 corridor from Steeles Avenue to 5 Side Road in the Town of Milton/ Town of Halton Hills.

- Study area from Steeles Avenue to 5 Side Road, approximately 3 km in length;
- Serves local and inter-regional travel demand, as well as agricultural equipment and goods movement;
- Two structures are located within the study area:
  1. CNR Overpass, north of Steeles Avenue
  2. Highway 401 Overpass (currently under construction)
- A tributary of Sixteen Mile Creek crosses the study area (north of Hwy 401).



# RELATED STUDIES AND PROJECTS

## Regional Road 25/Highway 401 Interchange Improvements, Ministry of Transportation (2016)

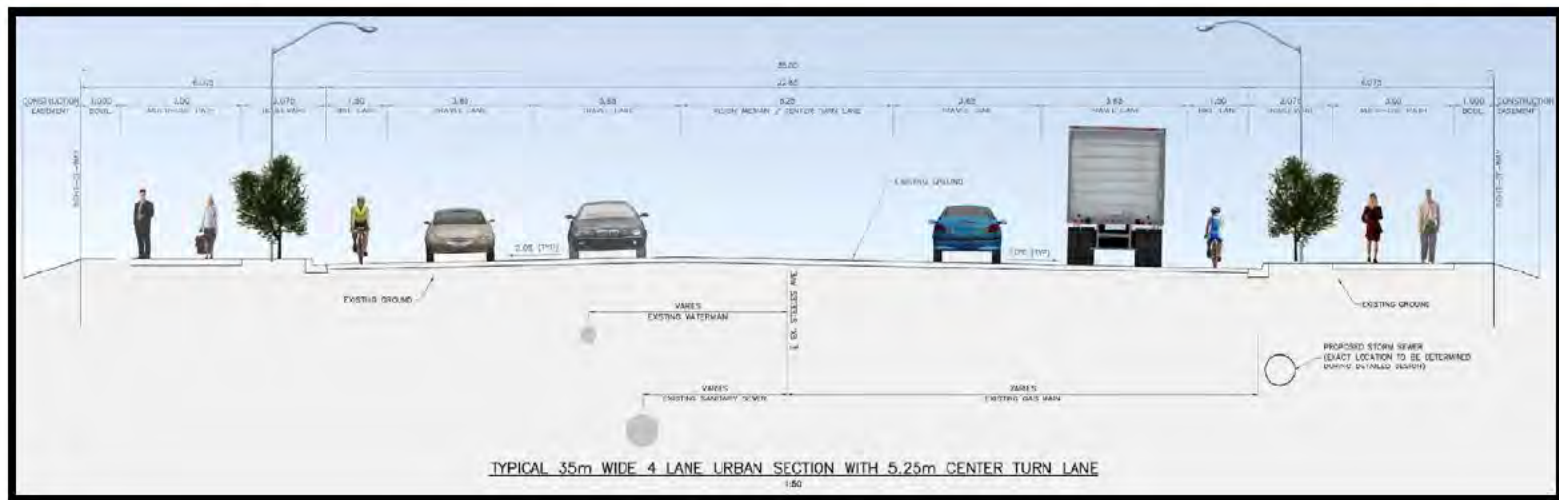


Future Regional Road 25 Cross Section over Highway 401 (Interchange currently under construction)



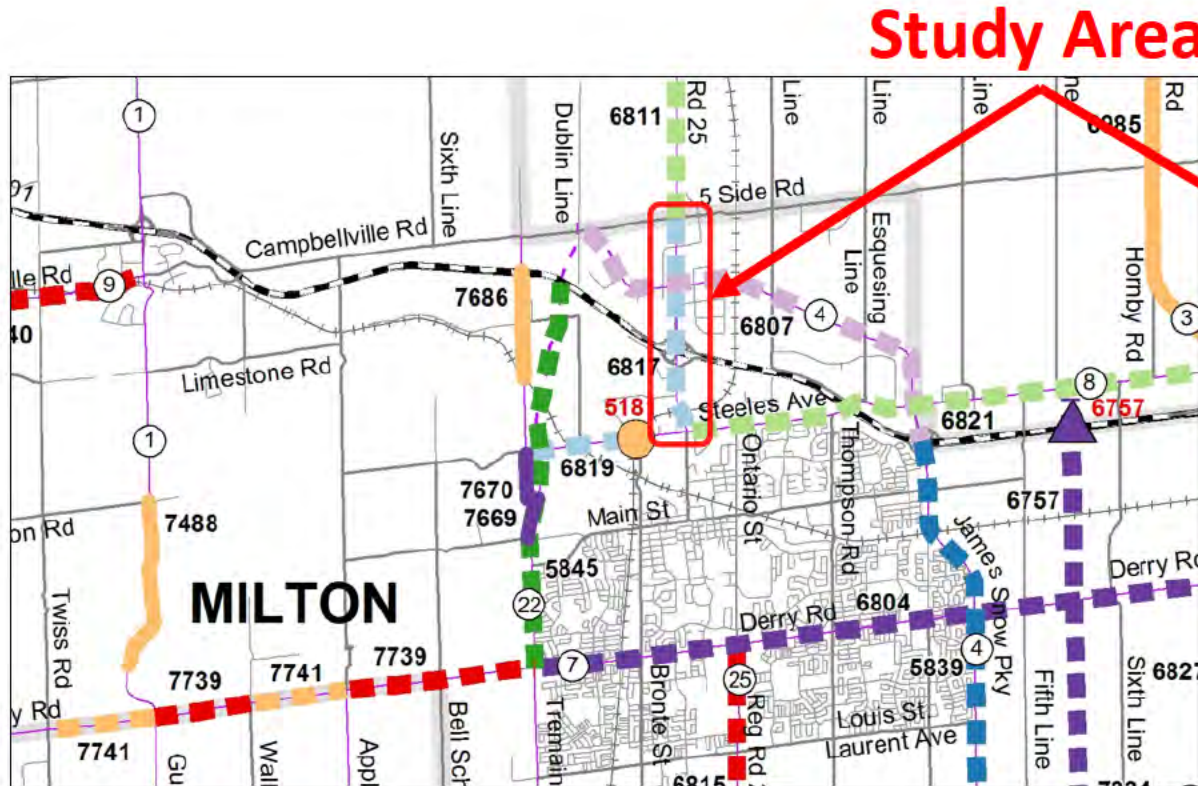
# RELATED STUDIES AND PROJECTS

## Steeles Avenue Municipal Class Environmental Assessment (2010)

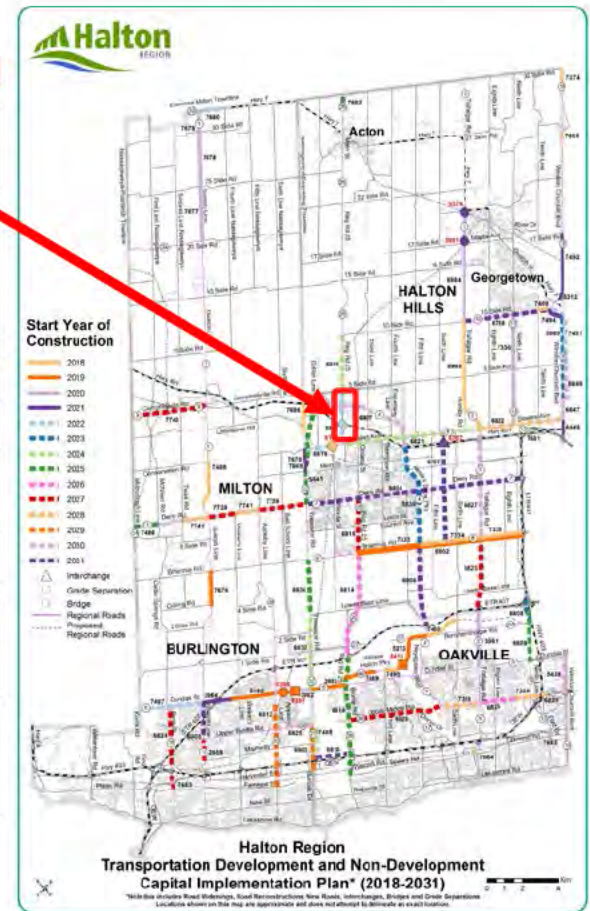


Typical Cross Section Steeles Avenue MCEA (currently under construction)

# HALTON REGION ROADS CAPITAL PROJECTS

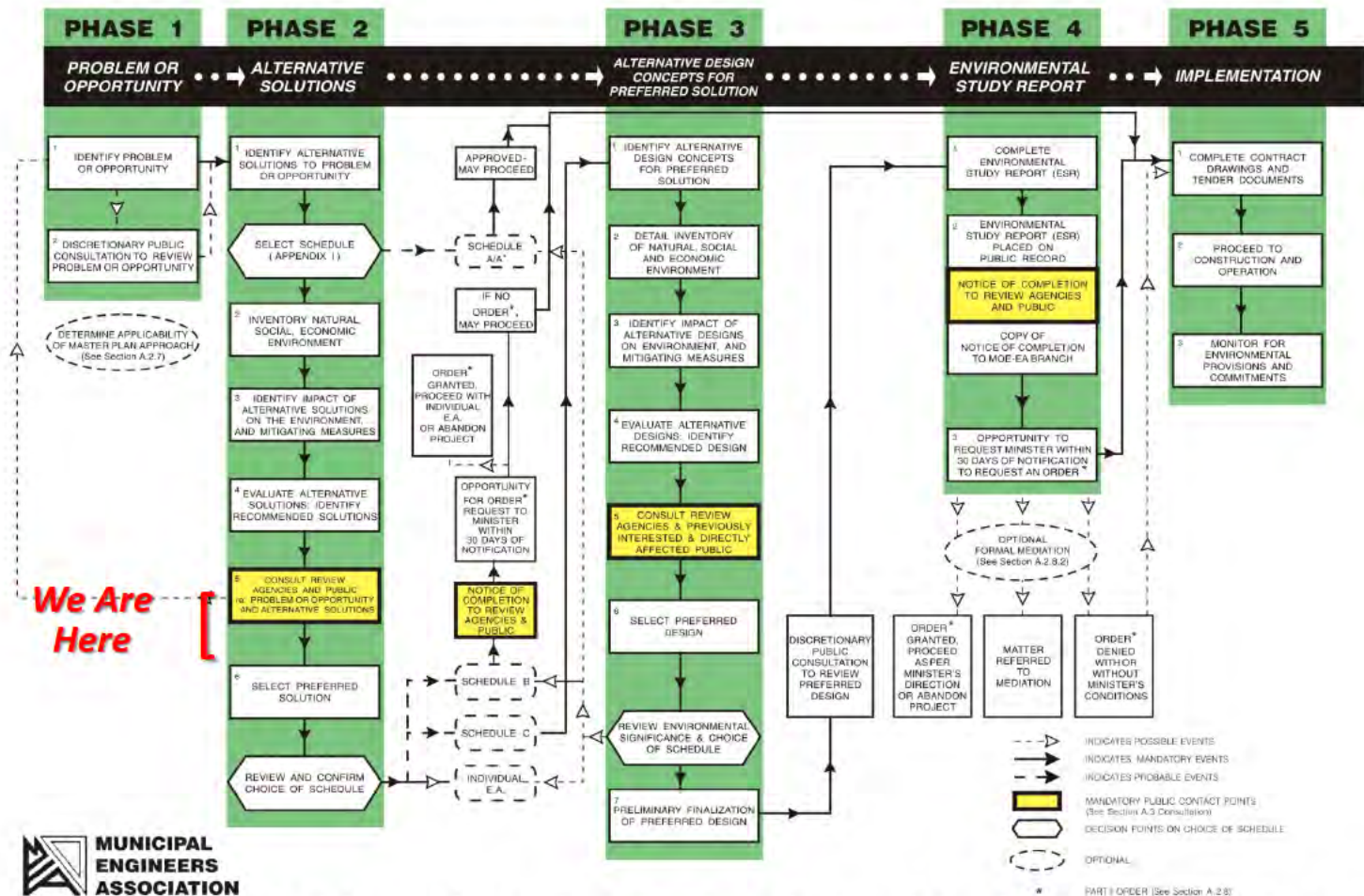


*Note: The Road Capital Projects plan is subject to annual Regional Council review*





# STUDY PROCESS

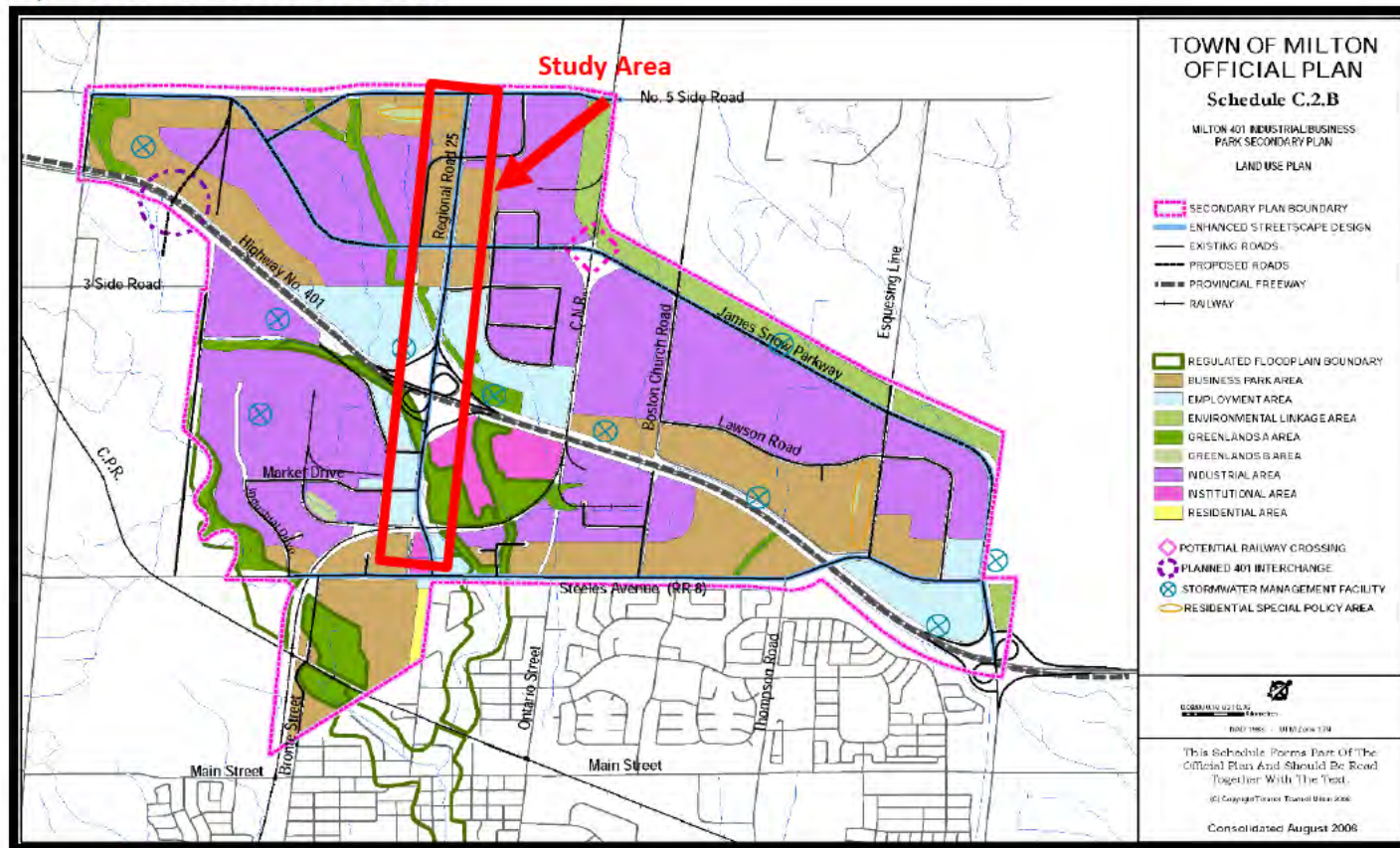


Based on the scope of this project, the Regional Road 25 MCEA Study is being planned as a Schedule 'C' project, which will complete Phases 1 to 4 outlined above.



# EXISTING CONDITIONS – SOCIO-ECONOMIC ENVIRONMENT

The study area is located within the Milton 401 Industrial/Business Park Planning Area. Land uses along the corridor include Employment, Industrial, and Institutional.



# EXISTING CONDITIONS – NATURAL ENVIRONMENT



ELC Code	Description
SWDM4-1	Willow Mineral Deciduous Swamp Type
CUW1	Cultural Woodland
MEMM4	Fresh - Moist Mixed Meadow Ecosite
CUT1-1	Sumac Deciduous Shrub Thicket Type
MA S2-1	Cattail Mineral Shallow Marsh Type
MA SM1-12	Common Reed Mineral Shallow Marsh Type
SWT2-5	Red-osier Dogwood Mineral Deciduous Thicket Swamp Type
THDM2-11	Hawthorn Deciduous Shrub Thicket Type
MEGM3	Dry - Fresh Graminoid Meadow Ecosite
CUT1-4	Gray Dogwood Deciduous Shrub Thicket Type
MA M2-3	Red-top Graminoid Mineral Meadow Marsh Type
MEMM3	Dry - Fresh Mixed Meadow Ecosite
MA MM1	Graminoid Mineral Meadow Marsh Ecosite
MA SM1-12	Willow Mineral Deciduous Swamp Type
SWM	Stormwater Management Facility

## Legend

- Study Area
- Species Observation
- ELC Vegetation Community
- Regulation Limit (Approximate)



# EXISTING CONDITIONS – NATURAL ENVIRONMENT

- One recent (1987) Species at Risk/provincially rare species (Redside Dace)
- No designated natural features within the study area
- Cultural woodlands, thickets and meadows are associated with vacant lots, railway embankments and watercourses
- Wetland vegetation is associated with watercourses and SWM facilities
- Notable species observations include Barn Swallow (threatened), potential Monarch habitat (special concern), and Big Bluestem (locally uncommon)



# TRANSPORTATION – EXISTING CONDITIONS

- Regional Road 25 is an existing four-lane major arterial, with a posted speed limit of 50 km/h between Steeles Avenue and James Snow Parkway), and 70 km/h between James Snow Parkway and 5 Side Road.
- There is a CNR overpass rail crossing on Regional Road 25, north of Steeles Avenue
  - CNR: 25 daily trains (freight only, may vary)
- There are limited provisions for cyclists and pedestrians.
- Daily travel demand ranges between 18,000 (near 5 Side Road) to 34,000 vehicles (near Steeles Avenue)
- Trucks are approximately 8% to 13% of all traffic



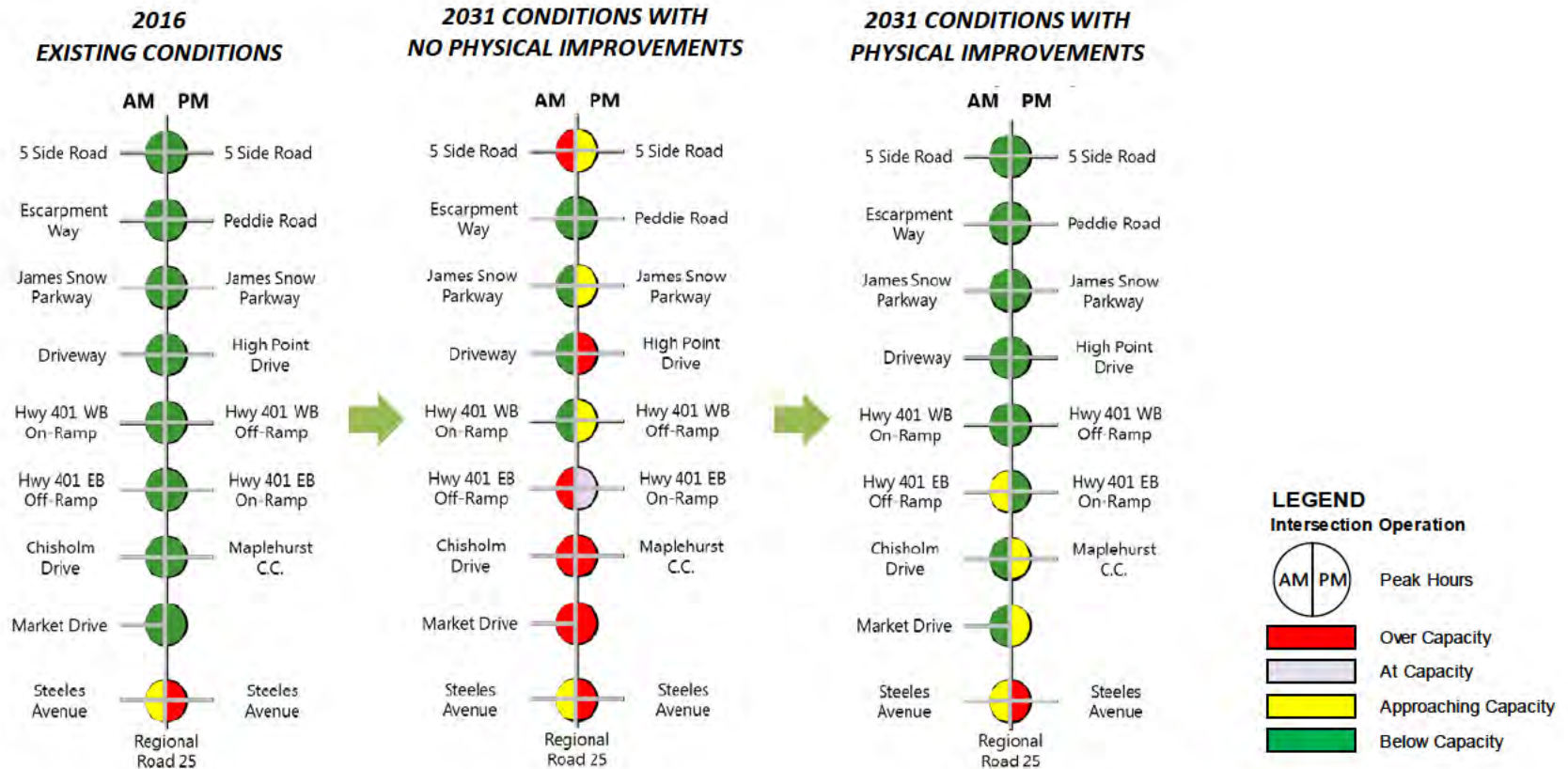
# TRANSPORTATION – 2031 CONDITIONS

- Future corridor traffic growth to 2031 reflects average peak hour growth rate between approximately 2% and 4% per year
- Daily travel demand projections to 2031 based on peak hour traffic growth rate – estimated to range between 27,000 to 52,000 vehicles:
  - Steeles Avenue to Hwy 401 WB Off-Ramp - 49,000 to 52,000 vehicles
  - Hwy 401 WB Off-Ramp to 5 Side Road - 52,000 to 27,000 vehicles



# TRANSPORTATION CONDITIONS

- Providing additional capacity in the Regional Road 25 corridor (i.e., widening to 6 lanes) will alleviate capacity issues at major intersections and will support future growth and development.





# EXISTING CONDITIONS – REGIONAL ROAD 25 DRAINAGE

- Study area contains tributaries and channels of Sixteen Mile Creek that ultimately drain to Lake Ontario
- 2 SWM ponds in the vicinity of the study area provide quantity and quality control, including:
  - S34 - southwest of the Regional Road 25/James Snow Parkway intersection
  - S36/Milton Pond - northeast of the Highway 401/Regional Road 25 interchange
  - Road runoff between Highway 401 and 5 Side Road collects via storm sewers on Regional Road 25 and outlets to the Milton Pond
- Road runoff between Highway 401 and Steeles Avenue collects via storm sewers, and drains to a tributary of Sixteen Mile Creek





# WATERCOURSE CROSSINGS



- Tributary N-1A to 16 Mile Creek crosses Chisholm Drive and Reg. Rd. 25 (C2 and C3)
- Tributary N-2B is Regulated Redside Dace habitat and crosses Hwy 401 downstream of C4

# EXISTING CONDITIONS – REGIONAL ROAD 25 DRAINAGE

Culvert	Span Size	Length	Type	Drainage Area	Events	Flow	TWL	Computed	Freeboard	Overtopping
ID	(mm)	(m)	(material)	(ha)		(m <sup>3</sup> /s)	(m)	HWL (m)		(Y/N)
C1	2100 x 1200	50	concrete box	58.9	5-Year	1.65	203.4	203.89	2.11	No
					50-Year	3.61	203.5	204.36	1.64	No
					100-Year	4.25	203.5	204.48	1.52	No
					Region Storm	6.86	203.6	204.95	1.05	No
C2	6000 x 2000	40	concrete box	362.9	10-Year	2.91	203.34	203.54	3.21	No
					50-Year	4.24	203.43	203.63	3.12	No
					100-Year	4.74	203.47	203.66	3.09	No
					Region Storm	30.32	207.04	207.06	-0.31	Yes
C3	3000 x 2400	19	concrete box	362.9	10-Year	2.91	204.69	204.79	2.01	No
					50-Year	4.24	204.89	204.97	1.83	No
					100-Year	4.74	204.95	205.24	1.56	No
					Region Storm	30.32	207.22	207.31	-0.51	Yes
C4	3000 x 2400	60	concrete box	658.0	10-Year	5.2	208.83	209.07	2.98	No
					50-Year	7.27	208.9	209.36	2.69	No
					100-Year	8.19	208.92	209.48	2.57	No
					Region Storm	36.29	209.21	211.83	0.22	No



# PROBLEM AND OPPORTUNITY

- Regional Road 25 is currently experiencing delays during peak periods and delays will increase at intersections in the future.
- Future traffic is expected to grow by 2031
- To support future growth and travel demands, improvements to the Regional Road 25 corridor are required
- The improved corridor should support all modes of transportation (i.e. active transportation, transit services, inter-regional travel, agricultural vehicles and goods movement).

# PLANNING ALTERNATIVES

Improvements to the Regional Road 25 corridor are required to support existing and future transportation needs while respecting the social, cultural and natural environment. The following Planning Alternatives are being considered.

Alternatives	Description of Planning Alternatives	Evaluation	Recommendation
Do Nothing	Status quo; only planned improvements will be in place, including the widening of Steeles Avenue, James Snow Parkway extension, and the Tremaine Road realignment (with interchange)	Does not address future needs within the study area.	Not recommended for further consideration (for comparison purposes only)
Limit Development	Limit development within the Town of Milton/Town of Halton Hills	Future projections based on approved future urban area within the Halton Region and local municipal Official Plans	Do not carry forward

# PLANNING ALTERNATIVES

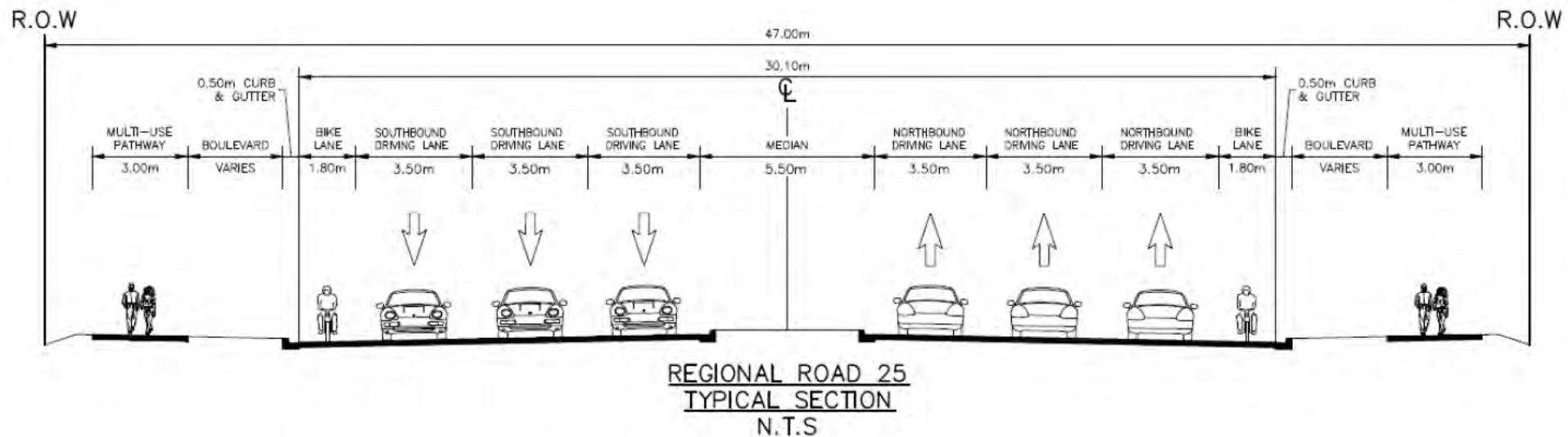
Alternatives	Description of Planning Alternatives	Evaluation	Recommendation
Travel Demand Management Measures	Measures to manage travel demand, such as carpooling, flexible work hours, telecommute, etc.	On their own, TDM measures do not address the problem, while part of the Region's overall transportation strategy	Carry forward within overall strategy
Improved Transit Service (GO Transit)/ Active Transportation	Upgrade GO Transit services on the Milton/Cambridge Line, and provide facilities for active transportation use to accommodate pedestrians and cyclists	On their own, these measures do not address the problem, while part of the Region's overall transportation strategy	Carry forward within overall strategy
Intersection and/or Operational Improvements	Enhance operations of roadway through minor improvements (i.e. traffic signals, provision of turning lanes, etc.)	On their own, do not address the problem while part of the Region's overall transportation strategy	Carry forward within overall strategy
Improvements to Other Roadways	Widen regional roadways in the immediate study area beyond planned improvements (e.g. Steeles Avenue, James Snow Parkway, and Tremaine Road).	Part of the Region's overall transportation strategy (Transportation Master Plan)	Part of overall Regional transportation strategy
Improvements to Regional Road 25	Improvements to the Regional Road 25 corridor, including provision for active transportation.	Needs identified in Halton Region Transportation Master Plan to support future growth	Carry forward within overall strategy

A combination of improvements to be carried forward and design alternatives to be developed.



# TYPICAL 6 LANE CROSS-SECTION

C(4) Urban – 47m ROW



# MTO ULTIMATE DESIGN

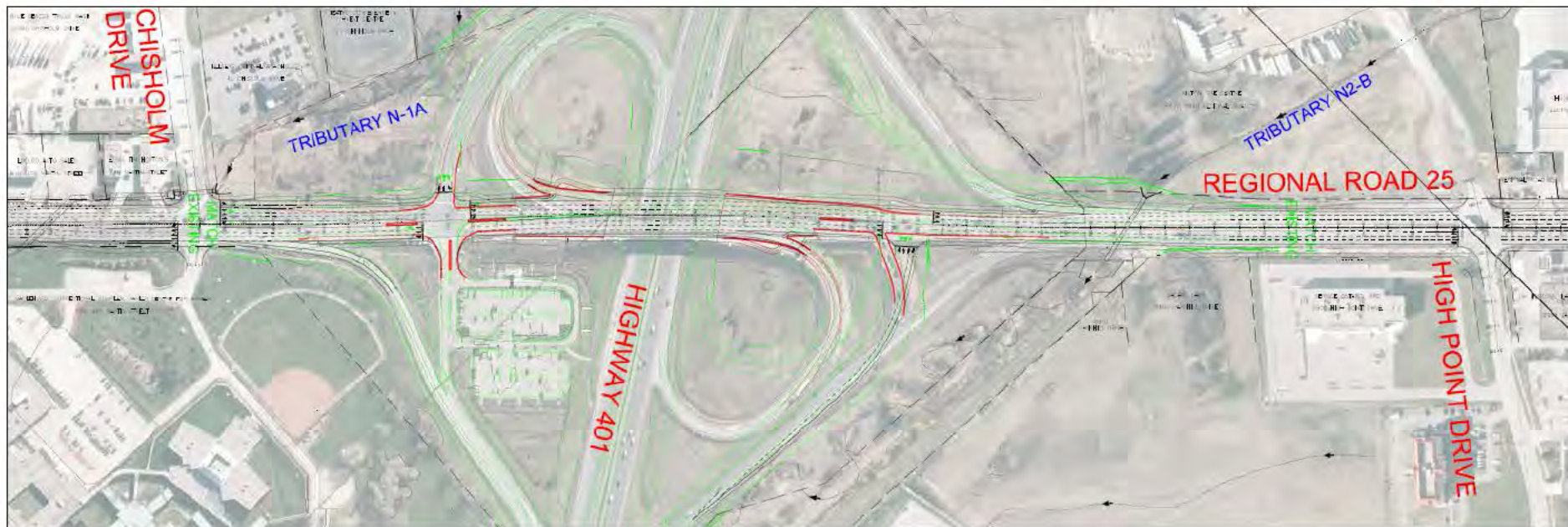
(based on Preliminary Design Plan provided)





# REGIONAL ROAD 25 WIDENING

- To accommodate a 6-lane, 47m widening option along the corridor (pending outcome of MCEA)



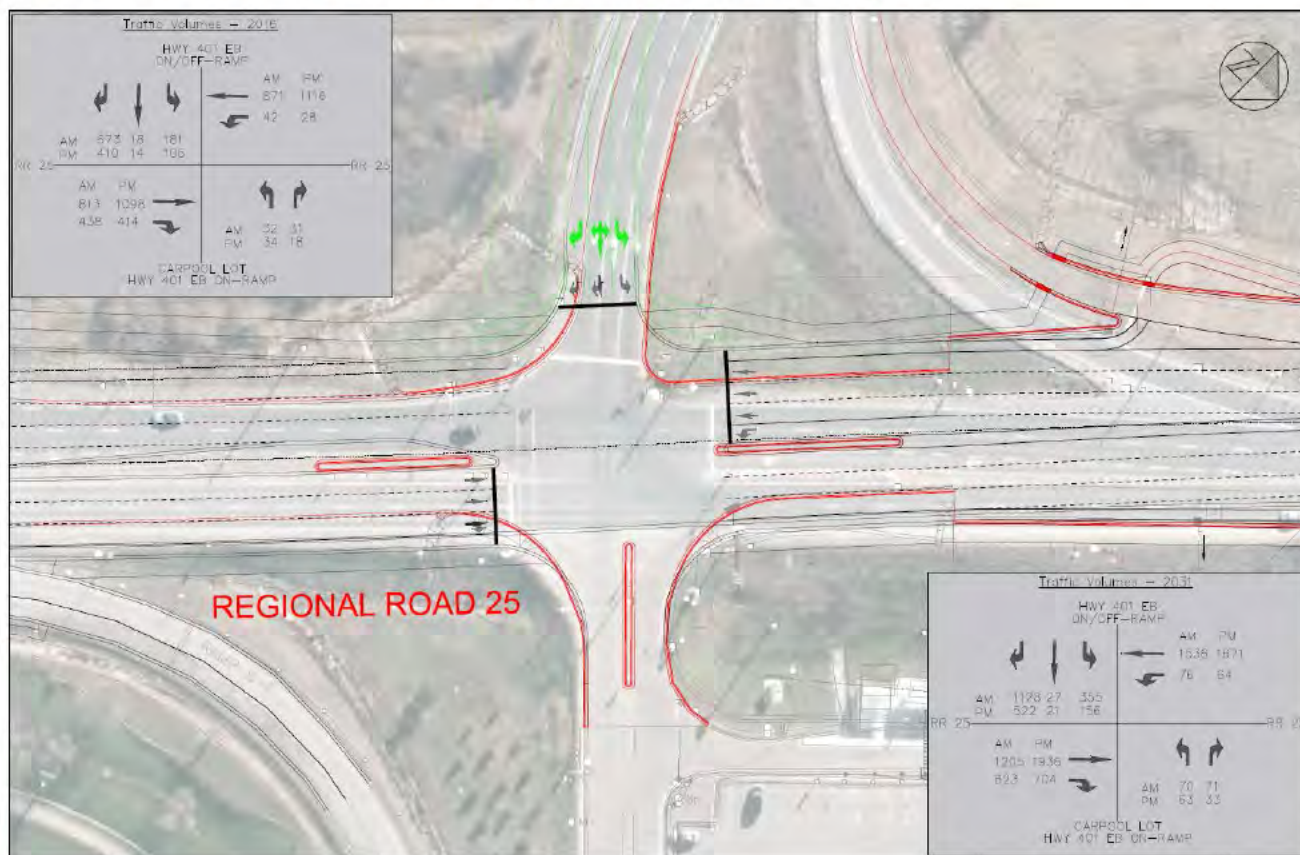
Green – MTO PDR Plan “Ultimate Design”

Red – Currently under construction



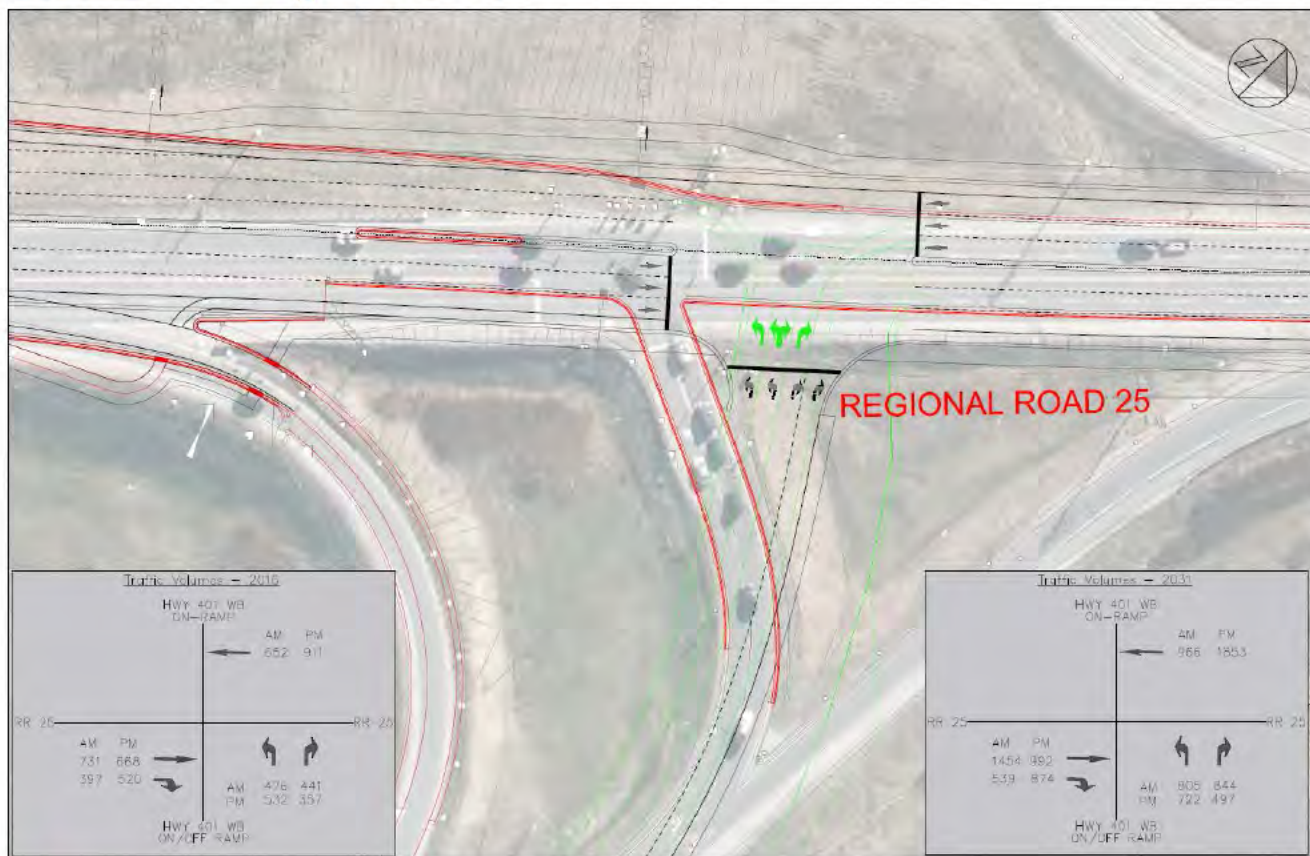
# EB OFF-RAMP INTERSECTION

- “Blow up” plan of the W-N/S ramp terminal intersection showing our geometric design as well as the current (2016) and 2031 turning movement diagrams.
- Plan is similar to MTO preliminary ultimate design



# WB OFF-RAMP INTERSECTION

- “Blow up” plan of the E-N/S ramp terminal intersection showing our geometric design as well as the current (2016) and 2031 turning movement diagrams
- Plan is similar to MTO ultimate preliminary design, except for addition of fourth lane to accommodate right turns.





# TRAFFIC CONDITIONS AT INTERCHANGE

- SB approach to Chisholm Drive queues back through the Highway 401 EB Off-Ramp / Reg. Rd. 25 intersection (forecast SB queues at Chisholm Drive are comparable to existing conditions)
- Under 2031 conditions, EB approach at Highway 401 EB Off-Ramp/Reg. Rd. 25 intersection will approach capacity and experience significant queueing during the AM peak hour (95th percentile queues will remain below 2/3 distance to the bullnose).
- Poor operations are projected due to the significant eastbound right turning volume projected for 2031.



# DESIGN CONSIDERATIONS

- Active transportation across interchange ramps.
- Proximity of High Point/Reg. Rd. 25 intersection to “free-flow” E-N ramp (weaving, queuing)
  - Significant volumes are projected for the AM peak hour under 2031 conditions for the NB right turn movement at High Point Drive and WB right turn at Highway 401 WB Off-Ramp, leading to weaving and lane-changing conflicts
- Impact on Tributary N-2B northeast of interchange.
- Conflict between vehicles exiting Chisholm Drive heading toward Highway 401 EB on-ramp and vehicles turning right from the Maplehurst Correctional Facility.

# FACTORS/CRITERIA FOR EVALUATION

Design alternatives will be developed and reviewed based on comments received from Agencies, Stakeholders and members of the Public, and evaluated based on the following factors:

## Socio-Economic Environment



- Existing and Future Land Uses
- Industrial/Commercial Operations
- Institutional/Recreational Uses
- Potential Property Requirements
- Property Access
- Noise Levels
- Provisions for Pedestrians and Cyclists
- Illumination
- Air Quality

## Cultural Environment



- Built Cultural Heritage
- Cultural Heritage Landscapes
- Archaeological Resources

## Natural Environment



- Vegetation
- Wildlife
- Creek Crossings
- Natural Hazards
- Policy Areas

## Transportation



- Corridor Capacity and Operations;
- Intersection Capacity and Operations;
- Geometric Standards
- Access Management
- Construction Staging

## Engineering Considerations



- Structural Requirements (CNR Overpass, Culverts)
- Municipal Services/Utilities
- Construction Staging
- Drainage and Stormwater Management

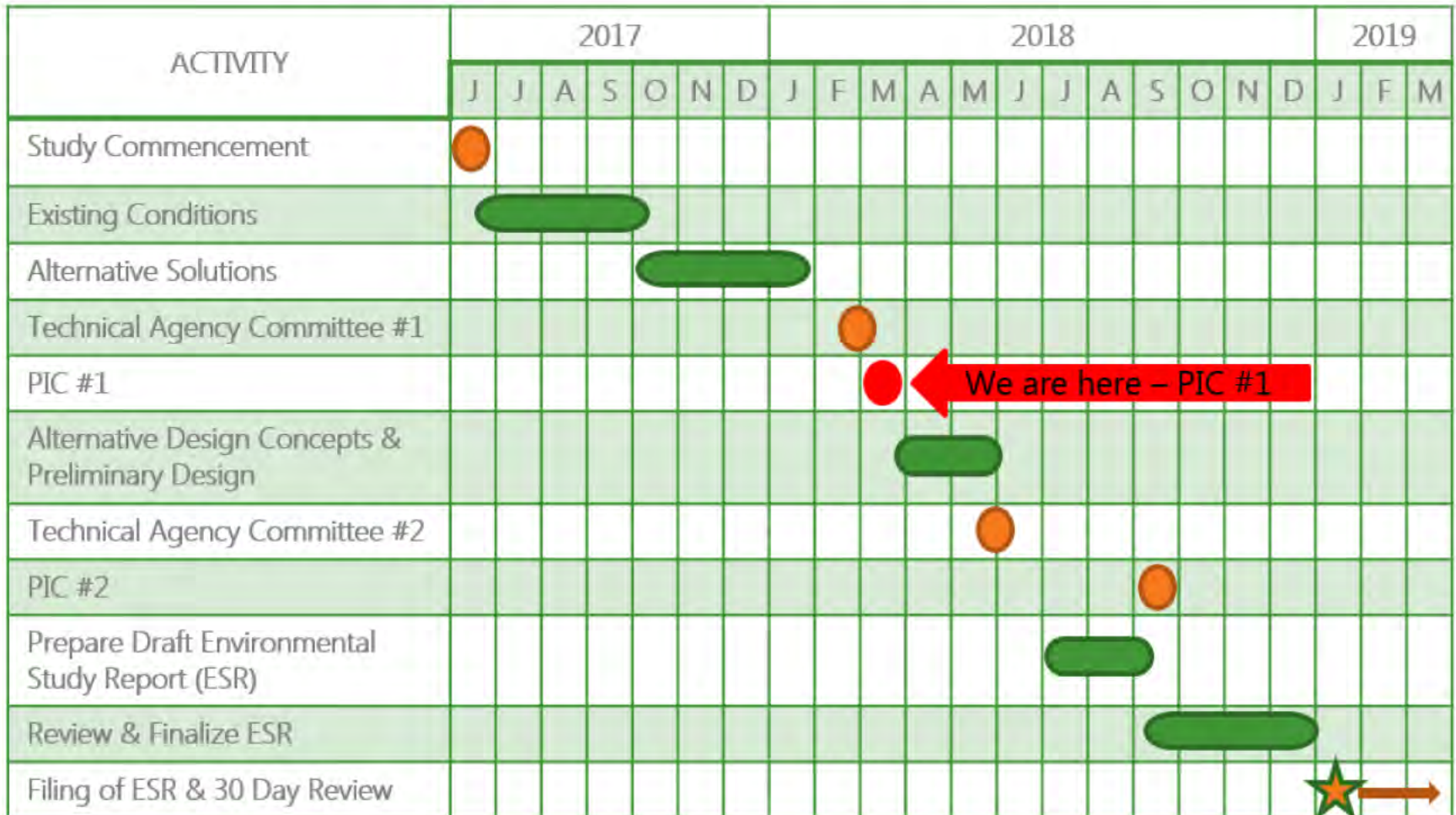
## Preliminary Cost Estimate



- Construction
- Operations and Maintenance
- Utility Relocation



# PROJECT SCHEDULE





# NEXT STEPS

- PIC #1 – March 8 (drop-in from 6:30 – 8:30pm)
- Review and incorporate the input received from review agencies, the public, and Indigenous Communities
- Confirm preferred alternative solution
- Develop design alternatives to implement the preferred solution
- Continue to consult with technical agencies and other stakeholder groups
- Conduct PIC #2 to receive input on the preferred preliminary design (Sept 2018)

**Date:** April 8, 2019      **Project Number:** 165010586  
**Location:** Halton Region Centre      **Project: 1650-10586**      Regional Road 25 Municipal Class Environmental Assessment (MCEA) Study  
**Time:** 1:30 p.m. – 3:00 p.m.      **Author:** Paula Burnard, Stantec

**Attendees:**

Paul Kesner	Maplehurst Correctional Complex / Vanier Centre for Women
Patrick Grace	Infrastructure Ontario
Rita Kelly	Infrastructure Ontario
Melissa Fialho	Halton Region
Melissa Green-Battiston	Halton Region
Ann Larkin	Halton Region
Jeff Reid	Halton Region
Gord Murray	Stantec Consulting
Paula Burnard	Stantec Consulting

**Distribution:** All attendees

**Purpose:** Infrastructure Ontario / Maplehurst Correctional Complex Meeting

Item	Details	Action By
<b>1.0</b>	<b>Introductions &amp; Project Background</b>	
1.1	<ul style="list-style-type: none"> <li>Stantec provided a brief overview of the Municipal Class Environmental Assessment (MCEA) Study, focusing on the development and evaluation of Preliminary Alternative Designs and the Recommended Design Alternative. Presentation attached.</li> </ul>	
<b>2.0</b>	<b>Discussion</b>	
2.1	<ul style="list-style-type: none"> <li>Maplehurst noted two existing hydro poles with overhead wires, located at the bend of watercourse C3, and continue underground towards the facility.</li> </ul>	
2.2	<ul style="list-style-type: none"> <li>Maplehurst noted that a design plan is underway to increase the parking lot by approximately 80 additional spaces (currently, there are 219 parking spaces and 296 staff). A conceptual design will be provided when available. The design is anticipated to be completed early summer, with construction in August/September 2019.</li> <li>The parking lot associated with the Vanier Centre for Women is also expanding this fall but will not interfere with the Regional Road 25 proposed improvements.</li> </ul>	Maplehurst
2.3	<ul style="list-style-type: none"> <li>Maplehurst noted the facility has two sources of water including one feed that runs across Regional Road 25 at Chisholm Drive, and a second water feed that runs across Highway 401. The feed of water to the facility must be maintained at all times. Maplehurst pointed out the locations of existing backflow preventers on the Regional Road 25 preliminary preferred design.</li> </ul>	

Item	Details	Action By
2.4	<ul style="list-style-type: none"> <li>The Region indicated that the Environmental Study Report (ESR) will include a chapter to address Infrastructure Ontario's (IO) Class EA requirements.</li> <li>IO requested dimensions and preliminary area calculations for both temporary (easements or permission-to construct) and permanent (fee simple purchases) property impacts to IO lands [Post Meeting Note: Partial preliminary preferred design is attached for IO and Maplehurst information].</li> <li>The property acquisition process will commence at 60% detailed design, tentatively scheduled for 2021, as construction is currently identified for 2022.</li> </ul>	Stantec/ Region
2.5	<ul style="list-style-type: none"> <li>IO will require the purchase of all lands to be approved at an <i>Order in Council</i> and noted that generally 2-3 sessions are held per year. The next session will be July 2019.</li> <li>IO must complete Duty to Consult (Indigenous Community consultation) &amp; IO Class EA requirements prior to <i>Order in Council</i>.</li> <li>DEL Management Solutions Inc. to manage permission to enter access to complete fieldwork requirements. IO Real Estate to provide contact information to Halton Region.</li> </ul>	Region  IO
2.6	<ul style="list-style-type: none"> <li>IO to provide contact information for IO Environmental Assessment Coordinator and any other team members dedicated to this file.</li> </ul>	IO
2.7	<ul style="list-style-type: none"> <li>Stantec to provide IO Class EA to Halton Region Property, when complete.</li> </ul>	Stantec / Region

Encl. Overview presentation (dated April 8, 2019)  
Regional Road 25 partial preliminary design plan



# **Regional Road 25 Transportation Corridor Improvements Municipal Class EA Study**

**Steeles Avenue to 5 Side Road  
Town of Milton/Town of Halton Hills**

Infrastructure Ontario/Maplehurst Correctional Complex  
Monday, April 8, 2019



# AGENDA

1. Introductions
2. Study Area & Background
3. Problem & Opportunities
4. Factors for Analysis and Evaluation
5. Development and Evaluation of Preliminary Alternative Designs
6. Recommended Design Alternative
7. Proposed Mitigation Measures
8. Next Steps

# STUDY AREA

Halton Region is carrying out a Municipal Class Environmental Assessment (MCEA) Study for improvements to the Regional Road 25 corridor from Steeles Avenue to 5 Side Road in the Town of Milton/ Town of Halton Hills.

- Study area from Steeles Avenue to 5 Side Road, approximately 3 km in length;
- Serves local and inter-regional travel demand, as well as agricultural equipment and goods movement;
- Two structures are located within the study area:
  1. CNR Overpass, north of Steeles Avenue
  2. Highway 401 Overpass
- A tributary of Sixteen Mile Creek crosses the study area (north of Hwy 401).

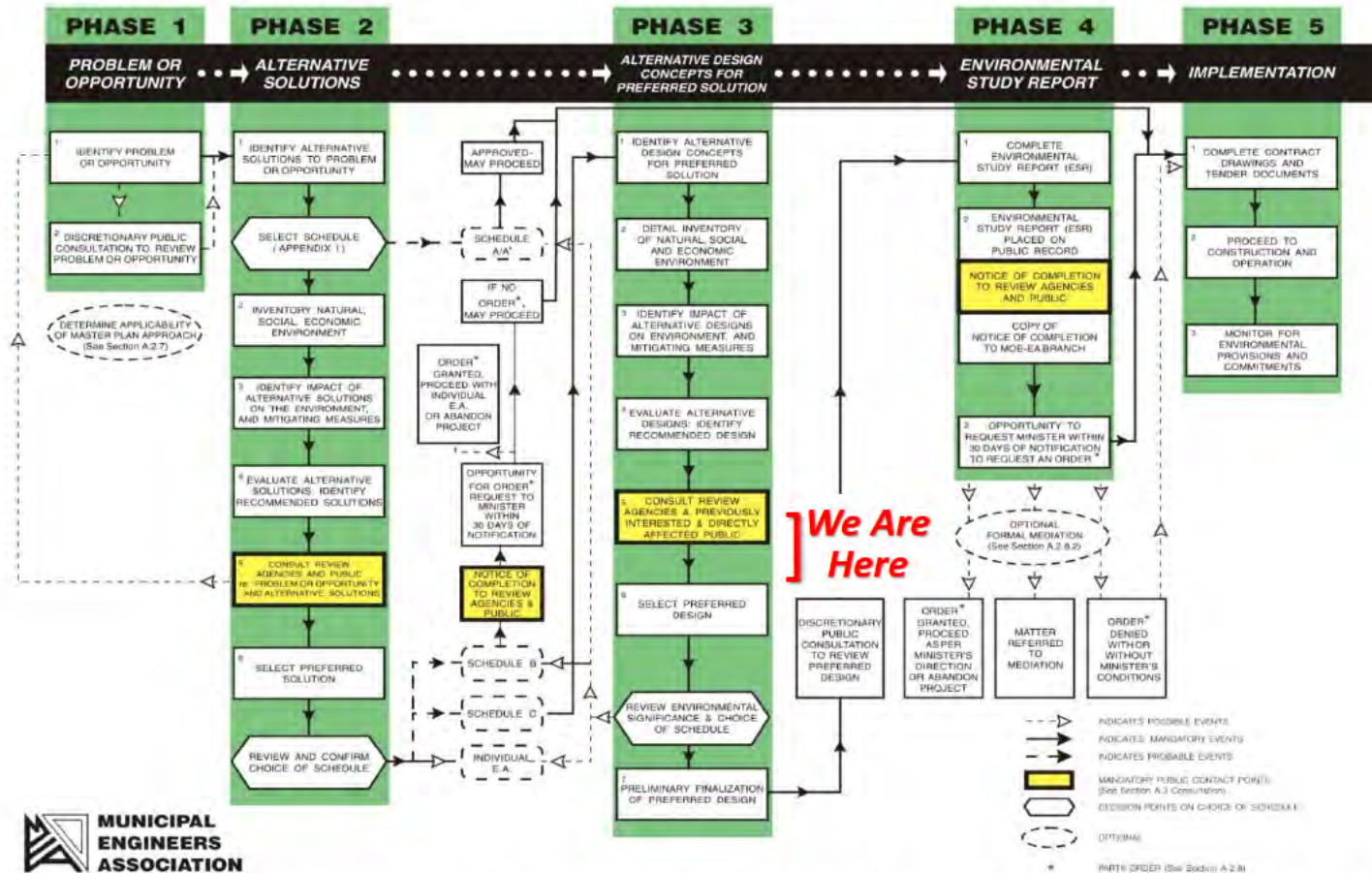




# PROBLEM AND OPPORTUNITIES

- Regional Road 25 is currently experiencing delays during peak periods and delays will increase at intersections in the future.
- Travel demand is expected to increase by 2031.
- To support future growth and travel demands, improvements to the Regional Road 25 corridor are required.
- The improved corridor should support all modes of transportation (i.e. active transportation, transit services, inter-regional travel, agricultural vehicles and goods movement).

# STUDY PROCESS



Based on the scope of this project, the Regional Road 25 MCEA Study is being planned as a Schedule 'C' project, which will complete Phases 1 to 4 outlined above.

# TAC MEETING #1 SUMMARY

- TAC #1 – February 22, 2018
- Presented study background and existing conditions: natural environment, socio-economic, cultural and transportation conditions
- Presented alternative planning solutions, factors for evaluation and analysis and the proposed typical cross-section
- A summary of the comments raised and discussed are listed below:
  - Town of Milton was provided confirmation that EMME modeling included all planned improvements, including Region and MTO
  - **Maplehurst Correctional Complex highlighted the importance of maintaining power (hydro), as well as access to facility during construction**
  - MTO provided update on interchange improvements at Regional Road 25
  - Union Gas noted an 8” gas service on east side and 4” gas service on west side
  - Milton Fire noted importance of maintaining access to Maplehurst Correctional Facility during construction and existing congestion at Highway 401



# ACTIVITIES SINCE TAC #1

- Public Information Centre #1 – March 8, 2018
- Reviewed and responded to comments received to date from agencies, stakeholders and general public
- Confirmed the preferred solution of widening Regional Road 25 from 4 to 6 lanes
- Developed alternative design concepts for the preferred solution, and completed analysis and evaluation to determine the preliminary technically preferred design

# FACTORS FOR ANALYSIS AND EVALUATION

The design alternatives were developed based on comments received from Agencies, Stakeholders and members of the Public, and evaluated based on the following factors:

## Socio-Economic Environment



- Existing and Future Land Uses
- Industrial/Commercial Operations
- Institutional/Recreational Uses
- Potential Property Requirements
- Property Access
- Noise Levels
- Provisions for Pedestrians and Cyclists
- Illumination
- Air Quality

## Cultural Environment



- Built Cultural Heritage
- Cultural Heritage Landscapes
- Archaeological Resources

## Natural Environment



- Vegetation
- Wildlife
- Creek Crossings
- Natural Hazards
- Policy Areas

## Transportation



- Corridor Capacity and Operations;
- Intersection Capacity and Operations;
- Geometric Standards
- Access Management
- Construction Staging

## Engineering Considerations



- Structural Requirements (CNR Overpass, Culverts)
- Municipal Services/Utilities
- Construction Staging
- Drainage and Stormwater Management

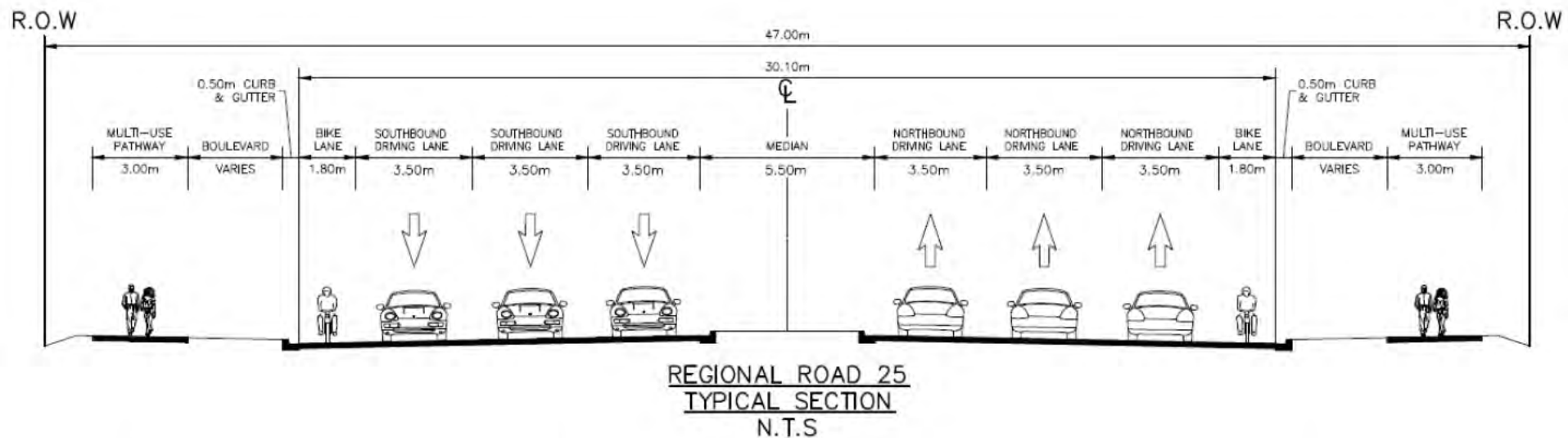
## Preliminary Cost Estimate



- Construction
- Operations and Maintenance
- Utility Relocation



# TYPICAL 6 LANE CROSS-SECTION



The typical cross-section will accommodate the following improvements:

- C(4) Urban Road Classification
- 47m right-of-way
- Accommodates continuous pedestrian and cycling facilities:
  - 3.0m multi-use trail (both sides of the road)
  - 1.8m exclusive bike lane (both sides of the road)
- Opportunity for landscaping within right-of way



# DEVELOPMENT OF ALTERNATIVE DESIGNS

- Consideration was given to the following widening alternatives (four to six lanes) for Regional Road 25 between Steeles Avenue and 5 Side Road:
  - **Alternative 1** - Widen to the west of existing centerline (holding east property line)
  - **Alternative 2** - Widen to the east of existing centerline (holding west property line)
  - **Alternative 3** - Widen symmetrically on both sides of existing centerline
  - **Alternative 4** - “Best Fit” (combination of Alternates 1, 2 & 3)

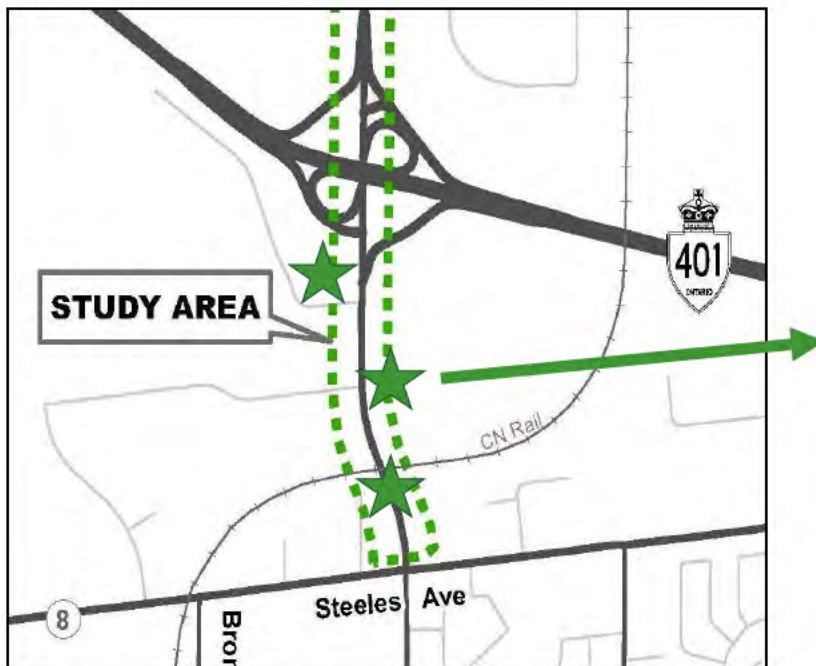
# ALTERNATIVE DESIGN EVALUATION SUMMARY TABLE

	ALTERNATIVE 1 WIDEN TO THE WEST	ALTERNATIVE 2 WIDEN TO THE EAST	ALTERNATIVE 3 WIDEN SYMMETRICALLY	ALTERNATIVE 4 BEST FIT
Transportation	No preference – all alternatives meet transportation objectives			
Cultural Environment	Moderately Preferred	Moderately Preferred	Most Preferred	Most Preferred
Socio-economic Environment	Least Preferred	Least Preferred	Moderately Preferred	Most Preferred
Natural Environment	Least Preferred	Least Preferred	Moderately Preferred	Most Preferred
Engineering	Moderately Preferred	Least Preferred	Least Preferred	Most Preferred
Preliminary Cost Estimate	Least Preferred	Least Preferred	Most Preferred	Moderately Preferred
SUMMARY	NOT RECOMMENDED	NOT RECOMMENDED	NOT RECOMMENDED	RECOMMENDED

# ANALYSIS AND EVALUATION

## ARCHAEOLOGICAL ASSESSMENT

- A Stage 1 Archaeological Assessment was completed as part of this project.
- A Stage 2 Archaeological Assessment will be completed during detailed design at areas identified with archaeological potential.



Maplehurst – Looking Southbound



# ANALYSIS AND EVALUATION

## CULTURAL HERITAGE ASSESSMENT

- Two cultural heritage resources were identified within the study area. These resources will be avoided during the proposed road improvements:

Milton Train Station



Maplehurst Correctional Complex  
and Vanier Centre for Women





# ANALYSIS AND EVALUATION

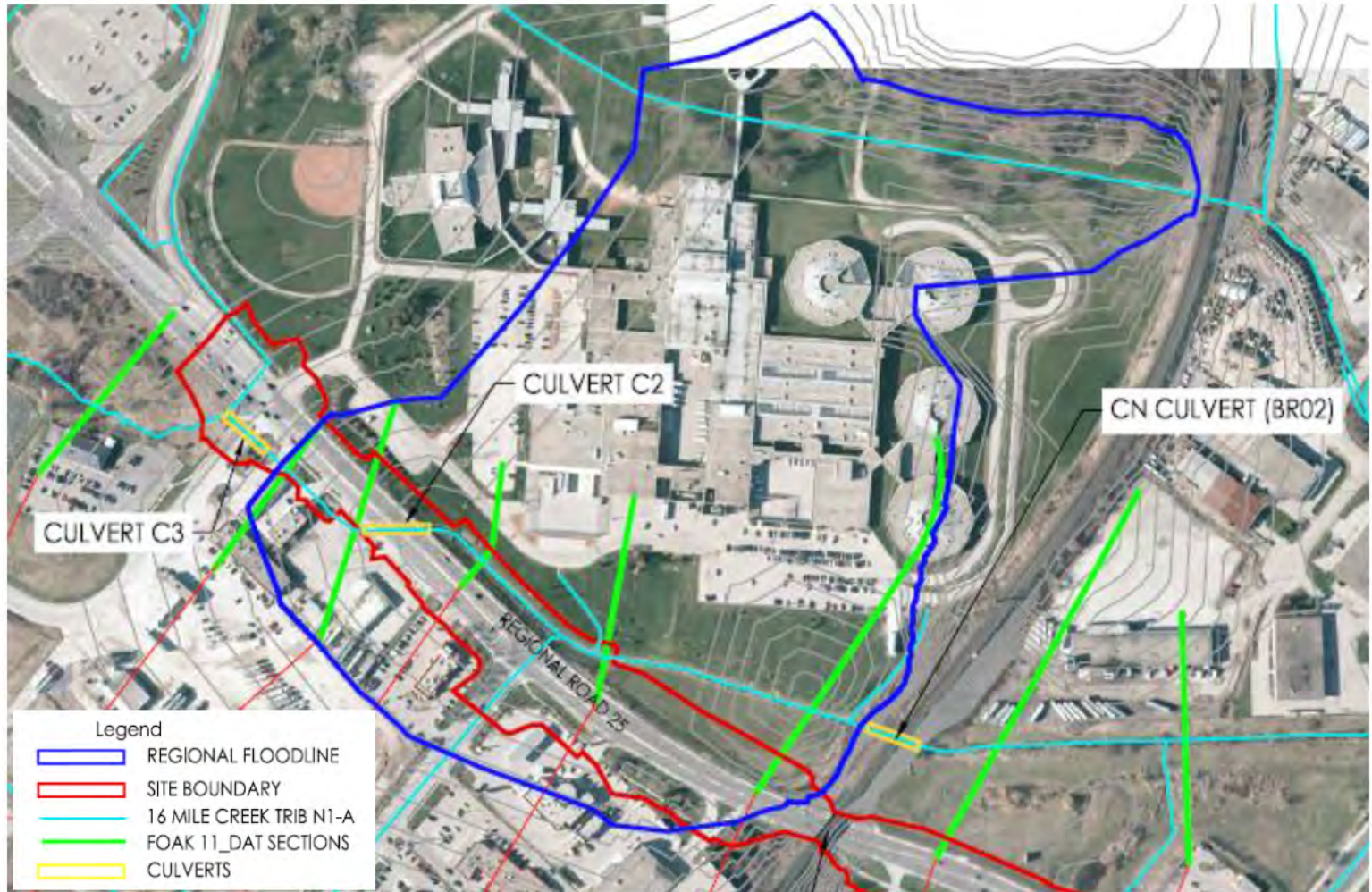
## NATURAL HERITAGE ASSESSMENT

- The results of the Natural Heritage Assessment are as follows:
  - All vegetation communities identified in the study area are considered common in southern Ontario.
  - Barn swallow nesting is confirmed in culvert C4. The other 3 culverts are also suitable for nesting.
  - Redside Dace habitat is confirmed in the three Sixteen Mile Creek tributaries crossed by culverts C1, C2, C3, and C4.
  - One potential habitat for species of conservation concern (Monarch) and one candidate amphibian breeding habitat was identified in the study area.



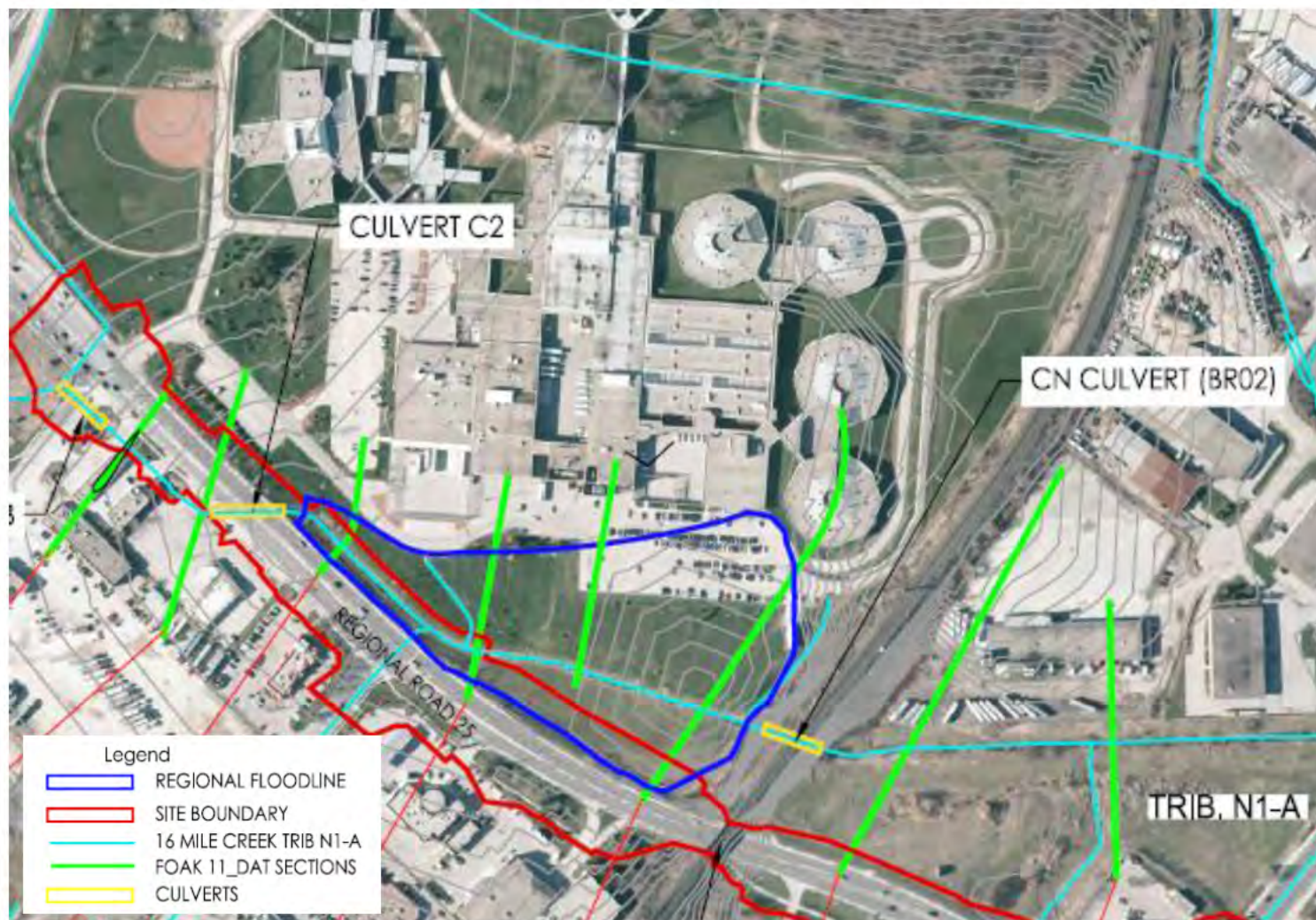


# ANALYSIS AND EVALUATION DRAINAGE (Existing Conditions)





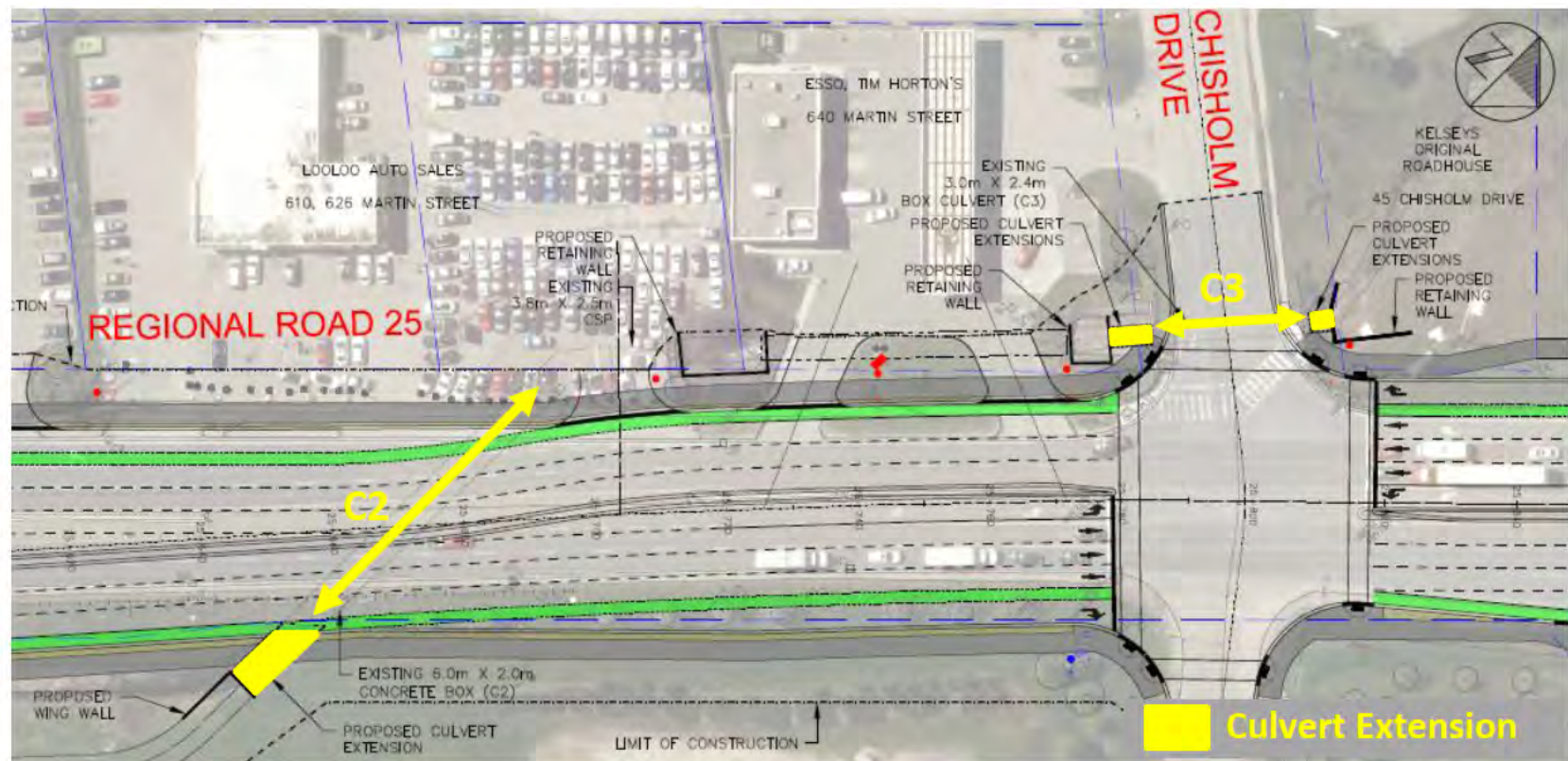
# ANALYSIS AND EVALUATION DRAINAGE (Proposed Conditions)





# ANALYSIS AND EVALUATION DRAINAGE

- Culverts C2 and C3 will be extended to accommodate the road widening in these sections. Culverts C1 and C4 do not require upgrades or improvements.



# PROPOSED MITIGATION MEASURES

## Cultural Environment

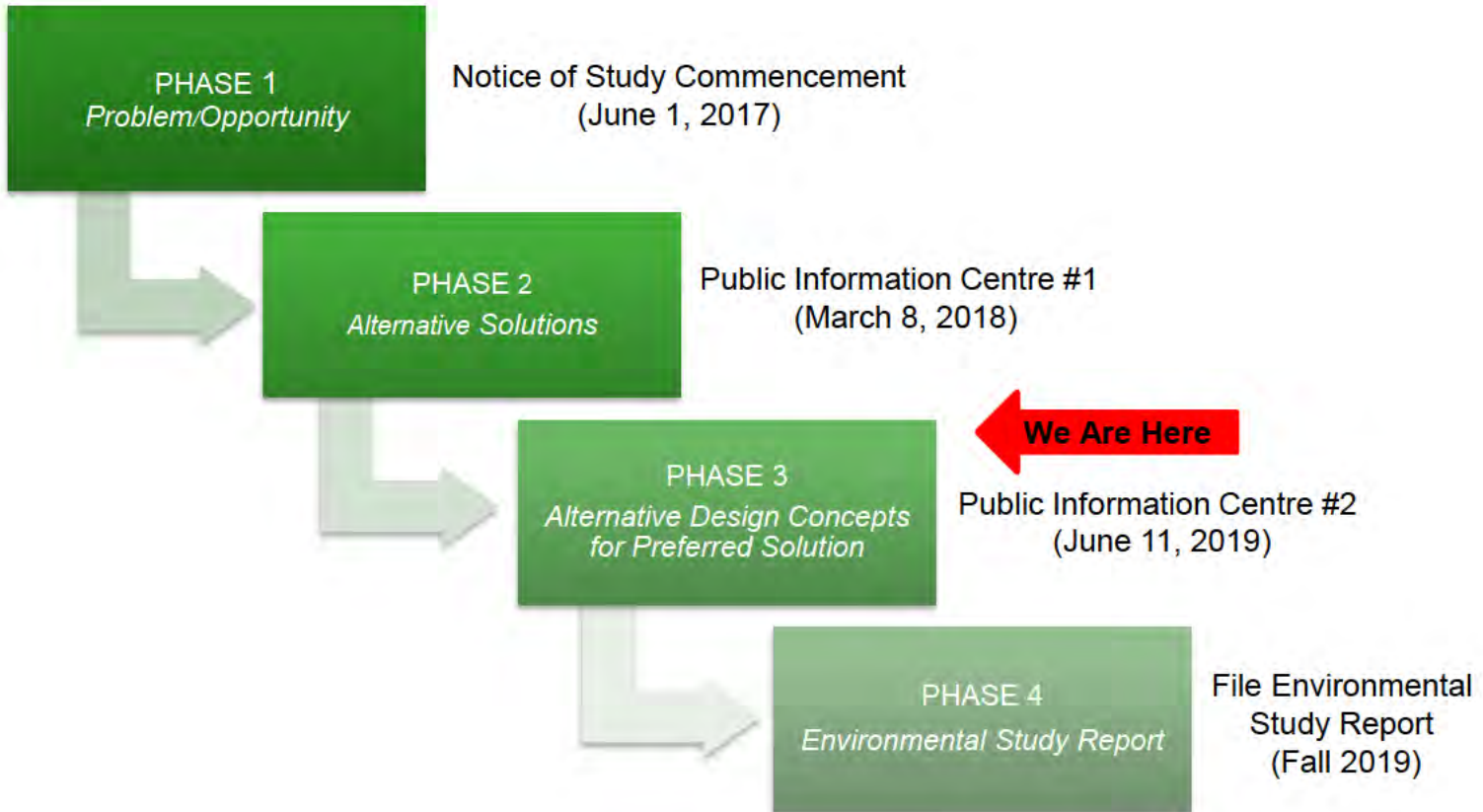
Archaeology	<ul style="list-style-type: none"><li>• A Stage 2 Archaeological Assessment will be carried out during detailed design, as required.</li></ul>
Built Heritage	<ul style="list-style-type: none"><li>• The proposed improvements have been developed to minimize impact to heritage features.</li><li>• Provisions will be made to minimize disruption to cultural landscapes during construction.</li></ul>

## Socio-Economic Environment

Access	<ul style="list-style-type: none"><li>• Ensure access to Maplehurst Correctional Complex and Vanier Centre for Women is maintained during construction</li></ul>
Utilities	<ul style="list-style-type: none"><li>• Ensure services (i.e. hydro, water, etc.) are maintained during construction</li></ul>



# STUDY SCHEDULE

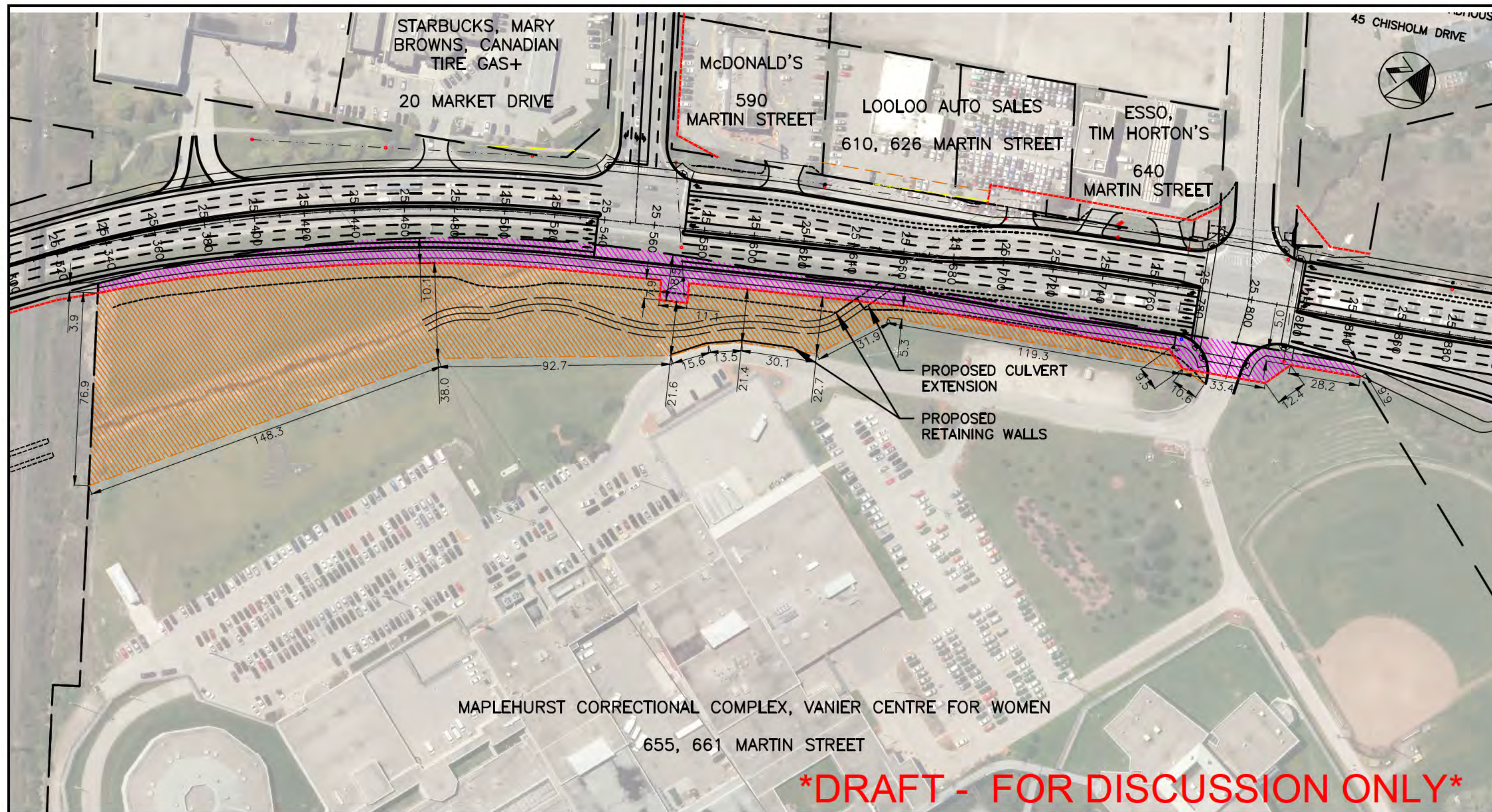


# NEXT STEPS

- TAC #2 – Thursday, April 25, 2019
- Continue to meet with agencies and stakeholders as required
- PIC #2 – Tuesday, June 11, 2019 (drop-in from 6:30 pm – 8:30 pm)
- Review and incorporate the input received from review agencies, the public, and Indigenous communities
- Confirm and complete preferred alternative design
- Prepare an Environmental Study Report (ESR) to document the Class EA process
- Circulate draft ESR to agencies, including the Ministry of Environment Conservation and Parks (MECP) and Conservation Halton
- Finalize ESR and make available for public review for a minimum of 30 days (Fall 2019).

# Questions?





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SCALE



1:1500

PARTIAL PLAN  
IN THE VICINITY OF 655, 661 MARTIN STREET  
April 11, 2019

HALTON REGION  
REGIONAL ROAD 25  
CLASS ENVIRONMENTAL ASSESSMENT STUDY  
STEELES AVE (REG. RD 8) TO 5 SIDEROAD

#### LEGEND

- EXISTING PROPERTY
- PROPOSED RIGHT OF WAY/ ACQUISITION
- PROPOSED AERIAL EASEMENT
- TEMPORARY CONSTRUCTION EASEMENT
- PROPOSED GRADING LIMIT
- PROPOSED PERMANENT EASEMENT

#### PROPERTY REQUIREMENTS

- APPROXIMATE PROPERTY REQUIREMENT: 0.45 ha
- APPROXIMATE CONSTRUCTION EASEMENT REQUIREMENT: 1.37 ha

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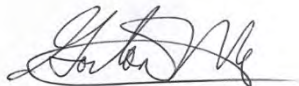
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**Date:** May 2, 2019      **Project Number:** PR-3130A  
**Location:** John Tonelli Sports Centre      **Project: 1650-10586**      Regional Road 25 Municipal Class  
Milton, ON      Environmental Assessment (MCEA)  
Study  
**Time:** 1:00 p.m.      **Author:** Gord Murray, Stantec  
**Attendees:**  
Ann Larkin      Halton Region  
Jeff Reid      Halton Region  
Melissa Fialho      Halton Region  
Gord Murray      Stantec  
**Purpose:** Consultation with Property Owner at 610 & 626      Martin  
Street, regarding proposed improvements to Regional Road 25.

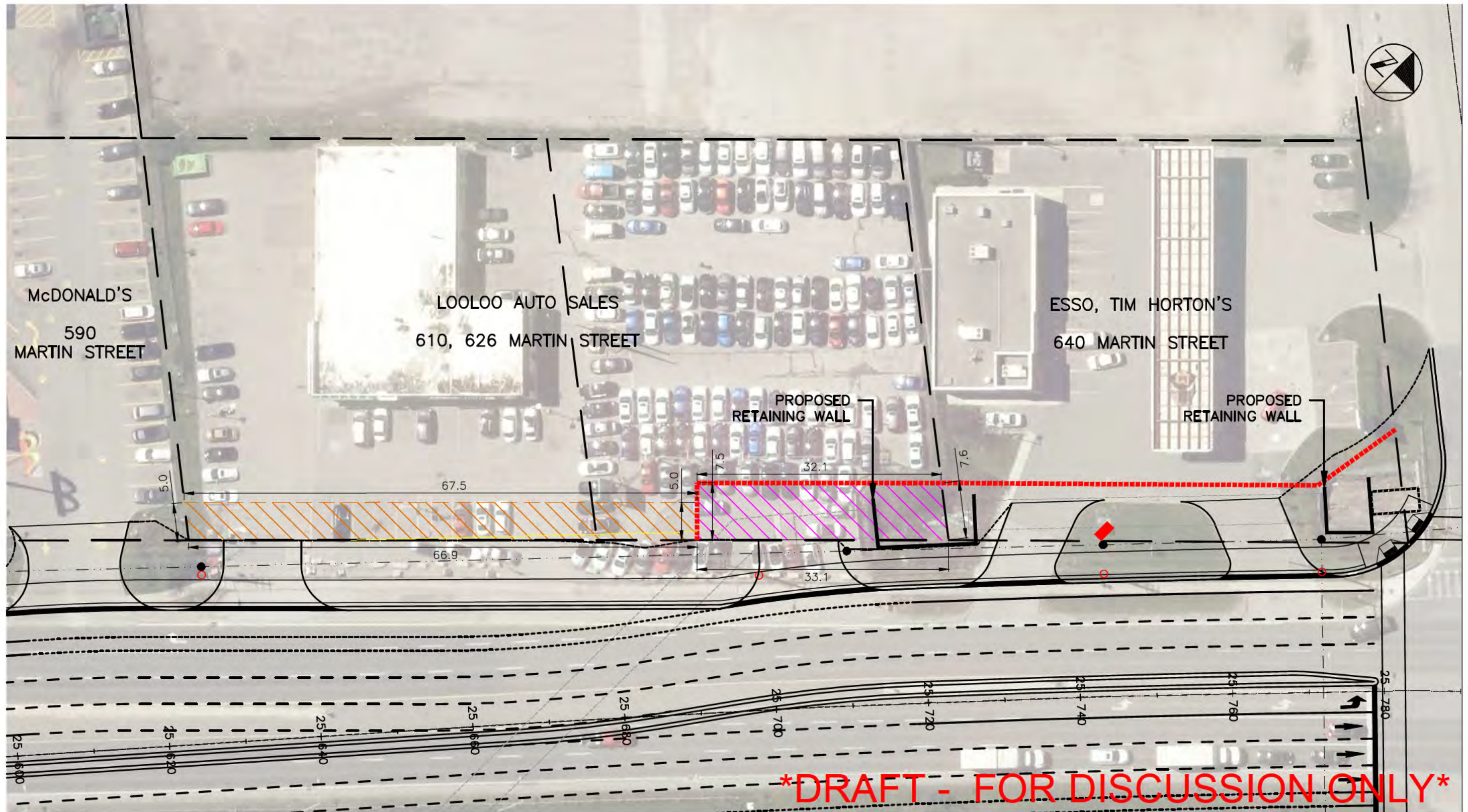
Item	Details	Action By
1.0	<b>Introductions &amp; Project Background</b>	
1.1	<ul style="list-style-type: none"> <li>The Region provided a brief status update on the project and a summary of the Municipal Class EA Study with respect to background, need and justification, review of alternative design concepts and recommended preferred preliminary design.</li> </ul>	
2.0	<b>Discussion - Property Impacts and Easement Requirements</b>	
2.1	<ul style="list-style-type: none"> <li>clarified that in terms of property ownership, 610 Martin Street (including building) is owned by . The adjacent lot (626 Martin Street) is owned by his numbered company, in which exists. produced a survey plan for 626 Martin Street, which showed a CSP culvert (Culvert C3) on a section of his property that is subject to two individual easements, firstly in favour of the Town of Milton for the installation, construction and maintenance of a sanitary sewer main, and the second in favour of Milton Hydro for hydro purposes. The Region will need to take "fee simple" title to the section of his property under which the culvert is situated. It is likely that the size of this purchase will be similar to the size of the current maintenance easement.</li> </ul>	Region
2.2	<ul style="list-style-type: none"> <li>is concerned with the existing condition of the CSP culvert (Culvert C3, upstream end), which he believes to be the cause of his parking lot "cave-ins". advised that he has been repairing these cave-ins as they occur in order to maintain the safety of the parking area, but it is his understanding that the Region is working on a plan to replace the CSP section of the culvert with a box culvert extension. <b>[Post Meeting Note: The Region verified with its Engineering &amp; Construction Department that they plan to complete interim repairs to the existing culvert, which includes lining the invert, in Summer 2019].</b></li> </ul>	
2.3	<ul style="list-style-type: none"> <li>Stantec explained the details of the recommended preferred preliminary design. Both 610 and 626 Martin Street will be impacted by the improvements to Regional Road 25, to ensure a smooth transition from the roadway to the parking lot, and the need for a centre median to prevent left turns to/from properties.</li> </ul>	

2.4	<ul style="list-style-type: none"> <li>Region explained the appraisal and purchase procedures to obtain the necessary fee simple right-of-way, temporary and permanent easements required, as well as permissions-to-enter for the purposes of lot grading for a smooth transition between the proposed roadway boulevard and the parking lot.</li> </ul>	
2.5	<ul style="list-style-type: none"> <li>noticed that there was no proposed entrance shown for 610 Martin Street on the preliminary plan. Stantec will provide this on the updated version of the plan for the Public Information Centre (PIC) #2 and the final Environmental Study Report (ESR). <b>[Post Meeting Note: Attached is an updated partial plan which includes an access at 610 Martin Street].</b></li> </ul>	Stantec
2.6	<ul style="list-style-type: none"> <li>expressed concern that the improvements to Regional Road 25 will eliminate the existing full-movement accesses to Right-in/Right-out only, and will create business losses. Region understands concerns but indicated that the raised centre-median is required from both a traffic operations and safety perspective. Left turns to/from the properties will need to be made via U-Turns at either the Market Drive or Chisholm Drive intersections.</li> </ul>	
3.0	<b>Schedule</b>	
3.1	<ul style="list-style-type: none"> <li>A Public Information Centre (PIC) #2 is upcoming and anticipated in mid-June 2019. A separate notice will be sent to all adjacent property owners</li> <li>Region confirmed that start of construction for the proposed Regional Road 25 widening/improvements are currently identified for 2022.</li> </ul>	
<b>Meeting adjourned at 1:45 p.m.</b>		

**STANTEC CONSULTING LTD.**


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Principal, Transportation  
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SCALE  
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PARTIAL PLAN  
IN THE VICINITY OF 610 & 626 MARTIN STREET  
May 31, 2019

HALTON REGION  
REGIONAL ROAD 25  
CLASS ENVIRONMENTAL ASSESSMENT STUDY  
STEELES AVE (REG. RD 8) TO 5 SIDEROAD

#### LEGEND

- EXISTING PROPERTY
- - - PROPOSED RIGHT OF WAY/ ACQUISITION
- - - PROPOSED AERIAL EASEMENT
- - - TEMPORARY CONSTRUCTION EASEMENT
- - - PROPOSED GRADING LIMIT
- - - PROPOSED PERMANENT EASEMENT

#### PROPERTY REQUIREMENTS

- APPROXIMATE PROPERTY REQUIREMENT: 0.02 ha
- APPROXIMATE CONSTRUCTION EASEMENT REQUIREMENT: 0.03 ha

PAGE

1



**Date:** May 2, 2019      **Project Number:** PR-3130A  
**Location:** John Tonelli Sports Centre      **Project: 1650-10586**      Regional Road 25 Municipal Class Environmental Assessment (MCEA) Study  
Milton, ON  
**Time:** 2:30 p.m.      **Author:** Gord Murray, Stantec  
**Attendees:**  
Ann Larkin      Halton Region  
Jeff Reid      Halton Region  
Melissa Fialho      Halton Region  
Owner of 8604 & 8612 Regional Road 25  
Family Member  
  
Gord Murray      Stantec  
  
**Purpose:** Consultation with Property Owner at 8604 Regional Road 25 (Residential Property) & 8612 Regional Road 25 (Shell Gas Station, formerly Global Gas Station) regarding proposed improvements to Regional Road 25

Item	Details	Action By
<b>1.0</b>	<b>Introductions &amp; Project Background</b>	
1.1	<ul style="list-style-type: none"> <li>The Region provided a brief status update on the project and a summary of the Municipal Class EA Study with respect to background, need and justification, review of alternative design concepts and preferred preliminary design.</li> </ul>	
1.2	<ul style="list-style-type: none"> <li>Stantec noted that the "best fit" alternative in this section of Regional Road 25 (James Snow Parkway to Escarpment Way/Peddie Road) shifted the road centerline to the east, which resulted in minimizing the operational impacts on the gas station. By shifting Regional Road 25 to the east grading impacts on the three residential properties to the south are also reduced.</li> </ul>	
<b>2.0</b>	<b>Discussion – Property Impacts and Easement Requirements</b>	
2.1	<ul style="list-style-type: none"> <li>While no property acquisition is anticipated from the gas station property (8612 Regional Road 25), a permanent easement will be required on the residential property (8604 Regional Road 25) to provide a 3.0 metre setback easement from the overhead hydro lines; and a temporary easement will be required from the gas station in order to create a smooth transition from the roadway boulevard to the gas station site to accommodate drainage. Attached is a partial plan for both 8604 and 8612 Regional Road 25.</li> </ul>	
2.2	<ul style="list-style-type: none"> <li>expressed concern that the improvements to Regional Road 25 will eliminate the existing full-movement accesses to Right-in/Right-out only and will create business losses. Region understands concerns but indicated the raised centre-median is required from both a traffic operations and safety perspective. It was noted by the Region/Stantec that access to/from the northbound lanes could be achieved by making U-Turns at adjacent intersections. In addition, cars and fuel delivery trucks could access the site using the James Snow Parkway interchange with Highway 401 or the future Tremaine Road interchange with Highway 401.</li> </ul>	
<b>3.0</b>	<b>Schedule</b>	
3.1	<ul style="list-style-type: none"> <li>A Public Information Centre (PIC) #2 is upcoming and anticipated in mid-June 2019. A separate notice will be sent to all adjacent property owners. <b>[Post</b></li> </ul>	

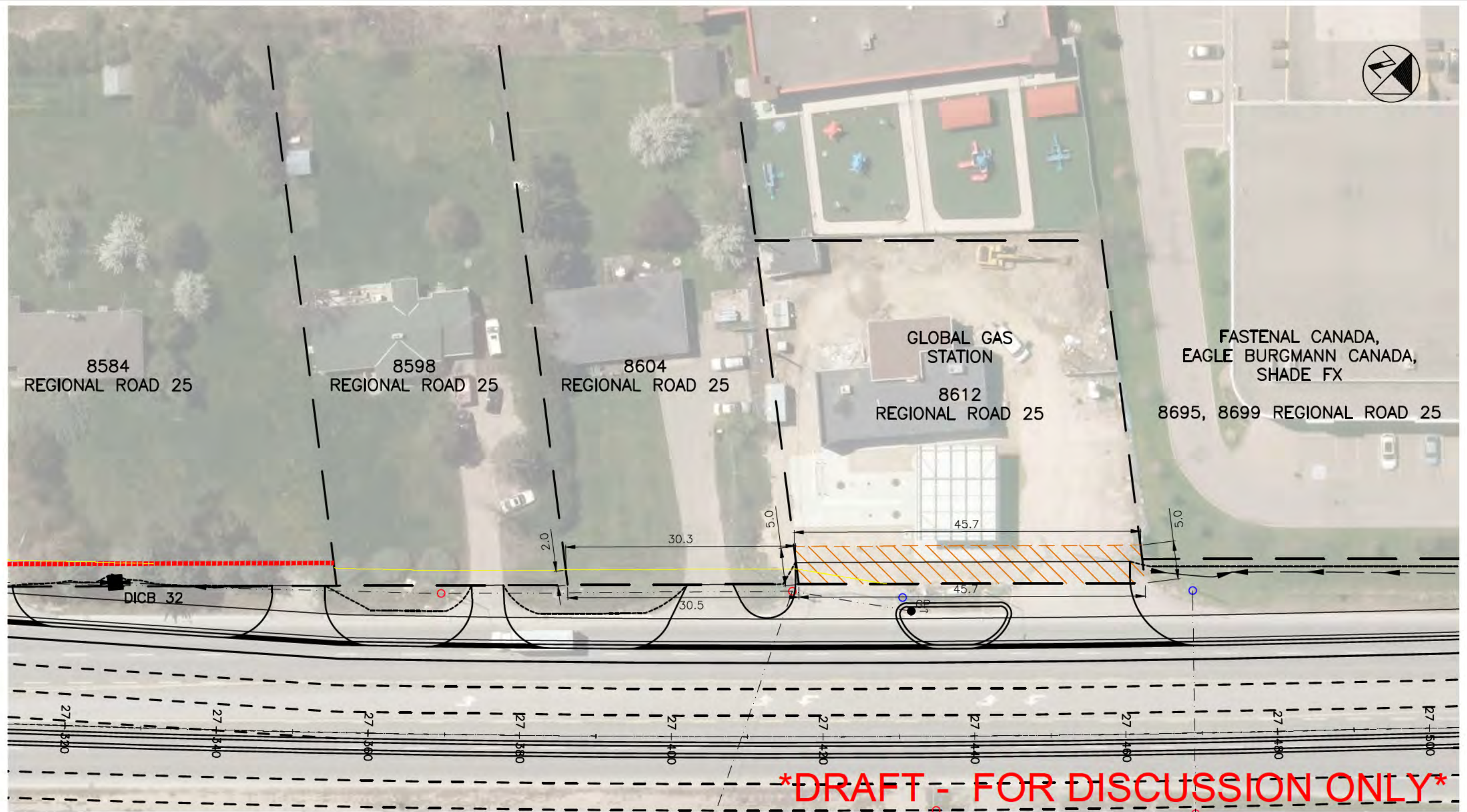
Item	Details	Action By
	<b>Meeting Note: the Region hosted PIC #2 on June 11, 2019].</b> <ul style="list-style-type: none"><li>Region confirmed that start of construction for the proposed Regional Road 25 widening/improvements are currently identified for 2022.</li></ul>	
3.2	<ul style="list-style-type: none"><li>provided his email address for future communications</li></ul>	
<b>Meeting adjourned at 3:00 p.m.</b>		

**STANTEC CONSULTING LTD.**



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Principal, Transportation  
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PARTIAL PLAN  
IN THE VICINITY OF 8604 & 8612 REGIONAL ROAD 25  
May 30, 2019  
HALTON REGION  
REGIONAL ROAD 25  
CLASS ENVIRONMENTAL ASSESSMENT STUDY  
STEELES AVE (REG. RD 8) TO 5 SIDEROAD

- LEGEND
- EXISTING PROPERTY
  - PROPOSED RIGHT OF WAY/ ACQUISITION
  - PROPOSED AERIAL EASEMENT
  - TEMPORARY CONSTRUCTION EASEMENT
  - PROPOSED GRADING LIMIT
  - PROPOSED PERMANENT EASEMENT

PROPERTY REQUIREMENTS

APPROXIMATE CONSTRUCTION EASEMENT REQUIREMENT: 0.02 ha



**Date:** May 15, 2019      **Project Number:** PR-3130A  
**Location:** 401 Wheelabrator Road      **Project: 1650-10586**      Regional Road 25 Municipal Class  
Milton, ON      Environmental Assessment (MCEA)  
Study  
**Time:** 2:00 p.m.      **Author:** Gord Murray, Stantec  
**Attendees:**  
Ann Larkin      Halton Region  
Jeff Reid      Halton Region  
Keenan Lane      Halton Region

Gord Murray      Stantec

**Purpose:** Consultation with Property Owner at 8473 Regional Road 25 and 2754 James  
Snow Parkway, regarding Proposed Improvements to Regional Road 25

Item		Action By
1.0	<b>Purpose of Meeting</b>	
1.1	<ul style="list-style-type: none"> <li>The Region provided a brief status update on the Municipal Class EA Study, including a review of the preferred preliminary design, adjacent to 8473 Regional Road 25 and 2754 James Snow Parkway.</li> </ul>	
1.2	<ul style="list-style-type: none"> <li>The right-of-way is constrained on both sides of Regional Road 25, between High Point Drive and James Snow Parkway, and for this reason an additional level of design beyond what would typically be required for a Class EA Study (i.e., preliminary design) was undertaken to allow for further confirmation regarding potential impacts, including property requirements, easements, etc.</li> </ul>	
2.0	<b>Details:</b>	
2.1	<ul style="list-style-type: none"> <li>own the properties on the east side of Regional Road 25 between High Point Drive and James Snow Parkway.</li> </ul>	
2.2	<ul style="list-style-type: none"> <li>The Region provided with a partial plan showing the recommended preferred preliminary design for Regional Road 25 across the frontage of his properties. The meeting was facilitated with a 'roll plan' for the recommended preferred preliminary design for the entire Regional Road 25 corridor (Steeles Avenue to 5 Side Road). This plan will be displayed at the upcoming Public Information Centre (PIC) #2 (June 2019) and will be made available on the Region's website on the day of the PIC. A separate Notice will be mailed to all Stakeholders (including ), in advance of PIC #2. <b>[Post Meeting Note: the Region hosted PIC #2 on June 11, 2019].</b></li> </ul>	
2.3	<ul style="list-style-type: none"> <li>Region/Stantec summarized the overall scope of the recommended preferred preliminary design, focusing on the section fronting properties (High Point Drive to James Snow Parkway).</li> </ul>	
2.4	<ul style="list-style-type: none"> <li>expressed concern that the improvements to Regional Road 25 will eliminate the existing full-movement accesses to Right-in/Right-out only,</li> </ul>	

Item		Action By
	<p>and will create business losses. In addition, _____ expressed concern that the preferred preliminary design is recommending the closure of the south entrance (8473 Regional Road 25) at the Pioneer Gas Station.</p> <ul style="list-style-type: none"> <li>• Region/Stantec explained that from an operational and safety perspective, left-turn movements onto Regional Road 25, would not be permitted once widened to 6 lanes. The preferred preliminary design includes a raised concrete centre-median.</li> <li>• It was noted by the Region/Stantec that access to/from the northbound lanes could be achieved by making U-Turns at the High Point Drive intersection, or by using James Snow Parkway as a route to/from the southbound lanes. The Region clarified that U-Turns are legally permitted at all signalized intersections, unless otherwise posted (prohibited).</li> <li>• The two remaining accesses at 8473 Regional Road 25 will be converted to Right-in/Right-out. Note that 2754 James Snow Parkway does not have an existing access to Regional Road 25 and is currently vacant.</li> <li>• The signal timing and left-turn protected phasing (i.e., left turn arrows) which facilitate U-Turns, will be confirmed during detailed design.</li> </ul>	
2.5	<ul style="list-style-type: none"> <li>• Stantec provided a turning movement (AutoTurn) diagram which illustrated a fuel truck (Wb-20) maneuvering within the Pioneer Gas Station (8473 Regional Road 25) via the High Point Drive access to the underground tanks, and then exiting the site (Right-in/Right-out) onto Regional Road 25. Sufficient room is available for fuel truck deliveries to clear the Pioneer Gas Station canopy. Through the AutoTurn analysis, one parking space may be lost on the southeast corner of the site. <b>[Post Meeting Note: _____ emailed the Region (May 17, 2019) to confirm that the fuel delivery truck is a 'B-Train' with fuel unloading on the passenger side. Attached is an updated diagram which is consistent with the AutoTurn drawing provided at our meeting on May 15, 2019. Overall, it appears one parking stall (southeast corner) will be lost due to the radii of a turning truck. Note that a 'B-Train' truck is a worse-case scenario].</b></li> </ul>	
2.6	<ul style="list-style-type: none"> <li>• _____ inquired whether an access to Regional Road 25 would be permitted from the 2754 James Snow Parkway property (northeast corner of Regional Road 25 and James Snow Parkway). Region advised that access would be reviewed as part of the site plan process and would be subject to an entrance permit. The Region indicated that any further information _____ can provide regarding the existing and future uses of his properties would be useful in finalizing the Regional Road 25 recommended preliminary preferred design.</li> </ul>	
2.7	<ul style="list-style-type: none"> <li>• _____ requested an updated partial plan of his properties showing the entire area fronting Regional Road 25, between High Point Drive and James Snow Parkway. <b>[Post Meeting Note: an updated partial plan along Regional Road 25 from High Point Drive to James Snow Parkway was provided via email on May 16, 2019].</b></li> </ul>	Region
2.8	<ul style="list-style-type: none"> <li>• The Region's Realty Services (represented by Keenan Lane) advised that any demonstrated business losses incurred by _____ business (as owner of the properties and lessor to the tenants) could be compensable in accordance with the Region's practices and, if necessary, the <i>Expropriations Act</i>. Any business losses would need to be quantified by tracking revenues before, during, and after the proposed construction. Halton suggested the owner</li> </ul>	

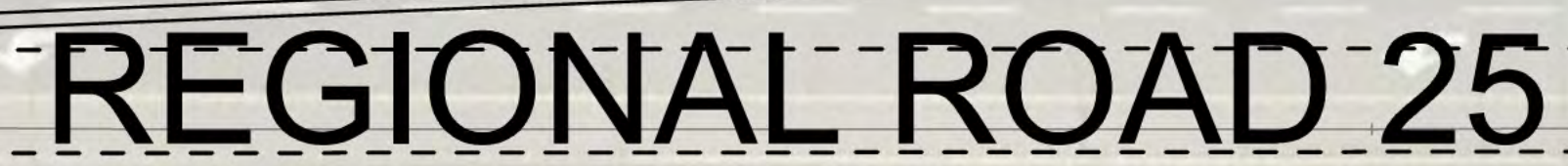


Item		Action By
	<p>consider retaining a certified business valuator</p> <ul style="list-style-type: none"> <li>Halton also explained that, as Landlord, business related damages would typically be limited to loss of rents and that conventional business losses would rest with the onsite business operators.</li> <li>argued that "losses" were a matter of both lost revenue and loss of convenience to those using the properties. Regional staff agreed that a loss of utility to the property (i.e. turning access, etc.) could also form part of a future claim for compensation.</li> <li>asked for names of companies that could assist in quantifying business losses. Keenan has since connected with via email and provided some contacts per this request.</li> </ul>	Region
3.0	<b>Schedule</b>	
3.1	<ul style="list-style-type: none"> <li>Region confirmed that the Regional Road 25 improvements are currently identified for start of construction in 2022</li> </ul>	

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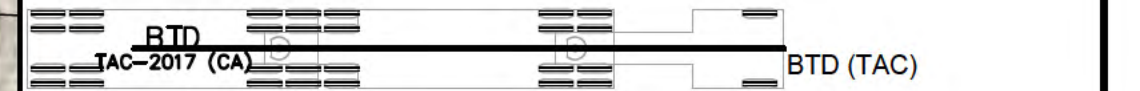


# HIGH POINT DRIVE

**\*DRAFT - FOR DISCUSSION ONLY\***



### LEGEND



—————→ DIRECTION OF VEHICLE



NO.	DATE	BY	REVISIONS		MANU CAD
DESIGN	DM	CH'KD	GM	DATE 24 May 2019	
DRAWN	DM	CH'KD	XX		
SCALE					REFERENCES
1:500 HORIZ.					
1:50 VERT.					FIELD NOTES
REGIONAL					
ACCEPTED FOR CONSTRUCTION OF REGIONAL INFRASTRUCTURE					STAMP
REVIEWED FOR COMPLIANCE WITH REGIONAL STANDARDS ONLY.					
_____ DIRECTOR					
_____ MANAGER					



REGIONAL ROAD 25

8473 REGIONAL ROAD 25  
B-TRAIN - AUTOTURN ANALYSIS

CONSULTANT FILE NO. <b>165010586</b>	REGIONAL DRAWING NO.
CONTRACT NO. <b>X-XXXX-XX</b>	DRAWING NO. <b>SHEET 1 OF 1</b>



**Date:** May 2, 2019      **Project Number:** PR-3130A  
**Location:** John Tonelli Sports Centre      **Project: 1650-10586**      Regional Road 25 Municipal Class  
 Milton, ON      Environmental Assessment (MCEA)  
 Study

**Time:** 2:00 p.m.      **Author:** Gord Murray, Stantec

**Attendees:**

Ann Larkin	Halton Region
Jeff Reid	Halton Region
Melissa Fialho	Halton Region
	Owner of 8598 Regional Road 25
	Representing (Owner of 8584 Regional Road 25)
Gord Murray	Stantec

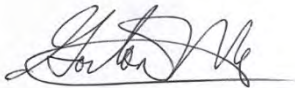
**Purpose:** Consultation with Property Owners at 8598 Regional Road 25  
 and 8584 Regional Road 25 regarding proposed improvements  
 to Regional Road 25

Item	Details	Action By
1.0	<b>Introductions &amp; Project Background</b>	
1.1	<ul style="list-style-type: none"> <li>holds power of attorney for . Both , who hold power of attorney for was not in attendance</li> </ul>	
1.2	<ul style="list-style-type: none"> <li>The Region provided a brief status update on the project and a summary of the Municipal Class EA Study with respect to background, need and justification, review of alternative design concepts and preferred preliminary design.</li> </ul>	
2.0	<b>Discussion – Property Impacts and Easement Requirements</b>	
2.1	<ul style="list-style-type: none"> <li>Stantec explained the need for a “fee simple” purchase of approximately a 3.0 m wide strip of property across the frontage from 8584 Regional Road 25 to accommodate roadway grading and drainage. Some tree removal will be necessary, as well as reconstruction of the driveways to both 8598 and 8584 Regional Road 25. Property is not anticipated to be required from 8598 Regional Road 25. A small permanent easement will be acquired for 8598 Regional Road 25 in favour of Milton Hydro to allow for a 3.0 m setback easement for the relocated hydro overhead lines.</li> </ul>	
2.2	<ul style="list-style-type: none"> <li>highlighted that the secondary (northerly) access at 8584 Regional Road 25 is required for maintenance purposes, as there is no way to access the back half of the property using the primary entrance, without driving over the septic bed. also noted that any grading on their property would need to avoid the septic bed. The Region will review maintaining the secondary access through the detail design process through either a depressed or roll-over curb. Attached is an updated partial plan for both 8584 and 8598 Regional Road 25, which includes the northerly access at 8584 Regional Road 25.</li> </ul>	
2.3	<ul style="list-style-type: none"> <li>noted that both properties are receiving water ponding. indicated that either the current ditching or drainage structures are not functioning properly, or a new drainage structure is required to provide an outlet. The Region will review during detailed design and address as required.</li> </ul>	Region
3.0	<b>Schedule</b>	



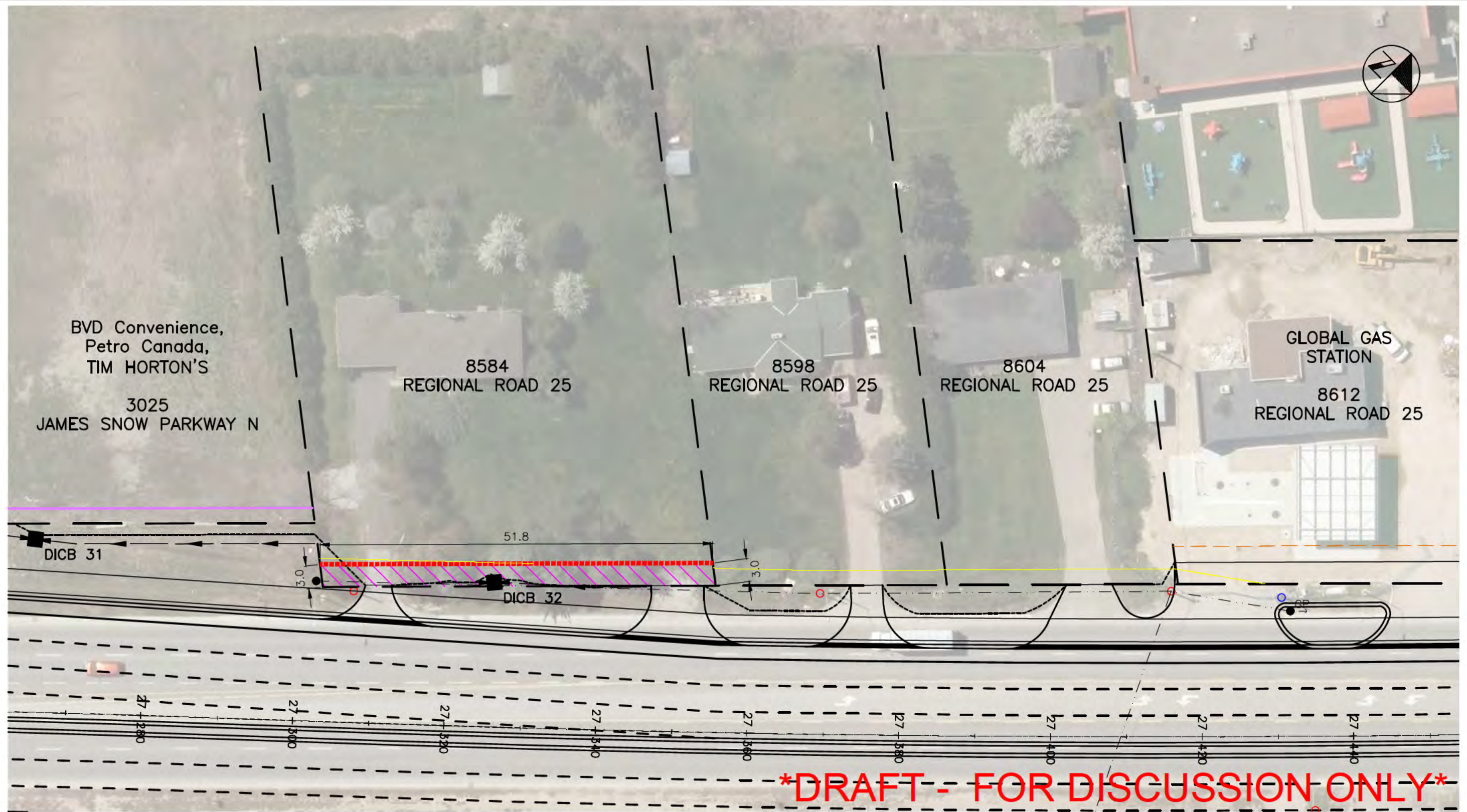
3.1	<ul style="list-style-type: none"> <li>• A Public Information Centre (PIC) #2 is upcoming and anticipated in mid-June 2019. A separate notice will be sent to all adjacent property owners [<b>Post Meeting Note: the Region hosted PIC #2 on June 11, 2019 in which attended and emphasized the importance of the secondary (maintenance) access to 8584 Regional Road 25 and to review the adjacent catch basin's ability to pick-up flooding/ponding at both 8598 and 8584 Regional Road 25 during detail design.</b>]</li> <li>• Region confirmed that start of construction for the proposed Regional Road 25 widening/improvements are currently identified for 2022.</li> </ul>	
<b>Meeting adjourned at 2:30 p.m.</b>		

**STANTEC CONSULTING LTD.**



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Principal, Transportation  
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SCALE  
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PARTIAL PLAN  
IN THE VICINITY OF 8584 REGIONAL ROAD 25  
May 30, 2019  
HALTON REGION  
REGIONAL ROAD 25  
CLASS ENVIRONMENTAL ASSESSMENT STUDY  
STEELES AVE (REG. RD 8) TO 5 SIDEROAD

- LEGEND
- EXISTING PROPERTY
  - PROPOSED RIGHT OF WAY/ ACQUISITION
  - PROPOSED AERIAL EASEMENT
  - TEMPORARY CONSTRUCTION EASEMENT
  - PROPOSED GRADING LIMIT
  - PROPOSED PERMANENT EASEMENT

PROPERTY REQUIREMENTS  
APPROXIMATE PROPERTY REQUIREMENT: 0.02 ha



<b>Date:</b>	July 11, 2018	<b>Project Number:</b>	PR-3130A
<b>Location:</b>	8501 Chudleigh Way	<b>Project: 1650-10586</b>	Regional Road 25 Municipal Class Environmental Assessment (MCEA) Study
<b>Time:</b>	3:00 p.m. to 4:30 p.m.	<b>Author:</b>	David Moura, Stantec
<b>Attendees:</b>			
Jeffrey Reid	Halton Region		
Ann Larkin	Halton Region		
Melissa Green-Battiston	Halton Region		
Meredith Baker	Halton Region		
Gord Murray	Stantec Consulting		
David Moura	Stantec Consulting		

**Distribution:** Attendees

**Purpose:** Regional Road 25 Preliminary Design Options – adjacent to 8501 Chudleigh Way and 8470 Regional Road 25

Item	Details	Action By
1.0	<b>Introductions &amp; Project Background</b>	
1.1	All attendees were introduced.	
1.2	<p>A brief overview of the Municipal Class Environmental Assessment (MCEA) Study and project background (High Point Drive to James Snow Parkway) was provided, as well as the key elements of the corridor (presentation attached). The Project Team presented the following items:</p> <ul style="list-style-type: none"> <li>• Project Overview</li> <li>• Development of Preliminary Alternative Designs</li> <li>• Review of Design Considerations</li> <li>• Property Discussion</li> <li>• Next Steps</li> </ul>	
2.0	<b>Preliminary Regional Road 25 Design Options</b>	
2.1	The preliminary design of Regional Road 25 improvements needs to tie into the MTO construction of the 401 overpass, as well as the Steeles Avenue widening from 2 to 4 lanes (Regional Road 25 to Industrial Drive); both currently under construction.	
2.2	The cross-section proposed for Regional Road 25 is a 6-lane cross-section (3 lanes northbound and 3 lanes southbound) with on-road bike lanes and a 3.0m multi-use pathway (both sides of the road). The typical Regional right-of-way (6 lanes) is 47m,	



Item	Details	Action By
	recognizing, this may be increased to accommodate traffic requirements (e.g., auxiliary turn lanes), as required.	
2.3	<p>During the development of the preliminary alternative designs, four (4) alternatives are being considered:</p> <ul style="list-style-type: none"> <li>Alternative 1 – Widen symmetrically on both sides of existing centreline</li> <li>Alternative 2 – Widen to the east of existing centreline (holding west property line)</li> <li>Alternative 3 – Widen to the west of existing centreline (holding east property line)</li> <li>Alternative 4 – “Best Fit” (combination of Alternatives 1, 2 &amp; 3)</li> </ul> <p>It was discussed that Alternative 4 “best fit” approach was taken for the road widening, including in the area adjacent to 8501 Chudleigh Way/8470 Regional Road 25, between James Snow Parkway and High Point Drive, due to constraints on both sides of Regional Road 25.</p>	
2.4	In order to address concerns raised _____ related to this project, the Regional Road 25 Project Team has accelerated the preliminary design options (High Point Drive to James Snow Parkway) to confirm any anticipated infrastructure or property impacts.	
3.0	<b>Design Details / Constraints (High Point Drive to James Snow Parkway)</b>	
3.1	Under existing conditions, due to the elevation difference between the property and Regional Road 25 there is an existing ditch and catch basin adjacent to 8501 Chudleigh Way. To accommodate the “best fit” (6 lane) improvements along Regional Road 25 it is anticipated that both a drainage swale and two catch basins are required to accommodate 8501 Chudleigh Way and 8470 Regional Road 25 properties. It is anticipated that both the drainage swale and catch basins would be located between the existing building wall and the fence line, in order to drain water from the _____ properties. The proposed catch basins will be connected to the Region storm sewer on Regional Road 25.	
3.2	Light standards will be located along the west side of Regional Road 25 between the back of the multi-use pathway and property line. There are existing hydro poles on the east side of Regional Road 25. With the Regional Road 25 improvements, Milton hydro will need to confirm whether any poles or guying anchor wires will be required on the _____ property, to brace hydro poles on the east side of the roadway.	
3.3	_____ raised the concern of the proximity of the guy poles and light standards to their proposed security fence, as it may provide the opportunity for people to climb over the fence and onto their property.	
4.0	<b>Potential Future Expansion</b>	
4.1	_____ provided a preliminary site plan for two expansions to their current operations and building footprint. The first phase is proposed at the southeast corner of the building, to ‘square-off’ and be parallel to the existing building; second phase is	

Item	Details	Action By
	proposed at the south end of the building, to expand southerly.	
4.2	A large amount of _____ sales are exported to the United States, and, therefore, they are required to follow various U.S. Regulations, specifically with respect to preventing tampering with their products _____ would like to avoid any changes to their existing property boundaries in order to avoid raising any "red flags" while going through the U.S. inspection process. _____ preference is to maintain the existing building wall-to-fence line separation as to negate any potential concerns with U.S. authorities, even though the minimum 6.1m separation is provided.*	
4.3	According to _____, the existing face of building is 9.4m away from the existing property line. The Stantec draft design drawing illustrates the face of the building at approximately 6.1m away from the existing property line, based on measurement from an aerial photograph. _____ to send site plan to Region for further investigation and reconciliation of the building wall with respect to the property line. <b>[Post Meeting Note: For the Region's information, _____ provided a proposed site plan, highlighting that it has been submitted to the Town of Milton, and will be used for a pre-consultation on July 19, 2018.]</b>	
4.4	Stantec and Region will work to confirm the location of the existing property line (right-of-way limit). <b>[Post Meeting Note: to confirm the existing property line, Halton Region's Survey Department completed a field review and confirmed the distance from the _____ building to existing property line is 9.65m].</b>	Stantec/ Region
4.5	With the proposed building expansion, _____ indicated that the existing entrance at 8470 Regional Road 25 is not required and can be closed as part of the upcoming site plan application to the Town of Milton. Halton Region and the Regional Road 25 Project Team committed to continued dialogue and to work with _____ regarding their site plan application.	

**Stantec Consulting Ltd.**



Gord Murray, P.Eng., PTOE  
Principal, Transportation  
gordon.murray@stantec.com

**Encl. Overview presentation (dated July 11, 2018)**

\*Note that the 6.1m building separation fence line is only an interpretation of U.S. Regulations and it is possible that U.S. authorities could arbitrarily require a greater separation.

# **Regional Road 25 Transportation Corridor Improvements Municipal Class EA Study**

**Steeles Avenue to 5 Side Road  
Town of Milton/Town of Halton Hills**

Property Meeting  
July 11, 2018



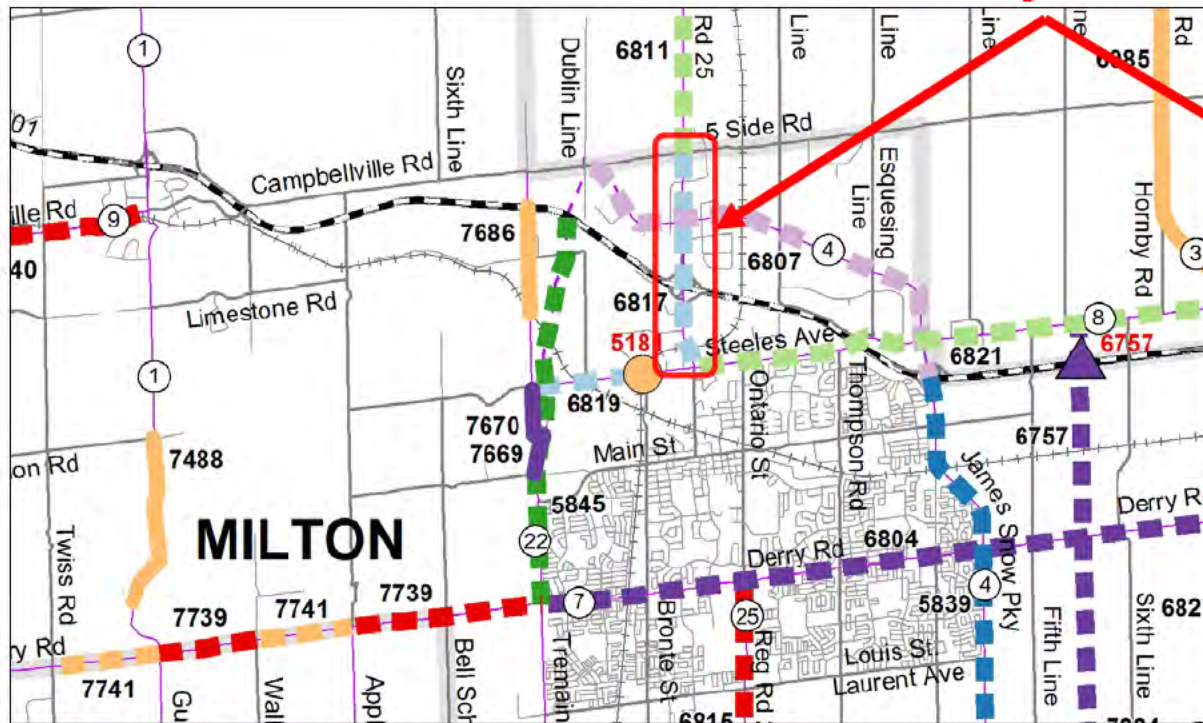


# AGENDA

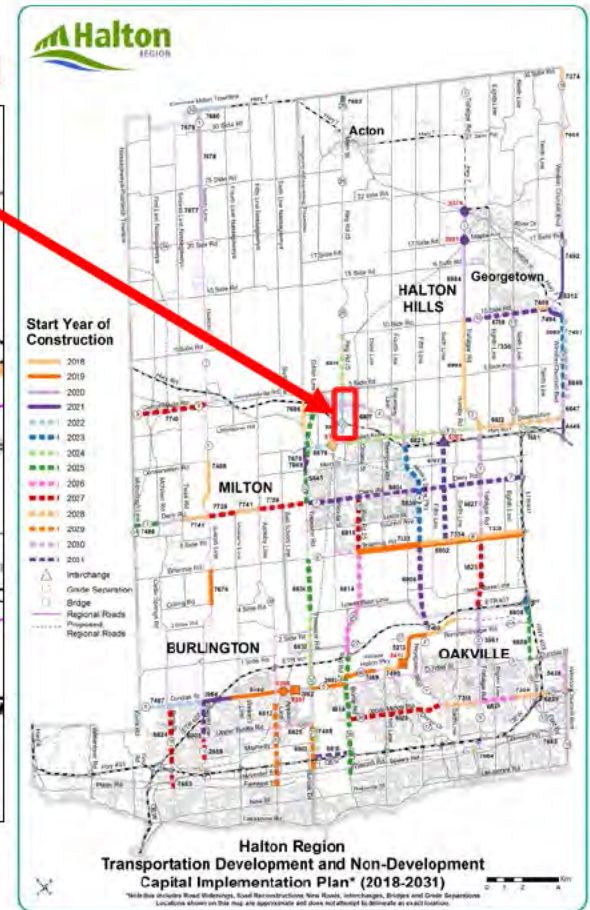
1. Introductions
2. Project Overview
3. Development of Preliminary Alternative Designs
4. Review of Design Considerations
5. Property Discussion
6. Next Steps

# HALTON REGION ROADS CAPITAL PROJECTS

Study Area

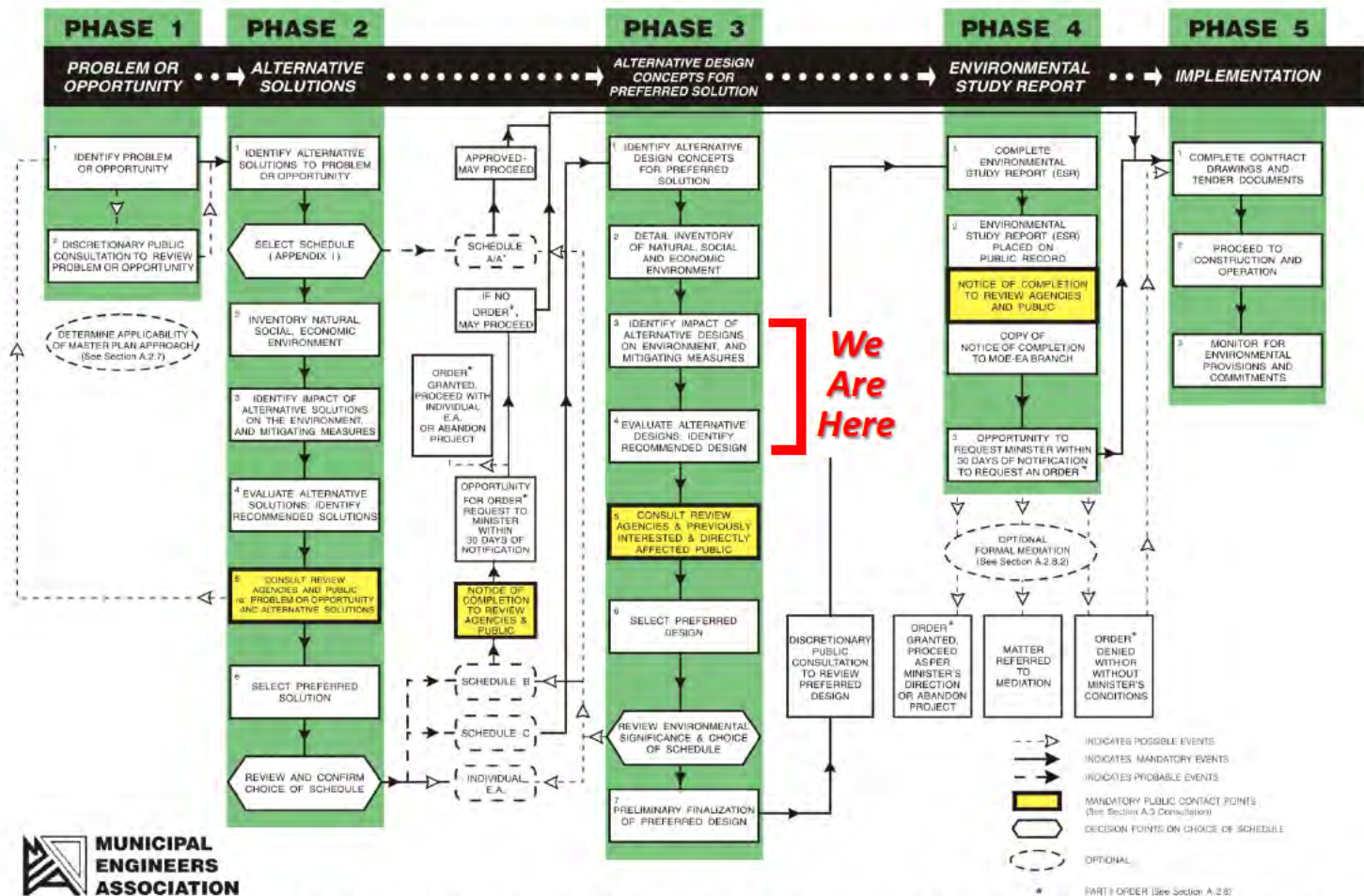


Note: The Road Capital Projects plan is subject to annual Regional Council review





# STUDY PROCESS



Based on the scope of this project, the Regional Road 25 MCEA Study is being planned as a Schedule 'C' project, which will complete Phases 1 to 4 outlined above.





# PROBLEM AND OPPORTUNITIES

- Without improvements Regional Road 25 is expected to experience delays during peak periods as travel demand continues to grow by 2031.
- To support future growth and travel demand, improvements to the Regional Road corridor are required.
- The improved corridor should support all modes of transportation (i.e. active transportation, transit services, inter-regional travel, agricultural vehicles and goods movement).
- Therefore, Halton Region is carrying out this study to address these requirements in accordance with the MCEA process.

# PLANNING ALTERNATIVES

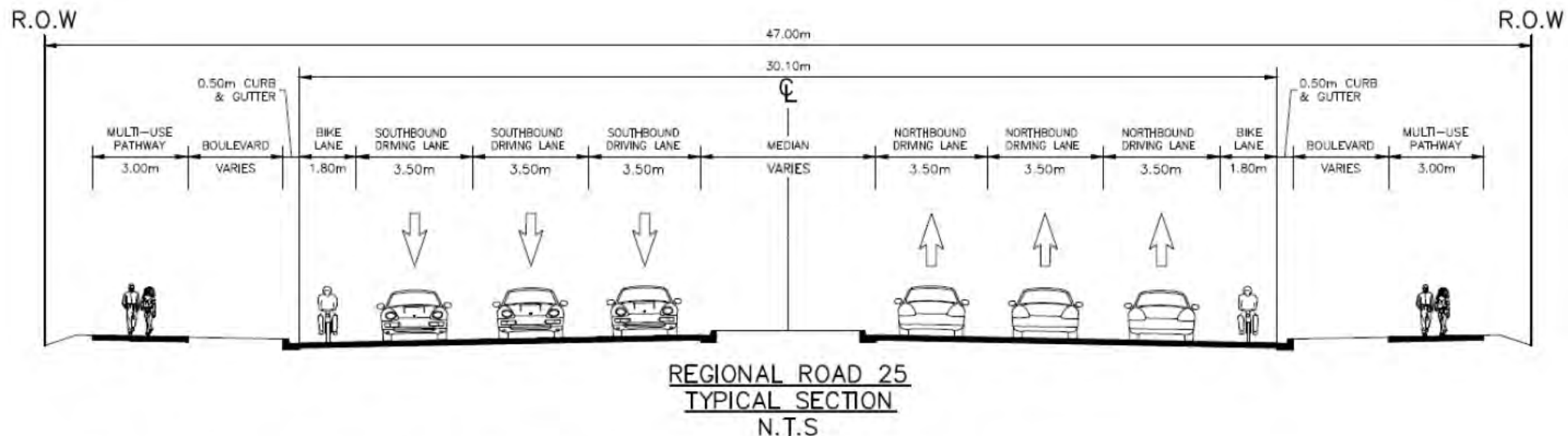
The following Planning Alternatives have been considered:

A combination of improvements to be carried forward and preliminary alternative designs to be developed.

Alternatives	Description	Evaluation Summary	Recommendation
<b>Do Nothing</b>	Status quo; only planned improvements will be in place, including the widening of Steeles Avenue, the James Snow Parkway extension, and the Tremaine Road realignment (with interchange)	Does not address needs within the study area	Not recommended for further consideration (for comparison purposes only)
<b>Limit Development</b>	Limit development within the Town of Milton/Town of Halton Hills	Future projections have been based on approved future urban area within the Halton Region and local municipal Official Plans	Do not carry forward
<b>Travel Demand Management Measures</b>	Measures to manage travel demand, such as carpooling, flexible work hours, telecommute, etc.	On their own, TDM measures do not address the problem, and are part of the Region's overall transportation strategy	Carry forward within overall strategy
<b>Improved Transit Service/ Other Modes of Transportation</b>	Continue to support transit services and provide facilities for active transportation use to accommodate pedestrians and cyclists	On their own, these measures do not address the problem, while part of the Region's overall transportation strategy	Carry forward within overall strategy
<b>Intersection and/or Operational Improvements</b>	Enhance operations of roadways through minor improvements (i.e. traffic signals, provision of turning lanes, etc.)	On their own, do not address the problem while part of the Region's overall transportation strategy	Carry forward within overall strategy
<b>Improvements to Other Roadways</b>	Widen regional roadways in the immediate study area beyond planned improvements (e.g. Steeles Avenue, James Snow Parkway, and Tremaine Road)	Part of the Region's overall transportation strategy (Transportation Master Plan)	Part of overall Regional transportation strategy
<b>Improvements to Regional Road 25</b>	Improvements to the Regional Road 25 corridor, including provision for active transportation	Needs identified in Halton Region Transportation Master Plan to support future growth	Carry forward within overall strategy



# TYPICAL 6 LANE CROSS-SECTION



The typical cross-section will accommodate the following improvements:

- 47 m right-of-way
- 6-lane roadway
- Accommodates continuous pedestrian and cycling facilities
  - 3.0 m multi-use trail (both sides of the road)
  - 1.8 m exclusive bike lane (both sides of the road)
- Opportunity for landscaping within right-of-way

# Development of Preliminary Alternative Designs

- Consideration was given to the following widening alternatives (four to six lanes) for Regional Road 25 between Steeles Avenue and 5 Side Road:
  - **Alternative 1** - Widen symmetrically on both sides of existing centreline
  - **Alternative 2** - Widen to the east of existing centerline (holding west property line)
  - **Alternative 3** - Widen to the west of existing centerline (holding east property line)
  - **Alternative 4** - “Best Fit” (combination of Alternates 1, 2 & 3)



# Preliminary Alternative Designs – High Point Drive to James Snow Parkway

- Approach to development of preliminary alternative designs considered, a “Best Fit” approach was used considering:
  - Cross section elements
  - Property constraints (e.g., Minimum setbacks, utilities, etc.)
  - Access management considerations
  - Drainage considerations

# Existing Conditions





# CONFIDENTIAL - PRELIMINARY DRAFT FOR DISCUSSION PURPOSES ONLY



LEGEND

→ DIRECTION OF FLOW

PROPOSED BUILDING EXPANSION

8470  
REGIONAL ROAD 25

CHUDLEIGH'S LIMITED  
8501 CHUDLEIGH WAY

PROPOSED PROPERTY  
EXISTING PROPERTY

PROPOSED  
CATCH BASIN

LIMIT OF GRADING  
PROPOSED DITCH

PROPOSED  
CATCH BASIN

PROPOSED DITCH

3.0m MULTI-USE PATHWAY

1.8m BIKE LANE

3.5m THROUGH LANE 0.5m SPLASH PAD

3.5m THROUGH LANE

3.5m THROUGH LANE

3.25m LEFT TURN LANE

## REGIONAL ROAD 25

# FACTORS/CRITERIA FOR EVALUATION

Design alternatives will be developed and reviewed based on comments received from Agencies, Stakeholders and members of the Public, and evaluated based on the following factors:

## Socio-Economic Environment



- Existing and Future Land Uses
- Industrial/Commercial Operations
- Institutional/Recreational Uses
- Potential Property Requirements
- Property Access
- Noise Levels
- Illumination
- Air Quality

## Cultural Environment



- Built Cultural Heritage
- Cultural Heritage Landscapes
- Archaeological Resources

## Natural Environment



- Vegetation
- Wildlife
- Creek Crossings
- Natural Hazards
- Policy Areas

## Transportation



- Corridor Capacity and Operations
- Intersection Capacity and Operations
- Geometric Standards
- Access Management
- Construction Staging
- Active Transportation

## Engineering Considerations



- Structural Requirements (CNR Overpass, Culverts)
- Municipal Services/Utilities
- Construction Staging
- Drainage and Stormwater Management

## Preliminary Cost Estimate



- Construction
- Operations and Maintenance
- Utility Relocation





# NEXT STEPS

- Review and incorporate input received from review agencies, the public, and Indigenous Communities
- Continue developing preliminary alternative designs to implement the preferred solution
- Continue to consult with technical agencies and other stakeholder groups
- Conduct PIC #2 to receive input on the preferred preliminary design

**Date:** May 2, 2019      **Project Number:** PR-3130A  
**Location:** 5801 Chudleigh Way      **Project: 1650-10586**      Regional Road 25 Municipal Class Environmental Assessment (MCEA) Study  
**Time:** 11:00 a.m.      **Author:** Gord Murray, Stantec  
**Attendees:**

Melissa Fialho      Halton Region  
 Ann Larkin      Halton Region  
 Jeff Reid      Halton Region  
 Gord Murray      Stantec Consulting Ltd.

**Distribution:** Attendees

**Purpose:** Consultation with Property Owner at 8501 Chudleigh Way and 8470 Regional Road 25, regarding proposed improvements to Regional Road 25

Item	Details	Action By
<b>1.0</b>	<b>Introductions &amp; Project Background</b>	
1.1	<ul style="list-style-type: none"> <li>The Region provided a brief status update on the project and a summary of the Municipal Class EA Study with respect to background, need and justification, review of alternative design concepts and recommended preferred preliminary design.</li> </ul>	
1.2	<ul style="list-style-type: none"> <li>The right-of-way is constrained on both sides of Regional Road 25, between High Point Drive and James Snow Parkway, and for this reason, an additional level of design beyond what would typically be required for a Class EA Study (i.e., preliminary design) was undertaken to allow for further confirmation regarding potential impacts, including property requirements, easements, etc.</li> </ul>	
<b>2.0</b>	<b>Discussion - Property Impacts and Easement Requirements</b>	
2.1	<ul style="list-style-type: none"> <li>noted that the location of the centre median has changed from the existing, reflecting a westward shift in the roadway centerline. The Region indicated that that recommended design alternative is the "Best Fit" approach to minimize impacts to both sides of Regional Road 25. The recommended preferred partial plan design is attached to the Minutes.</li> </ul>	
2.2	<ul style="list-style-type: none"> <li>As noted at the July 11, 2018 meeting with , a temporary easement will be required to transition the grading between the new roadway boulevard and the existing ground adjacent to the building at 8501 Chudleigh Way, and to reinstate a drainage swale. Small permanent easements will also be required to accommodate hydro anchors and any Region catch basins that will be required on property to pick up drainage and convey it to the Regional Road 25 storm sewer system. A new chain link fence will be installed on the property line once the grading has been completed.</li> </ul>	



Item	Details	Action By
	<ul style="list-style-type: none"> <li>suggested that a 2.4 m high fence would be sufficient to provide the required level of security. New hydro poles and light standards will be installed on the roadway (Region) side of the fence, with only the anchor wires encroaching on the property. Landscaping will be provided to replace the existing vegetation removed.</li> <li>asked for a typical cross-section showing the boulevard, fence, hydro anchor poles (or light standard), anchor wires and landscaping between the new roadway curb and the building wall. Stantec will develop and provide. <b>[Post Meeting Note: Region provided (via email on May 13, 2019) with a typical cross-section along Regional Road 25, adjacent to 8501 Chudleigh Way].</b></li> </ul>	Stantec
2.3	<ul style="list-style-type: none"> <li>inquired about the need for accessing infrastructure owned by Milton Hydro and the Region within permanent easement. For routine maintenance and inspections, would be provided with a minimum of 24 hours notice. During detail design the Region will work with s and Milton Hydro to develop an agreement that is acceptable to all parties.</li> <li>For emergency access, Milton Hydro or the Region would provide as much notice as possible; however the priority would be to address the danger or hazard creating the emergency situation.</li> </ul>	
2.4	<ul style="list-style-type: none"> <li>expressed a need to maintain the existing level of security along the frontage of Regional Road 25 during construction. Region will work with prior to construction to ensure that adequate fencing is provided during construction and reinstated after construction. The details of the temporary fencing requirements will be confirmed during detail design in consultation with the Region and</li> </ul>	Region
2.5	<ul style="list-style-type: none"> <li>noted that the permanent easements for the catch basins were not shown on the submitted draft plans. The partial plan has been updated to include the preliminary permanent easements required for the catch basins. The permanent easement will be confirmed during detail design.</li> </ul>	All
3.0	<b>Schedule</b>	
3.1	<ul style="list-style-type: none"> <li>Region confirmed that the Regional Road 25 improvements are currently identified for start of construction in 2022. noted that the site plan for their expansion is anticipated to be submitted to the Town/Region for review in Summer 2019. currently does not have a timeline for construction at 8470 Regional Road 25.</li> </ul>	
<b>Meeting adjourned at 11:50 a.m.</b>		

**STANTEC CONSULTING LTD.**


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