



APPENDIX C

Technical Agency Committee (TAC) Meetings and Correspondence



Derry Road (Regional Road 7) Transportation Corridor Improvements Class Environmental Assessment

**Milborough Line (Regional Road 24) to McNiven Road
Halton Region, City of Burlington and Town of Milton**

Technical Agencies Committee (TAC) Meeting No. 1 November 10, 2009

Purpose of TAC Meeting No. 1

- To provide TAC with an overview of the study:
 - Approach, Process and Organization;
 - Need for Improvements, Study Area, and Background Information;
 - Timetable;
 - Key Considerations and Issues;
 - Key Findings to date;
 - Problem/Opportunity being addressed;
 - Alternative Planning Solutions and Preferred Solution;
 - Evaluation Factors; and
 - Next Steps.
- Provide an opportunity for TAC input

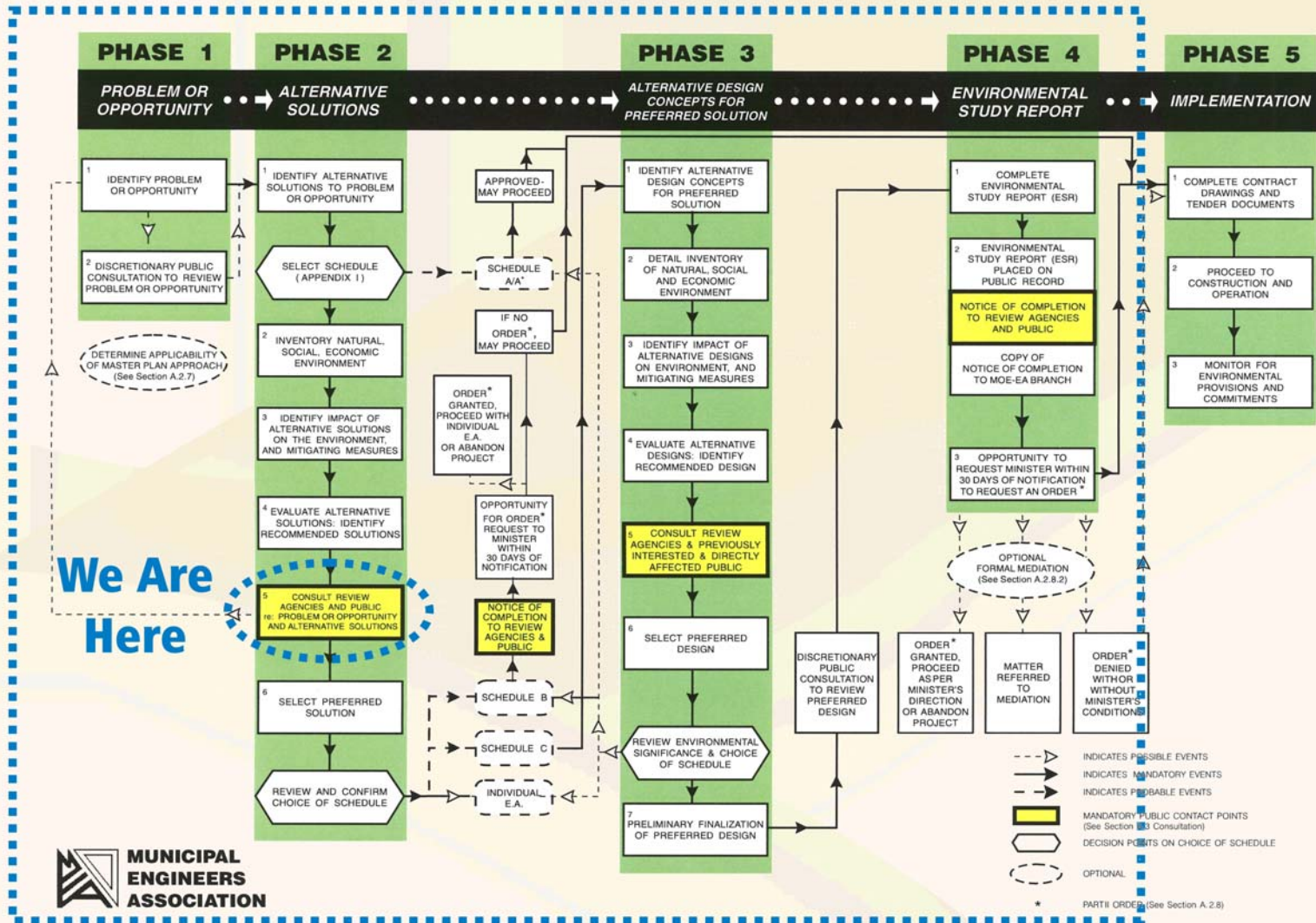
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Study Approach and Process

- Municipal Class Environmental Assessment Planning and Design Process
 - Schedule 'C' Undertaking
 - Includes Phases 1 to 4 (Currently in Phase 2)
 - **Phase 1** - Identify Problems and Opportunities
 - **Phase 2** - Identify Alternative Solutions
 - **Phase 3** - Identify Alternative Design Concepts
 - **Phase 4** - Completion and filing of Environmental Study Report (ESR)
 - Opportunities for Agency, Stakeholder and Public input

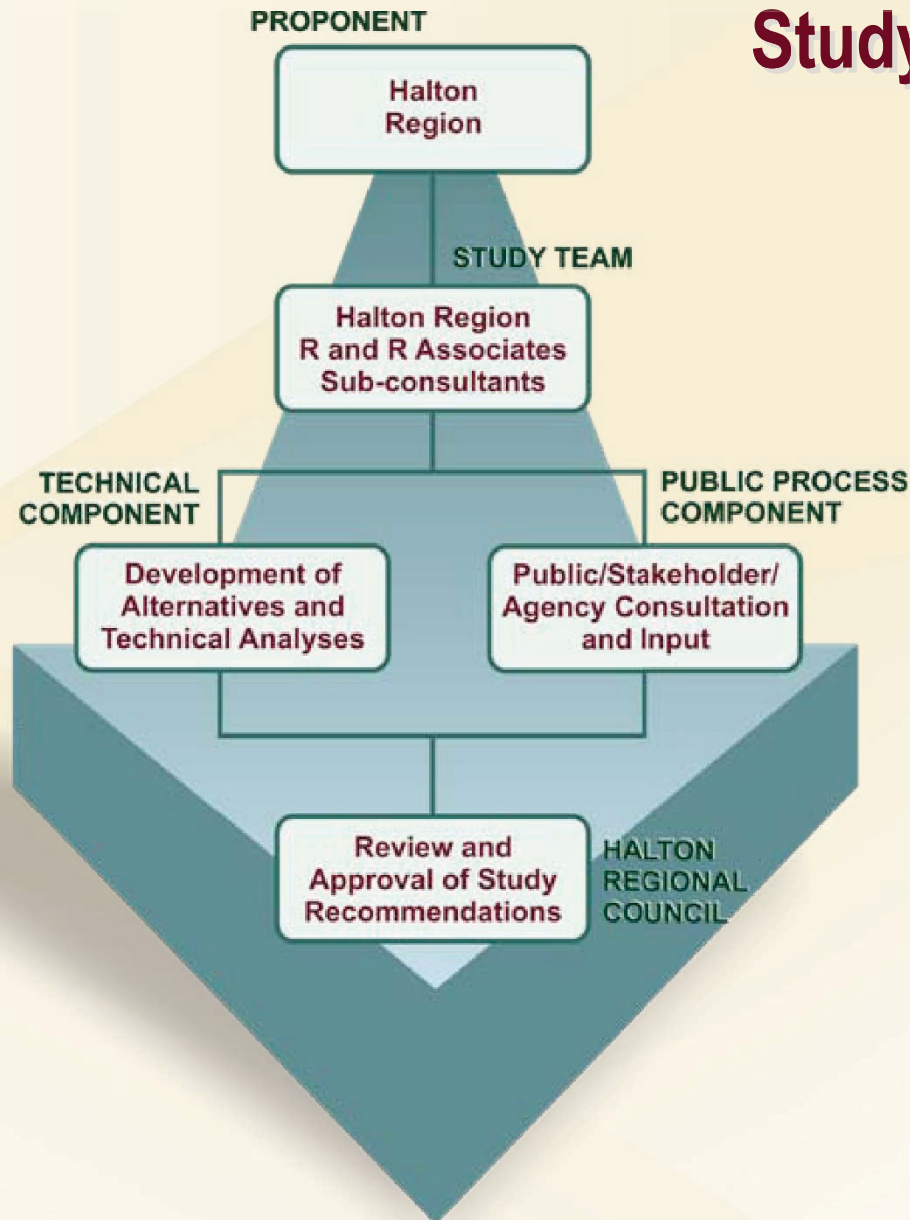
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Class EA Planning and Design Process



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Study Organization



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Need for Roadway Improvements

- Halton Region has initiated this Class EA study to:
 - Meet the requirements under the Environmental Assessment Act for the anticipated road improvements in the study area; and
 - Address roadway structural/capacity deficiencies and the need for improvements to the roadway geometrics and cross-section.

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Study Background

- The Study Area extends from Milborough Line to McNiven Road, a distance of approximately 1.4 km in length. Derry Road travels along the Municipal Boundary between the Town of Milton and the City of Burlington.
- The posted speed limit is 60 km/h with STOP controlled intersections at Milborough Line and McNiven Road (All-way STOP).
- The Derry Road Corridor within the study area limits is functionally designated as a Major Arterial roadway with a two-lane rural cross-section, no shoulders and drainage ditches.
- The existing right-of-way limit is approximately 20 metres with the ultimate right-of-way designated at 35 metres in the Regional Official Plan.

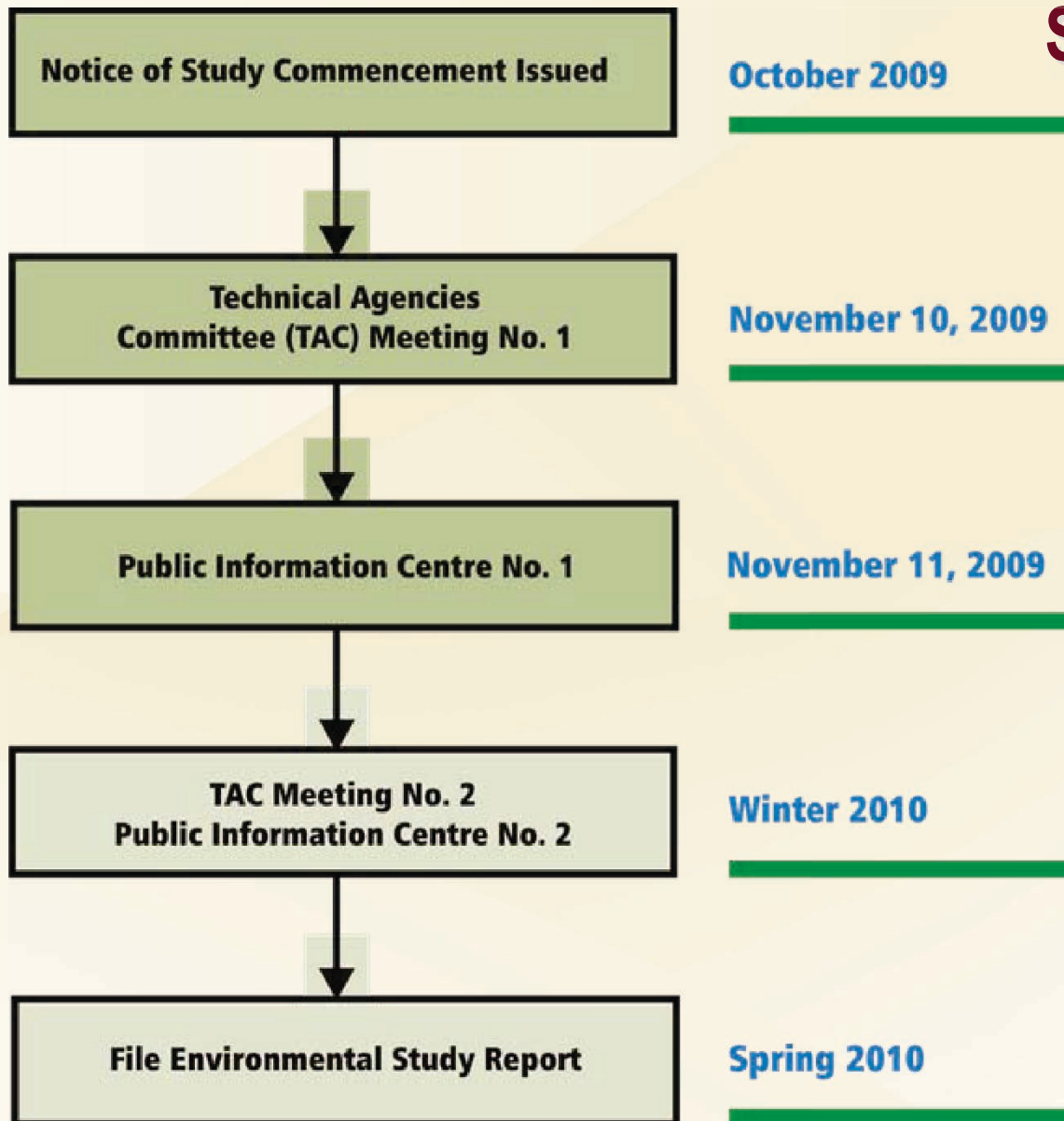
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Study Area



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Study Timetable



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Key Considerations and Issues

▪ Transportation

- Integration with Overall Transportation Network
- Existing Operational Issues
- Future Corridor Travel Demands
- Access
- Roadway Cross-Section Elements
- Alternate/Active Transportation Modes
- Safety

▪ Structural

- Pavement Condition
- Watercourse Culverts

▪ Natural Environment

- Provincially Significant Wetlands
- Woodlands
- Creek Crossings
- Drainage and Stormwater Management
- Provincial Greenbelt Plan

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Key Considerations and Issues (Con't.)

- **Adjacent Land Uses**
 - Residential, Commercial and Rural
 - Escarpment Rural Area
 - Greenlands Area
- **Cultural and Social Environment**
 - Built Heritage Features
 - Archaeological Features
 - Noise Impacts
- **Utilities**

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■ Transportation

- Derry Road carries approximately 3,250 vehicles per day
- Two-way traffic volumes between Milborough Line and McNiven Road range from 300 to 380 vehicles per hour during the weekday AM and PM peak periods, respectively
- Commercial and heavy vehicles represent about 3% of the total traffic on Derry Road during a typical weekday and 1% to 2% of the total traffic during the weekday AM and PM peak periods, respectively
- Currently, traffic operations at both unsignalized intersections operate at good levels of service (LOS 'A' to 'B') during the weekday AM and PM peak periods

- **Socio-Economic Environment (Land Use)**
 - Areas north of Derry Road are designated “Greenbelt Plan Protected Countryside Area” by the Province of Ontario
 - Halton land use designations adjacent to Derry Road include “Agriculture Rural Area”, “Key Features within Natural Heritage System” and “Remaining Natural Heritage System. Derry Road traverses areas identified as “Mineral Resource Area” and Prime Agricultural Area”
 - The area north of Derry Road lies within the Town of Milton (Nelson Rural District) and is designated “Escarpment Rural Area” and “Greenlands A Area”
 - The area south of Derry Road lies within the City of Burlington and is designated “Greenlands (Escarpment Plan Area)” and “Escarpment Rural Area”

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■ Natural Environment

- The area adjacent to Derry Road includes active agricultural land, forested areas and a headwater tributary of Bronte Creek
- The area along the northern portion of Derry Road is part of the Lowville-Bronte Creek Escarpment Valley and Extension and provides connectivity to a much larger natural area
- There is a variety of natural vegetation and wildlife including a number of tree species, agricultural lands, hedgerows and aquatic life
- The watercourse supports a coldwater fishery, providing suitable spawning habitat for brook trout, brown trout and rainbow trout
- Historical records indicate good general water quality with little impairment

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■ Cultural Environment

- A Stage1 Archaeological Assessment is currently underway to identify the potential areas of archeological significance
- There are several buildings deemed to be cultural heritage resources within the study area located within the City of Burlington, Town of Milton, and the City of Hamilton

■ Other Features

- The condition of the pavement was assessed to be in fair condition with localized poor areas
- Stormwater drainage is primarily accommodated by roadside ditches or drains directly from the road surface to the adjacent lands and through smaller culverts to local tributaries
- There are a number of existing utilities within the study area including hydro, bell and gas

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Problem Statement

“As presently configured, Derry Road (Regional Road 7) has a number of existing structural, geometric and roadway cross-section deficiencies which can be improved to increase overall safety, capacity, and roadside drainage”

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Alternative Planning Solutions

As part of Phase 2 of the Class EA process, a range of reasonable and feasible Planning Solutions were considered and screened as alternative ways to address the problem/opportunity statement and the associated deficiencies within the Derry Road corridor

Planning Alternatives Being Considered	Initial Screening of Planning Alternatives
Do Nothing	Carried forward for comparison purposes only
Improve other roadways	Identified in the Halton Transportation Master Plan
Limit future development	Not carried forward
Use of travel demand management measures	Carried forward as part of the overall transportation strategy
Implement localized intersection and/or traffic control improvements	Carried forward as part of the solution
Implement geometric roadway improvements to improve safety (e.g., horizontal and vertical alignments and roadway cross-section elements)	Carried forward as part of the solution
Pavement resurfacing, rehabilitation, repair and/or reconstruction	Carried forward as part of the solution
Improvements to existing drainage culverts and ditches	Carried forward as part of the solution
Combination of roadway improvement alternatives and other supporting measures	Preferred Alternative Planning Solution

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KEY FINDINGS

Future Conditions

■ Transportation

- Two-way traffic volumes between Milborough Line and McNiven Road are anticipated to range from 430 to 540 vehicles per hour during the 2021 weekday AM and PM peak periods, respectively.

Intersection	AM Peak Hour	PM Peak Hour
Derry Road at Milborough Line		
2021 Weekday	LOS B	LOS C
Derry Road at McNiven Road		
2021 Weekday	LOS B	LOS C

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Proposed Evaluation Factors

▪ Technical

- Capacity and Level of Service
- Safety
- Access
- Active Transportation
- Geometric Standards
- Structural
- Utility Relocations
- Construction and Property Costs
- Construction Staging

▪ Socio-Economic Environment

- Land Use
- Effects on Official Plans and other Planning Initiatives
- Effects on Business Access and Operations
- Effects on Residential and Rural Land Uses
- Potential Property Requirements
- Noise and Vibration Effects
- Aesthetics
- Emergency Access

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Proposed Evaluation Factors (Con't).

- **Natural Environment**

- Effects on Vegetation
- Effects on Wildlife
- Effects on Aquatic Ecology
- Stormwater Management
- Effects on Groundwater Resources

- **Cultural Environment**

- Effects on Built Heritage Features
- Effects on Archaeological Resources

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Next Steps

- Review study findings in light of comments received
- Complete environmental inventories
- Develop Alternative design concepts based on the recommended Alternative Solution
- Hold second TAC meeting, meet with the stakeholders as required, and conduct PIC No. 2 in Winter 2010
- Review the preferred alternative design concepts in light of comments received and confirm/modify as required
- Document the study findings in the Environmental Study Report and file the public Notice of Completion for a 30-day Public Review Period in Spring 2010

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Technical Agencies Committee Meeting No. 1

Thank You for Attending

Derry Road (Regional Road 7) Transportation Corridor Improvements Class Environmental Assessment

**Milborough Line (Regional Road 24) to McNiven Road
Halton Region, City of Burlington and Town of Milton**

November 10, 2009 - 22



TITLE:	Derry Road Transportation Corridor Improvements Class Environmental Assessment
FILE:	RR-09-019
TIME/DATE:	November 10, 2009 at 1:30 PM
LOCATION:	Hugh Foster Hall, 141 King Street, Milton, Ontario
PURPOSE:	Technical Agency Committee Meeting #1
ATTENDEES:	DO – City of Burlington JR – Halton Region DL – Halton Region AJ – Halton Region BW – Halton Region RH – R and R Associates DS – R and R Associates RG – R and R Associates

No.	Description
1.	RH welcomed and thanked everyone for coming to the meeting. RH then made a formal presentation and responded to questions from the TAC member attending the meeting.
2.	DO from City of Burlington did not have any issues to bring forward, but would like to be apprised throughout the study. The City of Burlington would like to see some form of bike lanes implemented along this section of Derry Road. DO requested a copy of the presentation for the City's information.
3.	BW from Halton Region discussed some of the problems they encountered during the reconstruction of Derry Road just west of McNiven Road. Due to the proximity of Bronte Creek on the north side of Derry Road, the road has suffered settlement and bank failures. The section was reconstructed using various geosynthetic materials. RG asked BW to forward the as-built plans so that the extent of the reconstruction can be denoted on the plans. BW also mentioned the existing weir in the culvert is old, but controls the elevations of the water in the pond immediately south of Derry Road.
4.	Following the Guelph Line TAC Meeting #1, the Derry Road presentation was re-presented to Kim Peters (Conservation Halton). KP mentioned that Conservation Halton is very concerned with Bronte Creek. KP requested an electronic copy of the PowerPoint presentation and also a copy of the Notice of Commencement as she did not see the original advertisement.

The meeting was adjourned at 2:15 p.m.

These meeting notes were prepared by Rick Goertz and are based on an interpretation of the business discussed during the meeting. If there are any errors or omissions, please contact Rick Goertz at RGoertz@RandR-Associates.com to clarify.



Rick Goertz, P. Eng.
R and R Associates Inc.

Meeting Notes

Page 2 of 2



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RR2, Milton, Ontario L9T 2X6
905.336.1158 Fax 905.336.7014
www.conservationhalton.on.ca

BY MAIL AND EMAIL

January 4, 2010

Mr. Rick Hein
R and R Associates
600 Ontario Street
P.O. Box 28058
St. Catharines, ON
L2N 7P8

Dear Mr. Hein:

**Re: Derry Road Transportation Corridor Improvements
Municipal Class Environmental Assessment
Halton Region
CH File: MPR 527**

Staff of Conservation Halton has reviewed the following documents in relation to the above-noted EA:

- Notice of Commencement and Study Outline,
- Technical Agencies Committee Meeting No. 1 materials, dated November 10, 2009.

During our meeting on November 9, 2009, staff provided a brief overview of Conservation Halton's interests with respect to the above-referenced EA Study. Further, it was noted that additional information would be provided to assist in the study team's decision-making and study process. Outlined below is a brief overview of the items that Conservation Halton believes warrant consideration in the study process. (N.B. this is not an exhaustive list of items for consideration, but rather those items that staff is aware of at this time.)

General Comments:

Natural Heritage

1. Please note that the study area is within the Bronte Creek watershed. Within the study area, Derry Road is traversed by two branches of Kilbride Creek, a tributary Bronte Creek. Pursuant to Ontario Regulation 162/06, permits from Conservation Halton will be required for any works within the regulated areas associated with the watercourse. This should be specified in the EA and included in the list of future commitments.

2. Please note that Derry Road, west of McNiven Road, crosses through lands that have been designated Significant Woodlands by Halton Region. This area was also recommended as a possible extension to the Lowville-Bronte Creek Escarpment Valley Environmentally Sensitive Area in the 2006 Halton Natural Areas Inventory. Given the proposed status of these lands, field surveys should be undertaken to determine the presence of threatened species or endangered species.
3. The study area contains portions of the Kilbride Swamp Complex, a provincially-significant wetland. Conservation Halton regulates these lands pursuant to Ontario Regulation 162/06. Staff recommends that a detailed vegetation inventory be undertaken within 50 metres of any proposed works in the study area. The EA should recommend protection/mitigation measures for any vegetation impacts.
4. Staff suggests that the study area encompass a minimum of 120 metres around the potential works area to reflect direction regarding adjacent lands in the updated draft Natural Heritage Reference Manual.
5. All field work should be conducted at the appropriate time of year. Staff recommends that you consult Conservation Halton's Environmental Impact Study Guidelines. The guidelines are available on CH's website at <http://www.conservationhalton.ca/ShowCategory.cfm?subCatID=1168>.
6. The Environmental Study Report should include a table in the methodology section showing staff, date, time, weather conditions and purpose of all fieldwork. All ELC data sheets should be included as an appendix in the document.
7. The impacts of any utility relocation on natural heritage features and/or functions should be considered when evaluating alternatives.

Fish Habitat

8. Kilbride Creek is known to support a diverse cool and cold water fish community, including Brook Trout, a native salmonid species which is sensitive to thermal impacts and turbidity. As such, in-water works are discouraged. It is requested that proposed works be planned to take place outside of the bankfull channel of the watercourse if at all possible.
9. Because of the sensitive nature of the fish community in the adjacent creeks, tree removal is discouraged wherever possible. Tree cover is important in this area as it keeps the water in the creeks cooler in the hot summer months.
10. Conservation Halton has a Level II Agreement with Fisheries and Oceans Canada (DFO) to administer the review of projects under section 35(1) of the *Fisheries Act*. Section 35 (1) of the Act states that no person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat (HADD).

Under this agreement Conservation Halton will assess the alternatives within our watershed, regardless of other permitting requirements.

11. The Ontario Ministry of Natural Resources (OMNR) may have outstanding concerns with respect to Redside Dace (*Clinostomus elongatus*), Atlantic Salmon (*Salmo salar*) and American Eel (*Acipenser fulvescens*) populations in Kilbride Creek. The OMNR has recently upgraded the status of this species provincially from Threatened to Endangered under the Endangered Species Act (ESA). Pursuant to the ESA, the OMNR has recently made changes to the way that projects potentially impacting Redside Dace populations or habitat are being reviewed and thus, the OMNR may need to screen this project. Once more information is available on the location and nature of the proposed works, staff of Conservation Halton may need to initiate the ESA screening process. We encourage the proponent to direct inquiries regarding the ESA screening process to Melinda Thompson-Black, Species at Risk Biologist (melinda.thompson-black@ontario.ca).
12. Fish Habitat mapping as per MTO Protocol "Environmental Guide for Fish and Fish Habitat, 2006" is requested. This mapping should be undertaken for a distance of 40 meters upstream and downstream of the subject water crossings.
13. If culvert replacements are proposed, the use of open bottom crossing structures is requested on any tributaries of Bronte Creek, including Kilbride Creek, to maintain or enhance groundwater seepage into subject watercourses. It is also requested that any replacement culverts pass a 25 year flow event to ensure optimal fish passage and optimal conveyance of sediment.
14. If culvert extensions are proposed, it is requested that they span at a minimum the bankfull channel width of the creek, however a wider extension would be preferable. It is also requested that any lengthening of culverts be kept to a minimum to minimize cumulative effects of transportation crossings on the subject watercourses. Any extensions should entail an open bottom design to avoid any interruptions of groundwater seepage into the subject watercourses.
15. Please confirm that no new water crossings or creek realignments are to be examined as a component of the EA Study.

Natural Hazards

16. There are two regulated watercourse crossings of Derry Road within the study area. Conservation Halton regulates, pursuant to Ontario Regulation 162/06, all hazardous lands (i.e., Regional Storm flood plain, meander belt, wetlands), as well as the lands that are adjacent to these hazard lands. Development within Conservation Halton's regulated area requires permission pursuant to Ontario Regulation 162/06 and must meet the policies within Conservation Halton's *Policies, Procedures and Guidelines for the Administration of Ontario Regulation 162/06 and Land Use Planning Policy*

Document, April 27, 2006. A copy of this document can be found on the CH website at http://www.hrca.on.ca/uploads/Final_Policy_Document_162-06.pdf

11. Per Procter and Redfern's 1986 "Flood Risk Mapping Report" a portion of Derry Road (extending approximately 160 m west of McNiven Road to McNiven Road) will be flooded under the regional storm event. Any proposed works must not negatively impact this flooding hazard by increasing flood elevations on or off site. Existing access and egress must be maintained, and opportunities to improve access and egress should be investigated, particularly if this portion of Derry Road is to be considered an Emergency Access Route.
17. A portion of Derry Road is also subject to risk associated with the meander belt width of Bronte Creek. Bronte Creek runs parallel to the road for a distance of approximately 100 m west of McNiven Road, and appears to have been straightened and re-aligned.
18. Given that modification to Derry Road will impact Bronte Creek's floodplain and meander belt, a permit will be required for both creek crossings as well as any road works within the regulated limit.
19. Mapping of Conservation Halton's Approximate Regulation Limit is included with this letter. Please note that all areas regulated by Conservation Halton need to be plotted on drawings. Digital information requests can be made to Conservation Halton with the Data Request Form available on the CH website at <http://www.conservationhalton.ca/ShowCategory.cfm?subCatID=1321>.

Stormwater Management/Drainage

20. Although PEIL's April 2003 "Bronte Creek Hydrology and Stream Morphology Study" stated that stormwater and land development control measures and a full fluvial geomorphological and hydrogeological study would be required prior to any future development, the report did not provide specific recommendations for Kilbride Creek. Given the limited scale of the proposed re-development, completion of such a study is not warranted, therefore we recommend that the specific stormwater management targets that were included in the study for Indian Creek be adapted to the site, as is feasible. These include controlling post development flows to pre-development levels for all storms up to and including the 1:100 year design storm, a 48 hour draw down time for the quality storm event, and provision of Enhanced Level quality control. The use of a treatment train approach including conveyance controls that promote filtration and infiltration is also recommended.
21. Drainage Patterns: both existing and proposed catchment areas will need to be identified.
22. Stormwater Quantity: post to pre quantity control will be required for all design storms.

23. Stormwater Quality Control: Enhanced Level quality control for all catchments draining to Bronte Creek or its tributaries will be required.
24. Stormwater Management should be considered as it pertains to fish habitat, including treatment level and potential direct impacts from construction.
25. The Ministry of Transportation's B-100 Directive should be referenced.

Other Information

26. The *Bronte Creek Watershed Study* (Conservation Halton, 2002) is a good source for background information. A hardcopy of this document is available and staff would be happy to provide you with a copy, should you require it. Please advise accordingly.

Staff of Conservation Halton looks forward to working with the study team through the Class EA process and welcome the opportunity to participate on the Technical Advisory Committee. We trust the above is of assistance. If you require additional information please contact the undersigned at extension 225.

Yours truly,



Kim Peters
Environmental Planner

cc: Alicia Jakatis, Halton Region, by email
David Lukezic, Halton Region, by email
Melinda Thompson-Black, MNR, by email

Encl.



PROTECTING THE NATURAL ENVIRONMENT FROM LAKE TO ESCARPMENT

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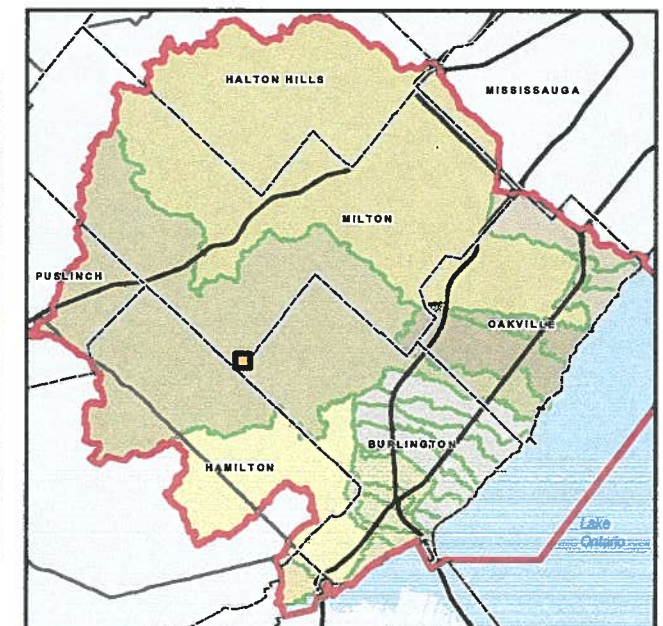
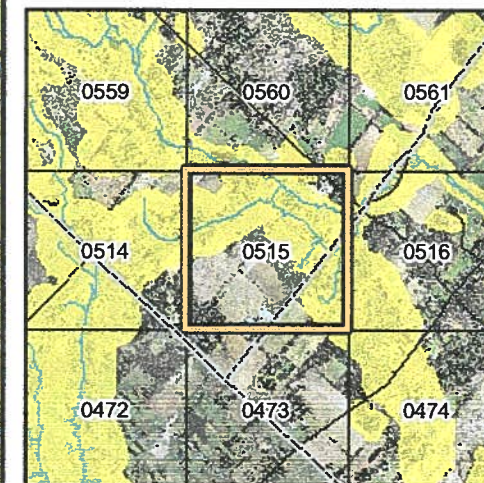
Phone: (905) 336-1158
Fax: (905) 336-7014

Email Address:
admin@hrca.on.ca

(ONTARIO REGULATION 97/04)
REGULATION FOR DEVELOPMENT, INTERFERENCE WITH WETLANDS
AND ALTERATIONS TO SHORELINES AND WATERCOURSES

(ONTARIO REGULATION 162/06) APPROXIMATE REGULATION LIMIT

Map Sheet - **0515**



LEGEND

- Approximate Regulation Limit / Screening Area
- Regulated Watercourse
- Hydrologic Connection
- HRCA Jurisdiction Limit
- Teranet Property Boundary



0 50 100 150 200

Metres

Map Scale: 1:4000

Note on Stream Type Definitions:

'Regulated Watercourses' identify surface and subsurface water features that are regulated by Conservation Halton under Ont. Reg. 162/06. 'Hydrologic Connections' identify creek features that may/may not be considered fish habitat (direct or indirect) as defined by the Fisheries Act. Conservation Halton does not regulate these connections under Ont. Reg. 162/06.

The text of the Regulation takes precedence over the Approximate Regulation Limit. Some regulated features may not appear on the Approximate Regulation Limit mapping. This mapping should be used for information purposes only. The data displayed are derived from sources with different accuracies and all boundaries should therefore be considered approximate. Data on this map is used under license and is protected by copyright for different organizations, including but not limited to Teranet Enterprises Inc. and other agencies.
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Revision History:

Last Update: January 28th, 2008 - A.R.L.
Print Date: January 29th, 2008

Previous Updates:

• Approximate Regulation Limit - June 7th, 2007
• Approximate Regulation Limit - July 25th, 2006
• Approximate Regulation Limit - April 24th, 2006

0515



PROTECTING THE NATURAL ENVIRONMENT FROM LAKE TO ESCARPMENT

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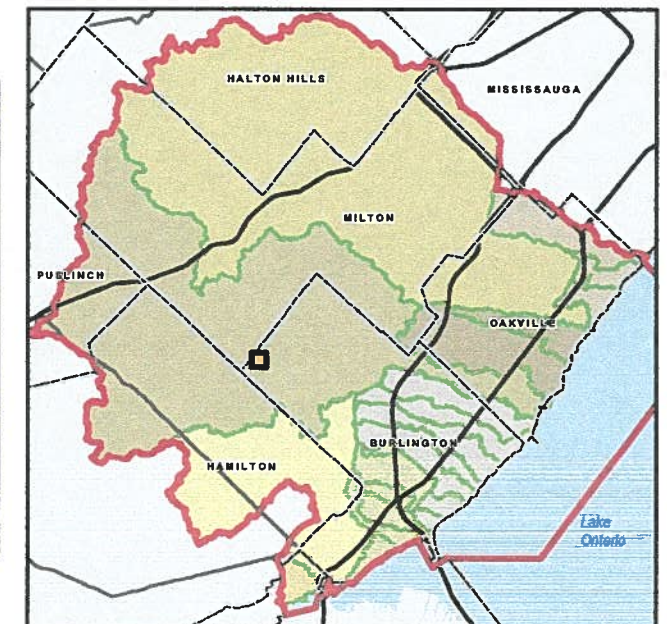
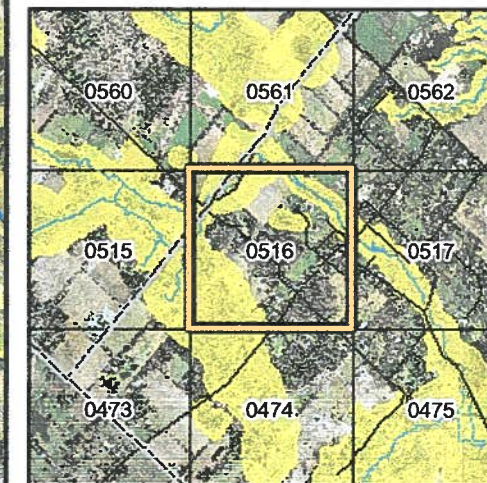
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(ONTARIO REGULATION 97/04)
REGULATION FOR DEVELOPMENT, INTERFERENCE WITH WETLANDS
AND ALTERATIONS TO SHORELINES AND WATERCOURSES

(ONTARIO REGULATION 162/06) APPROXIMATE REGULATION LIMIT

Map Sheet - 0516



LEGEND

- Approximate Regulation Limit / Screening Area
- Regulated Watercourse
- Hydrologic Connection
- HRCA Jurisdiction Limit
- Teranet Property Boundary



0 50 100 150 200

Metres

Map Scale: 1:4000

Note on Stream Type Definitions:

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0516



PROTECTING THE NATURAL ENVIRONMENT FROM LAKE TO ESCARPMENT

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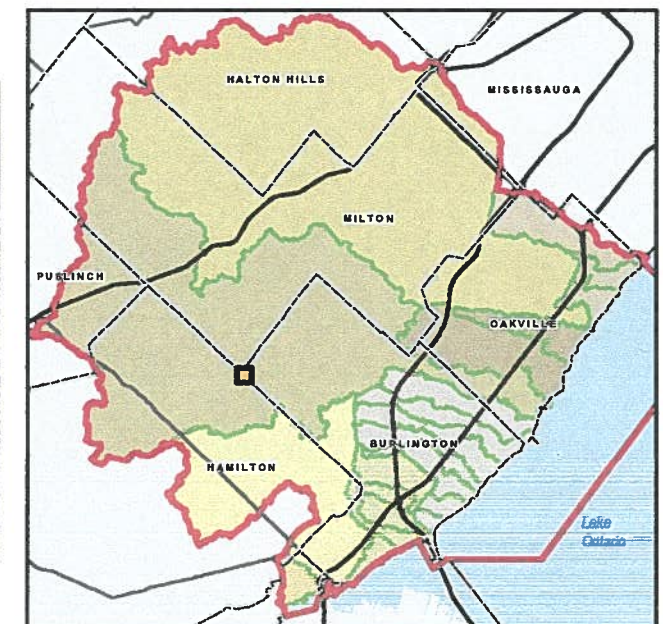
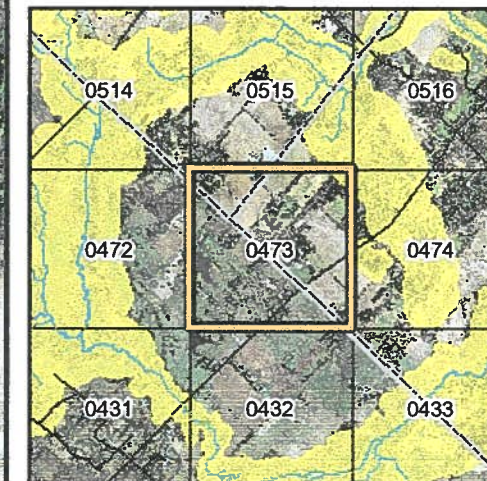
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(ONTARIO REGULATION 97/04)
REGULATION FOR DEVELOPMENT, INTERFERENCE WITH WETLANDS
AND ALTERATIONS TO SHORELINES AND WATERCOURSES

(ONTARIO REGULATION 162/06) APPROXIMATE REGULATION LIMIT

Map Sheet - **0473**



LEGEND

- Approximate Regulation Limit / Screening Area
- Regulated Watercourse
- Hydrologic Connection
- HRCA Jurisdiction Limit
- Teranet Property Boundary



0 50 100 150 200
Metres
Map Scale: 1:4000

Note on Stream Type Definitions:

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Revision History:

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Print Date: January 29th, 2008

Previous Updates:

• Approximate Regulation Limit - June 7th, 2007
• Approximate Regulation Limit - July 25th, 2006
• Approximate Regulation Limit - April 24th, 2006

0473

March 6, 2010

Our File: RR-09-019

2596 Britannia Road West
RR2, Milton, Ontario L9T 2X6

Attention: **Kim Peters, MES (Planning)**
Environmental Planner

Re: **Derry Road Transportation Corridor Improvements**
Municipal Class Environmental Assessment (Class EA)
Halton Region, CH File: MPR 527
Comments to CH January 4, 2010 Letter

Dear Ms. Peters:

Thank you for your recent letter and input related to the Derry Road Transportation Corridor Improvements Class EA study. We have reviewed Conservation Halton's (CH) letter dated January 4, 2010, Points 1 through 26 as they relate to the above noted Class EA study. Our response/ comments addressing each of the Conservation Halton points are provided in the attached table for your review.

As a follow up to this response letter, we would like to schedule a meeting with CH for the first week of April 2010 to discuss any further issues related to the above noted study. We will contact you separately to set an agreeable meeting date and time.

We look forward to moving ahead with the Class EA process and continue to encourage Conservation Halton staff's input throughout the EA process. In the meantime, if you have any questions or comments related to the aforementioned information provided, we would be pleased to hear from you either by phone at 289-241-2624 or via e-mail at RHein@RandR-Associates.com. As always, please feel free to contact either Mr. David Lukezic or myself at your convenience.

Sincerely,

R and R Associates Inc.



Rick Hein, P. Eng., PTOE, AVS
Principal

cc: David Lukezic, Halton Region
Jeff Reid, Halton Region

No.	Conservation Halton Comments	Response/Comment
Natural Heritage		
1.	Please note that the study area is within the Bronte Creek watershed. Within the study area, Derry Road is traversed by two branches of Kilbride Creek, a tributary Bronte Creek. Pursuant to Ontario Regulation 162/06, permits from Conservation Halton will be required for any works within the regulated areas associated with the watercourse. This should be specified in the EA and included in the list of future commitments	As part of the Environmental Study Report (ESR) documentation, a description of the applicable permits required (to be obtained as part of implementation) for any works within the regulated areas associated with the noted watercourse crossings including a list of mitigation/protection measures associated with such works will be provided
2.	Please note that Derry Road, west of McNiven Road, crosses through lands that have been designated Significant Woodlands by Halton Region. This area was also recommended as a possible extension to the Lowville-Bronte Creek Escarpment Valley Environmentally Sensitive Area in the 2006 Halton Natural Areas Inventory. Given the proposed status of these lands, field surveys should be undertaken to determine the presence of threatened species or endangered species	While Conservation Halton has indicated that the "field surveys should be undertaken to determine the presence of threatened species or endangered species", the lands in question that are adjacent to Derry Road were identified via the ELC (ELC – <i>Ecological Land Classification system which is the standard method for defining vegetation communities in southern Ontario</i>) and addressed through the Natural Areas Inventory. We have verified the ELC classification for the lands along Derry Road. Lands that were not classified in the NAI (NAI – <i>Natural Areas Inventory which was completed by Halton Conservation as part of their Natural heritage and Cultural studies for the general area</i>) are south of Derry Road in excess of 150+ metres. Additional inventory work outside of the 30 to 50 metre zone that would be affected by construction is not required to evaluate the impacts related to the proposed road works
3.	The study area contains portions of the Kilbride Swamp Complex, a provincially-significant wetland. Conservation Halton regulates these lands pursuant to Ontario Regulation 162/06. Staff recommends that a detailed vegetation inventory be undertaken within 50 metres of any proposed works in the study area. The EA should recommend protection/mitigation measures for any vegetation impacts	We would suggest that the limits of the detailed vegetation inventory should be limited to the extent that would be directly impacted by any future road widening and realignment. Mitigating measures will be noted as part of the ESR
4.	Staff suggests that the study area encompass a minimum of 120 metres around the potential works area to reflect direction regarding adjacent lands in the updated draft Natural Heritage Reference Manual	Access beyond the road allowance for flora and fauna surveys is very difficult given the private land ownership along the road and it would be excessive in terms of measuring impacts related to alternatives. We would suggest that the limits be limited to the extent that would be directly impacted by any future road improvement
5.	All field work should be conducted at the appropriate time of year. Staff recommends that you consult Conservation Halton's	Noted for information purposes

No.	Conservation Halton Comments	Response/Comment
	<p>Environmental Impact Study Guidelines. The guidelines are available on CH's website at:</p> <p>http://www.conservationhalton.ca/ShowCategory.cfm?subCatID=1168</p>	
6.	<p>The Environmental Study Report should include a table in the methodology section showing staff, date, time, weather conditions and purpose of all fieldwork. All ELC data sheets should be included as an appendix in the document</p>	<p>The Ecological Land Classification (ELC) for the lands along Derry Road was completed as part of the Natural Areas Inventory (NAI). We have completed fall inventories along the road allowances and have verified the existing ELC classifications assigned to adjacent lands. We will not be completing additional ELC classifications as this would be redundant and access to private lands in order to evaluate the polygons is limited. The impacts from the proposed road alternatives will be assessed in terms of how the widening will affect the existing vegetation communities</p>
7.	<p>The impacts of any utility relocation on natural heritage features and/or functions should be considered when evaluating alternatives</p>	<p>The evaluation of alternative design concepts will consider and weigh the impacts of any utility relocations as part of the Class EA process for this study</p>
Fish Habitat		
8.	<p>Kilbride Creek is known to support a diverse cool and cold water fish community, including Brook Trout, a native salmonid species which is sensitive to thermal impacts and turbidity. As such, in-water works are discouraged. It is requested that proposed works be planned to take place outside of the bankfull channel of the watercourse if at all possible</p>	<p>(CH Points 8 through 12) - The information has been noted and will be included as part of the ESR documentation, where applicable, including any required regulations and construction timing issues. We will contact MNR regarding the Redside Dace. In general, the majority of requirements have already been accounted for as part of the original natural sciences work program for the Derry Road Class EA study</p>
9.	<p>Because of the sensitive nature of the fish community in the adjacent creeks, tree removal is discouraged wherever possible. Tree cover is important in this area as it keeps the water in the creeks cooler in the hot summer months</p>	
10.	<p>Conservation Halton has a Level II Agreement with Fisheries and Oceans Canada (DFO) to administer the review of projects under section 35(1) of the Fisheries Act. Section 35 (1) of the Act states that no person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat (HADD). Under this agreement Conservation Halton will assess the alternatives within our watershed, regardless of other permitting requirements</p>	
11.	<p>The Ontario Ministry of Natural Resources (OMNR) may have outstanding concerns with respect to Redside Dace (<i>Clinostomus</i></p>	

No.	Conservation Halton Comments	Response/Comment
	<p>elongatus), Atlantic Salmon (<i>Salmo salar</i>) and American Eel (<i>Acipenser fulvescens</i>) populations in Kilbride Creek. The OMNR has recently upgraded the status of this species provincially from Threatened to Endangered under the Endangered Species Act (ESA). Pursuant to the ESA, the OMNR has recently made changes to the way that projects potentially impacting Redside Dace populations or habitat are being reviewed and thus, the OMNR may need to screen this project. Once more information is available on the location and nature of the proposed works, staff of Conservation Halton may need to initiate the ESA screening process. We encourage the proponent to direct inquiries regarding the ESA screening process to Melinda Thompson-Black, Species at Risk Biologist (melinda.thompson-black@ontario.ca)</p>	
12.	<p>Fish Habitat mapping as per MTO Protocol "Environmental Guide for Fish and Fish Habitat, 2006" is requested. This mapping should be undertaken for a distance of 40 meters upstream and downstream of the subject water crossings</p>	
13.	<p>If culvert replacements are proposed, the use of open bottom crossing structures is requested on any tributaries of Bronte Creek, including Kilbride Creek, to maintain or enhance groundwater seepage into subject watercourses. It is also requested that any replacement culverts pass a 25 year flow event to ensure optimal fish passage and optimal conveyance of sediment</p>	<p>Generally, the existing culverts on Derry Road currently have the capacity to convey the 25-year storm design event without surcharging. The replacement of any culverts within the study limits will be reviewed and evaluated under the Class EA process as part of recommended design. As part of future works to be carried out in the detail design phase of the project, the ESR will note that any culvert replacements should consider open bottom designs to allow for natural substrate and fish passage</p>
14.	<p>If culvert extensions are proposed, it is requested that they span at a minimum the bankfull channel width of the creek, however a wider extension would be preferable. It is also requested that any lengthening of culverts be kept to a minimum to minimize cumulative effects of transportation crossings on the subject watercourses. Any extensions should entail an open bottom design to avoid any interruptions of groundwater seepage into the subject watercourses</p>	<p>Due to the nature of the roadway alignment in relationship to the existing watercourses, we do not anticipate the need for any bankfull channel width crossings. Any recommended future culvert extensions or replacements needed to accommodate a future road will be designed to minimize any impacts to the watercourses</p>
15.	<p>Please confirm that no new water crossings or creek realignments are to be examined as a component of the EA Study</p>	<p>At this time, the Project Team is not considering any new watercourse crossings or creek realignments as part of the Class EA study. The need for any potential new watercourse crossings will be reviewed as part of the alternative design concepts</p>

No.	Conservation Halton Comments	Response/Comment
Natural Hazards		
16.	There are two regulated watercourse crossings of Derry Road within the study area. Conservation Halton regulates, pursuant to Ontario Regulation 162/06, all hazardous lands (i.e., Regional Storm flood plain, meander belt, wetlands), as well as the lands that are adjacent to these hazard lands. Development within Conservation Halton's regulated area requires permission pursuant to Ontario Regulation 162/06 and must meet the policies within Conservation Halton's Policies, Procedures and Guidelines for the Administration of Ontario Regulation 162/06 and Land Use Planning Policy Document, April 27, 2006. A copy of this document can be found on the CH website at http://www.hrca.on.ca/uploads/Final_Policy_Document_162-06.pdf	At this time, it is anticipated that the area of future construction disturbance will be kept to a minimum and within current roadway right-of-way limits where possible, thereby minimizing any environmental impacts within the study limits. As part of the evaluation of the various alternative design concepts the potential impacts of the various alternatives will be measured in terms of their potential environmental impacts. Where applicable to the recommended design, the policies of Ontario Regulation 162/06 will be noted in the ESR documentation as required
11. ¹	Per Procter and Redfern's 1986 "Flood Risk Mapping Report" a portion of Derry Road (extending approximately 160 m west of McNiven Road to McNiven Road) will be flooded under the regional storm event. Any proposed works must not negatively impact this flooding hazard by increasing flood elevations on or off site. Existing access and egress must be maintained, and opportunities to improve access and egress should be investigated, particularly if this portion of Derry Road is to be considered an Emergency Access Route	All drainage issues will be reviewed as part of the Class EA process
17.	A portion of Derry Road is also subject to risk associated with the meander belt width of Bronte Creek. Bronte Creek runs parallel to the road for a distance of approximately 100 m west of McNiven Road, and appears to have been straightened and re-aligned	This has been noted as part of the technical EA process and will be taken into consideration during the development of the alternative design concepts
18.	Given that modification to Derry Road will impact Bronte Creek's floodplain and meander belt, a permit will be required for both creek crossings as well as any road works within the regulated limit	Any required permits needed for future road works associated with the Bronte Creek crossings and with regulated limits will be noted as part of the ESR documentation
19.	Mapping of Conservation Halton's Approximate Regulation Limit is included with this letter. Please note that all areas regulated by Conservation Halton need to be plotted on drawings. Digital information requests can be made to Conservation Halton with the	The Approximate Regulation Limit is based on available digital information from CH and Halton Region and will be shown on all relevant base plans associated with the development of alternative design concepts as required

¹ Point "11" as referenced in Conservation Halton's (CH) letter dated January 4, 2010.

No.	Conservation Halton Comments	Response/Comment
	Data Request Form available on the CH website at http://www.conservationhalton.ca/ShowCategory.cfm?subCatID=1321	
Stormwater Management/Drainage		
20.	Although PEIL's April 2003 "Bronte Creek Hydrology and Stream Morphology Study" stated that stormwater and land development control measures and a full fluvial geomorphological and hydrogeological study would be required prior to any future development, the report did not provide specific recommendations for Kilbride Creek. Given the limited scale of the proposed re-development, completion of such a study is not warranted, therefore we recommend that the specific stormwater management targets that were included in the study for Indian Creek be adapted to the site, as is feasible. These include controlling post development flows to pre-development levels for all storms up to and including the 1:100 year design storm, a 48 hour draw down time for the quality storm event, and provision of Enhanced Level quality control. The use of a treatment train approach including conveyance controls that promote filtration and infiltration is also recommended	We will review PEIL's April 2003 "Bronte Creek Hydrology and Stream Morphology Study" relating to the specific stormwater management targets included in the study for Indian Creek to determine if these same targets are relevant and feasible for the study area
21.	Drainage Patterns: both existing and proposed catchment areas will need to be identified	As part of the stormwater review the existing storm drainage areas have been determined. The proposed drainage areas are anticipated to remain the same as the existing drainage areas except for where new cross culverts are recommended. No stormwater diversions are expected. Culverts will be replaced where the existing structure is deficient either hydraulically, structurally or does not meet current minimum size criteria
22.	Stormwater Quantity: post to pre quantity control will be required for all design storms	Controlling the post-flows to pre-flow levels should not be an issue since we are not widening the roadway beyond its current two-lane configuration. Quantity control will therefore not be required as there is no major increase in impervious area. Localized lane/shoulder widening would be considered insignificant in terms of generating additional stormwater flows. If only minor roadway geometric improvements are carried forward during the selection of the preferred alternative design concept then the need for formal stormwater management facilities are not anticipated
23.	Stormwater Quality Control: Enhanced Level quality control for all catchments draining to Bronte Creek or its tributaries will be	(CH Point 23 and 24) – Quality control will be incorporated where feasible through enhanced grassed swales. Major stormwater

No.	Conservation Halton Comments	Response/Comment
	required	management facilities will not be required as part of this study as there is no increase in impervious coverage proposed; however, given the sensitivity of the area it is recommended that minor stormwater management will be provided as an enhancement where feasible
24.	Stormwater Management should be considered as it pertains to fish habitat, including treatment level and potential direct impacts from construction	
25.	The Ministry of Transportation's B-100 Directive should be referenced	The Ministry of Transportation's B-100 Directive is currently followed by Halton Region
Other Information		
26.	The Bronte Creek Watershed Study (Conservation Halton, 2002) is a good source for background information. A hardcopy of this document is available and staff would be happy to provide you with a copy, should you require it. Please advise accordingly	Noted for information purposes



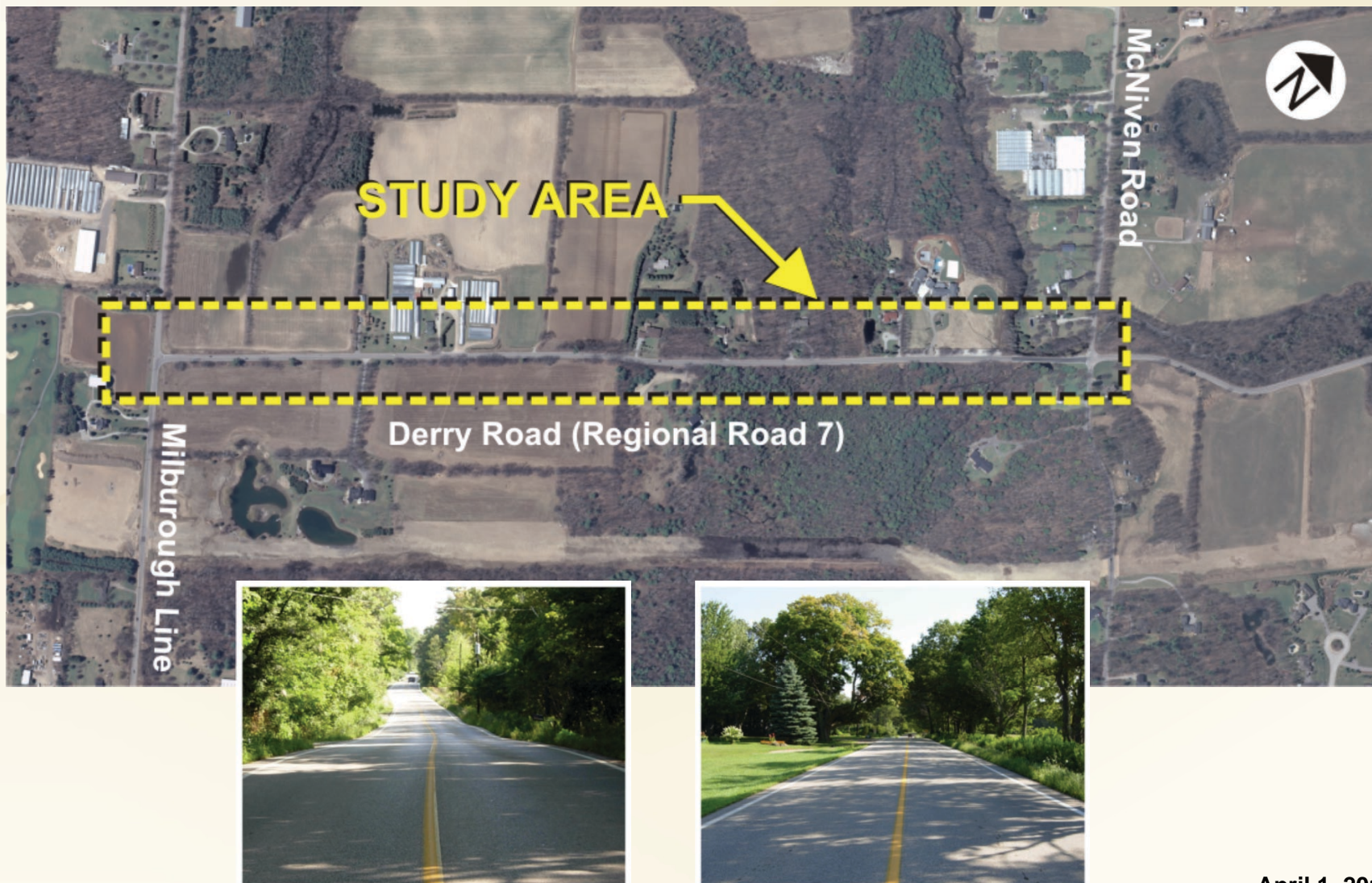
Derry Road (Regional Road 7) Transportation Corridor Improvements Class Environmental Assessment

**Milborough Line (Regional Road 24) to McNiven Road
City of Burlington and Town of Milton**

Conservation Halton

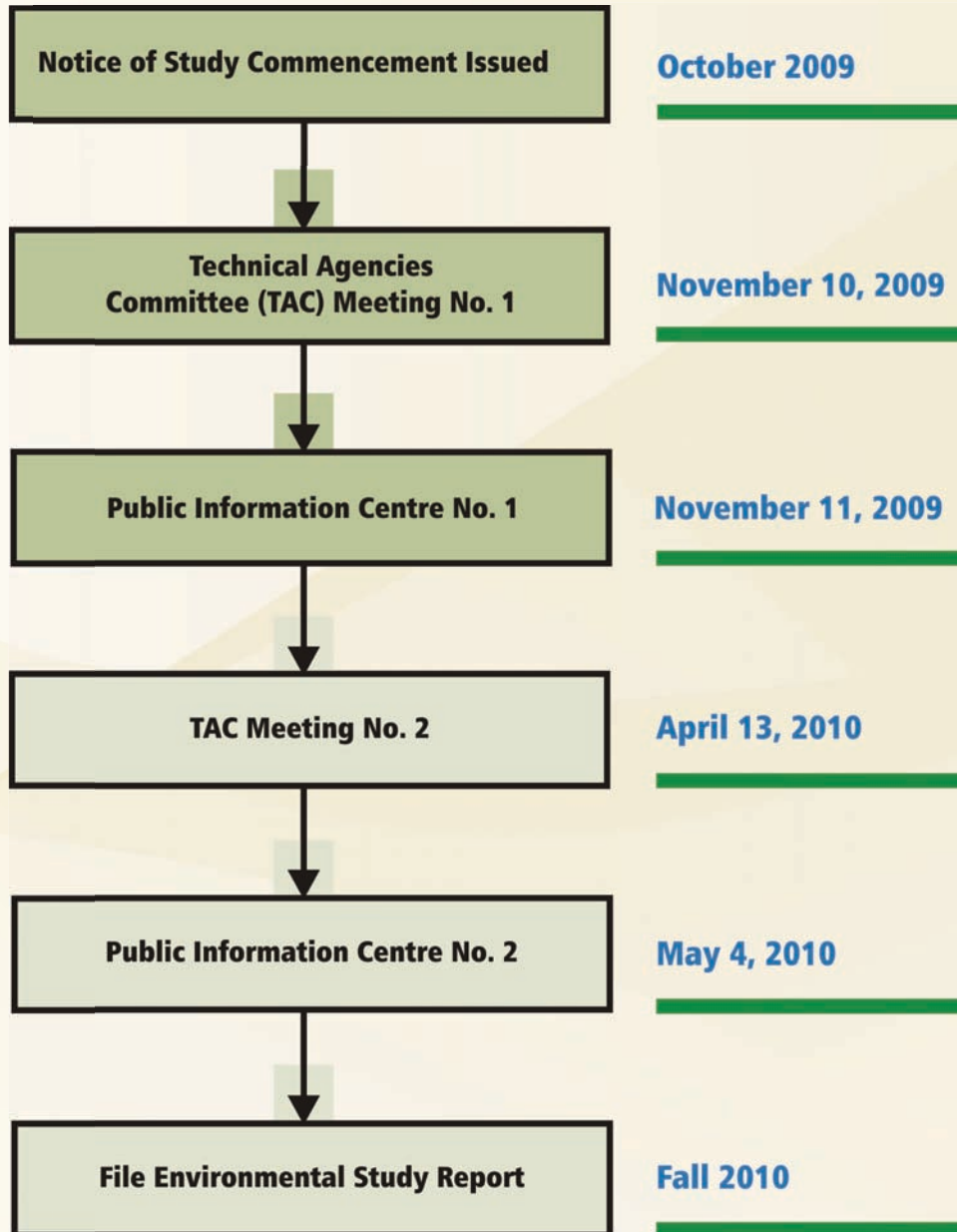
April 1, 2010

Study Area



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Study Timetable



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Derry Road (Regional Road 7) Transportation Corridor Improvements



Problem Statement

“As presently configured, Derry Road (Regional Road 7) has a number of existing structural, geometric and roadway cross-section deficiencies which can be improved to increase overall safety, capacity, and roadside drainage”

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Derry Road (Regional Road 7) Transportation Corridor Improvements



Key Considerations and Issues

▪ **Transportation**

- Integration with Overall Transportation Network
- Existing Operational Issues
- Future Corridor Travel Demands
- Access
- Roadway Cross-Section Elements
- Alternate/Active Transportation Modes
- Safety

▪ **Structural**

- Pavement Condition
- Watercourse Culverts

▪ **Natural Environment**

- Provincially Significant Wetlands
- Woodlands
- Creek Crossings
- Drainage and Stormwater Management
- Provincial Greenbelt Plan

April 1, 2010 - 5

Key Considerations and Issues (Con't.)

- **Adjacent Land Uses**
 - Residential, Commercial and Rural
 - Escarpment Rural Area
 - Greenlands Area
- **Cultural and Social Environment**
 - Built Heritage Features
 - Archaeological Features
 - Noise Impacts
- **Utilities**

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Alternative Design Concepts

- Roadway widening design concepts included various alternatives for the widening of the existing two lane cross-section to meet Regional standards. Generally, the widening alternatives (maintaining a two lane cross-section) included the following:
 - **“Do Nothing”**
 - **Symmetrical widening about the existing roadway centreline**
 - **Symmetrical widening within the existing roadway right-of-way**
- After undertaking a complete and thorough review and evaluation of the various alternatives in light of the study findings listed above, a combination of alternatives were selected to provide the *Preliminary Preferred Alternative Design Concept*.

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Alternative Design Concepts – Derry Road

- **“Do Nothing” Alternative** – No improvements or changes would be made to solve the identified problem or opportunity—existing roadway remains in current state
- **Alternative 1** – Maintain current horizontal roadway alignment with a 2-lane rural road cross-section including 3.65 metre lanes and 2.5 metre partially paved shoulders (1.0 metre is paved)
- **Alternative 2** – Centre roadway alignment within the existing right-of-way limits and provide 250 metre radii at the S-bends while maintaining a 2-lane rural road cross-section with 3.65 metre lanes and 2.5 metre partially paved shoulders (1.0 metre is paved)
- **Alternative 3** – Centre roadway alignment within the existing right-of-way limits and provide a tangent section to separate the S-bends while maintaining a 2-lane rural road cross-section with 3.65 metre lanes and 2.5 metre partially paved shoulders (1.0 metre is paved)

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Derry Road (Regional Road 7) Transportation Corridor Improvements



Alternative Design Concepts

Derry Road West of McNiven Road

- **Alternative 1-A** – Provide a wider 2-lane rural roadway cross-section including 3.65 metre lanes and 1.0 metre partially paved shoulders, guiderail protection, and granular shoulder side slopes matching into the existing creek location
- **Alternative 1-B** – Provide a wider 2-lane urban roadway cross-section including 3.65 metre lanes and 1.0 metre paved shoulders with curb and gutter, guiderail protection, and retaining walls

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Derry Road (Regional Road 7) Transportation Corridor Improvements



Discussion of Alternative Design Concepts



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Evaluation Factors

▪ Technical

- Capacity and Level of Service
- Safety
- Access
- Active Transportation
- Geometric Standards
- Structural
- Utility Relocations
- Construction and Property Costs
- Construction Staging

▪ Socio-Economic Environment

- Land Use
- Effects on Official Plans and other Planning Initiatives
- Effects on Business Access and Operations
- Effects on Residential and Rural Land Uses
- Potential Property Requirements
- Noise and Vibration Effects
- Aesthetics
- Emergency Access

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Evaluation Factors (Cont'd)

- **Natural Environment**

- Effects on Vegetation
- Effects on Wildlife
- Effects on Aquatic Ecology
- Stormwater Management
- Effects on Groundwater Resources

- **Cultural Environment**

- Effects on Built Heritage Features
- Effects on Archaeological Resources

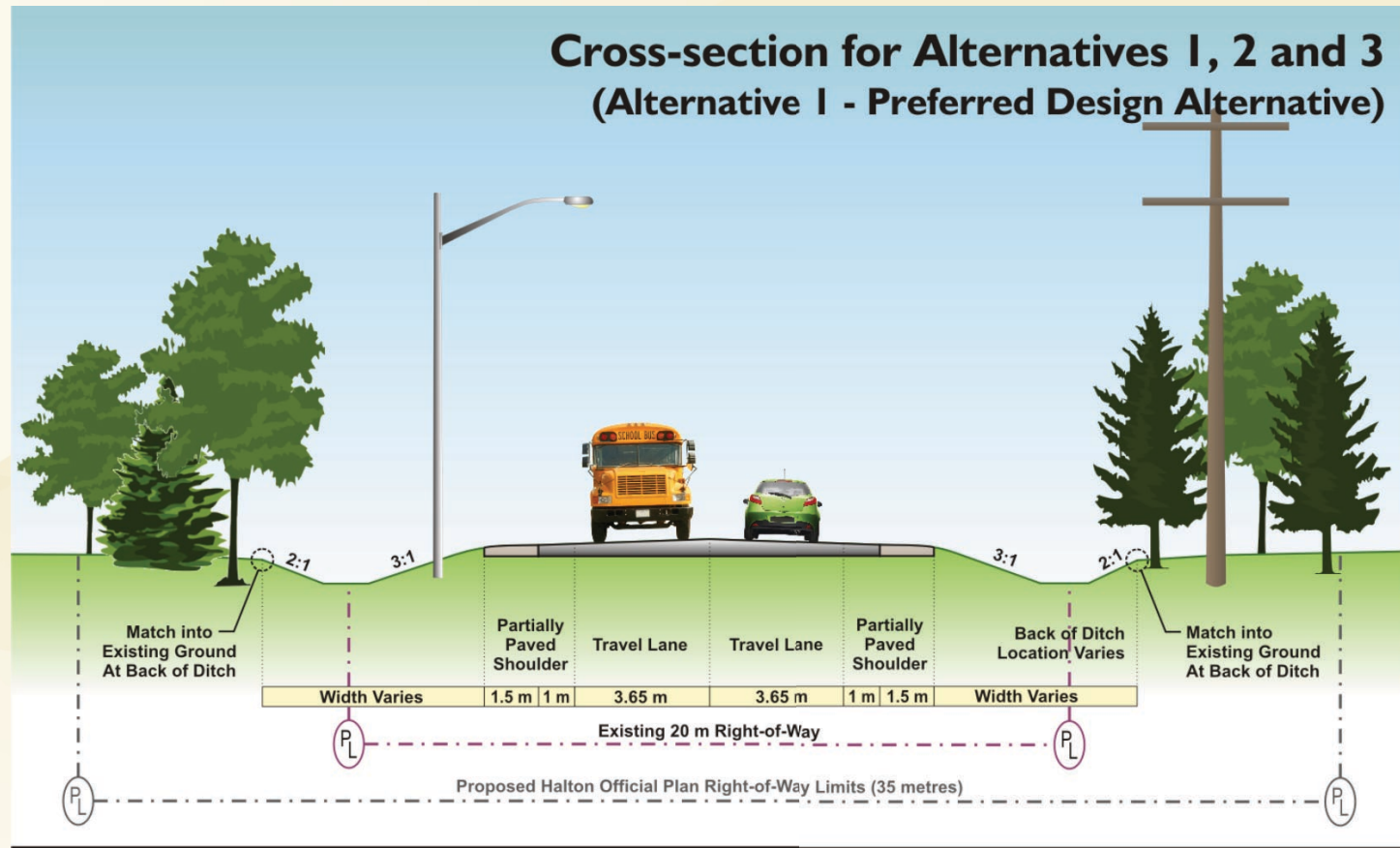
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Preferred Alternative Design

- The cross-section of the Preliminary Preferred Design includes the following basic elements:
 - A rural 2-lane cross-section with 3.65 metre travel lanes and 2.5 metre partially paved shoulders (1.0 metre paved)
 - Maintain the existing horizontal roadway alignment along the existing roadway centreline with vertical alignment improvements where practical
 - Provision of a urban 2-lane cross-section for the section of Derry Road west of McNiven Road, adjacent to the Bronte Creek tributary including 3.65 metre travel lanes and 1.0 metre paved shoulders with curb and gutter and retaining walls to minimize impacts the adjacent tributary and pond areas
 - Provision of a larger culvert roadway crossing at Derry Road west of McNiven road to accommodate the 25-year storm rainfall event and to provide improved passage for native fish species

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Preferred Design Alternative – Cross-Sections

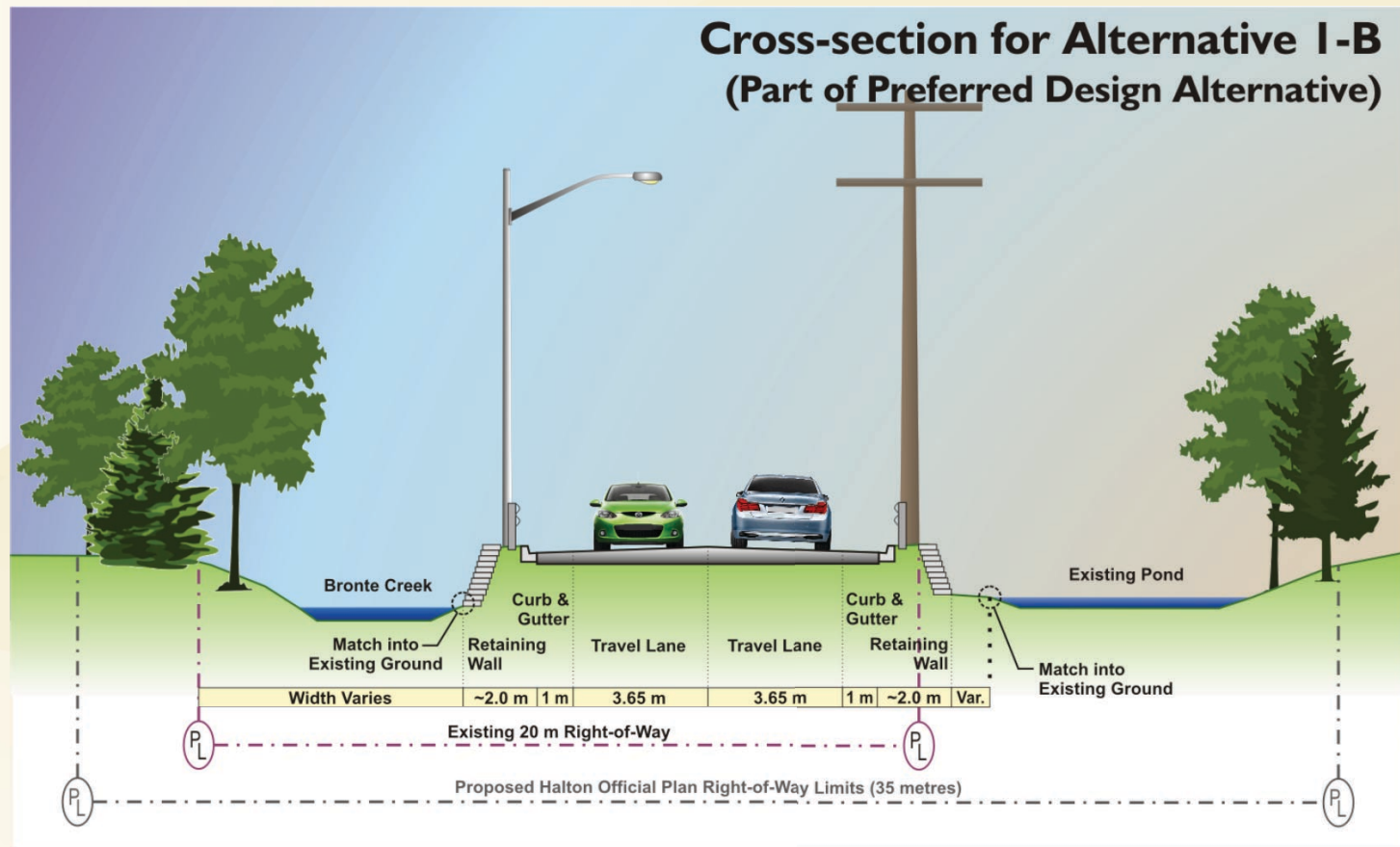


**Derry Road (Regional Road 7)
Typical Rural Roadway Cross-Section**

1 0 2 4.0 metres

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Preferred Design Alternative – Cross-Sections



Derry Road (Regional Road 7)

Typical Urban Roadway Cross-Section with Retaining Wall (West of McNiven Road)

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General Discussion

Thank You for Attending

Derry Road (Regional Road 7) Transportation Corridor Improvements Class Environmental Assessment

Milborough Line (Regional Road 24) to McNiven Road
City of Burlington and Town of Milton

April 1, 2010 - 16



Derry Road (Regional Road 7) Transportation Corridor Improvements





Meeting Minutes

TITLE: Derry Road (PR-2598) Transportation Corridor Improvements
Class Environmental Assessment

FILE: RR-09-019

MEETING NO: 1¹

DATE/TIME: Thursday, April 1, 2010 at 10:30 a.m.

LOCATION: Committee Room 1 - Conservation Halton Offices
(2596 Britannia Road West, Burlington)

PURPOSE: Meeting with Conservation Halton

ATTENDEES:	Kim Peters (KP)	Conservation Halton
	Sarah Matchett (SM)	Conservation Halton
	Amy Mayes (AM)	Conservation Halton
	Kim Barrett (KB)	Conservation Halton
	Jeff Reid (JR)	Halton Region
	Melissa Green-Battiston (MGB)	Halton Region
	Alicia Jakaitis (AJ)	Halton Region
	David Lukezic (DL)	Halton Region
	Lisa Campbell (LC)	LCA Environmental Consultants
	Rick Hein (RH)	R and R Associates Inc.
	Rick Goertz (RG)	R and R Associates Inc.

DISTRIBUTION: All Attending

The following summarizes the action items arising from the meeting:

NO.	DESCRIPTION	ACTION BY:
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1. Welcome and Introduction

RH introduced the Class Environmental Assessment study and presented the latest information related to the Derry Road study area, including the various concept design alternatives for the study.

2. Meeting Discussion

a. Overview of Class Environmental Assessment Studies

- RH presented PowerPoint presentations for Derry Road and summarizing the following for the study:
 - Study Area
 - Study Timetable
 - Problem Statement
 - Key Considerations and Issues
 - Alternative Design Concepts
 - Evaluation Factors
 - Preferred Design Alternative

¹ **Note:** These Meeting Minutes are an excerpt of joint meeting minutes held on April 1, 2010 for both the Derry Road (PR-2598) and Guelph Line (PR-2596) Class Environmental Studies and pertain only to the issues discussed as they relate to the Derry Road Class Environmental Assessment Study.
CH Meeting Minutes No 1 - DR (Apr 01 2010) Final.doc

NO.	DESCRIPTION	ACTION BY:
	<ul style="list-style-type: none"> Roadway Cross-Sections 	
	<p>b. Discussion of Alternative Design Concepts</p> <ul style="list-style-type: none"> <p><i>Derry Road Class EA Study</i> – RG discussed the three alternatives as follows:</p> <ul style="list-style-type: none"> Alternative 1 – Widening about the existing roadway centerline including two 3.65 metre lanes and 2.5 meter partially paved shoulders (1.0 metre partially paved). Alternative 2 – Widening within the existing roadway right-of-way limits including two 3.65 metre lanes and 2.5 meter partially paved shoulders (1.0 metre partially paved) and incorporating a 250 metre radius horizontal curve as the S-bend. Alternative 3 – Widening within the existing roadway right-of-way limits including two 3.65 metre lanes and 2.5 meter partially paved shoulders (1.0 metre partially paved) and incorporating 250 metre radius horizontal curves with a tangent section separating the S-bend. The Preferred Alternative will be based on Alternative 1 and will be refined to accommodate a future retaining wall adjacent to the Bronte Creek tributary west of McNiven Road. The cross-section near McNiven Road will utilize an urban cross-section with 1.0 metre paved shoulders to minimize potential impacts to the adjacent tributary. It was noted that the existing pond on the south side of Derry Road is located on private property and would not be eliminated as part of the construction works on Derry Road. It was stated that the eastern section of Derry Road is located within the existing floodplain area. Any construction work (e.g., earth fill for the retaining wall) would require a permit from Conservation Halton (CH) and a Level 2 permit from the Department of Fisheries and Oceans (DFO). Brian Evans at CH is the contact for floodplain analyses and hydraulic modelling. CH will check for species at risk within the Bronte Creek tributary and confirm. The adjacent soccer field on the north side of Derry Road is a private field. There are no parking issues associated with this field. <i>General</i> <ul style="list-style-type: none"> CH advised the Region Study Team to contact MNR regarding potential permitting requirements under the 	<p>CH</p> <p>R and R LCA</p>

NO.	DESCRIPTION	ACTION BY:
	Endangered Species Act, and indicated that MNR might have additional information pertaining to pond locations and general habitat. LC indicated that MNR had been contacted in the fall of 2009 and was awaiting a response. CH also stressed the long timelines typically associated with permitting approvals under the ESA. Dry culverts were discussed as a possible mitigation measure to consider.	
	c. Derry Road Transportation Corridor Improvements Class Environmental Assessment Study – Items related to March 6, 2010 Halton Region Response Letter	
	<ul style="list-style-type: none"> ○ Conservation Halton Issues noted in their January 4, 2010 Letter (CH File: MPR 523) have been addressed by the information provided in the Halton Region Response Letter with the following additional items being noted: ○ Ecological Issues – the installation of the retaining wall and culvert will occur within the "bank full" width area of the tributary. Additional care will be required to reduce impacts. ○ Data requests – LCA Environmental Consultants is waiting for a response from the Ministry of Natural Resources (MNR) regarding deer information. CH does not have deer information. LCA should follow up with MNR in this regard. The CH fish database is more up to date than MNR's and includes MNR data. LC to contact CH for data. ○ Stage I Archaeological Assessment report to be circulated to CH for their information. 	<p>LCA</p> <p>R and R</p>
3.	Other Items	
	a. Preferred Alternative	
	<ul style="list-style-type: none"> ▪ Refine Alternative Design Concepts – The "Preferred Alternative" for the study will be based on Alternative 1 for Derry Road and refined following the meeting with Conservation Halton. The Preferred Alternatives will be presented at the upcoming respective Public Information Centres scheduled for the study. ▪ Subsequent to this meeting CH has informed the Region that the SAR mapping does not indicate the presence of any species at risk in the vicinity of McNiven Road and Derry Road. 	

These minutes were prepared by Rick Goertz and are based on an interpretation of the business discussed during the meeting. If there are any errors or omissions, please contact Rick Goertz at 905-937-1708 or via e-mail at RGoertz@RandR-Associates.com to clarify.

R and R Associates Inc.

A handwritten signature in black ink, appearing to read 'Rick Goertz', with a long horizontal stroke extending to the right.

**Rick Goertz, P.Eng.,
Principal**



Derry Road (Regional Road 7) Transportation Corridor Improvements Class Environmental Assessment

**Milborough Line (Regional Road 24) to McNiven Road
Halton Region, City of Burlington and Town of Milton**

Technical Agencies Committee (TAC) Meeting No. 2

April 13, 2010

Purpose of TAC Meeting No. 2

- To provide TAC with an overview of the study:
 - Process, Background and Timetable;
 - Problem/Opportunity being addressed;
 - Key Considerations and Issues;
 - Recommended Planning Solution;
 - Development and Evaluation of Alternative Design Concepts;
 - Preliminary Plan for the Preferred Alternative Design; and
 - Next Steps.
- Provide a forum and an opportunity for TAC input into the study

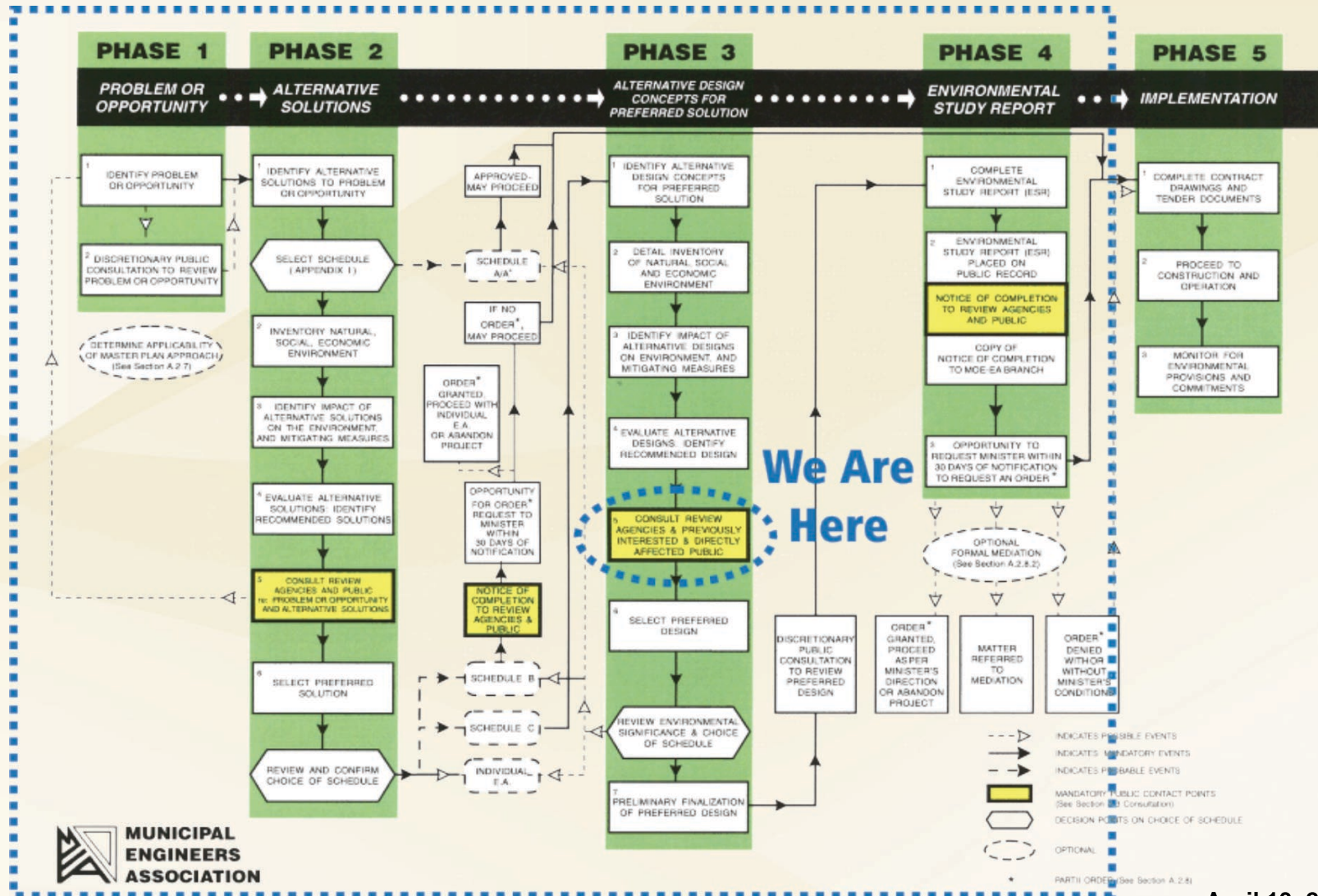
April 13, 2010 - 2

Study Approach and Process

- Municipal Class Environmental Assessment Planning and Design Process
 - Schedule 'C' Undertaking
 - Includes Phases 1 to 4 (Currently in Phase 3)
 - **Phase 1** - Identify Problems and Opportunities
 - **Phase 2** - Identify Alternative Solutions
 - **Phase 3** - Identify Alternative Design Concepts
 - **Phase 4** - Completion and filing of Environmental Study Report (ESR)
 - Opportunities for Agency and Stakeholder input
 - Finalize and select Preferred Design

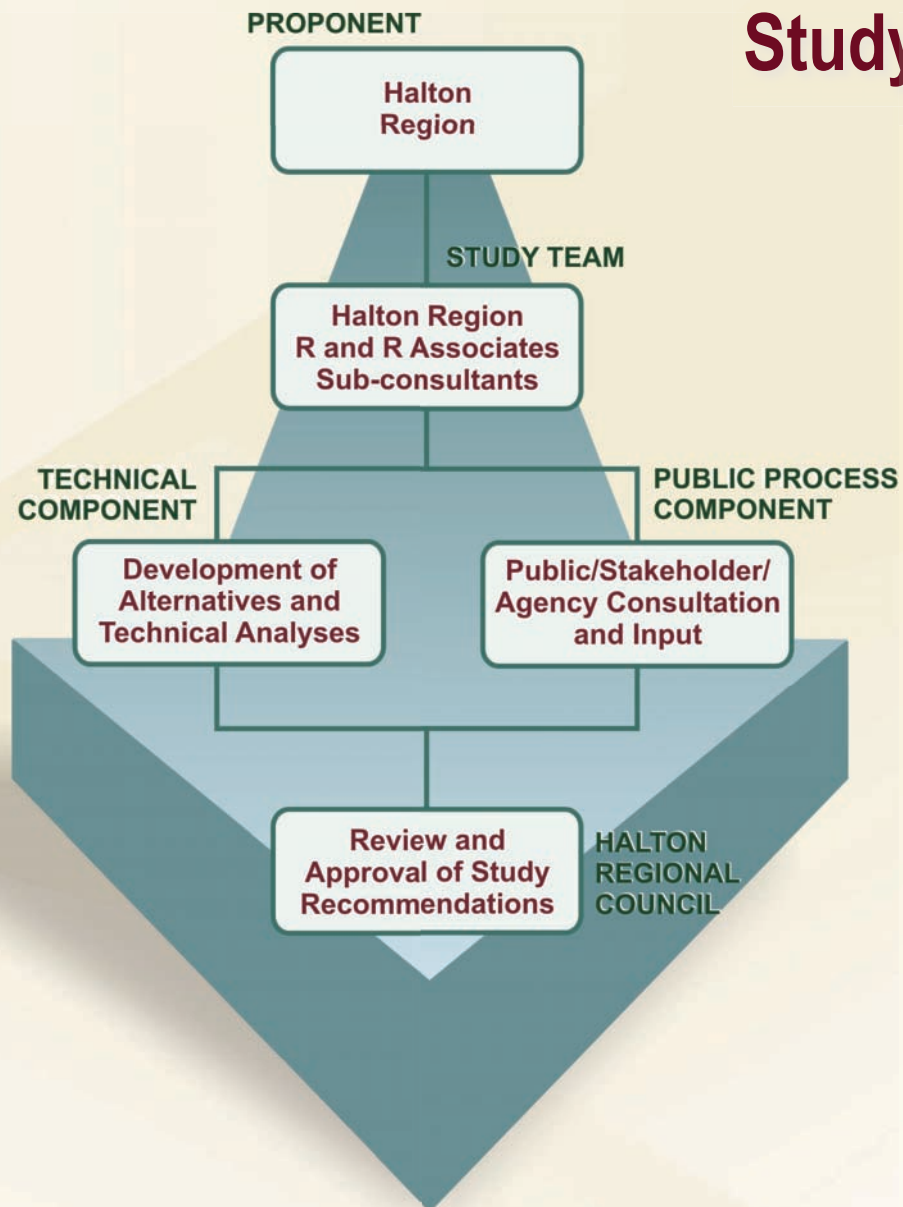
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Class EA Planning and Design Process



April 13, 2010 - 4

Study Organization



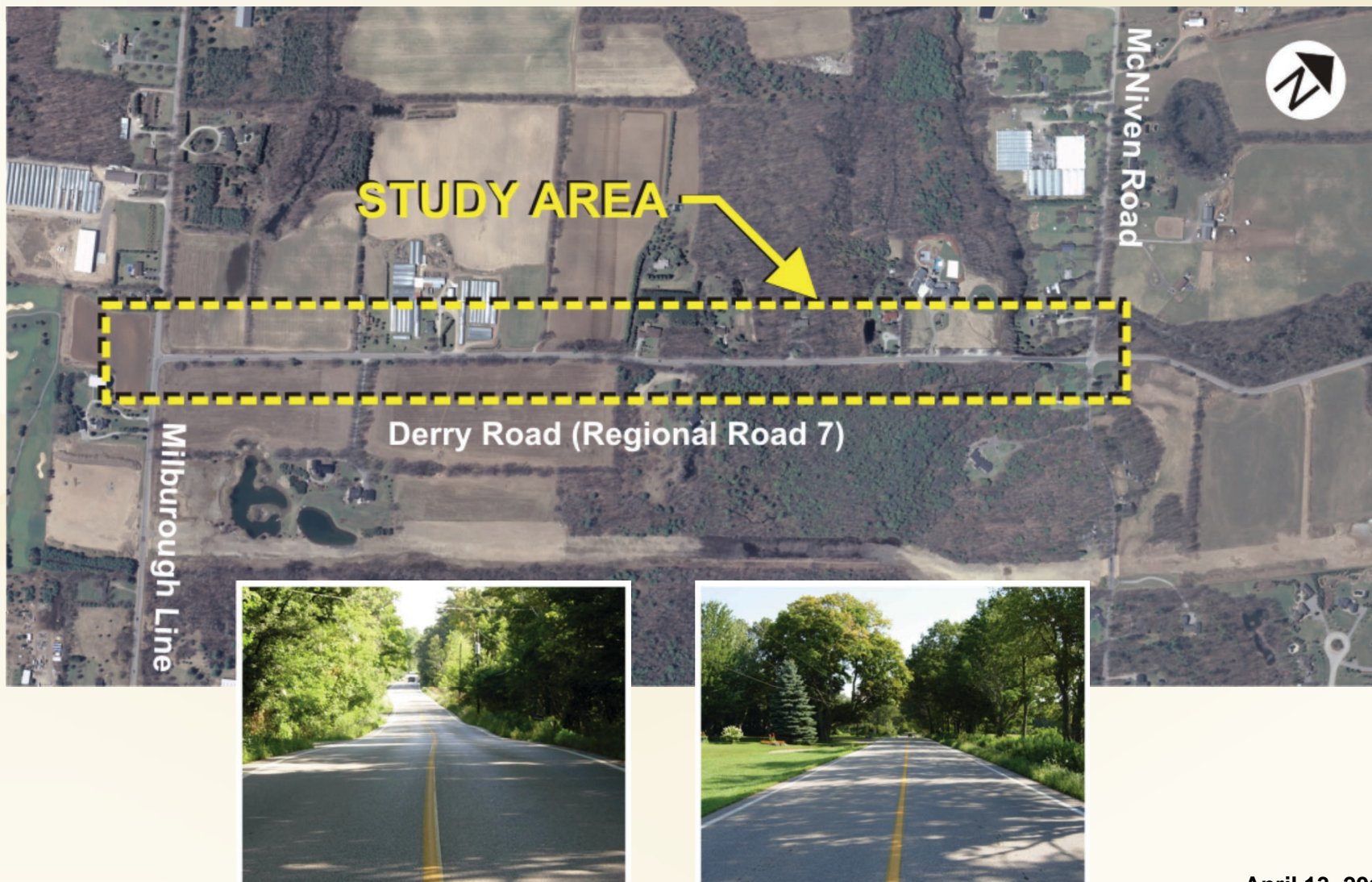
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Study Background

- The Study Area extends from Milborough Line to McNiven Road, a distance of approximately 1.4 km in length. Derry Road travels along the Municipal Boundary between the Town of Milton and the City of Burlington.
- The posted speed limit is 60 km/h with STOP controlled intersections at Milborough Line and McNiven Road (All-way STOP)
- The Derry Road Corridor within the study area limits is functionally designated as a Major Arterial roadway with a two-lane rural cross-section, no shoulders and drainage ditches
- The existing right-of-way limit is approximately 20 metres with the ultimate right-of-way designated at 35 metres in the Regional Official Plan

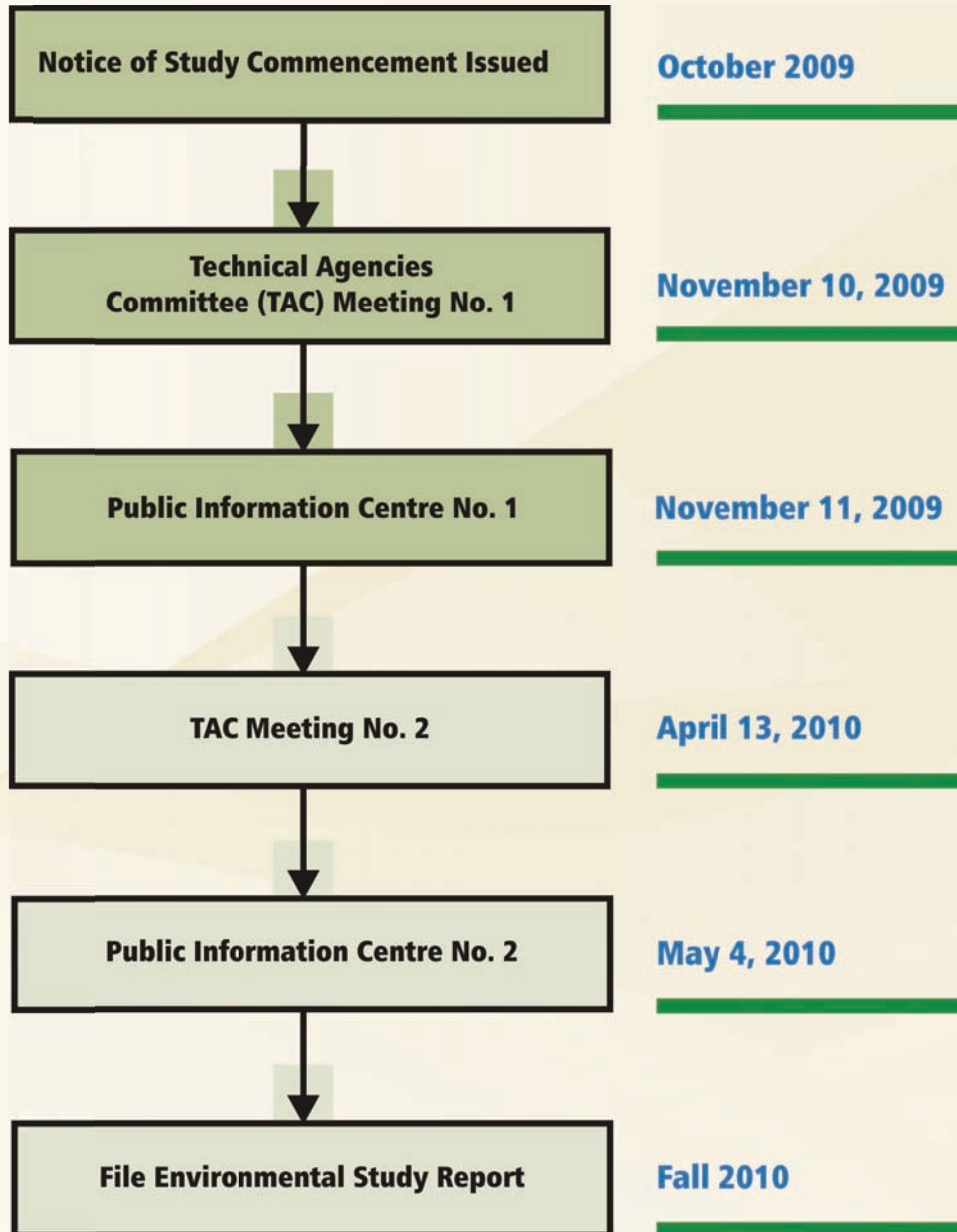
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Study Area



April 13, 2010 - 7

Study Timetable



April 13, 2010 - 8

Problem Statement

“As presently configured, Derry Road (Regional Road 7) has a number of existing structural, geometric and roadway cross-section deficiencies which can be improved to increase overall safety, capacity, and roadside drainage”

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Derry Road (Regional Road 7) Transportation Corridor Improvements



Key Considerations and Issues

▪ **Transportation**

- Integration with Overall Transportation Network
- Existing Operational Issues
- Future Corridor Travel Demands
- Access
- Roadway Cross-Section Elements
- Alternate/Active Transportation Modes
- Safety

▪ **Structural**

- Pavement Condition
- Watercourse Culverts

▪ **Natural Environment**

- Provincially Significant Wetlands
- Woodlands
- Creek Crossings
- Drainage and Stormwater Management
- Provincial Greenbelt Plan

April 13, 2010 - 10

Key Considerations and Issues (Con't.)

- **Adjacent Land Uses**
 - Residential, Commercial and Rural
 - Escarpment Rural Area
 - Greenlands Area
- **Cultural and Social Environment**
 - Built Heritage Features
 - Archaeological Features
 - Noise Impacts
- **Utilities**

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Recommended Planning Solution

- The Recommended Planning Solution—**A Combination of Roadway Improvement and Other Supporting Measures**—includes the following:
 - Provide geometric roadway improvements, where feasible, including adjustments to the horizontal and vertical roadway alignment to meet prevailing standards;
 - Provide improvements to the roadway rural cross-section through adjustments to the travel lane widths, shoulder widths, and side slopes;
 - Improve the pavement structure of the roadway;
 - Improve roadway and roadside drainage through enhancements to the road grades and profiles, replacement and/or addition of drainage culverts, and provision of proper roadside ditches; and
 - Provide improvements or modifications to intersection traffic control where necessary to meet future traffic operational demands.

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Evaluation Factors

▪ Technical

- Capacity and Level of Service
- Safety
- Access
- Active Transportation
- Geometric Standards
- Structural
- Utility Relocations
- Construction and Property Costs
- Construction Staging

▪ Socio-Economic Environment

- Land Use
- Effects on Official Plans and other Planning Initiatives
- Effects on Business Access and Operations
- Effects on Residential and Rural Land Uses
- Potential Property Requirements
- Noise and Vibration Effects
- Aesthetics
- Emergency Access

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Evaluation Factors (Cont'd)

- **Natural Environment**

- Effects on Vegetation
- Effects on Wildlife
- Effects on Aquatic Ecology
- Stormwater Management
- Effects on Groundwater Resources

- **Cultural Environment**

- Effects on Built Heritage Features
- Effects on Archaeological Resources

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Development of Alternative Design Concepts

- Roadway widening alternative design concepts were developed on the basis of the following:
 - Traffic Operations and Safety Review
 - Drainage and Stormwater Management Review
 - Natural Environment Assessment
 - Archaeological and Cultural Heritage Resource Assessment
 - Noise Impact Assessment
 - Geotechnical Investigation
 - Access and Right-of-Way considerations (existing and future)
 - Roadway Cross-section Elements
 - Impacts to Existing/Future Utilities
 - Impacts to Existing Residential/Commercial Properties
 - Coordination with the City of Burlington/Town of Milton
 - Construction Timing and Costs

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Alternative Design Concepts

- Roadway widening design concepts included various alternatives for the widening of the existing two lane cross-section to meet Regional standards. Generally, the widening alternatives (maintaining a two lane cross-section) included the following:
 - **“Do Nothing”**
 - **Symmetrical widening about the existing roadway centreline**
 - **Symmetrical widening about the existing roadway right-of-way centreline**
- After undertaking a complete and thorough review and evaluation of the various alternatives in light of the study findings listed above, a combination of alternatives were selected to provide the *Preliminary Preferred Alternative Design Concept*.

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Alternative Design Concepts – Derry Road

- **“Do Nothing” Alternative** – No improvements or changes would be made to solve the identified problem or opportunity—existing roadway remains in current state
- **Alternative 1** – Maintain current horizontal roadway alignment with a rural road cross-section including 3.65 metre lanes, 2.5 metre partially paved shoulders (1.0 metre is paved)
- **Alternative 2** – Centre roadway alignment within the existing right-of-way limits and provide 250 metre radii at the S-bends while maintaining a rural road cross-section with 3.65 metre lanes, 2.5 metre partially paved shoulders (1.0 metre is paved)
- **Alternative 3** – Centre roadway alignment within the existing right-of-way limits and provide a tangent section to separate the S-bends while maintaining a rural road cross-section with 3.65 metre lanes, 2.5 metre partially paved shoulders (1.0 metre is paved)

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Derry Road (Regional Road 7) Transportation Corridor Improvements



Alternative Design Concepts

Derry Road West of McNiven Road

- **Alternative 1-A** – Provide a wider rural roadway cross-section including 3.65 metre lanes, 1.0 metre partially paved shoulders, guiderail protection, and granular shoulder side slopes matching into the existing creek location
- **Alternative 1-B** – Provide a wider urban roadway cross-section including 3.65 metre lanes, 1.0 metre paved shoulders with curb and gutter, guiderail protection, and retaining walls

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Derry Road (Regional Road 7) Transportation Corridor Improvements



Discussion of Alternative Design Concepts



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Evaluation of Alternative Design Concepts

- Each alternative design concept was evaluated against the Evaluation Criteria to determine potential environmental impacts for each alternative.
- Based on the results of the evaluation, a *Preliminary Preferred Design* for implementing the preferred solution was established including the identification of appropriate mitigating measures.

Net Effects Evaluations

1. The alternatives for Derry Road as a whole within the study area were evaluated (i.e. Alternatives 1, 2 and 3 and the “Do Nothing” alternative)
2. The alternatives for Derry Road west of McNiven Road were evaluated (i.e. Alternatives 1-A and 1-B)

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Evaluation Matrices

- Derry Road Mainline
- Derry Road west of McNiven Road and adjacent to Bronte Creek

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Derry Road (Regional Road 7) Transportation Corridor Improvements

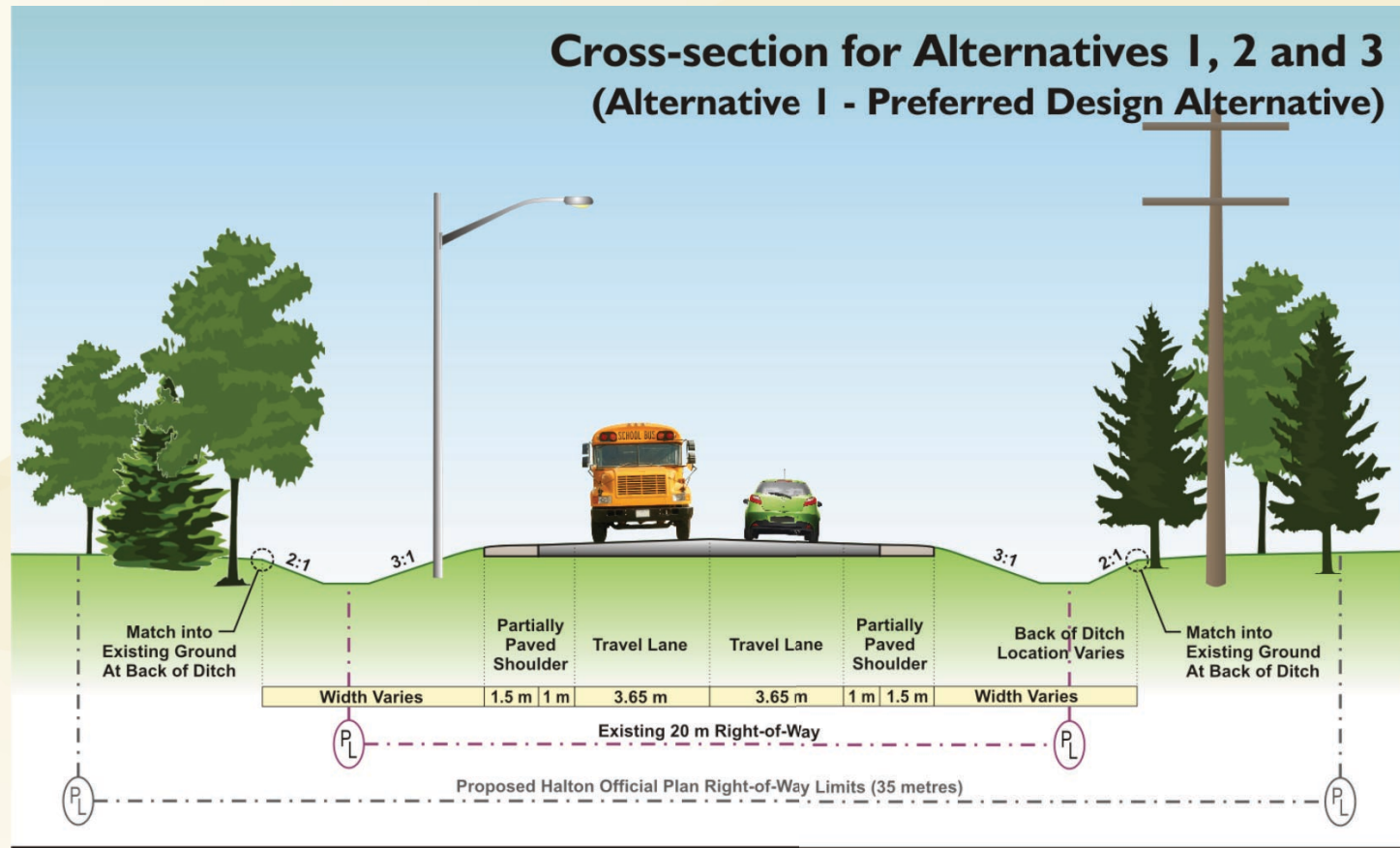


Preferred Alternative Design

- The cross-section of the Preliminary Preferred Design includes the following basic elements:
 - A rural cross-section with 2 - 3.65 metre travel lanes, 2.5 metre partially paved shoulders (1.0 metre paved), drainage ditches with 3:1 front slopes and 2:1 back slopes matching into existing ground
 - Maintaining the existing horizontal roadway alignment along the existing roadway centreline with vertical alignment improvements
 - Provision of an urban cross-section for the section of Derry Road west of McNiven Road, adjacent to the Bronte Creek tributary including 2 - 3.65 metre travel lanes, 1.0 metre paved shoulders with curb and gutter and retaining walls to minimize impacts the adjacent tributary and pond areas
 - Provision of a larger culvert roadway crossing at Derry Road west of McNiven road to accommodate the 25-year storm rainfall event and to provide improved passage for native fish species

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Preferred Design Alternative – Cross-Sections

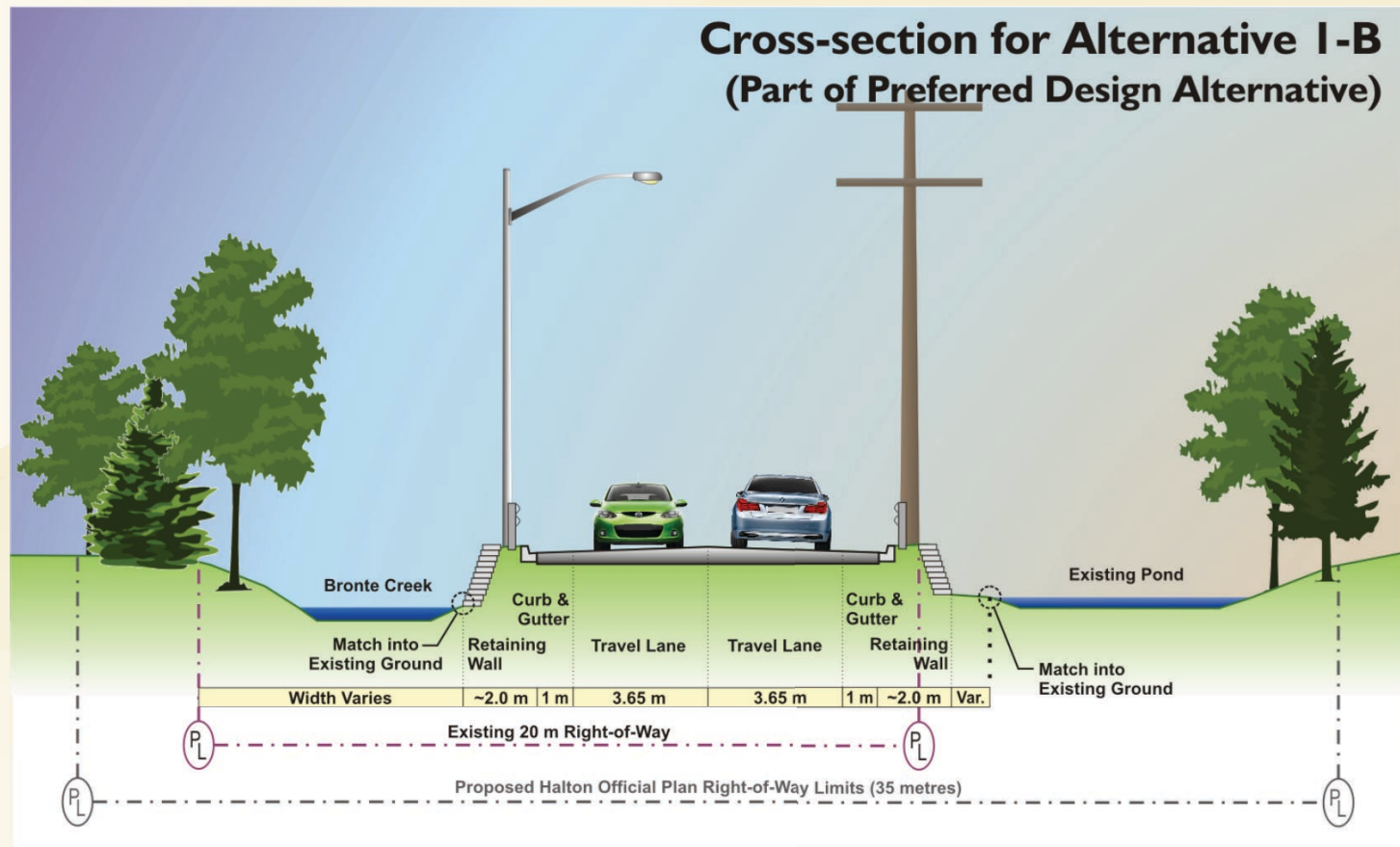


**Derry Road (Regional Road 7)
Typical Rural Roadway Cross-Section**

1 0 2 4.0 metres

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Preferred Design Alternative – Cross-Sections



Derry Road (Regional Road 7)

Typical Urban Roadway Cross-Section with Retaining Wall (West of McNiven Road)

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Next Steps

- Conduct Public Information Centre No. 2 on May 4, 2010
- Review study findings and the preliminary preferred design in light of comments received and revise/modify as required
- Prepare the Environmental Study Report (ESR)
- Advertise the Notice of Study Completion for the study and File the ESR for a 30-day public review period in fall 2010

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Derry Road (Regional Road 7) Transportation Corridor Improvements



Technical Agencies Committee Meeting No. 2

Thank You for Attending

Derry Road (Regional Road 7) Transportation Corridor Improvements Class Environmental Assessment

Milborough Line (Regional Road 24) to McNiven Road
Halton Region, City of Burlington and Town of Milton

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Derry Road (Regional Road 7) Transportation Corridor Improvements



TITLE:	Derry Road Transportation Corridor Improvements Class Environmental Assessment
FILE:	RR-09-019
TIME/DATE:	April 13, 2010 at 3:00 PM
LOCATION:	Hugh Foster Hall, 141 King Street, Milton, Ontario
PURPOSE:	Technical Agency Committee Meeting #2
ATTENDEES:	David Lukezic (DL) – Halton Region Jeff Reid (JR) – Halton Region Rick Hein (RH) – R and R Associates Rick Goertz (RG) – R and R Associates

No.	Description
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1. The second TAC meeting for the Derry Road Transportation Corridor Improvements Class Environmental Assessment was held on April 13, 2010. There were no TAC members in attendance.

Note: A separate meeting was held with Conservation Halton on April 1, 2010. A formal presentation of the Derry Road Class Transportation Corridor Improvements Class Environmental Assessment was provided at the meeting followed by a general discussion. Conservation Halton staff provided their input and comments during the general discussion.

The meeting was adjourned at 4:00 p.m.

These meeting notes were prepared by Rick Hein and are based on an interpretation of the business discussed during the meeting. If there are any errors or omissions, please contact Rick Hein at RHein@RandR-Associates.com to clarify.



Rick Hein, P. Eng., PTOE, AVS
Principal
R and R Associates Inc.