APPENDIX C

Technical Agency Committee (TAC) Meetings and Correspondence

Guelph Line (Regional Road 1) Transportation Corridor Improvements

Class Environmental Assessment

1 Kilometre North of Derry Road (Regional Road 7) to Conservation Road

Halton Region and Town of Milton

Technical Agencies Committee (TAC) Meeting No. 1

November 10, 2009

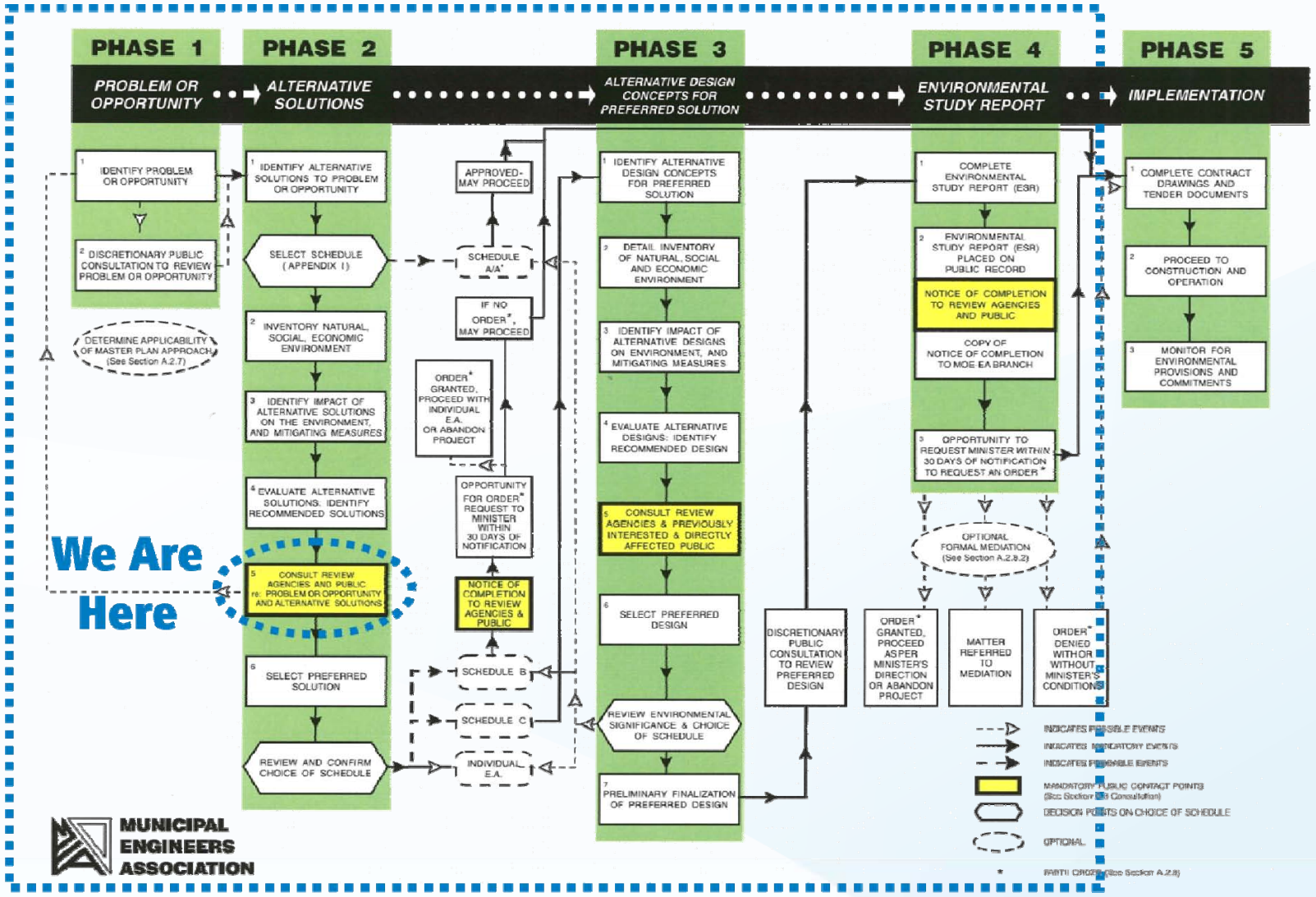
Purpose of TAC Meeting No. 1

- 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
  - Next Steps
- Provide an opportunity for TAC input to the process

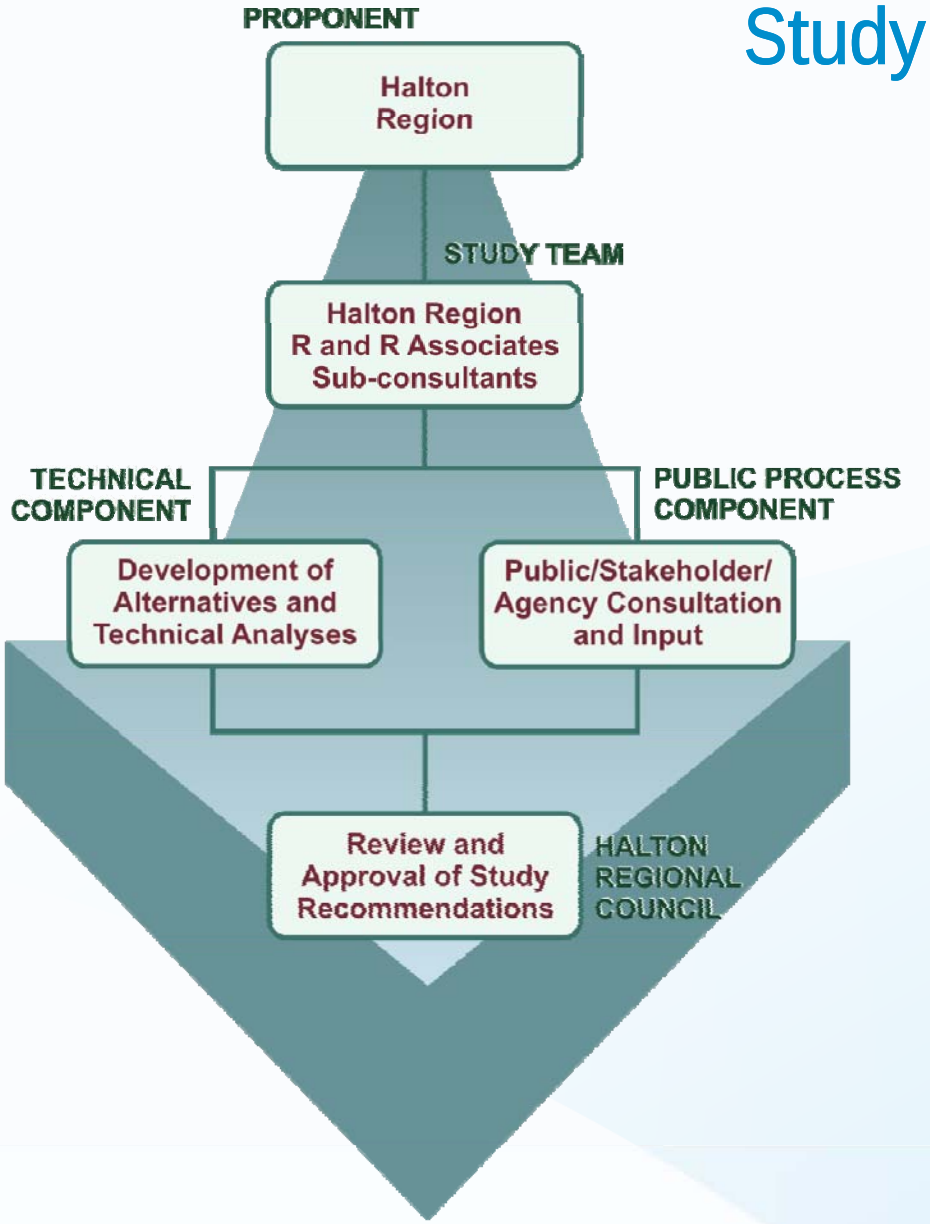
Study Process

- 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

Class EA Planning and Design Process



Study Organization



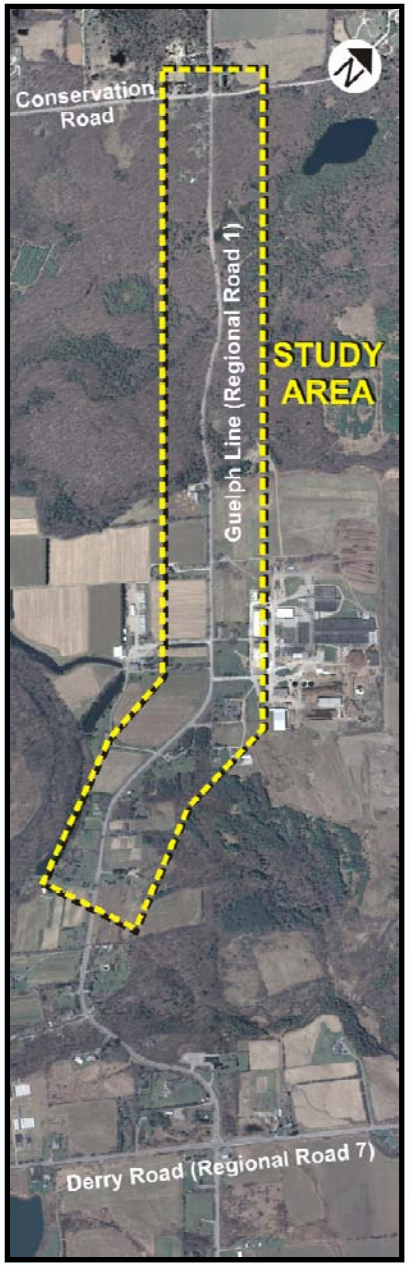
Need for Roadway Improvements

- The Region's Comprehensive Road Safety Action Plan (CROSAP) has identified the section of Guelph Line between Derry Road and Conservation Road as a location with a Potential for Safety Improvement Index (PSI) of 25.74 which is ranked first among Regional roadway segments. A PSI index greater than zero, indicates an opportunity for safety improvements
- Meet the requirements under the Environmental Assessment Act for the anticipated road improvements in the study area
- A detailed operations and safety assessment was completed for Halton in June 2002, outlining a number of potential safety improvements for the Guelph Line corridor
- A review of the historical collision data and the Region PSI index for the corridor continues to indicate that there is still a need for safety and operational improvements such as cross-section and geometric roadway enhancements where feasible

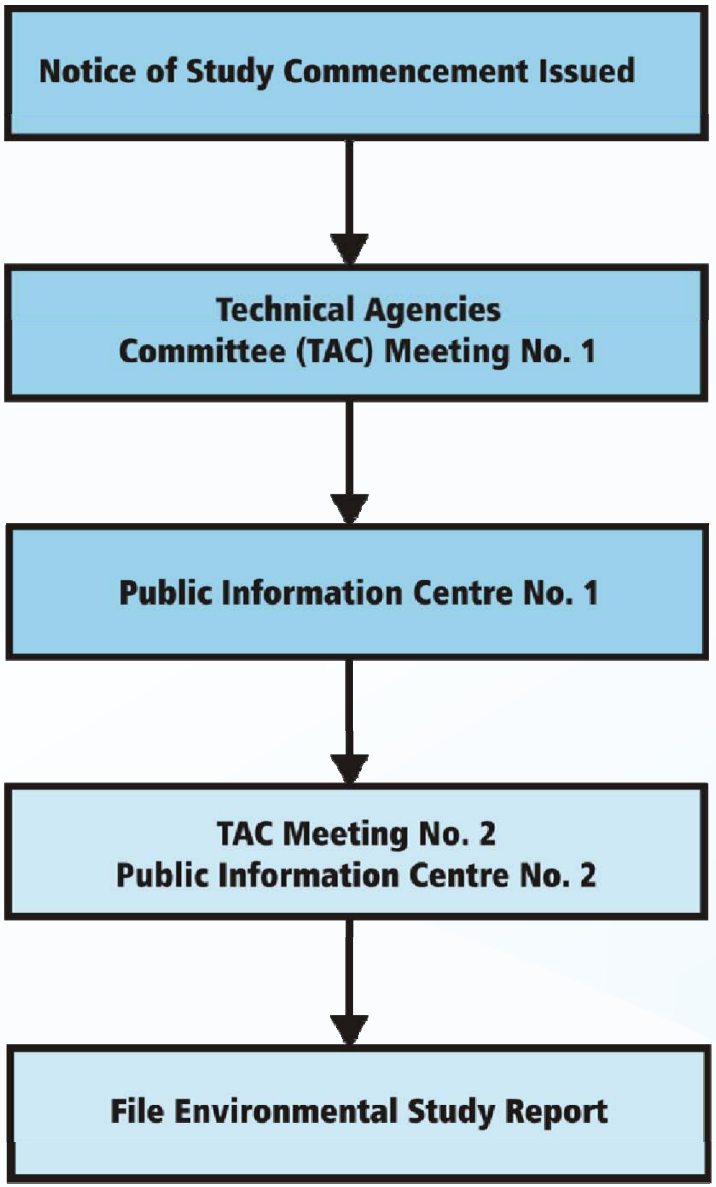
Study Background

- The Study Area, located within the Town of Milton, extends from Conservation Road to 1 km north of Derry Road, a distance of approximately 2 km in length
- The posted speed limit is 60 km/hr with a STOP controlled intersection at Conservation Road and a signalized intersection at Derry Road (Regional Road 7)
- The Guelph Line corridor within the study area limits is functionally designated as a Major Arterial roadway with a two-lane rural road cross-section
- The existing right-of-way limit varies from about 20 to 26 metres with the ultimate right-of-way designated at 35 metres in the Regional Official Plan
- In the summer of 2008, the resurfacing of Guelph Line was completed. The resurfacing addressed immediate concerns with respect to the current poor condition of the roadway until such time that the Class EA process could be initiated to review the entire Guelph Line corridor

Study Area


Conservation Road
Guelph Line (Regional Road 1)
STUDY AREA
Derry Road (Regional Road 7)

Study Timetable



Key Considerations and Issues

- **Transportation**
  - Integration with Overall Transportation Network
  - Existing Operational Issues
  - Future Corridor Travel Demands
  - Access
  - Roadway Cross-Section Elements
  - Safety
- **Structural**
  - Watercourse Culverts
- **Natural Environment**
  - Provincially Significant Wetlands
  - Woodlands
  - Creek Crossings
  - Drainage and Stormwater Management
  - Provincial Greenbelt Plan
  - ESAs

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**

Transportation – Operations

- Guelph Line carries approximately 6,400 vehicles per day
- Two-way vehicle volumes during the weekday AM and PM peak periods are in the range of 620 and 660 vehicles per hour, respectively
- Commercial and heavy vehicles represent about 6% of the total traffic on Guelph Line during a typical weekday and 5% to 6% of the total traffic during the AM and PM peak periods, respectively
- Currently, the unsignalized intersection at Guelph Line and Conservation Road operates at good levels of service (LOS ‘B’ to ‘C’, respectively) during the weekday AM and PM peak periods
- The signalized intersection at Guelph Line and Derry Road presently operates at LOS ‘B’ during both the AM and PM peak hours

Transportation – Safety

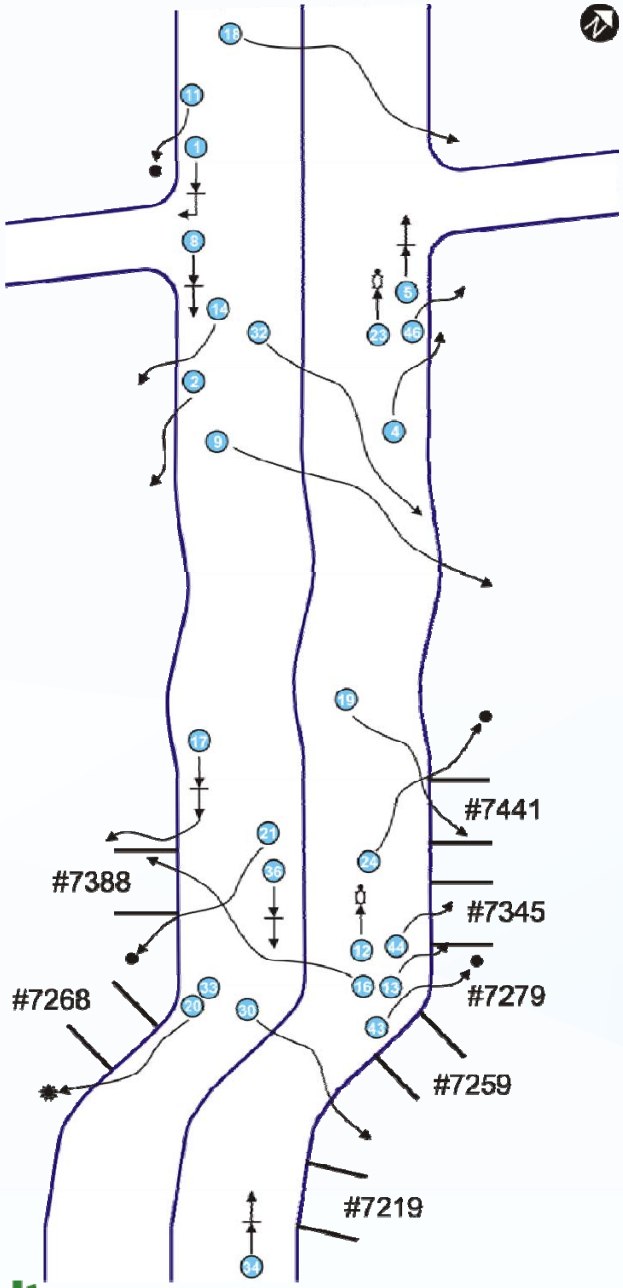
- A review of collision data for the period from January 2004 to November 2008 indicated that a total of 26 collisions occurred within the study area—2 (approximately 8%) occurred at the study area intersection (Conservation Road and Guelph Line) and 24 (approximately 92%) occurred at mid-block locations.

- The Region's Comprehensive Road Safety Action Plan (CROSAP) has identified the section of Guelph Line between Derry Road and Conservation Road as a road corridor with a high Potential for Safety Improvement (PSI) Index of 25.74 (ranked 1st)

- The most notable collision patterns found within the collision data includes single motor vehicle collisions occurring at mid-block locations during off peak hours and under rainy/snowy/icy conditions (winter season) during weekends

Existing Conditions

- Transportation – Collision Patterns



Legend

Collision Type

- Single Motor Vehicle
- Rear-end
- Left/Right Rear-end
- Involving an Animal

Other Information

- Tree
- Hydro Pole
- Collision No.

26 collisions shown within study area limits (Jan. 04 - Nov. 08)

- Socio-Economic Environment (Land Use)
  - The areas surrounding the Guelph Line study area are Provincially designated as “Escarpment Protection Area” and “Escarpment Natural Area”
  - Halton land use designations adjacent to the Guelph Line study area include various natural heritage system features designations. Guelph Line also traverses through an identified “Prime Agricultural Area”
  - The study area, lies within the Town of Milton Nelson Rural District

Natural Environment

- The study area is surrounded by unique and significant natural heritage features, including large tracts of forest cover with interior habitat, native plant communities with high habitat diversity and diverse flora and fauna species
- The flora and fauna species present in the area include a high occurrence of nationally, provincially and locally rare species (e.g. Sugar Maple, Ash, Black Walnut and Willow)
- Groundwater discharge into the headwater tributaries of Bronte Creek support a coldwater fishery and provide for good overall water quality (e.g. Coho Salmon, Rainbow Trout, Brown Trout, Darter/Shiner/Sucker Species)

Existing Conditions

- Natural Environment – ESAs and ANSIs
  - East of Guelph Line (Crawford Lake–Rattlesnake Point Escarpment Woods)
  - West of Guelph Line (Calcium Pits)
  - Both areas are part of the Niagara Escarpment Plan Area containing provincially significant wetlands

KEY FINDINGS

Existing Conditions

- ## Cultural Environment
  - A Stage1 Archaeological Assessment is currently underway to identify any potential areas of archeological significance
  - There are several buildings deemed to be cultural heritage resources within the study area located along Guelph Line
- ## Other Features
  - 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

Problem Statement

"Presently, Guelph Line (Regional Road 1) has a number of opportunities for improvement which will increase the overall safety of the corridor including the potential reduction in the number and severity of collisions"

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 Guelph Line 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
Roadway 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

Future Conditions

- Transportation
  - Traffic volumes are not expected to grow substantially within the Guelph Line corridor toward the 2021 horizon year; however, two-way traffic volumes between Conservation Road and Derry Road are anticipated to range from 730 to 780 vehicles per hour during the 2031 weekday AM and PM peak periods, respectively.

Intersection	AM Peak Hour	PM Peak Hour
Guelph Line at Conservation Road		
2021 Weekday	LOS B	LOS C
2031 Weekday	LOS C	LOS D
Guelph Line at Derry Road (Regional Road 7)		
2021 Weekday	LOS B	LOS B
2031 Weekday	LOS C	LOS B

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

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

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

Technical Agencies Committee Meeting No. 1

Thank You for Attending

Guelph Line (Regional Road 1) Transportation Corridor Improvements

Class Environmental Assessment

1 Kilometre North of Derry Road (Regional Road 7) to Conservation Road

Halton Region and Town of Milton

TITLE:	Guelph Line Transportation Corridor Improvements Class Environmental Assessment
FILE:	RR-09-024
TIME/DATE:	November 10, 2009 at 3:00 p.m.
LOCATION:	Hugh Foster Hall, 141 King Street, Milton, Ontario
PURPOSE:	Technical Agency Committee Meeting #1
ATTENDEES:	KP – Conservation Halton JR – Halton Region AJ – 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. KP from Conservation Halton raised several questions and concerns as follows:

Question: Why is "limit future growth" not being carried forward as a planning alternative?

Response: This section of Guelph Line is outside of the urban area and within the Greenbelt Plan. It is not anticipated that future growth would occur adjacent to the study area and therefore the option was not considered relevant.

Question: Are turning lanes being considered at Conservation Road? KP noted that traffic volumes are high during the weekend periods and left turns into the Crawford Lake area are problematic.

Response: As part of the design process, a southbound/northbound left turn lane and northbound right turn lane will be analyzed to determine if they are warranted based on the traffic volumes discussed. JR asked if Conservation Halton could supply traffic volumes for the problematic weekend periods.

Question: Would any widening of the right-of-way be required such that habitat removal would be necessary?

Response: It was noted that during Phase 3 of the EA process, a range of design alternatives will be evaluated in terms of their impacts on the environment, including existing habitat.

Question: Conservation Halton personnel have identified coyote road kill near Derry Road. Coyote species were not mentioned specifically as part of the wildlife inventory included in the presentation. KP asked if any Redside Dace were found during the natural environmental inventory process.
Response: RH indicated that none were found; however RH will discuss with R and R Associates' Natural Sciences specialist to confirm any observance of

No.	Description
	Redside Dace. **Question:** KP requested that Conservation Halton be able to review a copy of the ecologist's work plan for the study. **Response:** RH will provide a summary of the work plan. **Conservation Halton Concern:** Conservation Halton is interested in property impacts. KP brought extra copies of plans showing 1) Conservation Halton Property limits; 2) Floodplain/Wetland mapping (O.R.97/04); Regulation Limit Maps 0655, 0656, 0701 and 0744 (O.R. 162/06). KP will provide digital versions of these plans to Halton and R and R Associates. **Conservation Halton Concern:** KP mentioned that Conservation Halton is very concerned with Bronte Creek. Flooding of the roadway and lack of road drainage causing freezing in winter. 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 3:50 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.

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BY MAIL AND EMAIL

December 22, 2009

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

Dear Mr. Hein:

Re: Guelph Line Transportation Corridor Improvements
Municipal Class Environmental Assessment
Halton Region
CH File: MPR 523

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

- Notice of Commencement,
- Technical Agencies Committee Meeting No. 1 materials, and
- *Summary of Natural Environmental Assessment Project Scope* (Technical Memorandum, dated November 30, 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.)

General Comments:

Natural Heritage

1. Please note that the study area is within the Bronte Creek watershed. There are two crossings of Limestone Creek watercourse, 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.

2. The study area lies partially within the Crawford Lake Environmentally Sensitive Area, which is a Life and Earth Science Area of Natural and Scientific Interest

(ANSI). As such, field surveys should be undertaken to determine the presence of threatened species or endangered species.

3. The study area contains portions of the provincially-significant Crawford Lake and Calcium Pits wetland complex. Conservation Halton regulates the wetlands pursuant to Ontario Regulation 162/06.

4. Part of the study area also contains Significant Woodlands designated by Halton Region. 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;

5. If available, road kill surveys should also be referenced to determine the impact of the roadway on wildlife habitat, and whether ecopassages along Guelph Line may be warranted (depending on the scope of proposed works).

6. The impacts of any utility relocation on natural heritage features and/or functions should be considered when evaluating alternatives.

Fish Habitat

7. The headwaters of Limestone Creek, which originate from the Crawford Lake/Calcium Pits wetland, support a diverse coldwater fish community highlighted by the presence of salmonids, including brown trout, brook trout, and rainbow trout.

8. 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.

9. 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 (*Acipencer fulvescens*) populations in Limestone Creek. For example, the OMNR has recently upgraded the status of Redside Dace 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 for Redside Dace. With regard to Atlantic Salmon and American Eel, we encourage the proponent to direct inquiries regarding their status to Melinda Thompson-Black, Species at Risk Biologist (melinda.thompson-black@ontario.ca).

10. Any improvements to transportation crossings over watercourses must be consistent with DFO guidelines. For example, extensions to or replacements of such structures are requested to span the bankfull channel width of the watercourse. In addition, expansions or replacements of such structures are also requested to consist of an open bottom design.

11. Riparian tree removal is requested to be kept to an absolute minimum within 30 meters of the bankfull channel width of watercourses. Where tree removal in this zone is necessary it is requested that the trees be replaced at a ratio of 3:1 within the road right of way.

Natural Hazards

12. The study area is traversed by a tributary of Bronte Creek and contains wetlands greater than 2 hectares in size, as well as the flooding and erosion hazard lands associated with those features. Conservation Halton regulates, pursuant to Ontario Regulation 162/06, all hazardous lands (i.e., Regional Storm flood plain, meander belt, valleylands, 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.

13. 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.

14. The flood plain impacts of proposed works, including conveyance and storage, must be considered.

15. A geotechnical assessment will be required to assess slope stability.

16. A fluvial geomorphological assessment may be required depending on the nature of the proposed works.

17. Emergency Route Access: if the roadway is deemed an emergency route then there should be no overtopping of the road with flood waters.

Stormwater Management/Drainage

18. Drainage Patterns: both existing and proposed catchment areas will need to be identified.

19. Stormwater Quantity: post to pre quantity control will be required for all design storms.

20. Stormwater Quality Control: we anticipate that Enhanced Level quality control for all watersheds will be required.

21. Stormwater Management should be considered as it pertains to fish habitat, including treatment level and potential direct impacts from construction.

22. The Ministry of Transportation's B-100 Directive should be referenced.

23. Erosion Control: Erosion control measures listed below should be met if feasible; otherwise the consultant must demonstrate no net impacts on the watershed. The recommended erosion strategy for each watershed differs slightly. For Bronte Creek, the erosion control requirements should be determined on a site-specific basis, using both a tractive force analysis, and a flow frequency approach.

Groundwater

24. Field investigations should be undertaken to determine if there are any groundwater recharge/discharge areas within the study area that could be impacted as a result of any of the proposed options.

Other Information

25. 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.

26. The *Bronte Creek Hydrology and Stream Morphology Study* (PEIL, 2003) may also be of interest.

27. Conservation Halton's landholdings in the study area consist of the Crawford Lake Conservation and Resource Management Areas. Staff requests that impacts to CH's landholdings, both direct and indirect, be considered as part of the EA process.

28. The Crawford Lake Conservation Area is one of the most accurately dated pre-contact archaeological sites in Canada. Adjacent lands may also contain significant First Nations artifacts.

29. The Ontario Ministry of Natural Resources may need to participate in the EA process if there are implications regarding the Lakes and Rivers Improvement Act. Please note that Conservation Halton does not screen for LRIA implications on behalf of OMNR.

Comments on the Summary of Natural Environmental Assessment Project Scope:

30. The Environmental Study Report should include a table in the methodology section showing staff, date, time, weather conditions and purpose of all fieldwork.

31. Conservation Halton's Environmental Impact Study Guidelines should be consulted. The guidelines are available on CH's website at http://www.conservationhalton.ca/ShowCategory.cfm?subCatID=1168.

32. 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.

33. A botanical inventory and surveys for butterflies and odonates should also be included in the workplan.

34. Please use standard inventory methodology (i.e., OBBA, March Monitoring Program) where applicable. For other taxa, please thoroughly describe methodology and ensure that search efforts are well documented in the ESR.

Staff of Conservation Halton look 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

Encl.

20080128

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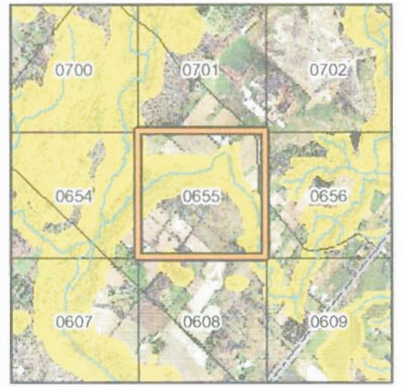
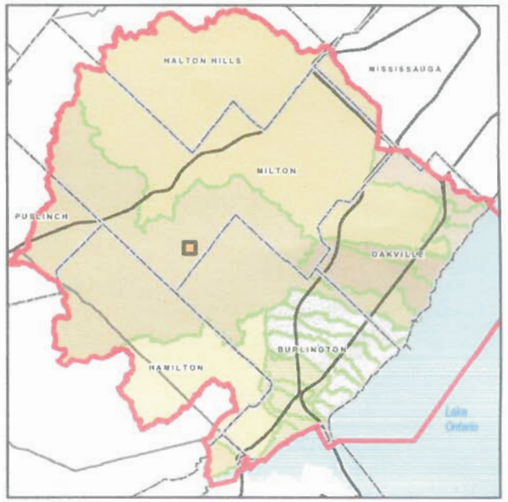
(ONTARIO REGULATION 97/04)
REGULATION FOR DEVELOPMENT, INTERFERENCE WITH WETLANDS AND ALTERATIONS TO SHORELINES AND WATERCOURSES

(ONTARIO REGULATION 162/06) APPROXIMATE REGULATION LIMIT

Map Sheet - **0655**





LEGEND

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

N

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

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

0655

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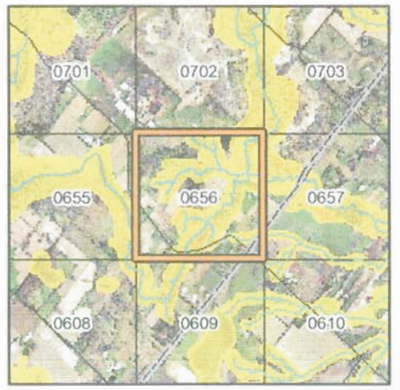
(ONTARIO REGULATION 162/06) APPROXIMATE REGULATION LIMIT

Map Sheet - **0656**



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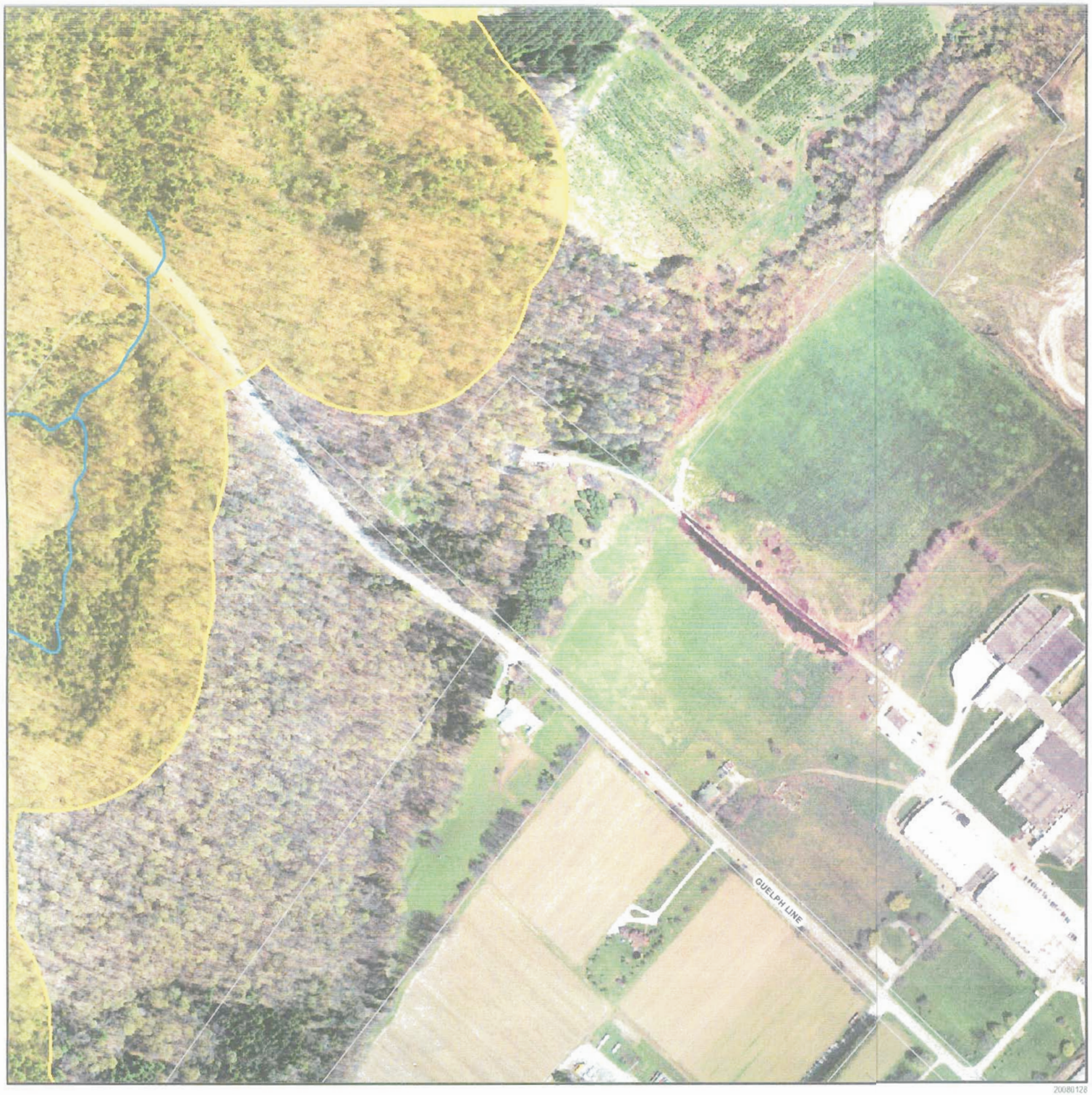

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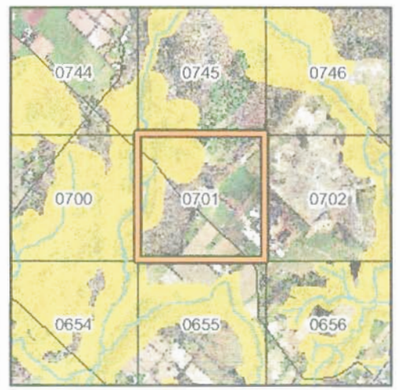
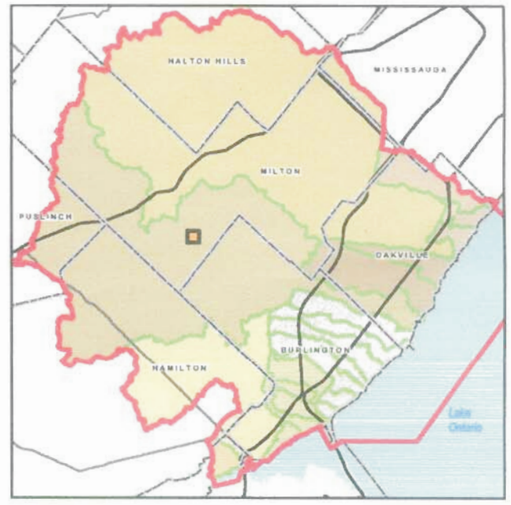
REGULATION FOR DEVELOPMENT, INTERFERENCE WITH WETLANDS
AND ALTERATIONS TO SHORELINES AND WATERCOURSES

(ONTARIO REGULATION 162/06)
APPROXIMATE REGULATION LIMIT

Map Sheet - **0701**





LEGEND

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

N

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.

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

0701

20080128

PROTECTING THE NATURAL ENVIRONMENT
FROM LAKE TO ESCARPMENT

2596 Britannia Road West
R.R. # 2 Milton, Ontario L9T 2X6

Internet Address:
www.conservationhalton.on.ca

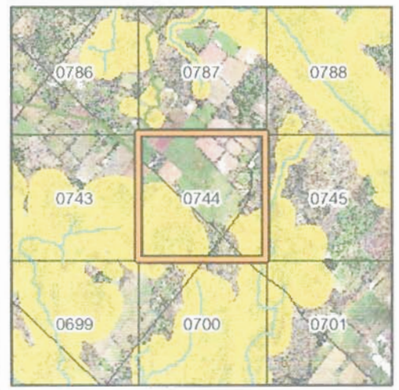
Phone: (905) 336-1158
Fax: (905) 336-7014

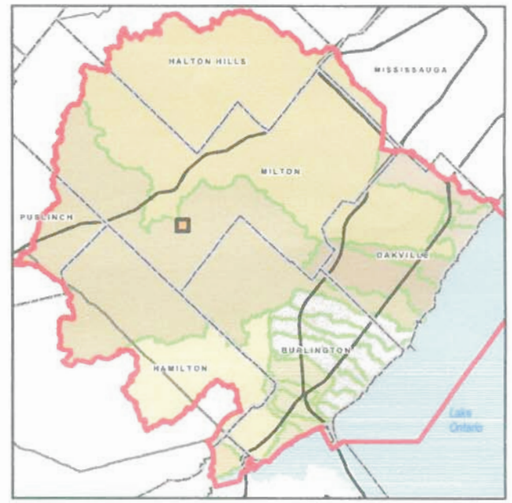
Email Address:
admin@hrca.on.ca

(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 - **0744**





LEGEND

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

N

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.

Revision History:	Previous Updates:	
Last Update: January 28th, 2008 - A.R.L. **Print Date:** January 29th, 2008	•Approximate Regulation Limit - June 7th, 2007 •Approximate Regulation Limit - July 25th, 2006 •Approximate Regulation Limit - April 24th, 2006	**0744**

March 6, 2010 Our File: RR-09-024

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

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

Re: **Guelph Line Transportation Corridor Improvements**
Municipal Class Environmental Assessment (Class EA)
Halton Region, CH File: MPR 527
Comments to CH December 22, 2009 Letter

Dear Ms. Peters:

Thank you for your recent letter and input related to the Guelph Line Transportation Corridor Improvements Class EA study. We have reviewed Conservation Halton's (CH) letter dated December 22, 2009, Points 1 through 34 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 Ms. Alicia Jakaitis or myself at your convenience.

Sincerely,

R and R Associates Inc.

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

cc: Alicia Jakaitis, Halton Region
Jeff Reid, Halton Region

600 Ontario Street, PO Box 28058, St. Catharines, Ontario L2N 7P8 | Phone: 905-937-1708 | Fax: 905-937-4384 | E-mail: info@RandR-Associates.com

No.	Conservation Halton Comments	Response/Comment
Natural Heritage		
1.	Please note that the study area is within the Bronte Creek watershed. There are two crossings of Limestone Creek watercourse, 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	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.	The study area lies partially within the Crawford Lake Environmentally Sensitive Area, which is a Life and Earth Science Area of Natural and Scientific Interest (ANSI). As such, field surveys should be undertaken to determine the presence of threatened species or endangered species	The limits of species at risk surveys will be limited to the extent that would be directly impacted by any future road improvements
3.	The study area contains portions of the provincially-significant Crawford Lake and Calcium Pits wetland complex. Conservation Halton regulates the wetlands pursuant to Ontario Regulation 162/06	The information has been noted and will be included as part of the ESR documentation, where applicable
4.	Part of the study area also contains Significant Woodlands designated by Halton Region. 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	A detailed vegetation inventory within 50 metres of any proposed work is beyond the area impacted by any future road improvements and would be greatly limited by access to private property. The inventories will be completed and inventoried as needed to assess alternatives in relation to the woodlot area
5.	If available, road kill surveys should also be referenced to determine the impact of the roadway on wildlife habitat, and whether ecopassages along Guelph Line may be warranted (depending on the scope of proposed works)	Road kill surveys were completed on the various field days assigned for the scheduled work. There are no additional days assigned for surveying road kills
6.	The impacts of any utility relocation on natural heritage features and/or functions should be considered when evaluating alternatives	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
Fish Habitat		
7.	The headwaters of Limestone Creek, which originate from the Crawford Lake/Calcium Pits wetland, support a diverse coldwater fish community highlighted by the presence of salmonids, including brown trout, brook trout, and rainbow trout	(CH Points 7 through 9) - 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 Guelph Line Class EA study
8.	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 carryon any work or undertaking that results in	

No.	Conservation Halton Comments	Response/Comment
	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	
9.	The Ontario Ministry of Natural Resources (OMNR) may have outstanding concerns with respect to Redside Dace (Clinostornus elongatus), Atlantic Salmon (Salmo safar) and American Eel (Acipencer fulvescens) populations in Limestone Creek. For example, the OMNR has recently upgraded the status of Redside Dace 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 for Redside Dace. With regard to Atlantic Salmon and American Eel, we encourage the proponent to direct inquiries regarding their status to Melinda Thompson-Black, Species at Risk Biologist (melinda.thompson-black@ontario.ca)	
10.	Any improvements to transportation crossings over watercourses must be consistent with DFO guidelines. For example, extensions to or replacements of such structures are requested to span the bankfull channel width of the watercourse. In addition, expansions or replacements of such structures are also requested to consist of an open bottom design	As part of the Class EA process, DFO has been contacted as a technical agency associated with this study. Through Phase 3 of the Class EA process, a range of alternative design concepts will be developed and evaluated. Based on an assessment of the alternatives, should the recommended alternative include any modifications to existing watercourse crossings, any applicable DFO regulations will be documented as part of the ESR
11.	Riparian tree removal is requested to be kept to an absolute minimum within 30 meters of the bankfull channel width of watercourses. Where tree removal in this zone is necessary it is requested that the trees be replaced at a ratio of 3: 1 within the road right of way	Removal and replacement of riparian trees as they relate to the recommended design concept will follow applicable Regional requirements. Every effort will be made to minimize the potential impacts to existing trees within 30 metres of the bankfull width of watercourses where applicable within the study limits
Natural Hazards		
12.	The study area is traversed by a tributary of Bronte Creek and contains wetlands greater than 2 hectares in size, as well as the flooding and erosion hazard lands associated with those features. Conservation Halton regulates, pursuant to Ontario Regulation 162/06, all hazardous lands (i.e., Regional Storm flood plain,	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

No.	Conservation Halton Comments	Response/Comment
	meander belt, valleylands, 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 162106 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)	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
13.	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	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
14.	The flood plain impacts of proposed works, including conveyance and storage, must be considered	Stormwater drainage is being reviewed as part of the Class EA process for this study
15.	A geotechnical assessment will be required to assess slope stability	A previous geotechnical investigation conducted to assess roadway deficiencies along Guelph Line provided the necessary information for the 2008 road resurfacing. It is anticipated at this time that the current geotechnical information should be sufficient for the development of the alternative design concepts in Phase 3 of the Class EA process. Should additional geotechnical investigations be required to support the recommended design alternative, including that needed to assess slope stability, then additional investigations will be initiated during the detail design phase of the study
16.	A fluvial geomorphological assessment may be required depending on the nature of the proposed works	The requirement for a fluvial geomorphological assessment would depend upon the route and impacts of the recommended design alternative. Should such a study be required, the need will be assessed and determined during the detail design phase of the study
17.	Emergency Route Access: if the roadway is deemed an emergency route then there should be no overtopping of the road with flood waters	Noted for information purposes

No.	Conservation Halton Comments	Response/Comment
Stormwater Management/Drainage		
18.	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
19.	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
20.	Stormwater Quality Control: we anticipate that Enhanced Level quality control for all watersheds will be required	(CH Points 20 and 21) - Quality control will be incorporated where feasible through enhanced grassed swales. Major stormwater 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
21.	Stormwater Management should be considered as it pertains to fish habitat, including treatment level and potential direct impacts from construction	
22.	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
23.	Erosion Control: Erosion control measures listed below should be met if feasible; otherwise the consultant must demonstrate no net impacts on the watershed. The recommended erosion strategy for each watershed differs slightly. For Bronte Creek, the erosion control requirements should be determined on a site-specific basis, using both a tractive force analysis, and a flow frequency approach	Required erosion control measures (i.e. mitigation measures) will be noted as part of the ESR documentation. Specific erosion control measures will be determined through the design phase of the study
Groundwater		
24.	Field investigations should be undertaken to determine if there are any groundwater recharge/discharge areas within the study area that could be impacted as a result of any of the proposed options	While we are aware that the tributaries are likely receiving some groundwater input, a groundwater recharge /discharge study has not been included as part of the project. It is understood that most cool water/cold water creeks are hydrologically linked to

No.	Conservation Halton Comments	Response/Comment
		groundwater and hence, impacts to these systems should incorporate consideration to maintain the hydrologic connection (i.e. open-bottom culverts)
Other Information		
25.	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
26.	The Bronte Creek Hydrology and Stream Morphology Study (PEIL, 2003) may also be of interest	Noted for information purposes
27.	Conservation Halton's landholdings in the study area consist of the Crawford Lake Conservation and Resource Management Areas. Staff requests that impacts to CH's landholdings, both direct and indirect, be considered as part of the EA process	As part of the evaluation process of the alternative design concepts, impacts to all adjacent land areas, including CH's landholdings will be considered as part of the Class EA process
28.	The Crawford Lake Conservation Area is one of the most accurately dated pre¬-contact archaeological sites in Canada. Adjacent lands may also contain significant First Nations artifacts	(CH Points 28 and 29) – Both First Nations and the MNR were included as technical agency contacts and will continue to be solicited for input on this study throughout the Class EA process
29.	The Ontario Ministry of Natural Resources may need to participate in the EA process if there are implications regarding the Lakes and Rivers Improvement Act. Please note that Conservation Halton does not screen for LRIA implications on behalf of OMNR	
Comments on the Summary of Natural Environmental Assessment Project Scope		
30.	The Environmental Study Report should include a table in the methodology section showing staff, date, time, weather conditions and purpose of all fieldwork	Documentation will be provided in the ESR outlining all data collection methods and dates information was collected, etc.
31.	Conservation Halton's Environmental Impact Study Guidelines should be consulted. The guidelines are available on CH's website at http://www.conservationhalton.ca/ShowCategory.cfm?subCatID=1168	Noted for information purposes
32.	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	Conservation Halton has indicated that the study area should "encompass a minimum of 120 metres around the potential work areas". Similar to CH's comments for a 50 metre vegetation inventory for the entire length of proposed works, access beyond the road allowance for flora and fauna surveys is very difficult given the private land ownership along the road and is not considered appropriate in terms of measuring impacts related to

No.	Conservation Halton Comments	Response/Comment
		potential road improvements
33.	A botanical inventory and surveys for butterflies and odonates should also be included in the workplan	Butterflies and notable insects are typically noted during field assessment through incidental sightings. We have not included a survey of butterflies and odonates (dragonflies) as part of this study
34.	Please use standard inventory methodology (i.e., OBBA, March Monitoring Program) where applicable. For other taxa, please thoroughly describe methodology and ensure that search efforts are well documented in the ESR	In general, these requirements have already been accounted for as part of the original natural sciences work program for the Guelph Line Class EA study

Guelph Line (Regional Road 1) Transportation Corridor Improvements

Class Environmental Assessment Study

1 Kilometre North of Derry Road (Regional Road 7) to Conservation Road, Town of Milton

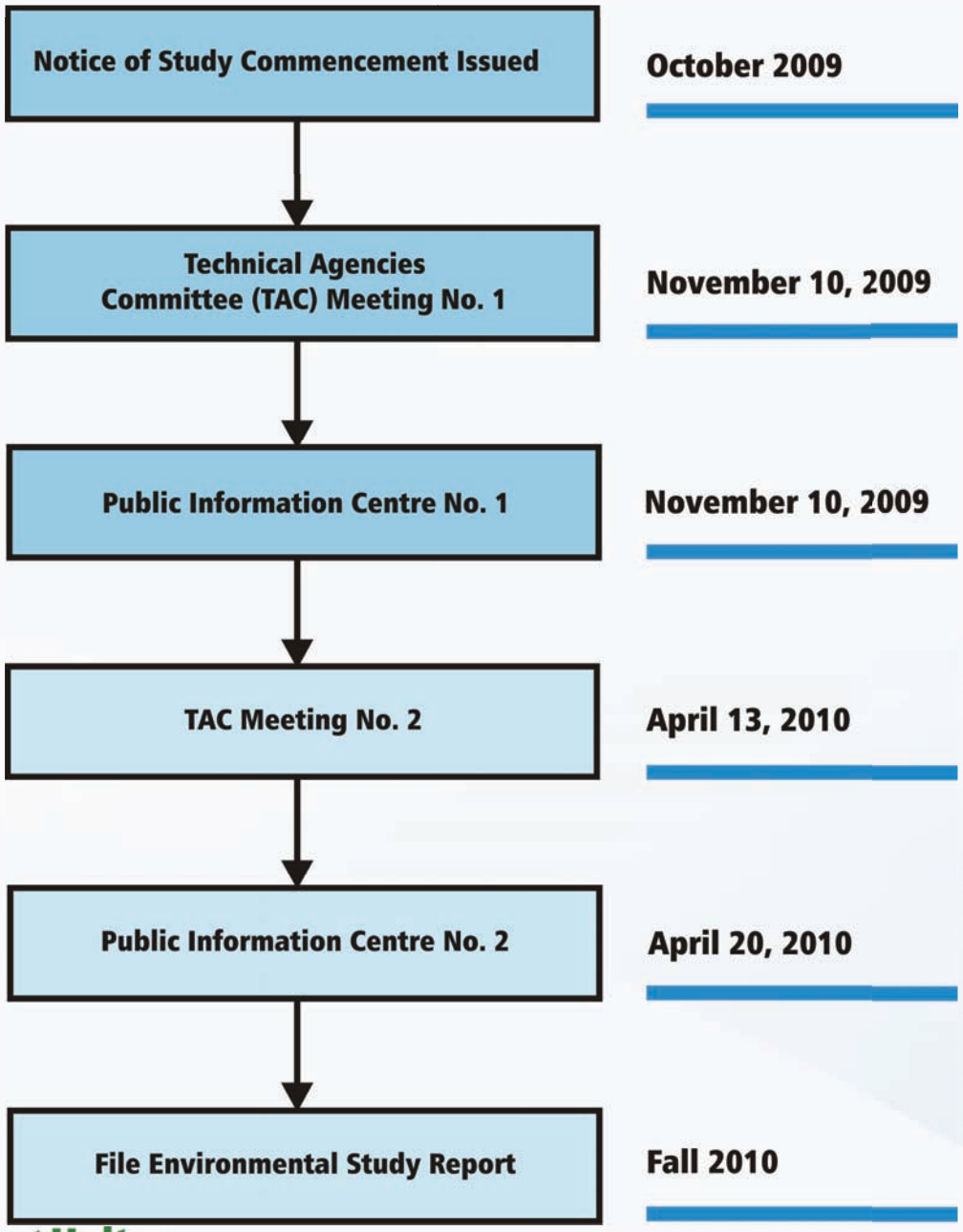
Conservation Halton

April 1, 2010

Study Area


Conservation Road
Guelph Line (Regional Road 1)
STUDY AREA
Derry Road (Regional Road 7)

Study Timetable



Problem Statement

"Presently, Guelph Line (Regional Road 1) has a number of opportunities for improvement which will increase the overall safety of the corridor including the potential reduction in the number and severity of collisions"

Key Considerations and Issues

- **Transportation**
  - Integration with Overall Transportation Network
  - Existing Operational Issues
  - Future Corridor Travel Demands
  - Access
  - Roadway Cross-Section Elements
  - Safety
- **Structural**
  - Watercourse Culverts
- **Natural Environment**
  - Provincially Significant Wetlands
  - Woodlands
  - Creek Crossings
  - Drainage and Stormwater Management
  - Provincial Greenbelt Plan
  - ESAs

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**

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*.

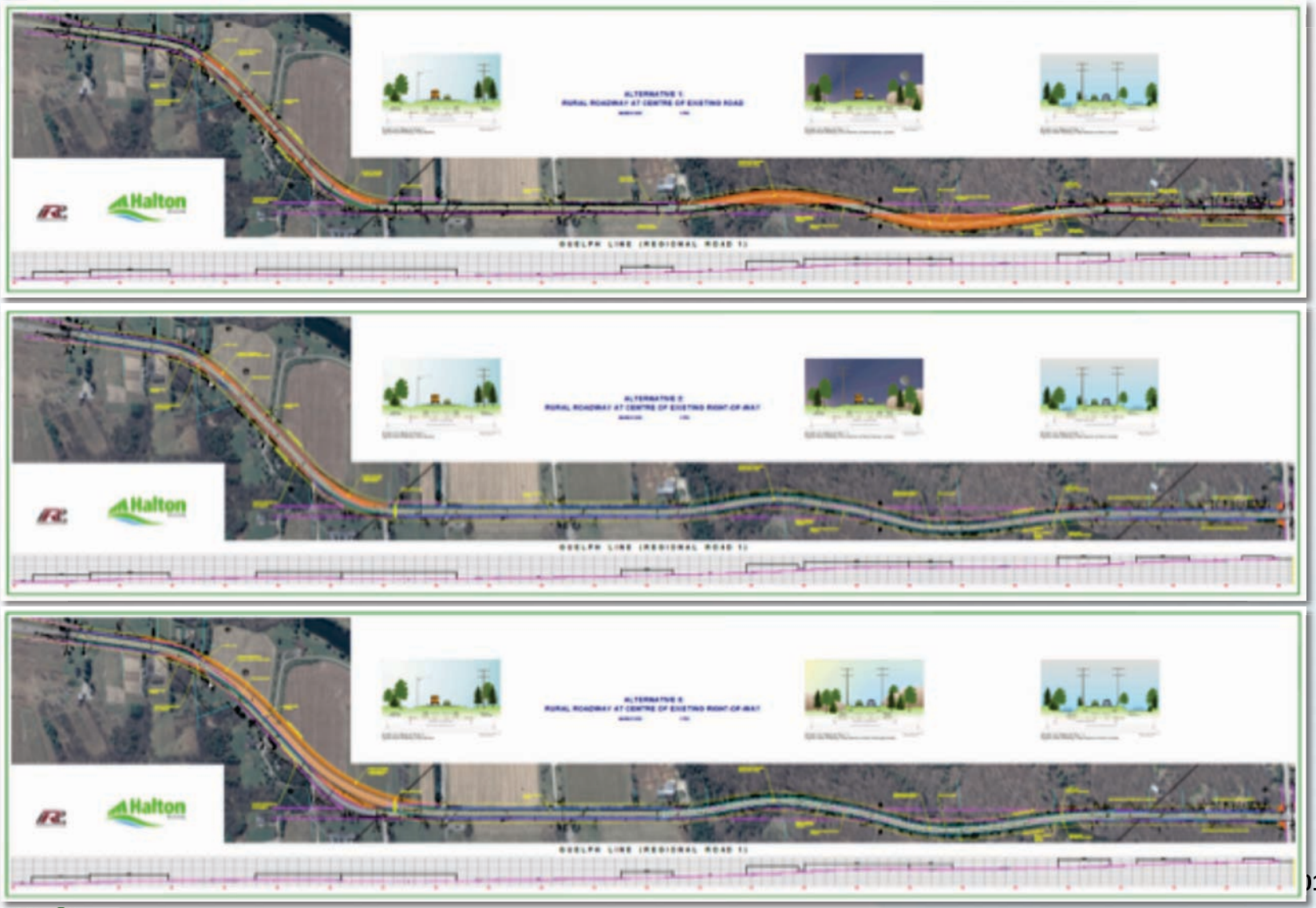
Alternative Design Concepts – Guelph Line

- **"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 minimum horizontal curve radius of 250 metres including a 2-lane rural road cross-section with 3.65 metre lanes and 2.5 metre partially paved shoulders (1.0 metre paved; 1.5 metres granular)
- **Alternative 2** – Centre roadway alignment within the existing right-of-way limits and provide a minimum curve radius of 250 metres including a 2-lane rural road cross-section with 3.65 metre lanes and 2.5 metre partially paved shoulders (1.0 metre paved; 1.5 metres granular)
- **Alternative 3** – Centre roadway alignment within the existing right-of-way limits and provide a minimum curve radius of 400 metres (consistent with roadway corridor) including a 2-lane rural road cross-section with 3.65 metre lanes and 2.5 metre partially paved shoulders (1.0 metre paved; 1.5 metres granular)

Alternative Design Concepts
(South of Conservation Road)

- **Alternative 1-A** – Provide a 2-lane rural road cross-section with 3.65 metre lanes and 2.5 metre partially paved shoulders (1.0 metre paved) with guiderail protection where required
- **Alternative 1-B** – Provide an 2-lane urban road cross-section with 3.65 metre lanes and 1.0 metre paved shoulders with curb and gutter, guiderail protection, and retaining walls where required

Discussion of Alternative Design Concepts



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

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

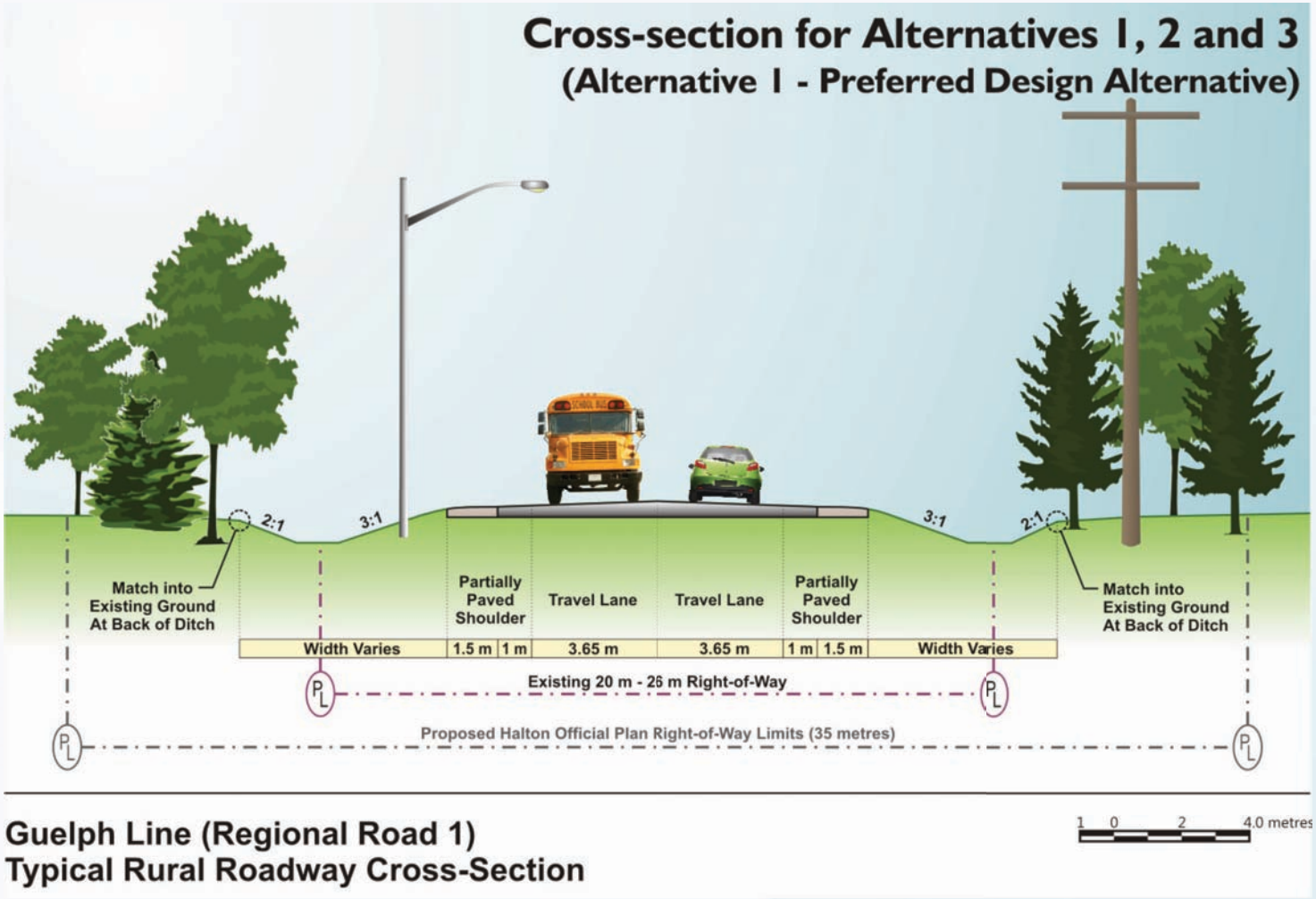
Preferred Design Alternative

- 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) and drainage ditches
  - Maintain the existing horizontal roadway alignment along the existing roadway centreline, for the most part, with vertical alignment improvements where practical. Horizontal alignment improvements near the S-bends to meet 250 metre diameter radius geometric standards
  - Provision of an urban 2-lane cross-section for the section of Guelph Line south of Conservation Road including 3.65 metre travel lanes, 1.0 metre paved shoulders with curb and gutter with guide rail, and retaining walls where required to increase safety and minimize potential impacts to the adjacent conservation lands, rock outcrops and pond areas

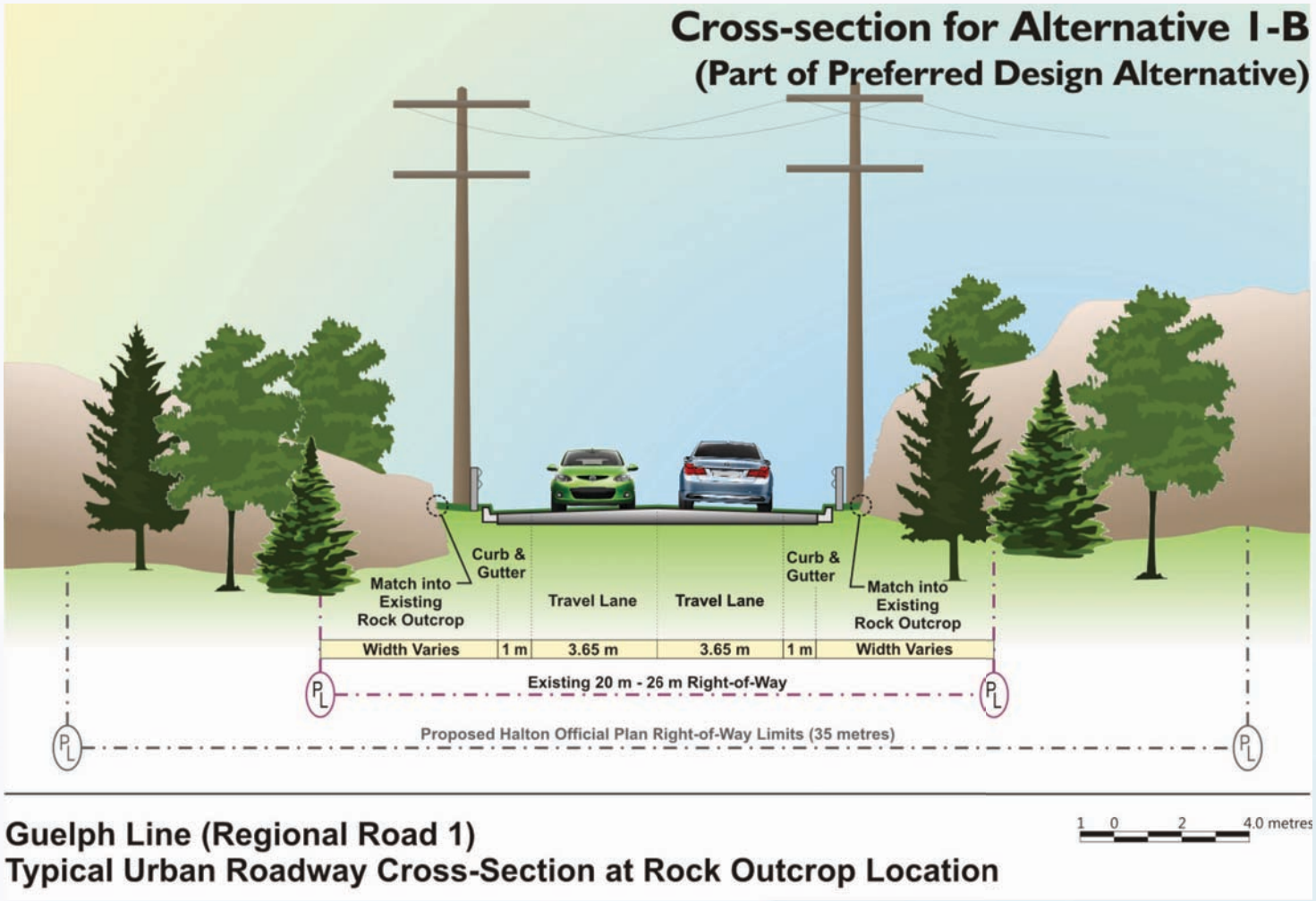
Preferred Design Alternative (Cont'd)

- Replacement of existing drainage culverts with new larger culvert crossings along Guelph Line to improve drainage conditions and to provide improved passage for native species
- Additional property required at S-bends to accommodate minimum 250 metre radii horizontal curves
- Minimal impacts to sensitive lands south of Conservation Road and to overall Natural, Socio-Economic and Cultural Environments while meeting upgraded Regional standards

Preferred Design Alternative – Cross-Sections

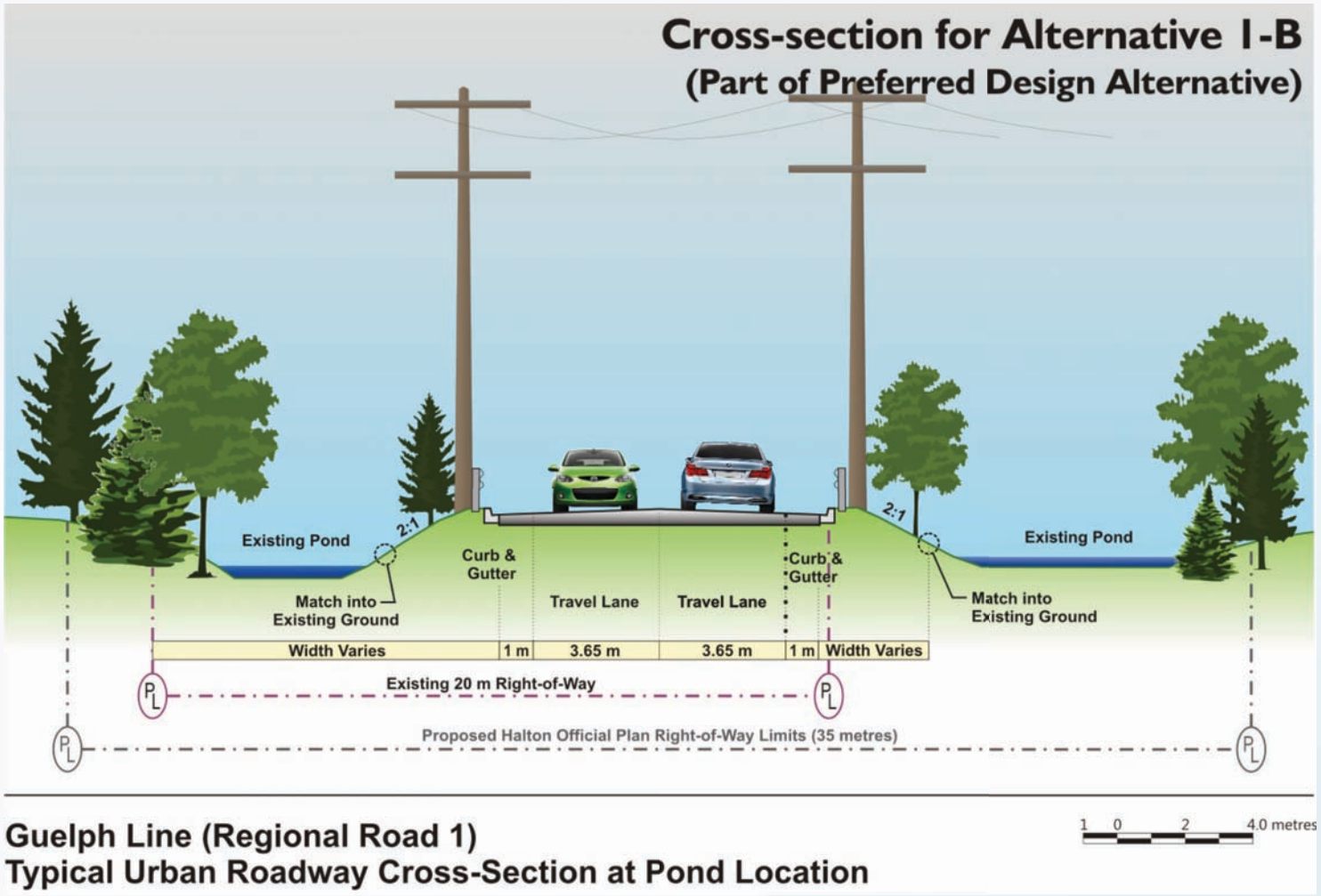


Preferred Design Alternative – Cross-Sections



Guelph Line (Regional Road 1)
Typical Urban Roadway Cross-Section at Rock Outcrop Location

Preferred Design Alternative – Cross-Sections



Guelph Line (Regional Road 1)
Typical Urban Roadway Cross-Section at Pond Location

Thank You for Attending

Guelph Line (Regional Road 1) Transportation Corridor Improvements

Class Environmental Assessment

1 Kilometre North of Derry Road (Regional Road 7) to Conservation Road

Town of Milton

Meeting Minutes

TITLE: **Guelph Line (PR-2596) Transportation Corridor Improvements Class Environmental Assessment**

FILE: RR-09-024

MEETING NO: 1 [1]

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:

1. Welcome and Introduction

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

2. Meeting Discussion

a. Overview of Class Environmental Assessment Study

- RH presented PowerPoint presentations for Guelph Line and summarizing the following:
  - 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 Guelph Line Class Environmental Assessment Study.

- Roadway Cross-Sections

b. Discussion of Alternative Design Concepts

- *Guelph Line Class EA Study* - RG discussed the three alternatives as follows:
  - **Alternative 1** – Widening about the existing roadway centerline including two 3.65 metre lanes, 2.5 meter partially paved shoulders (1.0 metre partially paved) and incorporating a 250 metre radius horizontal curve.
  - **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.
  - **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 a 400 metre radius horizontal curve.
  - The ***Preferred Alternative*** will be based on Alternative 1 and refined to accommodate future drainage facilities (i.e. catch basins and storm sewers) within the northern section of Guelph Line south of Conservation Road. This section of Guelph Line will be designed to an urban standard cross-section with two 3.65 metre lanes and 1.0 metre shoulders with curb and gutter to minimize potential impacts to adjacent properties.
  - There was a concern raised about the drainage flows crossing underneath the roadway. It was noted that there could be existing "karst" formations within the northern section which would need to be confirmed during the detail design phase.
  - It was noted that there may be "Jefferson Salamander" within the project limits. In order for the salamanders to cross Guelph Line it was suggested that cross culverts be installed to allow the salamanders to cross. RG suggested that a smaller separate diameter culvert could be installed at a slightly higher elevation than the existing or future drainage culverts (i.e. those designed for the 25-year storm event). This smaller culvert would then provide the main access for the salamanders under drier conditions. During construction, there will need to be special efforts put forward to ensure the salamanders are not adversely affected, particularly during

NO.	DESCRIPTION	ACTION BY:

breeding season.

- There was a question regarding Guelph Line's designation as an Emergency Detour Route (EDR). Halton staff to verify. Subsequent to the meeting it was confirmed by the Region's Transportation Services Operations' Group that neither study area section of Guelph Line or Derry Road is part of the current EDR.

o *General*

- CH advised the Region Study Team to contact MNR regarding potential permitting requirements under the 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. **R and R LCA**

c. Guelph Line Transportation Corridor Improvements Class Environmental Assessment Study – Items related to March 6, 2010 Halton Region Response Letter

o Conservation Halton issues noted in their January 4, 2010 Letter (CH File: MPR 527) have been addressed by the information provided in the Halton Region Response Letter.

o Stage I Archaeological Assessment report to be circulated to CH for their information. **R and R**

3. Other Items

a. Preferred Alternative

- Refine Alternative Design Concepts – The "Preferred Alternative" for each study will be based on Alternative 1 for Guelph line 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.

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.

Rick Goertz, P.Eng.,
Principal

Guelph Line (Regional Road 1) Transportation Corridor Improvements

Class Environmental Assessment Study

1 Kilometre North of Derry Road (Regional Road 7) to
Conservation Road, Town of Milton

Technical Agencies Committee (TAC) Meeting No. 2

April 13, 2010

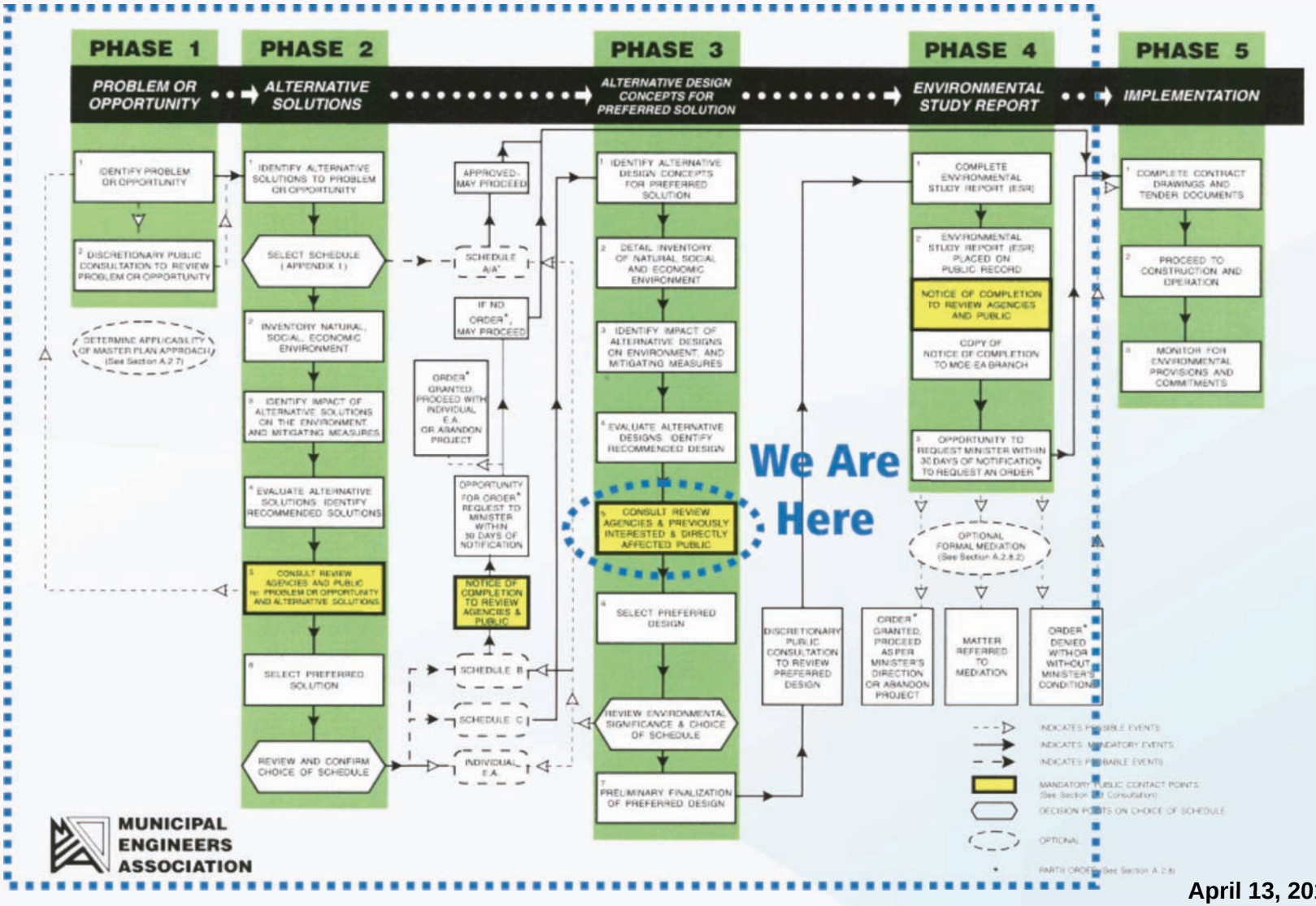
Purpose of TAC Meeting No. 2

- To provide TAC with an overview of the study:
  - 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

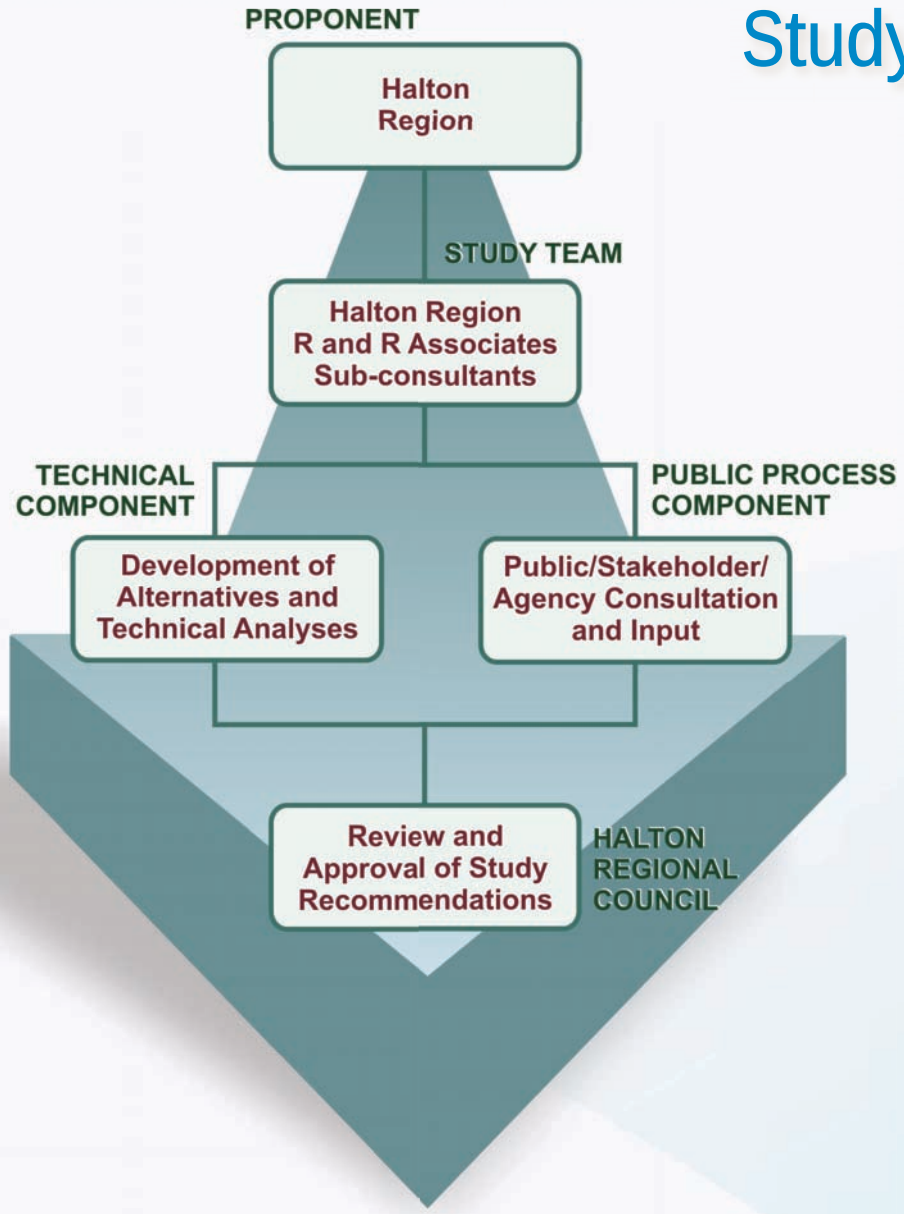
Study Process

- 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

Class EA Planning and Design Process



Study Organization



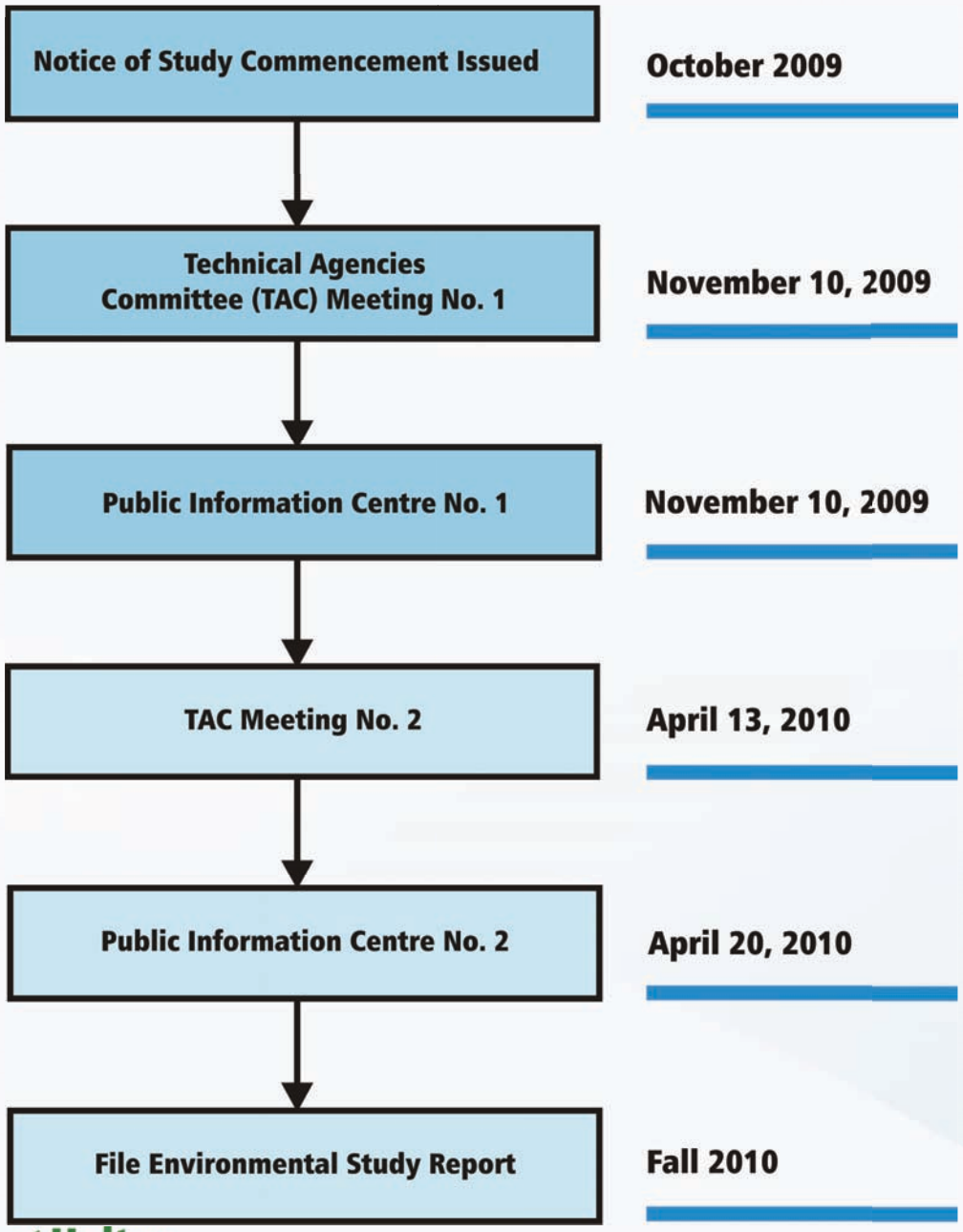
Study Background

- The Study Area, located within the Town of Milton, extends from Conservation Road to 1 km north of Derry Road, a distance of approximately 2 km in length
- The posted speed limit is 60 km/hr with a STOP controlled intersection at Conservation Road and a signalized intersection at Derry Road (Regional Road 7)
- The Guelph Line corridor within the study area limits is functionally designated as a Major Arterial roadway with a two-lane rural road cross-section
- The existing right-of-way limit varies from about 20 to 26 metres with the ultimate right-of-way designated at 35 metres in the Regional Official Plan
- In the summer of 2008, the resurfacing of Guelph Line was completed. The resurfacing addressed immediate concerns with respect to the current poor condition of the roadway until such time that the Class EA process could be initiated to review the entire Guelph Line corridor

Study Area


Conservation Road
Guelph Line (Regional Road 1)
STUDY AREA
Derry Road (Regional Road 7)

Study Timetable



Problem Statement

"Presently, Guelph Line (Regional Road 1) has a number of opportunities for improvement which will increase the overall safety of the corridor including the potential reduction in the number and severity of collisions"

Key Considerations and Issues

- **Transportation**
  - Integration with Overall Transportation Network
  - Existing Operational Issues
  - Future Corridor Travel Demands
  - Access
  - Roadway Cross-Section Elements
  - Safety
- **Structural**
  - Watercourse Culverts
- **Natural Environment**
  - Provincially Significant Wetlands
  - Woodlands
  - Creek Crossings
  - Drainage and Stormwater Management
  - Provincial Greenbelt Plan
  - ESAs

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**

Recommended Planning Solution

- The Recommended Planning Solution—**A Combination of Roadway Improvements 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 as required; and
  - Improve roadway and roadside drainage through enhancements to the road grades and profiles, replacement of drainage culverts, and provision of proper roadside ditches;

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

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

Design Alternatives

- Roadway improvement alternative design concepts were developed on the basis of the following:
  - Traffic Operations and Safety Review (Collision Analysis)
  - 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

Design Alternatives

- Roadway improvement 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 Design Alternative*.

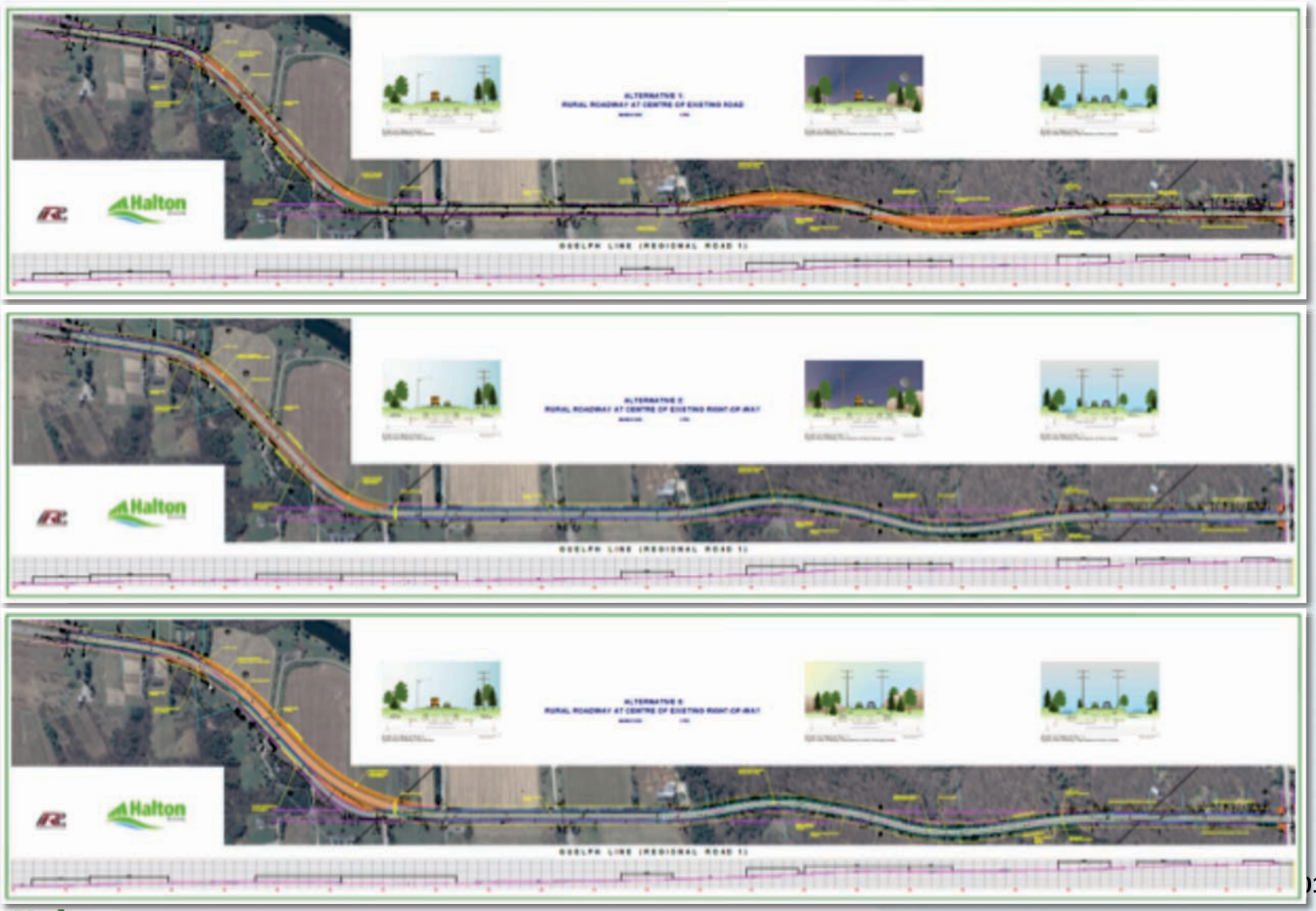
Design Alternatives – Guelph Line

- **"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 minimum horizontal curve radius of 250 metres including a 2-lane rural road cross-section with 3.65 metre lanes and 2.5 metre partially paved shoulders (1.0 metre paved; 1.5 metres granular)
- **Alternative 2** – Centre roadway alignment within the existing right-of-way limits and provide a minimum curve radius of 250 metres including a 2-lane rural road cross-section with 3.65 metre lanes and 2.5 metre partially paved shoulders (1.0 metre paved; 1.5 metres granular)
- **Alternative 3** – Centre roadway alignment within the existing right-of-way limits and provide a minimum curve radius of 400 metres (consistent with roadway corridor) including a 2-lane rural road cross-section with 3.65 metre lanes and 2.5 metre partially paved shoulders (1.0 metre paved; 1.5 metres granular)

Design Alternatives
(South of Conservation Road)

- **Alternative 1-A** – Provide a 2-lane rural road cross-section with 3.65 metre lanes and 2.5 metre partially paved shoulders (1.0 metre paved) with guiderail protection where required
- **Alternative 1-B** – Provide an 2-lane urban road cross-section with 3.65 metre lanes and 1.0 metre paved shoulders with curb and gutter, guiderail protection, and retaining walls where required

Design Alternatives



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 Guelph Line 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 Guelph Line south of Conservation Road (northern section) were evaluated (i.e. Alternatives 1-A and 1-B)

Evaluation Matrix – Mainline

Evaluation Categories	Evaluation Criteria	ALTERNATIVE DESIGN CONCEPTS (Guelph Line Mainline)			
		"Do Nothing" Alternative	**Alternative 1**	**Alternative 2**	**Alternative 3**
		No improvements or changes would be made to solve the identified problem or opportunity—existing roadway remains in current state	Maintain current horizontal roadway alignment with a minimum horizontal curve radius of 250 metres and a rural road cross-section including 3.65 metre lanes, 2.5 metre partially paved shoulders (1.0 metre paved; 1.5 metres granular)	Centre roadway alignment within the existing right-of-way limits and provide a minimum curve radius of 250 metres while maintaining a rural road cross-section with 3.65 metre lanes, 2.5 metre partially paved shoulders (1.0 metre paved; 1.5 metres granular)	Centre roadway alignment within the existing right-of-way limits and provide a minimum curve radius of 400 metres while maintaining a rural road cross-section with 3.65 metre lanes, 2.5 metre partially paved shoulders (1.0 metre paved; 1.5 metres granular
TECHNICAL	• Capacity and Level of Service • Safety • Access • Active Transportation (e.g., Pedestrians and Cyclists) • Geometric Standards • Structural (i.e. Pavement) • Utility Relocations • Construction and Property Costs • Construction Staging	• No improvements for existing: ○ Vertical/horizontal alignments ○ Overall safety performance of the roadway corridor ○ Access to adjacent lands ○ Active Transportation modes • No utility impacts • No construction and property cost or construction staging required	• Provides improvements for existing: ○ Roadway geometrics ○ Safety performance improvements with the addition of 2.5 metre partially paved shoulders on each side of the roadway Access to adjacent lands ○ Access with improved roadway/driveway sightlines ○ Accommodation and increased safety of cyclists/pedestrians ○ Roadway surface with little impact beyond the current roadway width • Approximately 0.2 hectares of additional property required • Minimal impacts to adjacent properties during reconstruction	• Provides improvements for existing: ○ Roadway geometrics ○ Safety performance improvements with the addition of 2.5 metre partially paved shoulders on each side of the roadway Access to adjacent lands ○ Access with improved roadway/driveway sightlines ○ Accommodation and increased safety of cyclists/pedestrians ○ Roadway surface with little impact beyond the current roadway width • Additional reconstruction beyond that required for Alternative 1 due to location of horizontal alignment at S-bends • Approximately 0.25 hectares of additional property required • Some impacts to adjacent properties during reconstruction	• Provides improvements for existing: ○ Roadway geometrics (400 metre minimum radius) ○ Safety performance improvements with the addition of 2.5 metre partially paved shoulders on each side of the roadway Access to adjacent lands ○ Access with improved roadway/driveway sightlines ○ Accommodation and increased safety of cyclists/pedestrians ○ Roadway surface with little impact beyond the current roadway width • Extensive reconstruction beyond that required for Alternative 1 and 2 due to location of horizontal alignment at S-bends Approximately 0.88 hectares of additional property required • Major impacts to properties during reconstruction including the S-bend locations due to the larger 400 metre radii
		◔	●	◔	◐
NATURAL ENVIRONMENT	• Effects on Vegetation • Effects on Wildlife • Effects on Aquatic Ecology • Stormwater Management • Effects on Groundwater Resources	• No impacts to existing vegetation, wildlife and aquatic ecology • No utility impacts • No construction and property cost or construction staging required	• Minimal impacts on vegetation, wildlife and aquatic ecology due to roadway widening and drainage ditch installation • New drainage ditches along both sides of the roadway (also provides for water quality improvements) • New catch basins and storm sewer system in northern section to capture roadway stormwater runoff • Three existing cross culverts to be replaced with larger culverts	• Additional impacts on vegetation, wildlife and aquatic ecology near S-bend location in addition to road widening impacts due to horizontal alignment changes • New drainage ditches along both sides of the roadway (also provides for water quality improvements) • New catchbasins and storm sewer system in northern section to capture roadway stormwater runoff • Three existing cross culverts to be replaced with larger culverts	• Higher degree of impact on vegetation, wildlife and aquatic ecology near S-bend location in addition to road widening impacts due to horizontal alignment changes • New drainage ditches along both sides of the roadway (also provides for water quality improvements) • New catchbasins and storm sewer system in northern section to capture roadway stormwater runoff • Three existing cross culverts to be replaced with larger culverts
		◔	●	◐	◔
SOCIO-ECONOMIC ENVIRONMENT	• Land Use • Effects on Official Plans and other planning initiatives (e.g., Greenbelt Plan and Niagara Escarpment Plan) • Effects on business access/operations • Effects on residential and rural land uses • Potential property requirements • Noise and vibration effects • Aesthetics • Emergency access	• No impacts to existing land use, business access/operations, and residential/rural land uses • No improvements implemented vis-à-vis the Regional Transportation Master Plan • No property required • No noise and vibration impacts beyond current levels (traffic volumes expected to increase by 3% by 2031) • No improvements to the aesthetic nature of the roadway corridor or adjacent landscapes • No improvements to potential emergency response times	• No impacts to existing land use, business access/operations, and residential/rural land uses (Some temporary impacts during construction activities and driveway throats to be redefined to match into roadway) • Provides roadway improvements vis-à-vis the Regional Transportation Master Plan • Approximately 350 metres of linear frontage on the east side (~0.07 hectares) and 480 metres of linear frontage on the west side (~0.13 hectares) to accommodate S-bend. • Negligible change in noise levels—no alignment shift; no significant increase (3% increase by 2031) in traffic volumes • Improvements include wider shoulders, and vertical alignment/geometric improvements including roadside ditches and landscaping at S-bend • Some improvements to potential emergency access/response times due to improved roadway geometrics	• No impacts to existing land use, business access/operations, and residential/rural land uses (Some temporary impacts during construction activities and driveway throats to be redefined to match into roadway) • Provides roadway improvements vis-à-vis the Regional Transportation Master Plan • Approximately 250 metres of linear frontage on the east side (~0.05 hectares) and 470 metres of linear frontage on the west side (~0.2 hectares) to accommodate S-bend • Negligible change in noise levels—no alignment shift; no significant increase (3% increase by 2031) in traffic volumes • Improvements include wider shoulders, and vertical alignment geometric improvements including roadside ditches and landscaping at S-bend • Some improvements to potential emergency access/response times due to improved roadway geometrics	• No impacts to existing land use, business access/operations, and residential/rural land uses (Some temporary impacts during construction activities and driveway throats to be redefined to match into roadway) • Provides roadway improvements vis-à-vis the Regional Transportation Master Plan • Approximately 100 metres of linear frontage on the east side (~0.03 hectares) and 550 metres of linear frontage on the west side (~0.85 hectares) to accommodate S-bend • Negligible change in noise levels—no alignment shift; no significant increase (3% increase by 2031) in traffic volumes • Improvements include wider shoulders, and vertical alignment geometric improvements including roadside ditches and landscaping at S-bend • Some improvements to potential emergency access/response times due to improved roadway geometrics
		◔	◔	◔	●
CULTURAL ENVIRONMENT	• Effects on Built Heritage Features • Effects on Archaeological Resources	• No impacts on existing cultural heritage features or archaeological resources	• Potential or minor impacts to existing cultural heritage landscapes (i.e. mature tree lines) • Potential or minor disturbance to areas considered to possess 'archaeological potential' adjacent to the existing roadway and within the existing roadway right-of-way limits (western and eastern sections of study area) potentially requiring an Archaeological Stage II study.	• Potential for impacts to existing cultural heritage landscapes (i.e. mature tree lines and at S-bend location) • Potential for additional disturbance to areas considered to possess "archaeological potential" adjacent to the existing roadway and within the existing roadway right-of-way limits (western and eastern sections of study area and throughout the S-bend location) potentially requiring a Archaeological Stage II study	• Potential for impacts to existing cultural heritage landscapes (i.e. mature tree lines and at S-bend location) • Potential for additional disturbance to areas considered to possess "archaeological potential" adjacent to the existing roadway and within the existing roadway right-of-way limits (western and eastern sections of study area and throughout the S-bend location) potentially requiring a Archaeological Stage II study
		●	◔	◐	◐
SUMMARY COMMENTS		• **Does not meet the objectives of the Problem Statement:** ○ No improvements to the structural adequacy of the roadway; ○ No improvements to the roadway geometrics and roadway cross-section (i.e. the current horizontal/vertical alignments and narrow 3.3 metre cross-section without shoulders will remain); ○ No overall improvements to safety including provisions for active transportation modes; and ○ No drainage improvements (i.e. current lack of roadside ditches, and in some cases, undersized culverts will remain)	• **Meets the objectives of the Problem Statement:** ○ Improves the structural adequacy of the roadway; ○ Improves the roadway geometrics and roadway cross-section (i.e. vertical alignment improvements, 3.65 metre lane widths, and 2.5 metre partially paved shoulders); ○ Improves the overall safety performance of the roadway including provisions for active transportation modes (wider lanes and shoulders) and shoulder refuge areas for vehicles; ○ Drainage improvements include defined roadside ditches and larger; ○ Minor impacts to utilities; ○ Minimal impacts to the natural environment with no significant changes to the existing drainage pattern; and ○ Minor impacts anticipated for the Socio-economic and Cultural Environments	• **Meets the objectives of the Problem Statement:** ○ Improves the structural adequacy of the roadway; ○ Improves the roadway geometrics and roadway cross-section (i.e. vertical/horizontal alignment improvements, 3.65 metre lane widths, and 2.5 metre partially paved shoulders); ○ Improves the overall safety performance of the roadway including provisions for active transportation modes (wider lanes and shoulders) and shoulder refuge areas for vehicles; ○ Drainage improvements include defined roadside ditches and larger culverts; ○ Minimal impacts to the natural environment with no significant changes to the existing drainage pattern; ○ Greater impacts to existing utilities, residential properties, and higher construction cost; and ○ Greater impacts anticipated for the Natural, Socio-economic and Cultural Environments	• **Meets the objectives of the Problem Statement:** ○ Improvements to the structural adequacy of the roadway; ○ Improves the roadway geometrics and roadway cross-section (i.e. vertical/horizontal alignment improvements, 3.65 metre lane widths, and 2.5 metre partially paved shoulders); ○ Improves the overall safety performance of the roadway including provisions for active transportation modes (wider lanes and shoulders) and shoulder refuge areas for vehicles; ○ Drainage improvements include defined roadside ditches and larger culverts; ○ Minimal impacts to the natural environment with no significant changes to the existing drainage pattern; ○ Greater impacts to existing utilities, residential properties, and higher construction cost; and ○ Greater impacts anticipated for the Natural, Socio-economic and Cultural Environments
RECOMMENDATION		Not Recommended	**RECOMMENDED**	Not Recommended	Not Recommended

Evaluation Matrix – Northern Section

Evaluation Categories	Evaluation Criteria	ALTERNATIVE CROSS-SECTION DESIGN CONCEPTS (Northern Section of Guelph Line)	
		Alternative 1-A	**Alternative 1-B**
		Provide a **rural roadway** cross-section including 3.65 metre lanes, 2.5 metre partially paved shoulders (1.0 metre paved) with guiderail protection where required through the northern section of the study area	Provide an **urban roadway** cross-section including 3.65 metre lanes, 1.0 metre paved shoulders with curb and gutter, guiderail protection, and retaining walls where required through the northern section of the study area
TECHNICAL	• Capacity and Level of Service • Safety • Access • Active Transportation (e.g., Pedestrians and Cyclists) • Geometric Standards • Structural (i.e. Pavement) • Utility Relocations • Construction and Property Costs • Construction Staging	• Safety performance improvements with the addition of 2.5 metre partially paved shoulders (1.0 metre partially paved) on both sides of the roadway which will provide additional space for cyclists and pedestrians • Improved roadway surface with some impact beyond the current roadway width (i.e. ditch side slopes would match into existing ground without requiring additional "cuts/fills" where possible) • No additional property required • May require additional traffic control if any significant amount of rock cuts are required	• Safety performance improvements with the addition of 2.5 metre partially paved shoulders (1.0 metre partially paved) on both sides of the roadway which will provide additional space for cyclists and pedestrians • Improved roadway surface with less impact beyond the current roadway width (i.e. installation of retaining walls may be necessary to minimize impacts to existing ponds and/or rock outcrops) • No additional property required • Installation of urban cross-section and possibly retaining walls as required will reduce the amount/size of rock cuts • Installation of storm sewer will require lane closures
		◔	●
NATURAL ENVIRONMENT	• Effects on Vegetation • Effects on Wildlife • Effects on Aquatic Ecology • Stormwater Management • Effects on Groundwater Resources	• Some impacts on vegetation due to roadway widening and drainage ditch/roadway shoulder installation • Some impacts on aquatic ecology during construction • Rural cross-section will allow for sheet flow runoff to drainage ditches	• Minimal impacts on vegetation due to roadway widening and curb and gutter installation • Minimal impacts on aquatic ecology during construction • Urban cross-section will allow for directed flow runoff to drainage ditches further south
		◐	●
SOCIO-ECONOMIC ENVIRONMENT	• Land Use • Effects on Official Plans and other planning initiatives (e.g., Greenbelt Plan and Niagara Escarpment Plan) • Effects on business access/operations • Effects on residential and rural land uses • Potential property requirements • Noise and vibration effects • Aesthetics • Emergency access	• Wider shoulders and formalized drainage ditches • Total additional property required is approximately 0.045 hectares for daylighting	• Wider shoulders and formalized drainage ditches • Total additional property required is approximately 0.045 hectares for daylighting
		●	◔
CULTURAL ENVIRONMENT	• Effects on Built Heritage Features • Effects on Archaeological Resources	• No impacts to existing built heritage features • No impacts to existing archaeological resources	• No impacts to existing built heritage features • No impacts to existing archaeological resources
		●	●
SUMMARY COMMENTS		• **Meets the objectives of the Problem Statement:** ○ Improves the structural adequacy of the roadway; ○ Improves the roadway cross-section (i.e. 2.5 metre partially paved shoulders with toe of slope tie-in to existing ground); ○ Improves the overall safety performance of the roadway including provisions for active transportation modes (i.e. wider shoulders; ○ Drainage improvements include defined drainage ditches and larger roadway cross culverts, also improving stormwater quality; ○ Some impacts to utilities; ○ Some impacts to the Natural Environment (i.e. vegetation impacts due to wider road platform) with no significant changes to the existing drainage pattern; and ○ Minor impacts anticipated for the Socio-economic Environment with additional property required; and ○ Some impact to Conservation Halton lands within north section of roadway.	• **Meets the objectives of the Problem Statement:** ○ Improves the structural adequacy of the roadway; ○ Improves the roadway cross-section (i.e. 3.65 metre lane widths, and 1.0 metre paved shoulders with curb and gutter and retaining wall adjacent to creek area); ○ Improves the overall safety performance of the roadway including provisions for active transportation modes (wider lanes and shoulders; ○ Drainage improvements include defined drainage ditches and larger roadway cross culverts, also improving stormwater quality; ○ Minor impacts to utilities; ○ Some impacts to the Natural Environment (i.e. vegetation impacts) with no significant changes to the existing drainage pattern; and ○ Minor impacts anticipated for the Socio-economic Environment with additional property required.
RECOMMENDATION		Not Recommended	**RECOMMENDED**

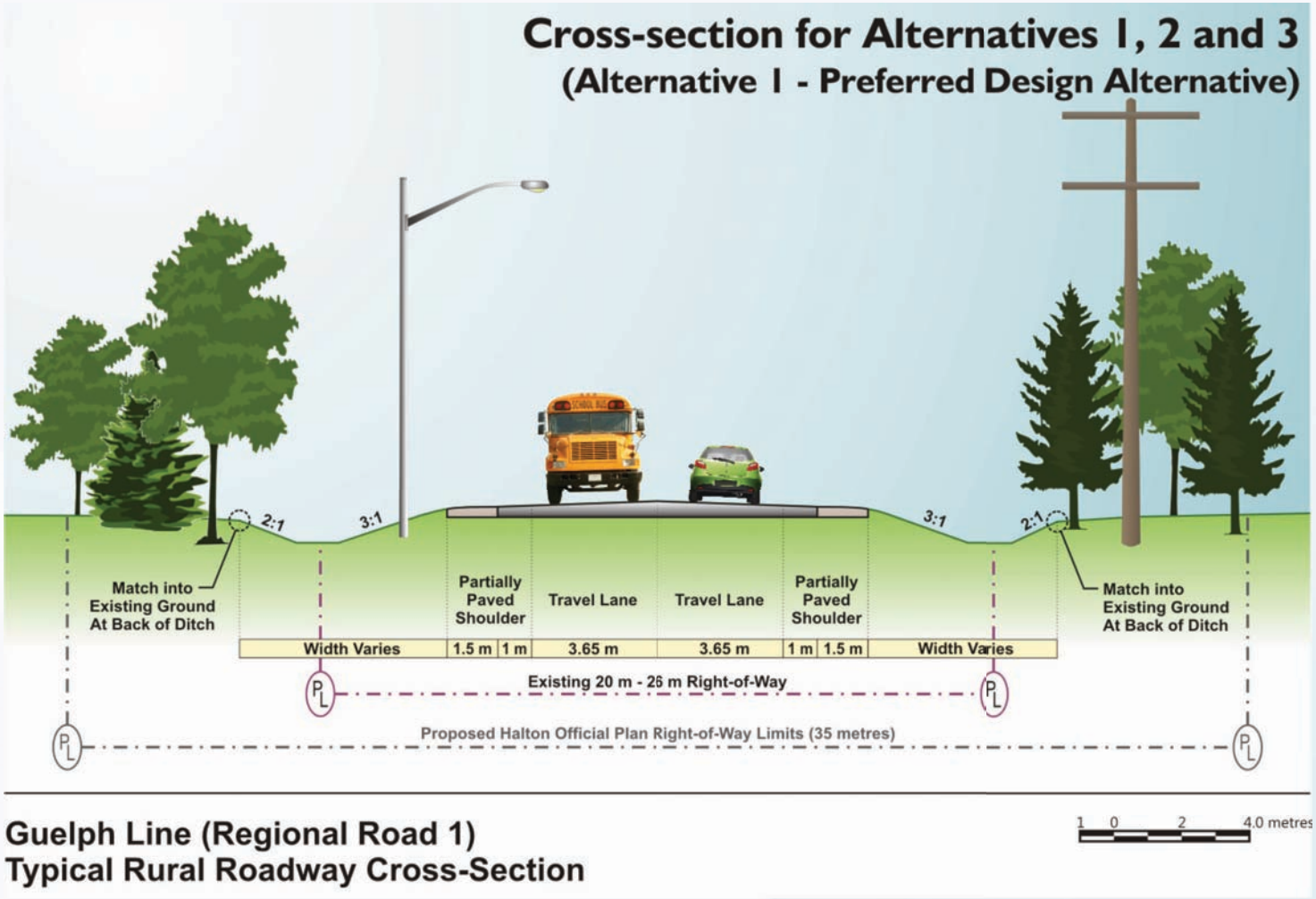
Preferred Design Alternative

- The cross-section of the Preliminary Preferred Design includes the following basic elements:
  - A 2-lane rural cross-section with 3.65 metre travel lanes and 2.5 metre partially paved shoulders (1.0 metre paved) and drainage ditches
  - Maintaining the existing horizontal roadway alignment along the existing roadway centreline, for the most part, with vertical alignment improvements where practical. Horizontal alignment improvements near the S-bends to meet 250 metre diameter radius geometric standards
  - Provision of 2-lane urban cross-section for the section of Guelph Line south of Conservation Road including 3.65 metre travel lanes, 1.0 metre paved shoulders with curb and gutter with guide rail, and retaining walls where required to increase safety and minimize potential impacts to the adjacent conservation lands, rock outcrops and pond areas

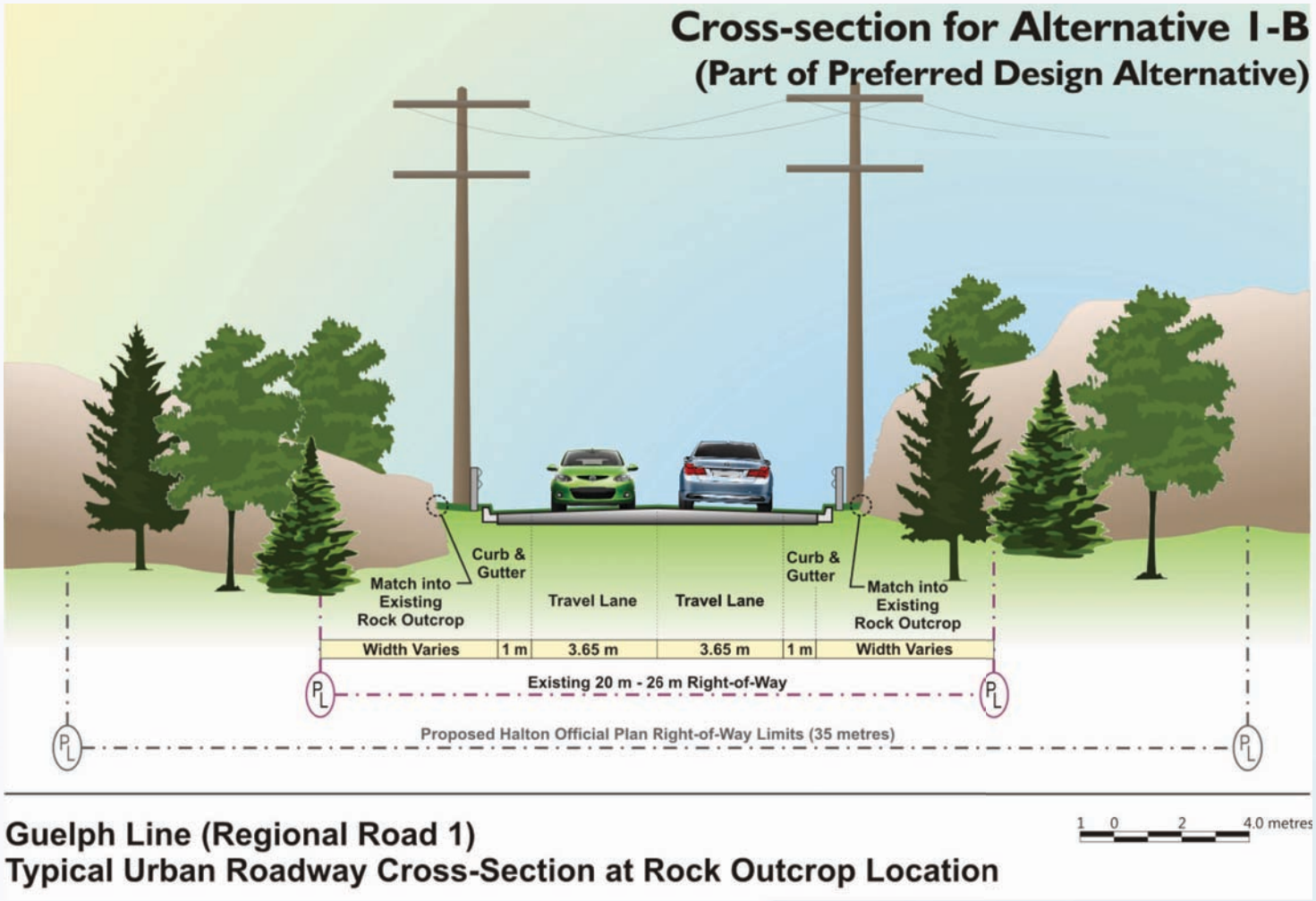
Preferred Design Alternative (Cont'd)

- Replacement of existing drainage culverts with new larger culvert crossings along Guelph Line to improve drainage conditions and to provide improved passage for native species
- Additional property required at S-bends to accommodate minimum 250 metre radii horizontal curves
- Minimizes potential impacts to sensitive lands south of Conservation Road and to overall Natural, Socio-Economic and Cultural Environments while meeting upgraded Regional standards

Preferred Design Alternative – Cross-Sections

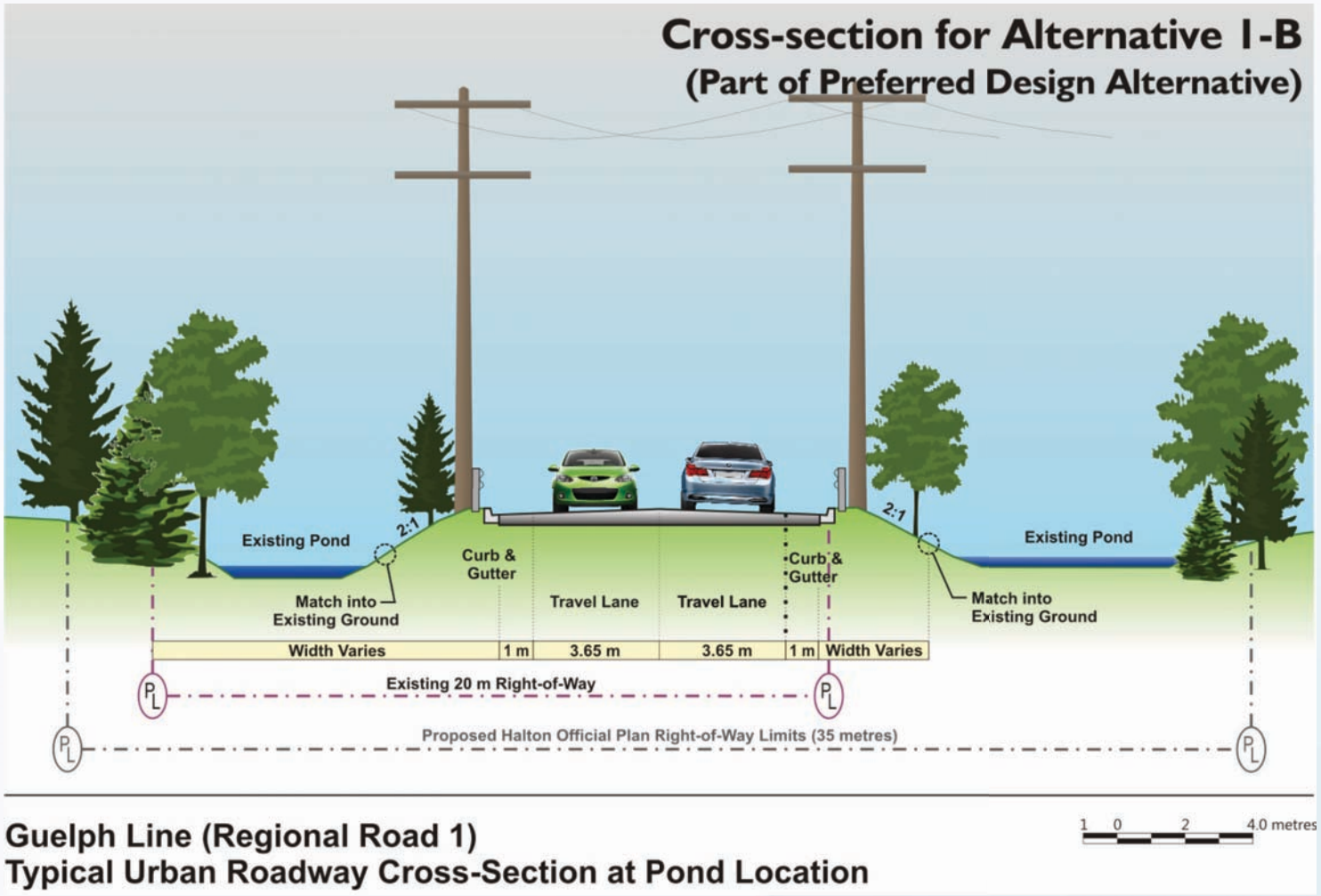


Preferred Design Alternative – Cross-Sections



Guelph Line (Regional Road 1)
Typical Urban Roadway Cross-Section at Rock Outcrop Location

Preferred Design Alternative – Cross-Sections



Guelph Line (Regional Road 1)
Typical Urban Roadway Cross-Section at Pond Location

Next Steps

- Conduct Public Information Centre No. 2 on April 20, 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

Technical Agencies Committee Meeting No. 2

Thank You for Attending

Guelph Line (Regional Road 1) Transportation Corridor Improvements

Class Environmental Assessment

1 Kilometre North of Derry Road (Regional Road 7) to Conservation Road

Town of Milton

TITLE:	Guelph Line Transportation Corridor Improvements Class Environmental Assessment
FILE:	RR-09-024
TIME/DATE:	April 13, 2009 at 1:30 p.m.
LOCATION:	Hugh Foster Hall, 141 King Street, Milton, Ontario
PURPOSE:	Technical Agency Committee Meeting #2
ATTENDEES:	John Brophy (JB) – Town of Milton Alicia Jakaitis (AJ) – Halton Region Jeff Reid (JR) – Halton Region Rick Hein (RH) – R and R Associates Rick Goertz (RG) – R and R Associates

No.	Description
1.	RH welcomed JB to the meeting. RH then made a formal presentation and responded to questions from the TAC member attending the meeting.
2.	JB asked how many individuals attended the first PIC for the study. RH responded that there were three individuals in attendance. JR added that several individuals wanted to attend but couldn't make it. JB asked when the second PIC would be conducted. RH responded that PIC No. 2 is scheduled for Tuesday, April 20, 2010 and that the various alternatives will be on display for the public to view and comment on at that time. AJ indicated that she would forward a copy of the PIC No. 2 advertisement to JB via e-mail for his information. JB reviewed Design Alternative #1 with Halton and R and R Associates staff. RH noted that Alternative #1 was being carried forward as the *Preferred Design Alternative* and would be modified, where necessary, based on the comments received from TAC members and from the public. RG explained the proposed drainage improvements associated with the alternative including drainage ditches proposed for the southern section and storm sewers proposed for the northern section along with an urban curb and gutter cross-section. AJ noted that the existing mushroom farm was slated to expand production in the future. Note: 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 2:30 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.

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