



THE REGIONAL MUNICIPALITY OF HALTON

Report To:	Chairman and Members of the Planning and Public Works Committee
From:	Peter M. Crockett, P. Eng., Commissioner of Planning & Public Works
Date:	January 19, 2006
Re:	New Burnhamthorpe Road (Regional Road 27) Transportation Corridor and Potential Future Bridge Crossing of Sixteen Mile Creek Class Environmental Assessment Study Update (R2263A)
Report No.:	PPW16-06

RECOMMENDATION

1. THAT Report PPW16-06, New Burnhamthorpe Road (Regional Road 27) Transportation Corridor and Potential Future Bridge Crossing of Sixteen Mile Creek Class Environmental Assessment Study Update (R2263A), be received for information.
2. THAT the Regional Clerk forward a copy of Report PPW16-06 to the Town of Oakville, Town of Milton, 407ETR, Ministry of Natural Resources, Ministry of Public Infrastructure Renewal and the Ministry of Transportation for their information.

REPORT

The purpose of Report PPW16-06 is to inform Regional Council on the progress of the Environmental Assessment Study for a new transportation corridor in North Oakville from Ninth Line (Regional Road 13) to Regional Road 25. If requested, staff will be available to provide a brief presentation at the Planning and Public Works Committee meeting to review the work undertaken to date, present the alternatives, and receive input on the alternatives presented.

Background

In September 2003, the Ontario Municipal Board approved OPA 198. This provided a framework for the preparation of the draft North Oakville Secondary Plans, East Secondary Plan and West Secondary Plan for the area bounded by Dundas Street (Regional Road 5), Tremaine Road (Regional Road 22), Highway 407, the Town's municipal boundary and Ninth Line (Regional Road 13).

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In June 2004, Council approved the Halton Transportation Master Plan (HTMP) (PPW92-04), which developed a dynamic integrated transportation strategy that considered all modes of travel including transit, cycling, walking and automobiles, as well as other strategies within the Region of Halton. This study established the transportation network within the Region to the year 2021. The study followed the first two Phases of the Municipal Class Environmental Assessment (Municipal Class EA) process including need and justification, identification and evaluation of alternative planning solutions, and the selection of a preferred solution. Based on the results of the study, the need for a new transportation corridor was identified from Ninth Line to Regional Road 25, and an Environmental Assessment for this corridor was recommended for inclusion in the Region's Capital program.

### Environmental Assessment Study

In August of 2004 through Council approval of PPW128-04, the Region commenced a Schedule "C" Environmental Assessment Study to identify improvements and examine options to meet the existing and future transportation requirements (traffic capacity, transit requirements, and community connectivity) that will integrate with the proposed land-use changes that have been identified in the draft North Oakville Secondary Plans. The study is also examining various options that may be required for the potential crossing of the Sixteen Mile Creek. The study was also to reconfirm the need and justification for a new corridor through North Oakville that had been identified in the HTMP and other previous studies.

### Transportation Issues and Opportunities

A review of existing conditions indicates that:

- East-west travel in the Study Area is approaching capacity;
- Individual east-west facilities (roadways) in the study area are already operating at or beyond capacity;
- Even with the implementation of planned road transportation improvements in the study area (e.g. Dundas St widening, James Snow Parkway extension) capacity deficiencies are expected in the long term;
- Town of Oakville future transit ridership targets will reduce, but not eliminate the need for road capacity improvements.

The result of the analysis indicates the need for transportation system capacity improvements in an east-west direction across the Study Area. A range or combination of alternative solutions may be necessary to address future transportation needs.

Due to the Provincial announcement regarding the ORC lands and the current status of the North Oakville Secondary Plan East and West, a sensitivity analysis was undertaken to determine the impacts of the change. A worst case scenario was reviewed whereby the population and employment was removed from the greenspace protection lands. Results reconfirm the need for additional east-west capacity through the Study Area from Regional Road 25 to Ninth Line. Furthermore, the new provincial population and employment targets for Halton Region will increase overall demand (identified in the Greater Golden Horseshoe Growth Plan).

The needs assessment concluded that approved growth will generate additional travel demand across the Study Area and that there is a need for transportation system capacity improvements in an east-west direction from Regional Road 25 to Ninth Line. This conclusion reaffirms the findings from the Halton Regional Transportation Master Plan study.

## Assessment of Alternatives

The preliminary list of alternative solutions to accommodate the travel demand included the following:

- **Do Nothing** (Base Case for comparison).
- **Road System Expansion Alternatives including:**
  - Widen Highway 407 – although travel forecasts do not predict the need for Highway 407 widening – most travellers would prefer congested local roads to paying tolls, this option was included for comparison purposes;
  - Widen Dundas Street to 10 lanes – a ten lane Dundas Street would be required if transit ridership through the Study Area remains at the current ridership levels in the Town of Oakville (approximately 7%);
  - Widen Lower Baseline to 4 lanes;
  - Widen Burnhamthorpe Corridor to 4 lanes (existing or new alignment).
- **Provide Transit Supportive/Dedicated Infrastructure** (Reserves Bus Lanes, Light Rail Transit).
- **Transportation System Improvements (non-expansion)**
  - Transportation Demand Management (TDM) - reduce auto usage (e.g. Car pooling, land use planning to establish transit supportive densities);
  - 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).

A combination of alternative solutions may be necessary to address future transportation needs.

The alternatives were evaluated utilizing a number of Transportation, Natural Environment, Social/Cultural/Economic and Engineering criteria.

A two-step assessment process was undertaken:

A Long List evaluation consisted of assessing the effectiveness of each alternative in addressing the identified Problem/Opportunity using identified Transportation Criteria.

### **Do Nothing**

- Does not address identified transportation problems/needs;
- Carry forward only as a benchmark for comparison.

### **Widen Highway 407**

- Does not address identified transportation problems/needs;
- Do not carry forward for further analysis.

### **Widen Dundas Street**

- Addresses identified problems/needs;
- Carry forward for more detailed assessment.

**Widen Lower Baseline**

- Does not effectively address future travel demand as it is outside of North Oakville urban area;
- Do not carry forward for further analysis.

**Widen Burnhamthorpe Corridor**

- Addresses identified problems/needs;
- Carry forward for more detailed assessment.

**Transit Supportive/Dedicated Infrastructure**

- On its own, cannot address future transportation problems/needs;
- Required as part of an overall solution to reduce growth in auto demand;
- Carry forward as a component of the overall transportation strategy.

**Non-Road Expansion Alternatives – TDM, TSM and Enhanced Transit Services**

- Each of these options either on their own or collectively cannot address future transportation problems/needs;
- All are required as part of an overall solution to reduce growth in auto demand;
- Carry forward as a component of the overall transportation strategy.

The Long List was reduced to two alternatives, Dundas Street and Burnhamthorpe Corridor as they more effectively addressed the identified problems. This Short List of alternatives was subjected to further detailed assessment against a broader range of factors and criteria.

**Transportation – Burnhamthorpe Corridor preferred**

- Travel safety an issue with 8/10 lane Dundas Street;
- Dundas Street intersections would require turn restrictions;
- Traffic operation constraints along Dundas Street;
- Access management impacts with 8/10 lane Dundas Street;
- Grade separations potentially required at major intersections along Dundas;
- Dundas widening not compatible with HTMP or North Oakville development plans;
- Dundas widening less effective for transit service to approved growth areas – network of routes more effective.

**Natural Environment - Dundas preferred**

- Less impacts to natural environmental features/systems with exception of groundwater/surface water.

**Social/Cultural/Economic Environment – Burnhamthorpe Corridor preferred**

- Burnhamthorpe Corridor has less impacts to all criteria except potential impacts to archaeological resources;
- Substantial noise impacts to existing development along Dundas Street;
- Widened Dundas Street not compatible from urban design/liveability perspective.

**Engineering/Cost – Burnhamthorpe Corridor preferred**

- Higher engineering impacts to widen Dundas Street in terms of construction staging and maintenance of traffic, utility relocations and greater numbers of affected properties;
- Burnhamthorpe Corridor widening comparable to Dundas in terms of cost, potentially higher injurious affection costs along Dundas Street (commercial impacts).

The preferred alternative solution is a new transportation corridor in North Oakville from Bronte Road to Ninth Line that includes a new bridge crossing of the Sixteen Mile Creek. Transit supportive/dedicated infrastructure will be considered as part of the solution for the new transportation corridor. TDM and TSM is recommended as part of the overall transportation strategy (as per the Region’s Transportation Master Plan).

Based on input from the Stakeholders Group, to better reflect the nature of project and various alternatives alignments, the name of the Environmental Study will be changed to the “*New North Oakville Transportation Corridor and Crossing of the Sixteen Mile Creek Environmental Assessment Study*”.

### Alternative Design Concepts

The next step in the Environmental Assessment process is to generate alternative design concepts for the new transportation corridor and to undertake an evaluation of those alternative design concepts. A Stakeholder Group meeting and Technical Agency Committee meeting were held to gather input from the various interests (residents, development industry, Conservation Authorities, Town) on alternative routes and bridge crossing locations. Participants were given an opportunity to draw various alignments based on available constraint mapping (woodlots, cemeteries, landfills, creeks, residences).

A short list of these alternatives was developed and is presented on Attachment #1.

### Alternative Design Concepts for Bridge Crossing Location (Regional Road 25 to Neyagawa Boulevard)

Four bridge crossing location alternatives are proposed for further evaluation which include:

- Highway 407/Transitway crossing (north limit of study area);
- Burnhamthorpe Road crossing (in vicinity of existing Burnhamthorpe Road right-of-way (ROW));
- Mid-point crossing (similar to North Oakville Secondary Plan alignment);
- South limit of study area crossing (at north limit of Lions Valley Park).

At Regional Road 25, there are only two opportunities to connect to Regional Road 25 due to the location and close proximity of Highway 407 including the existing Burnhamthorpe Road/Regional Road 25 intersection, and a mid-point location between Dundas Street and Highway 407 (at south limit of woodlot in Green Space protection area). At Neyagawa Boulevard, there are two possible crossing locations including existing Burnhamthorpe Road (maintain minimum 400 m offset from Highway 407), and south of the closed Oakville landfill site.

The following is a summary of the bridge crossing options:

- Crossing spans range from 300 m to 800 m, depending on location;
- Different bridge options were identified for both 300 m and 500 m crossing lengths to determine feasibility:

#### *Conventional Girder Bridge*

- Similar to 407 bridge type at creek crossing

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- 4 to 6 piers in valley

### *Cable Stayed*

- 2 towers in valley
- 40% higher cost than conventional bridge

### *Suspension*

- no in-valley work
- Twice the cost of conventional bridge.

Given the high costs of cable stayed bridges and suspension bridges, a conventional girder bridge is preferred over Sixteen Mile Creek. The project team also determined that a span in excess of 500 m was not economically viable.

Specific issues related to each bridge crossing location are as follows:

### ***Highway 407/Transitway Crossing (north limit of study area)***

- Located at previously disturbed area of creek valley (Highway 407);
- Crossing location adjacent/south of 60 m transitway corridor requires a bridge span of 800 m (+\$80 million);
- Economically viable crossing location requires proposed transitway and Burnhamthorpe bridges to shift into the transitway/407 ROWs, allowing for a 400 m to 500 m bridge span;
- MTO has indicated they may consider the idea of a shared ROW, but no commitment has been made. The Region would need to demonstrate that Burnhamthorpe Road would not disturb Highway 407 operations or preclude the transitway. MTO and 407ETR will look into their agreement to determine any issues associated with this proposal, but some initial issues include:
  - MTO sold Highway 407 to 407ETR. MTO owns the lands, but leased them to 407ETR who has the majority of control;
  - No development is permitted within the Highway 407 controlled access corridor. Any shifting of the transitway and/or Burnhamthorpe Road into the 407 ROW would require the limits of the controlled access corridor to be redefined, which would require approval by the Provincial Legislature; and
  - Burnhamthorpe Road crossing may need to be under 407ETR ownership.
- Existing access road for Highway 407 structures would need improvements to be functional;
- Two options for continuation of Burnhamthorpe Road westerly include (1) connecting to the existing Burnhamthorpe Road corridor at Regional Road 25 which would require a grade separation to cross Highway 407, or (2) extending southerly through the Green Space protection area of the Ontario Realty Corporation lands (ORC) (south of woodlot); and
- Option preferred by NOMI and various stakeholders.

### ***Burnhamthorpe Road Crossing (vicinity of existing Burnhamthorpe Road ROW)***

- Undisturbed valley location would have significant environmental impacts associated with access road and bridge construction;
- Bridge span of about 380 m required;
- New access road into valley required;
- Two options for continuation of Burnhamthorpe Road westerly include (1) connecting to the existing Burnhamthorpe Road corridor at Regional Road 25 which would require a grade

separation to cross Highway 407, or (2) extending southerly through the Green Space protection area of the ORC lands (south of woodlot); and

- Option not supported by MNR, Conservation Halton and various stakeholders.

***Mid-Point Crossing (similar to North Oakville Secondary Plan alignment)***

- Undisturbed valley location would have significant environmental impacts associated with access road and bridge construction;
- Represents the NOSP alignment with adjustments made to minimize the required bridge span to about 350 m;
- New access road into valley required;
- Continuation of Burnhamthorpe Road westerly requires extending the alignment through the Green Space protection area of the ORC lands (south of woodlot); and
- Option not supported by MNR, Conservation Halton and various stakeholders.

***South Crossing (at north limit of Lions Valley Park)***

- Located at previously disturbed area of creek valley (just north of Lions Valley Park);
- Potential impact to undeveloped area of Trafalgar Lawn Cemetery property;
- Bridge span of about 300 m required;
- Existing access road for Lions Valley Park would need improvements to be functional;
- Continuation of Burnhamthorpe Road westerly requires extending the alignment along the south boundary of the Green Space protection area of the ORC lands (south of woodlot);
- Option would provide access to excess ORC lands which are currently undergoing disposition process ;
- Alternative option to connect to Third Line (local collector road) would require further widening of Dundas Street (Regional Road 5) to 8 or 10 lanes through Palermo. Town of Oakville does not support this option due to potential for traffic diversion down Third Line; and
- Option supported by MNR and Conservation Halton.

**Alternative Design Concepts for Routes East of Sixteen Mile Creek (Neyagawa Boulevard to Ninth Line)**

The east limit of Burnhamthorpe Road must connect to existing Burnhamthorpe Road at Ninth Line before continuing easterly into the City of Mississauga. There are three route alternatives east of Neyagawa Boulevard that are proposed for further evaluation.

Alternative E1 represents the easterly half of the NOSP alignment and allows the Town to maintain the land use proposed in the Secondary Plan. The alignment avoids the existing properties fronting onto existing Burnhamthorpe Road and crosses one Core Preserve Area, but avoids impacts to significant woodlots.

Existing Burnhamthorpe Road corridor is shown as Alternative E2. This option utilizes the existing roadway right-of-way and provides a straight connection between Neyagawa Boulevard and Ninth Line. Issues regarding this alternative include impacts to existing properties fronting onto Burnhamthorpe Road and the designation of the lands on the north side of Burnhamthorpe Road as a Character Area.

Alternative E3 was developed as an option to connect to the south bridge crossing alternative. The alignment follows the south edge of a Core Preserve Area between Neyagawa Boulevard and Sixth

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Line (General Urban Area to the south) before meandering to the north and follows existing Burnhamthorpe Road east of Eighth Line. The alignment does cross one Core Preserve Area while following along the edge of two other Core Preserve Areas, but avoids impacts to significant woodlots. The alignment also avoids the existing properties fronting onto existing Burnhamthorpe Road between Neyagawa Boulevard and Eighth Line.

As mentioned, these alternatives for the roadway and bridge crossing will be examined further in the next steps of the EA study and presented to the Stakeholders Group and Technical Agency Committee, as well as the public at Public Information Centre #2.

### Consultation Process

Pursuant to the Municipal Class Environmental Assessment, consultation plays a key and significant role in the successful completion of an EA project. A Technical Agencies Committee (TAC) was established for this project, as well as a Stakeholder Group for those property owners that may be directly affected within the study limits.

- Four TAC meetings have been held to-date at various stages during the study to discuss existing conditions, problem statement, evaluation of alternative solutions, evaluation criteria, and potential alternative designs. Representatives attending include the Ministry of Natural Resources, Conservation Halton, Town of Oakville, City of Mississauga, Oakville Hydro, Ministry of Transportation, 407ETR, Ontario Realty Corporation and Halton EEAC. Additional meetings have been held with key agencies within the NOSP area for initial input into the short list of alternative design concepts. The short list of alternative design concepts will be presented to the TAC on January 26, 2006 for comments.
- Four Stakeholder Group meetings have also been held to-date at various stages during the study to discuss existing conditions, problem statement, evaluation of alternative solutions, evaluation criteria, and potential alternative designs. Members of the Stakeholder Group include residents, developers and other property owners within the study limits. In addition, several observers from various interest groups were notified and attended these meetings. The short list of alternative design concepts will be presented to the Stakeholder Group on January 26, 2006 for comments.
- The first Public Information Centre was undertaken on June 9, 2005 in order to obtain public input on the problems being addressed, the alternatives being considered, and the preliminary factors for analyzing and evaluating the alternatives. Nineteen people signed-in as attending the PIC. Display panels presented information on the Class EA process, existing conditions, and the identification and evaluation of alternative solutions.

### Next Steps

The Region and Town of Oakville have been jointly working on the integration of this Environmental Assessment with the ongoing secondary plan process for North Oakville. The next series of technical agency and stakeholders meetings is scheduled for January 26<sup>th</sup> where the work related to the various alignments and assessment of those alternatives will be presented to the agencies and stakeholders for comments.

A Public Information Centre is tentatively scheduled for late spring/early summer to present these alternatives to the general public. It is anticipated that the Environmental Study Report will be finalized by late 2006/early 2007 for Regional Council consideration.

FINANCIAL/PROGRAM IMPLICATIONS

There are no implications at this time. The “*New North Oakville Transportation Corridor and Crossing of the Sixteen Mile Creek Environmental Assessment Study*” project is included in the 2006 Capital Budget and Business Plan between 2009 and 2015 with an estimated cost of \$79 M (IDs 5273, 5274, 5275, 5413). The capital cost estimates and timing of the project will be refined as part of the Environmental Assessment and 2007 Capital Budget process.

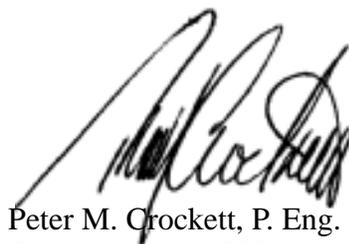
RELATIONSHIP TO THE STRATEGIC PLAN

Managed Growth – “*Plan a transportation system for Halton residents and business within a safe, well-managed network for all methods of transportation that is sensitive to the needs of seniors, youth and residents with special needs, and is coordinated with the surrounding Regions.*” Specifically, Action 7.c) “Implement a strategic transportation capital program as identified through the Halton Transportation Master Plan.” These roadway improvements were identified in the Halton Transportation Master Plan and this project will identify the Regional roadway requirements and alignment within the North Oakville area in conjunction with the North Oakville secondary plan process that is currently underway.

Respectfully submitted,



Jane Clohecy, MCIP RPP  
Director, Planning and Transportation



Peter M. Crockett, P. Eng.  
Commissioner of Planning and Public Works

Approved by



A. Brent Marshall  
Chief Administrative Officer

If you have any questions on the content of this report, please contact:      Jane Clohecy                      Tel. # 7966  
   Edward Soldo                      Tel. # 7475



Attachment #1  
to PPW16-06



SOURCE: FOOTPRINT OF 080 LAKES-4800 BOWEN & 1204

- BRONTE ROAD TO HETAGAMA BOULEVARD
- ALTERNATIVE W1
- ALTERNATIVE W2
- ALTERNATIVE W3
- ALTERNATIVE W4
- ALTERNATIVE W5
- ALTERNATIVE W6
- LINK W1-W6
- HETAGAMA BOULEVARD TO HURON LINK
- ALTERNATIVE E1
- ALTERNATIVE E2
- ALTERNATIVE E3

