

DETROIT RIVER INTERNATIONAL CROSSING STUDY

PRESENTATION TO WALPOLE ISLAND FIRST NATION

APRIL 3, 2006

Purpose of the DRIC Study

To provide for the safe, efficient and secure movement of people and goods across the Canadian-U.S. border in the Detroit River area to support the economies of Ontario, Michigan, Canada and the U.S.

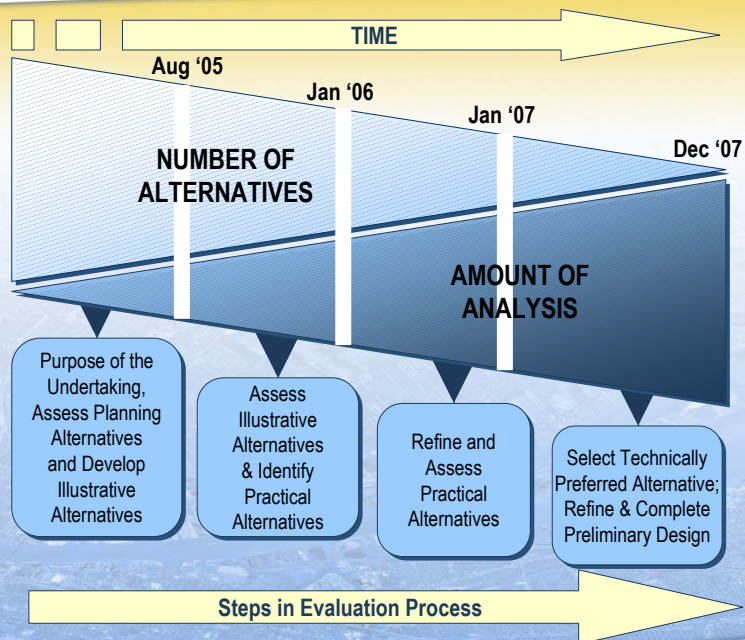
In order to meet the purpose, this study must address the following regional transportation and mobility needs:

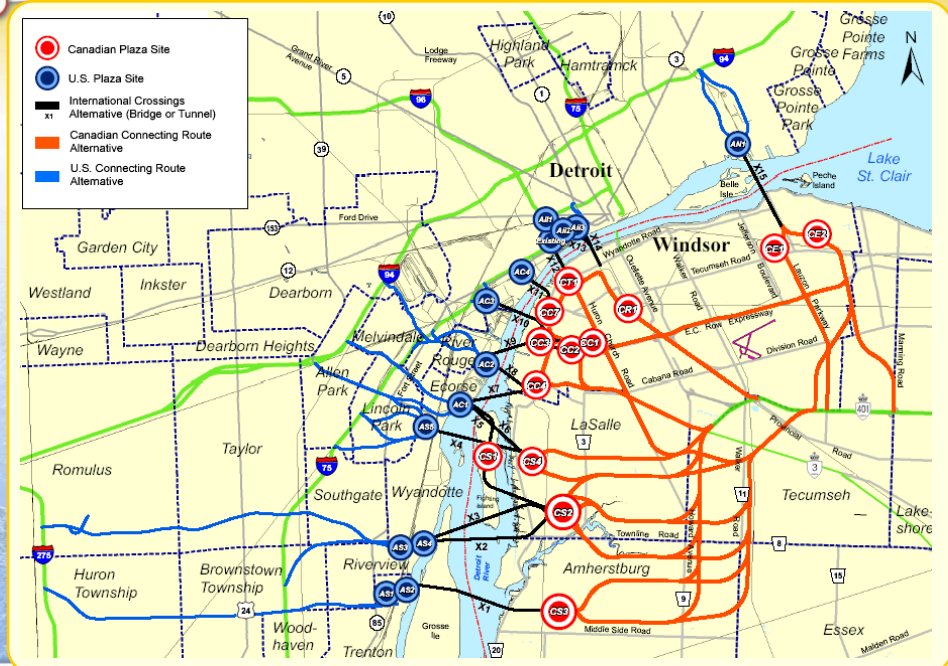
- Provide new border crossing capacity to meet increased long-term travel demand;
- Improve system connectivity to enhance the continuous flow of people and goods;
- Improve operations and processing capabilities at the border; and
- Provide reasonable and secure crossing options (i.e. network redundancy)

Given the importance of this trade corridor to the local, regional and national economies and recognizing the negative effects associated with poor traffic operations and congestion, the partnering governments must take all reasonable steps to reduce the likelihood of disruption to transportation service in this corridor.

Study Area Features, Opportunities & Constraints	April '05	Initial Public Outreach
Initial Set of Crossing Alternatives, Plaza Locations & Connecting Routes in Canada and the U.S.	June '05	PIOH1
Area of Continued Analysis	December '05	PIOH2
Specific Crossing, Plaza and Access Road Options	March '06	PIOH3
Results of Social, Economic, Environmental and Engineering Assessments	December '06	PIOH4
Preferred Crossing Location, Plaza Locations & Connecting Routes in Canada and the U.S.	Spring '07	PIOH5
Finalize Engineering and Mitigation Measures	Summer '07	PIOH6
Document Study and Submit for Approvals	End of '07	Public Review

The underlying principle for the alternatives generation and evaluation process is to start with a broad perspective and become more focused/detailed as the project progresses.





- Changes to Air Quality
- Protection of Community and Neighbourhood Characteristics (includes assessment of residential and business property impacts, impacts to noise levels, access and community features)
- Consistency with Existing & Planned Land Use
- Protection of Cultural Resources (includes parks, historic sites and areas of archaeological significance)
- Protection of Natural Environment (includes plant and animal species and habitat features)
- Improve Regional Mobility
- Minimize Cost (includes assessment of constructability issues).

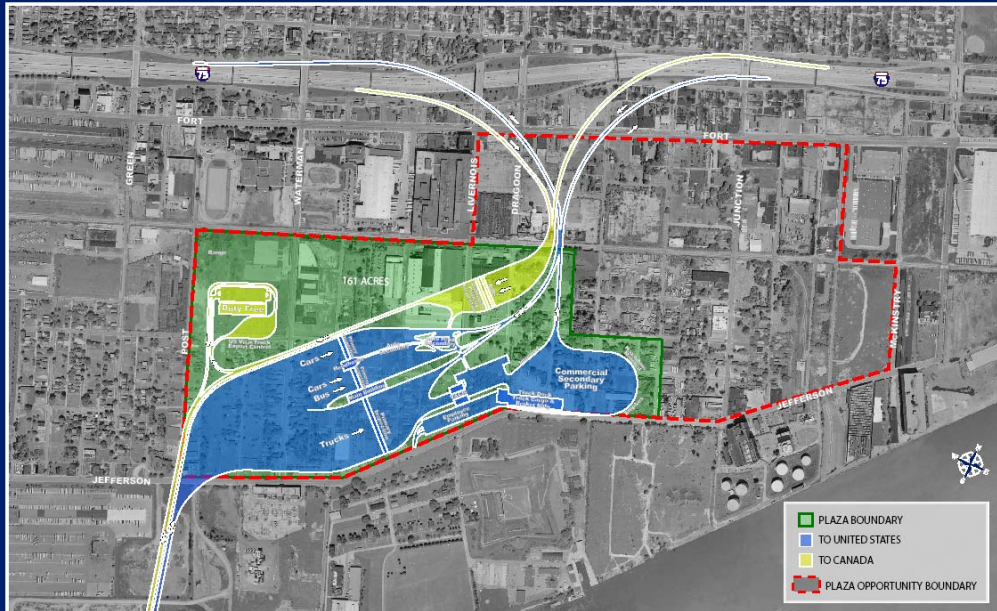
Area of Continued Analysis (ACA)



Development of Plaza and Crossing Options



Detroit River



PARSONS

Option 3

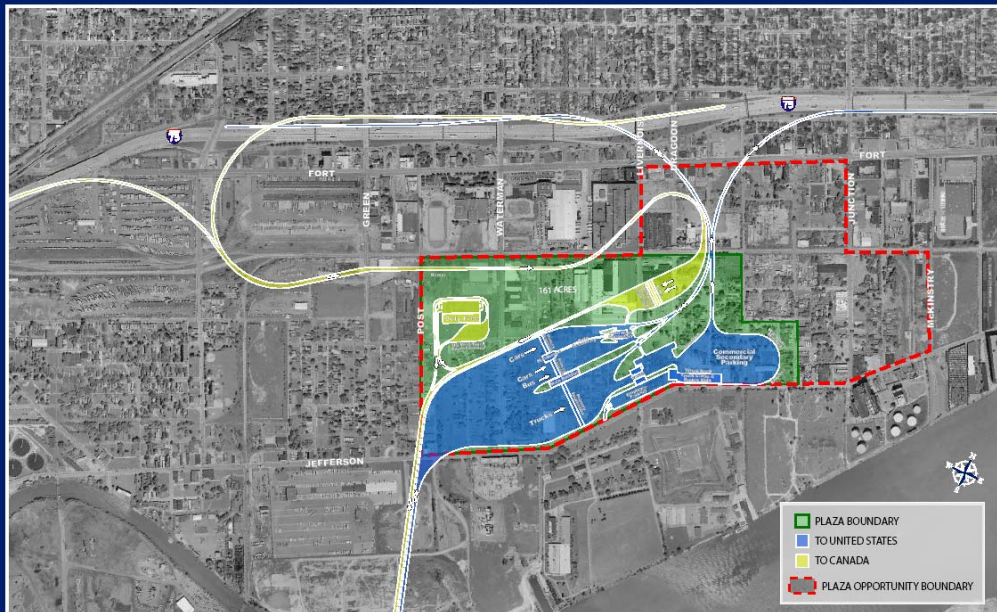


DETROIT RIVER INTERNATIONAL CROSSING ENVIRONMENTAL ASSESSMENT



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Detroit River



PARSONS

Option 4



DETROIT RIVER INTERNATIONAL CROSSING ENVIRONMENTAL ASSESSMENT



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Detroit River



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Option 4



U.S. Department of Transportation
Federal Highway
Administration



Ontario



DETROIT RIVER INTERNATIONAL CROSSING ENVIRONMENTAL ASSESSMENT



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Detroit River



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Option 5



U.S. Department of Transportation
Federal Highway
Administration



Ontario



DETROIT RIVER INTERNATIONAL CROSSING ENVIRONMENTAL ASSESSMENT



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Option 5



U.S. Department of Transportation
Federal Highway
Administration



Ontario



MDOT
Michigan Department of Transportation

DETROIT RIVER INTERNATIONAL CROSSING ENVIRONMENTAL ASSESSMENT



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Option 1



U.S. Department of Transportation
Federal Highway
Administration



Ontario



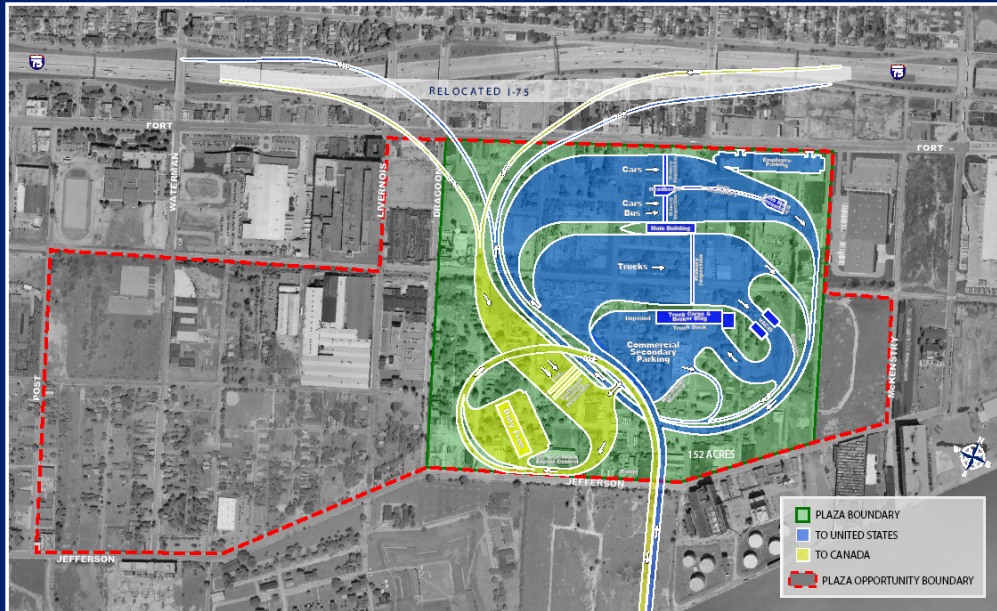
MDOT
Michigan Department of Transportation

DETROIT RIVER INTERNATIONAL CROSSING ENVIRONMENTAL ASSESSMENT



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Detroit River



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Option 1A



Federal Highway Administration



Ontario



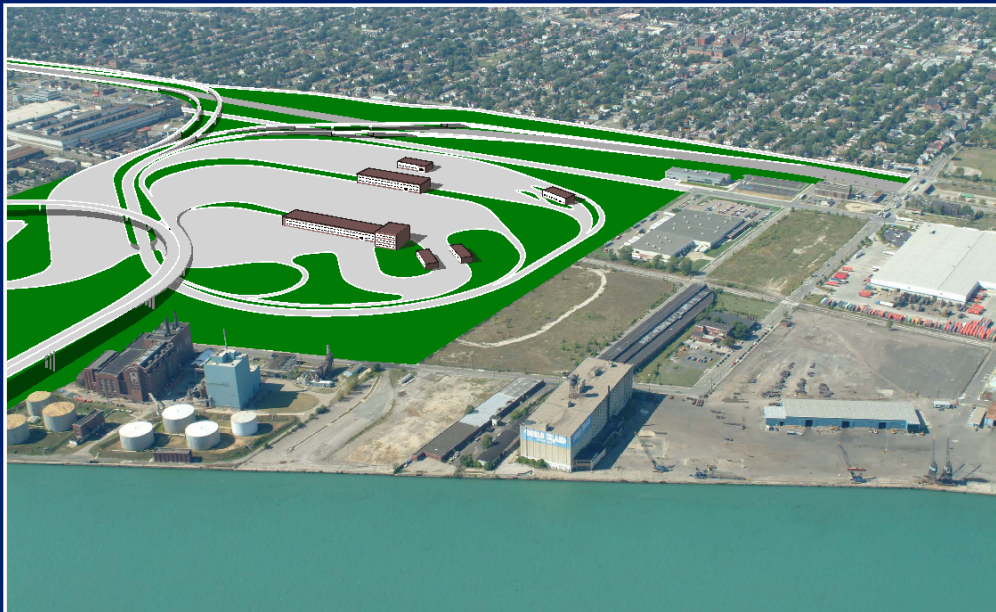
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Michigan Department of Transportation

DETROIT RIVER INTERNATIONAL CROSSING ENVIRONMENTAL ASSESSMENT



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Detroit River



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Option 1A



Federal Highway Administration



Ontario



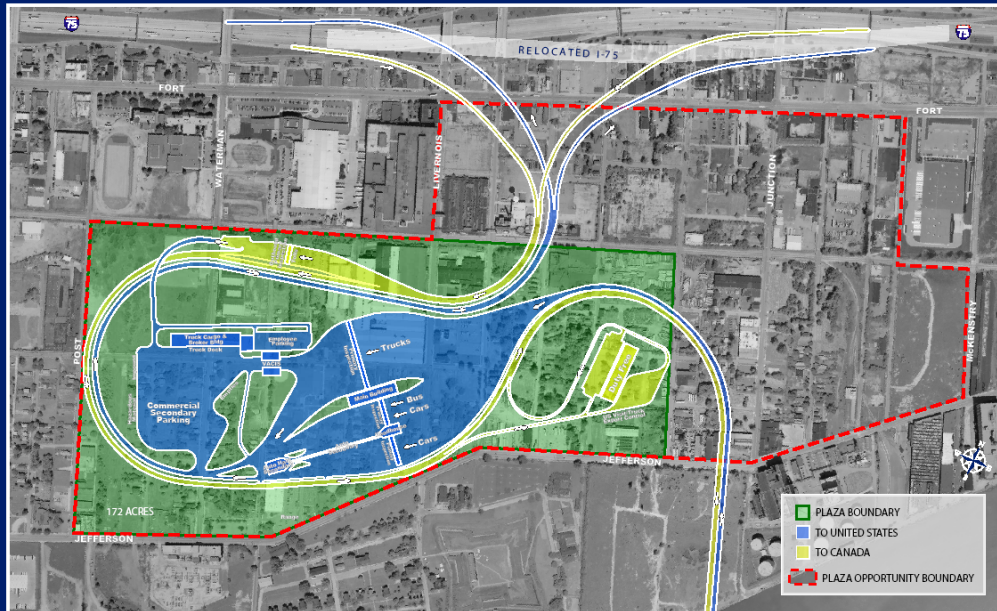
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DETROIT RIVER INTERNATIONAL CROSSING ENVIRONMENTAL ASSESSMENT



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Detroit River



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Option 2



DETROIT RIVER INTERNATIONAL CROSSING ENVIRONMENTAL ASSESSMENT



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Detroit River



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Option 2A



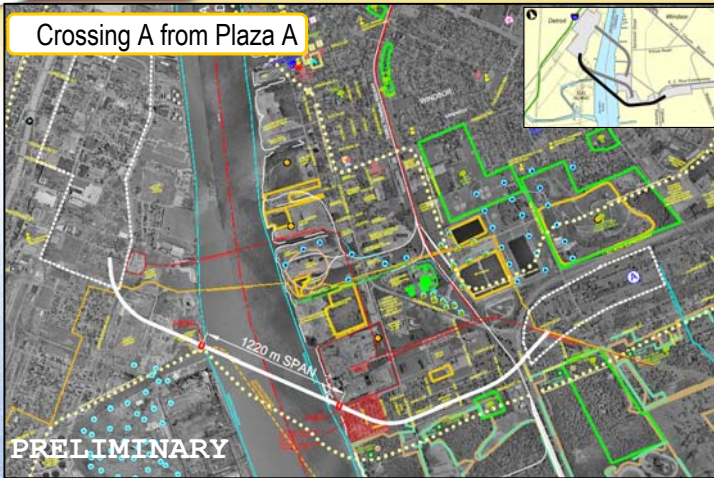
DETROIT RIVER INTERNATIONAL CROSSING ENVIRONMENTAL ASSESSMENT



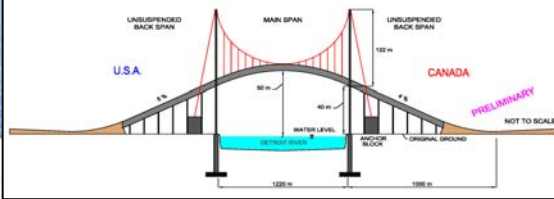
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Crossing Alternative A

Crossing A from Plaza A



CONCEPTUAL PROFILE – CROSSING A



	Connecting to PLAZA A
Main Span Length:	1220 m
Number of Lanes:	6
Distance to Touchdown:	1000 m
Maximum Height over River:	50 m
Approx Height over River at Shoreline:	40 m
Approx. Height of Towers:	160 m
Distance from River to Plaza:	1740 m

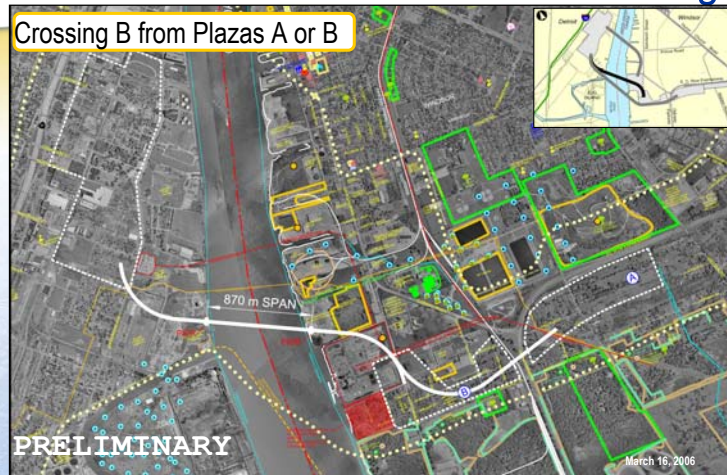
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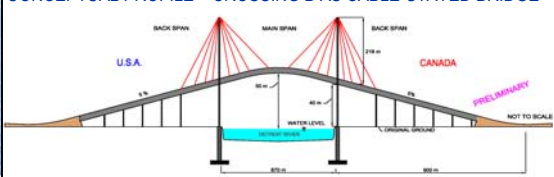
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Crossing Alternative B

Crossing B from Plazas A or B

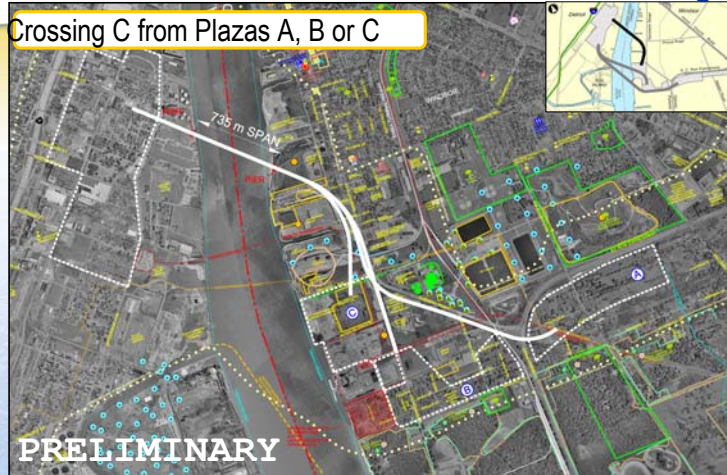


CONCEPTUAL PROFILE – CROSSING B AS CABLE-STAYED BRIDGE

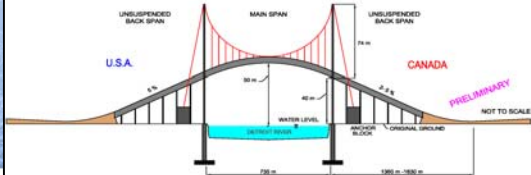


	Connecting to PLAZA A	Connecting to PLAZA B
Main Span Length:	870 m	870 m
Number of Lanes:	6	6
Distance to Touchdown:	1120 m	975 m
Maximum Height Over River:	50 m	50 m
Height over River at Shoreline:	40 m	40 m
Height of Towers:	125–260 m	125–260 m
Distance from River to Plaza :	2120 m	760 m

Crossing C from Plazas A, B or C

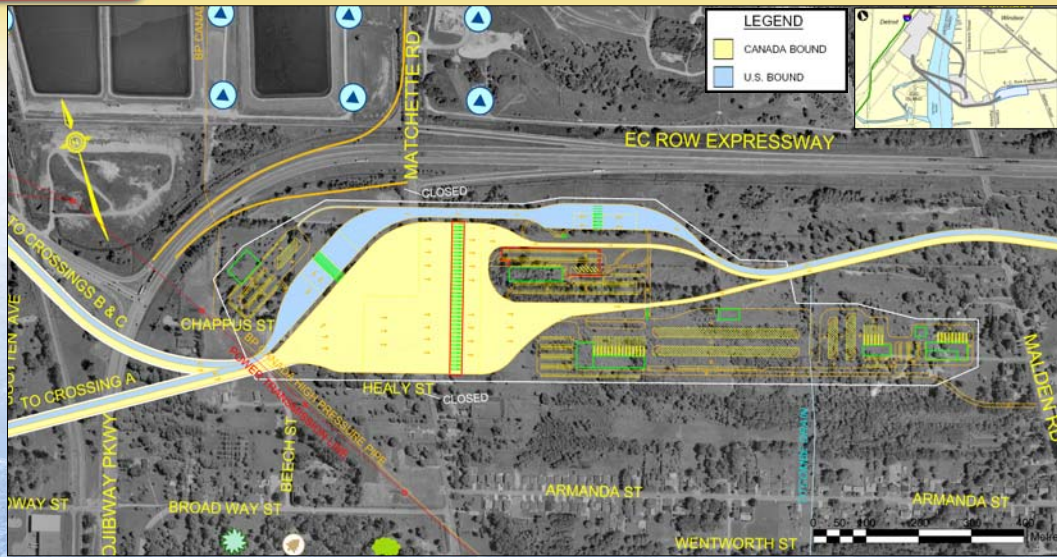


CONCEPTUAL PROFILE – CROSSING C AS A SUSPENSION BRIDGE



	Connecting to PLAZA A	Connecting to PLAZA B	Connecting to PLAZA C
Main Span Length:	735 m	735 m	735 m
Number of Lanes:	6	6	6
Distance to Touchdown:	1830 m	1920 m	1360 m
Maximum Height over River:	50 m	50 m	50 m
Height over River at Shoreline:	45 m (CAN)	45 m (CAN)	45 m (CAN)
Height of Towers:	115 – 225 m	115 – 225 m	115 – 225 m
Distance from River to Plaza:	2935 m	1955 m	1275 m





Area: Approx. 35 ha (85 acres)
Primary Inspection Lanes: 20 Passenger; 19 Commercial.
Other Major Functions: Secondary Inspection (Passenger/Commercial); Vehicle and Cargo Inspection System (VACIS); Agriculture Inspection; Toll Facilities.
Can Connect with: Crossings A, B & C

Land Uses Directly Affected: Residential; Industrial; Commercial.
Displacements: 66 Residential Existing; 19 Residential Under Construction
Utility Easements/ROWs: Power Transmission Line; BP Canada High Pressure Pipe
Realignments/Closures: Chappuis St.; Beech Street; Healy St.; Matchette Rd.





Area: Approx. 35 ha (85 acres)

Primary Inspection Lanes: 20 Passenger; 19 Commercial.

Other Major Functions: Secondary Inspection (Pass/Comm); Supplementary Inspection (VACIS); Agriculture Inspection; Toll Facilities.

Can Connect with: Crossings B & C

Land Uses Directly Affected: Brighton Beach; OPG Parking; Transformer Station; Nemak; Ojibway Natural Area.

Displacements: 12 Residential; 1 Manufacturing; 1 Utilities

Existing Easements/ROWs: Power Transmission Line

Realignments/Closures: Water St; Scott Ave; Cole Ave; Audrey Ave; Sandwich St; Chappus St; Page St; Wright St; Broadway St; Healy St; Reed Ave.; Dupont St.

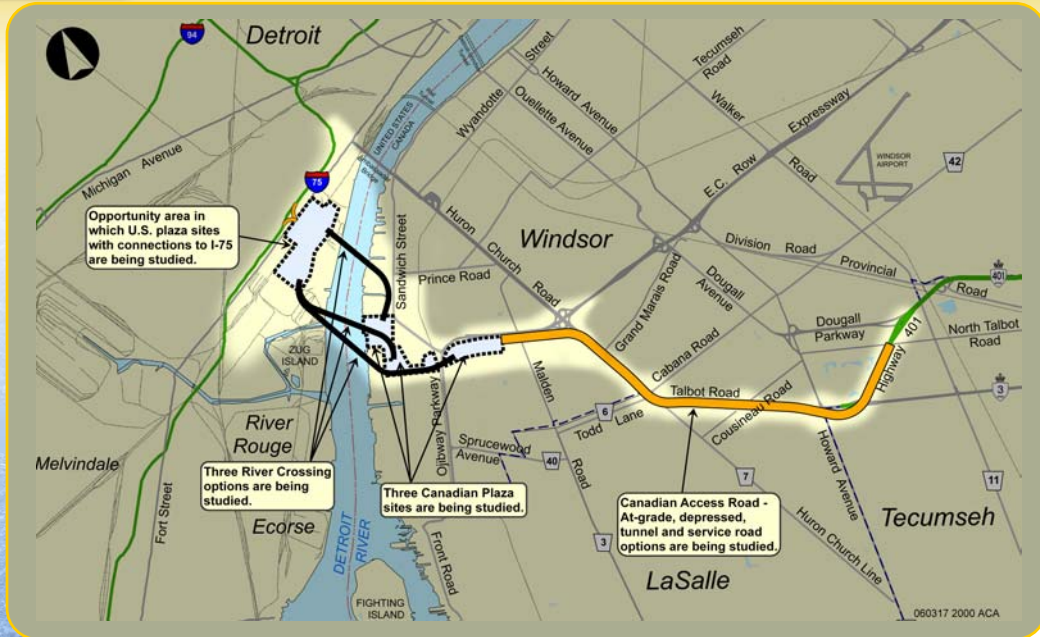




- Area:** Approx. 35 ha (85 acres)
- Primary Inspection Lanes:** 20 Passenger; 19 Commercial.
- Other Major Functions:** Secondary Inspection (Pass/Comm); Supplementary Vehicle Inspection (VACIS); Agriculture Inspection; Toll Facilities.
- Land Uses Directly Affected:** Hydro One Transformer Station; Aggregate Operation; Windsor Salt; OPG Parking
- Displacements:** Hydro One Transformer Station; Aggregate Operation; OPG Parking
- Easements/ROWs Relocation:** Power Transmission Lines
- Realignments/Closures:** Prospect Ave.; McKee St.; Euclid Ave.



Crossing, Plaza & Route Alternatives



Access Route Alternatives



1a

One-way service roads on either side of 6-lane freeway at grade.



1b

One-way service roads either side of 6-lane freeway depressed.



2a

Six-lane freeway at grade, along side Huron Church/Highway 3.



2b

Six-lane freeway depressed, parallel to Huron Church/Highway 3.



3

Cut and cover tunnel below rebuilt Huron Church Road/Highway 3 Corridor.

What's Next? – Additional Analysis

Acoustical and Vibration

- Site Surveys
- Consult with Agencies and Stakeholders
- Conduct Practical Routes Noise Assessment
- Develop Noise Mitigation Strategies

Air Quality

- Consult with Agencies and Stakeholders
- Conduct Practical Routes Air Quality Assessment
- Present Results of Air Quality Assessment

Natural Heritage

- Field Surveys – i.e. fisheries, migratory birds, and vegetation
- Conduct Effects Assessment
- Consult with Agencies and Stakeholders
- Develop Mitigation Strategies

Social Impact

- Individual Household Interviews
- Consultation with Residential Community Associations/Groups

What's Next? – Additional Analysis

Archaeological

- Prepare Stage One Documentary Survey
- Consult with Agencies and Stakeholders
- Conduct Stage Two Field Surveys at specific locations
- Develop Mitigation Strategies

Built Heritage

- Conduct Built Heritage Inventory
- Consult with Agencies and Stakeholders
- Develop Mitigation Strategies

Waste and Waste Management

- Field Surveys – i.e. sites
- Consult with Agencies and Stakeholders
- Develop Waste Management Strategies

Economic Impact

- Individual Business Interviews
- Consultation with Business Associations/Groups

Technical Considerations

- Conduct Geotechnical Surveys
- Develop Preliminary Geometric Design
- Develop Preliminary Construction Staging Plans
- Develop Preliminary Cost Estimates
- Consult with Municipalities, Agencies, and Stakeholders
- Develop Geometric Design Mitigation Strategies

Factors	Performance Measures
Changes to Air Quality	<ul style="list-style-type: none"> • Effect on concentration of particulate matter • Effect on concentration of gaseous pollutants
Protect Community and Neighborhood Characteristics	<ul style="list-style-type: none"> • Displacement of Residences and Social Features • Direct Impacts on Existing Businesses • Disruption to Residents and Social Features • Noise and Vibration Impacts • Community and Neighbourhood Impacts • Traffic Impacts • Municipal Impacts • Displacement of Businesses • Disruption of Businesses • Other Effects on Businesses
Maintain Consistency with Existing and Planned Land Use	<ul style="list-style-type: none"> • Impacts to Land Use (existing and planned) • Impacts to Development Plans • Impacts to Contaminated Sites/Disposal Sites
Protect Cultural Resources	<ul style="list-style-type: none"> • Impacts to Built Heritage Features • Impacts to Cultural Landscape Units • Impacts to Parklands • Impact to Archaeological Features
Protect the Natural Environment	<ul style="list-style-type: none"> • Impacts to Ecological Landscapes • Communities/Ecosystems • Population/Species • Surface Water/Groundwater Recharge Areas • Other Natural Resources
Improve Regional Mobility	<ul style="list-style-type: none"> • Assessment of Highway Network Effectiveness • Assessment of Continuous/ongoing River Crossing Capacity • Operational Considerations of Crossing System (River Crossing and Plaza)
Minimize Cost	<ul style="list-style-type: none"> • Preliminary Construction Cost • Assessment of Constructability

Community and Stakeholder Consultation



Next Steps

Consultation with Municipalities, Agencies, First Nations Interest Groups and U.S. Project Team

Ongoing

Obtain Comments on Crossing, Plaza and Access Road Options

March - April '06

PIOH3 Meeting at Ciociaro Club

March 28

PIOH3 Meeting at Novelletto Rosati Complex

March 30

Workshop at Ciociaro Club *(Please Register to Attend)*

April 11

Workshop at Novelletto Rosati Complex *(Please Register to Attend)*

April 12

Assess Options

Spring/Summer '06

Meetings to be scheduled for May, June and August

Other meetings upon request

Present Results of Assessment

Nov./Dec. '06

PIOH 4 and Workshops

To be Scheduled

Present Selection of Technically and Environmentally Preferred Alternative

Spring '07

PIOH5 and Workshops

2005	2006	2007	2008	2009	2010	2011	2012	2013
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