



Canada-United States-Ontario-Michigan Border Transportation Partnership

**DRAFT**

**Environmental Assessment Report  
Individual Environmental Assessment  
W.O. 04-33-002**

**Detroit River International Crossing Study  
City of Windsor, County of Essex, Town of LaSalle, Town of Tecumseh**





## The Public Record

Copies of this document have been sent to the following locations:

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# EXECUTIVE SUMMARY

To be inserted for final submission.

## List of Appendices

Appendix A – Concept Design Plates

Appendix B – Conceptual Noise Mitigation Plans

## Supporting Documents

The following is a list of supporting documentation that has been referenced throughout this Draft Environmental Assessment (EA) Report. At the time of printing, some of these documents were in the process of being finalized. These documents are identified as “pending” in the list below, and will be made available with the final EA Report submission. The remaining documents identified as “available” in the list below are available electronically from the study website (<http://www.partnershipborderstudy.com>). Hard copies of the report are available from URS Canada upon request.

1. Detroit River International Crossing Environmental Assessment Terms of Reference (May 2004) (*available*)
2. Draft Acoustics and Vibration Work Plan (February 2006) (*available*)
3. Draft Air Quality Work Plan (February 2006) (*available*)
4. Draft Archaeology Work Plan (February 2006) (*available*)
5. Draft Cultural Heritage Work Plan (February 2006) (*available*)
6. Draft Economic Impact Work Plan (October 2006) (*available*)
7. Draft Natural Heritage Work Plan (February 2006) (*available*)
8. Draft Social Impact Assessment Work Plan (February 2006) (*available*)
9. Draft Technical Considerations Work Plan (November 2005) (*available*)
10. Draft Waste and Waste Management Work Plan (November 2005) (*available*)
11. PIOH1 Summary Report (*available*)
12. PIOH2 Summary Report (*available*)
13. PIOH3 Summary Report (*available*)
14. PIOH4 Summary Report (*available*)
15. PIOH5 Summary Report (*available*)
16. PIOH6 Summary Report (*pending*)
17. Transportation Planning and Need Study Report (November 2005) (*available*)
18. Environmental Overview Paper – Canadian Existing Conditions Volume 1 (June 2005) (*available*)
19. Environmental Overview Paper – Canadian Existing Conditions Volume 2 (June 2005) (*available*)
20. Draft Feasible Transportation Alternatives (Alternatives to the Undertaking) Report (February 2006) (*available*)
21. Travel Demand Forecasts Working Paper (September 2005) (*available*)
22. Travel Demand Model Update Working Paper (September 2005) (*available*)
23. Regional and National Economic Impact of Increasing Delay and Delay-Related Costs at the Windsor-Detroit Crossings (August 2005) (*available*)
24. Generation and Assessment of Illustrative Alternatives Report (November 2005) (*available*)
25. Draft Generation of Practical Access Road Alternatives Report (*pending*)
26. Draft Generation of Plaza and Crossing Alternatives Report (*pending*)
27. Draft Level 2 Traffic Operations Analysis of Practical Alternatives (February 2008) (*available*)
28. Draft Practical Alternatives Evaluation Working Paper – Air Quality Impact Assessment (May 2008) (*available*)
29. Draft Practical Alternatives Evaluation Working Paper – Noise and Vibration Assessment (May 2008) (*available*)
30. Draft Practical Alternatives Evaluation Working Paper – Social Impact Assessment (April 2008) (*available*)
31. Assessment of Practical Access Road Alternatives Memorandum – Improve Regional Mobility (May 2008) (*available*)
32. Draft Practical Alternatives Evaluation Working Paper – Economic Impact (May 2008) (*available*)
33. Draft Practical Alternatives Evaluation Assessment Report – Existing and Planned Land Use (May 2008) (*available*)
34. Draft Practical Alternatives Evaluation Working Paper – Archaeology (April 2008) (*available*)
35. Draft Practical Alternatives Evaluation Working Paper – Cultural Heritage (April 2008) (*available*)
36. Draft Practical Alternatives Evaluation Working Paper – Natural Heritage (April 2008) (*available*)
37. Draft Practical Alternatives Evaluation Assessment Report – Stormwater Management Plan (March 2008) (*available*)
38. Draft Practical Alternatives Evaluation Working Paper – Waste and Waste Management (May 2008) (*available*)
39. Draft Pavement Engineering for Planning Report – Area of Continued Analysis (March 2008) (*available*)
40. Draft Practical Alternatives Evaluation – Constructability Report for Plaza & Crossing Alternatives (*pending*)
41. Draft Practical Alternatives Evaluation – Constructability Report for Access Road Alternatives (May 2008) (*available*)
42. Selection of the Technically and Environmentally Preferred Alternative – Plaza and Crossing Alternative (*pending*)
43. Draft Preliminary Construction Cost Estimate Report for Practical Alternatives (Access Road and Inspection Plaza) (May 2008) (*available*)
44. Bridge Conceptual Engineering Report (February 2008) (*available*)
45. Technically and Environmentally Preferred Alternative – Air Quality Impact Assessment Report (*pending*)
46. Technically and Environmentally Preferred Alternative – Human Health Risk Assessment Report (*pending*)
47. Technically and Environmentally Preferred Alternative – Social Impact Assessment Report (*pending*)
48. Technically and Environmentally Preferred Alternative – Noise & Vibration Assessment Report (*pending*)
49. Technically and Environmentally Preferred Alternative – Natural Heritage Assessment Report (*pending*)
50. Technically and Environmentally Preferred Alternative – Cultural Heritage Resource Assessment Report (*pending*)
51. Technically and Environmentally Preferred Alternative – Stage 2 Archaeological Assessment Report (*pending*)
52. Draft Structural Planning Report for Practical Alternatives (May 2008) (*available*)
53. Draft Level 3 Traffic Operations Analysis of Windsor-Essex Parkway (*pending*)



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## Glossary of Terms

**20<sup>th</sup> Century Euro-Canadian** – Generally understood to refer to the early 20th century European settlement period in Ontario.

**95<sup>th</sup> percentile queue length** – The traffic queue length that is expected to be exceeded only 5% of the time during the peak traffic hour

**Area of Continued Analysis (ACA)** – Refers to the further defined study area that emerged from the Illustrative Crossing, Plaza, and Access Road Alternatives. The ACA formed the basis for the generation, assessment, and evaluation of the Practical Crossing, Plaza, and Access Road Alternatives.

**Access Road** – Refers to the new freeway facility connecting Highway 401 to international crossing of the Detroit River.

**Agencies** – Government bodies responsible for various approvals, and/or permits required to undertake various aspects of the project such as property acquisition and construction of the project. Both provincial and federal agencies were involved in this study. Examples of provincial agencies include: Ministry of the Environment (MOE), Ministry of Natural Resources (MNR), etc. Examples of federal agencies include: Transport Canada (TC), Fisheries and Oceans Canada (DFO), etc.

**Area of Natural and Scientific Interest (ANSI)** – Areas of land and water containing natural landscapes or features that have been identified as having life science or earth science values related to protection, scientific study or education.

**ARCADY** – A software package used for traffic analysis of roundabouts

**Archaic** – In Ontario, this refers to the period between approximately 9,500 and 3000 years ago.

**Arterial Roads** – Intended to move large volumes of traffic at high speeds. The major distinction between this classification and the freeway classification is in the full control of access. Roads that have full control of access should normally be in the freeway classification.

**AST** – Above ground storage tank.

**ATMS** – Automated Traffic Management Systems. Refers to the overhead digital signs and cameras that together with in-pavement detectors provides variable messages to drivers to allow them to make a choice regarding their route.

**Average Annual Daily Traffic (AADT)** – The average 24 hour, two-way traffic for the period January 1st to December 31st.

**Back slope** – In a cross-section of the roadway, the back slope is the slope between the drainage channel (ditch) and the natural ground.

**Built Heritage Features** – Individual buildings or structures that may be associated with a variety of human activities, such as historical settlement and patterns of architectural development.

**CANAAG** – Canadian Agency Advisory Group. A group composed of representation from federal and provincial agencies with an interest in the project. Consists of agencies involved in the review and approval of the OEA and CEAA Report.

**Carolinian Canada** - A non-profit coalition of over 40 government and non-government conservation groups and any individuals who encourage the protection of remaining natural areas in the Carolinian region.

**Community Consultation Group (CCG)**: The study team solicited membership, from the public, with a wide variety of backgrounds and interest to join the CCG. Everyone who asked to be involved was included in the group. Participants volunteered their time to meet with the team on a regular basis, learn about the project, and share their ideas and interests.

**CEAA** – Canadian Environmental Assessment Act and Canadian Environmental Assessment Agency (federal).

**Closed Circuit Television (CCTV)** – A component of an ATMS system consisting of cameras positioned within a tunnel or along a roadway/freeway to monitor roadway operations.

**Collector Roads** – Roadways that collect traffic from local roads and feed it to arterials, or distribute it from arterials to locals.

**COOP Advisory Group** – Consisting of owners and operators of current border crossings as well as private sector proponents of new or expanded crossings.

**Crest Vertical Curve** – A vertical curve having a convex shape in profile viewed from above, like a hill.

**Crossing** - For the purposes of this study, the crossing refers to the proposed bridge over the Detroit River, and its approach roadways.

**Cross-Section** – The transverse profile of a road.

**Crown** – The highest break point of the surface of a roadway in cross-section.

**CTC** – Canadian Transit Company

**Cul-de-sac** – A road open at one end only.

**Cultural Heritage Resources** – Describes both “cultural landscapes” and “built heritage features”

**Cultural Landscape** – Collection of individual built heritage features and other related features that together form environmental features such as farm complexes, roadscares and nucleated settlements.

**Curb and Gutter** – A curb has a vertical or a sloping face along the edge of a lane or shoulder that strengthens or protects the edge, or clearly defines the edge. Gutter is a paved shallow waterway provided for carrying surface drainage. Curb and gutter together control and conduct stormwater and provide delineation for traffic.

**Cut Section** – A roadway located below natural ground elevation.

**Demographic Trends** – The characteristics and statistics of human population

**Design Hour Volume (DHV)** – The 30<sup>th</sup> highest annual hourly volume.

**Design Speed** – A speed selected for purposes of design. It is the highest continuous speed at which individual vehicles can travel with safety on a road when weather conditions are favourable and traffic density is so low that the safe speed is determined by the geometric features of the road.

**DIBC** – Detroit River International Bridge Company

**Drainage Channel (Ditch)** – A drainage channel (or ditch) is placed adjacent to an outside lane or shoulder and is intended to control and conduct stormwater runoff. A shallow drainage channel is sometimes referred to as a swale.

**DRIC** – Detroit River International Crossing

**Detroit River Tunnel Partnership (DRTP)** – Partnership between two major private enterprises, Canadian Pacific Railway and Borealis Transportation Infrastructure Trust.

**Environmental Assessment (EA)** – An environmental assessment is a study, which assesses the potential environmental effects and benefits of a project or undertaking on the environment. Key components of an EA include: consultation with members of the public, regulatory agencies, municipalities, and other stakeholders; First Nations engagement; the consideration of alternatives; and the mitigation and management of environmental effects.

**Entrance** – The general area where turning roadway traffic enters the main roadway.

**Environmentally Sensitive Areas (ESA)** – Those areas identified by any agency or level of government which contain natural features, ecological functions or cultural, historical or visual amenities which are susceptible to disturbance from human activities and which warrant protection.

**Evaluation Factors** – Factors used to evaluate alternatives. The seven primary evaluation factors used for this study area were: changes to air quality; protection of neighbourhood and community features; consistency with existing and planned land use; protection of cultural resources; protection of natural environment; improvements to regional mobility; and cost and constructability.

**Federal Environmental Assessment Coordinator (FEAC)** – The Federal Environmental Assessment Coordinator (FEAC) must ensure that the screening of the project is carried out (Canadian Environmental Assessment Agency).

**FHWA** – Federal Highway Administration (U.S.)

**Fill Section** – A roadway located above the natural ground elevation.

**Fore Slope/Side Slope** – The slope between the roadway and drainage channel (ditch).

**Freeway** – A facility that accommodates the movement of large volumes of traffic at high speeds under free-flow conditions. The need for unrestricted movement on these facilities justifies the elimination of direct property access. A grade separation is required at all crossing roads.

**GDSOH** – Geometric Design Standards for Ontario Highways

**Grade/Gradient** – The rate of rise or fall of a roadway with respect to the horizontal distance, usually expressed as a percentage.

**Guiderail** – A longitudinal barrier which may consist of concrete, IBC (International Barrier Corporation) barrier, steel beam or of posts and rail.

**Historical Settlements** – Comprise 2 or more buildings, usually residences or former stores at a railway or crossroads location.

**Historic Euro-Canadian** – Generally understood to refer to the 18<sup>th</sup> and 19<sup>th</sup> century European settlement period in Ontario.

**Historic Pioneer** – Generally understood to refer to the 18<sup>th</sup> and 19<sup>th</sup> century European settlement period in Ontario.

**Horizontal Alignment** – The configuration of a road or roadway as seen in plan, consisting of tangents, lengths of circular curve, and lengths of spiral or transition curves.

**Individual Environmental Assessment (EA)** – An environmental assessment for an undertaking to which the Environmental Assessment Act (provincial) applies, and which requires formal review and approval under the Act.

**Illustrative Alternatives** – The term “illustrative” is used in US environmental studies to describe the conceptual, “long list” alternatives determined from the PAA. This terminology was adopted on both sides of the border to promote the coordinated approach between the two EA processes.

**Interchange** – A grade separated intersection with one or more turning roadways (ramps) for travel between the through roads.

**Intersection (At-Grade)** – The general area where two or more roads join or cross, within which are included the roadway and roadside facilities for traffic movements.

**Lane/Traffic Lane** – A part of the travelled way intended for the movement of a single line of vehicles.

**Level of Service (LOS)** – A measure of traffic operations at an intersection or along a freeway or local road. LOS evaluation uses a six-letter grade scale (A to F) to rank the overall traffic handling ability of an intersection or a network based on delay per vehicle. LOS A indicates excellent traffic operations with minimal delays, while LOS F represents failing conditions with long delays. Levels of service E and F are generally considered undesirable.

**Local Road** – Local facilities that are normally short distance roads which emphasize the land access function.

**Lower-tier Municipality** – A municipality that forms part of an upper-tier for municipal purposes.

**Median** – The area that laterally separates traffic lanes carrying traffic in opposite directions. A median is described as flush, raised or depressed, referring to the general elevation of the median in relation to the adjacent edges of traffic lanes. The terms wide and narrow are often used to distinguish different types of median. A wide median generally refers to depressed medians sufficiently wide to drain the base and subbase into a median drainage channel. Flush and raised medians are usually narrow medians.

**Median Barrier** – A longitudinal barrier placed in the median to prevent a vehicle from crossing the median and encountering oncoming traffic or to protect a vehicle from a fixed object in the median.

**Municipal Advisory Group (MAG)** – Consisting of area municipalities and the County of Essex. As the study progressed, school boards were also invited to join the MAG.

**MDOT** – Michigan Department of Transportation

**MES** – Municipal Emergency Services

**Mitigation** – The elimination, reduction or control of the adverse environmental effects of the project; includes restitution for any damage to the environment caused by such effects through replacement, restoration, compensation or any other means. It also refers to the actions taken during the planning, design, construction and operation of works or undertakings to alleviate potential adverse effects.

**MNR** – Ontario Ministry of Natural Resources

**MOE** – Ontario Ministry of the Environment

**MTO** – Ontario Ministry of Transportation

**Navigation Envelope** – The vertical and horizontal clearance provided for marine traffic between a waterway and bridge or other structure.

**NEPA** – National Environmental Policy Act (USA only)

**OEAA** – Ontario Environmental Assessment Act

**OEPA** – Ontario Environmental Protection Act

**Official Plan (OP)** – A municipal planning document that sets out general policies for current and future land use for the entire municipality.

**Overpass** – A grade separation in which the major road passes over an intersecting road or railway.

**Preliminary Analysis Area (PAA)** – Refers to the originally defined broad study area formed the basis for the generation, assessment, and evaluation of the Illustrative Crossing, Plaza, and Access Road Alternatives.

**PIOH** - Public Information Open House. Events where the project is presented in an open house, drop-in style format, with no formal presentation. Members of the public can meet one-on-one with the study team members.

**Plaza** - A customs plaza consisting of numerous lanes and kiosks through which all international traffic must pass. Can include inspections services, and toll collection.

**Practical Alternatives** –The term “practical alternative” is used in US environmental studies to describe the more refined alternatives that emerge from the assessment and evaluation of the broader level conceptual alternatives, i.e. the illustrative alternatives. This terminology was adopted on both sides of the border to promote the coordinated approach between the two EA processes.

**Private Sector Advisory Group (PSAG)** – A bi-national consultation group. There were invitations sent to several business owners and associations in Canada and the US.

**Prescribed Authority (PA)** – The planning approval authority that the *Planning Act* assigns directly to a municipality, named in the regulation.

**Proposed Freeway** – The freeway portion of The Windsor-Essex Parkway

**Proposed Service Road** – The service road portion of The Windsor-Essex Parkway

**Provincially Significant Wetland (PSW)** – These are wetlands evaluated as provincially significant using the Ontario Wetlands Evaluation system (OWES).

**Quaternary Period** – Subdivision of geological time from the last two million years to present. It can be divided into two epochs; the Pleistocene (two million years to ten thousand years ago) and the Holocene (ten thousand years ago to the present day).

**Queue Warning System (QWS)** – A component of an ATMS system used to detect vehicle delays and alert drivers of downstream congestion at overhead VMS signs.

**Ramp** – A turning roadway to permit the movement of traffic from one highway to another.

**Responsible Authority (RA)** – the federal authority that is required to ensure that an environmental assessment of the project is conducted as defined under the Canadian Environmental Assessment Act.

**Right-of-Way** – The area of land acquired for, or devoted to, the provision of a roadway.

**SAG** – A group comprised of representatives from local school councils.

**Sag Vertical Curve** – A vertical curve having a concave shape in profile viewed from above, like a valley.

**SARA** – Federal Species at Risk Act (2002). Species at risk refer to an extirpated, endangered or threatened species or a species of special concern.

**Service Road** – A road in the vicinity of a through road designed to intercept, collect and distribute traffic desiring to cross, enter or leave the through road and access adjacent properties.

**Shoulder** – Areas of pavement, gravel or hard surface, placed adjacent to through or auxiliary lanes. They are intended for emergency stopping and travel by emergency vehicles only. They also provide structural support for the pavement.

**Sight Distance** – The distance required for a driver to detect an information source or hazard which is difficult to perceive in a roadway environment that might be visually cluttered, recognize the hazard or its potential threat, select appropriate action, and complete the manoeuvre safely and efficiently.

**Summer Average Daily Traffic (SADT)** – The average 24 hour, two-way traffic from the period July 1st to August 31st.

**Superelevation** – The gradient measured at right angles to the centre line across the roadway on a curve, from the inside to the outside edge.

**TC** – Transport Canada

**TEPA** – Technically and Environmentally Preferred Alternative for the Detroit River crossing, new customs plaza and access road linking these to the existing Highway 401. This consists of The Windsor-Essex Parkway, Plaza B1 and Crossing X10B.

**TSAA** – Technical Standards and Safety Act

**The Partnership** – The Canada-U.S.-Ontario-Michigan Border Transportation Partnership

**Two-Lane Road** – A road that provides for one lane of through traffic in each direction.

**Underpass** – A grade separation (bridge) in which the major road passes under an intersecting road or railway.

**Undetermined Pre-Contact** – An aboriginal site relating to the period prior to European contact for which the date and cultural affiliation have not been determined.

**Upper-tier Municipality** - a municipality of composed of two or more lower-tier municipalities form part for municipal purposes

**UST** – Underground storage tank

**Vehicle Messaging System (VMS)** – A component of an ATMS system consisting of a series of automated digital signs that inform motorists of potential diversion routes, slow traffic or incidents ahead, lane designations for customs, etc.

**Vertical Alignment** – The configuration of a road or roadway as seen in longitudinal section, consisting of tangents and parabolic curves.

**VISSIM** – A micro-simulation traffic analysis software package

**Warrant** – A criterion that identifies the need for an addition to the highway such as traffic signals, traffic barrier, truck climbing lanes, passing lanes, left turn lanes, etc.

**WIFN** – Walpole Island First Nation

**Windsor-Essex Parkway, The** –The portion of the TEPA that connects existing Highway 401 to the proposed new inspection plaza and international river crossing. The Windsor-Essex Parkway consists generally of a freeway portion connecting existing Highway 401 to the proposed plaza, a service road connecting existing Highway 3 to existing Huron Church Road, a multi-use trail network, buffer zones, tunnels, bridges, and all associated features such as lighting, Automated Traffic Management Systems, signs etc.

**Woodland** – Referring to the period between roughly 3000 years ago and the beginnings of European contact. This refers to the period after ceramic vessels first. Distinguished from the Archaic by changes in stone tool styles and the introduction of ceramic vessel manufacture.

**WPA** – Windsor Port Authority (see also *Prescribed Authority*)

**WPRT** – Windsor Peer Review Team

# A APPROVALS BEING SOUGHT AND AMENDING PROCEDURE

## A.1 Approvals Being Sought

The Detroit River International Crossing (DRIC) Environmental Assessment Report documents the coordinated environmental study undertaken by the Border Transportation Partnership, which includes the Ontario Ministry of Transportation, Transport Canada, the Michigan Department of Transportation and the U.S. Federal Highway Administration. The study resulted from the *Planning / Need and Feasibility (P/NF) Study* completed in 2004, which identified the need to address the safe and efficient movement of people and goods in the long-term between Southwestern Ontario and Southeastern Michigan.

The EA study provided a consultation process that involved stakeholders including external agencies, municipalities, and the public at major milestones throughout the study. The study also incorporated additional workshops, presentations, and meetings with interested groups / individuals to identify and address concerns.

If this Environmental Assessment is approved, the Ministry of Transportation and Transport Canada will then be in position to:

- Designate a highway right-of-way for the implementation of the recommended transportation improvement identified;
- Acquire property needed to build the facility and associated features, which may include but are not limited to: stormwater management facilities, temporary construction easements, mitigation / compensation measures, commuter parking lots, utility corridors and service roads;
- Relocate affected utilities;
- Close intersecting roads as identified in Chapter 9;
- Construct the Technically and Environmentally Preferred Alternative (TEPA);
- Operate and maintain the completed TEPA; and
- Make design and property refinements during future design phases.

Note: The approval being sought by this EA and commitments made in this EA will apply and be binding upon the MTO, its agents, successors, transfers and/or assigns, and will be applicable to the design, construction, operation and maintenance of the undertaking.

In support of the approval, this Detroit River International Crossing Study has followed the requirements of the *Ontario Environmental Assessment Act (OEAA)*. A Draft Environmental Assessment Report (EA Report) has been prepared for this project and provides information on the environmental effects and mitigation and the process that has been followed leading to the selection of the TEPA, as well as the technical findings of the study.

In general the Draft EA Report includes the following information:

- Purpose and history of the project;
- Existing and future natural, socio-economic, cultural and engineering conditions in the study area;
- Description and evaluation of alternatives considered, including their associated potential impacts and evaluation of the alternatives;
- Description of the recommended alternative and associated potential environmental effects and mitigation measures; and
- Commitments to future work and monitoring aspects of the project, including expected environmental effects and proposed mitigation measures.

This Draft EA Report is being made available to the public, other interested parties and external agencies for review. An Ontario Government Notice was placed in the local newspapers, mailed to over 37,000 local households and to over 2,000 persons, agencies and other stakeholders on the study mailing list advising the availability of the Draft EA Report for review. It will be available for review commencing **Wednesday, November 12, 2008** at the following locations:

**Ontario Ministry of Transportation  
Windsor Border Initiatives  
Implementation Group**  
949 McDougall Avenue, Suite 200  
Windsor, Ontario

**Office of the Clerk  
City of Windsor**  
350 City Hall Square West  
Windsor, Ontario

**Windsor Public Library  
Central Branch**  
850 Ouellette Avenue  
Windsor, Ontario

**LaSalle Public Library**  
5940 Malden Road  
LaSalle, Ontario

**Ontario Ministry of the Environment  
West Region Office**  
733 Exeter Road  
London, Ontario

**Office of the Clerk  
Town of LaSalle**  
5950 Malden Road  
LaSalle, Ontario

**Windsor Public Library  
Sandwich Branch**  
3312 Sandwich Street  
Windsor, Ontario

**Tecumseh Public Library**  
13675 St. Gregory's Road  
Tecumseh, Ontario

**Ontario Ministry of the Environment  
Windsor Area Office**  
4510 Rhodes Drive, Unit 620  
Windsor, Ontario

**Office of the Clerk  
Town of Tecumseh**  
917 Lesperance Rd  
Tecumseh, Ontario

**Windsor Public Library  
Nikola Budimir Branch**  
1310 Grand Marais West  
Windsor, Ontario

**URS Canada Inc.**  
75 Commerce Valley Drive E.  
Markham, Ontario

Interested persons, agencies, municipalities or other stakeholders may provide comments to the Ministry of Transportation by **Friday, December 12, 2008** in written form by email to [detroit.river@ontario.ca](mailto:detroit.river@ontario.ca) or by mail to 949 McDougall Avenue, Suite 200, Windsor, Ontario, N9A 1L9, Attention: Mr. Roger Ward, Senior Project Manager. Following the public comment period, all comments received will be reviewed and a final Environmental Assessment Report will be prepared and submitted to the Ontario Minister of the Environment for approval. The Ministry of the Environment review procedure also includes opportunities for public review and comment.

Detailed background information, including all supporting background study reports, will be made available with the Final EA Report submission. Currently additional background and study material is available on the study website: [www.partnershipborderstudy.com](http://www.partnershipborderstudy.com).

## A.2 Amending Procedure

As noted in previous section, if this Environmental Assessment is approved by the Ontario Minister of the Environment, the approval will include the right to make refinements to the alignment and to the right-of-way during future design phases.

The Ministry of Transportation has developed the undertaking to a concept design level of detail for the purposes of this Environmental Assessment Report. The concept design level of detail does not provide the same level of detail as will be available during later stages of design. However, the concept design as contained in this Environmental Assessment does provide a sufficient level of detail to assess the environmental impacts of the preferred alternative. The environmental impacts identified in the Environmental Assessment are therefore to be considered sufficiently reliable on which to base a decision regarding approval of the undertaking.

Some aspects of the undertaking are subject to change as design details are developed through future phases of the project. Changes may come about in terms of study area conditions, the development of new technology or mitigating measures, or the identification of previous unknown information or concerns. The Ministry's assessment of the significance of the proposed change(s) will be based on further technical assessment and consideration of applicable policy, public and agency input as appropriate.

An assessment as to the significance of the proposed change will be based on consideration of the following issues:

- Are there any significant environmental issues?
- Are there any significant property issues?
- Is there a need to provide public documentation of any issues which have been identified?

If the proposed change is not anticipated to be significant based on the above considerations, the change will be documented in a Design and Construction Report (DCR), which will be made available for public review.

If the proposed change is anticipated to be significant, the amending procedure described below will be invoked. The amending procedure will be consistent with Chapter 10 of *MTO's Class Environmental Assessment for Provincial Transportation Facilities (approved 1999 - amended 2000)*. This chapter outlines the process for amending an approved Individual Environmental Assessment per the Class process, and specifies the following:

- Affected parties will be consulted on the proposed changes, anticipated environmental effects, proposed mitigation and the need for a Transportation Environmental Study Report (TESR). The Class EA process and the principles for transportation engineering, environmental protection, consultation, documentation and bump-up, and environmental clearance will be followed. Depending on the complexity of the proposed change, and the number of stakeholders affected by the proposed change, a public information center may be held.
- A Transportation Environmental Study Report (TESR) will be prepared to document the circumstances necessitating the change, outline the proposed change and identify the anticipated

environmental effects and proposed mitigation measures. The TESR will constitute an addendum to the original individual EA and will be made available for a 30-day public review period.

- A Notice of Bump-up opportunity will be issued at the time of TESR submission.
- Only the changes noted in the TESR will be eligible for bump-up. The concept of the undertaking, as outlined in the original EA may not be challenged. In the event that a bump-up is granted, the proponent has the option of withdrawing the TESR and implementing the project as documented in the original EA.

# 1 STUDY OVERVIEW

This chapter provides a study overview, including related projects within or near the Study Area as shown in **Exhibit 1.1**. The Detroit River International Crossing (DRIC) Study was initiated as a bi-national transportation improvement study by the governments of Canada, United States, Ontario, and Michigan. After completion of the Planning/Need and Feasibility Study (P/NF) Study in 2004, the *Environmental Assessment (EA) Terms of Reference (ToR)* was approved by the Ontario Minister of the Environment on September 17, 2004. While considering objectives of the Partnership for this EA Study, the DRIC study team generated and assessed illustrative alternatives within the generated Preliminary Analysis Area (PAA). Evaluation of these alternatives led to a refined Area of Continued Analysis (ACA). Within the ACA, six practical access road alternatives, four practical plaza locations, and three practical crossing locations were generated, assessed and evaluated.

Throughout the EA Study extensive consultation including Public Information Open Houses (PIOHs) was conducted to inform the public about the technical analysis leading to the generation, assessment, and evaluation of the illustrative and practical alternatives, and ultimately, the Technical and Environmentally Preferred Alternative (TEPA). Over 300 consultation sessions were held during the study with participation from thousands of Windsor-Essex County residents, community groups, experts, local elected officials, and other government agencies.

## 1.1 Study Background

The Detroit River International Crossing (DRIC) Study is a bi-national transportation improvement study that has been undertaken by the governments of Canada, United States, Ontario, and Michigan, who have formed the Canada-US-Ontario-Michigan Border Transportation Partnership (the Partnership).

The Partnership includes the transportation authorities from two federal governments and two provincial/state governments. The Federal Highway Administration (FHWA) is an arm of the US Department of Transportation and Transport Canada (TC) is the corresponding federal agency in Canada. The Ontario Ministry of Transportation (MTO) and the Michigan Department of Transportation (MDOT) are the provincial and state agencies that have roadway jurisdiction in Ontario and Michigan.

In 2001, the Partnership jointly commissioned a Planning/Need and Feasibility Study (P/NF) to identify a long-term strategy to address the safe and efficient movement of people and goods between Southwestern Ontario and Southeastern Michigan. The overall objectives of the Partnership in support of this strategy were the following:

- To improve the movement of people, goods and services in a safe and efficient manner across the Canadian / United States border at the Detroit and St. Clair Rivers to connect with existing national, provincial and regional transportation systems, such as I-75 and Highway 401;
- To enhance the regional economic vitality and Canadian/US trade;
- To meet the long term needs of the US and Canadian border inspection agencies;
- To expedite the planning and environmental study process to ensure that future travel demands in this region can be accommodated in a timely manner;
- To ensure that all modes of surface transportation including road, rail and marine will be considered;

- To use a single integrated planning and environmental study process, resulting in a single product, which will meet the requirements of all members of the Partnership;
- To ensure that any solutions which are developed as a result of the above integrated planning and environmental study process comply with all relevant and applicable federal, provincial, state and/or municipal laws, regulations, bylaws, ordinances or other binding enactments validly created by bodies with legislative or rule-making authority;
- To ensure that the process is conducted in a financially responsible and prudent manner; and
- To ensure that intelligent transportation systems/state-of-the-art facilities be provided to enhance border crossing efficiency.

The P/NF Study, completed in January 2004, identified a strategy for improvements to meet the long-term (2030 and beyond) needs of the transportation network serving cross-border traffic in the area of Southwestern Ontario and Southeastern Michigan. Among other things, the strategy confirmed the need for a new or expanded crossing of the Detroit River with connections to the freeway systems in Ontario and Michigan.

As a result of this recommendation, the Partnership initiated a formal environmental assessment process for a new or expanded Detroit River International Crossing (refer to **Chapter 2** for further details). As a first step in this process in Ontario, an EA Terms of Reference (EA ToR) was prepared. The *Detroit River International Crossing Study Environmental Assessment Terms of Reference (May 2004)* outline the minimum considerations and study framework to be followed in completing this Individual Environmental Assessment. The EA ToR was approved by the Ontario Minister of the Environment on September 17, 2004. The EA ToR is available as a supporting document.

The project detailed in this EA Report is part of an overall international transportation improvement project that requires approvals from governments on both sides of the border. The Partnership's coordinated process facilitated the joint selection of a preferred river crossing location to meet the requirements of the Ontario Environmental Assessment Act (OEAA), Canadian Environmental Assessment Act (CEAA), and the United States National Environmental Policy Act (NEPA) effectively and efficiently.

In a separate but parallel process, the Government of Canada, the Province of Ontario, the City of Windsor, and Essex County have continued to work together to reach agreement on additional initiatives to be pursued under the "Let's Get Windsor-Essex Moving" strategy. This initiative is aimed at relieving congestion and improving traffic flows to existing crossings in a manner that is consistent with the requirements of the Detroit River International Crossing Project.

## 1.2 Study Location

The transportation problems identified during the P/NF Study formed the basis for this EA study and for the development of a study area in The Windsor-Essex region of Southwestern Ontario (refer to **Exhibit 1.1**).

The study has focused on confirming the need, confirming the study area, and then generating, assessing, and evaluating alternatives to address the identified transportation needs. As the process

unfolded, the analysis area continued to focus on specific areas associated with illustrative and practical alternatives, and finally on the Technically and Environmentally Preferred Alternative (TEPA).

**EXHIBIT 1.1 – STUDY AREA**



### 1.3 Study Purpose, Objectives and Scope

The Windsor-Detroit border crossing represents an important trade corridor between the United States and Canada. Based on 2006 border crossing statistics, approximately 28% of Canada-US surface trade passes through Windsor-Detroit.

The purpose of the undertaking is to provide for the safe, efficient and secure movement of people and goods across the Canadian-US border in the Detroit River area to support the economies of Ontario, Michigan, Canada and the US.

Given the importance of this trade corridor to the local, regional and national economies and the negative effects associated with poor traffic operations and congestion already occurring at existing

crossings, it was recognized that the partnering governments must take all responsible steps to reduce the likelihood of disruption to transportation service in this corridor.

In order to meet the purpose, this study has addressed the following regional transportation and mobility needs:

- Provide new border crossing capacity to meet increased long-term travel demand;
- Improve system connectivity to enhance the continuous flow of people and goods;
- Improve operations and processing capabilities at the border; and
- Provide reasonable and secure crossing options (i.e. network redundancy).

In addition, the study team has sought to recommend transportation solutions which minimize community and environmental impacts as much as reasonably possible. In particular, the study team has strived to address the local communities' goals to:

- Improve quality of life;
- Take trucks off local streets; and
- Improve traffic movement across the border.

The objectives of the study can generally be expressed in terms of the seven key evaluation factors that were developed in consultation with the public and were used to evaluate all of the alternatives developed during the study. These included:

#### **Changes to Air Quality**

- How will each alternative affect future levels of pollutants in the atmosphere in the next 10, 20, and 30 years?

#### **Protection of Community and Neighbourhood Characteristics**

- How will each alternative affect homes and businesses?
- How will each alternative affect future traffic conditions?
- How will each alternative affect future noise and vibration levels?

#### **Consistency with Existing and Planned Land Use**

- How does each alternative affect existing and future planned land use?

#### **Protection of Cultural Resources**

- How will each alternative affect historical, cultural and archaeological features in the area?

#### **Protection of the Natural Environment**

- How will each alternative affect ecosystems, species, water systems or other important natural resources?
- How will environmentally significant area or species at risk be affected by each alternative?

#### **Improvements to Regional Mobility**

- What will be needed to improve traffic flows in this area?

- How will each alternative affect future traffic conditions?
- How can a new river crossing and plaza be efficiently managed?

#### **Cost and Constructability**

- What is the cost of each alternative?
- Is each alternative constructible?
- Will each alternative provide value for the tax dollar?

## **1.4 Key Components of the EA Study**

A key component of the EA study involved preparing an Environmental Assessment Report (EA Report), which documents the environmental effects and the process that has been followed leading to the selection of the Technically and Environmentally Preferred Alternative (TEPA). To support the analysis and evaluation of alternatives, environmental and technical studies have been undertaken during the preparation of the EA Report, and results have been fully documented in supporting documents which are listed after the table of contents at the beginning of this report and available on the project website at [www.partnershipborderstudy.com](http://www.partnershipborderstudy.com).

## **1.5 Overview of Study Process and Schedule Milestones**

The study process followed the requirements of the OEA and CEAA, and was guided by the approved EA ToR. As detailed in subsequent sections of this report, each stage of the study included systematic and thorough analysis at an appropriate level of detail as well as consultation with the affected stakeholders and the public. Overall project processes and schedule milestones are illustrated in **Exhibit 1.2**.

Specifically, the process involved outlining and confirming the purpose and need for the undertaking. Planning work undertaken in the previous P/NF Study (2001 – 2004) was reviewed and updated. That work confirmed the need for a new international crossing in the Windsor-Detroit area as part of a 30-year long term border strategy. The results of the analysis and a long list of illustrative plaza, crossing and access road alternatives were presented to the public and other stakeholders for input and review.

In parallel with the above activities, the study team prepared *Work Plans* (available as supporting documents) that would guide the analysis of alternatives throughout the Environmental Assessment. These were reviewed by the appropriate approval agencies, and were also made available to the public and key stakeholders for comment. The Work Plans are available as a supporting document.

As illustrated in **Exhibit 1.2**, this EA study commenced in January 2005. During the spring of 2005, the study team updated traffic forecasts, confirmed the need for the project, and generated a long list of illustrative alternatives.

The first round of Public Information Open Houses (PIOHs) was held in June 2005, focused on the purpose and need for the study, and presented the illustrative plaza, crossing and access road alternatives for public review and comment. Attendees were also asked to provide input into the

development of the seven evaluation factors to be used throughout the remainder of the study to help determine the impacts associated with each alternative developed.

A thorough and systematic analysis and evaluation of this long list of alternatives was carried out during the fall and the results were shown to the public and key stakeholders for input and review late in 2005. The results of the evaluation identified an Area of Continued Analysis (ACA).

At the second round of PIOHs, held in November/December 2005, the study team presented the evaluation of the illustrative alternatives, as well as the Area of Continued Analysis that had been identified on the basis of this evaluation.

Early in 2006, the team developed practical crossing, plaza and access road alternatives within the ACA. At the third round of PIOHs, held in March 2006, the practical alternatives for the plaza, crossing and access road were presented. In addition, attendees were encouraged to provide feedback on the potential locations for interchanges, local access considerations (including service road options) and cross-sectional alternatives for at-grade, depressed and tunneled roadways.

The remainder of the 2006 calendar year focused on analysis of the practical alternatives. At the fourth round of PIOHs, held in December 2006, the study team presented the preliminary analysis to date of the practical alternatives for the plaza, crossing and access road. The public was advised on the status of the analysis work and conclusions to date. They were encouraged to comment on the analysis and work completed to date as well as the methods used to carry out the work conducted.

During 2007, analysis of the five original practical alternatives continued. As analysis of the practical alternatives proceeded, it became apparent that considerable property acquisition would be required, regardless of the alternative. Informal consultation continued into the spring and summer of 2007 with growing interest around a concept which would have some tunneled sections. At meetings with the City of Windsor the notion of a more “green” alternative emerged. The concept, as conceived by the City, would include a green corridor with tunneled sections, a grade separated recreational trail system, and extensive urban design of the green areas.

The study team utilized these ideas, plus its own, to develop a Parkway alternative. The alternative included 10 tunneled sections (total length 1.5 km), a grade separated recreational trail network, and extensive areas of future green space.

At the fifth round of PIOHs, held in August 2007, the study team presented this new below-grade alternative. Described as a green transportation corridor, the access road for international traffic would be below-grade with a number of tunnels. Information on the evaluation process to be undertaken in selecting a technically and environmentally preferred alternative for the crossing, plaza and access road was provided. As well, the public was invited to provide their ideas and comments to help the study team evaluate all the alternatives and develop a single preferred alternative.

The Partnership announced The Windsor/-Essex Parkway as the Technically and Environmental Preferred Alternative for the access road portion of the project in May 2008, and the preferred location for the international bridge crossing and Canadian plaza in June 2008.

At the sixth round of PIOHs, held in June 2008, the study team presented a broad overview of the study, as well as the analysis and evaluation process leading to the selection of The Windsor-Essex Parkway, Plaza B1, and Crossing X-10B as the Technically and Environmentally Preferred Alternative (TEPA). In addition, the study team responded to the “GreenLink” concept that had been suggested by

the City of Windsor in terms of its similarities and differences to the recommended “Parkway” alternative.

The remainder of 2008 focused on detailed analysis and identification of appropriate mitigation measures for the TEPA, as well as documentation of the Environmental Assessment Reports. These measures were included in a draft version of this EA Report, which was made available to the public, agencies, municipalities, First Nations, and other interested parties for review in November 2008.

## 1.6 Study Process: A Coordinated Approach

The Partnership’s goal was to conduct essentially one body of work pertaining to alternative generation, analysis and evaluation, and document the project findings in format(s) suitable for circulation and review by the bi-national government agencies/ministries/departments and the general public.

A key principle of the process was that government ministries / departments / agencies, as well as non-government agencies, interest groups, community groups and interested members of the public were provided the opportunity to participate and offer input throughout the study. The Partnership proactively sought input from all stakeholders at key points in the decision-making process.

In addition, throughout the environmental study process, the Partnership coordinated meetings between Canadian and United States federal and state/provincial agencies of common/shared interests so that, as much as possible, a bi-national approach to identifying and addressing issues was developed.

Another key principle of the coordinated process was that, where two or more processes specified different requirements in conducting the study, the Partnership sought to incorporate the most rigorous requirement to the extent possible. However, there were certain requirements that were unique to a particular jurisdiction (i.e. Canada, United States, Ontario) that needed to be directly incorporated into the corresponding study process. These issues were addressed as required by the Partnership during the coordinated study process. This coordinated process is schematically illustrated in **Exhibit 1.3**.

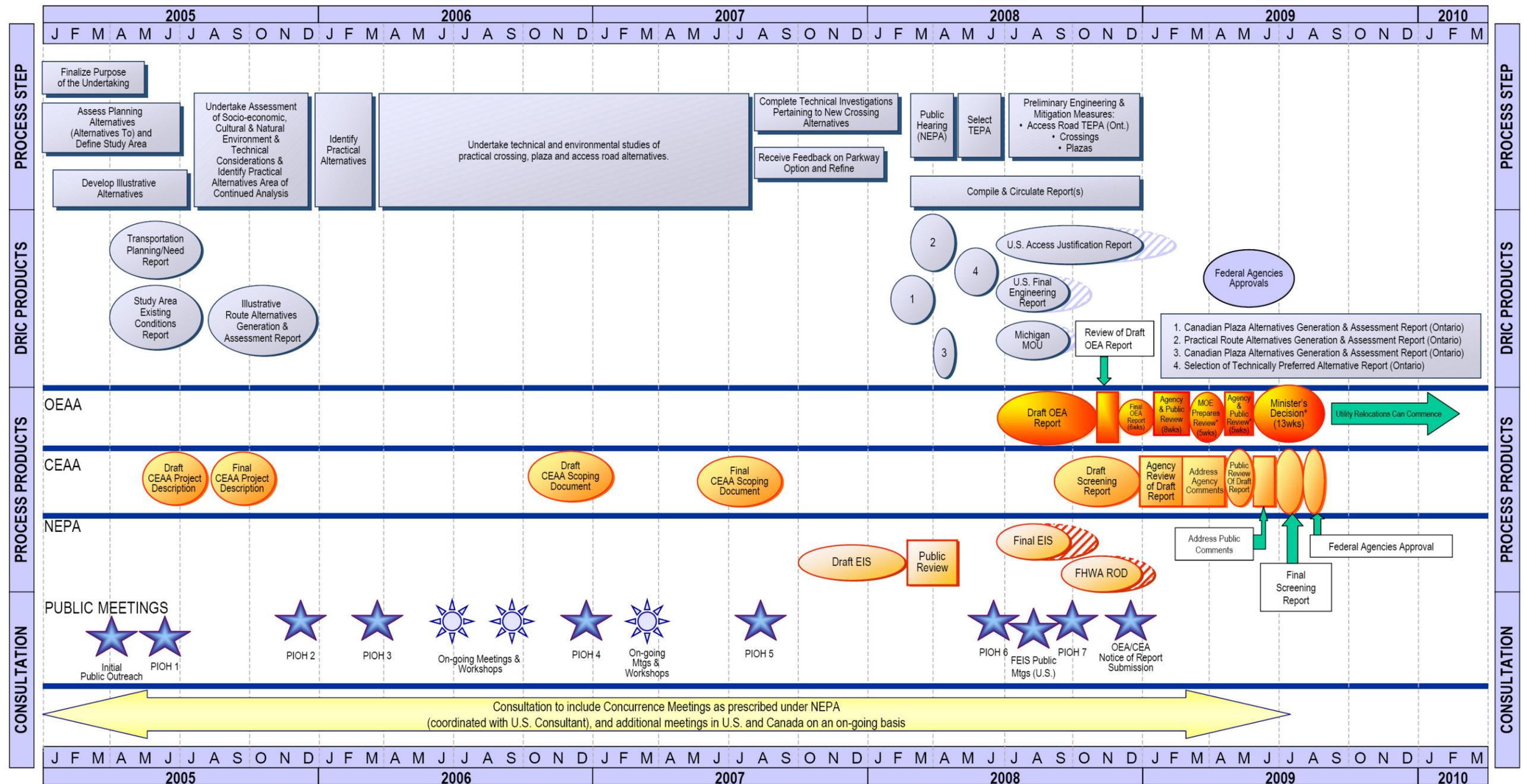
EXHIBIT 1.2 – OVERALL STUDY SCHEDULE



### Study Process Schedule



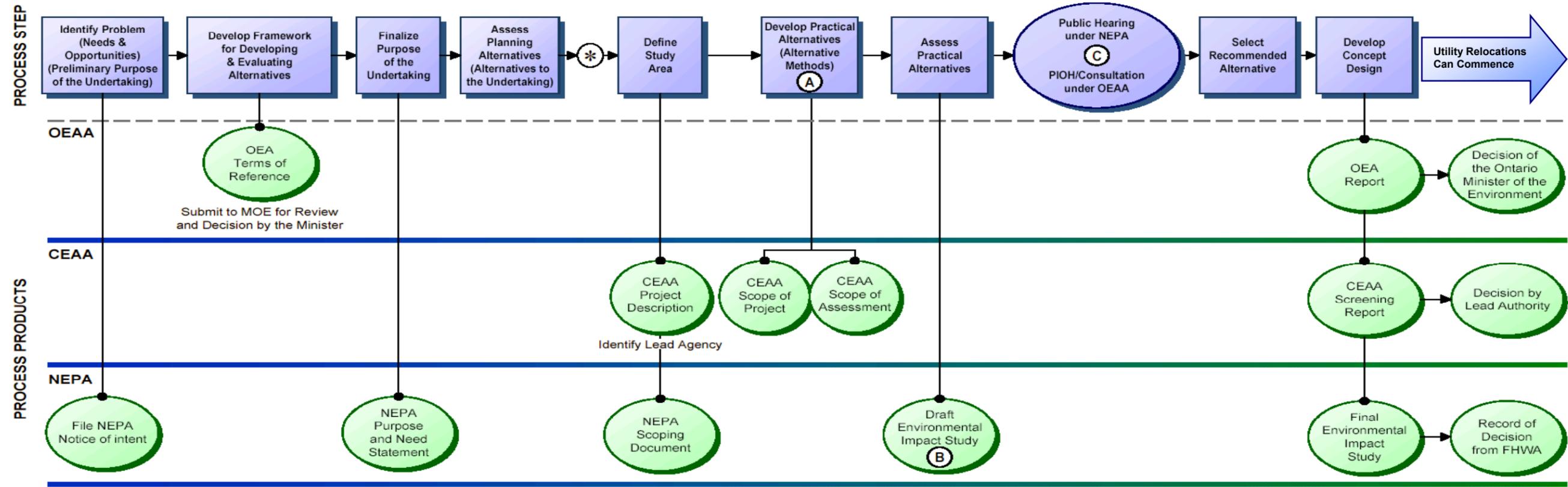
The activities and studies for the DRIC project will be conducted in accordance with the requirements of approval agencies in Canada and the U.S.



\*minimum legislated timeframes; these timeframes could be extended if there are significant concerns raised through the public and agency reviews



EXHIBIT 1.3 – COORDINATED NEPA/OEAA/CEAA PROCESS



\* Following the assessment of planning alternatives, the process for identifying a recommended linear transportation facility, for which MTO would serve as the proponent, is illustrated. If the assessment of planning alternatives recommends other/additional alternatives, appropriate planning/implementation processes may be initiated by other proponents. MTO will meet with MOE at this point of the integrated environmental study process to obtain guidance/comment on future actions.

A In developing practical alternatives, the Project Team will first identify illustrative alternatives. The preferred illustrative alternatives will be carried forward as practical alternatives (See Section 3.3).

B Under NEPA, the Draft EIS is typically prepared and circulated prior to any selection of a recommended alternative.

C The Public Hearing following the circulation of the Draft EIS is mandatory under NEPA.

## 1.7 Relevant Projects / Initiatives

### 1.7.1 Canadian Projects / Initiatives

Prior to the DRIC EA study, the governments of Canada and Ontario announced a joint investment in Windsor-Essex for the “Let’s Get Windsor-Essex Moving” strategy – a series of transportation infrastructure projects aimed at reducing congestion and improving efficiency in the local road network leading to the border crossings.

To date, more than \$100 million has been invested in this strategy on several projects including road-rail grade separations, road widening projects, installation of intelligent transportation systems and improvements to the Windsor-Detroit Truck Ferry.

The Ontario Ministry of Transportation continues to improve Highway 3 in Essex County through a two-phase widening project from Leamington to Windsor. Phase 1 includes the widening of Highway 3 from two lanes to four from the west junction of Essex County Road 34 to Essex County Road 8 near Windsor. This project was completed in 2008. Phase 2 begins in 2009 and will widen Highway 3 from two lanes to five from Essex County Road 11 to the west junction of Essex County Road 34.

The Detroit International Bridge Company/Canadian Transit Company have proposed to build a second span adjacent to the existing Ambassador Bridge, referred to as the *Ambassador Bridge Enhancement Project*. The project includes a new suspension bridge similar in appearance to the Ambassador Bridge, located along the same corridor. A federal environmental assessment under the Canadian Environmental Assessment Act has been initiated for the proposed Ambassador Bridge Enhancement Project.

In addition, the Ambassador Bridge Company recently acquired land to expand its plaza operations and toll booth capacity in Windsor, Ontario. Construction has begun to expand the Ambassador Bridge plaza.

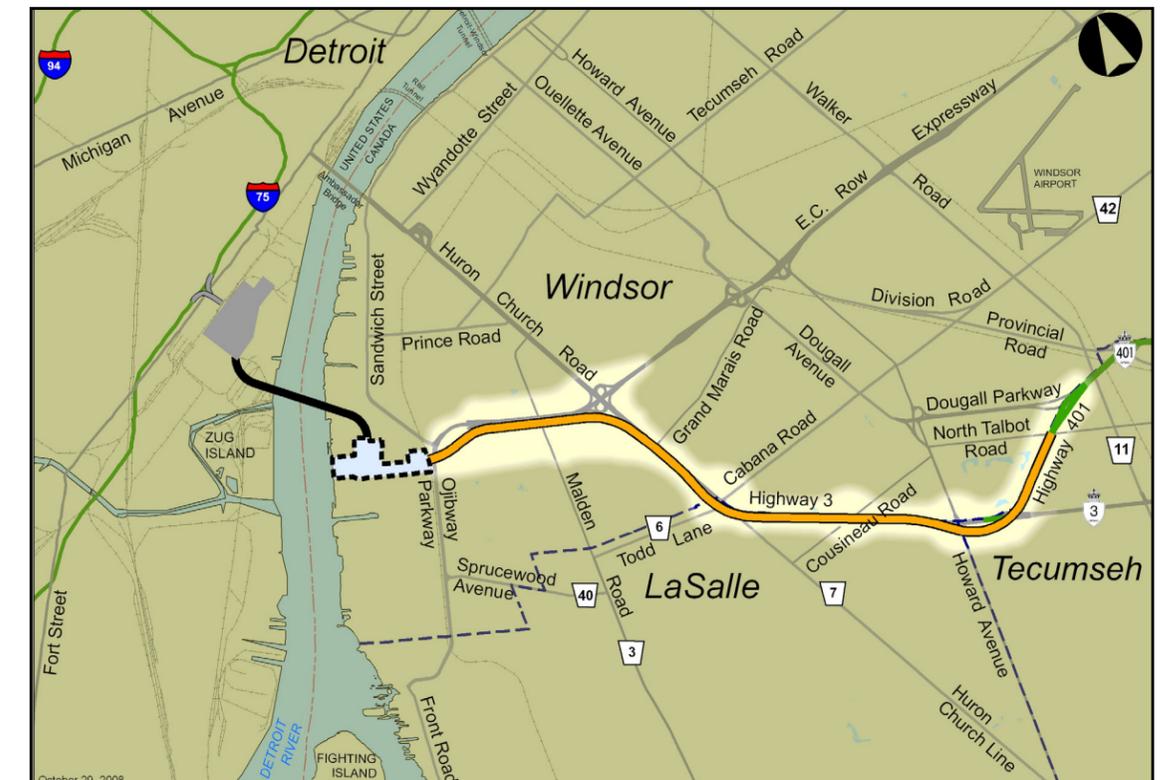
### 1.7.2 United States Projects / Initiatives

Construction is underway on the *Ambassador Gateway Project* in Detroit, Michigan. This project, which is being undertaken by the Michigan Department of Transportation (MDOT), is expected to be completed by December 2009. It will connect Detroit area freeways to the Ambassador Bridge and Detroit’s Mexicantown neighbourhood. The project includes redesigning the Ambassador Bridge US Plaza to improve safety and ease traffic flow.

## 1.8 Description of the Recommended Plan

After evaluating several illustrative and practical alternatives for the access road, Canadian inspection plaza, and the international bridge crossing within the study area, the Technically and Environmentally Preferred Alternative (TEPA) was selected. Key elements of the TEPA are described in the following sections. (Refer to **Exhibit 1.4** for an illustration of The Windsor-Essex Parkway corridor.)

EXHIBIT 1.4 – WINDSOR-ESSEX PARKWAY CORRIDOR



### 1.8.1

#### The Windsor-Essex Parkway

The Windsor-Essex Parkway is a key component of a new border transportation system that will provide a direct route connecting Highway 401 in Windsor, Ontario to Interstate 75 in Detroit, Michigan.

The Windsor-Essex Parkway is planned as a six-lane urban freeway with 11 tunnels and service roads. It allows long-distance international traffic to travel unimpeded by traffic signals to a new inspection plaza and river crossing while improving community linkages and providing extensive new trails, green space and other recreational opportunities. The Windsor-Essex Parkway includes:

- Over 300 acres of parkland;
- 20 km of recreational trails;
- 11 tunnels covering approximately 1.8 km of freeway;
- New 4-lane service roads;
- Improvements to the movement of traffic to and from the border;
- Stormwater management ponds in selected locations;
- Noise mitigation measures;
- Full illumination along the freeway; and
- Conventional illumination along service roads, side roads, and sections of the trail system.

From the inspection plaza easterly approximately 1 km to where the freeway portion of The Windsor-Essex Parkway approaches E.C. Row Expressway approximately 0.3 km east of Matchette Road, the proposed freeway is above-grade on an earth embankment and situated south of the existing E.C. Row Expressway corridor.

From approximately 0.3 km east of Matchette Road to approximately 0.4 km west of Huron Church Road, the freeway portion of The Windsor-Essex Parkway and E.C. Row Expressway are integrated into a core-collector system. In this section, the eastbound and westbound lanes of E.C. Row Expressway diverge and the freeway portion of The Windsor-Essex Parkway is aligned between them.

From north of Bethlehem Avenue/Labelle Street to approximately 1.0 km east of Howard Avenue, the proposed freeway is below-grade, predominantly in open-cut with grass side slopes. Retaining walls, either partial-height or full-height, are required in localized areas where necessary.

Within this section, the location of the service road relative to the freeway varies. From north of Bethlehem Avenue/Labelle Street to east of Huron Church Line the proposed service road is adjacent to the proposed freeway on the east/north side. From east of Huron Church Line to approximately 0.7 km west of Howard Avenue, the proposed service road is situated on the south side of the proposed freeway. From 0.7 km west of Howard Avenue to approximately 0.3 km east of Howard Avenue, the proposed service road is once again located adjacent to the proposed freeway on the north side. East of this location, no service road is proposed.

From approximately 1.0 km east of Howard Avenue to North Talbot Road, The Windsor-Essex Parkway is predominantly at existing grade. There is no service road proposed through this section.

## 1.8.2 Plaza B1

On the Canadian side, plaza alternatives were developed considering the need to provide improved border processing facilities to meet future travel demand and security requirements at the border crossing. All plaza alternatives considered were much larger than the current plazas at the Ambassador Bridge and the Detroit-Windsor Tunnel. The new plaza, Plaza B1 will be designed to serve the future (2035) travel demands at the border crossing. The sizing of the plaza will be such that future expansion will be possible by way of constructing additional inspection booths or tolls.

Plaza B1 was developed in consultation with Canada Border Services Agency and provides sufficient areas for primary inspection lane booths and on-site secondary inspection of people and goods. The plaza alternative also allows for dedicated NEXUS and FAST lanes and provides for a substantial improvement of border crossing processing capabilities.

Canada Border Services Agency has reviewed and tested functional layouts of the plaza alternatives to confirm the suitability under future traffic conditions. Plaza B1 includes:

- Total plaza area of 137 acres (55 hectares);
- Total of 29 inbound inspection lanes;
- Total of 103 secondary inspection parking spaces for commercial vehicles;
- Nine toll collection lanes; and
- Stormwater management features to control quality and quantity of runoff water.

The final design of the plaza will incorporate a local access road along the edge of the plaza that will provide continuity for traffic between Sandwich Street and Broadway Street as well as access for plaza employees. Local access will also be provided at the north end of the plaza from a realigned Sandwich Street to the Brighton Beach Power Station and Keith Transformer Station.

## 1.8.3 Crossing X-10B

The new Detroit River crossing is being developed as a six-lane bridge providing three Canada-bound lanes and three US-bound lanes. The capacity of the new crossing, Crossing X-10B will accommodate future travel demand, both in terms of meeting capacity and providing flexibility to stream traffic on the crossing to improve border process (e.g. designated NEXUS/FAST lane).

The new river crossing will be constructed to link inspection plazas on the Canadian and US sides of the Detroit River, and will be a key component of the new end-to-end transportation system that will link existing Highway 401 to the US Interstate system. The crossing will consist of both a main bridge that will span the width of the Detroit River, and approaches to the main bridge constructed on piers that will connect to plazas in both Canada and the US. The main bridge and approaches will be constructed on the Crossing X-10B alignment.

Two bridge types are being considered for the new crossing: a cable-stayed bridge and a suspension bridge. Selection of the bridge type will be made by the Partnership during subsequent design phases of this project.

The reader is referred to **Chapter 9** for further details with regard to on The Windsor-Essex Parkway, Plaza B1, and Crossing X-10B.