



Regional Municipality of Halton

**New North Oakville Transportation Corridor and Crossing of Sixteen Mile Creek
Class Environmental Assessment Study**

FINAL
Environmental Study Report

March 2010

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EXECUTIVE SUMMARY

Environmental Assessment Study and Report

The Regional Municipality of Halton (Halton Region) initiated this Class Environmental Assessment (EA) Study in the fall of 2004 to identify existing and future transportation problems and opportunities in the Study Area and to determine a preferred solution. This EA was undertaken in accordance with Schedule 'C' of the *Municipal Class Environmental Assessment, June 2000* which was the policy in effect at the project initiation. In 2007 the Municipal Engineers Association (MEA) completed a five year review of the Class EA and proposed a series of amendments that included a new component for municipal transit projects as well as revisions to existing schedules to reflect changes in legislation and planning practices. The amendments were approved by the Minister of Environment in September 2007. This Class EA and the Environmental Study Report (ESR) are compliant with the amended Class EA document.

Several previous studies undertaken by Halton Region and others had identified the need for improvements to the Burnhamthorpe Road transportation corridor. This report documents the planning and preliminary design components for what is now known as the New North Oakville Transportation Corridor (NNOTC) and Crossing of Sixteen Mile Creek Class EA Study.

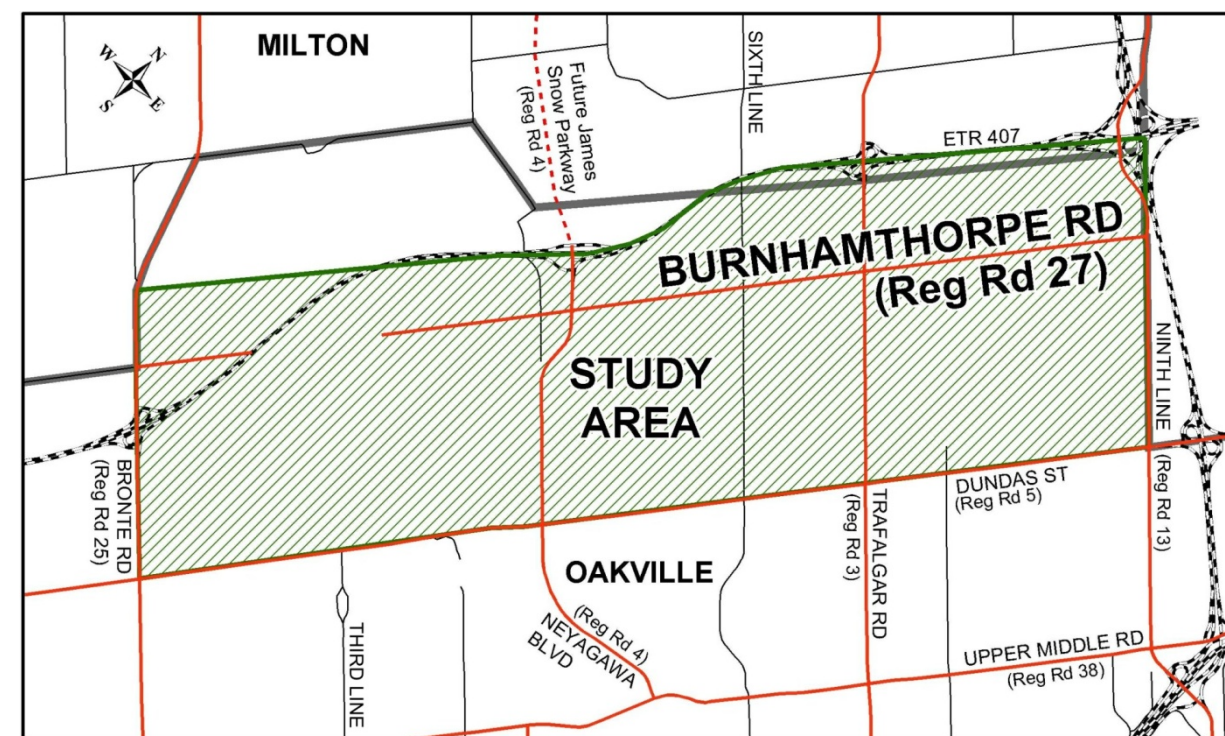
The ESR documents the planning and decision making process, including public-consultation, which was followed to arrive at the preferred design. The ESR also sets out mitigating measures proposed to avoid or minimize environmental impacts both during and after construction.

Specifically, this ESR documents:

- the background to the study;
- the consultation process;
- the need and justification for the study;
- description of existing conditions;
- the alternative solutions and design concepts;
- description of the recommended design; and
- monitoring and mitigation during and after construction.

Background

The Study Area was established by Halton Region and includes the area of Burnhamthorpe Road bounded to the north by 407 ETR, to the east by Ninth Line (Regional Road 13), to the west by Bronte Road (Regional Road 25), and to the south by Dundas Street (Regional Road 5).



Some of the key issues identified by previous studies included:

- The need to provide for all modes of travel in the corridor including automobiles, trucks, transit, pedestrians and cyclists;
- Provision of safe access to adjacent existing and planned commercial, institutional and residential developments;
- Consideration of impacts on Sixteen Mile Creek and the Trafalgar Moraine;
- Consideration of aesthetics, streetscape, safety, noise, property impacts and other community issues;
- Recognition of transit opportunities along Burnhamthorpe Road; and
- Planned levels of population and employment growth for determination of future travel demand.

Within the Study Area of this Class EA, the following tasks were undertaken:

- Identify existing and long-term mobility requirements in the New North Oakville Transportation Corridor based upon realistic and achievable estimates for future growth within and adjacent to the Study Area. For the purpose of this study, the 2011 and 2021 planning horizons were considered;
- Examine the need and justification for transportation improvements in the New North Oakville Transportation Corridor to not only resolve existing traffic congestion but more importantly to efficiently and safely accommodate long term transportation demands for all modes of travel;
- Identify significant technical, environmental and public issues, concerns and constraints associated with the provision of additional vehicular capacity within the Study Areas;
- Identify a broad range of planning alternatives that recognize the contribution of various modes of travel (e.g. auto, walking, cycling, transit);
- Complete an assessment of alternative planning solutions and design concepts that incorporates the concerns and values of the public and affected agencies/Ministries, etc.;
- Identify measures needed to mitigate impacts and public concerns associated with the recommended improvements;
- Prepare a preliminary design for the improvements; and

- Prepare an ESR that documents all public input and comments and complies with the requirements of the Municipal Class Environmental Assessment for Schedule "C" undertakings.

As noted previously, the Class EA Study for the NNOTC and Crossing of the Sixteen Mile Creek was initiated in the fall of 2004. The overall study schedule was extended in order to better coordinate with the planning process for lands in North Oakville. The North Oakville East Secondary Plan was approved by the Ontario Municipal Board in January 2008 while the North Oakville West Secondary Plan was approved in May 2009 by Oakville Council.

Study analyses and results were documented as each phase of the Study was completed. Individual components were then assembled to form this ESR. This documentation process allowed for more timely review and endorsement of Study recommendations as each milestone was reached. Information distributed or presented to agencies, stakeholders and the public at Study milestones (appended to this ESR) occasionally make reference to studies, reports, plans or data that have since been updated. Although data and/or assumptions used in Study analyses were the most current available at the time the work was performed, in some cases such information has been revised or new data has become available. For example, future population and employment estimates (Region of Halton Best Planning Estimates of Population, Occupied Dwelling Units and Employment 2007 – 2021) for North Oakville were revised subsequent to the completion of the Study need and justification component. New traffic count data on the area road network became available and other relevant studies were completed as the Study progressed.

In order to ensure the Study recommendations and conclusions for the need and justification have remained valid, checks of critical assumptions were made. Transportation and transit data, policies and plans and travel demand forecasts that were used to support the rationale for road network improvements have been rechecked with the data available in spring 2008. Report documentation has been updated where appropriate.

Need and Justification

In order to evaluate the existing roadway conditions within the Study Area, the following roads were analysed:

- Dundas Street (Regional Road 5);
- Burnhamthorpe Road (Regional Road 27);
- Bronte Road (Regional Road 25);
- Neyagawa Boulevard (Regional Road 4);
- Sixth Line;
- Trafalgar Road (Regional Road 3) and;
- Ninth Line (Regional Road 13).

A review of existing and future conditions indicates:

- East-west travel across the Study Area is approaching capacity;
- Individual east-west roadways within the Study Area are already operating at or beyond capacity;
- Even with the implementation of planned transportation improvements in the Study Area (e.g. Dundas St. widening) capacity deficiencies will occur with the approved level of development, unless additional improvements/capacity are provided; and
- The travel demand forecasting analysis was adjusted to account for revisions to population and employment forecasts. Results confirm the need for additional east-west capacity through the Study Area from Bronte Road (Regional Road 25) to Ninth Line (Regional Road 13).

Planning Alternatives

The following "long list" of alternative solutions was identified to address the need for transportation improvements within the Study Area. Road system expansion alternatives include those east-west transportation corridors that have

both reasonable proximity to the Study Area and potential to address problems/opportunities. The degree of widening for each alternative is defined on the basis of the number of additional lanes that could reasonably be added to existing corridors and the capacity required to adequately accommodate future east-west travel demand through the Study Area.

Do Nothing

- Included as a benchmark for the assessment of the other alternatives
- Involves no physical and/or operational modifications to transportation infrastructure in the Study Area

Transportation System Improvements (non-expansion)

- Transportation Demand Management (TDM) - reduce auto usage (e.g. car pooling, land use planning)
- Transportation Systems Management (TSM) - maximize existing road capacities for all modes (e.g. signal optimization, transit signal priority, intersection improvements, transit queue jump lanes)
- Transit Service Enhancements (e.g. service increases that do not trigger major road expansion such as increased frequency of service and new routes)

Provide Transit Supportive/Dedicated Infrastructure

- Reserved Bus Lanes, Light Rail Transit

Road System Expansion (Bronte Road to Ninth Line)

- Widen Highway 407 – the 407 corridor has provision to expand the freeway up to 10 lanes
- Widen Dundas Street to 10 lanes
- Widen Lower Baseline to 4 lanes
- Widen Burnhamthorpe corridor to 4 lanes (existing or new alignment)

This long list of alternative solutions was reviewed with Project Team members, the Technical Agencies Committee and the Stakeholder Group to "screen-out" unsuitable alternatives and ensure that only the alternative solutions that adequately address the identified transportation problems/opportunities were carried through to the detailed assessment. Based on this extensive review, three alternative solutions were carried forward for a more detailed assessment: widening Dundas Street, widening the Burnhamthorpe corridor and "Do Nothing". Although the "Do Nothing" alternative solution does not address the identified transportation problems/opportunities, it was carried forward for further assessment as a benchmark for comparison.

Thorough assessment of the three alternative solutions (developed in consultation with public and agency stakeholders) resulted in the widening of Burnhamthorpe Road on an existing or new alignment as the preferred alternative over Dundas Street widening on the basis of the following rationale:

Transportation Criteria

- Travel safety can be an issue with 8 to 10 general purpose lanes within the Dundas Street corridor.
- Dundas Street widening to 8 to 10 lanes is not compatible with the Halton Region Transportation Master Plan or North Oakville development plans.
- Dundas Street has been identified as a future rapid transit corridor which would be less effective with 8 to 10 general purpose lanes.

Natural Environment

- Burnhamthorpe Road widening has fewer impacts to natural environmental features/systems with the exception of groundwater and surface water drainage.

Social/Cultural/Economic Environment

- Burnhamthorpe Road has fewer impacts on most criteria except for potential impacts to archaeological resources.
- Burnhamthorpe Road has less potential impacts to individual residential properties (displacements plus property impacts, especially to frontage) than a Dundas Street widening.

Engineering/Cost

- Dundas Street widening has higher engineering impacts in terms of construction staging, utility relocations and number of affected properties.
- Costs of Dundas Street widening and Burnhamthorpe Road widening may be comparable. Burnhamthorpe Road costs are route dependent as the highest costs relate to length of route and location and length of the Sixteen Mile Creek crossing. Widening the Burnhamthorpe corridor on its existing alignment would also require a new bridge crossing over Highway 407.

Design Alternatives

A long list of route alternatives was first identified by the Project Team based on constraint mapping, field investigations and input from external agencies. Through further consultation with stakeholders, additional route suggestions were added to the long list of route alternatives. Each route alternative was assessed against Transportation Engineering, Natural Environment and Social Environment screening criteria. The screening process removed route alternatives considered to be significantly disadvantaged in terms of net affects for the noted criteria as determined by Project Team specialist review. A more detailed list of criteria was developed to assess the short list of route alternatives.

The Study Area was divided into two segments (Segment A - Neyagawa Boulevard to Ninth Line and Segment B - Neyagawa Boulevard to Bronte Road) for the assessment of the short list of route alternatives. This enabled the Project Team to evaluate the unique qualities of each section of the route in more detail and to mix and match alternatives that had common points of intersection in order to optimize the overall solution. Given the complexity and importance of the Sixteen Mile Creek features and natural functions, the crossing of the creek was a major factor in the selection process.

The assessment results identified Route E1 (Pink) in Segment A and Route W6 (Blue) in Segment B as the Recommended Alternative Route. Based on input received from the public and external agencies prior to, at and subsequent to the second Public Information Centre (PIC), several localized route refinements were made to the Recommended Route for the New North Oakville Transportation Corridor (NNOTC); in the vicinity of Bronte Road; the section west of Neyagawa Boulevard; and in the vicinity of Sixth Line.

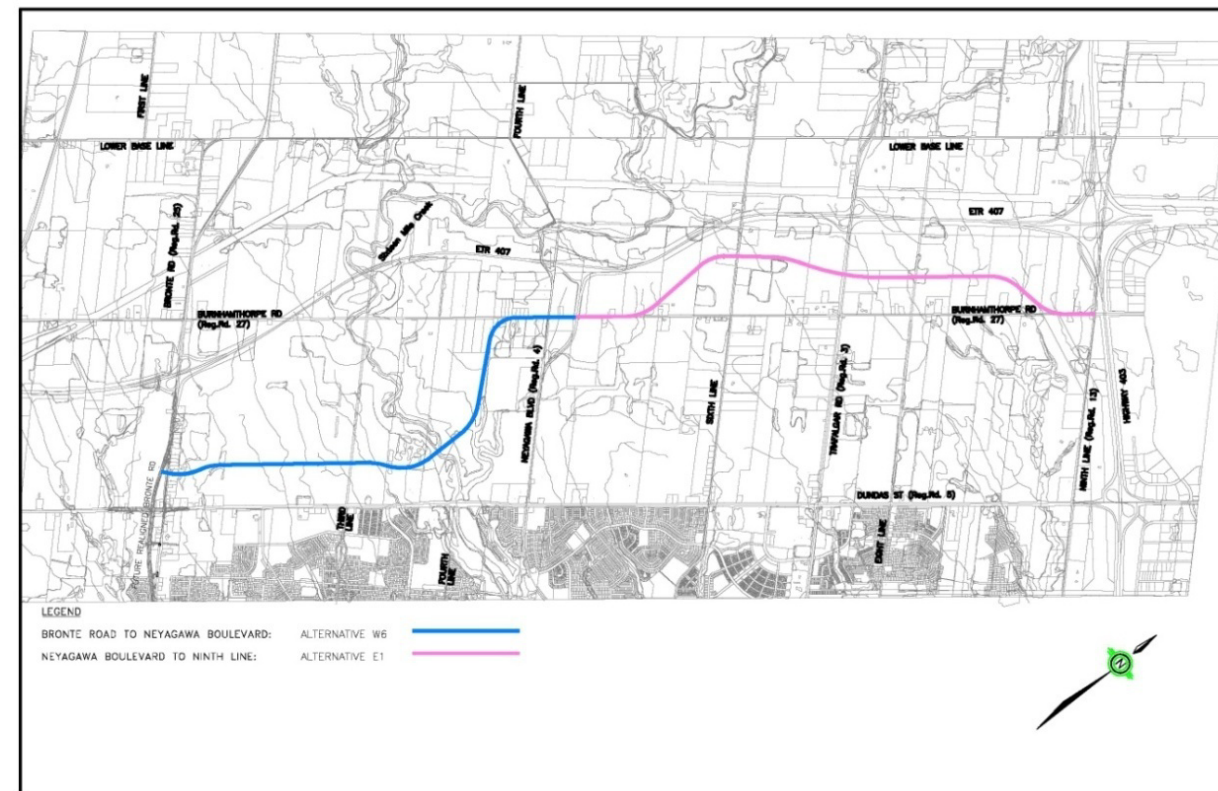
The key rationale for the Recommended Alternative Route, illustrated below (full-size version of **Exhibit 6-18** found in **Section 6**), is as follows:

Neyagawa Boulevard to Ninth Line - E1 (Pink segment of route)

- Most Preferred in Transportation, Social, Cultural and Economic Environments and Engineering;
- Majority of impacts to Natural Environment can be mitigated;
- Avoids the majority of properties fronting Burnhamthorpe Road;
- Property frontage impacts west of Ninth Line and east of Neyagawa Boulevard;
- One residential building displaced at Ninth Line; and
- Located primarily within planned future employment lands in the North Oakville East Secondary Plan (NOESP) and the North Oakville West Secondary Plan (NOWSP).

Bronte Road to Neyagawa Boulevard - W6 (Blue segment of the route)

- Overall Most Preferred in Transportation, Social, Cultural and Economic Environments, and Engineering;
- Impacts to property frontages on Burnhamthorpe Road and displacement of three residential buildings (west of Neyagawa Boulevard);
- Minimizes the crossing length of Sixteen Mile Creek valley in close proximity to disturbed valley area (Lions Valley Park); and
- Majority of impacts to Natural Environment (i.e. fisheries resources, etc.) can be mitigated.



Consultation Approach

The involvement of the community – residents, stakeholders, agencies and those who may be potentially affected by a project – is an integral part of the Class EA process. The purpose of the EA Study consultation process is to provide an opportunity for stakeholder groups and the public to gain an understanding of the study process; contribute to the process for development and selection of alternatives; and provide feedback and advice at important stages in the EA process. Specifically, the consultation efforts had the following objectives:

- Generate awareness of the project and provide opportunities for involvement throughout the planning process; and
- Facilitate constructive input from public and agency stakeholders at key points in the EA process, prior to decision-making.

The main areas of concern raised by the public related to property impacts, property loss, entrance modifications, traffic operations and safety, and environmental impacts such as noise, impact on the Sixteen Mile Creek and vegetation, and the potential loss of heritage buildings and impact on groundwater and wells. These issues have been addressed throughout the EA Study process and documented in this ESR.

Project Description

The Recommended Design for the NNOTC between Bronte Road and Ninth Line, as illustrated in the design plans, profiles and drawings in Part II of this ESR, includes:

- 4-lane roadway comprised of 2 through lanes per direction with turning lanes at intersections;
- On-road bike lanes and a 3.0 m multi-use pathway on both sides of the roadway; and
- New bridge crossing of Sixteen Mile Creek.

Between Bronte Road and Sixteen Mile Creek, the preferred alignment runs north and parallel to Dundas Street. East of Sixteen Mile Creek, the preferred alignment runs north to meet existing Burnhamthorpe Road west of Fourth Line. From east of Neyagawa Boulevard to Ninth Line, the alignment runs between existing Burnhamthorpe Road and Highway 407 to just west of Ninth Line where the alignment runs south to meet existing Burnhamthorpe Road.

Property acquisition will be required for the new corridor. A basic right-of-way width of 35 m is proposed with additional property acquisition required at intersection locations for turning lanes and daylight triangles (15m x 15m). Additional property will also be required in areas of cut and fill where the grading requirements extend beyond the basic 35m right-of-way width.

The preliminary construction cost associated with the recommended design, including the proposed structure, is estimated at \$205 million.

Monitoring During and After Construction

Many of the environmental concerns related to this project have been mitigated through the process by which the recommended design was selected, as described in this ESR. The anticipated impacts and proposed mitigation measures have been described in **Section 6.6**. A detailed list of specific commitments to be carried forward to Phase 5 of the Municipal Class EA process, Implementation, is provided in **Section 8.0**. These commitments have been developed through discussion with Conservation Halton and other authorities. Monitoring of construction activities must ensure that all environmental standards and commitments for construction are met. Halton Region will work with Conservation Halton and other authorities, during detail design and prior to the start of construction to ensure that the proposed works are acceptable and to obtain required permits.