Appendix P

Canadian Environmental Document

NOTICE

The information contained in this Appendix was developed strictly for the purpose of evaluating the environmental impacts associated with the Ambassador Bridge Enhancement Project and responding to the regulatory requirements applicable to this proposal. Use of this information for other purposes is not intended, and any such use is at the risk of the user.

CEAA ENVIRONMENTAL

ENVIRONMENTAL IMPACT STATEMENT

AMBASSADOR BRIDGE PROPOSED PROJECT

Replacement Span

Submitted by:
Canadian Transit Company
780 Huron Church Rd., Suite 202
Windsor Ontario
N9C 2K2

Submitted to:
TRANSPORT CANADA
Place de Ville, Tower C
330 Sparks
Ottawa, Ontario
K1A 0N5

December 4, 2007

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CEAA ENVIRONMENTAL IMPACT STATEMENT

SUMMARY

A. PROJECT IDENTIFICATION

Project Title / Type: Replacement Span

Cost Estimate: Approximately $1 billion

Project Location: City of Windsor, Ontario, Canada

Project Scheduling:

- Estimated Work Start Date: Spring 2008
- Estimated Work Completion Date: Fall 2010
- Estimated Transfer Date (if applicable): N/A

CEAA Trigger: Federal Permit required under Navigable Waters Protection Act and crossing of lots owned by Windsor Port Authority.

EA Start Date: July 18, 2006

CEAR No.: 06-10-21100 TC File No.:

B. CONTACTS

Transport Canada:	Name:	Kaarina Stiff Environmental Assessment Project Manager Surface Infrastructure Project Manager Transport Canada Place de Ville, Tower C 330 Sparks St. Ottawa, ON K1A 0N5
	Telephone No.:	(613) 990-2861
	Fax No.:	(613) 990-9369
Other Agencies (Contact):	Name:	David Cree President and Chief Executive Officer Windsor Port Authority #502 Westcourt Place Windsor, ON N9A 6V2
	Telephone No.	(519) 258-5741
	Fax No.:	(519) 258-5905

	Name:	Mohammad Murtaza Senior Program Officer Canadian Environmental Assessment Agency 55 St. Clair Avenue East Suite 907 Toronto, ON M4T 1M2
	Telephone No.:	(416) 952-1585
	Fax No.:	(416) 952-1573
Proponent:	Name:	Canadian Transit Company Dan Stamper President Canadian Transit Company 780 Huron Church Road, Suite 202 Windsor, ON N9C 2K2
	Telephone No.:	(586) 939-7000 ext. 2551
	Fax No.:	(586) 755-4899
Proponent (Contact):	Name:	Dan Stamper President
	Telephone No.:	(586) 939-7000
	Fax No.:	(586) 755-4899

C. NOTIFICATION

Other Responsible Authorities: Yes [X] None Identified [ ]

D. MITIGATION AND FOLLOW-UP

Yes [X] None Identified [ ]

E. *CEAA* DETERMINATION

The project is not likely to cause significant adverse environmental effects. The project can proceed with application of the mitigation measures specified in this report.

1.0 PROJECT DESCRIPTION

This report is a Screening-Level Environmental Assessment for the construction and operation of a new international bridge across the Detroit River parallel to the existing Ambassador Bridge that connects into the existing plazas and infrastructure in both Canada and the United States ("Project"). Transport Canada and the Windsor Port Authority, the federal Responsible Authorities ("RA") delegated preparation of the Environmental Impact Statement ("EIS") to the Canadian Transit Company (referred to as the "Ambassador Bridge Company"), the Proponent. Avalon Consulting, with the assistance of Ortech Environmental, HGC Engineering, Museum of Ontario Archaeology and N. K Becker Incorporated ("Study Team") have undertaken this EIS on behalf of the Ambassador Bridge Company. The EIS also provides responses to issues raised by reviewers of the Project including Transport Canada and Environment Canada. The EIS also responds to the issues raised by the public.

1.1 Project Description

The Ambassador Bridge is one of the busiest international border crossing in North America and a vital link for both Canada and the United States. The Ambassador Bridge corridor served 9.353 million vehicles in 2006 with 3.5 million of those being trucks and buses.

The Ambassador Bridge that links the City of Windsor with the City of Detroit became operational on November 11, 1929. When the Ambassador Bridge was constructed it was state-of-the-art for the twentieth century. Seventy-eight years later, the Ambassador Bridge continues to stand as a majestic structure on the Windsor-Detroit sky line.

The Ambassador Bridge was built with private sector funds in 1929 and continues to be perfectly safe and functions as one of the busiest international crossings. It is critical to plan for the future with the proposed replacement span taking into account the importance of this international crossing, the level of use, current and future customs requirements, and the age of the Ambassador Bridge.

Twenty-five percent of Canada's imports and exports flow over the existing Ambassador Bridge. There is no question that this crossing is a vital link in our local and national economy. Tens of thousands of jobs are supported directly or indirectly by the Ambassador Bridge.

The Ambassador Bridge Company is proposing to construct a replacement span that will be a six-lane cable-stayed bridge, located approximately 30.5 metres (100 feet) from the centre line of the existing Ambassador Bridge to the centre line of the proposed bridge which is referred to as the Proposed Project or the replacement span ('Project"). The proposed cable-stayed construction is state-of-the-art construction for the twenty-first century and will create another magnificent landmark for the Windsor-Detroit sky line.

As mentioned, the existing Ambassador Bridge is approximately eighty years old, and it is no longer economical to operate without undertaking significant upgrades to continue to move traffic efficiently. Also, the Ambassador Bridge lacks dedicated FAST/NEXUS lanes, an amenity that has been requested by the Customs authorities of both the United States and Canada. It is

not feasible to widen the structure of the existing Ambassador Bridge to accommodate the addition of these lanes. The original safety shoulders constructed seventy-eight years ago no longer meet current standards. The construction of the replacement span will improve traffic flow, mitigate noise impacts and air pollution, and be safer for drivers, while ensuring the continued viability of this vital international corridor.

The Project will connect directly into the existing plazas in both the Cities of Windsor and Detroit. Changes have been made over the years to both customs plazas to accommodate new processing requirements and traffic volumes Both plazas have been designed to accommodate the proposed replacement span.

The proposed Project, similar to the Ambassador Bridge will be entirely privately funded, meaning that no municipal, state, provincial, or federal tax funds are required to complete the replacement span. The construction of the proposed Project will maintain southwestern Ontario's world class international corridor and keep vehicular traffic flowing efficiently and effectively across the Windsor-Detroit border.

The Project is a bridge approximately 1,890 metres (6,200 feet) in length with about 670 metres (2,200 feet) traversing the Detroit River from tower to tower. The bridge will be a minimum of 46 metres (152 feet) in height above the Detroit River, with the same minimal clearance of the existing Ambassador Bridge and have no impacts on navigational clearance requirements of either Canada or the United States. The location of the Canadian tower will be approximately 30.5 metres (100 feet) south of the Detroit River and the United States tower will be situated approximately 30.5 metres (100 feet) north of the Detroit River. The height of each tower will be approximately 166 metres (544 feet) above existing ground level. The total width of the bridge will be approximately 32 metres (105 feet). Each of the six lanes will be 3.6 metres (12 feet) wide. The proposed Project is planned to be wide enough to accommodate two safety shoulders in each direction. The outside shoulders will be 1.8 metres (6 feet) wide and the inside shoulders 2.4 metres (8 feet) wide. There is no pedestrian sidewalk proposed for the replacement span.

The replacement span is proposed to be a cable-stayed bridge that will be supported on cast-in-place concrete substructure elements with foundations on bedrock. The proposed Project will have six-lanes and new safety shoulders and will be able to accommodate modern vehicles. The central median barrier will offer more safety, and the proposed six-lane design will facilitate better traffic flow back and forth across the border.

The Ambassador Bridge will remain standing and continue to act as a landmark for the City of Windsor area. Once the proposed replacement span is operational, the existing Ambassador Bridge will be taken out of service then it will be rehabilitated, maintained and used for redundancy and emergency traffic and approved public events.

The proposed replacement span is anticipated to cost approximately $1 billion dollars of private funds. This estimated cost includes the property acquisition along with the construction of the entire replacement span including the linkages into the existing Canadian and United States' plazas.

Section 4.0 of this EIS describes the existing environmental features of the site proposed for the replacement span and Section 5.0 describes the environmental effects along with any proposed mitigation measures for the Project. The proposed Project has very minor environmental impacts and is located within an urbanized area that has been significantly impacted by existing development. Nevertheless potential archaeological finds, stormwater management and sediment and erosion control produce the majority of the proposed Project's potential natural environment impacts, as discussed in Section 5.0 of this Screening Report.

1.2 Project Justification-Need / Alternatives to the Project

1.2.1 Project Justification

The Ambassador Bridge corridor not only serves the transportation needs of the City of Windsor and the City of Detroit, it serves as a major north-south link between the Provinces of Ontario and Quebec and the State of Michigan, and the link between Canada and the United States. The Ambassador Bridge corridor connects southern Ontario to the U.S. Interstate Highway network.

The continued operation of the Ambassador Bridge corridor is also critical to the flow of international trade between Canada and the United States, and connects Canada's road network with the U.S. interstate highway system. With the signing of the North American Free Trade Agreement ("NAFTA") trade continues to climb. Approximately one-quarter of Canada – United States surface trade crosses the border in the Detroit area and the majority of this trade is transported by trucks.

The proposed construction and operation of the replacement span along with the removal of the existing Ambassador Bridge from service is not being proposed to expand the capacity of the Ambassador Bridge corridor. In fact, traffic levels at the Ambassador Bridge crossing are lower today by 23% than traffic levels in 1999. Instead, the proposed replacement span will allow the Ambassador Bridge corridor to retain, and more efficiently and safely service, the vehicles crossing the Ambassador Bridge.

The six-lane, cable-stayed design of the proposed replacement span allows for the efficient and smooth flow of vehicles across the Ambassador Bridge corridor. The proposed FAST/NEXUS lanes along with freer flow of traffic offered by the proposed replacement span will reduce travel time significantly at the Ambassador Bridge corridor. This, in turn, will contribute to the fulfillment of the Federal, Provincial and City's objective to foster and promote economic development growth.

The purpose of the replacement span is to:

(a) improve the structure to facilitate the movement of vehicles and ensure the continued free flow of goods between Canada and the United States;

(b) upgrade efficiency through the provision of FAST/NEXUS lanes;

(c) meet current highway safety standards; and

(d) preserve the existing Ambassador Bridge structure.

Improved Structure

The existing Ambassador Bridge continues to be well maintained and is proven to be structurally sound. However, the Ambassador Bridge is seventy-eight years old and is increasingly requiring a considerable amount of maintenance that must be undertaken when the bridge is operational. The continual maintenance undertaken by the Ambassador Bridge Company ensures that the Ambassador Bridge remains in operable condition for the commercial and passenger traffic. Maintenance is becoming increasingly difficult and often requires the closure of one lane which reduces the Ambassador Bridge to three lanes and slows the free flow of traffic. The replacement span will provide a six lane crossing and ensure the consistent movement of vehicles across the border.

More Efficient Border Crossing Programs

The Canadian Border Services Agency ("CBSA") has developed two programs in collaboration with its American counterparts FAST and NEXUS. The Free and Secure Trade (FAST) program is a joint Canada-United States initiative involving the Canada Border Services Agency and the United States Customs and Border Protection.

The Free and Secure Trade (FAST) program is a joint Canada–United States initiative involving the Canada Border Services Agency and the United States Customs and Border Protection (CBP). FAST supports moving pre-approved eligible goods across the border quickly and verifying trade compliance away from the border. It is a commercial process offered to pre-approved importers, carriers, and registered drivers. Shipments for approved companies, transported by approved carriers using registered drivers, will be cleared into either country with greater speed and certainty, and at a reduced cost of compliance.

FAST, which is based on sound risk management techniques, focuses on greater speed and certainty at the border and reduces the cost of compliance by:

- Reducing the information requirements for customs/border clearance;
- Eliminating the need for importers to transmit data for each transaction;
- Dedicating lanes for FAST clearances;
- Reducing the rate of border examinations;
- Verifying trade compliance away from the border;
- Streamlining accounting and payment processes for all goods imported by approved importers (in Canada only).

NEXUS is designed to expedite the border clearance process for low-risk, pre-approved travellers into Canada and the United States.

The Canada Border Services Agency (CBSA) and United States Customs and Border Protection (CBP) are cooperating in this joint venture to simplify border crossings for members, while enhancing security.

To become a member in this program, you must:

- submit an application and go through a registration process;
- satisfy the eligibility criteria;
- be admissible in Canada and the United States; and
- pass risk assessments by both countries.

The FAST and NEXUS programs are designed to facilitate and expedite the movement of low risk commercial goods and travellers across the border.

Without the ability to dedicate a FAST and NEXUS lane on the existing Ambassador Bridge, trucks participating in these pre-clearance programs are forced to wait in line behind the non-participating trucks and other vehicles to reach the customs' inspection station. The inability to provide a dedicated FAST and NEXUS lane significantly reduces the efficiency of these programs. The proposed replacement span would considerably improve the flow of commercial goods and passenger traffic by allowing the anticipated benefits of the FAST/NEXUS programs to be achieved. Both the Canadian and American customs agencies have requested that the replacement span include a dedicated FAST/NEXUS lane in each direction.

Improved Safety Features

As a seventy-eight year old structure, the existing Ambassador Bridge does not reflect modern highway standards. Modern standards dictate that highways be constructed with lanes that are 3.66 metres (12 feet) wide and provide safety shoulders. The existing Ambassador Bridge as constructed in the 1920's only provides 3.4 metres (11 feet) wide lanes and does not have any safety shoulders. The lack of safety shoulders on the Ambassador Bridge has the potential to cause disruptions in the flow of traffic when a vehicle breaks down or an accident occurs.

The replacement span is proposed to be constructed with safety shoulders on both sides of the outer travel lanes. The travel lanes proposed on the replacement span will be 3.6 metres (12 feet) in width and meet current highway design standards.

Preserve the Ambassador Bridge

The Ambassador Bridge will be preserved and is listed as a heritage structure by the Ontario Ministry of Culture and eligible for listing on the United States National Register of Historic Places.

When the replacement span becomes operational, the existing Ambassador Bridge will be taken out of service to be rehabilitated and made available as a redundant resource for operational vehicles and emergency situations or approved public events. The redundancy will ensure that

the Ambassador Bridge corridor continues to function in its role as a vital border crossing for Canada and the United States and remains functional in all types of situations.

1.2.2 Alternatives to the Project

Since the 1920's the Ambassador Bridge border crossing has continued to operate an efficient crossing to promote economic development. The objective of the proposed Project is to contribute to the promotion of economic development by improving efficiency while enhancing motorist safety.

Prior to consideration of alignment alternatives, the Study Team considered other possible ways to satisfy travel and freight transport demands and improve safety along the Ambassador Bridge corridor between the Cities of Windsor and Detroit. Four Alternatives to the Project were examined. The following provides a discussion of the Alternatives that were considered.

1. the "do nothing" scenario;
2. corridor alternatives;
3. a tunnel alternative; and
4. alternative modes of transportation.

As discussed below, these alternatives to the Project failed to achieve the Project objective and were rejected as non-viable alternatives.

1. Do Nothing Scenario

The "do nothing" alternative consists of simply maintaining the existing Ambassador Bridge and continuing with routine maintenance and upkeep.

The inability to provide the dedicated FAST/NEXUS lanes, wider travelling lanes and safety shoulders on the Ambassador Bridge can result in major traffic backups and problems when any impediment to traffic flow is encountered. This problem cannot be resolved with the existing structure and will become compounded over time resulting in an adverse impact on trade and an increase in air and noise pollution due to traffic congestion and idling vehicles.

The economic costs associated with the "do nothing" alternative also continues to increase every year as more and more repairs and maintenance are required on the Ambassador Bridge. It is anticipated that there is a potential for considerable losses each year by both the Canadian and the United States economies as a result of the constraints due to the inability to provide dedicated FAST/NEXUS lanes.

The construction of a replacement span, as opposed to improving the Ambassador Bridge, provides all of the advantages of structural redundancy. Currently, should an emergency occur on the Ambassador Bridge, there is no alternative in the vicinity to immediate re-route traffic avoiding lengthy and costly delays. The redundancy provided by the proposed replacement span ensures that the Ambassador Bridge corridor remains functional even if a problem were to occur.

The "do nothing" alternative was not considered feasible and did not achieve the Project objective for the following reasons:

- FAST/NEXUS lanes cannot be accommodated;
- on-going maintenance requirements; and
- decreased functionality and safety due to narrow lanes and lack of safety shoulders.

2. Corridor Alternatives

The purpose of the proposed replacement span is to maintain the capacity of the existing Ambassador Bridge corridor and improve efficiency by providing dedicated lanes restricted to low risk trucks, wider lanes, and safety shoulders.

A capacity expansion is currently underway in the Region where numerous alternative corridors are being explored by the bi-national Detroit River International Crossing Study ("DRIC"). Unlike the proposed replacement span, the stated purpose of DRIC is to investigate alternative crossing corridors for additional capacity needs and to meet projected future traffic demands.

An alternative corridor would cause significant community impacts due to the relocation of existing commercial establishments and residential areas caused by the introduction of a new plaza and river crossing into existing communities on both sides of the border. There are little to no vacant, unpopulated areas in the region available that would not be impacted by the construction of a new border crossing. All of the alternatives being assessed in the DRIC are extremely costly to construct as compared to utilizing the existing Ambassador Bridge corridor. Construction of an entirely new bridge crossing on an entirely new corridor to simply replace the existing lanes would be extremely costly and disruptive to communities that do not currently experience any bridge traffic.

The construction of a new corridor would be cost prohibitive and cause significant disruptions to the existing communities. The construction of the proposed Project in the existing Ambassador Bridge corridor is cost effective and avoids the relocation of existing communities to another area.

The proposed Project simply modifies the existing crossing by replacing the lanes of a seventy-eight year old structure that connect to the existing plazas in the Cities of Windsor and Detroit. Other alternative corridors are not considered a feasible alternative as they have substantial social impacts on existing communities, do not represent a cost effective solution and would have substantial socioeconomic and environmental impacts.

3. Tunnel Alternative

The tunnel alternative was assessed and found to have minimal aesthetic impacts on the community and Ambassador Bridge. There are however, several significant disadvantages to the tunnel alternative including the significantly higher construction costs, decreased functionality and increased security concerns.

Major engineering challenges make the tunnel alternative impractical and not feasible to construct. A tunnel alternative cannot be constructed in such a manner that it can elevate out from the Detroit River at a 5% grade and connect to the existing Windsor or Detroit plazas. Major expansion and reconstruction to both plazas would be required to facilitate the construction of a tunnel.

With a tunnel alternative, the existing plaza cannot support the tunnel, so new plazas in another location will need to be constructed. The requirement for new plaza construction would require substantial intrusion into the urbanized environment on both sides of the border and possibly divide existing communities. Reconstruction of both plazas would unnecessarily increase the overall costs and impacts of the Project and disrupt plaza operations and existing traffic flow.

The environmental impacts of a tunnel are significantly greater than those associated with the replacement span. Tunnels concentrate air pollution at the specific source points where ventilation is provided. The disbursement of the air pollution then takes greater distances and time to reduce the concentrations of air particulates to acceptable levels.

The cost of constructing a tunnel, along with the requirement for new plazas in addition to the environmental effects on air and the existing communities would be significant. Therefore, the tunnel option is not considered a viable alternative.

4. Alternative Modes of Transportation

While other modes of transport such as air transit and marine are available to satisfy the needs of personal travel and commercial transport, the feasibility of using these alternatives must be taken into account. Air and marine transport is considered to be a costly alternative for most travelers and is the least sustainable method of travel. The object of the replacement span is to provide a six-lane controlled access border crossing that cannot be met by other modes of transportation. Other modes of transportation are not feasible alternatives to the Project.

1.2.3 Alternative Means of Carrying out the Project

Various alignment alternatives were considered prior to determining the preferable alignment. Alignment alternatives include construction on the same centreline as the existing alignment, east of the existing alignment, west of the existing alignment or in a different corridor entirely.

The selection of the preferable alignment alternative took into account the impacts on both Canada and the United States. The criteria utilized in evaluating the alignment alternatives included:

- environmental impacts;
- relocations;
- impacts during construction;
- economic impact;
- functionality; and
- costs.

Replace Ambassador Bridge on Current Alignment

The existing Ambassador Bridge is a suspension bridge with two main catenary cables used to support the structure over the Detroit River. There is no feasible method of replacing the existing Ambassador Bridge in the same location without causing havoc on traffic flows during the construction period. A replacement structure in the same location would require the Ambassador Bridge to be closed and result in considerable disruptions to trade and commerce between Canada and the United States and does not represent a practical option.

Furthermore, the removal of the Ambassador Bridge is not viewed as a preferable option due to its historical significance. The Ambassador Bridge is listed as a historical structure by the Ontario Ministry of Culture and is eligible for listing on the United States National Register of Historic Places. Upgrading the Ambassador Bridge would compromise the historic integrity of the structure. Other environmental effects of building a new bridge in the existing corridor are expected to be negligible.

The addition of the proposed replacement span, as opposed to improving the Ambassador Bridge also creates structural redundancy.

Closing the Ambassador Bridge entirely during the construction period is neither desirable nor feasible and taking into account the impacts on the economies of Canada and the United States. Therefore, this alternative was not considered a feasible alignment option.

Construct New Structure on the East Alignment

Construction of a new span immediately to the east of the Ambassador Bridge would require that the replacement span land in the United States in the area where trucks are currently being processed and require the complete reconfiguration and reconstruction of both the Canadian and United States plazas to allow this processing to take place in another location. The east alignment would require the acquisition of several commercial and residential properties to the east of the Windsor Plaza and would have significant impacts on the heritage resource of Assumption Church and encroach into the University of Windsor lands. Huron Church Road would need to be relocated to the west.

This alternative is not feasible due to the significant impacts on heritage resources in the area (Assumption Church) and the University of Windsor. Major reconstruction would be required to the Windsor plaza, additional acquisitions of existing residential and commercial properties would be necessary and would also result in increased air and noise pollution on sensitive resources. This alternative is not practical from either a functional or economical perspective.

Construct New Structure on the West Alignment

Constructing a new span immediately to the west of the Ambassador Bridge was found to be the preferable alignment during the preparation of this EIS. The west alignment does not require any changes, modifications or expansions to the existing Windsor plaza.

There are minimum environmental effects from the western alignment before, during and after construction. Environmental impacts are negligible as only the construction of the new span, connecting to the existing plazas is required. Also, no piers are located in the Detroit River. The land required for the Project is already owned by the Ambassador Bridge Company and as a separate and distinct undertaking the Ambassador Bridge Company is proposing to develop a green buffer area between the plaza and the nearby community of Sandwich. This green buffer area is not part of the Project and is being undertaken by the Ambassador Bridge Company to create a security buffer around the Windsor Plaza while providing additional green space for the community. The westerly alignment also moves the traffic flow away from the University of Windsor and Assumption Church and results in a reduction of impacts on these areas as compared to the other alignments considered.

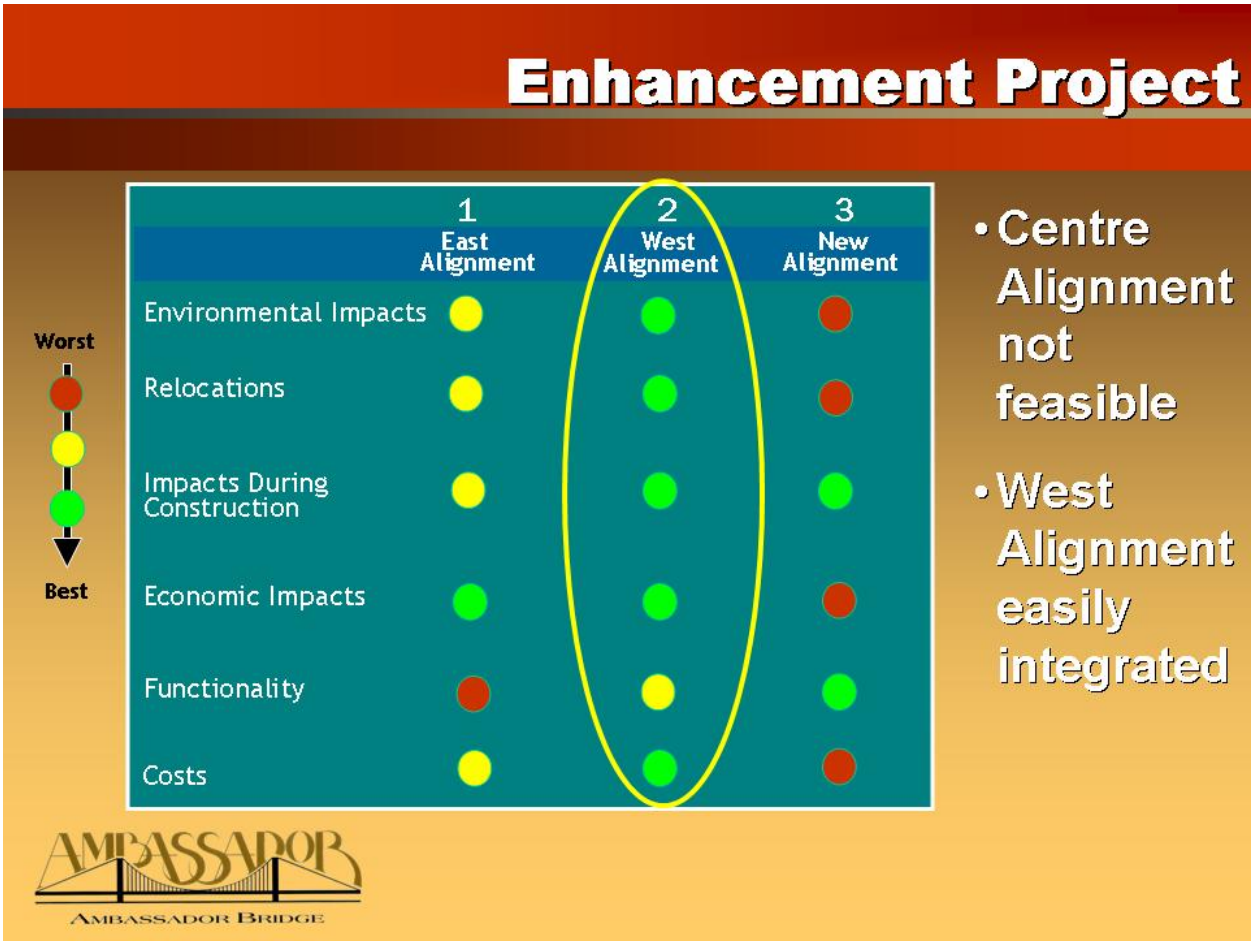
Preferable Alignment

The six-lane cable stayed bridge on the western alignment was selected as the preferable alternative and found to provide the most benefits while having the least amount of impact. The western alignment ranks the highest when considering environmental and economic impacts including construction costs and ranks the highest amongst all the alternatives considered (Figure 1 ranking of alternative alignments).

The purpose of the proposed Project is to maintain the existing Ambassador Bridge corridor and improve operations wherever possible. Higher traffic volumes are not expected as a result of the proposed Project. The purpose of the proposed replacement span is not to add any additional capacity, but to facilitate the flow of traffic. The proposed Project will tie directly into the existing plazas without requiring any changes or expansion, should not require the closure

of any local roads and meets the needs of the Canada Border Services Agency by implementing the FAST/NEXUS and other potential low risk traveler programs.

Figure 1: Ranking of Alternative Alignments



2.0 CEAA TRIGGER

_____ Transport Canada is the proponent of the Project.

_____ Transport Canada / Infrastructure Canada proposes to fund part or all of the Project.

_____ Transport Canada proposes to sell, lease, or otherwise dispose of land for the Project.

____X____ Transport Canada proposes to issue a permit, approval or other authorization on the CEAA Law List Regulations.

3.0 SCOPE OF PROJECT AND SCOPE OF ASSESSMENT

3.1 Scope of Project

Under the *Canadian Environmental Assessment Act* ("CEAA"), "Scope of Project" refers to those components of the proposal that should be considered part of the Project for the purposes of the assessment. The scope includes physical works and activities.

Transport Canada has confirmed that it is a responsible authority ("RA") under CEAA for this environmental assessment ("EA") as the Project requires an approval under the *Navigable Waters Protection Act*, which is identified on the *Law List Regulations*. The Windsor Port Authority ("WPA") has also identified the need for an environmental assessment, as the Project crosses over federal lots in Windsor, Ontario. As the WPA is a Prescribed Authority, the *Canada Port Authority Environmental Assessment Regulations* apply.

The Project is not described on the *Comprehensive Study List Regulations*, nor on the *Exclusion List Regulations,* as a result, section 18(1) requires that Transport Canada and the WPA ensure that a screening-level assessment of the proposed Project is conducted. The proposed Project has not been referred directly to a mediation or panel review.

The Scope of the proposed Project as determined by the responsible authorities (Transport Canada and WPA) includes the following components:

- Construction and operation of a six-lane bridge across the Detroit River, designed to provide navigational clearances in accordance with U.S. and Canadian requirements; preliminary designs have no piers in the water as described in the Ambassador Bridge Proposed Project Report; and

- Construction and operation of any modification and/or expansion of the CBSA Port of Entry Plaza and associated infrastructure, to meet current and future border management requirements of the CBSA over the planning horizon of the border crossing.

3.2 Scope of Assessment

The study area boundaries for the replacement span are defined as the project footprint which extends approximately 1,890 metres (6,200 feet) in length between the Cities of Windsor, Ontario and Detroit, Michigan. The project footprint extends from the Windsor plaza and begins at Wyandotte Street, Peter Street, University Avenue, Sandwich Street, crosses the Detroit River and connects directly to the Detroit Plaza.

The entire Project is located within UTM Zone 17 and falls between the following UTM coordinates:

Location	Northing	Easting
Southwest Corner	329369.288	4684862.145
Southeast Corner	330070.319	4685175.635
Northwest Corner	328729.952	4687565.606
Northeast Corner	328730.983	4687909.096

For the purposes of impact assessment, the study area to be examined will extend approximately 200 metres (657 feet) from the proposed Project footprint. Depending on the factors identified in the section 16(1) of the CEAA and the EA Guidelines dated August 2007 the area of impact assessment will vary according to the study being undertaken and the spatial extent of the potential environmental effects.

Table 1: Activities by Project Phase.

TABLE 1 – Activities by Project Phase		
PROJECT PHASE	**PROJECT COMPONENTS**	
	Core Project Components	**Ancillary Works Other Projects and Activities**
Construction	- Main tower construction - Support towers - Stormwater management facility - Approach and Bridge decks - Cable-stays - Preparation of the site - Excavation for footings - Construction of drilled shafts - Installation of piles - Construction of piers - Construction of superstructure - Pouring of deck overlay - Pouring of barrier railings - Installation of lighting - Painting and final site cleanup	- Production of concrete - Surplus material management - Equipment storage areas - Material stockpiling - Utility relocation as required - Erosion and sediment control measures
Operation / Maintenance	- Winter de-icing operations - Operational stormwater management - Infrastructure maintenance - Storm drainage system repairs - Security and perimeter control	- Equipment maintenance operations - Surplus material management
Accidents / Malfunctions	- Vehicular accidents - Spills - Fire Suppression and prevention	Not applicable

3.3 Construction

Cable-Stayed Bridge Construction

The proposed Project crossing the Detroit River will be a three span (Canadian approach, main span, United States' approach), cable-stayed bridge with a main span length of just under 670 metres (2,200 feet). The superstructure will be constructed by using the balanced cantilever method of construction. Using this method, construction begins at the pylon on each side of the river and reaches out in either direction in repetitive phases until the advancing cantilevers reach the anchor piers in the side spans and the main span cantilevers meet at mid-span. When full cantilevers are constructed, the superstructure is made continuous with the result being the three span cable-stayed bridge.

The superstructure of the new bridge will be a composite steel and concrete deck supported by the stay cables. The principal framing system consists of a longitudinal steel edge girder on each side of the superstructure to carry the primary bending moments along the bridge and

contain the anchorage locations for the cable stays. The longitudinal edge girders are connected transversely by steel floor beams spaced at approximately 4.3 metres (14 feet). The deck slab is comprised of 200 millimetres (8 inches) thick precast, prestressed concrete panels. The panels are temporarily supported on the steel framing system while cast-in-place concrete pours are made over the edge girders and transverse floor beams to make the system act compositely.

Approach spans that lead up to the cable stayed portion of the structure from the plazas in each country will be constructed concurrently with the construction of the three span cable stayed bridge over the river. In Canada, 10 spans of approximately 45 metres (150 feet) will be required and in the United States three spans will be required to connect the plazas to the cable stayed bridge.

Stages of Construction

There are several stages in any bridge construction project. The components of the Proposed Project are interrelated and work in each stage may overlap with work in other stages. Within each stage of the project there are also various activities that will be undertaken. While some of the work is specialized in its nature, equipment and personnel will move between stages of the project.

The stages of construction for this project include: preparation of the site, excavation for the footings, construction of the drilled shafts and installation of the piles, construction of the piers, construction of the superstructure, pouring of the deck overlay, pouring of the barrier railings, installation of the lighting, painting and final cleanup and ultimately the maintenance and operation of the facility.

A first aid safety station will be established at the construction site prior to the commencement of construction on the project. Where feasible, all materials, equipment and supplies will be produced or hired from local sources to minimize shipping and stockpiling requirements.

Tower Pier Foundation Construction

Construction begins by first constructing the foundation system for the two main towers, one on each side of the river. The foundation system consists of drilled shafts approximately 35 metres (120 feet) to 45 metres (140 feet) deep founded in solid bedrock. These shafts are constructed by using a truck or track mounted large diameter rotary auger used to drill through the overburden down and into the rock. The sides of the drilled shaft are braced with a steel casing to prevent the collapse of the hole during and after drilling. Once the hole has been drilled to the planned depth and the casing installed, a round steel reinforcement cage with vertical and horizontal deformed steel bars is placed into the hole. The bars that form the cage for the shaft are tied together near the site and then lifted and placed in the excavated shaft from a truck or track mounted crane. After the steel reinforcement cage is in place, the shaft is filled with high strength concrete delivered to the site by concrete trucks. Approximately eighteen shafts will be required for each tower with each containing about 100 cubic metres (125 cu yds) of concrete. Alternatively, the builder may choose to instead deliver the aggregate, cement and other materials to an on-site concrete batch plant located near the United States Plaza with the concrete then manufactured directly on-site rather than trucked to the construction site from an offsite plant.

The concrete is placed using a long flexible tube that extends to the bottom of the shaft so that the concrete is poured beginning at the bottom of the shaft and then extending to the top, thereby preventing any groundwater from being trapped in the shaft.

After all shafts are in place and the concrete has attained its required strength, a footing is constructed over the top of the drilled shafts such that the tops of the shafts extend several feet up into the bottom of the footing to provide a rigid connection. This footing is designed and constructed to distribute the loads to each of the drilled shafts so than no single shaft is overloaded and to provide a flat surface to begin construction of the vertical portion of the tower piers. Construction of the footing begins by placing formwork around the perimeter of the planned footing area followed by the placement and tying of the reinforcement steel placed inside the concrete footing to provide the necessary tensile capacity required to ensure adequate distribution of loads to the drilled shafts. Once the reinforcement has been placed and tied, the concrete is poured inside the perimeter formwork, encapsulating the reinforcement steel and the top several feet of each drilled shaft. Steel reinforcement bars are also placed such that they extend vertically from the top of the concrete footing to provide a positive rigid connection to the vertical tower construction that will begin in the next phase. The estimated volume of concrete required for each of the two tower pier footings is 3,500 cubic metres (4,500 cu yds). Concrete may be delivered to the site in concrete trucks or, the builder may choose to instead deliver the aggregate, cement and other materials to an on site concrete batch plant located near the United States Plaza.

Pylon Construction

Once the concrete footing has attained adequate strength to receive the dead load from the construction of the vertical portion of the tower, placement and tying of the vertical reinforcement begins. This reinforcement is lapped and tied to the reinforcement bars that extend vertically from the footing that was poured in the previous stage. Once the reinforcement has been placed and tied, the erection of the formwork in the shape of the planned pylon begins.

An alternative method that may be used by the builder is to place and tie the reinforcement cage near the pylon and then use a truck or track mounted crane to lift the cage and place it inside the formwork. Several vertical lifts or phased concrete pours then take place until the pylon has reached its planned height. The total estimated volume of concrete required for the construction of each pylon is on the order of 12,000 cubic metres (15,000 cu yds). Concrete may be delivered to the site in concrete trucks or, the builder may choose to instead deliver the aggregate, cement and other materials to an on site concrete batch plant located near the United States Plaza.

Pier Table Construction

Upon completion of the construction of the tower pier pylon, erection of the cable-stayed superstructure in the main span of the bridge begins. The first structural elements to be erected are the steel edge girders and transverse floor beams that make up the Pier Table. The pier Table consists of one edge girder on each side of the superstructure with four transverse floor beams spaced at approximately 4.3 metres (14 feet) bolted to the edge girders. The longitudinal edge girders weigh an estimated 1,200 kilograms per metre (800 lbs/ft) near midspan and 1,500 kilograms per metre (1,000 lbs/ft) near the pylon and the transverse floor beams approximately

16,000 kilograms (35,000 lbs) each. Bracing will also be required in each bay to stabilize the superstructure framing and to aid in the erection of the segments. The Pier Table provides a stable working area from which balanced cantilever construction can begin. These steel girders are fabricated offsite and then trucked with one girder per truck to the construction site where they will be raised to their final position from a crane located on the ground near the base of the tower piers.

Figure 2 – Pier Table Construction

As shown in Figure 2, the Pier Table extends for some distance in either direction from the pylon in cantilever. Temporary supports are erected to provide overturning stability to the Pier Table. The temporary supports can extend the full distance to the ground as shown in Figure 1, or they can be configured as a moment resisting frame between the Pier Table and pylon. The moment resisting frame option requires that the pylon base resist out of balance moments in flexure, therefore, the pylon will need to be designed and constructed to be capable of resisting such moments.

Once all of the girders are erected and temporarily supported, the construction of the Pier Table is completed by the placement of precast concrete deck panels and cast-in-place concrete to provide composite behaviour. An estimated 200 cubic metres (250 cubic yards) of concrete is required to construct the Pier Table at each pylon. These items are delivered by truck and lifted into place from a crane on the ground.

Balanced Cantilever Construction

Balanced cantilever construction begins after completion of the Pier Table. Traveling derrick cranes or erection girders are assembled on the Pier Table and positioned to lift superstructure members on either side of the pylon. Typical cycles of construction take place from stay cable to stay cable with segments added on alternating ends of the cantilever to balance the load as close as possible on each side of the pylon.

A typical cycle of construction begins with the advancement of the derrick cranes to the free end of the cantilevers. Depending on the size and weight of the segment to be erected between the stay cables, the segment could be partially assembled in the shop or at the site prior to delivery to the end of the cantilever. For the back span cantilevers located over land, the materials are delivered via trucks and for the main span cantilever extending over the river, the materials are delivered via barges using the waterway.

Cables are lowered from the derrick cranes located on the cantilever to the girders on the truck or barge where they are connected to the section which is then raised to the deck level and secured to the end of the cantilever using bolted splices. If the section was not fully assembled ahead of time, the cranes then lift the transverse floor beams which are bolted to the longitudinal edge girders. For segments located over the waterway which are to be delivered via barges, delivery times and durations are carefully coordinated with shipping interests to avoid any conflicts with vessels using the waterway. Each week, the builder will submit a schedule of planned marine activities to the Canadian and United States Coast Guards.

The captain of the tug operating the barge will be a licensed captain with experience in marine activity in the Detroit River.

Figure 3 – Cantilever Erection

Prior to the barge departing the staging area, the captain will communicate with the Canadian Coast Guard Sarnia Traffic Center to check on shipping interests in the river and to obtain clearance to navigate to the site. Two to three deliveries per week are anticipated using barges measuring approximately 22 metres by 37 metres (70 feet x 120 feet). It is anticipated that each delivery will require that the barge stop at the end of the cantilever for less than fifteen minutes for the segments to be raised into position by the derrick cranes. Figure 3 shows the erection of the superstructure framing system. Care is taken throughout the process to work symmetrically about the pylon, minimizing out of balance of moments on the pylon.

Once the structural steel members have been erected for this phase of construction, the precast deck panel are lifted by the derrick cranes and positioned in their final location in the bridge. Delivery of these materials is identical to that of the steel framing system. Cast-in-place concrete pours make the concrete deck panels composite with the structural steel members. Figure 4 shows a precast deck panel being positioned by a special lifting frame.

The typical cycle of construction is completed when the stay cable of this portion of deck is installed and stressed. The stay cables are made of individually protected 7-wire prestressing strands. The number of strands in a stay cable depends on the location along the bridge. The stay cables are anchored at one end in the pylon

Figure 4 – Placing Deck Panels

and at the other end in stay anchor boxes bolted to the sides of the longitudinal edge girders.

The stay cables vary in length with the shortest stays being approximately 65 metres (210 feet) long and the longest approximately 340 metres (1100 feet). Figure 5 shows a typical stay cable anchored in a stay anchor box.

Erection of individual segments followed by installation and stressing of the stay cables continues in a balanced fashion until the two main span cantilevers nearly meet in the middle.

Figure 5 – Stay Cable Anchor at Deck Level

Back Span and Main Span Continuity

The optimum layout of a three span cable-stayed bridge typically uses back span lengths that are between 40% and 45% of the main span length. The site conditions and setting of the Proposed Project allows for this optimal span layout. As a result, as balanced cantilever construction continues, the leading edges of the cantilevers will reach the anchor piers in the back spans before they meet in the middle of the main span. When the back span reaches the anchor piers, the superstructure is tied down to counteract overturning moments as the main span cantilevers are completed. Back stays that reach from the top of the pylon to the superstructure above the anchor piers are stressed and adjusted as necessary while construction continues. Figure 6 is an example of the back span continuity.

Figure 6 – Back Span Continuity

Once the main span cantilevers extend sufficiently close to one another, sections of the longitudinal edge girders are erected and spliced at either end to the free ends of the cantilevers making the girders continuous. The remaining floor beams and concrete deck panels are placed and secured. With all members in place, there is typically one last re-stressing of the stay cables to produce the desired state of stress in the bridge. Figure 7 shows a complete three span cable stayed bridge.

Construction of Approach Spans

Construction of the approach spans will take place concurrently with the construction of the cable stayed spans. In the first construction phase, driven friction piles will be installed in the area where the footing is to be supported. These piles are estimated to be 450 millimetres (18 inches) to 610 millimetres (24 inches) square prestressed, precast concrete and approximately 30 metres (100 feet) long.

Figure 7 – Completed Bridge

A total of twelve to eighteen piles supporting three footings are expected at each of the pier locations. After completion of the pile installation, the cast in place concrete footing will be poured. Each footing is estimated to require 45 m^3 (60 cu yds) of concrete for a total of 135 m^3 (180 cu yds) at each pier. After completion of the footings, the remaining substructure will be formed and poured. An average pier will require approximately 300 m^3 (400 cu yds) of concrete. After completion of the substructure the girders will be erected. A total of seven lines of girders spaced at approximately 4 m (14 ft) are expected in each span. Preliminary design indicates that 1.4 m (54 ft) deep prestressed, precast concrete beams will be the most effective and each of these girders will be delivered by truck. The forming and placement of reinforcement for the deck construction will follow behind the beam erection. The deck will be cast in place and require an estimated 3,000 cubic metres (4,000 cu yds) in Canada and 900 m^3 (1,100 cu yds) in the United States.

Operational Phase

Advantages to cable stayed structures include their inherent durability. Most concrete elements are in a state of compression under routine loading conditions resulting in an additional level of protection against the environment. Consequently, maintenance of the bridge deck and tower is expected to be minimal. The exposed steel components of the bridge will periodically require repainting and the final design of the bridge will include features that aid in future painting operations. Other routine maintenance procedures related to the lighting, striping, sealing and other features that may require routine replacement periodically.

The latest technological advancements will be implemented in the design of the structure to allow its health to be constantly monitored. In addition, the bridge will be thoroughly inspected annually to ensure that any issues related to corrosion or other detrimental affects are discovered early and promptly rectified.

Operations will be significantly upgraded with the addition of dedicated lanes for the low risk commercial travelers that are currently unavailable on the existing bridge. Lane widths are increased from the existing substandard width of 3.35 metres (11 feet) to 3.66 metres (12 feet). Safety shoulders are not present on the existing bridge but will be included on the new bridge. This will allow maintenance and operations personnel to perform their tasks while not affecting the operation of the facility. It will also provide a location for disabled vehicles to reside without significantly impeding traffic flow until they can be safely removed. All other operations of the facility will remain fundamentally unchanged with the existing traffic being simply shifted to the west.

During winter months after snow events, the bridge deck is currently plowed and sanded with clean sands to improve traction and safety on the facility. This practice will be continued on the new facility. With the addition of safety shoulders on the new structure, this operation will be greatly improved.

Bridge washing will normally take place in the spring to remove the debris that has accumulated on the bridge deck through the winter. A dry sweep/vacuuming to remove the sands and other debris will be conducted followed by pressure washing if necessary in accordance with current practice.

3.4 Operations

All necessary precautions will be taken to prevent the occurrence of malfunctions and accidental events that may occur throughout all phases of the Project and to minimize environmental effects should they occur.

Accidental events with the greatest potential for environmental effects include:

- spills of hydrocarbons or other hazardous materials;
- failure of erosion and sediment control measures;
- fires;
- vehicular collisions; and
- possible disturbance of archaeological resources.

It is extremely difficult to predict the precise nature and severity of these events. However, the likelihood of serious accident events or those causing significant adverse environmental effects is low, particularly since the construction and operation procedures for the proposed replacement span will be conducted with in accordance to all applicable and relevant regulations, guidelines and accepted industry procedure.

Accidents

Accidents that may occur during construction, operation and maintenance of the replacement span are addressed by provincial legislation, policies and procedures. Any accidents that occur in the Windsor Plaza or Canadian side of the replacement span will be immediately reported to the Windsor Police Department. The Windsor Police Department is responsible for producing a formal accident report. The proposed replacement span will improve traffic safety and operations and will reduce vehicular accidents within the project limits.

If any vehicular accidents occur during the construction phase they will be immediately reported to the Windsor and / or Detroit City Police who are responsible for producing accident reports. The proposed Project will increase traffic safety and operations and will reduce vehicular accidents within the project limits.

Hazardous Material Spill

On-site spills or accidental releases of pollutants or contaminants could result from releases of fuels, hydrocarbons (i.e. hydraulic oil, motor oil, etc), or antifreeze from construction machinery or the barge capsizing or sinking. Accidents involving motorists and marine operators are also

possible. These spills are usually highly localized and easily cleaned up by onsite crews using standard equipment. In the unlikely event of a large spill soil contamination may occur thereby potentially adversely affecting the quality of the surrounding land uses. Groundwater and surface water contamination may also occur in the event of a large spill, however this is unlikely given the site conditions. In the unlikely event of an accident with the barge there is the potential for adverse effects to surface water, fish and fish habitat and navigation.

The Spills Prevention and Contingency Plan in Appendix A contains best management practices to minimize the likelihood of a spill. Spills of hydrocarbons or other hazardous materials will be handled in accordance with applicable regulations and procedures and in full compliance with all legislative requirements.

If a spill occurs in the Detroit River, the potential for short term toxicity to juvenile aquatic species does exist. However, given the predicted volume of spills, and the velocities within the Detroit River, the mortality rate for mature aquatic species is not expected to increase and effects will be negligible.

Construction equipment will be inspected frequently to ensure no possible fuel and hydraulic system leaks. Any leaks discovered will be repaired immediately. Refuelling and equipment maintenance will be conducted away from residential and known cultural or heritage properties, and not within 30.5 metres (100 feet) of the Detroit River.

The Ambassador Bridge Company also has the ability to block catch basins resulting in the prevention of access to the storm water management system. The proposed oil and grit separators provide for a measure of spill control with the provision of approximately 37,850 litres (10,000 US gallon) total volume for spill containment.

In the unlikely event of larger contaminant spills, such as major accidents during operation, local and provincial emergency response procedures will be utilized to minimize potential environmental effects. Emergency response and contingency planning are accepted and effective means to limit the severity of environmental effects. These plans and procedures will be implemented in accordance with the Spills Prevention and Contingency Plan and supported through training programs.

Erosion, Sediment and Stormwater Discharge

A potential exists for failure of erosion and sediment control structures due to heavy precipitation events. Such a failure could result in a release of a large quantity of sediment-laden runoff with potential adverse effects on fish and fish habitat.

The most probable accidents that could occur are the spillage of brine groundwater and the loss of control and excessive discharge of storm water runoff. Possible failure of the containment system for groundwater containing high dissolved solids or sediment laden runoff discharging into the Detroit River may also negatively impact fish and fish habitat, in addition to an increased pH for affected soils until remediation occurs.

Given the low hydraulic conductivity of the soils/fill in the Project area and the absence of a shallow water table in the over burden, the risk of brine groundwater contaminating other groundwater sources is very low.

A Stormwater Management Plan will be developed to accommodate runoff and will be tailored to accommodate the various grading and elevation changes that may occur during construction. The Stormwater Pollution Prevention Handbook will be consulted to assist in the development of the Stormwater Management Plan. The Plan will be designed to prevent the discharge of sediment and other construction debris into the waters of the Detroit River. This Plan will be developed to accommodate runoff that will occur during the operation of the project. It will be tailored to accommodate the amount of stormwater runoff that will be generated by the increase in impervious surface as a result of the deck of the bridge. Stormwater runoff will be managed in such a way as to limit the amount to the levels that were present at the predevelopment stage.

The Ambassador Bridge Company has operated the current Ambassador Bridge in an incident free manner since the opening of the bridge. No structural failures of any of the bridge components have occurred to cause an accident or malfunction in over seventy-eight years.

An erosion and sediment control plan along with a stormwater management plan will be implemented to reduce the potential for the accidental discharge of sediment or excessive erosion.

Fire and Explosion

Fires may result in habitat loss, sensory disturbance, direct mortality to wildlife, loss or damage of property, and loss or damage to archaeological and heritage resources. Material management including fuel and other hazardous materials and operational procedures including storage, handling and transfer will reduce the potential for and extent of accidental fires related to the Project. In the unlikely event of a fire, local emergency response and fire fighting capability will be able to reduce the severity and extent of damage. A fire prevention procedures are considered in the Spills Prevention and Contingency Plan.

Given the volume of fuel contained in vehicles and equipment, the severity of the discharge would be minor and quickly dissipate.

Disturbance of Archaeological Features

The possibility of encountering archaeological features within the project area does exist given the known history of the study area. A thorough Stage 1 and 2 investigation by a licensed archaeologist has been completed. A Stage 3 investigation is being undertaken and this information will be used to delineate and evaluate the significance of the site in question, in order to determine appropriate mitigation measures, in necessary.

Any and all construction activities undertaken in the Study Area shall be monitored by a licensed archaeologist.

Taking into consideration the urban nature of the Project area and the level of disturbance that occurred during the construction of the original Ambassador Bridge it is unlikely that the proposed Project will further degrade the archaeological and cultural heritage of the area.

3.5 Environmental Management

Environmental protection measures have been developed by the Ambassador Bridge Company as a result of legislative requirements and the goal of improving bridge design and construction methods and procedures, and to minimize the impacts from the proposed Project on the environment.

Environmentally responsible design elements of the proposed Project including construction techniques, slope stability, stormwater management along with sediment and erosion control will be made during the design stage following the guidance of this environmental impact statement and implemented during construction activities.

The construction of the proposed replacement span will occur under contract through a tendering process. The contract documents contain a description of the work, the standards under which it is to be carried out, and the expected results. Construction specifications not only focus on design details, but also refer to management practices and contain environmental protection measures as outlined in the Spills Prevention and Contingency Plan. Site specific protection measures are detailed in the Plans and Particular Specifications of the contract. All contractors will be qualified for the work and will receive the appropriate environmental awareness training. The Ambassador Bridge Company will be responsible for following the contract specifications and complying with all the requirements of the Spills Prevention and Contingency Plan, as well as all legislated standards.

To ensure compliance with environmental standards and regulations, regular inspections and monitoring will be performed through consultation with the appropriate regulatory authority on the proper environmental practices.

Environmental protection control measures employed during construction will be inspected regularly. The Ambassador Bridge Company will either provide inspectors, or employ an independent agent for inspection and supervision services. Improperly installed or damaged environmental controls will be corrected immediately upon discovery. Inspections of the site to ensure compliance will be conducted before and after major rain storm events.

Machinery will be regularly inspected to ensure that they are properly maintained and to minimize the potential for accidental leaks and/or discharges. Employees and subcontractors will be required to implement appropriate control measures to minimize the potential for any leaks during construction activities.

Emergency situations involving the accidental release of hazardous materials to the environment, discovery of contamination, discovery of archaeological resources, and fires will follow the Spills Prevention and Contingency Plan provided in Appendix A.

Environmental protection procedures and measures will be observed and employed throughout the lifetime of the replacement span. The Ambassador Bridge Company will be responsible for

installation, maintenance, and inspection and monitoring of environmental protection control measures during the operation and maintenance phase of the proposed replacement span.

3.6 Canada Border Services Agency

The Revised Federal Environmental Assessment Guidelines for the Project dated August 2007 require that the Study Team consider the "construction and operation of any modification and/or expansion of the…"Windsor Plaza to meet current and future border management requirements as established by Canada Border Services Agency ("CBSA").

The Windsor Plaza that is owned by the Ambassador Bridge Company is the inspection facility for vehicles entering Canada. The CBSA is responsible for providing integrated border services that support national security and public safety priorities and facilitate the free flow of legitimate people and goods, including animals and plants that meet all requirements under the program legislation. CBSA uses the facilities on the Windsor Plaza that are provided and owned by the Ambassador Bridge Company.

The Ambassador Bridge Company has consistently worked with CBSA (and its predecessors) in a cooperative manner for approximately eighty (80) years to implement security measures and facilities requested by CBSA to operate the Windsor Plaza in an efficient, safe and secure manner. The Ambassador Bridge has discussed the proposed replacement span with the CBSA to ensure that the needs of CBSA are, and continue, to be met. The proposed Project should be properly viewed as a maintenance project that simply relocates the existing traffic onto a new, improved, span across the Detroit River.

CBSA has provided its Statement of Requirements (SOR) for both the next five and twenty-five years for the operation of the Windsor Plaza. The CBSA SOR are based on traffic projection forecasts formulated through the DRIC Study and not the building of the proposed replacement span. The Ambassador Bridge Company has accepted the use of the DRIC numbers for the traffic projection forecast for the EIS and the SOR as it represents the worst case scenario. The Ambassador Bridge Company has proposed alternatives to accommodate the SOR on its property and continues to work with CBSA pursuant to the legal Agreements they have with the Government of Canada.

CBSA and the Ambassador Bridge Company have discussed the fact that plazas at international border crossings do not have standardized layouts or size requirements, primary inspection lanes and secondary facilities. The Windsor Plaza is approximately 40 acres in size and is not a generic point of entry as it has been operational for approximately eighty (80) years. There have been numerous changes, improvements and expansions to the plaza over the years.

The Ambassador Bridge Company has, and continues to, work together with CBSA to reduce congestion, increase safety and facilitate processing of all vehicles in an efficient manner. Several programs are underway and have been successfully implemented to reduce the processing time required by CBSA. New initiatives are currently being discussed between the Ambassador Bridge Company and the CBSA.

The Windsor Plaza was expanded in 2006 to include three additional customs booths and in 2007 work was completed on an additional six customs booths, bringing the total to nine (9) new customs booths at the Windsor Plaza.

Separate and apart from the proposed Project a green buffer zone is also being proposed as part of the on-going Windsor Plaza expansion project for safety and security reasons and to mitigate the impacts of noise and lighting on surrounding residential land uses.

The improvements recently made to the Windsor Plaza have the flexibility to meet future needs. The existing Windsor Plaza, that has already undergone modifications, that are unrelated to the replacement span, will be able to accommodate the replacement span and nothing in the proposed Project contemplates or requires further expansion to the Windsor Plaza. Most importantly the proposed Project should be viewed as a maintenance project that represents the construction of a state of the art bridge that is built to current standards.

Environmental Effects Matrix

Phase: Construction & Operation

Accident / Malfunction	Valued Ecosystem Component	Potential Environmental Effects	Mitigation	Magnitude	Geographic Extent	Duration	Reversibility	Ecological/Socio-Cultural and Economic Context
On-site spill or accidental release of pollutants or contaminants	Fish Habitat / Water Quality	• Short term toxicity to juvenile aquatic species	• Operational management features limit spills to small volumes and ensure timely clean-up • Spills Prevention and Contingency Plan in Appendix X limits the consequences of any accidents to short duration	1	1	1	R	3
Fire and Explosion	Air Quality Human Health	• Discharge of carbon oxides and hydrocarbons • Discharge would be minor and quickly dissipate	• Spills Prevention and Contingency Plan in Appendix X limits the consequences of any accidents to short duration	1	1	1	R	3
Erosion, Sediment & Storm Water discharge	Fish Habitat / Water Quality	• Temporary increased mortality of sensitive aquatic organisms	• Containment and erosion and sediment control structures inspected and maintained regularly • Spills Prevention and Contingency Plan in Appendix X limits migration and speeds the clean-up	1	1	1	R	3
Disturbance of Archaeological features	Social / Cultural Environment	• Disturbance of artifacts or archaeological sites	• Stage I & II archaeological investigations completed • All reasonable measures will be employed to avoid further disturbance	1	1	1	R	3

Environmental Effects Matrix

Phase: Construction & Operation

Accident / Malfunction	Valued Ecosystem Component	Potential Environmental Effects	Mitigation	Magnitude	Geographic Extent	Duration	Reversibility	Ecological/Socio-Cultural and Economic Context

Key:

Magnitude:
1 = Low; e.g.. localized, specific group, one generation or less

2 = Medium; e.g.. portion of population, 1-2 generations, unpredictable

3 = High; e.g.. entire population

Geographic Extent:
1 = <1km^2
2 = 1-10 km^2
3 = 11-100 km^2

Duration:
1 = <30 days
2 = 1-12 months
3 = 13-36 months
4 = 37-72 months
5 = >72 months

Reversibility:

R = Reversible
I = Irreversible

Ecological/Socio-cultural and Economic Context (Existing Conditions):

1 = natural and undisturbed

2 = some evidence of human effect on natural environment

3 = high level of human interaction with little natural environment

4.0 DESCRIPTION OF EXISTING ENVIRONMENT

Table 2 below summarizes the existing environmental components in the Project area. The environmental components identified are discussed and analysed in further detail in the attached Environmental Impact Statement.

Table 2: Existing Environmental Components

Environmental Component	Component Status			
	Applicable to the Study Area?			Comments
	Yes	No	N/A	
Air Quality and Climate	✓			Queued vehicles result in the release of emissions that contribute to poor air quality.
Surface Water	✓			The Detroit River is used for navigation, recreation and as a drinking water source.
Groundwater	✓			Groundwater is not used as a source of drinking water for the urban area. The Site Study Area is not a recharge area for underlying aquifers due to the large percentage of impervious surfaces and the unique surface aquitard.
Surface and Subsurface Geology and Soils	✓			The surface soils of the Site Study Area primarily consist of fill materials over disturbed and undisturbed subsoils. The unconsolidated materials overlying the limestone bedrock consist of glacial tills and lacustrine clays, 30-40 metres thick.
Vegetation and Vegetation Communities	✓			Vegetation consists of manicured grass, mature trees, shrubs and riverbank vegetation typical of an urban environmental setting.
Fish and Fish Habitat	✓			The Detroit River is a major fish corridor that supports approximately 65 known species of fish, with reports of up to 117 species inhabiting the area.
Wildlife and Wildlife Habitat	✓			Wildlife within the Study Area has adapted to exist within the urban environment and include species such as mice, squirrels, rabbits, skunks, opossum, raccoons, birds, and other mammals that are tolerant of humans.
Species at Risk	✓			There are no terrestrial wildlife or fauna species at risk observed or reported in the Site Study Area. There have been reports of avian and aquatic species within the riparian corridor associated with the Detroit River.
Noise	✓			Existing noise levels have been measured and peaks are generally between 55 dBA and 69 dBA .

Environmental Component	Component Status			
	Applicable to the Study Area?			Comments
	Yes	No	N/A	
Vibration	✓			Vibration levels can be perceived by people standing on the ground but are below the range at which cosmetic damage to structures would be anticipated.
Land Use	✓			The Ambassador Bridge is immediately adjacent to an established international transportation corridor, residential uses are located to the west and institutional uses to the east.
Socioeconomic	✓			The Study Area is a major gateway to both Canada and the United States.
Structures and Sites of Significance	✓			Other than the archaeological sensitivity of the site and the existing Ambassador Bridge structure there are no other structures or sites of significance within the Local Study Area.
Human Health	✓			Air quality issues associated with existing passenger and commercial traffic have the potential to have adverse effects on the health of sensitive individuals.
Contaminated Sites and Waste Management	✓			There are no known contaminated sites in the Site Study Area. A licensed waste management hauler will be contracted to dispose of all waste materials generated during construction and operation.
Navigation	✓			The Detroit River is used for aquatic navigation by commercial and recreational vehicles.
Current Uses of Lands and Resources for Traditional Purposes by Aboriginal Peoples	✓			There are no First Nations lands or resources within the Study Area. However, the local First Nations' groups have an interest in potential human burials and artifacts.
Other		✓		There are no other environmental components that have been identified by the Study Team, Responsible Authority or public.

4.1 Air Quality and Climate

The air quality for the study area was gathered from publicly available ambient air quality data spanning a five-year period for stations located within the study area for the various pollutants. Pollutants of interest are identified below on Table 3:

Table 3: Pollutants of Interest

Group	Pollutants of Interest
Pollutants and Precursors	Carbon monoxide (CO) Nitrogen oxides (NO_X) (include nitric oxide (NO) and nitrogen dioxide (NO_2) expressed and NO_2) Sulphur dioxide (SO_2) Particulate matter ≤ 10 microns (10^{-6} meters) in diameter (PM_{10}) Particulate matter ≤ 2.5 microns (10^{-6} meters) in diameter ($PM_{2.5}$) volatile organic compounds expressed as non-methane hydrocarbons (NMHC)
Air Toxics	Benzene (C_6H_6) Acetaldehyde (CH_3CHO) Formaldehyde (H_2CO) 1,3-butadiene (C_2H_4) acrolein (C_3H_4O) benzo(a) pyrene plus other polycyclic aromatic hydrocarbons (PAHs) listed below
Greenhouse Gases	Carbon dioxide (CO_2) Nitrous oxide (N_2O) Methane (CH_4)
Other	ground level ozone (O_3)
Other PAH Compounds	Acenaphthylene acenaphthene anthracene benzo(a)anthracene benzo (b) fluoranthene benzo (g,h,i) pyrene benzo (k) fluorine chrysene dibenzo (ah) anthracene fluoranthene fluorine ideno (1,2,3-cd) pyrene naphthalene phenanthrene pyrene

The existing air quality conditions are set out in Table 4 below:

Table 4: Summary of Air Quality Criteria and Background Concentration

Pollutant of Interest	Averaging Period	Air Quality Criteria	Units	Reference	Selected Relevant Averaging Period	Background Concentration[(1)]
Pollutants and Precursors						
CO	1 hr	30	ppm	MOE (Reg 419/05: Standard)	1 hr	0.38
	8 hr	13	ppm	MOE (Reg 419/05: Standard)		
NOx	1 hr	400	µg/m^3	MOE (Reg 419/05: Standard)	24 hr	30
	24 hr	200	µg/m^3	MOE (Reg 419/05: Standard)		
SO_2	1 hr	690	µg/m^3	MOE (Reg 419/05: Standard)	24 hr	13
	24 hr	275	µg/m^3	MOE (Reg 419/05: Standard)		
PM_{10}	24 hr	50	µg/m^3	MOE (Interim AAQC)	24 hr	46
$PM_{2.5}$	24 hr	30	µg/m^3	Environment Canada (Canada Wide Standard)	24 hr	24
VOC (NMHC)	1 hr	NA	ppm		1 hr	0.29
Air Toxics						
benzene	24 hr	30	µg/m^3	Michigan (Department of Environmental Quality)	24 hr	3.4
acetaldehyde	24 hr	500	µg/m^3	MOE (Reg 419/05: Standard)	24 hr	2.0
	24 hr	5,000	µg/m^3	MOE (Reg 419/05: Upper Risk Threshold) - currently applicable		
formaldehyde	24 hr	65	µg/m^3	MOE (Reg 419/05: Standard)	24 hr	4.5
1,3-butadiene	24 hr	2	µg/m^3	Michigan (Department of Environmental Quality)	24 hr	0.21
acrolein	24 hr	0.8	µg/m^3	MOE (Reg 419/05: Upper Risk Threshold) - currently applicable	24 hr	0.081
	24 hr	0.08	µg/m^3	MOE (Reg 419/05: Standard) - applicable starting 2020		
benzo (a) pyrene	24 hr	0.0011	µg/m^3	MOE (Reg 419/05: AAQC)	24 hr	0.00081
	annual	0.0003	µg/m^3	MOE (Reg 419/05: AAQC)		
Greenhouse Gases						
CO_2	annual	NA	µg/m^3		annual	650,000
N_2O	24 hr	9,000	µg/m^3	MOE (Reg 419/05: AAQC)	24 hr	560
CH_4	annual	NA	µg/m^3		annual	1,130
Other						
ozone	1 hr	165	µg/m^3	MOE (Reg 419/05: Standard)	1 hr	< 50
	8 hr	130	µg/m^3	Environment Canada (Canada Wide Standard)		
Other PAH Compounds						
acenaphthylene	24 hr	35	µg/m^3	Michigan (Department of Environmental Quality)	24 hr	0.0094
acenaphthene	24 hr	210	µg/m^3	Michigan (Department of Environmental Quality)	24 hr	0.0086
anthracene	24 hr	1000	µg/m^3	Michigan (Department of Environmental Quality)	24 hr	0.013
benzo (a) anthracene	24 hr	0.36	µg/m^3	New Hampshire (Code of Administration Rules)	24 hr	0.0011
benzo (b) fluoranthene	24 hr	0.36	µg/m^3	New Hampshire (Code of Administration Rules)	24 hr	0.0033
benzo (g,h,i) perylene	24 hr	12	µg/m^3	Michigan (Department of Environmental Quality)	24 hr	0.0012
benzo (k) fluoranthene	-	NA	-		-	0.0002
chrysene	24 hr	0.36	µg/m^3	New Hampshire (Code of Administration Rules)	24 hr	0.0049
dibenzo (ah) anthracene	-	NA	-		-	Not Detected
fluoranthene	24 hr	140	µg/m^3	Michigan (Department of Environmental Quality)	24 hr	0.024
fluorene	24 hr	140	µg/m^3	Michigan (Department of Environmental Quality)	24 hr	0.010
indeno (1,2,3-cd) pyrene	-	NA	-		-	0.0012
naphthalene	24 hr	22.5	µg/m^3	MOE (Reg 419/05: AAQC)	24 hr	0.84
phenanthrene	24 hr	0.71	µg/m^3	New Hampshire (Code of Administration Rules)	24 hr	0.049
pyrene	24 hr	100	µg/m^3	Michigan (Department of Environmental Quality)	24 hr	0.015

Note: (1) selected as 90th percentile value of ambient air quality data, where available. For benzo (a) pyrene and other PAH species (excluding naphthalene) the average concentration plus one standard deviation was used and for ozone the mean concentrati

Additional information pertaining to the methodology and existing air quality in the Local Study Area are provided in Section 7.1 Air Quality and Climate.

4.2 Surface Water

The Detroit River is the only surface water body in the Site Study Area. The Detroit River is used for industrial, commercial, and recreational purposes and acts as a source of drinking water for over 5 million people. The Detroit River is the receiving water body for the discharge of stormwater and treated effluents including treated sewage. Currently, the Windsor Utilities Commission operates two water treatment plants, three pumping stations, and two reservoirs that serve approximately 230,000 people in the City of Windsor, the Town of LaSalle, and part of the Town of Tecumseh. The Detroit River is also used for recreational purposes such as fishing, boating, and sightseeing, as well as providing walking and biking along its shoreline.

Canada allows the U.S. Army Corps of Engineers to maintain the navigation channels in the Detroit River by dredging sediment. All dredging areas are well upriver and downriver of the Ambassador Bridge. The dredging of the upstream navigational channel does not adversely affect the quality of sediment at the site of the proposed Project. Additional detailed information and assessment relating to surface water and sediment in the Local and Regional Study Areas are provided in Section 7.2 Surface Water.

4.3 Groundwater

Four aquifer systems are described in the Region Study Area, each separated from the other in part or in whole by impervious geologic material known as an aquiclude. Three of these aquifer systems are present at the site of the Proposed Project with the water table aquifer being absent in the Local Study Area as will be discussed further. They are, in stratigraphic order:

1. Water table aquifer
2. Overburden aquifer
3. Contact aquifer
4. Bedrock aquifer

The Contact aquifer is the largest by volume and areal extent and is the most important source of potable water. The Contact aquifer is described as the zone where the unconsolidated materials come in contact with the bedrock. No specific depth can be defined as the bedrock surface is uneven.

Recharge to all aquifers is mainly by infiltration of precipitation through the regional land surface. The highest rates of infiltration are in surficial sand and gravel deposits. In the Local Study Area, surface deposits are low infiltration rate fill underlain by a silty clay aquiclude. As a result, recharge rates are low or zero and the surficial units inhibit recharge of the geologic units below, including the Contact aquifer. The aquiclude also prevents upwelling of groundwater to the surface. No seeps along the vertical profile of the Proposed Project soil profile have been reported in the literature reviewed, visually observed, or prior geotechnical studies commissioned by the Ambassador Bridge. If seeps are present, the most likely location would

be along the banks of the Detroit River in the fill material. Their occurrence would be intermittent and require the intersection of the bank and a perched water table.

The ground water regime is divided between the unconsolidated materials of the soil and fill and the underlying sedimentary bedrock. In general, the unconsolidated material in the area consists of fill or disturbed soils overlying natural units of silty clay with embedded sand and gravel. Below this unit are thick units of glacially derived strata of interbedded silty clay, clay, sand, and gravel to a depth of 30 metres (102 feet) below grade, as determined by geotechnical borings in the Site Study Area.

Discrete, transient perched water tables are found within the surficial fill materials in the Site Study Area. The underlying natural soils are dense, silty clay with low permeability and, therefore, act as an aquiclude which excludes the presence of a continuous water table.

Additional information pertaining to the groundwater in the Local Study Area is provided in Section 7.3 Surface and Subsurface Geology and Soils.

4.4 Surface and Subsurface Geology and Soils

The geology of the Regional Study Area consists of thick unconsolidated deposits, predominantly glacial tills and lacustrine clays, overlying marine sedimentary bedrock consisting of interbedded limestone, dolostone and shale. The unconsolidated materials are 30 to 40 metres (98.5 to 131 feet) thick throughout the region and in the Local Study Area.

The underlying bedrock units are part of the larger regional structure called the Michigan Basin which is centered in the lower peninsula of the State of Michigan. This series of carbonate-evaporite deposits form concentric rings around the center of the basin. The result is that the bedrock, interbedded shale, limestone and dolomite, dips to the northwest. The Dundee formation underlies the Local Study Area.

Within the bedrock, starting at approximately 270 metres (886 feet) below the surface, are thick salt beds of the Salina group which have been mined since 1866 and are still mined in the Regional Study Area. Above the bedrock there are between 15 to 20 metres (50 to 65 feet) of sand, with some dense clay interbeds near its contact with the overlying silty clay units that are between 20 to 25 metres (65 to 82 feet) thick. Fill and disturbed native soils overly this at the surface. Geotechnical borings and additional information related to the surface and subsurface geology and soils is included in Section 7.3 Surface and Subsurface Geology and Soils.

4.5 Vegetation and Vegetation Communities

There are a few patches of natural or semi-natural (cultural) vegetation present in the Site Study Area. Cultural vegetation implies vegetation that has re-established following a cultural or man-made disturbance to the area. Semi-natural vegetation occurs in areas that were previously disturbed but have had time to re-establish as a community with species that would likely have occurred prior to any disturbance. Most of the Local Study Area is landscaped (i.e. mowed) with ornamental plantings. McKee Park, located adjacent to the Detroit River, is the only open, non-impacted area. This park is one of a series of reclaimed parks along the Detroit River. The Ambassador Bridge is approximately 250 metres (820 feet) east of McKee Park. The proposed

replacement span will be approximately 210 metres (690 feet) east of McKee Park which is within the Local Study Area.

An inventory of vegetative species in the Local Study Area was conducted and the species that were observed are identified in Section 7.4 Terrestrial Environment.

4.6 Fish and Fish Habitat

Fish are an important resource to both Canada and the United States for the purposes of recreation and tourism. The Detroit River is considered to be one of the best places to fish for walleye in North America and it is estimated that approximately 10 million walleye come to the Detroit River from Lake Erie to spawn. The Ontario Ministry of Natural Resources (MNR) and the Michigan Department of Natural Resources (MDNR) recognize the Detroit River as an ecosystem having one of the highest diversities of wildlife and fish in all of the Great Lakes and is considered a major fish corridor.

The Lake St. Clair-Detroit River corridor has some valuable fisheries such as walleye, smallmouth bass and muskellunge; but it continues to have depressed fish stocks such as lake sturgeon, herring, and whitefish. Although the Detroit River ecosystem has shown improvements since beginning its recovery in the early 1970's, exotic invasive species, contaminants, hardened shorelines, loss of habitat and land use alterations continue to challenge the physical integrity of the system and these changes often occur rapidly. Additional information pertaining to the fish and fish habitat within the Detroit River beneath the proposed Project, see Section 7.2 Surface Water.

4.7 Wildlife and Wildlife Habitat

Prior to urbanization and the general development of the Windsor area that resulted in clearing of forest habitat and farming of prairie areas, a range of wildlife habituated the area including elk, black bear, wild turkey, white tailed deer, passenger pigeons, trumpeter swans and greater prairie chicken.

Today, wildlife in the urban and industrial areas is limited to species commonly found in urban areas such as mice, squirrels, skunks, opossum, raccoons, birds, and other species tolerant of humans.

Also included are numerous species of birds that breed in the area and several species of migrating birds. Typical species include Canada goose, mute swan, wood duck, mallard, blue-winged teal, ring-necked pheasant, Cooper's hawk, red-tailed hawk, American kestrel, ring-billed gull, mourning dove, killdeer, belted kingfisher, red-bellied woodpecker, vireos, swallows, wrens, warblers, sparrows and many others.

The Monarch butterfly, an insect species listed as a species of special concern in Ontario, has been recorded in the Ojibway area along with 334 other species of moths and butterflies. The Ojibway Prairie habitat is not located within the Site or Local Study Areas and is about 3.7 km (2.3 miles) southwest of the proposed Project.

Twenty-eight species of mammals were also recorded in the region including Virginia opossum, little brown bat, silver-haired bat, hoary bat, northern short-tail shrew, red fox, raccoon, Norway rat, meadow jumping mouse, gray and red squirrel, striped skunk, white-tailed deer and others.

The Detroit River and surrounding area is located in the middle of the Mississippi and Atlantic flyways. Approximately three million ducks, geese, swans, and coots migrate annually through this region. The Ministry of Natural Resources (MNR) and the Michigan Department of Natural Resources recognize the Detroit River as having one of the highest diversities of wildlife, including avian species, in the Great Lakes. Over 300 bird species have been documented through numerous annual bird surveys including Christmas Bird Counts in the Detroit-Windsor area of which 150-160 are found to breed, nest or migrate throughout the Detroit River corridor. More than 29 species of waterfowl, 17 species of raptors including the bald eagle, 31 species of shorebirds and 160 species of songbirds are found along or migrate through the Detroit River corridor. Many of these avian species such as mallard, Canada goose, mourning dove, robins and others tolerate urban environments and some such as the Peregrine falcon, sparrows and swallows nest in buildings and structures.

Some 300,000 diving ducks stop in the lower Detroit River during their fall migration from Canada to the east and south each year though this area is downriver of the Site and Local Study Areas. They use the lower river ecosystem for resting and feeding on beds of water celery (*Vallisneria* sp.) and other submergent plant species. The coastal marshes of the Detroit River and adjacent Lake Erie have provided habitat for the highest concentration of staging American black ducks in North America prior to the decline in their numbers in the 1950's. Black duck are still listed as a common species in the Detroit River marsh areas.

The wildlife habitats at and surrounding the Ambassador Bridge are adjacent to highly developed areas including the existing bridge and plaza, the University of Windsor, commercial and residential areas, and parklands. Wildlife communities are limited due to the high degree of human intrusion and urbanization of the study area. The exception is the vegetated banks of the Detroit River that provide connectivity to the waterway and the adjacent park and open space along the river, acting as a wildlife corridor. The wildlife and wildlife habitat in the Site and Local Study Areas can be classified as urban. Wildlife can be found almost anywhere, even in densely populated urban areas. Many species have adapted to life in urban environments and some have formed symbiotic relationships with humans.

4.8 Species at Risk

No terrestrial species at risk exist within or adjacent to the Study Area.

The Local and Regional Study Areas provide habitat for rare and unique fish and invertebrates, many of which are considered species at risk and are therefore classified as threatened, endangered or special concern. In addition, avian species at risk have been documented within the Regional Study Area and are known to use the riparian corridor associated with the Detroit River. Additional information pertaining to aquatic species at risk can be found in Section 7.2 Surface Water and additional information pertaining to avian species at risk can be found in Section 7.4 Terrestrial Environment.

4.9 Noise and Vibration

Noise

The Ambassador Bridge is adjacent to a mix of land uses including residential, commercial, institutional and open space. The Ambassador Bridge generates noise from vehicles crossing the bridge structure. Existing noise levels in the Local Study Area have been measured and peak noise levels range from 55 to 69 dBA. Table 5 below identifies the noise levels and additional information can be found in Section 7.5 Noise and Vibration.

Table 5: Sound Level Measurement Summary

ID	Description	Time	Leq	Comments
R1	Cartier hall	May 24, 13:30	69	TT on Huron Church (75 dBA)
		May 24, 21:00	68	Accelerating TT (65 - 74 dBA)
		May 25, 10:00	69	
		May 25, 14:20	68	
		Nov 13, 01:00	66	Accelerating TT (70 - 75 dBA)
		Nov 13, 03:35	64	Accelerating TT (71, 79 dBA)
R2	556 Indian Road	May 24, 14:50	60	Jake brakes (61 - 68 dBA)
		May 24, 23:00	59	Accelerating TT (59 - 65 dBA)
		May 25, 13:30	58	
		May 25, 16:30	61	
		Nov 13, 03:15	57	Accelerating TT (58 - 61 dBA)
		Nov 13, 05:15	60	
R3	North of Sir John A. MacDonald Hall	May 24, 15:30	66	Accelerating TT (68 - 77 dBA)
		May 24, 21:20	65	City Bus on Huron Church (72 dBA)
		May 25, 11:25	66	
		May 25, 14:50	66	
		Nov 13, 01:25	63	Accelerating TT (66 - 72 dBA)
		Nov 13, 03:55	64	
R4	445 Indian Road	May 24, 15:55	60	Bridge Traffic (55 - 60 dBA)
		May 24, 22:20	66	Jake Brakes (68, 69 dBA)
		May 25, 13:40	57	
		May 25, 17:00	58	

ID	Description	Time	Leq	Comments
		Nov 13, 02:50	58	
		Nov 13, 05:00	55	
R5	Assumption Church	May 24, 16:20	66	Huron Church Road dominant
		May 24, 21:40	63	Accelerating TT (60 - 70 dBA)
		May 25, 12:00	64	
		May 25, 15:20	65	
		Nov 13, 01:45	61	Accelerating TT (67 - 68 dBA)
		Nov 13, 04:20	62	
R6	347 Indian Road	May 24, 16:50	62	Jake Brakes (62 - 67 dBA)
		May 24, 22:00	61	Truck decelerating (66 - 72 dBA)
		May 25, 13:05	62	
		May 25, 16:05	62	
		Nov 13, 02:30	58	Truck decelerating (70 dBA)
		Nov 13, 04:55	59	Truck decelerating (75 dBA)
R7	Chateau Park 2990B Riverside Drive W.	May 24, 17:10	55	Bridge occasionally audible
		May 24, 22:40	55	Jake Brakes (55, 56 dBA)
		May 25, 10:40	59	Local HVAC units
		May 25, 17:25	55	
		Nov 13, 02:10	55	
		Nov 13, 04:35	56	

These peak sound levels are typical of an urban environment but exceed the Ministry of the Environment (MOE) Provincial Objective of 55 dBA.

Vibration

Trucks traveling over the Ambassador Bridge can cause vibration in the bridge structure, particularly if they pass over imperfections in the road surface. Table 6 below identifies all the locations where vibration measurements were conducted, the maximum velocity [mm/s] for each location, the acceleration frequency (Hz) and its associated value [dB re 1g], and the ISO perceptibility level for that specific frequency [dB re 1g].

Table 6: Vibration Level Measurement Summary

Receptor ID	Description	No-Build (2021)	Build (2021)	Build (2021) with 3.5m wall	Difference between Build and No-Build
R1	Cartier Hall (Student Residence)	73	69	-	-4
R2	Indian Road, south	62	68	62	0
R3	Assumption University (HS 3)	71	66	-	-5
R4	Indian Road, Middle	66	65	61	-4
R5	Assumption Church (HS 1)	70	65	-	-5
R6	Indian Road, North	70	62	62	-8
R7	Harbour View Condo	68	67	-	-1
R8	Nursing Home	67	62	-	-5
R9	South Rosedale	60	62	59	-1
R10	Middle Rosedale	62	64	62	0
R11	North Rosedale	66	65	64	-2
R12	School	54	55	55	0
R13	West Middle Rosedale	62	62	61	-1
R14	West North Rosedale	65	65	65	0
R15	Riverside Apartment bldg	69	70	69	0
R16	Vista Place	69	66	-	-3
R17	Indian Rd and Peter St	67	64	63	-4
R18	Service Station (HS 59)	70	67	-	-3

Receptor ID	Description	No-Build (2021)	Build (2021)	Build (2021) with 3.5m wall	Difference between Build and No-Build
R19	Captain Pierre Marentette House (HS 6)	64	63	-	-1
R20	Leroy Rodd House (HS 40)	61	61	-	0
R21	Masson-Deck House (HS 33)	60	60	-	0
R22	Assumption Park (HS 38)	70	65	-	-5
R23	Dillon Hall (HS 2)	57	56	-	-1

The measurements indicate that groundbourne vibration levels can be perceptible at distances up to approximately 40 metres (130 feet) from the bridge. The measurements indicate that the current vibration levels are below the range at which cosmetic damage would be anticipated in neighbouring structures, although vibration may be perceptible in the neighbouring dwellings depending on the degree of amplification in the structure.

4.10 Socioeconomic

Land Use

The existing Ambassador Bridge serves as a major international highway linking Canada and the United States. Most of the land adjacent to the existing Ambassador Bridge is developed and used for residential, institutional and recreational purposes. The existing Ambassador Bridge, extending north-south from Detroit, Michigan to Windsor, Ontario, is located immediately east of the proposed Project.

Socioeconomic

The Local Study Area has continued to function as a tourist and trade gateway between Canada and the US. The local economy within the Local Study Area can be characterized as having high unemployment and significant property vacancies.

Aesthetics

The existing aesthetic setting for the project area consists of components of the natural environment and man-made features. The availability of the natural environment for visual appreciation is somewhat limited by the urban character of the land in the vicinity of the existing Ambassador Bridge. There is relatively little topographic relief in the area or natural landscapes that would typically be associated with a high quality natural aesthetic environment.

The most significant natural visual element in the area is the Detroit River, which provides the opportunity for the appreciation of the riverine corridor within the context of the urban environment. The Detroit River is approximately 640 metres (2,099 feet) wide in the project

vicinity, providing a broad expanse of open space for long-distance visibility of the skylines of the Cities of Windsor, Ontario and Detroit, Michigan and the existing Ambassador Bridge from the shoreline.

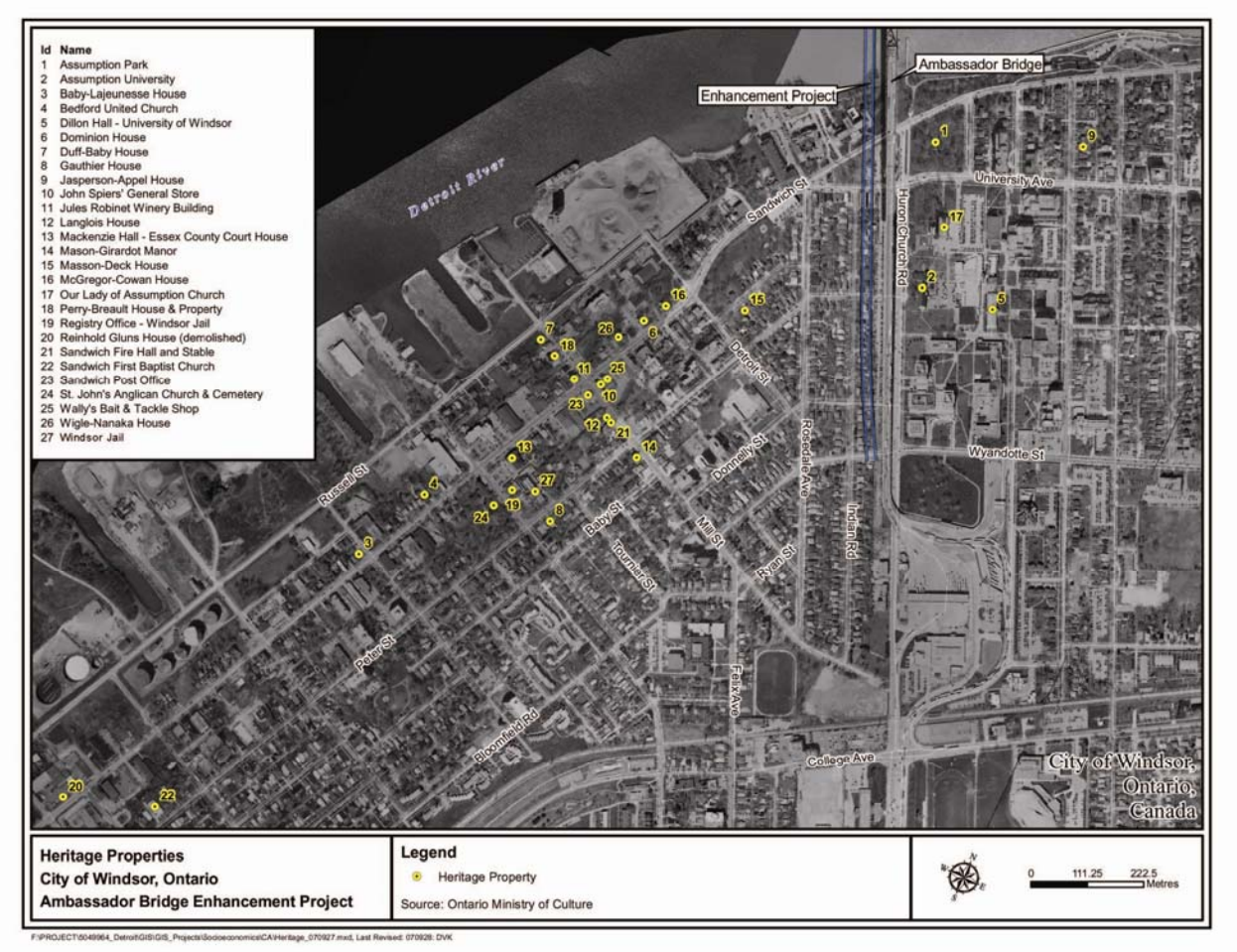
The existing Ambassador Bridge is an international transportation link constructed in 1929 that connects the urban environments between the Cities of Windsor and Detroit. The Ambassador Bridge is a visually dominant feature that has been an element of the urban skyline for nearly 80 years. The bridge is styled in a mixture of Art Deco and Art Moderne architectural designs, with some Gothic architecture blended in. It is made primarily out of steel. However, the two main towers on each side of the river are made of a steel-silicon alloy which rises up from concrete piers. At night, the Ambassador Bridge is lit as an aesthetic proposed and for safety purposes. The Ambassador Bridge also serves as a physical and symbolic gateway connection between the countries of Canada and the United States.

4.11 Structures and Sites of Significance

Heritage Sites

There are numerous heritage sites designated by the Ontario Ministry of Culture situated within the Regional and Local Study Area. Figure 8 below identifies the location of the heritage sites.

Figure 8: Location of Heritage Sites



Archaeology

The local study area has been identified by the City of Windsor's Archaeological Master Plan as an area of high archaeological potential.

4.12 Human Health

During the public consultation process several concerns were raised relating to potential health impacts from the vehicles using the Ambassador Bridge. The public is concerned with air quality associated with the queuing and idling of vehicles and their impact on human health. General queued and idling vehicles, particularly diesel trucks, tend to release increased emissions of PM, CO, CO_2 and NOx that all contribute to poor air quality. As discussed in Section 7.1 Air Quality and Climate the intent of this Project is to facilitate the movement of vehicles across the Ambassador Bridge and reduce idling and queuing, and ultimately vehicle emissions.

4.13 Contaminated Sites and Waste Management

There are no known contaminated sites located within the Study Area. All waste is treated and disposed of in accordance with current regulatory requirements.

4.14 Navigation

The existing Ambassador Bridge has been situated in the area for approximately seventy-eight years and has no impact on navigation.

4.15 Current Use Of Lands And Resources For Traditional Purposes By Aboriginal Peoples

Currently, the property owned by the Ambassador Bridge does not provide opportunities for the use of land or terrestrial resources for traditional purposes by aboriginal peoples. Aboriginal peoples are permitted to fish in the Detroit River either by boat or from the shore in the Regional Study Area. The Detroit River and shoreline within the Local Study Area do not possess any unique attributes for the current use of these resources for traditional purposes by aboriginal peoples.

5.0 ENVIRONMENTAL EFFECTS AND MITIGATION

Table 7 below summarizes the environmental effects of the proposed Project during both construction and operation. The environmental effects identified are discussed and analysed in further detail below and in the attached Environmental Impact Statement.

Table 7 Environmental Effects Checklist

Environmental Component	Potential Project Effects						Residual Effects	
	Potential Adverse Effect?			Can it Be Mitigated?			Is it Significant?	
	Yes	No	N/A	Yes	No	N/A	Yes	No
Air Quality and Climate	✓			✓				✓
Surface Water		✓				✓		✓
Groundwater	✓			✓				✓
Surface and Subsurface Geology and Soils	✓			✓				✓
Vegetation and Vegetation Communities	✓			✓				✓
Fish and Fish Habitat		✓				✓		✓
Wildlife and Wildlife Habitat	✓			✓				✓
Species at Risk	✓			✓				✓
Noise	✓			✓				✓
Vibration	✓			✓				✓
Land Use		✓				✓		✓
Socioeconomic	✓			✓				✓
Aesthetics	✓			✓				✓
Structures and Sites of Significance	✓			✓				✓
Human Health	✓			✓				✓
Contaminated Sites and Waste Management		✓				✓		✓
Navigation	✓			✓				✓
Current Uses of Lands and Resources for Traditional Purposes by Aboriginal Peoples	✓			✓				✓

5.1 Air Quality and Climate

5.1.1 Construction

Under the future scenario, in 2011, that considers impacts from construction activities related to the proposed Project, air quality in close proximity to the bridge will be impacted due to emissions from construction equipment. The potential exists for concentrations of NO_X, PM_{10} and $PM_{2.5}$ above the air quality criteria. Concentrations of pollutants of interest during construction have been modelled and are summarized below on Table 8.

Table 8: Summary of Maximum Air Quality Concentration Results

Pollutant of Interest	Relevant Averaging Period	Air Quality Criteria	Units	Baseline			2011 (Construction)			2011 (Operation)		
				Maximum Modelling Concentration µg/m^3	Background Concentration µg/m^3	Maximum Air Quality Concentration µg/m^3	Maximum Modelling Concentration µg/m^3	Background Concentration µg/m^3	Maximum Air Quality Concentration µg/m^3	Maximum Modelling Concentration µg/m^3	Background Concentration µg/m^3	Maximum Air Quality Concentration µg/m^3
Pollutants and Precursors												
CO	1 hr	30	ppm	4.4	0.38	4.8	441	0.38	441	2.5	0.38	2.9
NOx	1 hr	400	µg/m^3	652	62	714	587	62	649	423	62	485
NOx	24 hr	200	µg/m^3	248	30	278	157	30	187	157	30	187
SO_2	1 hr	690	µg/m^3	18	37	55	165	37	202	1.9	37	39
SO_2	24 hr	275	µg/m^3	6.9	13	20	21	13	34	0.99	13	14
PM_{10}	24 hr	50	µg/m^3	63	46	109	82	46	128	82	46	128
$PM_{2.5}$	24 hr	30	µg/m^3	7.2	24	31	10	24	34	7.8	24	32
VOC	1 hr	NA	ppm	0.50	0.29	0.79	-	0.29	0.29	0.20	0.29	0.49
Air Toxics												
benzene	24 hr	30	µg/m^3	6.8	3.4	10	-	3.4	3.4	3.4	3.4	6.8
acetaldehyde	24 hr	500	µg/m^3	1.4	2.0	3.4	-	2.0	2.0	0.66	2.0	2.7
formaldehyde	24 hr	65	µg/m^3	3.6	4.5	8.2	-	4.5	4.5	2.1	4.5	6.7
1,3-butadiene	24 hr	2	µg/m^3	0.94	0.21	1.2	-	0.21	0.21	0.38	0.21	0.59
acrolein[1]	24 hr	0.8	µg/m^3	0.11	0.081	0.19	-	0.081	0.08	0.054	0.081	0.14
benzo (a) pyrene	24 hr	0.0011	µg/m^3	0.00010	0.00081	0.00091	-	0.00081	0.00081	< 0.00001	0.00081	0.00082
Greenhouse Gases												
CO_2	annual	NA	µg/m^3	-	650,000	-	-	650,000	-	-	650,000	-
N_2O	24 hr	9,000	µg/m^3	2.6	560	563	-	560	560	3.2	560	563
CH_4	annual	NA	µg/m^3	-	1,130	-	-	1,130	-	-	1,130	-
Other												
ozone[2]	1 hr	165	µg/m^3	< 110			< 110			< 110		

Note: (1) the current acrolein air quality criteria is represented by the Upper Risk Threshold (URT) value of 0.8 µg/m3 under Ontario Regulation 419/05. The future (2020) air quality standard under Ontario Regulation 41
Note: (2) estimate based on the VOC / NOx ratio and ispoleth method includes background ozone.
Note: 2021 (FDN) refers to future operation of existing bridge only, 2021 (A) refers to future operation of ABEP only and 2021 (B) refers to future operation of ABEP plus existing bridge.

During the construction phase, maximum 1-hour NO_X air quality concentrations above the air quality criteria may occur whereas the maximum 24-hour NO_X air quality concentrations are below the air quality criteria. Also during the construction phase, the maximum 24-hour PM_{10} and $PM_{2.5}$ air quality concentration is predicted to be higher than the operational emission scenario for the same period (2011). Additional information pertaining to the construction effects related to air quality in the Local Study Area is provided in Section 7.1 Air Quality and Climate.

Mitigation

Measures to be used to reduce NO_X, PM_{10} and $PM_{2.5}$ air quality concentrations during construction activities include:

- construction activities will be limited to daytime periods (7:00 to 17:00);
- implementation of a Best Management Plan (BMP) described in detail in Section 7.1 Air Quality and Climate;
- contract documents will stipulate that the BMP be used to minimize short-term impacts;
- contract documents will stipulate that heavy equipment must meet design specifications for emission controls and that licensed vehicles conform to provincial Drive Clean standards, where appropriate;
- idling of heavy equipment will be monitored and limited consistent with the municipal by-law to the extent possible;
- the contractors most polluting heavy equipment will be identified and use limited during smog advisories;
- monitoring the number and/or size of heavy equipment that will be operating simultaneously. The river barges are predicted to be a significant contributor to the maximum NO_X concentrations during construction and as such the number and/or size of these will be limited;
- the NO_X concentrations are predicted to be highest at the virtual receptors located on the water versus virtual and special receptors located on land. Restrictions will be imposed to limit the distance between operating barges and water based receptors such as pleasure boats.

Additional information pertaining to the mitigation during construction related to air quality in the Local Study Area is provided in Section 7.1 Air Quality and Climate.

With the application of these mitigation measures, no significant impacts are anticipated.

5.1.2 Operation

Comparing the future 2021 “do nothing” and new bridge only scenarios indicates that the proposed replacement span and customs plaza will result in an improvement in air quality, notably in the area close to the bridge and the customs plaza. The greatest potential for improving air quality exists where air quality is impacted the most, along Huron Church Road. Comparing areas along Huron Church Road where traffic flows freely to areas with major arterial intersections suggests that air quality impacts could be reduced significantly by measures that would allow thru-traffic to flow more freely such as enhanced signal timing and/or

the removal of lights at key intersections. The environmental effects of the proposed Project on air quality are also included on Table X above.

Mitigation

The operation of the replacement span is to improve operating efficiencies, reduce back-ups and reduce truck idling and therefore emissions are expected to be reduced. Additional information pertaining to the operation of the replacement span and the impacts on air quality is provided in Section 7.1 Air Quality and Climate.

5.2 Surface Water

5.2.1 Construction

The construction of the proposed Project will not have a significant impact on the surface water and hydrology in the study area. The proposed Project does not involve dredging, in-water blasting, in-water pile driving, pier construction or placement of shore protection in or along the Detroit River.

Construction will take place on land with only limited use of construction barges to deliver materials to the site. The use of barges to deliver materials will have no significant effect on water quality, water levels or water use since no work will be taking place in the water. The only impact will be when four small anchors are dropped to stabilize the barges. This minor disturbance of the bottom sediment would not resuspend high quantities of material or cause measurable water quality effects. Barges will not be operated in shallow waters that are less than the draft of the barge. There will be no need to dredge channels for use of the barges eliminating a potential source of water quality effects.

Construction of the proposed Project will impact stormwater flow within the Project Area. Construction activities such as construction and worker vehicle parking areas, material storage areas, soil staging areas, and excavation areas will disturb areas located in the Site Study Area and temporarily increase the amount of impervious surface. The removal of vegetative cover and replacement with impervious or unprotected surfaces tends to remove the areas that normally attenuate surface water quality and flow. Left unchecked this can result in faster runoff of water from the surface and erosion of soil from surrounding areas. Erodible materials can then enter a receiving water body such as the Detroit River. Soils in exposed areas can also reach the adjacent waterways when carried by wind.

Mitigation

The primary mitigative aspect of the Project related to potential environmental effects to surface water is using the design concept that does not include any permanent project components in, or immediately adjacent to, the Detroit River. Effects can be minimized by ensuring effective management of storm and surface water drainage and by stabilizing unprotected surfaces through seeding and mulching and by use of dust suppression techniques such as watering. Section 7.2 Surface Water of this report includes additional details and analysis including a sediment and erosion plan for construction.

No significant erosion or sediment impacts are anticipated with the application of the above noted mitigation measures.

5.2.2 Operation

Operation of the proposed Project will result in a long-term impact on stormwater flow within the Site Study Area. The proposed Project requires the construction of new land-based piers and a new bridge deck. Together they will permanently increase the amount of impervious surface area within the Site Study Area and thus increase the amount of runoff water.

Mitigation

Effects can be minimized by ensuring effective management of storm and surface water drainage and by stabilizing unprotected surfaces during the operation of the project. In order to mitigate potential effects from the Project during construction and operation, the Ambassador Bridge will develop a comprehensive erosion control plan. A draft of this erosion control plan is included in the Surface Water quality section of this report. A Spills Response Plan has also been prepared (see Appendix A Spills Prevention and Contingency Plan) to reduce the potential for adverse environmental effects during the operation of the Project as was discussed above as part of the discussion of Malfunctions and Accidents.

No significant impacts are anticipated with the application of the above noted mitigation measures.

5.3 Groundwater

5.3.1 Construction

Site preparation work and foundation construction will have the greatest impact on groundwater, but the impact is expected to be limited to the time needed for the construction of the footings and support piers. Groundwater in the foundation excavations will be controlled to provide for worker safety, prevention of erosion and sedimentation issues and successful completion of the foundation. As described in Section 7.3 Surface and Subsurface Geology and Soils, groundwater discharge during construction could be substantial in volume. Artesian conditions have been confirmed in two recent borings in the Site Study Area commissioned by the Ambassador Bridge. Depending on the construction method used, the method of control may be pumping with collection, treatment and discharge and/or engineered barriers within the boring. For example, as borings are being drilled for the support piers, steel casings can be lowered into the borehole to stabilize the boring and limit potential for groundwater discharge into the boring. Any groundwater that may bypass the borehole casing will be pumped out of the casing, treated and discharged. Any residual water will be displaced up the casing when concrete is poured for the foundation and then collected when it reaches the surface.

Mitigation

Depending on the construction method used, the method of control may be pumping with collection, treatment and discharge and/or engineered barriers within the boring.

No significant impacts to groundwater during construction activities are anticipated with the application of the above noted mitigation measures.

5.3.2 Operation

After foundation construction is completed, groundwater aquifers will be allowed to return to pre-construction conditions except for localized change in flow direction around the foundation structures in the Site Study Area. No permanent changes in groundwater conditions are expected in the Local and Regional Study Areas

Mitigation

No significant impacts are anticipated to groundwater resources during the operation of the proposed Project.

5.4 Surface and Subsurface Geology and Soils

5.4.1 Construction

Site preparation work and foundation construction will have the greatest impact on geology. The impact is expected to be limited to the time needed for the construction of the footings and support piers. The site surface will be disturbed by grading, construction of service roads, establishment of staging and stockpile areas and related construction activities for the duration of the entire construction period. All surface areas will be restored to original or near original conditions with comparable materials after completion of construction. The surface material is mainly disturbed soil or fill, which further reduces the potential for permanent environmental change. Any surplus soil/fill will be characterized prior to its transport to an approved facility.

Excavation for the proposed Project foundations will result in localized removal of the entire thickness of the soil overburden and removal of necessary bedrock to the specifications of the foundation design. This material will be replaced by the foundation structures for the proposed Project. This will include grouting of localized fracturing in the bedrock if fracturing occurs. Except for the permanent removal of the geologic materials from the excavation during foundation construction and localized rock fracturing, no other permanent environmental changes to the site geology are expected.

Mitigation

With the exception of grouting of localized fracturing in the bedrock if fracturing occurs, no mitigation is necessary. No significant impacts are anticipated to geology and soils during the construction of the proposed Project.

5.4.2 Operation

There will be no environmental effects on surface and subsurface geology and soils during the operation of the proposed Project.

Mitigation

No mitigation is necessary as the operation of the Project will not result in any environmental effect. Additional information pertaining to the surface and subsurface geology and soils is provided in Section 7.3 Surface and Subsurface Geology and Soils.

5.5 Vegetation and Vegetation Communities

5.5.1 Construction

The only potential impact to terrestrial vegetation is the small area occupied by the support tower and piers for the bridge and any staging and construction parking areas. The support tower will be located approximately 30.5 metres (100 feet) south of the river and will occupy approximately 553 m^2 (5,946 ft^2) of area. The support tower is the largest support structure. The other support piers will each occupy about 5 m^2 (54 ft^2).

The Site Study Area has few natural heritage features as available habitat for local wildlife. The existing vegetation is limited to the street trees on Indian Road and other local roads. There are no wetlands located in the site study area. Loss of some trees, shrubs and open areas as a result of the proposed Project will have minimal effects, as future replanting will replace some of the losses. No long-term effects on vegetation from the project operation are anticipated.

Mitigation

A tree saving plan has been developed (see Section 7.4 Terrestrial Environment) to maintain some mature vegetation within the Site Study Area.

No significant impacts to vegetation and vegetation communities during construction activities are anticipated with the application of the above noted mitigation measures.

5.5.2 Operation

There will be no environmental effects on surface and subsurface geology and soils during the operation of the proposed Project. See Section 7.4 Terrestrial Environment for additional details.

Mitigation

No mitigation is necessary as the operation of the Project will not result in any environmental effects on vegetation and vegetation communities during the operation of the proposed Project. Additional information pertaining to vegetation and vegetation communities is provided in Section 7.4 Terrestrial Environment.

5.6 Fish and Fish Habitat

5.6.1 Construction

No adverse effects from the construction of the Proposed Project are anticipated. The Project is a cable-stayed bridge and will not involve any construction activities within the Detroit River, either along its banks or below the plane of the ordinary high water mark. There will be no piers, cofferdams, pile driving, dredging, blasting, or any discharges of fill material into the River from the proposed Project. The supporting towers for the cable stayed bridge will be located on upland property. For additional information pertaining to environmental effects associated with fish and fish habitat within the Detroit River beneath the proposed project, see Section 7.2 Surface Water.

Mitigation

No mitigation is necessary as the construction of the Project will not result in any environmental effects on fish and fish habitat during the construction of the proposed Project. Additional information pertaining to fish and fish habitat is provided in Section 7.2 Surface Water.

5.6.2 Operation

No adverse effects from the operation of the Proposed Project are anticipated. The Project is a cable-stayed bridge and will not involve any operational components within the Detroit River, either along its banks or below the plane of the ordinary high water mark. For additional information pertaining to environmental effects associated with fish and fish habitat within the Detroit River beneath the proposed project, see Section 7.2 Surface Water.

Mitigation

No mitigation is necessary as the operation of the Project will not result in any environmental effects on fish and fish habitat.

5.7 Wildlife and Wildlife Habitat

5.7.1 Construction

Wildlife that may be impacted by the Proposed Project is limited to species highly tolerant to human activities such as mice, squirrels, skunks, opossum, raccoons, birds, and other species tolerant of humans. During the construction period, activities such as clearing and grubbing to prepare the site for the tower and pier, will remove soil and vegetation and cause vibration and noise affecting the habitat and wildlife that exist at the site. Emigrating wildlife could be subjected to stress as a result of this displacement.

The type and amount of vegetation removed by the proposed Project, including roadside trees, ornamental plantings, and landscape planting, will have no effect on wildlife habitat locally or regionally because these do not serve as linkages or corridors.

Mitigation

As discussed above a tree planting plan will be undertaken to restore wildlife habitats. No significant impacts are anticipated, as once construction activities have been completed the wildlife population will return to the study area. Additional information pertaining to wildlife and wildlife habitat is provided in Section 7.4 Terrestrial Environment.

5.7.2 Operation

The new bridge structure and supplemental planting will replace the urban habitat for wildlife. Species that are tolerant of human activity will continue to use the Local Study Area as habitat in a similar manner to the existing Ambassador Bridge.

Mitigation

No mitigation is necessary as the operation of the Project will not result in any significant environmental effects**.**

5.8 Species at Risk

5.8.1 Construction

There will be no adverse effects from construction of the Proposed Project on any threatened, endangered or species of concern including avian species, mammals, reptiles, amphibians and plants.

Mitigation

No mitigation specifically designed to mitigate effects on species at risk is necessary as the construction of the Project will not result in any environmental effect. Additional information pertaining to species at risk is provided in Sections 7.4 Terrestrial Environment and 7.2 Surface Water.

5.8.2 Operation

No impacts are anticipated on species at risk and there will be no adverse effects from construction of the Proposed Project on any threatened, endangered or species of concern including avian species, mammals, reptiles, amphibians and plants.

Mitigation

No mitigation specifically designed to mitigate effects on species at risk is necessary as the construction of the Project will not result in any environmental effects. Additional information pertaining to species at risk is provided in Sections 7.4 Terrestrial Environment and 7.2 Surface Water.

5.9 Noise and Vibration

5.9.1 Noise

5.9.1.1 Construction

Discussions with the Ambassador Bridge Company indicate that construction is to extend over a period of approximately 2 years. The aspects of construction which are expected to produce significant sound levels in the surrounding neighbourhoods are primarily related to construction of the support piers which will involve excavation, pile driving, concrete pouring and steel erection. At any particular residence therefore, the highest sound levels will occur when the nearest piers are being built. Pier construction, with its related pile driving is expected to occur within a three month period to limit adverse effects as much as possible.

Construction activities are regulated in two ways in the Province of Ontario. First, time restrictions are contained in Municipal noise Bylaws. Second, the Ministry of the Environment provides sound level limits for construction equipment in their Noise Pollution Control Guideline NPC 115 “Construction Equipment”. It is incumbent on the contractors to comply with these guidelines and ordinances.

Mitigation

In order to mitigate construction-related noise effects of the proposed Project, the following measures will be undertaken. Sound and vibration levels will be monitored during pile driving within 100 metres (328 feet) of sensitive receptors. If exceedances are noted, reduced driving force and/or temporary noise barriers will be investigated. Time restrictions set out in the City of Windsor’s Noise Bylaw 6716 will be complied with. The contractor will be required to ensure that factory recommended mufflers are maintained on all construction equipment Sound emissions from all construction equipment will comply with MOE Guideline NPC-116 “Sound Levels from Construction Equipment.” Haul routes will be designed to avoid residential neighbourhoods.

No significant impacts relating to noise are anticipated with regulatory compliance and the application of the above noted mitigation measures.

5.9.1.2 Operation

Typically, for road widening projects, noise control measures would only be considered if the increase in sound level at a point of reception between the build and no-build scenarios is greater than 5 dBA ten years after completion. In the case of the new span, Health Canada has suggested that mitigation be considered if there is any significant increase in sound level at locations where ambient levels are already elevated. Mitigation measures will be undertaken for all noise sensitive receptors at which sound levels may increase by more than only 1 decibel between the build and no-build scenarios.

Noise modelling has been undertaken to assess the potential environmental effects of the proposed Project. The results include predicted noise levels at sensitive receptors during

operation with and without proposed mitigation. These results are summarized on Table 9 that follows.

Table 9: Predicted 2021 Sound Levels with 3.5m Noise Barrier

Receptor ID	Description	No-Build (2021)	Build (2021)	Build (2021) with 3.5m wall	Difference between Build and No-Build
R1	Cartier Hall (Student Res)	72	68	-	-4
R2	Indian Road, south	61	67	61	-1
R3	Huron Church Road, Middle	70	64	-	-6
R4	Indian Road, Middle	65	64	60	-5
R5	Assumption Church	69	64	-	-6
R6	Indian Road, North	68	60	60	-8
R7	Harbour View Condo	67	66	-	-1
R8	Nursing Home	66	62	-	-4
R9	South Rosedale	59	61	58	-1
R10	Middle Rosedale	61	63	61	0
R11	North Rosedale	65	63	63	-2
R12	School	53	54	54	1
R13	West Middle Rosedale	60	61	60	-1
R14	West North Rosedale	64	64	64	0
R15	Riverside Apartment bldg	68	69	68	0
R16	Vista Place	68	65	-	-3
R17	Indian Rd and Peter St	66	63	62	-4

Noise level increases at the nearest sensitive receptors could be as high as 8 dBA higher than ambient levels without mitigation.

Mitigation

In an effort to adhere to Health Canada's desire to keep noise level increase to 1 dBA or less between the build and no-build scenarios, it was determined that a noise barrier would be required for a portion of the elevated section of the proposed Project. Table 9 above indicates that the noise barrier will reduce noise levels at nearly all of the nearest sensitive receptors to less than pre-development levels and no noise increases will exceed 1 dBA. Additional information related to the measurement and modelling of the noise effects of the proposed Project is included in Section 7.5 Noise and Vibration.

No significant impacts to the study area due to increased noise resulting from construction activities are anticipated with the application of the above noted mitigation measures.

5.9.2 Vibration

5.9.2.1 Construction

Typical equipment to be used in these activities are auger drilling machine, backhoes, forklifts, dump trucks, flatbed trucks, pile drivers, concrete trucks, cranes, bobcats, concrete pumps, barges, concrete vibrators, grinders, jackhammers, pickup trucks and hand tools and equipment. Of this equipment, pile driving has the potential to produce the highest levels of impulse noise and groundbourne vibration. Past experience from other similar projects indicates that during pile driving activities, sound levels can exceed 80 dBA at distances of up to approximately 100 metres (328 feet). At that distance, groundborne vibration levels can be perceptible, but are not generally sufficient to cause cosmetic or structural damage to buildings.

Mitigation

Vibration monitoring will be conducted when pile driving is taking place within 100 metres (328 feet) of a sensitive receptor, including heritage buildings. If excesses are found, reduced pile driving force and the construction of temporary noise barriers will be implemented.

Additional information related to the measurement and modelling of the vibration effects of the proposed Project is included in Section 7.5 Noise and Vibration.

No significant impacts are anticipated with the above noted mitigation measures.

5.9.2.2 Operation

The conditions and makeup of the soil and the spread footing design are contributing factors to the propagation of ground borne vibration. The new span will be constructed on piles driven to bedrock. This can be a better design from a vibration standpoint because the bridge piers will not be floating but will instead be supported directly on bedrock. It is likely that vibration levels will be lower after the construction of the proposed Project than pre-development.

Mitigation

In addition to designing the foundation for the new structure directly to bedrock, additional mitigation can be incorporated to ensure that there are no adverse effects during operation. To minimize the future possibility of increased vibration levels the road upgrading should ensure a smooth road surface with few imperfections.

No significant impacts are anticipated with the application of the above noted mitigation measures.

5.10 Socioeconomic

5.10.1 Land Use

5.10.1.1 Construction

The proposed Project will be entirely constructed on land owned by the Proponent. The selection of the proposed alignment by the Proposed Project avoids existing major institutional uses, particularly the historic Assumption Church and the University of Windsor campus. The alignment proposed for the Project will run adjacent to some existing residential development and land used for recreation purposes. The land used for the proposed Project is comprised of approximately 63% residential land, 6% recreational land, and 31% other land uses including existing road ways.

There are no commercial businesses located within the proposed Proposed Project alignment that will need to be removed during construction. Construction activities associated with the proposed Project will not interact directly with the level of commercial activity within the spatial boundaries.

The proposed Project construction will not require the purchase and or relocation of any residential buildings. Several residences are located adjacent (within 200 metres or 657 feet) to the proposed alignment. The residents of these houses may experience a perceptible change in noise levels from the construction equipment during all phases of construction of the proposed Project. Residents may also be affected by air emissions and other disturbances generated by the Project. These issues and environmental effects are addressed in detail in Sections 7.1 Air Quality and Climate and 7.5 Noise and Vibration.

The recreational land uses in the vicinity of the proposed Project include hiking, bicycling and passive unorganized activities. The Detroit River is used for fishing. The construction activities associated with the proposed Project may result in a temporary disruption to fishing activities. Fishing activities can easily be accessed at an alternative location during construction. Construction activities will temporarily affect recreation trail land use in the immediate vicinity of the Project due to noise, dust and other minor disturbances during all Project activity phases and physical works. Once construction is completed all recreational activities will be restored and rehabilitated.

Mitigation

No mitigation related to land use beyond those already discussed for noise, air quality, and other issues will be required.

5.10.1.2 Operation

The residential and institutional land uses proximate to the proposed Project will interact and be affected to a degree similar to or less than the current effect of the Ambassador Bridge. Land uses along Huron Church Road are expected to experience a reduction of congestion once the proposed Project is constructed. This will likely improve the level of service and safety along Huron Church Road and mitigate traffic noise to adjacent residents.

The presence of the proposed Project will interact with recreational land use due to noise and other minor disturbances in the immediate vicinity of the Project. This will only occur while crossing under the proposed Proposed Project, as the trails and most recreation activities are situated away from the Project.

Mitigation

No mitigation related to land use beyond those already discussed for noise, air quality, and other issues will be required. There are no significant impacts anticipated with the application of the various mitigation measures.

Construction

The benefits of the proposed Project during construction will be related to job creation and result in an estimated 3,700 man-years of employment. Positive impacts on businesses are expected as a result of a large number of construction workers who will be within the Regional Study Area for the duration of the construction project. Businesses supplying consumer goods and personal services will have access to a significant new customer base. Also, as additional projects are initiated the construction workers may opt to stay in the Study Area creating a permanent increase in the customer base for business.

Mitigation

No mitigation beyond that already discussed for noise, air quality, and other issues will be required. Additional information related to the construction related effects of the proposed Project is included as Section 7.6 Socioeconomic Conditions.

Operation

The existing international trade corridor will continue to serve as a significant gateway for the movement of goods and people between Canada and the US. The ongoing operation of the border crossing in this location will have a beneficial impact on job retention, business activity and economic and tourism development. The economy within the Regional Assessment Area boundaries and beyond has flourished due to cross border trade. The reductions in congestion brought about by the proposed Project will improve the provision of efficient cross border movement of goods and a greater level of assured movement of finished products for the area within the spatial boundaries. As a result there may be a higher level of comfort for industrial operations and a stemming of the relocation of those operations to other locations. The proposed Project, juxtaposed with the existing Ambassador Bridge, may act as a point of interest to tourists and result in an increase in tourism.

Reduced congestion will make motor vehicle access to properties particularly along the Huron Church Road corridor, more convenient and will likely lead to increased development interest. Better access will provide increased certainty for landowners that their customers can reach them easily, encouraging development to proceed on vacant or underutilized parcels along Huron Church Road resulting in increased property values and an increase in tax revenue.

Mitigation

No mitigation related to land use beyond that already discussed for noise, air quality, and other issues will be required. There are no significant impacts anticipated with the application of the various mitigation measures.

5.10.2 Aesthetics

5.10.2.1 Construction

The aesthetic character of the proposed Project during construction will be evolutionary in varying stages of completion between the existing conditions described above toward the operational conditions described below. In addition to the structural elements of the proposed Project, construction equipment including ground vehicles and cranes will be visible. The presence of these additional construction related elements is necessary for the completion of the construction of the proposed Project and temporary.

Mitigation

No mitigation during construction is warranted and any negative impacts resulting from construction activities will be limited in duration and not extend beyond the estimated two year construction period.

5.10.2.2 Operation

The proposed Project consists of a six-lane cable-stayed span parallel to and approximately 30.5 metres (100 feet) to the west of the existing Ambassador Bridge. Simulations are provided in Section 7.6 Socioeconomic Conditions. The deck of the new bridge will be approximately the same height as the existing Ambassador Bridge - 46 metres (152 feet) above the Detroit River.

The towers for the proposed Project will be land-based to avoid the loss of fish habitat and potential hydraulic effects. These towers will be approximately 167 metres (548 feet) above the elevation of the Detroit River in order to accommodate the wider span and cable-stayed type of construction. The proposed Project will connect between the two existing plazas in Windsor, Ontario and Detroit, Michigan.

The proposed Project will be supported by the main tower piers and approximately 14 sets of 1.8 metre (6 feet) diameter concrete piers spaced at approximately 43 metre (141 foot) intervals. The wider spacing allows for far fewer sets of piers to be used compared to the approximately 29 sets of steel piers for the existing Ambassador Bridge. It is anticipated that the replacement span will be lit at night as an aesthetic proposed as well as for safety purposes in a manner consistent with and complimentary to the existing Ambassador Bridge.

Public consultation was conducted and input sought in both Canada and the U.S. regarding the design of the visual elements of the proposed Project. The preliminary design of the proposed Project has not been finalized at this time. The simulation photographs included in this section are conceptual only and incorporate an H-shaped tower and complement the existing architecture of the Ambassador Bridge. The concept that was incorporated into the design was

to provide a visually similar structure that was sensitive to the historic context of the Ambassador Bridge and complemented it with a new structure that is state-of-the-art for the 21st century adjacent to the Ambassador Bridge that was state-of-the-art for the early 20th century. The design of the proposed structure will incorporate non-specular materials into the design of the project components to decrease reflectivity and visibility of project features. The new span is designed to meet standards consistent with the historic character of the Ambassador Bridge.

The Ambassador Bridge is recognized as a physical record of its time, place, and use. The proposed Project is not designed to take away from the significance of the existing Ambassador Bridge by providing a false sense of historical development. Instead, it is differentiated by using safer, modern cable-stayed bridge technology rather than replicating the suspension cable design of the original bridge.

It is also important to preserve the historic materials that characterize the existing Ambassador Bridge. The proposed Project is designed to be distinct from the Ambassador Bridge and will be compatible with the massing, size, scale and architectural features to protect the historic integrity of the property and its environment. The existing span will not be physically affected by the replacement span. In fact, the construction of the new span will extend the life of the existing span through the removal of heavy truck traffic that adversely affects the structural integrity of the existing span.

The proposed Project is differentiated from the old in that it incorporates state-of-the-art engineering. The replacement span will be of cable-stay construction in contrast to the suspension cable design of the original bridge. The replacement span will be constructed primarily of concrete, permitting a clean design that will provide a visual contrast with the intricate exposed steel structure of the existing span. The proposed Project will be wider than the existing span, but will roughly parallel its course and will match its minimum clearance height and the line of its arc over the river.

There are a number of design elements that contribute to the image of the structure that can be modified to reflect the vision of the community. These elements include tower concepts, colour and texture, roadway fixtures and railings and the overall bridge lighting. Input will be sought from the public to determine the most desirable design elements.

Mitigation

The primary mitigation factor for aesthetic effects associated with the proposed Project is the inclusion of the design elements for the proposed Project that compliments the Ambassador Bridge. Hoarding and other protective measures will be used to mitigate the visual intrusion of construction.

5.11 Structures and Sites of Significance

5.11.1 Heritage Sites - Construction

No heritage sites will be demolished or moved during the construction of the Project. Construction vehicles and Project components will be visible from several heritage properties during the construction phase. Visual impact assessment from the Project is set out in more detail in Section 7.6 Socioeconomic Conditions.

Mitigation

Hoarding and other protective measures will be used to mitigate the visual intrusion of construction on the surrounding area. Construction vehicles will avoid using roads located within residential and heritage areas.

5.11.2 Heritage Sites - Operation

The Project will be visible from several heritage sites and no significant visual impacts are anticipated. The Project design shall be integrated and in keeping with the design of the existing Ambassador Bridge. Visual impact assessment from the Project is set out in more detail in Section 7.6 Socioeconomic Conditions.

Mitigation

The integration of design elements that reflect the characteristics of the existing Ambassador Bridge will mitigate the visual impacts of the Project on heritage sites. There are no significant adverse visual effects of the Project on heritage sites. Further discussion and visual simulations are included in Section 7.6 Socioeconomic Conditions.

5.12 Archaeology

5.12.1 Archaeology - Construction

The possibility of encountering archaeological features within the project area does exist given the known history of the study area. A thorough Stage 1 and Stage 2 archaeological assessment have been completed for the proposed Project area. Construction will avoid disturbing any archaeologically significant areas, wherever possible. There is very little potential for adverse environmental effects as areas identified as having archaeological potential will be avoided.

Any and all construction activities in the Study Area shall be monitored by a licensed archaeologist. Taking into consideration the urban nature of the Project area and the level of disturbance that occurred during the construction of the original Ambassador Bridge it is unlikely that the proposed Project will further degrade the archaeological and cultural heritage of the area.

Mitigation

A Stage 3 archaeological assessment will be completed for any sites identified in the Stage 2 Assessment and subject to soil disturbing activities. Wherever possible, all identified sites will be avoided. A licensed archaeologist will be at the Project site when soil disturbing activities are taking place.

There are no significant impacts anticipated with the application of the mitigation measures.

5.12.2 Archaeology - Operation

There will be no additional soil disturbing activities required for the operation of the Project and no potential effects to archaeological resources.

Mitigation

There are no soil disturbing activities associated with the operation of the Project and no significant adverse effects will result and therefore no mitigation is required.

5.13 Human Health

5.13.1 Construction

There is the potential for increased dust, air emissions and noise from the operation of construction vehicles.

Mitigation

Measures will be undertaken to mitigate construction related air and noise effects as discussed in Sections 7.1 Air Quality and Climate and 7.5 Noise and Vibration.

5.13.2 Operation

During operation, human health can be affected from noise and air quality. Impacts from noise during operation are discussed above under the heading "Noise". Generally there will be an improvement in noise levels and any increase will be mitigated.

Impacts on air quality are discussed above under the heading "Air Quality". Generally the design of the Project is intended to significantly improve the movement of traffic and result in a reducing in idling and queuing.

Mitigation

Measures undertaken to mitigate noise is set out in Section 7.5 Noise and Vibration and with the mitigation measures the Project does not result in any significant adverse effect relating to increased noise levels.

No mitigation is necessary as the construction of the Project will result in a net positive environmental effect during operation. Additional information pertaining to the air quality modelling is provided in Section 7.1 Air Quality and Climate.

5.14 Contaminated Sites and Waste Management

5.14.1 Construction

Excess materials will be generated during construction activities. Any excess materials will be properly managed and disposed of in accordance with existing regulatory requirements. To date, there have not been any areas of contaminated material confirmed within the proposed Project area.

Mitigation

The final contract package will emphasize reducing, reusing, and recycling of non-contaminated materials generated during construction. Disposal areas may be specified in the contract package to address any excess material generated from the Project.

In the event contaminated materials are discovered, applicable health and safety and environmental legislation describes procedures for dealing with these contaminated materials. With the application of mitigation measures noted above, no significant effects are to be expected.

5.14.2 Operation

The operation and maintenance of the Project may result in some environmental effects, as discussed above.

Mitigation

There are no significant environmental effects resulting from the operation of the Project.

5.15 Navigation

5.15.1 Construction

Potential project-environment interactions that may be encountered during Project construction include potential navigation restrictions and/or the disruption of vessel flows resulting from the necessary use of barges during the Project construction period. These include the interactions between the barge while moving and anchored with:

- Lake freighters;
- Tugboats;
- Sailboats;

- Riverboats; and
- Pleasure craft.

All necessary measures to avoid/minimize these impacts will be taken in accordance with the *Navigable Waters Protection Act*, the *Shipping Act*, COLREGS, and SOR/84-335.I

Mitigation

All necessary measures to avoid/minimize these impacts will be taken in accordance with the *Navigable Waters Protection Act*, the *Shipping Act*, COLREGS, and SOR/84-335. Any impacts on navigation will be mitigated through compliance with the existing regulatory regime governing navigable waters.

5.15.2 Operation

There are no impacts on navigation from the operation of the Project.

Mitigation

There are piers placed in the Detroit River and no disruption to navigation. There are no significant adverse effects on navigation and no mitigation is required.

5.16 Current Use of Lands and Resources for Traditional Purposes by Aboriginal Peoples

5.16.1 Construction

Extensive consultation with aboriginal representatives has been conducted to identify opportunities for the current use of lands and resources for traditional purposes by aboriginal peoples (see Section 7.10 Public Consultation). No concerns have been expressed regarding the construction of the Project inhibiting the current use of land or terrestrial resources for traditional purposes by aboriginal peoples.

Mitigation

The Detroit River and shoreline within the Local Study Area do not posses any unique attributes for the current use of these resources for traditional purposes by aboriginal people. Therefore, no mitigation is necessary.

5.16.2 Operation

Extensive consultation with aboriginal representatives has been conducted to identify opportunities for the current use of lands and resources for traditional purposes by aboriginal peoples (see Section 7.10 Public Consultation). No concerns have been expressed regarding the operation of the Project inhibiting the current use of land or terrestrial resources for traditional purposes by aboriginal peoples.

Mitigation

The Detroit River and shoreline within the Local Study Area do not posses any unique attributes for the current use of these resources for traditional purposes by aboriginal peoples therefore, no mitigation is necessary.

6.0 CUMULATIVE EFFECTS

6.1 Other Projects Relevant to the Cumulative Effects Assessment

There are no significant projects (past, present or foreseeable) that are relevant to this proposed Project that would influence residual environmental effects. The Study Area is urban and no project has been identified that will contribute significantly to cumulative environmental effects.

The Study Team does acknowledge that projects planned by local and regional governments, as well as provincial and federal agencies should be included in the consideration of reasonably foreseeable projects. The Detroit River International Crossing (DRIC) project is included in the cumulative effects analysis. However, taking into account the proposed location of the DRIC project, there is no indication that the DRIC project will contribute to, or impact, the environmental effects of the proposed Project.

6.2 Cumulative Effects

The Study Area is predominantly an urban area with some residential and institutional development around the proposed Project. There are no significant environmental features located within the Study Area, with the exception of the Detroit River which will be protected through standardized erosion /sedimentation measures as well as provisions related to spills management.

Traffic volume has decreased since 1999, however the Ambassador Bridge is 78 years old and continued maintenance while operational is both costly and inefficient. The inability to provide FAST/NEXUS lanes on the Ambassador Bridge has resulted in some congestion and unnecessary vehicle idling within the Study Area. By constructing the replacement span to today's safety standards and dedicating two lanes (one in each direction) to preapproved FAST/NEXUS users congestion will be relieved and idling minimized, allowing for more efficient movement of traffic in this area. On a cumulative basis the proposed Project will have a neutral impact on, or will improve ,the existing environmental conditions at both the local and regional levels.

6.3 Cumulative Effects - Scenarios

As part of the cumulative effects assessment all reasonably foreseeable projects including all other border infrastructure projects in the surrounding area (the Ambassador Bridge, the American side of the replacement span and the DRIC project) were considered to determine the cumulative environmental effects, if any, as a result of these projects. The guidance provided by the Canadian Environmental Assessment Agency indicated that the cumulative effects assessment should focus on the key areas of concern, along with the project-specific effects with the greatest potential to act in a cumulative fashion with other actions. The Canadian Environmental Assessment Agency indicated that water quality, air quality, and noise were likely three key areas that should be considered in the cumulative effects assessment.

The following range of scenarios was developed to guide the cumulative effects analysis:

1. Proposed Project and the DRIC project, both operational;

2. Proposed Project and the Ambassador Bridge, both operational; and,

3. Proposed Project, the Ambassador Bridge and the DRIC project all operational.

Although requested to include the scenario on both the proposed Project and Ambassador Bridge being operational at the same time the United States' plaza as currently configured is unable to accommodate this scenario. As part of the proposed Project, the Ambassador Bridge will be taken out of service for general traffic purposes. Once the proposed Project is operational, the Ambassador Bridge will be available for special purposes such as operations and maintenance personnel to avoid any impacts on traffic flow, use by customs and immigration officials where necessary, and approved public events such as the annual marathon. The Ambassador Bridge will only be used for general traffic purposes as a "back up" or "redundant resource" in the rare occurrence that the proposed replacement span is temporarily inaccessible due to emergency circumstances or unscheduled maintenance requirements.

Due to the configuration of the approaches to the south side of the United States' plaza, the proposed replacement span and Ambassador Bridge will not be unable to operate concurrently without the proponent undertaking significant infrastructure modifications that require further review and governmental approvals. The connection between Fort Street and the United States' plaza is only able to transmit six lanes of traffic at one time, regardless of whether one structure or two were used for the traffic. This approach to the United States' plaza would have to be modified to accommodate more than six lanes of traffic entering or exiting the bridge. These modifications would need to be evaluated under a separate and distinct proposal and would be subject to a separate NEPA study in the United States. Therefore, using both the proposed Project and the Ambassador Bridge at the same time is not feasible without undertaking additional construction that would require further review and approvals. Review and approvals of an operating scenario allowing more than six lanes to operate are not being sought by the proponent at this time.

The proposed Project does not contemplate an operating scenario where more than six lanes are utilized for traffic at any one time.

6.3.1 Air Quality Cumulative Effects Assessment

The following discussion provides an overview of the air quality cumulative effects assessment. Further details and discussion on the air quality cumulative effects assessment and the analysis of each of the cumulative effects scenarios is set out in Section 7.1 Air Quality and Climate.

In summary, the Study Team understands that air quality effects from the operation of the replacement span will contribute to air quality but due to more stringent fuel and vehicle emissions the air quality impacts are reduced in magnitude and aerial extent.

The proposed Project will provide two additional lanes for FAST/NEXUS travellers that will relieve congestion and allow for improved efficiency in the operation of vehicles, and will result in a positive impact on air quality. The proponent is aware of air quality requirements due to provincial and national ambient air quality objectives. Improving the efficiency of vehicle flow will minimize any impacts on air quality. During construction, the proponent will apply standard measures to control dust and minimize adverse air quality effects associated with construction activities.

Furthermore, initiatives relating to vehicle emissions such as the "Sulphur in Gasoline Reduction" results in beneficial effects on transportation related vehicle emissions and ambient air quality. This reduction in sulphur dioxide will result in reduced particulate emissions as well as significant reductions in carbon monoxide (CO), oxides of nitrogen (NOx) and hydrocarbon emissions. Reduction in NOx emissions will also result in a reduction of ozone levels in the atmosphere.

Other policy initiatives impacting future vehicle emissions include but are not limited to a 10% ethanol replacement, emission standards for passenger vehicles and light duty trucks, Canadian motorcycle emission regulations along with continuing incremental reductions in volatile organic compound emissions under the United States 1990 *Clean Air Act* requirements for ozone non-attainment areas. Therefore, from a cumulative effects point of view the emission levels under all the various scenarios will be reduced from current levels due to the provincial and federal initiatives.

Also, there will be no cumulative effects as a result of the operation of the DRIC. The detailed assessment set out in Section 7.1 Air Quality and Climate concludes that the impacts associated with the operation of the proposed Project along with the operation of DRIC will be localized and not result in any cumulative effects.

6.3.2 Noise and Vibration Cumulative Effects Assessment

The following represents an overview of the noise and vibration cumulative effects assessment. Further details and discussion on the noise and vibration cumulative effects assessment and the analysis of each of the cumulative effects scenarios is set out in Section 7.5 Noise and Vibration.

Two factors influence the future sound levels at the various receptors when considering the cumulative effects of the various scenarios. The analysis indicate that since the DRIC project is proposed to be situated more than 1.5 km to the south, the sound levels it would produce at receptors in the proposed Project study area are expected to be insignificant with respect to current levels of road traffic noise. That is, there would be no significant overlap, and no significant cumulative effect. Also, in the event that the DRIC project proceeds, it is anticipated that traffic volumes on the proposed replacement bridge and/or the Ambassador Bridge will decrease, resulting in a decrease in the sound levels in the area for both the Build and No Build Scenarios.

The measured vibration levels at several receptor locations indicate that groundborne vibration caused by the passage of heavy trucks over imperfections in the road surface such as expansion joints is perceptible in the vicinity of the bridge piers and may occasionally be

perceptible at nearby residential buildings. These results also reflect comments received from the neighbourhood during the public open house meetings. To minimize the future possibility of increased vibration levels the road upgrading should ensure a smooth road surface with few imperfections.

There will be no cumulative effects from as a result of the operation of the DRIC. The detailed assessment set out in Section 7.5 Noise and Vibration concludes that the impacts associated with the operation of the proposed Project along with the operation of DRIC will be localized and not result in any cumulative effects.

6.3.3 Water Quality Cumulative Effects Assessment

The following discussion provides an overview of the water quality cumulative effects assessment. Further details and discussion on the water quality cumulative effects assessment and the analysis of each of the cumulative effects scenarios is set out in Section 7.2 Surface Water Quality.

There are no anticipated water impacts associated with the construction of the proposed replacement span taking into account the percentage of pavement increase, seasonal fluctuations of water volumes and snow melt, effective management of ice removal, spill contingency plans, and the discharge of runoff into enhanced stormwater management ponds. With these environmental protection measures in place, potential stormwater quality impacts will effectively be attenuated and improved over existing conditions.

The operation of the proposed replacement span along with the operation of the Ambassador Bridge will result in no cumulative effects on surface water quality. The Ambassador Bridge currently collects its stormwater runoff and directs it to the City of Windsor storm sewer system. The Ambassador Bridge's stormwater is then treated to MOE standards, along with the stormwater runoff from the City of Windsor, and discharged into the Detroit River. As part of the requirements of the proposed replacement span a stormwater treatment system will be developed and implemented to treat stormwater runoff.

The operation of the proposed replacement span along with the operation of the DRIC project will also result in no cumulative effects on water quality. The proposed DRIC project is also required to implement a stormwater management facility and ensure that all water permitted to enter the Detroit River meets the applicable regulatory requirements and standards.

7.0 DETAILED TECHNICAL DOCUMENTS

7.1 Air Quality and Climate

The following provisions will be incorporated into the contractual documents to address air quality and climate.

- Contractor responsibility for dust suppression and water for compaction will be included to reduce dust emissions from construction;
- An Environmental Inspector will be hired by the Contract Administrator during construction to ensure that the contractual provisions are implemented and that no environmental issues arise;
- Requirements to ensure that the Contractor control dust so that it does not affect traffic, enter surface waters or escape beyond the construction area to cause nuisance to residents, businesses or utilities; and
- Environmental requirements for waste and product dust suppression to further define and regulate the use and disposal requirements for waste and dust suppression.

Please see Appendix B that outlines in detail the Air Quality and Climate assessment along with the methodology used in assessing air quality impacts, if any, during the construction, operation and maintenance of the replacement span.

7.2 Surface Water

7.2.1 Study Area and Timeframes

The Site Study Area is the shoreline and waters of the Detroit River immediately offshore of the proposed cable stay support tower and located between the existing bridge and the new bridge site. This is the area where disturbances, if any, to the waterway, shore or bottom will occur. The Site Study area also includes the portion of the Detroit River approximately 60 to 70 metres (200 to 230 feet) downriver of the Proposed Project, where delivery barges could anchor. The exact location of the anchoring of the barges will not be determined until the design phase has been completed. Additional information about regulatory procedures for barges may be found in Section 7.8 Navigation.

The Local Study Area is the area of the Detroit River located 300 metres (984 feet) upstream and downstream of the project site. This is an area where water quality or habitat effects could potentially occur if sediment were disturbed, contaminants were released or if habitat was covered through siltation.

The Regional Study Area is the Detroit River from Lake St. Clair to Lake Erie including freshwater wetlands and the mouths of Turkey Creek, the Canard River and Marentette Drain, south of Grassy Island. Creeks and tributaries are depicted on Figure 9: Natural Heritage Areas and Creeks in the Regional Study Area. The Regional Study Area downriver of the site could

be affected by contaminants during construction or operation in the unlikely event of an accidental spill or if established spill controls were to fail. The upriver portion of the Regional Study Area is not likely to be affected by the Proposed Project. However, actions unrelated to the Proposed Project that occur upriver could affect water and sediment quality or the fishery of the Detroit River, potentially affecting the environment at the work site.

The construction time-frame is approximately two years. The time frame for operational effects on water quality, sediment and fish habitat and communities is the lifetime of the bridge.

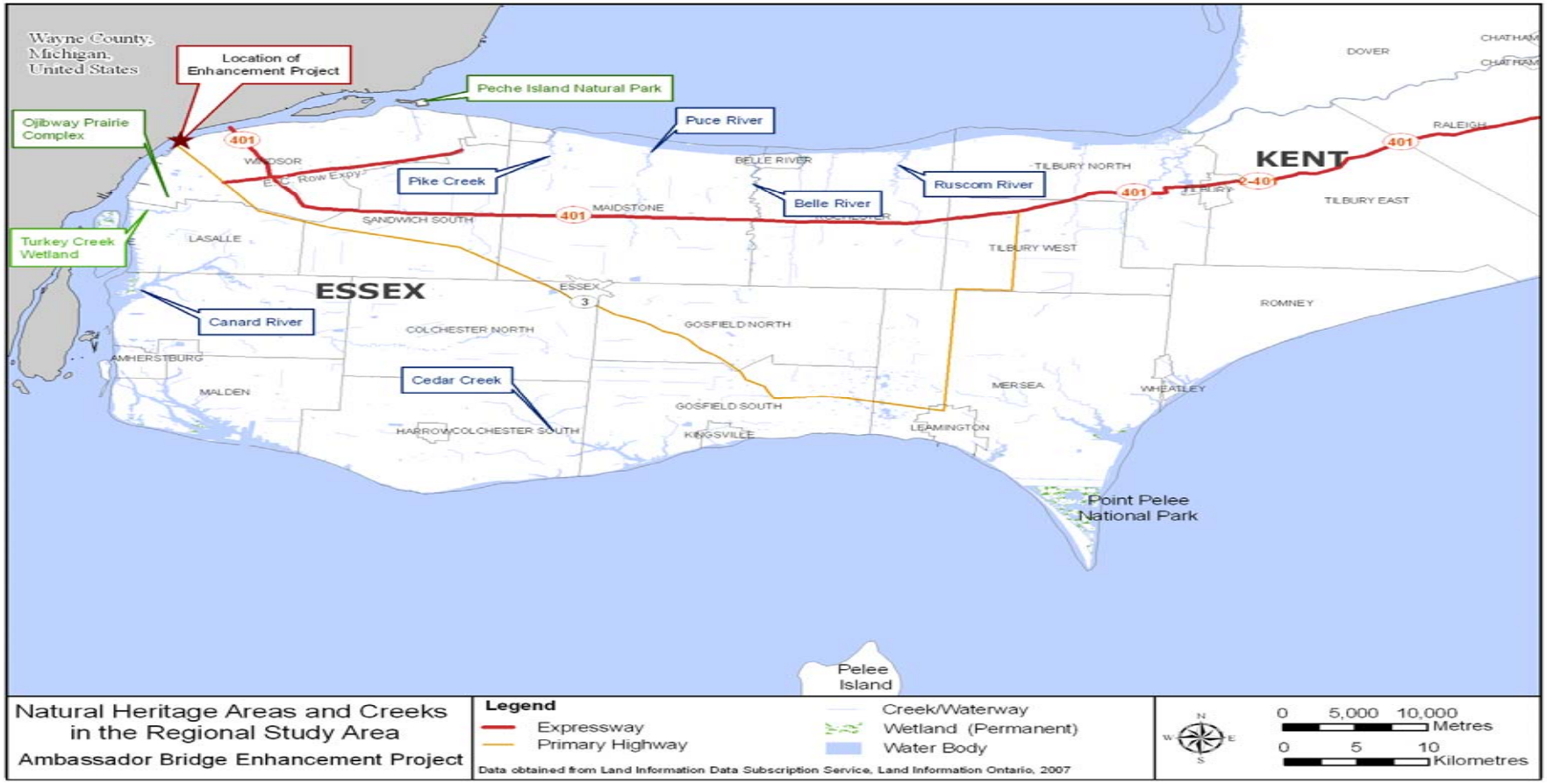


Figure 9: Natural Heritage Areas and Creeks in the Regional Study Area

7.2.2 Surface Water Quality and Quantity

Administrative Considerations

Standards and objectives are established by the Canadian Council of Ministers of the Environment (Canadian Water Quality Guidelines),[1] the Province of Ontario (*Clean Water Act*), the U.S. Federal Government (*Clean Water Act*), the State of Michigan (*Natural Resources and Environmental Protection Act*)[2], and Bi-nationally (*Great Lakes Water Quality Agreement*).[3] The *Clean Water Act* protects future sources of drinking water and the *Ontario Water Resources Act* regulates discharges to water courses.

The Detroit River is used for industrial, commercial, and recreational purposes. It serves as a source of drinking water for over 5 million people and for industrial and commercial uses. It is the receiving water body for the discharge of stormwater and treated effluents including treated sewage. The Windsor Utilities Commission operates two water treatment plants, three pumping stations, and two reservoirs to serve about 230,000 people in the City of Windsor, the Town of LaSalle, and part of the Town of Tecumseh. The A.H. Weeks water treatment plant, located 7.5 kilometres (4.6 miles) up stream of the Proposed Project, was completed in 1994, replacing an older facility built in the 1920's.

The Detroit River is used for recreational purposes such as fishing, boating, and sightseeing, as well as walking and biking along its length. It was awarded American Heritage River status in the U.S. in 1998, followed by a Canadian Heritage River System designation in 2001. It is the only river in North America possessing both designations.[4] The Canadian Heritage Rivers System (CHRS) is Canada's national river conservation program. It promotes, protects and enhances Canada's river heritage, and ensures that Canada's leading rivers are managed in a sustainable manner. Cooperation and public support are the strengths it builds upon and regulatory agencies consider this important designation when making decisions on projects.

The Detroit River flows approximately 51 kilometres (32 miles) from Lake St. Clair to Lake Erie with an average flow of 5,182 m^3/second (183,000 ft^3/second). The ordinary high water mark elevation at the Ambassador Bridge is 175.4 metres (575.4 ft) above

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1 Canadian Council of Ministers of the Environment, Canadian Water Quality Guidelines, 28 June 2007 from http://www.ec.gc.ca/ceqg-rcqe/English/ceqg/default.cfm

2 State of Michigan, "Natural Resources and Environmental Protection Act," Act 451 of 1994, Part 301.

3 Great Lakes Water Quality Agreement, 1978, 27 June 2007 from http://www.on.ec.gc.ca/greatlakes/default.asp?lang=En&n=FD65DFE5-1

4 "The Detroit River," The Canadian Heritage Rivers System, 27 June 2007 http://www.chrs.ca/Rivers/Detroit/Detroit_e.htm>.

sea level.[5] The watershed associated with the river drains more than 2,000 square kilometres (772 sq. miles).

The lower part of the river is relatively shallow, comprised of many small islands, with a river bottom composed of sand and boulders. The upper 21 kilometres (13 miles) of the river is a deep channel with a sandy bottom. Normal seasonal fluctuations can create a difference in mean level of approximately 0.61 metres (2 feet); however, strong east or west winds, usually in the fall and early spring, can raise or lower the mean levels up to 1.8 metres (6 feet). The depth of the river varies from 3 to 18 metres (10 to 60 feet). The width of the river varies from 0.8 kilometres to 4.8 kilometres (0.5 miles to 3 miles) wide with an average width of 1.6 kilometres (1.0 miles).[6] The width of the Detroit River at the Ambassador Bridge is approximately 670 metres (2,200 feet). The depth at the Ambassador Bridge is approximately 18 metres (60 feet).

The current of the Detroit River approximately 2.7 kilometres (1.7 miles) downstream of the Proposed Project is between 0.625 m/sec (2.05 ft/sec) and 0.716 m/sec (2.35 ft/sec). The temperature of the water varies from 0° Celsius (32° F) in the winter to 22.8° Celsius (73° F) in the summer.[7] Tributaries of the Detroit River in Ontario include Turkey Creek, Marentette Drain, and the Little and Canard Rivers (see Figure 9: Natural Heritage Areas and Creeks in the Regional Study Area). Both the Canard River and Turkey Creek flow in a generally westerly direction. The Canard River is the largest tributary on the Canadian side of the Detroit River. Little River flows in a northerly direction along the eastern side of the City of Windsor and empties into the Detroit River near its headwaters at Peche Island. Marentette Drain empties into the Detroit River south of the Town of LaSalle at Grassy Island.[8]

Historical and current discharges from industrial, urban, rural and agricultural land uses have greatly affected the quality of water in the Detroit River. First reports of water quality problems surfaced as early as 1860, when a large variety of industries, such as copper smelters, lumber mills and machinery production appeared along the Detroit River.[9] As of 1997, approximately 13,000 commercial and industrial dischargers were connected to the Detroit wastewater treatment plant - 445 of these were considered to

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[5] Environment Canada and the United States Environmental Protection Agency, "State of the Great Lakes" pp.33-34. June 2005 from http://binational.net/solec/English%20Version/Lake%20Sections/St.%20Clair%20-%20Detroit%20River%20Ecosystem%20%20tagged.pdf>

[6] Ibid

[7] Ibid

[8] Environment Canada, "Canada's RAP Progress Report 2003," June 2007 <http://www.on.ec.gc.ca/water/raps/report_2003/Detroit_e.html?CFID=3268863&CFTOKEN=81115208>

[9] Hartig, G. Honoring Our Detroit River: Caring for Our Home. (Michigan: Cranbrook Institute of Science).

be major dischargers.[10] In 2003, Canada's Remedial Action Plan (RAP) Progress Report indicated that there were 76 industries and ten municipalities discharging waste water into the river or its tributaries.[11] The International Joint Commission, in 1997, reported that almost 1,300 commercial and industrial discharges are served by the Windsor wastewater control plants, and about 70 of these are classified as major dischargers.

Contaminant input from the various land use areas within the City of Detroit often contain elevated levels of sediment, nutrients, bacteria, metals, and chemicals.[12] These contaminants can bioaccumulate through the food chain, affecting human health, fish, and wildlife communities. Monitoring by government agencies within the St. Clair-Detroit River ecosystem shows some recent declines in concentrations of mercury, PCBs and several pesticides in water and sediments. However, levels of phosphorous and bacteria remain the same.[13] Large areas of contaminant concentrations can be found in the Trenton Channel of the Detroit River which is 10 kilometres (6.2 miles) downriver of the Proposed Project near Fighting Island.

Drainage from the existing four-lane Ambassador Bridge is collected and conveyed to the plazas on both sides of the River. Drainage from the Canadian plaza is conveyed to the City of Windsor stormwater system via a 375 mm (16 inch) pipe, which connects to a 2.7 metre (102 inch) concrete tunnel. This tunnel is part of the City of Windsor municipal storm water collection system and is eventually discharged into the Detroit River.

The Detroit River is an international watercourse and is subject to overview by the International Joint Commission (IJC) and the provisions of the *1909 Boundary Waters Treaty* between Canada and the United States of America. In 1973, the IJC designated 43 Areas of Concern (AOC) throughout the Great Lakes - the Detroit River is one of the five bi-national AOCs. In order to facilitate cleanups in AOCs, the IJC called for the development and implementation of Remedial Action Plans (RAP). Both Canada and the United States have developed and implemented a RAP for the Detroit River.

The known causes of the nine beneficial use impairments identified in the Detroit River RAP include industrial and urban development in the watershed, bacteria, polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), metals, and

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10 International Joint Commission, "Detroit River Area of Concern Status Assessment, October 1997, June 2007 <http://www.ijc.org/php/publications/html/detroit.html>.

11 Environment Canada, "Canada's RAP Progress Report 2003," June 2007 <http://www.on.ec.gc.ca/water/raps/report_2003/Detroit_e.html?CFID=3268863&CFTOKEN=81115208>.

12 Leney, J and Haffner, G., "2006 Status of Beneficial Use Impairments in the Detroit River," 2006, June 2007 <http://www.detroitriver.ca/meetings/2006%20BUI%20Assessment%20-%20FINAL.pdf>

13 Ibid

oils and greases.[14] Combined sewer overflows (CSOs) and industrial and municipal discharges are the major sources of these contaminants.

The 2003 RAP Progress Report and the 2006 Status of Beneficial Use Impairments in the Detroit River[15] indicate that although problems still remain, the future outlook for the Detroit River is positive. There have been improvements in drinking water quality with regard to taste and odour problems. Currently, the only complaints from Ontario sources are in relation to the chlorination process and increases in the levels of algae/bacteria in the river.[16]

Improvements have also been made with respect to meeting the most stringent regional water quality standards. Different water quality guidelines are set by each of the federal and provincial or state governments involved with the Detroit River AOC and the most stringent ones are applied. These standards and objectives are established by the Canadian Council of Ministers of the Environment (Canadian Water Quality Guidelines),[17] the Province of Ontario (*Clean Water Act*), the U.S. Federal Government (*Clean Water Act*), the State of Michigan (*Natural Resources and Environmental Protection Act*)[18], and Bi-nationally (*Great Lakes Water Quality Agreement*).[19] The *Clean Water Act* protects future sources of drinking water and the *Ontario Water Resources Act* regulates discharges to water courses.

Although there are many sampling areas along the Detroit River where standards are exceeded, concentration trends of major contaminants have decreased or remain unchanged since 1996. For instance, trends in the Trenton Channel, as reported in the 2001 Detroit River RAP update, show that PCB levels may have declined while mercury levels tended to increase. However, even with the decline, an Environment Canada 2001-2004 monitoring program showed that PCBs in the Detroit River exceeded the most stringent criteria of 120 pg/L set by the Michigan Department of Environmental Quality (DEQ). Measured contaminant concentrations were low, and water quality on the Windsor shoreline can be considered moderate to good. The Trenton Channel is located over 7.6 kilometres (4.7 miles) outside of the Proposed Project study area.

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14 Environment Canada, "Canada's RAP Progress Report 2003," June 2007 <http://www.on.ec.gc.ca/water/raps/report_2003/Detroit_e.html?CFID=3268863&CFTOKEN=81115208>

15 Leney, J and Haffner, G., "2006 Status of Beneficial Use Impairments in the Detroit River," 2006, June 2007. <http://www.detroitriver.ca/meetings/2006%20BUI%20Assessment%20-%20FINAL.pdf>

16 Ibid

17 Canadian Council of Ministers of the Environment, Canadian Water Quality Guidelines, 28 June, 2007 from http://www.ec.gc.ca/ceqg-rcqe/English/ceqg/default.cfm

18 State of Michigan, "Natural Resources and Environmental Protection Act," Act 451 of 1994, Part 301.

19 Great Lakes Water Quality Agreement, 1978, 27 June 2007 from http://www.on.ec.gc.ca/greatlakes/default.asp?lang=En&n=FD65DFE5-1

Sediment contamination continues to be a problem and dredging restrictions remain in effect. The least contaminated sediment and non-impacted benthic communities generally are found in the upstream (Ontario) portion of the Detroit River Area Of Concern, at the Proposed Project. Overall, sediment is more contaminated on the Michigan side of the river as opposed to the Ontario side.[20] More information on sediment can be found in Section 7.2.3 Sediment Quality.

The natural, cultural and recreational values of the Detroit River as a Canadian Heritage River will be preserved by the Proposed Project. The existing historic Ambassador Bridge will remain in place. The new bridge will not change any characteristics of the Detroit River as it relates to current recreational use, drainage patterns or natural ecological features of the river, since the waterway will be totally spanned with no in-water structures.

7.2.3 Sediment Quality

Sediment Quality Administrative Considerations

The Canadian Council of Ministers of the Environment (CCME) released *Canadian Water Quality Guidelines* (CWQG) in 1987. Over the decade following the release of the CWQG, realization that there are multiple threats to ecosystems led to a more holistic approach and eventually the development of the *Canadian Environmental Quality Guidelines* (CEQG). The primary focus of the CEQG is the development of national guidelines for water, sediment, and soil quality and for aquatic tissue residues as discussed below.

The *Canadian Sediment Quality Guidelines for the Protection of Aquatic Life* protects aquatic organisms that live in or on the sediment that forms at the bottom of lakes and rivers. The guidelines and probable effect levels are flexible, interpretive tools for evaluating the toxicological significance of sediment chemistry data.

In regard to the Proposed Project, no sediment will be disturbed or resuspended during construction or operations. This is because, with the exception of dropping four small anchors to stabilize delivery barges, the Proposed Project does not involve in-water construction activities such as pile driving of cofferdams, dredging, or in-water blasting that would resuspend sediment. Sediment disturbance associated with the dropping of the four small anchors will be minimal.

Water quality and sediment are also controlled through federal guidelines which are effectively implemented as legislation such as the *Guidelines for Canadian Drinking Water* and *Guidelines for Recreational Water Quality* administered by Health Canada and through the *Canada Water Act* and *Canadian Environmental Protection Act*. The

[20] International Joint Commission, "Detroit River Area of Concern Status Assessment, October 1997, June 2007 <http://www.ijc.org/php/publications/html/detroit.html>.

objective of the *Recreational Water Quality Guidelines* is to protect public health and keep water safe from contamination such as microbiological, chemical and physical hazards from sewage and industrial discharges among other sources.

The MOE has legislative authority to manage water under the *Ontario Water Resources Act* (OWRA) and the *Environmental Protection Act* (EPA). The OWRA is a general water management statute that governs both water quality and quantity. The OWRA regulates construction activities, discharges and any impact on waterways. The Act prohibits anyone from discharging any material into any waters that may impair the quality of the waters. The OWRA requires immediate notification to the MOE of any discharges that occur outside the normal course of events or that could impair water quality. Fines for violations under the OWRA are substantial. The EPA prohibits the discharge of contaminants to the natural environment, including water, except where specifically permitted by a Certificate of Approval.

The MOE has different levels of sediment guidelines, such as the LEL (Lowest Effect Level) and SEL (Severe Effect Level), which are used to regulate dredging activities in Ontario. The Proposed Project does not include dredging or severe sediment disturbance activities (such as blasting) that would cause violations of water quality or require application of sediment guidelines. There will only be minor disturbance of the bottom during dropping of four small anchors to stabilize delivery barges. These barges will not be operated in waters that exceed the shallow draft of the vessels (about 1.0 metre or 3.3 feet).

Sediment Quality

The Proposed Project is located in a stretch of the Detroit River that runs from the foot of Belle Isle downstream to the head of Fighting Island. The river channel at the Proposed Project is generally broad and deep, with a deep bottom consisting of sand and clay and steep banks. The deepest areas of the channel are located at the site of the existing Ambassador Bridge, whose latitude and longitude are 42° 18' 42.66" N and 83° 04' 26.29" W respectively.

In the lower reach of the Detroit River near the islands, the bottom consists of sand, clay, boulders and rock. Within a 10 kilometre (6.2 mile) reach of the river near Fighting Island, substrate in water depths less than 3 metres (9.8 feet) consists of mud, sand, gravel or vegetation on a soft or hard substrate. The 9.6 kilometre (6 mile) stretch of river downstream of Fighting Island to the south end of Bois Blanc Island consists mainly of bedrock and boulders.

Canada allows the U.S. Army Corps of Engineers to maintain the navigation channels in the Detroit River by dredging sediment. All dredging areas are well upriver and downriver of the Ambassador Bridge. Upriver, dredging takes place at the head of the

Detroit River Channel.[21] The dredging of the upstream navigational channel does not adversely affect the quality of sediment at the site of the Proposed Project.

Downstream of the existing Ambassador Bridge, dredging occurs at two channels located at the head of Fighting Island: the Fighting Island Channel and the Trenton Channel. The Trenton Channel contains polluted stretches. Navigational dredging of these polluted areas does not affect the sediment quality at the Proposed Project Site which is over 7.6 kilometres (4.7 miles) upriver.

Although considerable progress has been made with regard to sediment remediation within the Detroit River watershed, the Michigan Department of Environmental Quality estimates that approximately 2.3 million m^3 (3 million yd^3) of contaminated sediment remains, particularly in the Trenton Channel, and negatively effects beneficial uses in the Detroit River.

Pollutants of primary concern in the Trenton Channel are mercury, polychlorinated biphenyls (PCBs), polynuclear aromatic hydrocarbons (PAHs), heavy metals, and oil and grease. Metals of concern include cadmium, chromium, copper, lead, and zinc. In a 1999-2000 sediment study conducted by the MOE, all sites downstream of the Trenton Channel had contamination levels that exceeded the MOE Lowest Effect Level (LEL).[22] In 2004, three of ten sites in the Detroit River exceeded the LEL of 0.2 micrograms per gram (µg/g) dry weight for mercury. The sites with the highest concentrations of mercury were south of Belle Isle near the Windsor shoreline and at the south end of the Trenton Channel. None of these sites are near the Proposed Project with Belle Isle being about 5.5 kilometres (3.5 miles) upstream and the Trenton Channel over 7.6 kilometres (4.7 miles) downstream.

Canadian Side of the Detroit River

Between 1999 and 2000, there were 33 sampling sites that exceeded the MOE Sediment Quality Guidelines for PCBs. In 1998, 53 sites exceeded the MOE Sediment Quality Guidelines for PAHs. Highest concentrations of PAHs in sediment were found in the Rouge River, while 10 of the 16 sampling sites in the Detroit River itself exceeded the LEL of 4,000 nanograms per gram (ng/g) dry weight for PAH. There are few sources of PAH contamination on the Canadian side of the river, but multiple sources exist on the U.S. side. Typical sources of PAH include byproducts of incomplete combustion of coal, oil, and gas; coking byproducts; waste incineration; automotive exhausts; tar; soot; and runoff from asphalt and roads.

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21 U.S. Army Corps of Engineers, "Revised Reconnaissance Study Section 905 (B) (WRDA 86) Analysis, Environmental Dredging, Detroit River, Michigan," December 2001, June 2005 <http://www.lre.usace.army.mil/_storage/Pages/1711/DetroitRiver905(b).pdf>

22 Leney, J and Haffner, G., "2006 Status of Beneficial Use Impairments in the Detroit River," 2006, June 2007. <http://www.detroitriver.ca/meetings/2006%20BUI%20Assessment%20-%20FINAL.pdf>

According to the 2006 Status Report on the Canadian Detroit River Cleanup, a 2004 sediment study of the Detroit River indicated that none of the 12 organochlorine pesticides were found at concentrations exceeding the LEL of 20 ng/g dry weight. Hexachlorobenzene (HCB) levels in sediment were found to decrease along the downstream gradient from the St. Clair River to the Detroit River, and none of the HCB sampling sites exceeded the LEL of 20 ng/g dry weight. A 1998 study of sediments showed that concentrations of dioxins and furans ranged from 69 picograms per gram (pg/g) to 1,415 pg/g dry weight. The highest concentrations were at Conner Creek at the upstream end of Belle Isle on the U.S. side of the River which is outside of the Study Area.

With the exception of manganese, lead and zinc, the average concentration of metals in sediments exceeded the respective LELs in 1999.[23] In 2004, sediment concentrations of arsenic and cadmium showed significant improvement and did not exceed their respective LELs. However, from 1999 to 2004, chromium, copper, mercury, nickel and zinc did not demonstrate any significant difference in level of contamination. By far the largest discharger of metals to the Detroit River has been the Detroit Waste Water Treatment Plants and to a far lesser extent, the Wayne County Wyandotte Waste Water Treatment Plants, both of which are located in the State of Michigan. Some metal input on the Canadian side of the Detroit River can be traced to the Ford Motor Company of Canada, Ltd.[24]

U.S. Side of the Detroit River

The Rouge River empties into the Detroit River at the boundary between the cities of River Rouge and Detroit, upriver of Fighting Island in the United States. This area is routinely dredged and contains contaminated sediment, according the U.S. Army Corps of Engineers Reconnaissance Study. The Rouge River is located downstream of the existing Ambassador Bridge. In 1998, approximately 306,000 m^3 (400,233 yd^3) of contaminated sediment were removed from an impoundment on the Rouge River resulting in a ten-fold decline in PCB contamination of fish. Sediments in the lower Rouge River are contaminated with a wide range of pollutants such as lead, cyanide, barium, chromium, copper, zinc and numerous organic chemicals including PCBs.

Within the Detroit River sediments, organic compounds of concern, in addition to PCBs and PAHs, are phenols, heptachlor, hexachlorobenzene (HCB), DDT and dioxins. Suspended sediments from the Detroit River collected in 1999 and 2000 demonstrated elevated concentrations of polychlorinated dibenzo-p-dioxins and dibenzofurans (PCDDs/PCDFs), dioxin like PCBs (DLPCBs) and polychlorinated napthalenes, (PCNs)

[23] Environment Canada, USEPA, Ontario Ministry of the Environment and Michigan Department of Environmental Quality, "Detroit River Remedial Action Plan Update Report – 2001 Draft," Appendix D.

[24] Leney, J and Haffner, G., "2006 Status of Beneficial Use Impairments in the Detroit River," 2006, June 2007. <http://www.detroitriver.ca/meetings/2006%20BUI%20Assessment%20-%20FINAL.pdf>

at sites in the lower reaches of the Trenton Channel.[25] An additional concern is elevated levels of hexabromocyclododecane (HBCD) in suspended sediments. The elevated levels of this primary flame retardant chemical are generally associated with heavily urbanized/industrialized parts of the watershed. Much lower concentrations of HBCD are found along the Canadian shoreline, primarily across from Grosse Ile (south of the Canard River) and near Lake Erie while much higher concentrations are found along the U.S. shoreline of the Detroit River.[26]

PCB concentrations in sediments in 1999-2000 were highest in the lower U.S. areas of the Detroit River, and previous studies have shown that PCB sources include the Rouge River and the Detroit Waste Water Treatment Plant.[27] In a 1999 study, the highest PCB levels (1.7 µg/g) were found west of Belle Isle, along the City of Windsor shoreline, along the U.S. shoreline from Ambassador Bridge to the outflows of the Rouge and Ecorse Rivers, and at the south end of the Trenton Channel.[28] Overall, sediment is more contaminated on the Michigan side of the river than on the Ontario side. The least contaminated sediment and non-impacted benthic communities are generally found on the Ontario portion of the Detroit River Area of Concern.[29]

The International Joint Commission (IJC) reported in 1997 that almost 50 percent of the PCB loading came from sources upstream of the AOC and Michigan's point sources, including the Detroit Waste Water Treatment Plant which comprises approximately 16 percent of the PCB input. A more recent study in 2004 showed that levels of PCBs were fairly constant along the downstream gradient from the St. Clair River to the Detroit River. However, only a limited number of sites were sampled within the Detroit River, so PCB level improvement is not necessarily demonstrated by this study.

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[25] Marvin et. al, "Persistent organic pollutants in Dertoit River Suspended Sediments: polychlorinated dibenzo-p-dioxins and dibenzofurans, dioxin-like polychlorinated biphenyls and polychlorinated napthalenes," Chemosphere, Vol. 49, Issue 2, October 2002.

[26] Environment Canada and USEPA, "State of the Great Lakes Conference," 2005, June 2005 <http://binational.net/solec/English/SOLEC%202004/Tagged%20PDFs/SOLG%202005%20Report/English%20Version/Lake%20Sections/St.%20Clair%20-%20Detroit%20River%20Ecosystem%20-%20tagged.pdf>

[27] Marvin et. al, "Persistent organic pollutants in Dertoit River Suspended Sediments: polychlorinated dibenzo-p-dioxins and dibenzofurans, dioxin-like polychlorinated biphenyls and polychlorinated napthalenes," Chemosphere, Vol. 49, Issue 2, October 2002.

[28] Leney, J and Haffner, G., "2006 Status of Beneficial Use Impairments in the Detroit River," 2006, June 2007. <http://www.detroitriver.ca/meetings/2006%20BUI%20Assessment%20-%20FINAL.pdf>

[29] International Joint Commission, "Detroit River Area of Concern Status Assessment, October 1997, June 2007 <http://www.ijc.org/php/publications/html/detroit.html>.

Floodplains

The 100-year floodplain for the Detroit River extends the entire length of the river, including the area of the proposed project. The 100-year floodplain elevation within the project area in IGLD 1985 is 577.3 ft (176 m). The USACE is currently revising the 100 year floodplain.[30]

7.2.4 Fish Communities and Habitat

Fish Communities and Habitat Administrative Considerations

Fish and fish habitat are protected through both federal and provincial legislation. The *Fisheries Act* provides legislative authority for the management and regulation of fisheries (salt and fresh water) including access, control over the conditions of harvesting and enforcing regulations in addition to protecting fish and fish habitat.[31] It is important to note that the *Fisheries Act*, in particular Section 35 of the *Fisheries Act*, is not about the protection of fish but rather the protection of fisheries. This is important since it relates to the protection of fish habitat that directly or indirectly supports, or has the potential to support, the subsistence of commercial or recreational fisheries.

Under the authority of the *Fisheries Act*, Fisheries and Oceans Canada (DFO) has decision-making authority for the conservation and protection of fish and fish habitat. Section 35 of the *Fisheries Act* is a general prohibition of harmful alteration, disruption, or destruction (HADD) of fish habitat. Section 34 of the *Fisheries Act* defines fish habitat as, "spawning grounds and nursery, rearing, food supply and migration areas on which fish depend directly or indirectly to carry out their life processes." Fish are defined in the *Fisheries Act* as "shellfish, crustaceans, marine animals, the eggs, sperm, spawn, spat and juvenile stages of fish, shellfish, crustaceans and marine animals." The Act also prohibits the deposit of a deleterious substance into waters frequented by fish, unless the deposit is authorized.

In 1986, DFO implemented the "Policy for the Management of Fish Habitat" (Habitat Policy) to support the habitat provisions of the Fisheries Act. The Habitat Policy is intended, in part, to counter the negative impacts that development activities can have on fish habitat and to promote sustainable development.[32] This policy applies to all projects and activities in or near water, which could alter, disrupt or destroy fish habitat by chemical, physical or biological means. The Habitat Policy has the goals of

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30 National Flood Insurance Program, "Flood Insurance Rate Map, City of Detroit, Michigan, Wayne County. Community-Panel Number 260222 0030 B," Effective date: July 2, 1981 (NFIP 1981).

31 Fisheries and Oceans Canada (DFO), *The Fisheries Act*, Jan 2007, <http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/policies-politique/act-acte_e.asp>.

32 Fisheries and Oceans Canada (DFO), "The Policy for the Management of Fish Habitat," Jan 2007, <http://www.dfo-mpo.gc.ca/oceans-habitat/habitat/policies-politique/management-gestion_e.asp>.

conserving existing habitats, restoring damaged habitats and developing new habitats; and, the guiding principle is to achieve no net loss of the productive capacity of fish habitats. The Habitat Policy is regulated by Sections 20, 21, 22, 30, 32, 35, 37, 40, and 42 of the Fisheries Act.

In order to maintain the current level of productivity of existing habitats, the Habitat Policy includes the principle of "no net loss." This is a working principle by which the DFO strives to balance unavoidable habitat losses with habitat replacement on a project-by-project basis so that further reductions to Canada's fisheries resources due to habitat loss or damage may be prevented. It is important to note that prior to any consideration of providing habitat compensation, the project proponent must first obtain authorization from DFO. The DFO works with project proponents and other government agencies so that projects are designed in a way that maintains the productive capacity of fish habitats. Project proponents must pursue location and design options which will avoid impacts to fish habitat before DFO will even consider authorizing the works. The hierarchy of management options that will be sequentially reviewed by DFO from most preferred to least preferred is: relocation, redesign, mitigation and finally habitat compensation.

Penalties for violations of the *Fisheries Act* are considerable ranging from $100,000 to $1,000,000 and from six month to three year prison terms, depending on the nature and extent of the violation.

The *Lakes and Rivers Improvement Act* (LRIA) gives the Ministry of Natural Resources the mandate to manage water-related activities. The purpose of the LRIA is to manage, protect and preserve the use of the waters of lakes and rivers in Ontario and the land under them. The LRIA also regulates improvements in these waterways and provides for, among other things, management of fish, wildlife, and other natural resources dependent on such waters, the preservation of natural amenities and the suitability of the location and nature of improvements.[33] The LRIA prohibits anyone from throwing, depositing, discharging any refuse or substance into a lake or river and fines for violations are substantial.

The Detroit River, which is divided into the upper and lower reaches, provides habitat for aquatic vegetation (submerged and emergent plants, phytoplankton), zooplankton, benthic invertebrates and fish. Both the Ambassador Bridge and the proposed Project are located in the upper reach of the Detroit River. The upper reach is a narrow, deep channel with a steep shoreline that extends from Lake St. Clair to Fighting Island about 21 kilometres (13 miles) downstream and has a high diversity of macrozoobenthos dominated by pollution-intolerant species. These species are usually found in non-

[33] *Lakes and Rivers Improvement Act*, (LRIA) R.S.O. 1990, C.L.3, June 2007, <http://www.e-laws.gov.on.ca/DBLaws/Statutes/English/90103_e.htm>.

polluted habitats with relatively clean substrates. Deep channel water areas (greater than 4 metres or 13 feet) such as those near the existing Ambassador Bridge generally do not provide good habitat for submerged aquatic plants.[34]

The lower reach, extending from Fighting Island to Lake Erie, is a wide, shallow channel with islands. This lower section of the Detroit River a number of distinct channels, numerous shoals that support dense stands of aquatic plants, and ten small islands. This area contains nationally and internationally significant habitats and ecological features that attract as many as 29 species of waterfowl and 65 kinds of fish, with reports of up to 117 species of fish.

Benthic Macroinvertebrates

The Detroit River provides habitat for about 300 species of macrozoobenthos.[35] Oligochaetes, chironomids, gastropods, ephemeropterans, tricopterans, and amphipods dominate the river on the basis of biomass. Pollution tolerant oligochaetes are the most common benthic invertebrates in the lower Detroit River. Macrozoobenthos in the lower river are considered abnormal particularly in the Trenton Channel, as indicated by low species diversity, low density and lack of pollution-intolerant species. This is typically due to eutrophication and poor sediment quality. Sediments from the Trenton Channel are highly contaminated and adult mayflies (*Hexagenia*) are not found in this area due to the toxicity.[36]

Among the most abundant species throughout the Detroit River are the chironomids. The most common taxa of chironomids are *Cricotopus*, *Parachironomus, Parakiefferiella*, *Rheotanytarus*, and *Strictochironomu*s. Common gastropods include *Amnicola* and *Elimia*. *Cheumatopsyche, Hydropsyche* and *Oecetis* are the dominant tricopterans and *Hyalella* is the most common amphipod. *Hexagenia* (mayflies) are found in the Detroit River but at lower population levels than are found in Lake St. Clair. Mollusks are discussed below.

Dominant benthic invertebrate taxa identified in a 1999 sampling in the Detroit River included Oligochaeta, Dreissenidae, Nematoda and Chironomidae. The range and abundance of mayflies (*Hexagenia sp*) had increased when compared to surveys taken in 1980 and 1991.[37] According to the 2006 Status Report on the Canadian Detroit River

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34 U.S. Fish and Wildlife Service and U.S. Environmental Protection Agency "The Detroit River, Michigan: An Ecological Profile, Biological Report 85 (7.17)," April 1988.

35 Leney, J and Haffner, G., "2006 Status of Beneficial Use Impairments in the Detroit River," 2006, June 2007. <http://www.detroitriver.ca/meetings/2006%20BUI%20Assessment%20-%20FINAL.pdf>

36 Ibid

37 Wood, et.al., "Benthic Invertebrates of the Detroit River as Indicators of Environmental Stress," Abstract from SETAC 21st Annual Meeting, <http://abstracts.co.allenpress.com/pweb/setac2000/document/?ID=20322>.

Cleanup, there were no severely impacted benthic community zones along the Canadian shoreline in a 1991 study, but some moderately impacted zones existed. The 2006 Detroit River Canadian Cleanup status report also indicates that from the early 1980's through 2003, the zoobenthic community has shown very little change.[38] However, at 10 sampled sites in the Detroit River, the densities of oligochaetes were significantly higher in 2004 than in 1999 which indicates degraded conditions.

Historically, Lake Erie, Lake Huron and connecting waterways had one of the most abundant populations of freshwater mussels in North America.[39] The loss of mollusks is an indicator of adverse environmental impacts caused by humans. Mollusks in the Detroit River have been declining for several decades. Erosion from the destruction of riparian areas, deforestation, and poor agricultural practices, as well as, the presence of exotic zebra mussel and other exotic mussels are common contributors to the decline in mussel population. Zebra and Quagga mussels are non-native invasive species from Eastern Europe that were brought to North American waterways via the ballast water of ocean going vessels.[40]

The mollusk species that are on the Ontario Species at Risk List or are federally or state listed in the United States as threatened, or endangered, or a species of special concern are outlined below. The ten species listed for Canada were historically found in the Detroit River. However mussel surveys conducted within the river and information from Environment Canada and DFO concerning these mussels indicates that theses species have probably been extirpated from the Detroit River. The primary cause is the impacts from zebra and Quagga mussels. [41] There will be no construction within the river as part of the Proposed Project that could cause negative impacts on these species, if they were present.

Fish

Fish are an important resource to both Canada and the United States for the purposes of recreation and tourism. The Detroit River is considered to be one of the best places to fish for walleye in North America and it is estimated that approximately 10 million walleye come to the Detroit River from Lake Erie to spawn.

The Ontario Ministry of Natural Resources (MNR) and the Michigan Department of Natural Resources (MDNR) recognize the Detroit River as an ecosystem having one of

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[38] Leney, J and Haffner, G., "2006 Status of Beneficial Use Impairments in the Detroit River," 2006, June 2007. <http://www.detroitriver.ca/meetings/2006%20BUI%20Assessment%20-%20FINAL.pdf>

[39] Metcalfe-Smith, et al., "Biodiversity of freshwater mussels in the lower Great Lakes Drainage Basin," Environment Canada Ecological Monitoring and Assessment Network website, 1997, June 1997 <http://www.emanrese.ca/eman/reports/publications/nm97_mussels/intro.html>.

[40] Ibid

[41] Ibid

the highest diversities of wildlife and fish in all of the Great Lakes.[42] The Detroit River is a major fish corridor that supports about 65 known species of fish, with reports of up to 117 species inhabiting the area.

The Lake St. Clair-Detroit River corridor has some valuable fisheries such as walleye, smallmouth bass and muskellunge; but it continues to have depressed fish stocks such as lake sturgeon, herring, and whitefish. However, whitefish have been reproducing in the Detroit River, and there is recent documentation on the presence of the lake sturgeon.[43] Although the Detroit River ecosystem has shown improvements since beginning its recovery in the early 1970's, exotic invasive species, contaminants, hardened shorelines, loss of habitat and land use alterations continue to challenge the physical integrity of the system and these changes often occur rapidly.[44]

Canada has a "no net loss" of fish habitat policy and as previously indicated project proponents must obtain approval from DFO prior to taking any actions that could damage fish or fish habitat. Little to no damage should occur to the Detroit River as all construction will take place on land. The proposed bridge piers would be placed on land and not in the Detroit River. In addition, conventional erosion and turbidity control practices such as the use of silt fences, straw bales and mulching and seeding of disturbed areas will be developed to insure that water quality and habitat values downstream are not compromised during and after construction (Appendix C). A conceptual erosion and sediment control plan for construction is provide in Appendix C identifying the anticipated location of some of the erosion control measures. The exact locations of protective structures will be determined during final design of the project in consultation with government agencies and prior to initiation of construction.

Belle Isle, an important fish spawning and nursery habitat, is a park found in the middle of the Detroit River upstream of the Ambassador Bridge. The island serves as important breeding ground for the lake sturgeon, which is a species of special concern in Ontario and is on the Michigan state list as a threatened species. A species of special concern is one that lives in the wild in Ontario, is not endangered or threatened, but may become threatened or endangered because of a combination of biological characteristics and identified threats. The Greater Detroit American Heritage Initiative recently received $500,000 to construct an artificial reef off the coast of Belle Isle for sturgeon spawning.

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42 International Association for Great Lakes Research, "Conserving Detroit River Habitats," Great Lakes Science & Policy, 2007, June 2007 <http://www.iaglr.org/scipolicy/issues/detroithabitat.php>.

43 U. S. Geological Survey, "Lake Whitefish Returning to the Detroit River to Spawn; Federal Scientists Document First Reproducing Population of Whitefish in the River since 1916," Updated August 31, 2006, June 2007 <http://soundwaves.usgs.gov/2006/08research.html>.

44 Environment Canada and the United States Environmental Protection Agency, "State of the Great Lakes" pp. 33-34. June 2005 from < http://binational.net/solec/English%20Version/Lake%20Sections/St.%20Clair%20-%20Detroit%20River%20Ecosystem%20%20tagged.pdf>. p.33

Belle Isle is about 5.5 kilometres (3.5 miles) upriver of the project and would not be affected.

The lower Detroit River, including Humbug Marsh, is the most important fish spawning and nursery habitat in the entire river.[45] Humbug Marsh is part of the Detroit River International Wildlife Refuge and is located on the western banks of the river adjacent to the downriver end of Grosse Ile on the U.S. side of the river. This important spawning area is not within the Study Area and is at the rivers mouth in Lake Erie. More than 45 species of fish spawn in this area, including some important forage fish species such as the emerald shiner and spottail shiner.[46] The Proposed Project will not involve work activities within the River or any other activities adjacent to the waterway that would interfere with the migration of fish upstream and downstream to any of these spawning and nursery areas.

The Detroit River is also considered a major fish nursery area, as well as, an important migration route for fish larvae.[47] Larvae move through the river in large numbers during the summer although their residence time is short because of the swift currents. In the mid-1990's the MNR conducted a fish species survey in three areas of the River (upper, middle and lower) using electrofishing.[48] More recently, the DFO sampled the Detroit River in 2003 and 2004 and resampled the MNR sites.

Although these surveys documented about 41 to 45 species of fish, other surveys have documented upwards of 65 species. Time of the year that the survey is conducted, survey locations, the particular study year and the types of sampling gear used all play a part in the species found during a given survey. The initial results of the 2003 and 2004 survey suggest different assemblages are associated with microhabitat features, season and distance from shore. Associations with river segment and riparian features did not appear to be as strong. The spring seining data demonstrated higher abundance and species diversity at inshore sites and lower species diversity and abundance at upstream segments as compared to those downstream.

A list of fish species commonly found in the Detroit River, both historically and currently is included as part of Appendix D.

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45 U. S. Geological Survey, "Lake Whitefish Returning to the Detroit River to Spawn; Federal Scientists Document First Reproducing Population of Whitefish in the River since 1916," Updated August 31, 2006, June 2007 <http://soundwaves.usgs.gov/2006/08research.html>.

46 Ibid

47 Goodyear et. at., "Atlas of Spawning and Nursery Areas of Great Lakse Fishes," Vol. 8, 1982.

48 Lapointe, Nicholas W. R. et. al., " State of the Strait 2004 COnderence Report: Fish-Habitat Associations in Shallow Canadian Waters of the Detroit River, 2004, June 2007 <http://uwindsor.ca/users/k/kgd/softs.nsf/inToc/10FF8B04FF3A317885256D88005720F6>.

7.2.5 Aquatic Plant Communities

Plankton

Approximately 82 species of phytoplankton are found in low densities within the Detroit River. Most of the year, diatoms are dominant with blue-greens dominating in late summer. *Fragilaria crotonensis* and *Tabellaria fenestrata* are dominant diatoms and *Oscillatoria sp*. is a dominant blue-green. The number of different species of phytoplankton in the Detroit River is the third highest in the Great Lakes system.[49] In general, plankton entering the River from Lake St. Clair are carried downstream as a "standing crop" to Lake Erie and there is little change in densities and species composition either vertically or horizontally, across the river.

Zooplankton in the Detroit River resembles those communities found in Lake St. Clair. In Lake St. Clair there are 14 taxa of copepods in the plankton and about 18 cladoceran taxa. Dominant species include *Cyclops vernalis, Diaptomus ashlandi, Difflugia* (protozoan), *Conochilus, Keratella, Polyarthra, Synchaeta* and *Brachionus.* Zooplankton numbers generally peak between June and September.

Aquatic Macrophytes

There are about 20 taxa of aquatic macrophytes in the Detroit River. The most abundant plants in decreasing order are *Vallisneria americana*, *Potamogeton* spp. (narrow leaf forms), *Potamogeton richardsonii*, *Elodea canadensis* (*Anacharis canadensis*), *Myriophyllum spicatum*, *Potamogeton gramineus*, and *Heteranthera dubia (Zosterella dubia*). *Chara* spp. are the second most abundant plant following *Vallisneria,* but it is not a true macrophyte in terms of being a higher aquatic plant (vascular plant); rather it is multi-cellular algae.

Other macrophytes in the River include: Potamogetons (narrow leafed), *Najas flexilis*, *Ceratophyllum demersum*, *Potamogeton nodosus*, *Nitellopsis obtusa* (a macroalga), *Nitella hyalina*, *Potamogeton crispus, Potamogeton zosteriformis, Ranunculus longirostris, Butomus umbellatus, and Sagittaria* sp. The macrophyte stands were typically found to contain about two to three species but some stands were composed of up to eleven species. Most of the submerged aquatic plant beds were located in waters less than 7 metres (23 feet) deep.[50] None of these plants are listed as threatened and endangered or as a species of concern on the June 2006 Ontario Species at Risk List or on schedules 1 through 5 in Bill 184, *The Endangered Species Act*.

[49] U.S. Fish and Wildlife Service and U.S. Environmental Protection Agency, "The Detroit River, Michigan: An Ecological Profile," Biological Report 85 (7.17), April 1988.

[50] Ibid

Suitable habitat for swamp rose-mallow (*Hibiscus moscheutos*), a special concern species, has been identified in several wetland areas including Canard Marsh, the Detroit River Marshes, and Fighting Island Wetland.[51] These wetlands are all 8.0 kilometres (5 mi) or greater downstream of the Proposed Project. The Proposed Project does not involve work or activities within areas that provide suitable habitat for aquatic plants.

7.2.6 Species at Risk

The Local and Regional Study Areas provide habitat for rare and unique fish and invertebrates, many of which are considered species at risk and are therefore classified as threatened, endangered or special concern. The national assessment process for these species at risk takes place under the auspices of the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). Ontario has been an active participant on the Committee since its inception. The MNR has compiled a list of official status designations assigned to 182 native species (terrestrial and aquatic) which are applicable at the provincial level.[52]

The provincial review process is implemented by the MNR's Committee on the Status of Species at Risk in Ontario (COSSARO). Bill 184, the *Endangered Species Act*, 2007, received Royal Assent on May 17, 2007. The goal of the *Endangered Species Act* is to broaden the scope of Ontario's existing *Endangered Species Act* and to strengthen protection and recovery measures. The *Endangered Species Act* also has the goals of providing greater accountability to the public, demonstrating clear results and including the necessary provisions to support protection within.[53]

In addition to threatened, endangered and species of concern protected in Canada under various legislation, many of the same species that use the Detroit River to satisfy some of their life cycle requirements are covered by legislation in the United States at both the national and state levels. Lists of threatened, endangered and species of concern in Canada and the United States that may inhabit the regional area are found in the tables below.

Aquatic plants that are listed as threatened, endangered, or species of concern are found in the table contained in this section. The May 2007 field investigation conducted at the project site demonstrated that the project site does not contain habitat suitable for listed threatened, endangered and species of special concern. The swamp rose mallow (*Hibiscus moscheutos*), a species of concern, is found in the Detroit River and Canard

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[51] Transport Canada, Ontario Ministry of Transportation, U.S. Federal Highway Administration and Michigan Department of Transportation, "Detroit River International Crossing: Environmental Overview Paper-Canadian Existing Conditions," Natural Sciences, Vol. 2, June 2005.

[52] Ontario Ministry of Natural Resources, Species at Risk in Ontario List (SARO), June 30, 2006.

[53] Bill 184, *Endangered Species Act*, 2007, Schedules 1,2,3,4 and 5, March 20, 2007.

River Marshes and Fighting Island Wetland. The swamp rose mallow is a species on SARA and is listed both nationally and provincially. Several provincially, regionally, and/or locally significant species are also present in these wetlands.[54] None of these wetlands are near the Proposed Project.

Historically, Lake Erie, Lake Huron and their connecting waterways had one of the most abundant populations of freshwater mussels in North America. The absence or decline of mollusks is an indicator of adverse environmental impacts caused by humans.[55] Mollusks in the Detroit River have been declining for several decades. Erosion from the destruction of riparian areas, deforestation, and poor agricultural practices, as well as the presence of the exotic zebra mussel and other exotic mussels, are common contributors to the decline in mussel populations.

Mollusk species listed as threatened, or endangered, or a species of concern in the Province of Ontario and Wayne County, Michigan are attached. The round pigtoe mussel population that is listed in the table below is found within Lake St. Clair around Walpole Island and is entirely within the territory of the Walpole Island First Nation.[56] Human disturbance of the round pigtoe mussel habitat is strictly regulated and kept to a minimum. This species inhabits an area well upriver of the Project site and is not within the Regional Study area. As indicated previously in this report, the ten species of mussels that are listed and historically were found in the Detroit River are likely extirpated from the river. Given that there will be no construction taking place in the Detroit River; potential negative impacts to these species are not anticipated even if they are present.

7.2.7 Ecological Risk Assessment

Existing risks to the aquatic ecosystems include past developments within the City of Windsor and City of Detroit that resulted in loss or impairment of beneficial uses of the aquatic resources. Historical and current discharges into the Detroit River from industrial, urban, rural and agricultural lands have greatly affected the water and sediment quality of the Detroit River with adverse effects on the fisheries. Major environmental issues include combined sewer overflows; municipal, industrial and non-point source discharges; contaminated sediment; habitat loss and degradation; restrictions on fish consumption; impairment of the benthic community; restrictions on dredging activities; and water quality standards that are exceeded.

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54 Transport Canada, Ontario Ministry of Transportation, U.S. Federal Highway Administration and Michigan Department of Transportation, "Detroit River International Crossing: Environmental Overview Paper-Canadian Existing Conditions," Natural Sciences, Vol. 2, June 2005.

55 Metcalfe-Smith, et al., "Biodiversity of freshwater mussels in the lower Great Lakes Drainage Basin," Environment Canada Ecological Monitoring and Assessment Network website, 1997, June 1997 <http://www.emanrese.ca/eman/reports/publications/nm97_mussels/intro.html>.

56 Ontario's Biodiversity: Species at Risk, Round Pigtoe, June 2007 <http://www.rom.on.ca/ontario/risk.php?doc_type=fact&lang=&id=304>.

The proposed Project does not involve any activities within the Detroit River that would result in filling and loss of habitat or any activities that would disturb sediment or destroy benthic communities. The proposed Project will also not interfere with, or affect fish migration, or spawning and nursery areas.

Upland activities with potential to pose a risk to the aquatic environment include erosion and sedimentation during the construction phase and roadway runoff. The Project Proponent will design erosion and sediment control systems to capture eroded soils prior to reaching the waterway by using silt fences, straw bales, and detention areas. Disturbed areas will be immediately seeded and mulched to reduce the potential for water and wind erosion of soils. Erosion and sediment control measures are identified in Appendix C. Operational runoff water will be collected and conveyed to a treatment system designed to meet Ontario provincial stormwater management requirements. These treatment measures will be subject to approval under the OWRA. These measures will ensure that effects on valued ecosystem components are low. The proposed Project will cause no measurable risk to aquatic organisms in the water column or for benthic invertebrates in the sediment.

7.2.8 Valued Ecosystem Components

The following have been identified as valued ecosystem components (VEC):

- Freshwater wetlands and vegetated shallows (see aquatic macrophytes, above for location)
- Benthic macroinvertebrate community
- Fish (sport fish and forage fish), migration, spawning and nursery areas
- Aquatic species diversity
- Species at risk
- Riparian vegetation
- Water Quality

Environmental Effects Matrix **Phase: Construction and Operation**								
Project Activity	**Valued Ecosystem Component**	**Potential Environmental Effects**	**Mitigation**	**Magnitude**	**Geographic Extent**	**Duration**	**Reversibility**	**Ecological/Socio-Cultural and Economic Context**
Noise and Human Intrusion during Construction	Freshwater Wetlands and Vegetated Shallows Benthic Macro invertebrate Community Fish (sport fish and forage fish), migration, spawning and nursery areas Species at Risk	• Increased turbidity • lower water quality • Adverse change in habitat quality • loss of fish and fish habitat, • habitat fragmentation • loss of species diversity • Adverse change in habitat quality	• No in water construction	1	1	3	R	3

Environmental Effects Matrix

Phase: Construction and Operation

Project Activity	Valued Ecosystem Component	Potential Environmental Effects	Mitigation	Magnitude	Geographic Extent	Duration	Reversibility	Ecological/Socio-Cultural and Economic Context
Dropping Barge Anchors during delivery of Construction Materials	Fish Habitat	• Lower Water Quality • Increased Turbidity	• Minimize size of anchors to smallest effective size	1	1	1	R	3

Key:

Magnitude:
1 = Low; e.g. localized, specific group, one generation or less

2 = Medium; e.g. portion of population, 1-2 generations, unpredictable

3 = High; e.g. entire population

Geographic Extent:

1 = <1 km^2
2 = 1-10 km^2
3 = 11-100 km^2
4 = 101 – 1,000 km^2
5 = 1,001 – 10,000 km^2
6 = >10,000 km^2

Duration:

1= <30 days
2 = 1-12 months
3 = 13-36 months
4 = 37-72 months
5 = >72 months

Reversibility:

R = Reversible
I = Irreversible

Ecological/Socio-cultural and Economic Context (Existing Conditions):

1 = natural and undisturbed

2 = some evidence of human effect on natural environment

3 = high level of human interaction with little natural environment

7.2.9 Likely Effects on Surface Water Quality

No adverse impacts to water quality (including drinking water supplies) are anticipated from the construction or operation of the Proposed Project. The Ambassador Bridge Proposed Project does not involve dredging, in-water blasting, in-water pile driving, pier construction or placement of shore protection in or along the Detroit River. There are no activities that would disturb and resuspend significant amounts of bottom sediment or result in any changes to water levels, flow, currents or water quantities.

Construction will take place on land with only limited use of construction barges to deliver materials to the site. The number of deliveries depends on the size and capacity of the barges owned or operated by the selected contractor. The use of barges to deliver materials will have no significant effect on water quality, water levels or water use since no work will be taking place in the water. The displacement of the construction barge and related water level and wave effects will be less than the majority of the commercial traffic (including barges) that is currently navigating the Detroit River. This is due to the decreased draft of the barges, low travel speed, and lack of water ballast capacity. The only impact will be when four small anchors are dropped to stabilize the barges. This minor disturbance of the bottom sediment would not resuspend high quantities of material or cause measurable water quality effects.

Barges will not be operated in shallow waters that are less than the draft of the barge. There will be no need to dredge channels for use of the barges eliminating a potential source of water quality effects. Barges will be required to meet all MOE, Transport Canada and U.S. Coast Guard standards for the protection of the aquatic environment; as such, no hazardous materials will be transferred from barges to the land. In this regard, the *Canada Shipping Act* as administered by Transport Canada, controls pollution from ships by imposing penalties for dumping pollutants or failing to report a spill. The contractor will also be required to prepare a spill response plan that meets the requirements of the Transport Canada and U.S. Coast Guard. Through the *Environmental Protection Act*, MOE requires the spill of pollutants to be reported and cleaned up promptly and establishes a liability on the party at fault. The *Ontario Water Resources Act* also governs unlawful discharges to watercourses.

The proposed Project will not affect the water treatment plant, reservoirs or any supplies at Amherstburg, the only water treatment plant downstream of the Proposed Project on the Detroit River, during construction or operation. During construction, sediment and erosion control measures will be used to prevent water quality and water supply impacts and operational runoff will be collected and conveyed to a treatment facility.

Construction and operation of the proposed Project will impact stormwater flow within the Project Area. Construction activities such as construction and worker vehicle parking areas, material storage areas, soil staging areas, and excavation areas will disturb areas located in the Site Study Area and temporarily increase the amount of impervious surfaces. The removal of vegetative cover and replacement with impervious or unprotected surfaces tends to remove the areas that normally attenuate surface water quality and flow. Left unchecked this can result in faster runoff of water from the surface

and erosion of soil from surrounding areas. Erodible materials can then enter a receiving water body such as the Detroit River. Soils in exposed areas can also reach the adjacent waterways when carried by wind. Effects can be minimized by ensuring effective management of storm and surface water drainage and by stabilizing unprotected surfaces through seeding and mulching and by use of dust suppression techniques such as watering. See Appendix C of this report for more information on the sediment and erosion plan.

Operation of the proposed Project will result in a long term impact on stormwater flow within the Site Study Area. The proposed Project requires the construction of new land-based piers and a new bridge deck. Together they will permanently increase the amount of impervious surface area within the Site Study Area and thus increase the amount of runoff water, which will be treated on-site by way of a dedicated treatment system. The proposed Project will be designed in accordance with Section 52 of the *Ontario Water Resources Act* which is administered by the MOE. Section 52 addresses the issue of stormwater runoff and its effect on water quality. The MOE also has legislative authority under the *Ontario Environmental Protection Act* to manage water. Certificates of Approval are required from MOE for facilities that release or discharge contaminants to ground and surface waters. In designing the stormwater management plan, the Stormwater Pollution Prevention Handbook (2001) developed through the collaboration of a number of organizations including the MOE will be used and the appropriate Certificate of Approval obtained.[57]

In order to reduce the environmental effect of runoff water, sand will be the primary deicing control used on the bridge, primarily to provide traction. Plans will be developed to reduce the impact of deicing materials on the aquatic ecosystem for the Proposed Project. These plans may include specifications for proper application rates including Electronic Spreader Controls, use of high speed spreaders for less scatter and bounce of materials, proper training of employees in application of these materials and calibration of spreader equipment. The de-icing methods will be consistent with past methods that have proven to be effective for the operation of the Ambassador Bridge.

7.2.10 Likely Effects on Floodplains

No adverse impacts to the Detroit River or its floodplain are anticipated from the construction or operation of the proposed project. No construction will take place within the river or its 100-year floodplain. Bridge piers will be sited outside of the floodplain while the bridge will be constructed at a minimum of 46 metres (152 feet) above the ordinary high water level of the Detroit River, which is 175.38 metres or 575.4 feet.[58]

[57] Ontario Ministry of the Environment, "Stormwater Pollution Prevention Handbook," 24 June 2007 <http://www.ene.gov.on.ca/envision/gp/4224e_1.pdf>.

[58] US Army Corps of Engineers, Detroit District, Ordinary High Water Mark and Low Water Datum, 21 June 2007 <http://www.lre.usace.army.mil/_kd/go.cfm?destination=Page&pge_ID=1879&dialogue=0>.

Mitigation

In order to mitigate potential effects from the proposed Project during construction and operation, the Ambassador Bridge will develop a comprehensive erosion control plan in accordance with MOE Guideline B-6, Guidelines for Evaluating Construction Activities Impacting on Water Resources. A conceptual erosion and sediment control plan is provided as Appendix C. This plan will be reviewed and revised during the design of the project. This will ensure that effects on the Detroit River from sedimentation and erosion are minimized during construction. The erosion and sediment control systems will be designed to ensure that the Canadian Council of Ministers of the Environment (CCME) Environmental Quality Guidelines, Guidelines for Canadian Drinking Water Quality, and the Provincial Water Quality Objectives (PWQO) for protecting existing and potential uses of a water body are not compromised. The PWQO are often used in deriving waste effluent requirements contained in Certificates of Approval and other regulator instruments to control effluent discharges. Erosion control will include the use of stockpiles, fixed vehicle entry/exit points, sealing of manholes, catch basin protection, filtering by use of straw bales and silt curtains and slope gradient control as outlined in sections 5.4 and 5.5 of MOE Guideline B-6.

During operation, all runoff from the proposed Project and the Ambassador Bridge will be collected. The Ambassador Bridge is partnering with the Green Corridor Group to develop an innovative method of accommodating additional stormwater runoff from new impervious surfaces using supplemental vegetation. This will involve a combination of conventional collection methods using drain intakes, manholes, and piping with filtration via natural ponds and drainage ways. This infiltration system may result in a new discharge to the Detroit River and require the issuance of a Certificate of Approval by the MOE. The discharge will be situated beneath the proposed Project. The design of the operational stormwater management system will give consideration to the MOE's Stormwater Management Planning and Design Manual (March 2003).

The Project Proponent will design a treatment plant in accordance with the standard practice to handle the volume of runoff expected from the project. This will prevent significant impacts to water quality from road runoff contaminants including particulates, metals, organic compounds, oils and grease, thermal pollutants and salts. The review and approval of the Certificate of Approval by the MOE will ensure that impacts are negligible. The plant will also ensure that any materials that spill as a result of motor vehicle accidents are collected for proper disposal. The Ambassador Bridge has developed a spill protocol document to ensure that proper procedures are followed in the event of an accidental spill. See Appendix A for more information on the Spills Prevention and Contingency Plan.

Residual effects from the Proposed Project will include some temporary interference with public access to the shoreline during construction and minor effects from eroded soil that is not captured by the erosion and sediment control system. Since only small amounts of soil are expected to avoid capture by the erosion and sediment control system, the effects on water quality will be imperceptible.

7.2.11 Likely Effects on Fish Communities and Habitat

No adverse effects from the construction of the Proposed Project are anticipated. The Project is a cable-stayed bridge and will not involve any construction activities within the Detroit River, either along its banks or below the plane of the ordinary high water mark. There will be no piers, cofferdams, pile driving, dredging, blasting, or any discharges of fill material into the Detroit River from the proposed Project. The supporting towers for the cable stayed bridge will be located on upland property.

The tower on the City of Windsor side of the Detroit River will be located approximately 30 metres (100 feet) south of the riverbank, while the tower on the City of Detroit side will be located approximately 30 metres (100 feet) north of the riverbank. Since there will be no construction equipment, structures or major activities within the waterway, no effects on fish communities, fish migration, food supplies, spawning and nursery areas or benthic habitat will occur. The only anticipated effect on benthic habitat during construction will be a minor disturbance caused by dropping of anchors to stabilize a delivery barge as outlined below. This disturbance will not lead to violations of Ontario Water Quality Objectives established by the MOE for the protection of aquatic life. In addition, there will be no effect on zooplankton communities during construction because no significant turbidity or any release of contaminants from the sediment to the water column will occur due to the erosion and sediment control plan as outlined in Appendix C.

The Local Study Area is defined as the river area adjacent to the tower sites and downstream of the project site for several kilometres. The only potential sources of impact on the Local Study Area are erosion and sedimentation from upland construction, roadway runoff during operation and potential vehicle accidents (both automobile and truck). Any sand used for deicing/traction in the winter will be cleaned and collected from the bridge and will not enter the waterway. The mitigation described below will ensure that effects on fish and fish habitat in the local study area are minimal and very short term, on the order of several hours, intermittently.

The fish and fish habitat Regional Study Area is that area where air emissions from traffic using the bridge would result in the intermediate transfer of pollutants to the adjacent waterways within Essex County, Ontario, cumulatively adding to existing sources. In the case of the proposed Project, there will be no increase in traffic, beyond that found at the existing Ambassador Bridge, and therefore the Project will not cause significant additional loading of vehicle related pollutants.

The construction plan for the proposed Project may include the use of barges to deliver materials to the site (see surface water Section 7.2 Surface Water for more information). The Ambassador Bridge will ensure that contractors operating barges for the delivery of materials to the site are in compliance with MOE, Transport Canada and U.S. Coast Guard marine safety, pollution and spill control requirements to protect the aquatic ecosystem. In this regard, the *Canada Shipping Act* as administered by Transport Canada, controls pollution from ships by imposing penalties for dumping pollutants or

failing to report a spill. The contractor will also be required to prepare a Spill Response Plan (SRP) that meets the requirements of the Transport Canada and U.S. Coast Guard.

Through the *Environmental Protection Act*, the MOE requires the spill of pollutants to be reported and cleaned up forthwith and establishes a liability on the party at fault. The MOE must be notified immediately of any discharges that occur outside the normal course of events or that could impair water quality. By using barges, there will be no need to dredge any new channels for access.

Mitigation

The Ambassador Bridge will design erosion and sediment control systems to comply with the provincial stormwater management guidelines/requirements and best practices for winter de-icing. These plans are in Appendix C. The proposed Project will be designed in accordance with the *Ontario Water Resources Act* which is administered by the MOE. Section 52 addresses the issue of stormwater runoff and its effect on water quality. The MOE also has legislative authority under the *Environmental Protection Act* to manage water. Certificates of Approval are required from MOE for facilities that release discharge contaminants to ground and surface waters. In designing the stormwater management plan, the Stormwater Pollution Prevention Handbook developed through the collaboration of a number of organizations including the MOE will be used.

Typically, erosion control practices include use of dust suppression measures, silt fences, diversions, temporary ground covers, retention systems and similar control measures. Throughout the project area, daily inspection of established erosion and sedimentation works will take place to ensure that they are in proper order. Additional information on erosion and sediment control for the Project may be found in Appendix C of this report.

Sand will be the primary deicing control used on the bridge, primarily to provide traction. Sand will be cleaned up from the bridge and will be collected so that it will not enter the Detroit River. Plans will be developed to reduce the impact of deicing materials on the aquatic ecosystem. These plans may include specifications for proper application rates including Electronic Spreader Controls, use of high speed spreaders for less scatter and bounce of materials, proper training of employees in application of these materials and calibration of spreader equipment.

Salt is considered a contaminant and is only legally used by the Ontario Ministry of Transportation. The project proponent will not use salt for deicing the Proposed Project. Deicing procedures with sand are not directly controlled under the *Environmental Protection Act*, however there is general environmental protection legislation that prohibits contamination. Additionally, runoff from the bridge that could contain contaminants from motor vehicles, including salts and sands, will be collected and conveyed to a dedicated treatment facility.

These procedures and control systems will ensure that impacts on the Detroit River from salt, sedimentation and erosion are avoided or minimized during construction and operation. During operation, all runoff from the bridge will be collected and directed to a new stormwater treatment facility. This will prevent impacts on aquatic organisms from road runoff contaminants including particulates, metals, organic compounds, oils and grease, thermal pollutants and salts. The system will also ensure that any materials that spill as a result of motor vehicle accidents are collected and conveyed to a treatment facility.

Residual Effects

The implementation of sediment and erosion control systems during construction, the collection and treatment of operational stormwater runoff and the implementation of spill response plans will ensure there are no residual effects from the proposed Project on the aquatic ecosystem. The DFO "no net loss" policy for fish habitat is intended in part to counter negative impacts on fish habitat and to conserve existing habitats. The Proposed Project will not result in the loss of habitat or create adverse effects on the fisheries of the Detroit River. As such the Project Proponent is not proposing any habitat replacement or proposeds at this time.

7.2.12 Likely Effects on Aquatic Plants

There are no areas vegetated with aquatic plants, either submergent plants, floating leaved plants or emergent wetland plants found within work areas for the Proposed Project. In addition there are no activities that would cause measurable disturbance of bottom sediment or cause high levels of turbidity that could affect aquatic plants downriver of the site. The closest wetland area is the Turkey Creek Wetland PSW, downriver of the Ambassador Bridge at the mouth of the Turkey Creek in the Detroit River. This wetland is about 7.6 kilometres (4.7 miles) downstream of the Project. No effects on aquatic plants from the Project are anticipated.

Mitigation

The same mitigation mentioned above (Section 7.2.11 Surface Water) will ensure that submerged aquatic plants downriver are not affected by siltation and erosion from upland construction and from any contaminants in road runoff.

Residual Effect

No residual effects on aquatic plants are anticipated from the proposed Project.

7.2.13 Likely Effects on Species at Risk

No adverse effects from the proposed Project on aquatic species at risk are anticipated. Although there is some suitable habitat for endangered, threatened and species of concern within the Detroit River and other nearby waterways, the Proposed Project does not involve any in-water work that would disturb the habitat or otherwise adversely affect

such species. There will be no construction of structures (piers, docks, shore protection) within the Detroit River or other nearby waters, no dredging or pile driving within the Detroit River and no in-water blasting operations. Thus, there are no activities that would disturb and resuspend bottom sediment, create in-water vibration or shock waves, or result in any changes to water levels, flow, currents or water quantities that would affect aquatic habitats or fish and invertebrate species.

Construction will take place on land, with only limited need for use of construction barges. Barges will be used to deliver materials to the site. No dredging of access channels for the barges is anticipated. The impact of using the barge on sediment will be minimal and far less than the passage of larger cargo ships that travel through the area. The draft of the barge will typically be approximately 1 m (3.3 ft) and it will not travel in water depths shallower than the barge draft thereby avoiding sediment suspension. No hazardous materials will be transferred from barges to the land.

7.2.14 Supplemental Administrative Considerations

Barges will be required to meet all MOE, Transport Canada and U.S. Coast Guard marine safety, pollution and spill control requirements to protect the aquatic environment. In this regard, the *Canada Shipping Act* as administered by Transport Canada controls pollution from ships by imposing penalties for dumping pollutants or failing to report a spill. The contractor will also be required to prepare a spill response plan, if applicable, that meets the requirements of the Transport Canada and U.S. Coast Guard. Through the *Environmental Protection Act*, MOE requires the spill of pollutants to be reported and cleaned up promptly and establishes a liability on the party at fault. Therefore, no effects on species at risk are anticipated from use of barges to deliver materials.

The only potential sources of effects on the aquatic ecosystem are erosion and sedimentation from upland construction activities and from roadway runoff during operations. The Project Proponent will design sediment and erosion control systems to comply with the *Ontario Water Resources Act* and the Ontario Provincial Water Quality Objectives. Additionally, the high flow of the Detroit River would carry any uncaptured particles downstream reducing the potential for high particulate concentrations in the water column.

During operation activities, the only sources of potential effects would be from spills that occur during vehicle accidents. The Project Proponent will comply with the *Environmental Protection Act* and *Ontario Water Resources Act* regarding spill requirements. Motor vehicle spills will be handled through an emergency Spills Prevention and Contingency Plan. See Section 3.4 Operations (Accidents and Malfunctions) for further information about spills.

As indicated in Section 7.2 Surface Water, operational stormwater will be collected and conveyed to a treatment facility designed and constructed by the project proponent. Stormwater treatment will prevent impacts on aquatic organisms, including any species at risk, from roadway pollutants such as metals, organic materials, particulates, salts, oil

and grease, and thermal pollutants. The systems will be designed to meet the requirements of the *Ontario Water Resources Act*, Ontario Provincial Water Quality Objectives (the Blue Book) and Canadian Environmental Quality Guidelines published by the Canadian Council of Ministers of the Environment for the protection of water quality and aquatic organisms.

7.3 Surface and Subsurface Geology and Soils

7.3.1 Geology and Groundwater Environment

7.3.1.1 Study Area and Timeframes

The proposed Project footprint or Site Study Area for geology and groundwater is the area where the bridge and its foundations will be constructed in the City of Windsor, Ontario along the bank of the Detroit River.

The Local Study Area is defined by the area within a 100 metre (328 foot) radius of the Site Study Area. This distance is estimated to be the limit of construction related effects to geology and groundwater given the site characteristics described in Section 7.2 Surface Water. This is most relevant during the construction period of the proposed Project. During the post-construction operation of the proposed Project no significant impacts are anticipated.

The Regional Study Area for geology and groundwater is the Windsor city limits, given the relatively small size of the proposed Project foundation elements compared to the vast areal extent of the geology and groundwater systems which extend beyond the Essex, Chatham-Kent Regions. The proposed Project impacts would be negligible beyond the Local Study Area.

The timeframe most relevant to the study area is during construction when there will be excavations involving geology and groundwater to construct the bridge foundation piers. The piers in the post-construction operational period are passive in nature by virtue of their stable and non-reactive function, and, therefore, will have minimal potential for environmental impact. In summary, the potential for impact of the Proposed Project will be of the same order as that of the adjacent existing bridge which has been in operation for almost 80 years.

7.3.1.2 Physical Setting

Geology

The regional geology, as reported in the 2004 *Essex Region/Chatham-Kent Region Groundwater Study* (ECK), is described as thick unconsolidated deposits, predominantly glacial tills and lacustrine clays, overlying marine sedimentary bedrock consisting of

interbedded limestone, dolostone and shale.[59] The unconsolidated materials are 30 to 40 metres (98.5 to 131 feet) thick throughout the region including the proposed Project area (See Figure 10 at the end of this section).

The underlying bedrock units are part of the larger regional structure called the Michigan Basin which is centred in the lower peninsula of the State of Michigan. This series of carbonate-evaporite deposits form concentric rings around the centre of the basin. The result is that the bedrock, interbedded shale, limestone and dolomite, dips to the northwest. The regional occurrence of bedrock, as mapped by the Ontario Ministry of Northern Development and Mines, can be seen in Figure 11 at the end of this section. This figure indicates that the Dundee formation underlies the proposed Project area. This formation is described in a boring log for the Ambassador Bridge Plaza as a calcareous limestone with natural hydrocarbon staining and occasional porous zones. The presence of natural hydrocarbons is to be expected as commercial quantities of hydrocarbons are found in the bedrock elsewhere in the Regional Study Area and in the United States.

Within the bedrock, starting at approximately 270 metres (886 feet) below the surface, are thick salt beds of the Salina group which have been mined since 1866 and are still mined in the Regional Study Area. Above the bedrock there are between 15 to 20 metres (50 to 65 feet) of sand, with some dense clay interbeds near its contact with the overlying silty clay units that are between 20 to 25 metres (65 to 82 feet) thick. Fill and disturbed native soils overly this at the surface. The area topography is gently rolling and is similar to that in the United States across the Detroit River. The slope is flat to moderate.

[59] Dillon Consulting Limited, Golder Associates, Ltd., Essex Region Conservation Authority and Municipality of Chatham-Kent, "Essex Region /Chatham-Kent Region Groundwater Study," December 2004.

Seismic Conditions

The Windsor area has a low seismic risk factor according to the 2005 National Building Code of Canada seismic hazard maps (Figure 12).[60] The proposed Project is located in what is known as the Southern Great Lakes Seismic Zone. This region has a low to moderate level of seismicity when compared to more active seismic zones to the east, along the Ottawa River and in Quebec. Over the past 30 years, the annual average was 2 to 3 seismic events of magnitude 2.5 or larger recorded in the southern Great Lakes region.[61] Three moderate sized (magnitude 5) events have occurred in the 250 years of European settlement of this region, all of them in the United States - 1929, Attica, New York, 1986, near Cleveland, Ohio, and 1998, near the Pennsylvania/Ohio border.[62] All three of these earthquakes were widely felt in southern Ontario but caused no damage in Ontario. A detailed search of Natural Resources Canada's Earthquake Database from 1985 to 2007 resulted in 20 seismic events occurring within a 100 kilometre radius of the City of Windsor (Figure 13).[63]

None of the 20 events reported exceeded a magnitude of 2. Magnitude is a measure of the amount of energy released during a seismic event and is most commonly expressed using the Richter Scale. It is also related to the overall amount of damage an earthquake is likely to cause. It is very unlikely that an earthquake of magnitude less than 5 could cause any damage to structures such as the proposed Project.[64]

Groundwater

Groundwater conditions in the Essex Region are well known and described in a document published by the Essex Region Conservation Authority in 2004. This document, entitled *Essex Region/Chatham-Kent Region Groundwater Study* (ECK), contains the results of a comprehensive investigation and evaluation of the groundwater resources in the subject area.

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[60] Earthquakes Canada, Simplified Seismic Hazard Map for Canada, 24 Aug 2007 <http://earthquakescanada.nrcan.gc.ca/zones/eastcan_e.php#CSZ>.

[61] Earthquakes Canada, Earthquake Zones in Eastern Canada. 24 Aug 2007 <http://earthquakescanada.nrcan.gc.ca/zones/eastcan_e.php#CSZ>.

[62] Earthquakes Canada, Earthquake Zones in Eastern Canada. 24 Aug 2007 <http://earthquakescanada.nrcan.gc.ca/zones/eastcan_e.php#CSZ>.

[63] Earthquakes Canada, GSC, Earthquake Search (On-line Bulletin), 24 August 2007 http://seismo.nrcan.gc.ca/stnsdata/nedb/bull_e.php>.

[64] Earthquakes Canada. Index 1 – Seismic Sources – Earthquakes, Nuclear Blasts, Mining Events. 24 August 2007 <http://earthquakescanada.nrcan.gc.ca/gen_info/faq_e.php#magnitude>.

The terrain is typically flat with down-cut rivers and streams providing the only topographic relief. Slopes greater than 3% are rare. The lowest elevation is approximately 175 metres (574 feet) above sea level (a.s.l.) along the shore of the Detroit River and Lake Erie. The highest elevation is near Ridgetown, to the southeast, where it is approximately 220 metres (722 feet) a.s.l. The ECK reports that the surficial glacially derived deposits are the predominant control of the hydrogeology in the region. The water table is in the overburden and is in equilibrium with surficial water bodies. The regional depth to the water table is typically less than 5 metres (16 feet) below grade.

Four aquifer systems are described in the Essex Region each separated from the other in part or in whole by impervious geologic material known as an aquiclude. Three of these aquifer systems are present at the site of the proposed Project with the water table aquifer being absent in the Local Study Area as will be discussed further. They are, in stratigraphic order:

1. Water table aquifer
2. Overburden aquifer
3. Contact aquifer
4. Bedrock aquifer

The Contact aquifer is the largest by volume and areal extent and is the most important source of potable water. The Contact aquifer is described as the zone where the unconsolidated materials come in contact with the bedrock. No specific depth can be defined as the bedrock surface is uneven.

Recharge to all aquifers is mainly by infiltration of precipitation through the regional land surface. The highest rates of infiltration are in surficial sand and gravel deposits. In the Local Study Area, surface deposits are low infiltration rate fill underlain by a silty clay aquiclude. As a result, recharge rates are low or zero and the surficial units inhibit recharge of the geologic units below, including the Contact aquifer. The ECK report describes the proposed Project Area as a non-recharge area for regional aquifers. The aquiclude also prevents upwelling of groundwater to the surface. No seeps along the vertical profile of the proposed Project soil profile have been reported in the literature reviewed, visually observed, or prior geotechnical studies commissioned by the Ambassador Bridge. If seeps are present, the most likely location would be along the banks of the Detroit River in the fill material. Their occurrence would be intermittent and require the intersection of the bank and a perched water table.

Regional groundwater in the near surface materials typically flows from topographic highs to the nearest surface water body. In the proposed Project area, groundwater generally flows toward the Detroit River.

The groundwater regime is divided between the unconsolidated materials of the soil and fill and the underlying sedimentary bedrock. In general, the unconsolidated material in

the Proposed Project area consists of fill or disturbed soils overlying natural units of silty clay with embedded sand and gravel. Below this unit are thick units of glacially derived strata of interbedded silty clay, clay, sand, and gravel to a depth of 30 metres (102 feet) below grade, as determined by geotechnical borings in the Site Study Area.

According to the ECK, the water table in the Site Study area of the proposed Project is estimated to be within 4 to 6 metres (13 to 19.5 feet) of the ground surface. In the Site Study area the proponent commissioned a geotechnical boring where the water table was measure at 1.2 metres (4 feet) below the surface. Within the Site Study Area, discrete, transient perched water tables are found within the surficial fill materials. The underlying natural soils are dense, silty clay with low permeability and, therefore, act as an aquiclude which excludes the presence of a continuous water table.

The dense silty clay aquiclude is underlain by interbedded sand and clay containing a much greater quantity of water which may result in artesian conditions. A monitoring well screened in the sand at the north end of the Ambassador Bridge Canadian Plaza Expansion Project near Wyandotte Street appears to confirm this, with a water level of 176.7 metres (579 feet) a.s.l, while the elevation of the Detroit River is approximately 175.0 metres (574 feet) a.s.l. Artesian conditions in the bedrock were also encountered in the Site Study Area during the installation of two borings by the project proponent.

7.3.1.3 Soil Quality

The surface of the Proposed Project area is primarily fill or disturbed soil. There is less than ten percent of the Site Study Area consisting of a natural soil profile. The Site Study Area supports parklands, lawns and hedgerow trees. The remainder of the Site Study Area consists of buildings and roadways. No agricultural activity is supported by this land.

The *Soil Survey of Essex County 1949* does classify the soil of the proposed Project area as Brookston Clay.[65] It is described as compact gritty clay with few stones. The topography is generally level with poor natural drainage. At the time of the survey, the area was predominantly developed for residential uses adjacent to the existing Ambassador Bridge.

7.3.1.4 Groundwater Flow

As described in Section Surface and Subsurface Geology and Soils above there are four aquifers identified in the region. However, within the proposed Project Site Study Area, the conditions are somewhat different. The water table aquifer is essentially nonexistent, with the near-surface heavy clays acting as an aquiclude yielding little

[65] Richards et. al., "Soil Survey of Essex County," Report No. 11 of the Ontario Soil Survey, January 1949.

water. As described in Section Surface and Subsurface Geology and Soils there may be localized perched water tables in the fill units. Whatever flow of groundwater exists in the heavy clay and the fill material above it, the flow would be toward the nearest major water body, the Detroit River, provided there is direct hydraulic connection between the river and the units. Given the low hydraulic conductivity of the clay, the rate of discharge to the river would be low.

Below the dense clay is the group of sand units that can yield water under artesian conditions. As stated previously, the artesian conditions have been verified in a monitoring well that was installed for the Ambassador Bridge Canadian Plaza Expansion Project near the south end of the Site Study Area. Groundwater flow in these units would not necessarily be toward the Detroit River as they are confined by the overlying dense clay aquiclude. Direction of flow would be determined by the structure and composition of the aquifer and the adjacent geologic units.

Below the sand units, the Contact aquifer may be present below the Site Study Area. If this aquifer is present, it is not utilized as a drinking water source. The ECK report is not specific with regard to the direction of groundwater flow in this aquifer. The direction of flow throughout the broad areal extent of this aquifer is controlled by the actual hydrogeologic conditions existing at each location such as lithology, hydraulic connection, topography and geologic structure. In the vicinity of the proposed Project, the Contact aquifer would be isolated by the thick clay aquiclude near the ground surface. .

In the bedrock, the ECK describes the bedrock aquifer as those units separated and distinct from the Contact aquifer, with sufficient permeability to transmit groundwater to wells, typically fractured limestones and dolostones. Few data points are located within the bedrock and thus, the direction of flow is not well known. Two geotechnical borings were recently installed in the Site Study Area by the Ambassador Bridge. Water bearing strata were discovered in the bedrock One was located approximately 3.3 metres (10 feet) below the soil bedrock contact. The second was located more than 6.5 metres below the soil-bedrock contact. Based on structural considerations, flow direction is anticipated to be northwest toward the center of the Michigan Basin with a significant artesian component.

7.3.1.5 Groundwater Quality

Except for discrete and transient perched watertables in fill units, there is no free water available in the natural surface soil materials for a representative chemical analysis of water quality in the proposed Project Area.

In two municipal water supplies, Highgate and Ridgetown, much further to the east of the proposed Project, the water supply is from the Contact aquifer. Chemical analyses in the ECK indicate provincial guidelines are met, except for occasional exceedances for chloride, iron and fluoride. Other ground water quality parameters such as hardness and total dissolved solids were reported to be high. The preceeding groundwater quality parameters are thought to be attributable to composition of the natural materials.

Bedrock aquifers tend to have lower quality including occurrences of methane gas, salt and sulphurous water. Glacial overburden aquifers tend to provide higher water quality. In the Regional Study Area, all drinking water supply originates from the Detroit River, the Windsor municipal surface water source (See Figure 14).

7.3.1.6 Drainage Water Quality

Drainage Water is defined as runoff water, ground water seepage to the surface and water contained in ditches.[66] No seepage zones or ditches are present within the Site Study Area and runoff is currently collected and transmitted to the City of Windsor storm sewer system. The existing Ambassador Bridge is a structure with an impermeable surface. Any precipitation incident to the bridge surface is collected, treated and discharged as stormwater. Stormwater is addressed in Sections 7.2 Surface Water and 7.3 Surface and Subsurface Geology and Soils of this document. Additionally, the existing bridge plaza is mainly an impervious surface that directs surface drainage to catch basins and manholes for conveyance to the stormwater system of the City of Windsor. This occurs via a 375 mm (10 inch) pipe which connects to a 2.7 metre (8.9 feet) concrete tunnel.

7.3.1.7 Contaminated Sites and Waste Management

Contaminated Sites

The identification of contaminated sites on or near the project property was made by reviewing public databases and reviewing site history. A review of databases was performed by a commercial firm, Ecologeris,[67] using a search radius of 0.5 kilometres (0.3 miles) from the Proposed Project area, to identify all known sites listed that have released contaminants to the environment. The search was limited only by the completeness of the databases.

The Ontario Occurrence Reporting Information System listed only one incident immediately adjacent to the proposed Project Area. A spill on 4/6/1997 occurred near Canada Customs at the Ambassador Bridge with no listed impact. In 1994, two petroleum product spills were recorded on other property within the 0.5 kilometre (0.3 mile) radius.

The National Pollutant Release Inventory has no listings for the existing project property. The only listed releases were to air from the University of Windsor facilities.

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[66] Transport Canada, "Revised Federal Environmental Assessment Guidelines, Under the Canadian Environmental Assessment Act for the Ambassador Bridge Proposed Project," 2006.

[67] Ecologeris, "Database Report-Ambassador Bridge, Huron Church Road, Windsor, Ontario, Custom Report 0.5km Search Radius," May 2007.

Nine permitted discharge operations were listed within the 0.5 kilometre (0.3 mile) radius under MOE Certificates of Approval. Thirty-two facilities were listed as regulated waste generators under Ontario Regulation 347 Waste Generators Summary. The locations of these sites are listed in the Ecologeris Report included as Appendix E. No Mineral Locations or Ontario Gas and Oil wells were listed within the search radius.

A search of the MOE Environmental Site Registry revealed no sites in a 0.5 kilometre radius of the Site Study area. A review of historical records did not identify any activities resulting in a release of contaminants to the environment in the Site Study Area. [8]

If contamination is discovered on-site during the construction phase it will be evaluated according to the guidance provided by the *Ontario Environmental Protection Act* (R.S.O. 1990), and Ontario Regulation 153/04 Record of Site Condition.

Waste Management

Currently the waste managed in the Existing Project area is generated in the existing buildings and is the responsibility of the building operators. Sanitary waste from these buildings is discharged to the municipal sanitary sewer system.

7.3.1.8 Valued Ecosystem Components (VECS)

Project component or activity	Potential project-environment interaction	VECs	Significance of Residual effect
Geology	Disturbance of soil and bedrock during foundation construction	Subsurface soil and bedrock stability. Arable land	Minimal Minimal
Groundwater	Removal of aquifer materials during construction and replacement with engineered materials	Groundwater resources	Minimal
Drainage Water	Increase in impervious surface area resulting in increased amounts of surface water runoff.	Drainage water quality	Minimal

Figure 10 Overburden Thickness

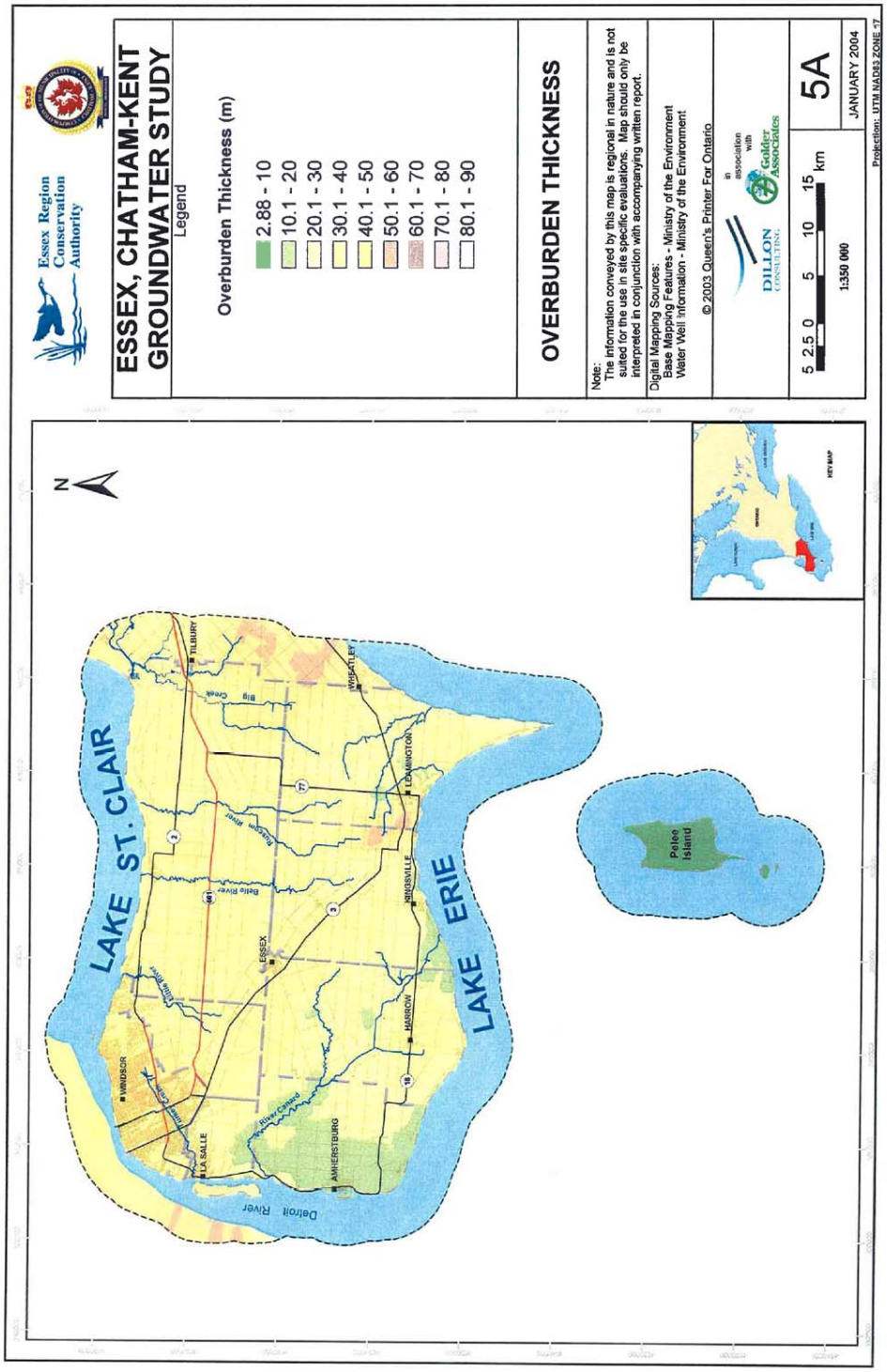


Figure 11 Bedrock Geology

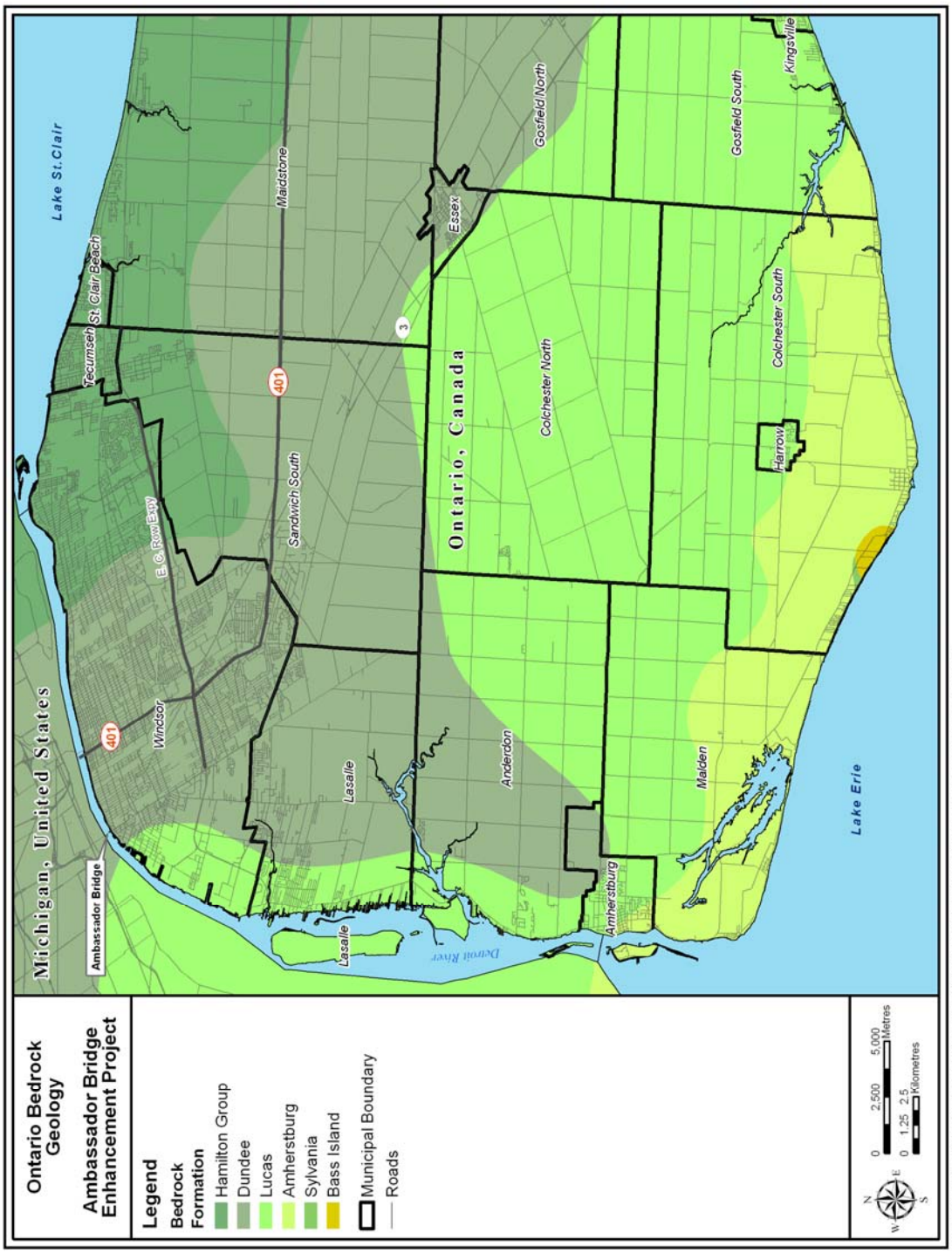


Figure 12: Seismic Hazard Map of Canada - Geological Survey of Canada (2005)

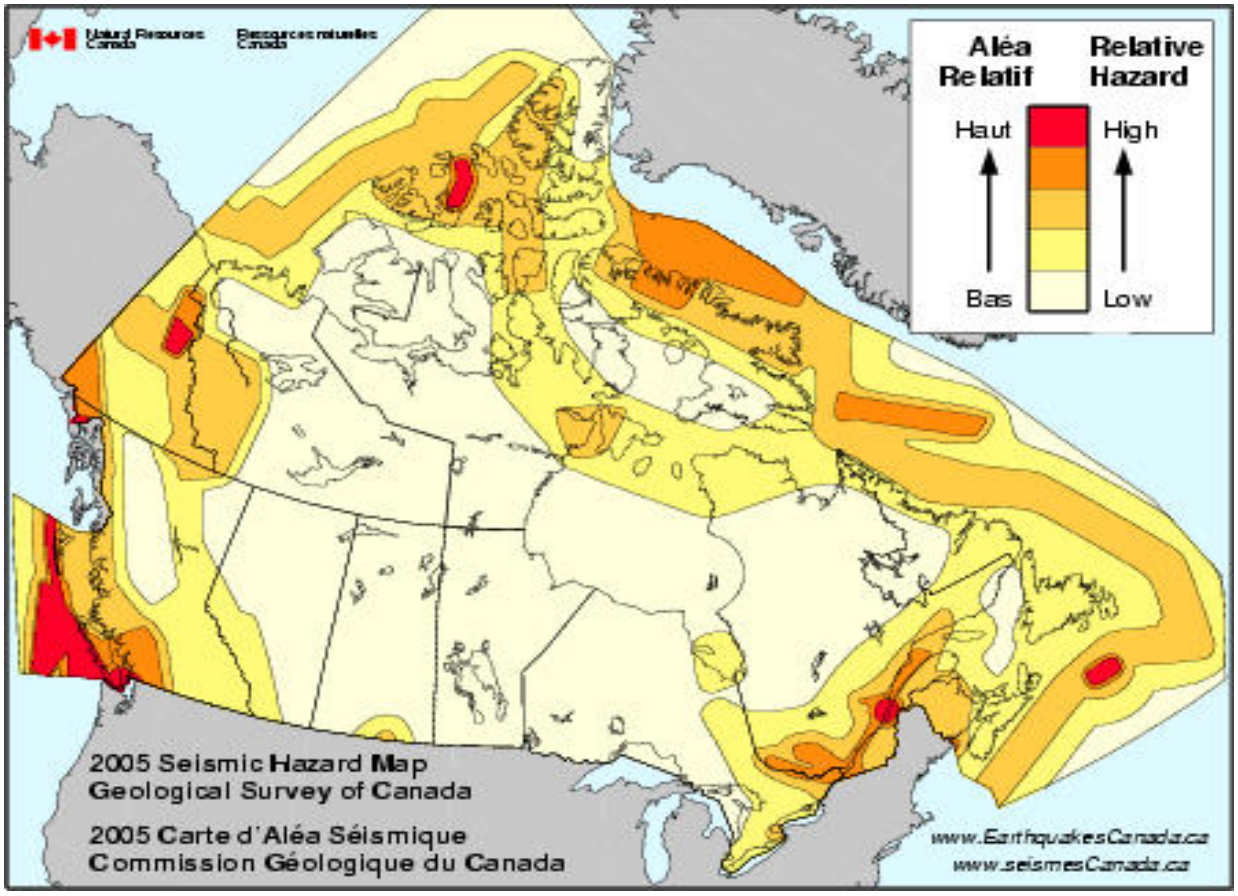
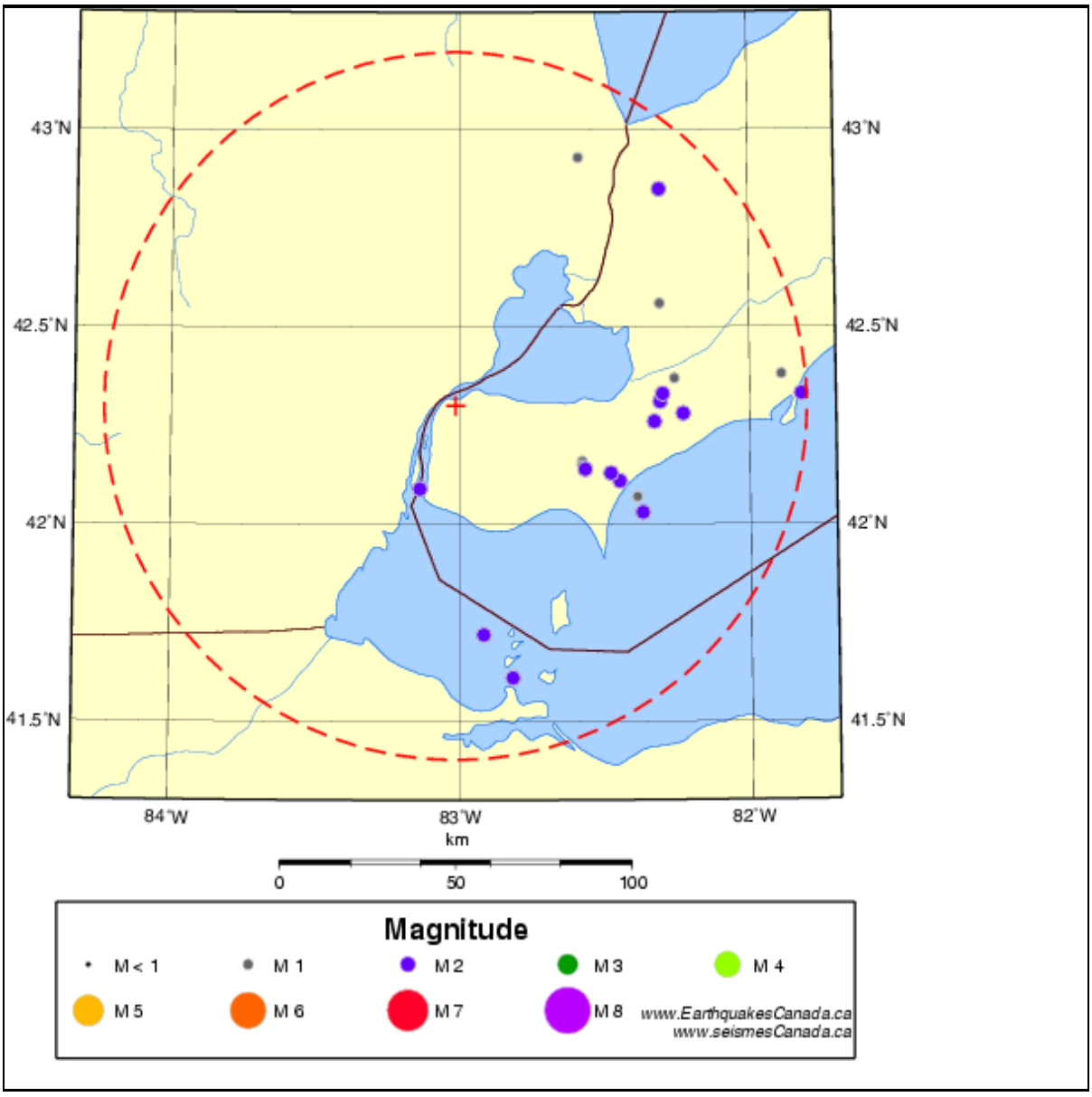
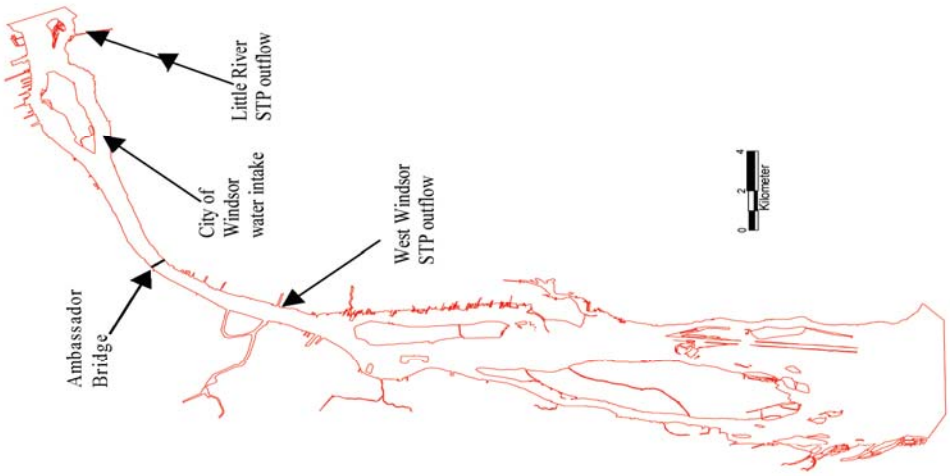


Figure 13: 1985-2007 - Seismic data within 100 km radius of the City of Windsor



Location of Windsor's water intake and STP outflows in the Detroit River



7.3.1.9 Screening for Potential Project - Environmental Effects

The Site Study Area for geology and groundwater is relatively small (See Section Surface and Subsurface Geology and Soils), but is the only area where activities will directly disturb soil, bedrock and groundwater. Excavation, caisson installation and/or pile driving will be necessary to construct the bridge piers. The potential for impacts will be greatest during the construction time period for these piers.

The geology of the Local and Regional Study Areas is in a physically and structurally stable state as described in Section 7.3 Geology and Groundwater Environment. Groundwater is divided into distinct aquifers and an aquiclude, with each aquifer exhibiting its own characteristics. No short-term impacts from the proposed Project, either locally or regionally, are anticipated.

The temporal and spatial scale of the proposed Project is so miniscule relative to the geographic extent of the geologic and groundwater systems in the area as described in Section 7.3 Geology and Groundwater Environment that no substantial long term effects are expected.

7.3.1.10 Evaluation for Likely Environmental Change

Construction and Development

Site preparation work, as described below, and foundation construction will have the greatest impact on geology and groundwater, but the impact is expected to be limited to the time needed for the construction of the footings and support piers. The site surface will be disturbed by grading, construction of service roads, establishment of staging and stockpile areas and related construction activities for the duration of the entire construction period. All surface areas will be restored to original or near original conditions with comparable materials after completion of construction. The surface material is mainly disturbed soil or fill, which further reduces the potential for permanent environmental change. Any surplus soil/fill will be characterized prior to its transport to an approved facility.

Excavation for the proposed Project foundations will result in localized removal of the entire thickness of the soil overburden and removal of necessary bedrock to the specifications of the foundation design. This material will be replaced by the foundation structures for the proposed Project. This will include grouting of localized fracturing in the bedrock if fracturing occurs. Except for the permanent removal of the geologic materials from the excavation during foundation construction and localized rock fracturing, no other permanent environmental changes to the site geology are expected. As stated in the paragraph above, any surplus excavated materials will be characterized before disposal at an approved facility.

Groundwater in the foundation excavations will be controlled to provide for worker safety, prevention of erosion and sedimentation issues and successful completion of the foundation. As described in Section 7.3 Geology and Groundwater Environment,

groundwater discharge during construction could be substantial in volume. Artesian conditions have been confirmed in two recent borings in the Site Study Area commissioned by the Ambassador Bridge. Depending on the construction method used the method of control may be pumping with collection, treatment and discharge and/or engineered barriers within the boring. For example, as borings are being drilled for the support piers, steel casings can be lowered into the borehole to stabilize the boring and limit potential for groundwater discharge into the boring. Any groundwater that may bypass the borehole casing will be pumped out of the casing and treated and discharged. Any residual water will be displaced up the casing when concrete is poured for the foundation and then collected when it reaches the surface. After foundation construction is completed, groundwater aquifers will be allowed to return to pre-construction conditions except for localized change in flow direction around the foundation structures. It is important to note that groundwater is not used for drinking water within the City of Windsor. Therefore, no permanent changes in groundwater conditions are expected in the Local and Regional Study Areas.

Monitoring Phase

During the operational phase of the proposed Project, no activities affecting geology are required. Impacts to groundwater will be limited to preventing project-related stormwater from infiltrating into surface soil. Any stormwater generated by the proposed Project will be collected, treated and discharged according to an approved Certificate of Approval issued by the MOE. The goal of the operational phase of the proposed Project is to allow geologic and groundwater conditions to return to preconstruction levels.

7.3.1.11 Likely Effects on Soil and Bedrock Quality

The soil in the Site Study Area will undergo disturbance during the proposed Project construction phase. The site surface will be disturbed by grading, construction of service roads, establishment of staging and stockpile areas, foundation excavations and related construction activities. The composition of the existing soil is disturbed native soil, amended with topsoil and historic fill materials. This soil mixture is a result of multiple site uses over time.

There will be some loss of surface area as a result of the construction of the foundation structures. A total of 553 m^2 (5,946 ft^2) for the support tower and about 5 m^2 (54 ft^2) for each support pier will be lost. This loss is unavoidable. The range of the loss of the soil material below the surface unit extends to a depth of 30 to 40 metres (98.5 to 131 feet) below grade where it contacts the bedrock. This material consists of a series of interbedded glacial and glacial lacustrine deposits with little or no commercial or cultural value. Their removal will have no impact on the geologic conditions of the surrounding soil material. The actual volume of soil removed will depend on the method used to construct the foundations.

Mitigation

- Limit construction activities to only the areas necessary for completion of the proposed Project by having clearly defined staging and construction areas. Organize work tasks to minimize surface disruption so that all soil disturbing activities to occur at a location are performed at one time to the extent possible.

- Use design specifications for engineered materials and construction methods to maximize effectiveness and limit disruption, including the use of geo-textiles and specialized construction equipment.

- Implement the required Erosion and Sediment Control Plan (see Appendix C) to control impacts of weather.

- Backfill with compatible materials (i.e. similar density to the materials that were removed) and minimize surface settlement by proper placement and compaction.

- Restore the Site Study Area, to the maximum extent practicable, to the configuration and character compatible with the surrounding land surface.

- Use excess excavated soils, where permitted, as backfill in appropriate locations elsewhere in the Proposed Project or remove offsite.

The bedrock geology will be impacted by construction methods only to the extent necessary to support the foundation structures; i.e. drilling or pile driving. The engineering characteristics of the bedrock indicate compatibility of the bedrock with the construction materials (concrete and steel) planned for the foundations. The bedrock is structurally stable and the region has a low seismic risk factor according to the 2005 National Building Code of Canada seismic hazard maps. There is a possibility that naturally occurring methane gas may be present in this unit, so monitoring for gas will be addressed by the contractors as required by the *Ontario Environmental Protection Act* (R.S.O. 1990).

The City of Windsor Official Plan indicates that there are no mineral mining sites within 2 kilometres (1.2 miles) of the Site Study Area (See Figure 15). This is significant as there is a history of salt mining in the Regional Study Area that has contributed to some surface settlement (see Figure 15). The site specific geotechnical investigation concluded that no historic salt mining activity occurred at the Site Study Area nor will it adversely affect the proposed Project.

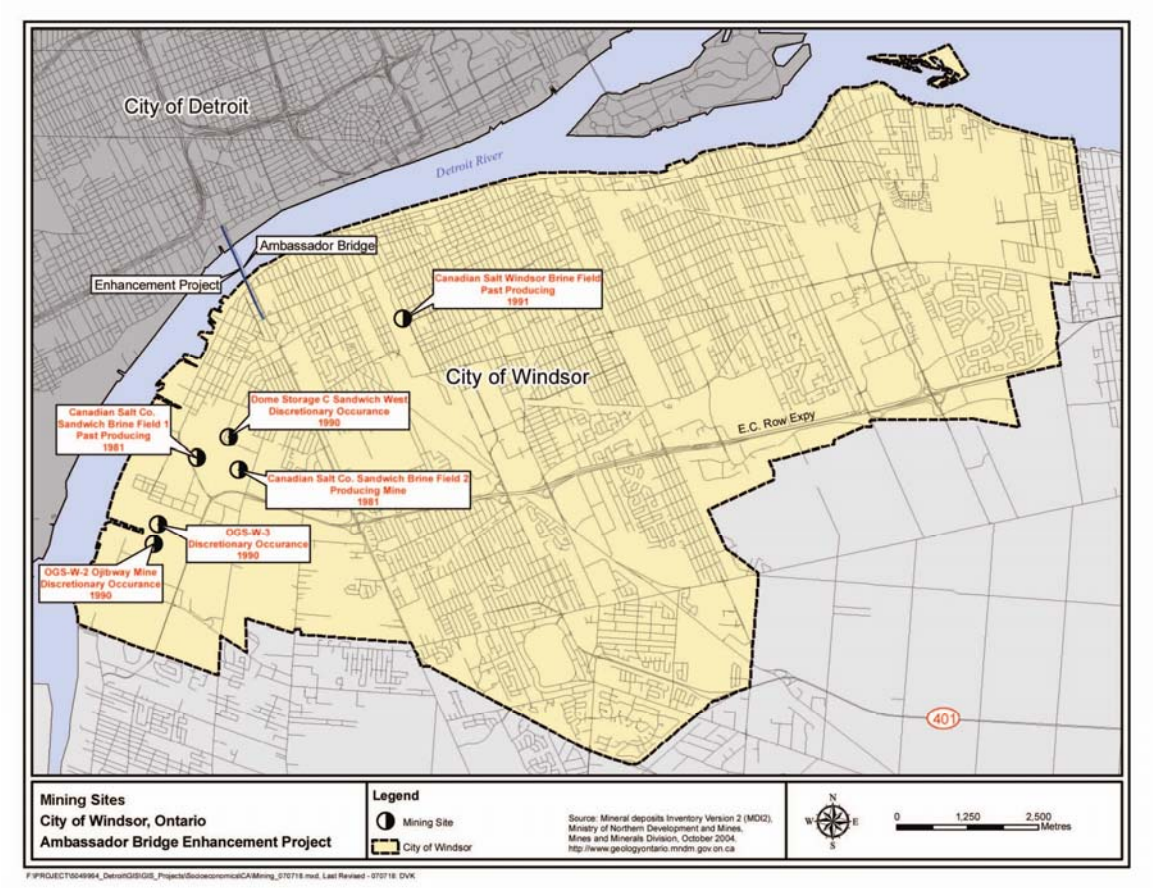
It is also significant to note that the Ambassador Bridge has not had an impact on bedrock geology, nor has the bedrock had an adverse impact on the existing bridge. The Ambassador Bridge lies within the Local Study Area for this project.

Once foundation construction is complete and the new bridge is operational, the foundation will operate as a stable, non-mechanical component of the bridge structure.

Based on this mode of operation, there no reasonably foreseeable environmental effects anticipated during the operational period of the bridge.

The conditions described above indicate that there will be no residual effects on bedrock geology by the Proposed Project, nor residual effects on the project by bedrock geology. Therefore no mitigation is necessary.

Figure 15: Mining Sites



7.3.1.12 Likely Effects on Groundwater Flow

Likely effects in groundwater flow are a function of the hydrogeologic unit the groundwater is found in. To facilitate the discussion each aquifer/ water bearing unit, is addressed separately.

Water Table

There is no consistent water table aquifer in the surficial material. Due to the heterogeneity of the material, fill over natural soils, water is found perched within the fill material on an intermittent basis.

Disturbance of this material during construction will have an effect only on those materials disturbed in the Site Study Area. A limited amount of water can be expected and there is no hydraulic connection between the perched units.

During the operational phase of the proposed Project, the surficial unit will remain undisturbed and pre-construction conditions will return around the foundations.

Overburden

In the overburden, the presence of a thick stratum of silty clay directly beneath the surficial material acts as an aquiclude and isolates as well as confines the aquifers in the overburden material below it. This condition serves to prevent infiltration of surficial contaminants to the aquifers, excludes the area above as a recharge zone and confines the lower aquifers to the degree that artesian conditions exist. Artesian conditions involve a tilted water bearing unit confined by impervious geologic units containing water under pressure from an elevated hydraulic head. Groundwater will rise above the top of the water bearing unit if the overlying confining layer is breached.

The potential for impacts on or by this aquifer will occur during the proposed Project construction phase. If during the excavation phase, the confining layer is removed, there will be an influx of water into the excavation that will need to be controlled. The method of control will be specific to each site and the characteristics encountered there. It may include pumping, installation of casing or a combination of both. The degree of control will depend on the discharge rate of the aquifer and the geologic conditions at that location. As a result, there could be a short term change, during construction, in the flow direction, and quantity of water in the aquifer over a limited radius.

Backfilling in this aquifer must be performed with care, utilizing materials with similar hydrogeological and engineering properties as those removed. Material with low permeability should not be placed within the aquifer zone, and fill compatible with the confining layer should be placed within the confining layer to prevent establishing hydraulic connection between the artesian aquifer and surficial materials.

After the foundation structures are in place, they will be a localized barrier to groundwater flow; however given the size of the aquifer, the barrier will cause a localized change in flow direction around the barrier and the hydrogeologic conditions in the aquifer will allow it to adjust to pre-construction conditions. These conditions can be expected to remain unaffected during the operational life of the Proposed Project as no further intrusion into the subsurface is necessary.

Adherence to construction methods and use of materials specified in the design plans will prevent any negative groundwater impacts in all Study Areas both in the construction and monitoring phases of the Project.

Contact Aquifer

The presence of the Contact aquifer is projected in the 2004 Essex Region/Chatham-Kent Region Groundwater Study (ECK). The direction of flow is a factor of site specific conditions such as lithology, topography, geologic structure and hydraulic connection. The broad areal extent of the aquifer makes it possible for the flow direction to vary from one discrete point to another. This also applies to flow volume and velocity.

Due to the significant scale of the aquifer, the potential for construction and operation of the proposed Project to have a significant impact on the flow of the Contact aquifer, outside the immediate area of the foundations, is unlikely. The lack of any discernible impact on groundwater by the adjacent existing Ambassador Bridge serves to support this conclusion.

Bedrock

The bedrock aquifer is distinct and separate from the Contact Aquifer and has its own flow characteristics. As previously mentioned the bedrock aquifer is not used as a drinking water supply in the City of Windsor. This uniqueness protects it from the influence of foundation construction and any major impacts. Since only mechanical methods will be used to construct the foundation structures, any change in groundwater flow will be contained within the Site Study Area. This change is not considered significant based on the lack of use of the aquifer and the level of increased flow relative to the size of the aquifer.

In this case, as in the preceding aquifers, the potential for effects of the foundation construction to have an impact on groundwater flow in the bedrock aquifer is unlikely.

In summary, the impacts of the environmental effects on groundwater flow in all aquifers are localized and short term. They are well within the capacity of the aquifers to adjust in the post-construction period. No residual effects in the Site, Local or Regional Study Areas are anticipated and, therefore, no mitigation is required.

7.3.1.13 Likely Effects on Groundwater Quality

Water quality effects are limited by a number of factors related to the proposed Project. The aquiclude beneath the surface materials protects the underlying aquifers from infiltration of contaminants from above. The isolation of perched water tables in the surface materials result in discontinuous flow of groundwater in the Site Study Area. During construction, implementation of a Erosion and Sediment Control Plan (included as Appendix C) will prevent the introduction of contaminants, if present, into groundwater. In deeper excavations, where groundwater is discharging to the

excavation, it will be controlled by pumping and/or casings so contaminants, if present, will not infiltrate the aquifer.

Given these conditions, the potential for the proposed Project to have an effect on groundwater quality is limited to the Site Study Area during the construction period. The construction materials to be used will consist of concrete, steel, plastic and wood and are stable in the groundwater environment. The known water chemistry is compatible with the construction materials so long-term water quality effects are not a concern. For comparison, the existing Ambassador Bridge, which is of similar foundation construction, has not been significantly affected by groundwater conditions, nor has the bridge had any known affect on groundwater during its 78 year lifespan.

The conditions described above provide a situation where only minimal environmental effects to groundwater quality are likely at any time. No residual effects in the Site, Local or Regional Study Areas are anticipated.

7.3.1.14 Likely Effects on Drainage Water Quality

The bridge which will be constructed above the Site Study Area will have a storm water runoff collection, treatment and discharge system so there will be no discharge to the ground surface. The Site Study Area will be landscaped and dumping will not be permitted. A Spills Response Plan will be in force to account for malfunctions and accidents and is discussed elsewhere in this document. No residual effects in the Site, Local or Regional Study Areas are anticipated and, therefore, no mitigation is required.

7.3.1.15 Likely Effects on Contaminated Sites and Waste Management

Contaminated Sites

There are no known contaminated sites located in the Site or Local Study Areas. If an unknown waste material is discovered during construction of the proposed Project, it will trigger a response, including possible remediation, in compliance with all environmental regulations with jurisdiction in the area.

Residual Effect

Unknown waste material could be found during construction.

Mitigation

The guidance provided by the *Ontario Environmental Protection Act* (R.S.O. 1990), and Ontario Regulation 153/04 will be used to respond to the situation.

Waste Management

Waste management at the proposed Project site will be driven by the relevant and applicable regulations of the governmental agencies with jurisdiction over the project. The wastes generated fall under the following categories:

- Construction Waste
- Garbage
- Sewage
- Hazardous Waste

Construction waste will be collected and transported and disposed of by approved waste contractors. There are no plans to dispose of waste on-site.

Ordinary garbage will be collected, transported and disposed of by approved waste contractors. No waste material outside of regulatory guidelines is expected.

Sewage will be discharged to sanitary sewers from existing buildings or, in construction areas, will be collected in approved portable facilities and transported and disposed of by an approved contractor.

Any hazardous waste generated during construction or operation will be disposed of at approved Canadian disposal facilities. There are no plans for international shipment of hazardous wastes. Identification of hazardous waste will be in accordance with regulatory guidelines.

During construction there will be periods where wastes accumulate in on-site collection facilities prior to transport offsite for disposal. There will be potential short-term effects of odour, visual appearance and risk posed by presence of hazardous waste in the Site and Local Study Areas. The length of on-site storage will be determined by the waste regulations applicable to the waste. These effects can be mitigated by proper waste collection and storage procedures which will be specified in a waste management plan established by the contractors performing construction activities.

During the operational phase of the proposed Project, a waste management plan will be implemented to properly manage all categories of waste generated at the project site. Similar conditions occur at the site of the Ambassador Bridge adjacent to the proposed Project and the Project plan can be consistent with that used for the Ambassador Bridge.

The response to malfunctions and accidents are addressed in a separate section of this document.

After construction is completed, there will be no waste management related to the proposed Project and no residual effects will remain as all waste will be disposed of off-

site. Therefore, no mitigation will be necessary. Management of operational wastes is an ongoing part of the Proposed Project and no residual effects are possible until after all operations cease at the project site.

7.3.1.16 Summary of Residual Adverse Effects on VECs

The residual effects on geology are limited. Surface disruption during construction can cause erosion and sedimentation. Use of proper construction methods will prevent this and restore the Site Study Area soils and bedrock to a stable platform.

Some soil will be irretrievably lost to construction of foundation structures. The soil that will be lost is a combination of disturbed original soil, imported topsoil and various fill components brought in as the property has gone through development. The quality of the soil is not good, and the surface area remaining after the Proposed Project is constructed will be restored at least to the degree of the pre-construction conditions.

Significance of Residual Effect

Minimal

The residual effects on groundwater are also limited. The groundwater resources are divided into distinct aquifers each with their own relative value. The water table consists of a group of perched units with no value as a drinking water source. In addition the Local Study Area does not serve as a recharge area for the underlying aquifers.

The lower aquifers, although they have significant quantities of water, have such a large areal extent that construction of the foundation structures will have no effect on the aquifers. Another contributing factor is that the entire Regional Study Area is on a municipal water system that does not use groundwater as its source.

Environmental Effects Matrix **Phase: Construction & Operation**								
Project Activity	**Valued Ecosystem Component**	**Potential Environmental Effects**	**Mitigation**	**Magnitude**	**Geographic Extent**	**Duration**	**Reversibility**	**Ecological/Socio-Cultural and Economic Context**
Surface Disruption during Construction	Geology	• Erosion • Sedimentation	• Erosion and Sediment Control Plan	1	1	3	R	3
Construction of Foundation Structures	Geology	• Loss of Soil	• Surface area restored to preconstruction conditions	1	1	5	I	3
	Groundwater		• None necessary	3	1	5	I	3

Environmental Effects Matrix

Phase: Construction & Operation

Project Activity	Valued Ecosystem Component	Potential Environmental Effects	Mitigation	Magnitude	Geographic Extent	Duration	Reversibility	Ecological/Socio-Cultural and Economic Context
Operation of Completed Bridge Structure	Drainage Water	• Contamination of Drainage Water	• Storm Water Management Plan	1	2	5	R	3

Key:

Magnitude:
1 = Low; e.g. affecting the available quantity or quality of groundwater, geological materials and drainage water at levels that are indiscernible from natural variation

2 = Medium; e.g. limiting the available quantity or quality of groundwater, geological materials and drainage water, such that these resources are occasionally rendered unusable to current users for periods up to two weeks at a time

3 = High; e.g. limiting the available quantity or quality of groundwater, geological materials and drainage water, such that these resources are rendered unusable or unavailable for users during the life of the project and for future generation beyond the life of the project.

Geographic Extent:

1 = <1km^2
2 = 1-10 km^2
3 = 11-100 km^2
4 = 101 – 1,000 km^2
5 = 1,001 – 10,000 km^2

Duration:

1= <30 days
2 = 1-12 months
3 = 13-36 months
4 = 37-72 months
5 = >72 months

Reversibility:

R = Reversible
I = Irreversible

Ecological/Socio-cultural and Economic Context (Existing Conditions):

1 = natural and undisturbed

2 = some evidence of human effect on natural environment

3 = high level of human interaction with little natural environment

7.4 Terrestrial Environment

Study Area

The Site Study Area for the assessment of the potential environmental effects of the proposed Project on terrestrial vegetation and wildlife is the project footprint where activities associated with site preparation and construction, operation, and malfunctions and accidents at the project could result in potential environmental effects. For the purposes of this assessment, vegetation within the limits of clearing for the piers, construction parking areas, the support tower and other structures is assumed to be permanently removed. These construction activities also remove wildlife habitat in the cleared areas.

The Local Study Area for the vegetation survey and habitat analysis includes the area from Wyandotte Street northward to the Detroit River, with Indian Road at the westerly limit. As the extension of Indian Road intersects Riverside Drive, the boundary of the Local Study Area proceeds westerly along the north side of Riverside Drive (which becomes Sandwich Street) to the western limit of McKee Park then northerly to the shoreline of the Detroit River. The easterly limit of the Local Study Area is the existing Ambassador Bridge. The Local Study Area is the area immediately outside the Site Study Area where there is reasonable potential for environmental effects and includes the expected range for noise, vibration and fugitive dust emissions on vegetation and wildlife species.

The Regional Study Area is the urban area generally within the City of Windsor and surrounding communities upstream and downstream of the Ambassador Bridge, including the Towns of LaSalle, Tecumseh, and Amherstburg. This area also includes a surrounding area of rural land uses and portions of Essex County generally south of the City of Windsor. This is the area within which there is reasonable potential for cumulative effects from the proposed Project.

In the 1600's, the Regional Study Area consisted of prairies, parklands, forests, groves and wetlands adjacent to the Detroit River. Colonization along the shoreline from the 1700's through the 1900's resulted in the farming of open terrain, clearing of forests, and general urbanization and development of the Site, Local, and Regional Study Areas.

Terrestrial Environment Administrative Considerations

Important legislation related to the protection of vegetation and wildlife resources includes that related to species at risk and the *Migratory Birds Convention Act*. The Species at Risk legislation is discussed in Section 7.4 Terrestrial Environment.

The *Migratory Birds Convention Act* (MBCA), 1994 and its regulations protect migratory birds, their eggs and nests. The Act regulates hunting, prevents trafficking and commercialization, and controls the uses of migratory birds through permits. The MBCA is the most important law protecting birds in Canada. The Act was updated in 1994 with

provisions that strengthened enforcement and significantly increased penalties. Enforcement is shared between the provincial and federal governments. Under the MBCA, the federal government can designate an area of importance to migratory birds such as a Migratory Bird Refuge, to limit hunting and physical disturbances. In Ontario, Game Officers enforce federal wildlife laws and Conservation Officers enforce provincial wildlife laws. Game Officers are also empowered to enforce provincial laws. The Game Officers enforce laws that protect migratory birds, nationally significant habitat, and endangered species. Nests and eggs not protected under the MBCA may be protected under the *Ontario Fish and Wildlife Conservation Act*, 1977.

Vegetation Communities

Regional Study Area

Urbanization within the Regional Study Area has resulted in the loss of vast acreage of habitat, with clearing of over 56,655 hectares (140,000 acres) of forest lands by the 1950's. The result was the loss of approximately 96 percent of the area wetlands and 95 percent of the original forests.[68] Natural vegetation communities within the Regional Study Area are restricted to areas not currently used for residential, agricultural, commercial, institutional or industrial purposes. These natural communities are not within the Site Study Area or the Local Study Area. The closest sites are over 2.2 kilometres (1.4 miles) from the proposed Project. The majority of the natural areas are within or around designated Provincial Parks, Areas of Natural and Scientific Interest, Environmentally Significant Areas, and Candidate Natural Heritage Sites, none of which are near the proposed Project or within the Local Study Area (Figure 9). These communities are limited in size and fragmented, with little juxtaposition or connectivity to one another, thus somewhat limiting the wildlife habitat value. Factors such as little juxtaposition and connectivity make it difficult for wildlife species to move through corridors from one habitat type to another to fulfill their various life cycle requirements. What does remain is a patchwork of interspersed remnant natural heritage features including woodlots, prairies and wetlands. These habitats will not be impacted by the Project. The shrubbery along the Detroit River shoreline is the most significant zone in the Local Study Area since it does provide some connectivity with adjacent lands in the Regional Study Area. The closest Provincially Significant Wetland is the Turkey Creek Wetland located at the mouth of the creek about 7.6 kilometres (4.7 miles) downriver of the Project.

The City of Windsor still has a number of rare and unique ecological areas. These include: Peche Island Natural Park; the Carolinian Oak Stand Memorial Park; and the Ojibway Tall Prairie Complex, which includes Ojibway Park, Joy Woods, Black Oak Heritage Park, Tall Grass Prairie Park and the Spring Garden Area of Natural and Scientific Interest. This complex also includes the Ojibway Prairie Provincial Nature Reserve. None of the abovementioned ecological areas are located in the Site or Local

68 Hartman, Jim, Essex Region Conservation Authority "Habitat Rehabilitation and Proposed Projects in the Detroit River and Tributary Wetlands" 30 April 2007 <http://www.mnsind/oriccarru?story8.html.>

Study Areas and none of these ecological areas will be impacted by the proposed Project.

These Carolinian forests and prairie ecosystems are unique in Canada. The Turkey Creek Wetland and Canard Marsh at the mouth of the Canard River also provide valuable habitat in the Regional Study Area and support abundant species of plants and wildlife. These Carolinian forests are both over 7.5 km (4.6 mi) downriver (of the proposed Project and will not be affected.

Regional forest communities are found in both dry fresh upland areas and in moist to wet lowlands. The upland communities are generally dominated by oak (*Quercus spp*.), hickory *(Carya spp*.), and maple species *(Acer spp.).* Some associated species include sassafras (*Sassafras albidum*), white ash (*Fraxinus americana*), basswood (*Tilia americana*), beech (*Fagus grandifolia*), ironwood (*Ostrya virginiana*) and quaking aspen (*Populus tremuloides*). Two areas are Carolinian Canada Sites: Ojibway Prairie Remnants and the Canard River Kentucky Coffee-tree woods. As indicated above these forest communities are generally found in the designated natural areas and not in the Site and Local Study Areas.

Lowland forests are generally dominated by swamp white oak (*Quercus bicolor*), silver maple (*Acer saccharinum*), red maple (*Acer rubrum*), pin oak (*Quercus palustris*), red ash (*Fraxinus pennsylvanica*), and white elm (*Ulmus americana*). The lowland forests are generally found in the designated natural areas in the City of Windsor and Essex County and are not within the Site and Local Study Areas of the proposed Project.

Typical shrub species generally found in the Regional Study Area include hawthorns (*Crataegus sp*.), grey dogwood (*Cornus foemina ssp. racemosa),* silky dogwood (*C. amomum*), smooth sumac (*Rhus glabra*) and riverbank grape (*Vitis riparia*). Undisturbed shrub lands are not found in the Site and Local Study Areas.

Prairie grasslands are generally dominated by big bluestem (*Andropogon gerardii*), tall cord grass (*Spartina petcinata*), ironweed (*Vernonia gigantea)*, showy tick-trefoil (*Desmodium canadense*), grass-leaved goldenrod (*Euthamia graminifolia*) and many others. There are no prairie grasslands in the Site and Local Study Areas.

The wetland communities are typically dominated by emergent plant species such as cattail *(Typha sp*.) and reed-canary grass (*Phalaris arundinacea*) or a variety of floating leaved plants and submergent aquatic plants such as pondweeds (*Potamogeton sp.)* and milfoil (*Myriophyllum sp*.). The closest wetland area is Turkey Creek wetland and it is located over 7.5 kilometres (4.6 mi) downstream of the proposed Project.

- *Site and Local Study Areas*

The Site Study area includes the project footprint and immediate surrounding area. The Local Study Area for the vegetation study includes the area from Wyandotte Street northwards to the Detroit River with Indian Road at the westerly limit. As the extension of Indian Road intersects Riverside Drive, the boundary of the Local Study Area

proceeds westerly along the north side of Riverside Drive (which becomes Sandwich Street) to the western limit of McKee Park then northerly to the shoreline of the Detroit River. The easterly limit of the Local Study Area of the proposed Project is the existing Ambassador Bridge. Upstream of the Ambassador Bridge, between the riverbank and Riverside Drive, is Assumption Park, followed by Centennial Park and the Riverfront Trail. Riverside Drive is an urban transportation corridor bordered by maintained parklands, lawns and hedgerow trees. To the south of Riverside Drive, is the University of Windsor campus. Downriver of the Ambassador Bridge are Mill and Brock Parks. The proposed Project is not expected to have adverse effects on the vegetation within these parkland areas.

Field investigations and air photo interpretation determined the geographical extent, composition, structure and function of vegetation communities on and adjacent to the proposed Project. A vegetation community survey was undertaken in the Local Study Area on May 8, 2007. Air photos taken in 2004, obtained from the City of Windsor, were also used to interpret and determine the limits and characteristics of vegetation communities on adjacent lands in the general vicinity of the Project site. The vegetation survey report is attached as Appendix F. Table 10 below summarizes the quantity of tree species observed in the Local Study Area.

Table 10: Quantity of Tree Species

COMMON NAME	***SCIENTIFIC NAME***	***QUANTITY PRESENT IN LOCAL STUDY AREA***
TREES		
Manitoba maple	*Acer negundo*	A
Norway Maple	*Acer plantanoides*	B
Silver Maple	*Acer saccharinum*	C
Horse-chestnut	*Aesculus hippocastanum*	A
Tree of Heaven	*Ailanthus altissima*	A
Grey Birch	*Betula populifolia*	A
Northern Catalpa	*Catalpa speciosa*	A
American Beech (cultivar)	*Fagus grandifolia x*	A
Honey Locust (cultivar)	*Gleditsia triacanthos x*	A

COMMON NAME	***SCIENTIFIC NAME***	***QUANTITY PRESENT IN LOCAL STUDY AREA***
Eastern Red Cedar	*Juniperus virginiana*	B
Tulip-tree	*Liriodendron tulipifera*	A
Apple	*Malus pumula*	A
White Mulberry	*Morus alba*	B
Norway Spruce	*Picea abies*	B
Muhgo Pine	*Pinus mugo*	A
Austrian Pine	*Pinus nigra*	A
Scots Pine	*Pinus sylvestris*	C
Eastern Cottonwood	*Populus deltoids*	A
Sweet Cherry	*Prunus avium*	A
Sour Cherry	*Prunus cerasus*	A
Choke Cherry	*Prunus virginiana*	C
White Oak	*Quercus alba*	A
Northern Red Oak	*Quercus rubra*	A
Black Locust	*Robina peudoacacia*	A
White Willow	*Salix alba var. vitellina*	A
Common Lilac	*Syringa sp.*	C
White Cedar	*Thuya occidentalis*	A
Little Leaf Linden	*Tilia cordata*	A
American Elm	*Ulmus Americana*	B
English Elm	*Ulmus procera*	A
Siberian Elm	*Ulmus pumila*	A
A = 0 – 5 B = 6 – 10 C = 11+		

Land use in the Local Study Area is primarily urban and includes residential and institutional uses. There are a few patches of natural or semi-natural (cultural) vegetation present. Cultural vegetation implies vegetation that has re-established following a cultural or man-made disturbance to the area and includes, for example, invasive species and weeds. Semi-natural vegetation occurs in areas that were previously disturbed but have had time to re-establish as a community with species that would likely have occurred prior to any disturbance. Most of the Local Study Area is landscaped (i.e. mowed) with ornamental plantings. McKee Park, located adjacent to the Detroit River, is the only open, non-impacted area. This park is one of a series of reclaimed parks along the Detroit River. The Ambassador Bridge is approximately 250 metres (820 feet) east of McKee Park. The proposed Project will be approximately 210 metres (690 feet) east of McKee Park which is within the Local Study Area.

A field investigation was performed on May 8, 2007 to determine the limits of vegetative communities, collect information on community composition, structure and function and to identify potential habitat and Species at Risk in the area. The purpose of obtaining this field information is to determine the environmental effects of the proposed Project on vegetation. The inventory included Indian Road and adjacent lands visible from the major crossings and the open area at the southern limit of Wyandotte Street. An inventory of roadside trees was also completed within the right-of-way to record the type and condition of natural and ornamental trees and shrubs. The basal area was recorded for larger trees that were accessible. Basal area is the cross section area of a tree stem/trunk commonly measured at breast height of 1.4 metres (4.5 ft) above ground level. Trees within rear yards were also recorded to determine the density of native species and for consideration of habitat potential. The Windsor Plaza Expansion Project, which is within the Regional Study Area and borders the Local Study Area, is not part of the proposed Project. However, the plaza project is included in the assessment of cumulative impacts.

The *Ecological Land Classification (ELC) for Southern Ontario* is the standard protocol applied to describe vegetation communities across the province. The ELC framework was designed to categorize vegetation communities within the context of a Site Region within Ontario. Typically, the Ecosite and Vegetation Type are described for a given Site Region. The City of Windsor falls within the 7E Site Region. In order to apply the classification system at a more detailed level, the ELC protocol defines areas based on geology, soils and vegetation. However, the refined level of classification is based on “a mappable, landscape unit that integrates a consistent set of environmental factors and vegetation characteristics” that are not met at the Project Site.[69]

[69] Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig, and S. McMurray, 1998. Ecological Land Classification for Southern Ontario: first approximation and its application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Department and Transfer Branch. SCSS Field Guide FG-02.

Vegetation communities and individual trees identified within the study area could not be classified according to the *Ecological Land Classification for Southern Ontario: First Approximation and its Application* as the existing vegetation communities did not meet the criteria in terms of polygon size (i.e. minimum 1 square kilometer or 0.4 square miles), vegetation definition or soil formation (i.e. level of disturbance) for application of the classification protocol. As such, the vegetation inventoried was described based on the location. The habitat available given the vegetation was also noted in the field. A geographic query for the local area was completed to determine reports on sensitive species using the Natural Heritage Information Centre (NHIC). The NHIC compiles, maintains and distributes information on natural species, plant communities, and species of conservation concern in Ontario and information can be accessed on their website. There are several ways to search the site such as a species list or a geographic query. A geographic query was utilized to obtain information on resources near the proposed Project. As well, plant species recorded in the area were reviewed for provincial and national status.

Boulevard Trees and McKee Park

The roadside vegetation along Indian Road, adjacent streets and rear yards was inventoried from Wyandotte Street to the Detroit River. The vegetation within McKee Park was also inventoried as part of the Local Study Area. The trees along the road and within the park represented a combination of native and non-native species that have been planted either as streetscaping, parkland or for residential privacy. Most of the trees that line Indian Road are silver maples (*Acer saccharum*). The proposed Project has no impact on this area and there are no unique, endangered or threatened species.

As indicated within the *City of Windsor – Environmental Master Plan*, all trees located within approximately 10 metres (33 feet) of the centre of the roadway are owned by the City of Windsor. The vegetation identified within McKee Park is owned and managed by the City of Windsor. Of the trees identified within the boulevard and park, only two species are considered Carolinian trees according to the Tree Guide provided on the City of Windsor website. Carolinian trees are unique to Canada with many species being at their northernmost range. These trees included the Tulip Tree (*Liriodendron tulipifera*) and Red Oak (*Quercus alba*). While native Honey Locust is considered Carolinian, the species identified within the study area were cultivars. This is an ornamental and invasive species, commonly found in established urban areas as native plantings and not historically used as street trees.

McKee Park is located immediately adjacent to the Detroit River. While the upland area consists of mowed grass and several mature trees, the bank vegetation is somewhat more natural and consists of a shrub and herbaceous layer primarily of invasive species. There are no defined wetland areas identified within the study area and there are no species of vegetation identified as threatened or endangered. A list of all of the species of vegetation found within the Local Study Area is presented in Appendix F.

Wildlife Communities

- *Regional Study Area*

Prior to urbanization and the general development of the Windsor area that resulted in clearing of forest habitat and farming of prairie areas, a range of wildlife habituated the area including elk, black bear, wild turkey, white tailed deer, passenger pigeons, trumpeter swans and greater prairie chicken.

Approximately 145 species of wildlife inhabit this regional area.[70] Wildlife in the urban and industrial areas is limited to species commonly found in urban areas such as mice, squirrels, skunks, opossum, raccoons, birds, and other species tolerant of humans, with the majority of the 145 species concentrated in the Natural Heritage Areas of Windsor. Of the 145 species of wildlife, 23 are herpetofauna found along creeks, within the prairie grasslands and forests of the Natural Heritage Areas. These species include the mudpuppy, American toad, western chorus frog, bullfrog, five-lined skink, painted turtle, milk snake, red-bellied snake, and eastern gartersnake, among others. The milk snake and five-lined skink are listed as special concern species in Ontario.

Also included are 98 species of birds that breed in the area and numerous species of migrating birds. Typical species include Canada goose, mute swan, wood duck, mallard, blue-winged teal, ring-necked pheasant, Cooper's hawk, red-tailed hawk, American kestrel, ring-billed gull, mourning dove, killdeer, belted kingfisher, red-bellied woodpecker, vireos, swallows, wrens, warblers, sparrows and many others. There are two places in the region as Environmentally Significant Areas for migratory bird stopover: Fighting Island and Allied Chemical Brine Wells. Neither one of these migratory stopover areas are located within the Site or Local Study Areas.[71]

The Monarch butterfly, an insect species listed as a species of special concern in Ontario, has been recorded in the Ojibway area along with 334 other species of moths and butterflies. The Ojibway Prairie habitat is not located with the Site or Local Study Areas and is about 3.7 km (2.3 miles) southwest of the proposed Project.

Twenty-eight species of mammals were also recorded in the region including Virginia opossum, little brown bat, silver-haired bat, hoary bat, northern short-tail shrew, red fox, raccoon, Norway rat, meadow jumping mouse, gray and red squirrel, striped skunk, white-tailed deer and others.[72]

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[70] Transport Canada, Ontario Ministry of Transportation, U.S. Federal Highway Administration and Michigan Department of Transportation, "Detroit River International Crossing: Environmental Overview Paper-Canadian Existing Conditions," Natural Sciences, Vol. 2, June 2005.

[71] Ibid.

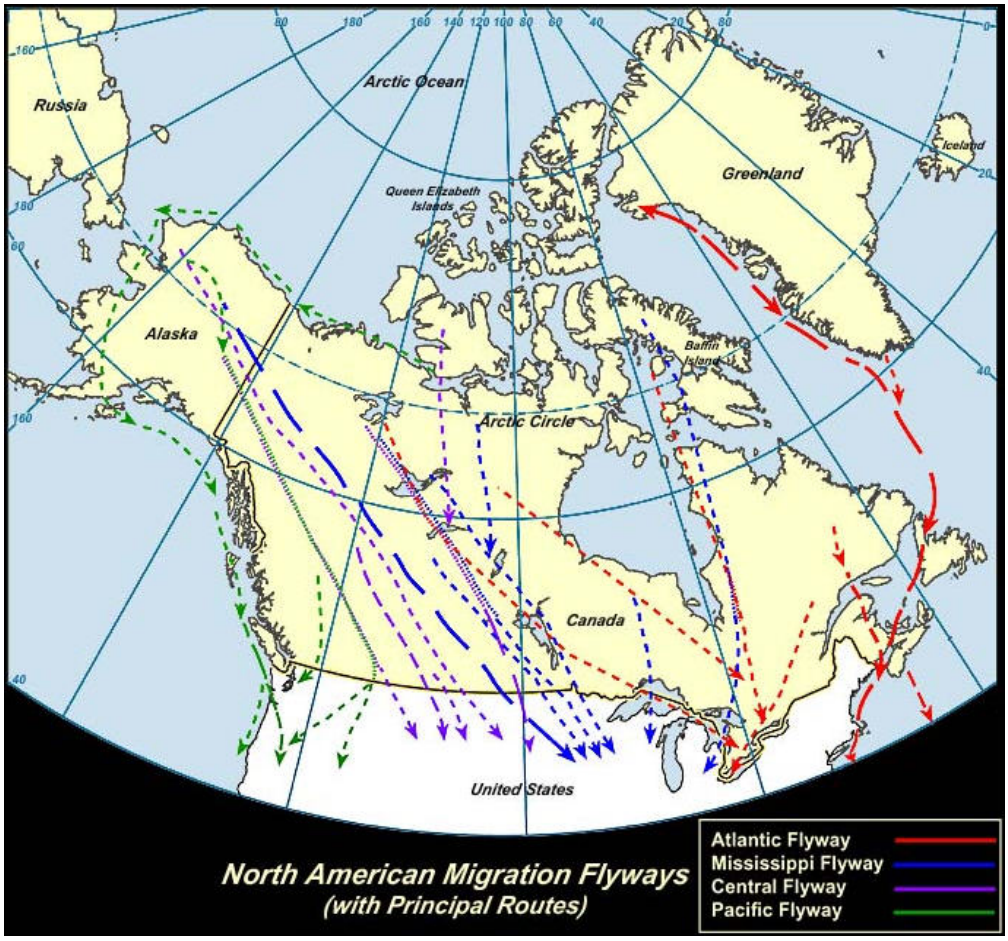
[72] Ibid

The Detroit River and surrounding area is located in the middle of the Mississippi and Atlantic flyways (see Figures 15 and 16). Approximately three million ducks, geese, swans, and coots migrate annually through this region. The Ministry of Natural Resources (MNR) and the Michigan Department of Natural Resources recognize the Detroit River as having one of the highest diversities of wildlife, including avian species, in the Great Lakes. Over 300 bird species have been documented through numerous annual bird surveys including Christmas Bird Counts in the Detroit-Windsor area of which 150-160 are found to breed, nest or migrate throughout the Detroit River corridor.[73] Some of the more important areas for breeding and nesting include Fighting Island wetland, Turkey Creek wetland, and the Canard River Marshes. More than 29 species of waterfowl, 17 species of raptors including the bald eagle, 31 species of shorebirds and 160 species of songbirds are found along or migrate through the Detroit River corridor.[74] Many of these avian species such as mallard, Canada goose, mourning dove, robins and others tolerate urban environments and some such as the Peregrine falcon, sparrows and swallows nest in buildings and structures.

[73] Bird Studies Canada, "Christmas Bird Count," 2007, July 2007 http://www.bsc-eoc.org/national/cbcmain.html.

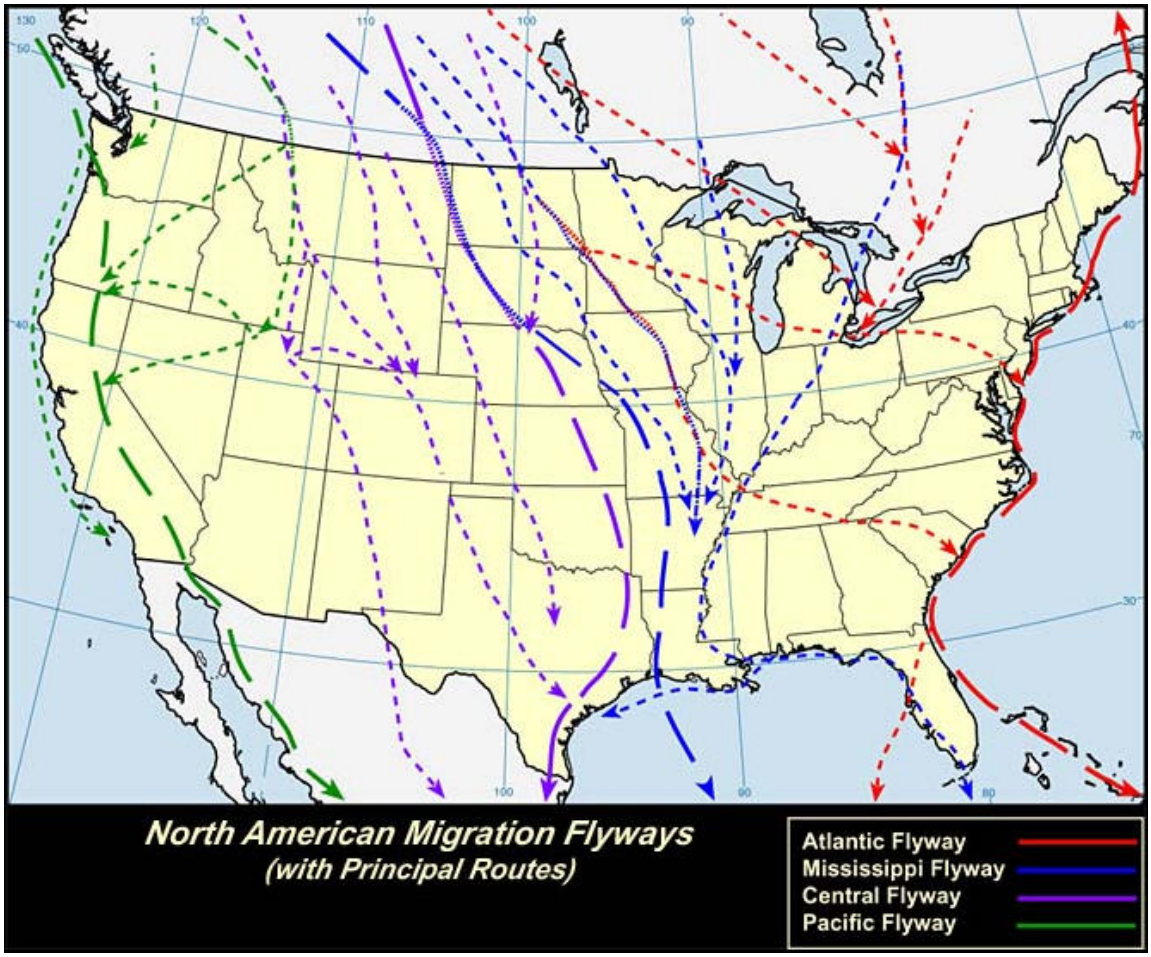
[74] Ibid.

Figure 16: Canadian Migratory Flyways



Source: Birdnature.com at http://www.birdnature.com/flyways.html accessed 9/19/07.

Figure 17: United States Migratory Flyways



Source: Birdnature.com at http://www.birdnature.com/flyways.html accessed 9/19/07.

Some 300,000 diving ducks stop in the lower Detroit River during their fall migration from Canada to the east and south each year though this area is downriver of the Site and Local Study Areas. They use the lower river ecosystem for resting and feeding on beds of water celery (*Vallisneria* sp.) and other submergent plant species. The coastal marshes of the Detroit River and adjacent Lake Erie have provided habitat for the highest concentration of staging American black ducks in North America prior to the decline in their numbers in the 1950's. Black duck are still listed as a common species in the Detroit River marsh areas. The closest wetland to the proposed Project is the Turkey Creek wetland located about 7.6 kilometres (4.7 miles) downriver. On average

more than 8,260 canvasback and 7,000 common mergansers are recorded each year during the annual Christmas Bird Counts.[75]

Canada geese are also very common in the Detroit River corridor. Other avian species that have been commonly observed during bird counts in the Regional Study Area include mute swan, Tundra swan, great blue heron, ring-billed gulls, herring gulls, American coot and black-crowned night heron. The shallow, open waters of the Detroit River are an important waterfowl wintering area. Thousands of mallards, black ducks, Canada geese and swans were observed resting and feeding in the near shore waters of Grassy and Mud Islands during February 2003.[76] These islands are over 10 kilometres (6.2 miles) downriver of the proposed Project Site near the head of Fighting Island. During thirty years of Christmas Bird Counts from 1975 to 2004, the ten most numerous species observed (in descending order of abundance) were canvasback, European starling, mallard, herring gull, ring-billed gull, common merganser, Canada goose, house sparrow, mourning dove, and Tundra swan.[77]

The importance of this area for migratory birds is recognized in the *Canada-United States North American Waterfowl Management Plan* that identified the Detroit River as part of one of the 34 Waterfowl Habitat Areas of Major Concern in the United States and Canada. It is also recognized in the United Nations Convention on Biological Diversity, the Western Hemispheric Shorebird Reserve Network, the Biodiversity Investment Area Program of Environment Canada and the U.S. Environmental Protection Agency. The lower Detroit River, downstream from the proposed Project, is designated as an Important Bird Area that is globally significant as a site for congregating waterfowl. While certain flight directions are consistently followed by migratory birds, the term “migration route” is a generalization, a concept referring to general movements of a species rather than an exact course followed by individual birds or a path followed by a species characterized by specific geographic or ecological boundaries. There is also considerable variation in routes chosen by specific species. However, broad, relatively exclusive, flyway belts do exist in North America. As indicated above, the Detroit River falls into two of these flyways, namely the Mississippi and Atlantic. These flyway belts are depicted on Figures 15 and 16.

The Atlantic Flyway extends from the offshore waters of the Atlantic Coast west to the Allegheny Mountains and the curving northwestward across West Virginia and north eastern Ohio in the United States. It then continues across the prairie provinces of Canada and the Northwest Territories to the Arctic Coast of Alaska.

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[75] Ibid.

[76] "Detroit River International Wildlife Refuge Comprehensive Conservation Plan Approval," approved April 2005.

[77] Bird Studies Canada, "Christmas Bird Count," 2007, July 2007 http://www.bsc-eoc.org/national/cbcmain.html.

The eastern boundary of the Mississippi Flyway runs through the peninsula of southern Ontario to western Lake Erie and then southward through Ohio and Indiana to the Mississippi River where it closely follows the river to the mouth of the Gulf of Mexico. The western boundary is not as well defined and it merges in eastern Nebraska and western Missouri and Arkansas in the United States with the Central Flyway.

Flyways are most applicable to birds that migrate in family groups such as geese, swans and cranes, but do not appear very helpful in understanding the movements of more widely dispersing ducks or other groups of birds. The most common migration patterns include flying to northern temperate or arctic summer habitats to breed; and then returning to wintering areas in the warmer southern parts of North America.

The Jack Miner Bird Sanctuary located in Kingsville, Ontario has collected extensive data on migrating ducks and geese through a bird banding program since the early 1900's. The bird banding program consists of capturing birds and placing a small band around one leg that contains an identification number of the bird and a number to call if the bird is captured again in a different location during its migration. The subsequent bird captures are recorded to determine the flight paths of those birds. Appendix G contains bird banding data from 1998 to the present from the Jack Miner Bird Sanctuary. The data confirms that ducks and geese migrate in a north-south movement that different species follow different paths, and to a lesser extent, the two flyways are visible. Data from the bird banding effort in years 2005 and 2006 have been plotted in Figures 17 and 18.

Waterfowl hunting and bird watching generate a substantial amount of money for cities and towns along the shoreline of the Detroit River. The lower Detroit River has an international reputation for duck hunting. Likewise, bird watching, photography and other non-consumptive uses of waterfowl bring economic benefits to the area. The proposed Project will not affect these activities.

Figure 18: 2005 Migratory Waterfowl Banding Summary

Source: Jack Miner Bird Sanctuary (www.jackminer.com) accessed 9/17/07.

Figure 19: 2006 Migratory Waterfowl Banding Summary

Source: Jack Miner Bird Sanctuary (www.jackminer.com) accessed 9/17/07.

Site and Local Study Area

The spatial boundaries for the assessment of potential impacts of the proposed Project on wildlife included the project footprint and adjacent habitat where activities associated with construction, operations, malfunctions and accidents of the project could reasonably result in environmental effects. For the purposes of this assessment, terrestrial wildlife habitat within the limits of clearing for the piers and support tower is assumed to be permanently removed. Other areas in the Project footprint such as construction parking areas and staging areas are assumed to be changed after project construction and revegetation. The wildlife habitats at and surrounding the Ambassador Bridge are adjacent to highly developed areas including the existing bridge and plaza, the University of Windsor, commercial and residential areas, and parklands. Wildlife communities are limited due to the high degree of human intrusion and the fragmented and limited juxtaposition of habitats to serve various life cycle needs for wildlife species. The exception is the vegetated banks of the Detroit River that provide connectivity to the waterway and the adjacent park and open space along the river, acting as a wildlife corridor. The proposed Project support piers will be approximately 30.5 metres (100 feet) inland from the river bank. The vegetation within the Site and Local Study Areas consist primarily of roadside vegetation that includes roadside trees, ornamental tree clusters and landscape plantings that serve an aesthetic function only and are neither unique nor part of the vegetation communities in this area. A detailed analysis of the above finding can be found in Appendix F.

A field review for wildlife species within the Local Study Area was conducted on July 28, 2007. The field review consisted of walking transects and observation from adjacent publicly accessible locations. Few wildlife species were observed during the field review, all of which were species that have adapted to urban environments. Table 11 provides a list of all animals observed and the location of the observation. The species seen most often include the Eastern gray squirrel, including one in the black phase, rock doves, juvenile and adult ring-billed seagulls, and European starlings. The European starling is a non-native species that competes with native species for nest cavities and food. One gray squirrel nest was observed along Indian Road. Only the rock dove was observed on or directly adjacent to the Ambassador Bridge. No threatened, endangered, species of special concern, or evidence of these species were observed.

Table 11: Wildlife Species Observed in the Local Study Area

Common Name	Indian Road	McKee Park	Riverside at Student Centre	Adjacent to Bridge
American Goldfinch		X	X	
American Robin	X	X		
Bank Swallow		X	X	
Canada Goose*			X	
Eastern Gray Squirrel	X			
European Starling	X			
House Sparrow	X			
Ring-billed Seagull		X		
Rock Dove	X		X	X

* Evidence (scat) of Canada goose was observed only.

A recent survey for the Riverside Drive Vista Improvement Project, located directly adjacent to and extending upriver of the existing Ambassador Bridge recorded only 45 species of wildlife; four of these were mammals and the other 41 were avian species.[78] This project was considerably larger than the proposed Project and contained more areas of wildlife habitat. Wildlife species in this area are limited and are of the type that would tolerate a high degree of human activity.

Wildlife Habitat

The wildlife and wildlife habitat in the Site and Local Study Areas can be classified as urban. Wildlife can be found almost anywhere, even in densely populated urban areas. Thus, although areas near the proposed Project contain commercial, residential and institutional development, wildlife and wildlife habitat does exist. Many species have adapted to life in urban environments and some have formed symbiotic relationships with humans. All wildlife species need four essential elements to survive: food, shelter,

[78] City of Windsor, " Riverside Drive Vista Improvement Class Environmental Assessment," 27 Sept 2007 <http://www.citywindsor.ca/documents/EngineeringCorporateProject/EnvironmentalAssessments/RiversideVista/3015Section4b.pdf.>

water and space. Abundant food and shelter and the absence of many predators have allowed many wild animals to successfully adapt to the urban environment. In the urban setting food may come from many sources both intentional and unintentional. Fruiting trees and shrubs provide both food and cover for many species throughout the summer months and some food sources can last into the winter. Mast-producing trees (those producing nuts, acorns, etc.) such as oak and beech provide a significant supply of food for squirrels and birds. Gardens and urban backyards provide various food sources for birds and rabbits. Unintentional sources of food such as garbage attract crows, raccoon, and small rodents. Water is provided by ponds, rivers, puddles and drainage ditches. Cover and shelter is provided by trees, shrubs, wetlands, and even buildings in the urban environment. Birds that nest in cavities can use old larger trees and even enclosed structures such as holes in buildings. Birds, such as swallows, construct nests on the sides and under eaves of buildings, while Peregrine falcons will nest on tall buildings. Animals need space to survive. For this reason only a specific number of animals can live productively in a given area (carrying capacity). Space is the most limiting habitat requirement in the urban environment, while water, food and shelter are less significant in limiting urban wildlife populations. Generally, those wildlife species that have adapted to urban environments are the ones that do not require large tracts of land to survive. The Site and Local Study areas provide some of the life cycle requirements and habitat for wildlife that are generally found in urban areas such as mice, squirrels, skunks, opossum, raccoons, birds, and other species tolerant of humans.

The rare and unique ecological areas that still exist in the region such as the Ojibway Tall Prairie Park, among others, continue to provide high quality habitat. These high value habitats have a diverse community of plant species; provide many food sources for wildlife and excellent hiding cover, nesting and rearing sites. None of these habitats are located within the Local or Site Study Areas nor will they be impacted by the proposed Project. The nearest Ojibway areas to the proposed Project are about 3.7 kilometres (2.3 miles) away.

The riparian habitat along the banks of the Detroit River in the Local Study Area does provide a wildlife corridor and provides better habitat value than other vegetated areas in the Local or Site Study Areas. It is the only portion of the Local Study Area that is potentially sensitive to impacts from the proposed Project. The remainder of the Local Study Area does not include large expanses of natural areas that would support area-sensitive or interior species.

The majority of the Local Study Area is urban and few natural heritage features are available as suitable habitat for local wildlife. Wildlife habitat throughout the study area is typically one of an urban setting with species that are tolerant of human disturbance.

Within McKee Park, the lands consist primarily of manicured grass with sporadic mature trees and bank vegetation consisting primarily of shrubs and herbaceous species. The proximity to the river provides connectivity for local wildlife to move from McKee Park and the adjacent parks along the river. Wildlife typically found in these areas includes

mice, squirrels, skunks, opossum, raccoons, birds, and other species tolerant of humans.

The park and river's edge serve as a stopover area for migratory species that are traveling along the river. Habitats providing high diversity of plants for food and cover are limited in this area and there are no forests or naturalized open spaces within the study area. Amphibian habitat is restricted to the lands adjacent to the Detroit River. The waterfront is considered to be the only environmentally sensitive area within the defined study area. Construction activities and structures associated with the Proposed Project will be inland of the riparian areas and waterway. This riparian habitat will be protected from erosion and sedimentation and from construction activities.

Species at Risk

The May 2007 field investigation conducted for the proposed Project demonstrated that the Local Study Area does not contain habitat suitable for the listed threatened, endangered and species of special concern. No threatened, endangered, or species of special concern, nor sign of these species, were observed during the July 2007 field review conducted for the proposed Project. The Local Study Area does not contain suitable habitat for any species at risk (See Appendix F).

Species at Risk Administrative Considerations

The Regional Study Area provides habitat for rare and unique plants and animals, many of which are considered to be species at risk and are therefore classified with a status as either endangered, threatened or species of concern. The national assessment process for these species at risk takes place under the auspices of the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). Ontario has been an active participant on the Committee since its inception. In addition, the MNR has compiled a list of official status designations assigned to 182 native species which apply to the provincial level. The provincial review process is implemented by the MNR Committee on the Status of Species at Risk in Ontario (COSSARO).

Bill 184, the *Endangered Species Act*, 2007, received Royal Assent on May 17, 2007. The goal of the *Endangered Species Act* is to broaden the scope of Ontario's existing endangered species act and to strengthen protection and recovery measures. This *Endangered Species Act* contains lists of threatened and endangered species and special concern species.

The *Fish and Wildlife Conservation Act* protects forty-five wildlife species in the regional study area. Some of the protected species, such as bald eagle, Cooper's hawk, red-tailed hawk and Peregrine falcon could potentially be found, occasionally as transients, at the Site and Local Study areas as they have been recorded with 10 kilometres (6.2 miles) of the Ojibway Prairie Complex and within the Detroit River. Most of the regional avian species are protected by the *Migratory Birds Convention Act*, and many of these such as Canada goose, Peregrine falcon, mute swan, mallard, blue winged teal and

many others have been recorded in the general area of the proposed Project. The proposed Project will not result in the loss of any of these species from construction activities and disturbance.

In addition to threatened, endangered and species of concern protected in Canada under various legislative acts, many of the same species that use the Detroit River to satisfy some of their life cycle requirements are covered by legislation in the United States on both the national and state level. Lists of threatened, endangered and species of concern in Canada and the United States that may inhabit the regional area are found on the tables that follow. Many of these species have been documented in the remaining regional natural areas of the Ojibway Prairie Complex.

Ecological Risk Assessment

Existing risks to the terrestrial ecosystems include past developments within the City of Windsor that resulted in the loss of vegetated areas and wildlife habitat due to fragmentation and loss of habitat juxtaposition and continuity. Noise and human activity due to urbanization along with habitat loss have reduced the abundance of wildlife in the area considerably. Areas containing unique animals and plants in the local and regional study areas are concentrated in the natural areas and nature centres such as the Ojibway Nature Centre. These areas are at least 3.7 kilometres (2.3 miles) from the proposed Project. The proposed Project will not result in further fragmentation of habitat or cause any loss of natural or semi-natural vegetation. Loss of trees and shrubs along the boulevard (Indian Road) will have minimal impact on wildlife. This location is already developed and there will be no impacts caused by the development of the proposed Project.

Valued Ecosystem Components

Project component	Potential project-environmental interaction	VECs	Significance of Residual Effects
Terrestrial vegetation	Vegetation removal resulting in erosion and loss of wildlife habitat and food	Soil stabilization	Low
		Avian habitat and food	Low
		Habitat for small mammals	Low
Wetlands	None	Habitat for fish and wildlife, spawning areas, shoreline stabilization	None
Wildlife	Loss of habitat and food, noise and human intrusion	Ecotones, food and habitat value of plants, habitat continuity and juxtaposition community diversity, community structure	Low
	Avian collisions with bridge cables	Migratory and resident avian species	Low to Medium

Screening for Potential Project-Environmental Interactions

Urban and recreational lands dominate the shoreline at the Site and Local Study Areas while urban and agricultural lands dominate the Regional Study Area. The Site Study Area for the vegetation and habitat study is the footprint of the proposed Project. The Local Study Area is from Wyandotte Street northwards to the Detroit River with Indian Road at the westerly limit. As the extension of Indian Road intersects Riverside Drive, the boundary of the Local Study Area proceeds westerly along the north side of Riverside Drive (which becomes Sandwich Street) to the western limit of McKee Park then northerly to the shoreline of the Detroit River. The existing Ambassador Bridge is at the easterly limit of the Local Study Area.

Vegetation in the Site Study Area is limited to manicured open space areas, parks and street trees. In the Local and Regional Study Areas, scattered pockets of forests and tall grass prairie are found in natural reserve areas maintained and owned by the local and provincial governments. Habitat located in the Site Study Area is limited and of low quality. This habitat has limited diversity of plant species, little overhead and lateral cover for wildlife, limited food supplies, and is subjected to constant human disturbance. Regionally, agricultural and urban developments have caused the continued

fragmentation of habitat and loss of connectivity. The remaining patchwork of isolated habitat demonstrates a lower amount of edge (ecotones) than that which existed prior to urbanization.

The proposed Project will result in the removal of limited amounts of vegetation, mostly manicured areas and landscape plantings. Project impacts on community structure and diversity of both vegetation and wildlife from construction and operational effects were considered, as well the possibility of avian collisions with the cable stays. Wildlife corridors at the site are very limited due to the urban environment. Impacts during operation were also viewed in the form of runoff water and atmospheric emissions from vehicles.

There are no substantial effects on terrestrial wildlife and wildlife habitat caused by the proposed Project. An Erosion and Sediment Control Plan to ensure areas adjacent to the work site are protected is set forth in Appendix C.

Evaluation for Likely Environmental Change

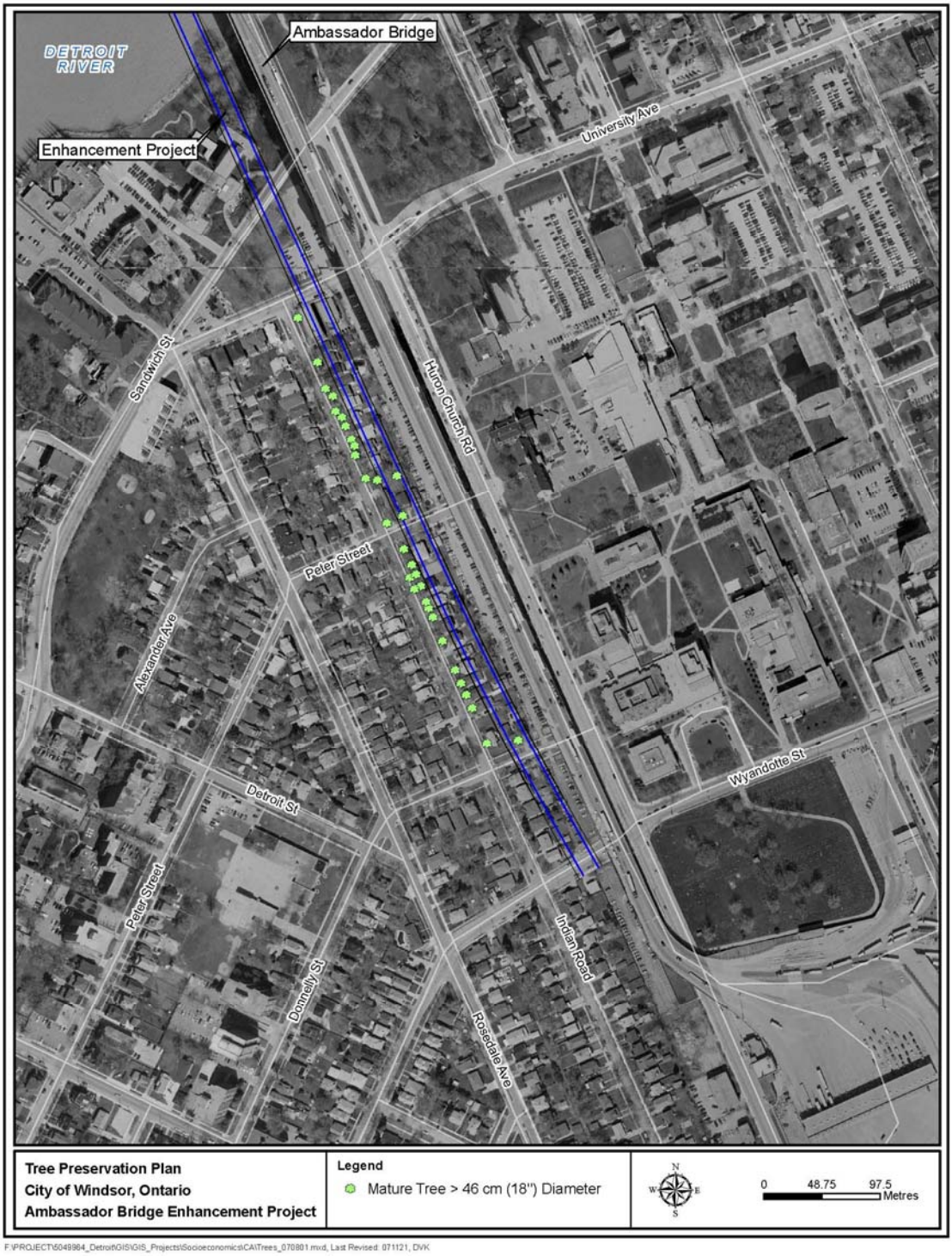
Construction and Development

The construction and development of the project will only have minimal impacts on existing roadside vegetation that includes roadside trees, ornamental tree clusters and landscape plantings. Native trees with a diameter breast height (dbh) of approximately 46 centimetres (18 inches) or greater will be preserved during construction to the extent possible. Figure 19 demonstrates the location of trees within the project area, greater than 18 inches dbh, that will be considered for preservation.

Most of the ornamentals are not unique and do not contribute to the natural vegetation communities in this area. Project construction will result in the grading, leveling and grubbing of the Site Study Area and loss of these man made areas. Construction will also result in an increase in ambient noise levels from operation of construction equipment and some increase in fugitive dust. The Ambassador Bridge will provide mitigation to control fugitive dust and noise. The Erosion and Sediment Control Plan is set forth in Appendix C.

Appendix C addresses dust suppression techniques and noise mitigation. Once the bridge is constructed, the main change in environmental conditions will include shading from the bridge deck and a somewhat higher structure for avian species to navigate. However, the new bridge will be in very close proximity (30.5 metres or 100 feet) to the existing bridge which already poses a navigational obstacle to avian species. Birds flying in the upriver and down river directions already experience an obstruction at the existing bridge and need to fly either under or over it. The new bridge will increase the height of the existing obstruction causing a need for avian species to fly higher to avoid collision. Information about potential avian collisions with the proposed Project is discussed in further detail below.

Figure 20: Tree Preservation Plan



Monitoring Phase

There is no need for a monitoring phase since the type and amount of vegetation and habitat to be lost is of marginal value. Mature trees that can be spared will be flagged for preservation as previously specified. The project proponent will develop a planting program that maximizes the use of native species to replace loss of some of the mature trees. Vegetation at the banks of the Detroit River will be left undisturbed to the extent technically feasible.

Assessment of Likely Environmental Effects

No long-term or cumulative adverse effects to aquatic and terrestrial vegetation communities and wildlife habitat are anticipated from the construction or operation of the proposed Project. Construction related impacts from noise and general construction activities including vibration will be short-term (during the construction period). The majority of the construction work will be elevated. The Ambassador Bridge will design a new stormwater treatment facility including necessary engineering measures (see Appendix C for the Erosion and Sediment Control Plan) designed to handle the volume of runoff expected from the project. This stormwater treatment facility will be situated beneath the proposed Project with a new discharge to the Detroit River (also beneath the proposed Project) in accordance with provisions of Section 52 of the *Ontario Water Resources Act* administered by the MOE. Net residual effects on the terrestrial ecosystem are not anticipated.

Vegetative Communities

The only potential impact to terrestrial vegetation is the small area occupied by the support tower and piers for the bridge and any staging and construction parking areas. The support tower will be located approximately 30.5 metres (100 feet) south of the river and will occupy approximately 553 m^2 (5,946 ft^2) of area. The support tower is the largest support structure. The other support piers will each occupy about 5 m^2 (54 ft^2).

The existing natural environment was assessed and documented on May 8, 2007 (see Appendix F). The study area has few natural heritage features or available habitat for local wildlife. The existing vegetation is limited to the street trees on Indian Road and associated side roads. There are no wetlands located in the site study area.

Loss of some trees, shrubs and open areas as a result of the proposed Project will have minimal effects, as future replanting will replace some of the losses. No long-term effects on vegetation from project operation are anticipated.

The following mitigation measures will assist in reducing potential for effects on vegetation near the river itself:

- All work areas will be delineated with construction fencing to restrict the equipment and construction from potentially sensitive areas (i.e. the Detroit River).

- Heavy equipment will be limited to stable areas and away from the shoreline of the Detroit River. These sensitive riparian areas will be marked on the site prior to construction.

- Best management practices related to materials storage, machinery operation and the movement of earth will be implemented during construction. These best management practices will include but not be limited to keeping hazardous or potentially erodable materials away from the shore of the Detroit River, not allowing vehicle maintenance or refueling within 50 metres or more of a watercourse and behind or inland of protective barriers, and removing soil stockpiles on a regular basis. See Appendix C, Erosion and Sediment Control Plan.

- An Erosion and Sediment Control Plan has been prepared to ensure areas adjacent to the work site are protected (See Appendix C).

- Soils exposure time will be kept to a minimum by removing soil stockpiles on a regular basis and re-stabilizing disturbed areas as soon as practicable, generally within 24 to 48 hours.

- Silt fencing and staked hay bales will be installed in areas of soil disturbance to minimize disturbance of these areas and restrict the dumping of waste/fill materials in a potential erosion zone.

- Use of an erosion control blanket in areas of soil disturbance will be used to provide slope protection and stabilization; seeding, sodding, and mulching material can also be effective if applied appropriately.

More detailed information about the aforementioned mitigation is found in the Erosion and Sediment Control Plan found in Appendix C.

Wildlife Habitats

The type and amount of vegetation removed by the proposed Project, including roadside trees, ornamental plantings, and landscape planting, will have no effect on wildlife habitat locally or regionally because these do not serve as linkages or corridors. Vegetation along Indian Road and McKee Park was inventoried. Of the trees identified within the Local Study Area, only two species were considered Carolinian trees. Carolinian species are unique to only a small zone along Lakes Erie and Ontario in Canada based on the northernmost limits of many of the tree species. Many of the species are found in Canada only within this zone. The Carolinian life zone supports almost one-third of the rare, endangered and threatened species in Canada and 40 percent of Ontario's rare plants are restricted to the Carolinian zone. The tulip tree (*Liriodendron tulipifera*) and red oak (*Quercus alba*) are Carolinian species identified in the field study for the proposed Project; neither of these species is listed as endangered, threatened or species of concern.

The upland areas of McKee Park consist of manicured grass and planted trees. Riverbank vegetation at McKee Park was more natural and consisted of shrubs and herbaceous species. Preservation of mature native trees and riverbank vegetation in McKee Park will greatly reduce the impacts of the project. None of the mature vegetation in McKee Park will be removed. Mature native trees will be identified and flagged for preservation. The Site Study Area habitat is typical of disturbed urban areas with limited wildlife use.

Mitigation for wildlife habitat is essentially the same as that to be used to preserve vegetation. These actions include protection of the riparian zone by restricting use of heavy equipment in and along the shorelines, flagging and preserving mature trees where feasible, and implementation of the Erosion and Sediment Control Plan. The project proponent will develop a planting program that uses native species to replace loss of some of the mature trees.

Wildlife Communities

Wildlife that may be impacted by the proposed Project is limited to species highly tolerant of human activities such as mice, squirrels, skunks, opossum, raccoons, birds, and other species tolerant of humans. During the construction period, activities such as clearing and grubbing to prepare the site for the tower and pier, activities will remove soil and vegetation and cause vibration and noise affecting the habitat and wildlife that exist at the site. Noise will be generated by trucks and other construction equipment and from pile driving activities. Pile driving will also generate vibrations and is discussed in a separate section. Sedentary species, such as nesting birds, could be eliminated by clearing activities while more mobile species will disperse from the area as a result of noise and general construction activities. Emigrating wildlife could be subjected to stress as a result of this displacement.

Noise and general construction activities will reduce the use of the general area by small mammals and avians in the immediate vicinity of the construction site. Potential impacts of noise on wildlife can include impairment or loss of hearing with subsequent consequences on finding prey and avoiding predators to altered movement patterns, displacement, behavioral changes and long term stress. The responses of wildlife to anthropogenic noise are species specific. The responses can vary from almost no reaction to a virtual lack of tolerance. The species inhabiting the study area are those tolerant of human intrusion and anthropogenic noise and the effect of noise from the proposed Project will be minimal.

The loss of the open area and some trees will not have a measurable effect on wildlife population levels in the area nor will it affect species diversity and community composition. Construction will take place from the upland areas and, therefore, no impacts on avian species feeding or resting in the river are expected.

Potential effects of operation on wildlife are primarily from bridge runoff water, atmospheric emissions from vehicles and collisions by avians with the bridge structural elements. The impacts of runoff are of low magnitude and will be mitigated through the

use of a dedicated treatment system. Likewise the effects from vehicle emissions as a result of the proposed Project will not adversely affect Study Area wildlife beyond what already exists from existing traffic.

Very few studies exist on bird collisions with bridges and bridge stay structures. Most of the avian collision studies concern transmission lines, transmission towers, buildings and more recently wind turbine generators. These types of structures have been of concern due to high collision mortality of avian species in isolated cases. To date, the same level of concern and study has not been given to bridges.

One of the most comprehensive studies about avian mortality related to collisions with man-made structures involved the review of more than 1,500 publications.[79] The studies that were reviewed spanned a period of 117 years from 1884-2001. These publications assessed avian mortality in North America, Europe, Asia, Africa, and South America including several studies conducted in Ontario, Michigan, and other portions of the Great Lakes. This study concluded that less than 0.02% of total annual North American bird mortality is caused by bird collisions with tall, man-made structures.[80]

The studies show that any bird collisions over waterways do leave detectable evidence (i.e. dead birds floating on the surface). There is a lack of this type of documented bird kill evidence at major bridges crossing waterways. Some researchers have concluded that collisions with power lines over waterways are due to the invisibility of the actual cables, particularly at night. In order to resolve this problem researchers have recommended incorporating power lines into more visible structures, like bridges. Thus, bridges tend to be more visible to avians and less likely to be a problem as compared to more invisible structures such as power lines. The proposed Project will be a highly visible, lighted structure and this will help to minimize the impact of collisions.

Birds tend to fly either over or under bridges depending to some extent on the bird species. Most birds fly over bridges. For instance, gulls and cormorants in Holland tend to fly over low bridges. Cormorants, pelicans, falcons, terns and gulls in San Francisco Bay typically fly over bridges. Some species of ducks may be vulnerable to potential collisions when flying at low altitudes due to their high flight speeds. Flying in flocks also limits the maneuverability of duck species. Studies performed in an environment similar the Detroit River (namely, the Niagara River) indicated that few waterfowl fly underneath existing bridges, but rather fly over them.[81] This study is important since it is the only study that has been done in the Great Lakes region to measure flight heights of avian

[79] Ove Arup & Partners Hong Kong Ltd, "Environmental Impact Assessment Report – Shenzhen Western Corridor," Appendix 9B – Bird Collisions with Man-made Structures, 2002.

[80] Ibid.

[81] Yonker, T.L. and L. Landon, Marine Services Diversified, LLC, "Niagara River Crossing Project Near the International Railroad Bridge, Buffalo, New York and Fort Erie, Ontario, Final Avian Report, Prepared for Ambassador Niagara Signature Bridge Group," 2006.

species in a river migration corridor using radar surveys. Most of the avian species in the Niagara River are also found in the Detroit River and the climate and riverine environments are similar. It is expected that most avian species using the Detroit River habitats would fly over both the existing Ambassador Bridge and the proposed Project.

In the Niagara River study, the mean altitude of birds observed by radar was 470 metres (1,540 feet) above ground level. Mean altitude in winter was the lowest being 233 metres (764 feet). The mean altitude of bird flocks observed by radar was 381 metres (1,250 feet) above ground level with the lowest being in winter at 233 metres (764 feet).[82] The height of the proposed cable stayed bridge towers is lower than the mean flight altitudes measured in the Niagara River study, at 166 metres (544 feet). Additionally, the proposed bridge provides an obstruction at the 166 metre (544 foot) height only in the immediate vicinity of the support towers and the height is lower between the towers as the cables angle downward to the deck.

Occasional collisions with the bridge structure and resultant mortality of some avian species may occur. The new bridge will be located approximately 30.5 metres (100 feet) downriver of the existing Ambassador Bridge. The new bridge will be a cable-stayed bridge and will have a profile similar to the existing bridge. However, it will be approximately 55 metres (181 feet) taller than the existing bridge at the location of the support towers. This will require birds to fly higher to fly over the structure and they will expend more energy to accomplish this maneuver. The bridge height is still lower than the mean flight altitudes of avians observed in the Niagara River study and the proposed Project will not significantly increase avian mortalities from collisions. The existing suspension bridge is in the same corridor as the Proposed Project and has been present since 1929. No reports or concerns have been raised about bird kills from the existing bridge and the proposed Project will not significantly change collision potential in the corridor.

- Bridges are not normally associated with high collision rates because they generally possess the following characteristics:[83]

- They are not usually sited on prominent topographic features (ridges, mountain peaks);

- Cable-stayed portions of bridges are associated with the more visible portions of bridges and therefore do not present as great of a threat as transmission lines which are isolated from more visible structures;

[82] Ibid.

[83] Ove Arup & Partners Hong Kong Ltd, "Environmental Impact Assessment Report – Shenzhen Western Corridor," Appendix 9B – Bird Collisions with Man-made Structures, 2002.

- Entire bridges are lighted, and the manner in which lights are installed can be of benefit to avoid collisions (e.g. down cast lighting as opposed to upward lighting);

- Cable-stays of bridges are larger in diameter than guy wires or transmission lines and are more visible at night; and

- Bridge cable-stays are visible at night because they can be directly lighted.

Mitigation for avian species is based on the bridge design. Cables for the proposed Project will be approximately 10 centimetres (4 inches) in diameter or greater, will be easily visible to avian species and will reduce the potential for avian collisions. Focusing the lighting (of the cable stays) in the downward direction, as proposed by the project proponent, will minimize nighttime avian collisions. The tower lighting will consist of low intensity white strobe lights with a frequency of about one flash every three seconds, synchronized, to reduce the impact of bird collisions during adverse weather conditions such as fog, rain, and mist. Bridge lighting required for the protection of waterborne navigation in the river and for aircraft will also be installed and will be in addition to that mentioned above. The navigational lighting will have no effect on avian species.

Species at Risk

There will be no adverse effects from construction and operation of the proposed Project on any threatened, endangered or species of concern including avians, mammals, reptiles, amphibians and plants.

Summary of Residual Adverse Effects on VECs

Based on the type and quality of the habitat and the wildlife in the study area, no net residual negative impacts are expected as a result of the proposed Project.

Environmental Effects Matrix **Phase: Construction and Operation**								
Project Activity	**Valued Ecosystem Component**	**Potential Environmental Effects**	**Mitigation**	**Magnitude**	**Geographic Extent**	**Duration**	**Reversibility**	**Ecological/Socio-Cultural and Economic Context**
Site preparation	Wildlife Habitat / Wildlife Communities/ Wildlife Migration/Air Quality	• Adverse change in habitat quality • Habitat fragmentation and loss • Emigration of wildlife and less immigration, including birds • Increased noise and vibration disturbance • Increase in air pollution	• Re-plant the same number of mature trees that were lost • Protection of riparian zone • Implement erosion control measures • Construct in area that is already built up and urbanized • Use best management practices to lower air and noise pollution	1	1	3	R	3
Pier construction	Wildlife Habitat / Wildlife Communities/ Wildlife Migration	• Adverse change in habitat quality • Habitat fragmentation and loss • Emigration of wildlife and less immigration, including birds • Increased noise and vibration disturbance	• Re-plant the same number of mature trees that were lost • Protection of riparian zone • Implement erosion control measures • Construct in area that is already built up and urbanized • Use best management practices to lower noise pollution	1	1	3	R	3

Environmental Effects Matrix

Phase: Construction and Operation

Project Activity	Valued Ecosystem Component	Potential Environmental Effects	Mitigation	Magnitude	Geographic Extent	Duration	Reversibility	Ecological/Socio-Cultural and Economic Context
Bridge deck construction	Wildlife Habitat / Wildlife Communities/ Wildlife Migration	• Adverse change in habitat quality • Habitat fragmentation and loss • Emigration of wildlife and less immigration, including birds • Interruption in flight patterns • Increased noise and vibration disturbance	• Re-plant the same number of mature trees that were lost • Protection of riparian zone • Implement erosion control measures • Construct in area that is already built up and urbanized • Implement downward lighting on bridge • Use best management practices to lower noise pollution	1	1	3	R	3
Operation	Bird Flyways and Migration	• Interruption in flight patterns • Bird collisions • Increased run-off	• Implement downward lighting on bridge • Construct low intensity, white strobe lighting with frequency of one flash every three seconds on towers during adverse weather conditions such as fog, rain, and mist • Cable-stays are more visible than other counterparts • Construct dedicated treatment system for runoff	1	1	5	R	3

Environmental Effects Matrix

Phase: Construction and Operation

Project Activity	Valued Ecosystem Component	Potential Environmental Effects	Mitigation	Magnitude	Geographic Extent	Duration	Reversibility	Ecological/Socio-Cultural and Economic Context

Key:

Magnitude:
1 = Low; e.g. localized, specific group, one generation or less

2 = Medium; e.g. portion of population, 1-2 generations, unpredictable

3 = High; e.g. entire population

Geographic Extent:

1 = <1 km^2
2 = 1-10 km^2
3 = 11-100 km^2
4 = 101 – 1,000 km^2
5 = 1,001 – 10,000 km^2
6 = >10,000 km^2

Duration:

1= <30 days
2 = 1-12 months
3 = 13-36 months
4 = 37-72 months
5 = >72 months

Reversibility:

R = Reversible
I = Irreversible

Ecological/Socio-cultural and Economic Context (Existing Conditions):

1 = natural and undisturbed

2 = some evidence of human effect on natural environment

3 = high level of human interaction with little natural environment

7.5 Noise and Vibration

The replacement span is proposed to be constructed to the west of the existing Ambassador Bridge, with a distance of approximately 30 metres (100 feet) between their centerlines. The replacement span will replace the existing Ambassador Bridge and is proposed to link directly into the existing plazas on both sides of the border.

The purpose of the noise and vibration assessment is to consider noise from the construction and ongoing operations of the replacement span as set out in the environmental assessment guidelines provided by Transport Canada, dated August 2007, in consultation with the Federal EA Review Team. The assessment also considers the possibility of simultaneous traffic operations on both structures (Ambassador Bridge and Proposed Project) as well the comments received from Health Canada relating to the assessment of noise impacts and cumulative effects.

All noise sensitive receptors in the neighbourhood around the proposed Project were identified. Heritage Buildings were considered as sensitive points of reception. Existing and future sound levels were determined at representative receptor locations under several different operating scenarios. Future sound levels are expected to decrease at many receptor locations with the construction of the new bridge (build vs. no build scenarios) due to bridge design features, such as exterior safety lanes and roadside Jersey Barriers. Additional mitigation in the form of a roadside noise barrier is proposed for a limited number of receptors at which sound levels are expected to increase and where the ambient sound levels are currently elevated.

Vibration measurements indicate that vibration induced by heavy vehicles on the existing bridge is perceptible on the ground at locations near the bridge piers and may be perceptible to some residents. The replacement span is proposed to be supported on piles driven to bedrock and as a result the vibration levels are anticipated to decrease.

Noise and vibration impacts during construction will be controlled through compliance with the City of Windsor's By-Laws and MOE) sound level limits for construction equipment. In addition, pile driving can generate significant levels of ground-borne vibration, and vibration levels will be monitored when piles are being driven in proximity to sensitive structures.

Please see attached Appendix H that outlines in detail the Noise and Vibration assessment along with the methodology used in assessing the noise and vibration impacts, if any, during the construction, operation and maintenance of the replacement span.

Environmental Effects Assessment Matrix Valued Environmental Component: LAND USE Phase: Operation							
Project Activity	**Potential Environment al Effects, Including Cumulative Environmental Effects**	**Mitigation**	**Magnitude**	**Extent**	**Duration / Frequency**	**Reversibility**	**Ecological / Socio-Cultural and Economic Context**
Construction	**Change in Adjacent Residential Use (A)**	Adhere to applicable health and safety legislation Emergency response plan	**1**	**1**	**1 /1**	**R**	**2**
	Change in Recreational Use (A)	Adhere to applicable health and safety legislation Emergency response plan s	**1**	**1**	**1 /1**	**R**	**2**
	Change in Institutional Use (A)	Adhere to applicable health and safety legislation Emergency response plan	**1**	**1**	**1 /1**	**R**	**2**
Operation	**Change in Adjacent Residential Use (A)**	Adhere to applicable health and safety legislation **Emergency Response Plan**	**1**	**1**	**1 /1**	**R**	**2**
	Change in Recreational Use (A)	Adhere to applicable health and safety legislation **Emergency Response Plan**	**1**	**1**	**1 /1**	**R**	**2**
	Change in Institutional Use (P)	Adhere to applicable health and safety legislation **Emergency Response Plan**	**1**	**1**	**1 /1**	**R**	**2**
Maintenance	**Change in Adjacent Residential Use (A)**	Adhere to applicable health and safety legislation **Emergency Response Plan**	**1**	**1**	**1 /1**	**R**	**2**
	Change in Recreational Use (A)	Adhere to applicable health and safety legislation **Emergency Response Plan**	**1**	**1**	**1 /1**	**R**	**2**
	Change in Institutional Use (A)	Adhere to applicable health and safety legislation **Emergency Response Plan**	**1**	**1**	**1 /1**	**R**	**2**
Key **Magnitude** 1. Low: e.g., specific group, residence or neighbourhood affected such that		**Geographic Extent** 1. <1 square kilometre		**Frequency** 1. <11 events / year 2. 11 – 50 events / year 3. 51 – 100 events / year 4. 101 – 200 events / year			

adjacent land use activities will not be disrupted such that current activities cannot continue even after short periods of time 2. Medium: e.g. part of a community affected such that adjacent land use activities will not be disrupted such that current activities cannot continue for extended periods of time longer than two years 3. High: e.g. community affected such that adjacent land use activities will not be disrupted such that current activities cannot continue for extended periods of time longer than two years and are not compensated	2. 1 – 10 square kilometres 3. 11 – 100 square kilometres 4. 101 – 1,000 square kilometres 5. 1,001 – 10,000 square kilometres 6. >10,000 square kilometres **Duration** 1. <1 month 2. 1 – 12 months 3. 13 – 36 months 4. 37 – 72 months 5. >72 months	5. >201 events / year 6. continuous **Reversibility** R Reversible I Irreversible **Ecological / Socio-cultural Context** 1. Relatively pristine area or area not adversely affected by human 2. Evidence of adverse environmental effects N / A Not Applicable (A) adverse (P) positive

Environmental Summary Matrix for Noise and Vibration

Residual Environmental Effects Summary Matrix **Valued Environmental Component: NOISE AND VIBRATION**				
Phase	**Residual Environmental Effects Rating, Including Cumulative Environments Effects***	**Level of Confidence**	**Likelihood**	
			Probability of Occurrence	**Scientific Certainty**
Construction	NS	3	2	3
Operation	NS	3	1	3
Maintenance	NS	3	1	3
Accidents, Malfunctions and Unplanned Events	NS	3	1	3
Project Overall	NS	3	1	3

Key

Residual Environmental Effect Rating

S Significant Adverse Environmental Effect

NS Not-significant Adverse Environmental Effect

P Positive Environmental Effect

Level of Confidence

1. Low Level of Confidence
2. Medium Level of Confidence
3. High Level of Confidence

Probability of Occurrence: based on professional judgement

1. Low Probability of Occurrence
2. Medium Probability of Occurrence
3. High Probability of Occurrence

Scientific Certainty: based on scientific information and statistical analysis or professional judgement

1. Low Level of Confidence
2. Medium Level of Confidence
3. High Level of Confidence

N / A Not Applicable

* As determined in consideration of established residual environmental effects rating criteria

Environmental Summary Matrix for Noise and Vibration

Residual Environmental Effects Summary Matrix **Valued Environmental Component: NOISE AND VIBRATION**				
Phase	**Residual Environmental Effects Rating, Including Cumulative Environments Effects***	**Level of Confidence**	**Likelihood**	
			Probability of Occurrence	**Scientific Certainty**
Construction	NS	3	2	3
Operation	NS	3	1	3
Maintenance	NS	3	1	3
Accidents, Malfunctions and Unplanned Events	NS	3	1	3
Project Overall	NS	3	1	3

Key

Residual Environmental Effect Rating

S Significant Adverse Environmental Effect

NS Not-significant Adverse Environmental Effect

P Positive Environmental Effect

Level of Confidence

1. Low Level of Confidence
2. Medium Level of Confidence
3. High Level of Confidence

Probability of Occurrence: based on professional judgement

1. Low Probability of Occurrence
2. Medium Probability of Occurrence
3. High Probability of Occurrence

Scientific Certainty: based on scientific information and statistical analysis or professional judgement

1. Low Level of Confidence
2. Medium Level of Confidence
3. High Level of Confidence

N / A Not Applicable

* As determined in consideration of established residual environmental effects rating criteria

7.6 Socioeconomic Conditions

Project interactions with Land Use may include residential and commercial land uses in addition to institutional and recreational land use / access. Environmental effects resulting from the Project on the socio-economic conditions are defined by interruptions or disruptions to current land use by Project activities in such a manner that existing land use activities are restricted or unable to continue at present levels. The assessment of land use activities is broadly defined to take into account visual and aesthetic settings, community infrastructure, community services, heritage resources and archaeological resources.

This section considers the environmental effects of the Project activities on Land Use, including the cumulative environmental effects, if any, as a result of the Construction, Operation and Maintenance, as well as the assessment of any potential Accidents, Malfunctions and other Unplanned Events.

7.6.1 Environmental Assessment Boundaries

Study Areea

The Site Study Area for the assessment of the potential cumulative environmental effects of the Project on commercial, residential and recreational land uses included the immediate area of the proposed Project and nearby (i.e. < 200 metres) residential and recreational areas adjacent to its alignment, where activities associated with Construction, Operation and Accidents, Malfunctions and Unplanned Events of the Project could potentially intersect with land use. The environmental effects of land use interruptions or disruptions are assessed within the context of the local community that includes the area between the Detroit River on the north, Wyandotte Street on the south, the Ambassador Bridge on the east and Indian Road and its extension to the Detroit River on the west.

The spatial boundaries for the Local Study Area, for the assessment of the potential cumulative environmental effects of the Project on land uses is defined by the University of Windsor campus to the east and the community of Sandwich to the west. The broader and Regional Site Study Area for the proposed Project include the City of Windsor and Essex County.

Temporal

The temporal boundaries for the assessment of the potential environmental effects of the Project on land use included the construction, operation and maintenance of the proposed Project in perpetuity.

The temporal boundary for the cumulative environmental effects assessment of future projects and activities that will be carried out is 2021, beyond that, predicting other projects that will be carried out is unreliable.

Administrative and Technical

The proposed Project is located entirely within the municipality of Windsor municipal. Land Use Planning located within the City boundaries is regulated by the City of Windsor's comprehensive zoning by-law.

Information used in support of assessing residential, institutional, commercial and recreational land use issues was obtained during the public consultation period, mapping and property identification data, and various site visits within the spatial boundaries of the proposed Project. Knowledge of the local Study Area affected by the proposed Project is based on the information obtained, and the professional judgment of the Study Team.

Analyses of the market value of residential, commercial and other land uses would require very extensive and exhaustive study and research of each property. This type of analysis is not included within the environmental impact assessment, as the environmental effects of the Project can be assessed absent that type of detail. In addition, this Project is unique as the proponent owns the majority of the homes immediately adjacent to the proposed Project.

The Study Team is of the opinion that the results of an extensive market analysis in this situation would not be persuasive at neither the aggregate nor the individual property level due to the unpredictability and fluctuations in the marketplace. Also, this type of analysis would be subject to criticism and subjectivity of area property owners regarding their business plans and decisions and financial capabilities. The Ambassador Bridge Company, has, and where necessary, continues to, negotiate fair market value settlements with property owners and land acquisitions.

It is the professional judgment of the Study Team that the data available to characterize the existing land use conditions and the existing knowledge regarding the environmental effects of the Project are sufficient to support the environmental impact statement.

7.6.2 Residual Environmental Effects Rating Criteria

The definition of a *significant residual environmental effect* on Land Use is one where the proposed use of land for a project and related facilities is not compatible with adjacent land use activities and plans, and the proposed use of land for a project will cause a change or disruption in such a manner that it restricts or degrades present land uses to such an extent that the activities cannot continue to be undertaken at current levels for extended periods of time, and cannot be compensated.

In this case, the proposed Project will not result in any residual environmental effects on the surrounding land uses.

7.6.3 Existing Conditions

The proposed Project will be constructed on land owned by the Proponent. The selection of the proposed alignment by the proposed Project avoids existing major institutional uses, particularly the historic Assumption Church and the University of Windsor campus. The alignment proposed for the Project will run adjacent to some existing residential development and land used for recreation purposes. The lands used for the proposed Project is comprised of approximately 63% residential land, 6% recreational land, and 31% other land uses including existing road ways.

The existing Ambassador Bridge serves as a major international highway linking Canada and the United States. Most of the lands adjacent to the existing Ambassador Bridge are developed and used for residential, institutional and recreational purposes. The existing Ambassador Bridge, extending north-south from Detroit, Michigan to Windsor Ontario, is located immediately east of the Project. The Canadian Customs plaza for the existing Ambassador Bridge is located southeast of the Project. Traffic volumes range from 4,300 to 5,600 vehicles per day. Once the construction of the proposed Project has been completed, traffic will be diverted from the Ambassador Bridge to the replacement span. No local streets will be modified.

The current land uses have been identified from recent aerial photos, geographic information mapping and regulatory authority's documents, as well as baseline field studies and observation conducted by the Study Team for the Bridge. Land use issues and concerns were received from property owners and stakeholders through a series of public meetings organized by the Ambassador Bridge.

Study Area

The construction of the proposed Project will have an effect on persons living within the spatial boundaries of the Project. In order to determine the level and nature of this effect on the socio-economic environment the following baseline analysis was performed for the Study Area.

City of Windsor Planning Area

The City of Windsor Official Plan lays out the City's goals, objectives and policies for managing and guiding physical change and the effects of that physical change on the socio-economic environment and natural environments. To address the assessment of the Project's conformity with the City's goals and objectives it is necessary to compare the Project against the policies of the Official Plan. A synopsis of the Official Plan is in Appendix I.

The City of Windsor Zoning By-law implements the policies of the Official Plan. The figure in Appendix J depict the current zoning for the area in the vicinity of the Ambassador Bridge. The Ambassador Bridge is zoned "CD4.4 (Commercial Districts 4 - Ambassador Bridge)" and "G1.1 (Green Districts 1 – Public Parks)" by the City's Zoning By-law.

Institutional Land Use

The historic Assumption Church and the University of Windsor campus are located east of the existing Ambassador Bridge. The current institutional land uses within the Local Study Area of the Project reflect the sum of the environmental effects on all past and existing projects and activities, and provide a basis for considering cumulative environmental effects of past and present projects and activities, the Project, and other future projects and activities.

Commercial Land Use

The proposed alignment was selected with due consideration to avoid existing historic, institutional and residential land uses. The proposed Project does not impact any of the existing businesses in the Assessment Area. There are a number of commercial establishments located south of the Project, in the Local Study Area along Huron Church Road and west of the proposed alignment along Sandwich Street within the spatial boundaries of the Project. These businesses fall into two general categories: those primarily along Huron Church Road that are focused on providing goods and services to the travelling or pass-by highway traffic for some or all their business; and those commercial establishments primarily on Sandwich Street that are not reliant on the highway traffic for their business, but instead are either focused on the local markets or external markets outside the region.

Commercial establishments have been categorized according to a windshield survey to identify commercial development. Huron Church Road has a number of commercial businesses that cater to the highway traffic including full service and fast food restaurants, service stations, hotels and motels. A number of additional businesses are located near or not directly fronting along Huron Church Road including convenience, clothing, electronic, beer and liquor and department stores. The Sandwich Street / Olde Sandwich Towne commercial establishments that are not reliant on the highway traffic exposure for their business include convenience and bicycle stores and unique locally owned restaurants.

The existing commercial land use within the Local Study Area of the Project provide a benchmark for the cumulative environmental effects, as it reflects the sum of the environmental effects on commercial land use of all past and existing projects and activities.

Residential Land Use

The selection of the location of the proposed Project minimizes potential environmental effects on residential land use. The proposed Project passes though land acquired by the Proponent for security purposes after the events of September 11, 2001 and avoids other residential areas.

There are some other residential land uses along local roads within the Local Study Area located outside, but adjacent to, the proposed Project. About 110 residences are located adjacent (within 200 metres) to the proposed Project.

The existing residential land uses within the Local Study Area of the Project provide a benchmark for the cumulative environmental effects, as it reflects the sum of the environmental effects on residential land use of all past and existing projects and activities.

Recreational Land Use

Some of the land between the Detroit River and Assumption Church is used for passive recreational activities. The main recreational activities include the use of on-road and off-road trails and pathways for bike riding and walking and the greenspace used for unorganized passive recreation. The trails or walkways within the Local Study Area of the proposed Project include the City of Windsor's bikeway or multi-use trail system. The trail system within the Local Study Area is part of a national trail system (Trans-Canada Trail) connecting all provinces and territories and a global trail organization. A multi-use trail follows Huron Church Road between Riverside Drive West, the Detroit River and Peter Street, where it becomes a signed route and it passes under the Ambassador Bridge. Residents and visitors use the trail for short walks and bicycle rides. This trail is also used for multi-day trips on foot or bicycle. Access to the trail system will be retained as it is at present.

Assumption Park, located east of the existing Ambassador Bridge, has not been provided with any play equipment or any sport fields and is only used for passive unorganized recreational activities. The Riverwalk, a 5.0 kilometre walking and cycling trail connecting a series of riverfront parks, washrooms, fishing piers, concessions and sculptures, starts east of the existing Ambassador Bridge

There is no information currently available on the level of use of the trail system or parkland.

Fishing in the Detroit River is a popular activity for Windsor residents and visitors.

The current recreational land uses within the Local Study Area of the Project reflect the sum of the environmental effects on all past and existing projects and activities, and provide a basis for considering cumulative environmental effects of past and present projects and activities, the Project, and other future projects and activities.

Visual and Aesthetic Setting

The existing aesthetic setting within the Local Study Area consists of components of the natural environment and man-made features.

The availability of the natural environment for visual appreciation is limited by the urban character of the land in the vicinity of the existing Ambassador Bridge. There is

relatively little topographic relief in the area or natural landscapes that would typically be associated with a high quality natural aesthetic environment.

The most significant natural visual element in the area is the Detroit River, which provides the opportunity for the appreciation of the riverine corridor within the context of the urban environment. The Detroit River is approximately 640 metres (2,099 feet) wide in the area of the proposed Project vicinity, providing a broad expanse of open space for long-distance visibility of the skylines of the Cities of Windsor, Ontario and Detroit, Michigan and the Ambassador Bridge from the shoreline.

The Ambassador Bridge is an international transportation link constructed in 1929 that connects the urban environments between the Cities of Windsor, Ontario and Detroit, Michigan. The Ambassador Bridge is a visually dominant feature that has been an element of the urban skyline for nearly 80 years. The bridge is styled in a mixture of Art Deco and Art Moderne architectural designs, with some Gothic architecture blended in. It is constructed primarily out of steel. The two main towers on each side of the River are made of a steel-silicon alloy which rises up from the concrete piers. At night, the Ambassador Bridge is lit as an aesthetic proposed and for safety purposes.

The visual significance of the Ambassador Bridge is derived from its engineering history taking into account that it represents a state-of-the art structure for the early 20th century and, at the time of its completion, the longest suspension bridge in the world. The Ambassador Bridge is significant for its prominence in the historic development of the area as a major component of the transportation infrastructure that is critical to the Canadian and US economies. The Ambassador Bridge also serves as a physical and symbolic gateway connection between the countries of Canada and the United States.

In Canada, the Ambassador Bridge travels between the community of Sandwich to the west and the University of Windsor to the east between the shoreline of the Detroit River and the customs plaza north of College Avenue. The bridge is elevated above existing grade between the river and the plaza. The structure consists of several aesthetic elements: the towers, the support cables, the bridge deck and travelway, the anchor piers and support piers.

From a distance, the most visually dominant features of the Ambassador Bridge are the two towers. Immediately adjacent to the Ambassador Bridge, the anchor pier on the north side of University Avenue West is the largest pier supporting the bridge decking with smaller steel piers at varying intervals. The smaller steel piers are approximately 46 metres (152 feet) apart near the Detroit River and approximately 15 metres (50 feet) apart near the plaza.

Other man-made visual features in the Local Study Area include the residential development immediately to the west of the Ambassador Bridge. There are no key vantage points within the residential area immediately to the west. Further west, in the community of Sandwich, there are several designated historic structures that provide unique visual elements largely associated with their age, architectural style and historic significance to the development of the community.

Assumption Church is a historic property located immediately to the east of the existing Ambassador Bridge that has a clear visibility of many of the visual elements of the Ambassador Bridge including the Canadian tower, the decking, the anchor pier and numerous steel support piers. This church is near the northwesterly corner of the University of Windsor complex of buildings, walkways, and opens space. There is substantial mature vegetation in the front of the church (University Avenue West) that provides some screening and buffering of the visibility of the Ambassador Bridge. The level of buffering decreases in the winter months after the leaves have fallen from the deciduous trees.

A riverine park provides public open space to both the east and west of the existing Ambassador Bridge. This public open space is available for aesthetic appreciation of the natural character of the Detroit River, the Ambassador Bridge and the skylines of the Cities of Windsor and Detroit.

Transportation routes are man-made corridors that provide both transportation functionality and the opportunity for aesthetic appreciation of the natural and built environment. Schedule G: Civic Image of the City of Windsor's Official Plan[84] identifies civic ways and themed streets that have been deemed to be important. The civic ways and themed streets in the Project vicinity are identified on the figures contained in Appendix I. Civic ways include portions of Sandwich Street, Riverside Drive, Huron Church Road, Tecumseh Road West and Patricia Road. Themed streets include a portion of Sandwich Street in the older commercial centre and University Avenue and Wyandotte Street to the east of the Ambassador Bridge. The visibility of the natural and man-made environment from these areas should be considered for any new development.

7.6.4 Environmental Effects Analysis

Land use issues have been considerably mitigated by the decision to construct the Project on land that will be vacant for security purposes. This avoids all institutional and residential disruption.

7.6.5 Project-VEC Interactions

The potential interactions between Project activities, including other projects, and Land Use are indicated in Table 12 for each Project phase, and Accidents, Malfunctions and Unplanned Events.

The nature of these interactions is summarized in the following sections that address the potential environmental effects of each Project activity, in conjunction with other projects that have the potential to have overlapping cumulative environmental effects with the Project.

[84] City of Windsor, Official Plan, Schedule G: Civic Image, Office Consolidation, June 1, 2004.

Table 12: Environmental Effects Interaction Matrix - Land Use

Potential Interactions Between Project Activities, Including Other Projects, and Environmental Effects Valued Environmental Component: LAND USE				
Project Activities and Physical Works	**Potential Environmental Effects**			
	Change in Residential Land Use	**Change in Commercial Land Use**	**Change in Recreational Land Use**	**Change in Institutional Land Use**
1. Construction				
Site Preparation	X		X	X
Tower Excavation	X		X	X
Cable Installation	X		X	X
Deck Installation	X		X	X
2. Ongoing Operation				
Winter Safety	X		X	
Presence	X		X	
3. Maintenance				
Proposed Maintenance	X		X	
4. Accidents and Malfunctions and Unplanned Events				
Construction	X		X	X
Operation	X		X	X
Maintenance	X		X	X
5. Other Projects or Activities that have been or will be carried out				
Current and Future Highway and Bridge or Tunnel Expansions	X		X	X
Planned Development along Proposed Huron Church Road				X
Adjacent Land Uses	X		X	X
Other Planned Development	X		X	X

1. Construction

The interaction of the environmental effects of construction activities and physical works of the Project with the Land Use VEC is summarized in Table 12 above and described below.

Residential Land Use

The proposed Project construction will not require the purchase and or relocation of any residential buildings. About 110 residences are located within the Site Study Area (within 200 metres) to the proposed replacement span. The residents of these houses may experience a perceptible change in noise levels from the construction equipment during all phases of construction of the proposed Project. Residents may also be affected by air emissions and other disturbances generated by the Project. These issues and environmental effects are addressed in detail in Section 7.1 Air Quality and Climate. These impacts can be mitigated and are not considered significant.

Commercial Land Use

There are no commercial businesses located within the proposed Project alignment that will need to be removed during construction. Construction activities associated with the proposed Project will not interact directly with the level of commercial activity within the Study Area boundaries.

Recreational Land Use

The recreational land uses in the vicinity of the proposed Project include hiking, bicycling and passive unorganized activities. The Detroit River is used for fishing. The construction activities associated with the proposed Project may result in a temporary disruption to fishing activities. Fishing activities can be accessed at an alternative location during construction. Construction activities will temporarily affect recreation trail land use in the immediate vicinity of the Project due to noise, dust and other minor disturbances during all Project activity phases and physical works. Once construction is completed all recreational activities will be restored and rehabilitated.

Institutional Land Use

The proposed Project construction will not require the purchase and or relocation of any institutional buildings. The institutional uses located adjacent (within 200 metres) to the proposed Project include Assumption Church and portions of the University of Windsor Campus. People using these institutional facilities may experience a perceptible change in noise levels from the construction equipment during all phases of construction of the proposed Project. They may also be affected by air emissions and other disturbances generated by the Project. It is anticipated that relatively little construction activity will take place on Sunday when Assumption Church is most active. These issues and environmental effects are addressed in detail in Section 7.1 Air Quality and Climate and

7.5 Noise and Vibration. These impacts can be mitigated and are not considered significant.

2. Ongoing Operation

The Project Land Use VEC interactions of the ongoing operation of the proposed Project are summarized in Table 12 above and described below.

Residential Land Use

A number of residents located near the proposed Project have expressed concern, during the public consultation phase, that they will be adversely affected by the presence and operation of the proposed Project due to traffic noise, air emissions and other disturbances. There are 110 households within 200 metres of the proposed alignment that are likely to interact with the traffic noise generated by the Project. These potential environmental effects are addressed in more detail in Section 7.1 Air Quality and Climate and Section 7.5 Noise and Vibration.

Land uses along Huron Church Road are expected to experience a reduction of congestion once the proposed Project is constructed. This will likely improve the level of service and safety along Huron Church Road and mitigate traffic noise to adjacent residents.

Commercial Land Use

The location of the proposed Project minimizes the potential for environmental effects on commercial land uses. Commercial land uses along Huron Church Road will experience a reduction in noise, dust and fumes. These possible environmental effects are addressed in more detail in Section 7.1 Air Quality and Climate and Section 7.5 Noise and Vibration.

Recreational Land Use

The presence of the proposed Project will interact with recreational land use due to noise and other minor disturbances in the immediate vicinity of the Project. This will only occur while crossing under the proposed Project, as the trails and most recreation activities are situated away from the Project.

Institutional Land Use

Institutional land uses situated to the east of the proposed Project will be positively impacted by reductions in noise and vibration levels and improved flow of traffic resulting in a reduction of air emissions.

The institutional uses located adjacent (within 200 metres) to the proposed alignment include Assumption Church and portions of the University of Windsor Campus. The design of the proposed Project (cable-stayed bridge) will have a positive impact resulting in a reduction of noise and vibration on the institutional land uses in the Study Area.

These issues and environmental effects are addressed in detail in Section 7.1 Air Quality and Climate and 7.5 Noise and Vibration.

3. Maintenance

The Project environmental interactions during Maintenance are summarized in Table 12 above and described below.

Maintenance of the proposed Project will interact with residential, commercial, recreational, and institutional land uses adjacent to the proposed Project due to noise and other atmospheric disturbances during periodic major maintenance activities, such as resurfacing. These activities will be mitigated and no long term effects are anticipated.

4. Accidents, Malfunctions and Unplanned Events

The Project VEC interactions that may result from Accidents, Malfunctions and Unplanned Events are summarized in Table 12 above and described below.

Residential Land Use

Accidents, malfunctions and unplanned events of the Project have the potential to interact with nearby residential land use. These interactions could occur during construction, operation and maintenance phases of the Project. Potential incidents include vehicle accidents, fire, and contaminant spills that could affect air or water quality, and could result in a requirement to evacuate properties, property damage, injury or loss of life. The Proponent has implemented emergency response procedures and spill containment plans to reduce the possibility of such occurrences and mitigate any negative effects.

Commercial Land Use

Accidents, fires, and other unplanned events as a result of the proposed Project have little or no potential to interact with commercial land uses due to potential incidents such as vehicle accidents, fire, and contaminant spills that could affect air quality. The Proponent has implemented emergency response procedures and spill containment plans to reduce the possibility of such occurrences and to mitigate any negative effects.

Recreational Land Use

Accidents, fires, and other malfunctions and unplanned events could interact with recreational land use due to potential incidents such as vehicle accidents, fire, and contaminant spills that could affect air or water quality. Accidents, malfunctions and unplanned events could occur during construction, operation and maintenance phases of the Project. However, recreation activities, such as the use of recreation trails, will not occur within the proposed alignment except to cross it, which will reduce the potential interaction, and hence, the likelihood of such incidents.

Institutional Land Uses

Accidents, fires, and unplanned events relating to the proposed Project have the potential to interact with institutional land uses due to potential incidents such as vehicle accidents, fire, and contaminant spills that could affect air quality. The Proponent has implemented emergency response procedures and spill containment plans to reduce the possibility of such occurrences and to mitigate any negative effects.

5. Other Projects

There are a number of other projects (as discussed in the Cumulative Effects Section) that have taken place, or may take place that could act cumulatively with the proposed Project to affect land uses. These projects include current and future highway expansions and adjacent land uses. The current and planned highway expansions will have cumulative environmental effects on land availability for all residential, commercial, recreational, institutional land uses.

The proposed Project does not displace any residential communities, commercial or institutional areas. All surrounding land uses will be strongly influenced by the economic conditions and expropriation of residential land uses as proposed by the Detroit River International Crossing.

Construction

The activities associated with the construction of' this Project may have an effect on Land Uses in the Study Area. The sections outlined on the following matrix describe the strategies aimed at mitigating these potential environmental effects.

Environmental Effects Assessment Matrix for Land Use (Construction)

Environmental Effects Assessment Matrix Valued Environmental Component: LAND USE Phase: Constructions							
Project Activity	**Potential Environment al Effects, Including Cumulative Environmental Effects**	**Mitigation**	**Magnitude**	**Geographic Extent**	**Duration / Frequency**	**Reversibility**	**Ecological / Socio-Cultural and Economic Context**
Site Preparation	Change in Adjacent Residential Use (A)	Dust Control Work Progression	**1**	**1**	**1 / 6**	**R**	**2**
	Change in Recreational Use (A)	Ensure Trail Continuity Dust Control Work Progression	**1**	**1**	**1 / 6**	**R**	**2**
	Change in Institutional Use (A)	Dust Control Work Progression	**1**	**1**	**1 / 6**	**R**	**2**
Tower Excavation	Change in Adjacent Residential Use (A)	Dust Control Work Progression	**1**	**1**	**1 / 6**	**R**	**2**
	Change in Recreational Use (A)	Ensure Trail Continuity Dust Control Work Progression	**1**	**1**	**1 / 6**	**R**	**2**
	Change in Institutional Use (A)	Dust Control Work Progression	**1**	**1**	**1 / 6**	**R**	**2**
Cable Installation	Change in Adjacent Residential Use (A)	Dust Control Work Progression	**1**	**1**	**1 / 6**	**R**	**2**
	Change in Recreational Use (A)	Ensure Trail Continuity Dust Control	**1**	**1**	**1 / 6**	**R**	**2**

		Work Progression					
	Change in Institutional Use (A)	Dust Control Work Progression	**1**	**1**	**1 / 6**	**R**	**2**
Deck Installation	Change in Adjacent Residential Use (A)	Dust Control Work Progression	**1**	**1**	**1 / 6**	**R**	**2**
	Change in Recreational Use (A)	Ensure Trail Continuity Dust Control Work Progression	**1**	**1**	**1 / 6**	**R**	**2**
	Change in Institutional Use (A)	Dust Control Work Progression	**1**	**1**	**1 / 6**	**R**	**2**

Key

Magnitude

1. Low: e.g., specific group, residence or neighbourhood affected such that adjacent land use activities will not be disrupted such that current activities cannot continue even after short periods of time

2 Medium: e.g. part of a community affected such that adjacent land use activities will not be disrupted such that current activities cannot continue for extended periods of time longer than two years

3 High: e.g. community affected such that adjacent land use activities will not be disrupted such that current activities cannot continue for extended periods of time longer than two years and are not compensated

Geographic Extent

1. <1 square kilometre
2. 1 – 10 square kilometres
3. 11 – 100 square kilometres
4. 101 – 1,000 square kilometres
5. 1,001 – 10,000 square kilometres
6. >10,000 square kilometres

Duration

1. <1 month
2. 1 – 12 months
3. 13 – 36 months
4. 37 – 72 months
5. > 72 months

Frequency

1. <11 events / year
2. 11 – 50 events / year
3. 51 – 100 events / year
4. 101 – 200 events / year
5. >201 events / year
6. continuous

Reversibility
R Reversible
I Irreversible

Ecological / Socio-cultural Context

1. Relatively pristine area or area not adversely affected by human activity
2. Evidence of adverse environmental effects

N / A Not Applicable
(A) adverse
(P) positive

Residential Land Use

The proposed Project will not result in the elimination of any residential land use. Residential land use adjacent to the Project will likely be affected during the construction due to noise, air emissions and dust generated by truck traffic and construction equipment. Mitigation measures include application of dust control methods and work progression specifications to ensure construction activity scheduling is met and duration minimized. These environmental effects are addressed in Section 7.1 Air Quality and Climate.

Commercial Land Use

The proposed Project will not result in the elimination of any commercial land uses. There are no commercial uses situated in proximity to the proposed Project to that will be impacted by construction activities specifically noise, air emissions and dust generated by construction vehicles.

Recreational Land Use

The only environmental effect of the Project on recreational land uses during construction is the intersection of the trail system that is used for hiking and biking. Trail users would be exposed to noise, dust and other disruptions during construction temporarily affecting the quality of their experience. Potential mitigation measures during construction are to develop approaches to ensure the continuity of trail access for recreational users. In addition dust control and work progression scheduling can be specified in construction contracts to minimize the potential environmental effects of construction on Trail use.

The design of the proposed Project will provide for the continuation of trail access through the use of signage for at-grade crossings or other means.

There may be a temporary interruption to recreational fishing at the immediately location of the proposed Project. For safety reasons public access to the Detroit River at this location will be restricted. This interruption will only affect a very small portion of the River and will be temporary.

Institutional Land Use

The proposed Project will have no impacts and will not result in the elimination of any institutional land uses. Institutional land uses adjacent to the Project will be impacted during the construction due to noise, air emissions and dust generated by truck traffic and construction equipment. Mitigation measures include application of dust control methods and work progression specifications to ensure construction activity scheduling is met and duration minimized. These environmental effects are addressed in Section 7.1 Air Quality and Climate.

Summary - Construction

Based on the consideration of the environmental effects of the individual activities required to construct the Project, the proposed mitigation measures, and the residual environmental effects rating criteria, the residual environmental effects on Land Use are rated as not significant.

Ongoing Operation

Potential environmental effects of the Project's operation on Land Use are characterized in the following matrix that represents a detailed discussion of these potential environmental effects during the operation phase of the Project, including mitigation.

Environmental Effects Assessment Matrix for Land Use (Ongoing Operation)

Environmental Effects Assessment Matrix Valued Environmental Component: LAND USE Phase: Ongoing Operation							
Project Activity	**Potential Environment al Effects, Including Cumulative Environmental Effects**	**Mitigation**	**Magnitude**	**Extent**	**Duration / Frequency**	**Reversibility**	**Ecological / Socio-Cultural and Economic Context**
Winter Safety	Change in Adjacent Residential Use (A)	Implementation of Standard Winter Highway Maintenance Procedures	1	1	5 / 2	R	2
	Change in Recreational Use (A)	Implementation of Standard Winter Highway Maintenance Procedures	1	1	5 / 2	R	2
	Change in Institutional Use (A)	Implementation of Standard Winter Highway Maintenance Procedures	1	1	5 / 2	R	2
Presence	Change in Adjacent Residential Use (P)	Implementation Of Standard Winter Highway Maintenance Procedures	1	1	5 / 2	R	2
	Change in Recreational Use (P)	Implementation Of Standard Winter Highway Maintenance Procedures	1	1	5 / 2	R	2
	Change in Institutional Use (P)	Implementation Of Standard Winter Highway Maintenance Procedures	1	1	5 / 2	R	2

Environmental Effects Assessment Matrix Valued Environmental Component: LAND USE Phase: Ongoing Operation							
Project Activity	**Potential Environment al Effects, Including Cumulative Environmental Effects**	**Mitigation**	**Magnitude**	**Extent**	**Duration / Frequency**	**Reversibility**	**Ecological / Socio-Cultural and Economic Context**

Key

Magnitude

1. Low: e.g., specific group, residence or neighbourhood affected such that adjacent land use activities will not be disrupted such that current activities cannot continue even after short periods of time

2. Medium: e.g. part of a community affected such that adjacent land use activities will not be disrupted such that current activities cannot continue for extended periods of time longer than two years

3. High: e.g. community affected such that adjacent land use activities will not be disrupted such that current activities cannot continue for extended periods of time longer than two years and are not compensated

Geographic Extent

1. <1 square kilometre
2. 1 – 10 square kilometres
3. 11 – 100 square kilometres
4. 101 – 1,000 square kilometres
5. 1,001 – 10,000 square kilometres
6. >10,000 square kilometres

Duration

1. <1 month
2. 1 – 12 months
3. 13 – 36 months
4. 37 – 72 months
5. >72 months

Frequency

1. <11 events / year
2. 11 – 50 events / year
3. 51 – 100 events / year
4. 101 – 200 events / year
5. >201 events / year
6. continuous

Reversibility

R Reversible

I Irreversible

Ecological / Socio-cultural Context

1. Relatively pristine area or area not adversely affected by human
2. Evidence of adverse environmental effects

N / A Not Applicable

(A) adverse

(P) positive

Residential Land Use

Residential land uses adjacent to the proposed Project are unlikely to be adversely affected during the operation of may be affected during the operational phase due to noise, air emissions and other disturbances from the passing traffic. The survey of existing sound levels and the forecasts of traffic noise with the proposed Project conducted for the Atmospheric Environment VEC assessment concluded there are no homes located within 200 metres (657 feet) of the Proposed Project that are likely to experience a perceptible change in sound level. A detailed assessment of these environmental effects and possible mitigation measures are addressed in Section 7.2 Air Quality and Climate. and Section 7.5 Noise and Vibration.

Many residences are located adjacent to the existing Ambassador Bridge**.** Upon completion, traffic will be diverted to the Proposed Project. This is expected to reduce the traffic noise, air emissions other disturbances to residents and improve traffic safety along Huron Church Road.

Residents near the proposed Project and along Huron Church Road will be positively affected by the operation of the proposed Project due to the improved safety measures and a reduction in air emissions. Also, the construction and design of the proposed Project will reduce noise and vibration levels in the area. No mitigation measures are necessary.

Commercial Land Use

Commercial land use near the proposed Project is unlikely to be adversely affected during the ongoing operation of the proposed Project due to noise, dust, air emissions and other disturbances from the passing traffic. The survey of existing sound levels and forecasts of traffic noise with the proposed Project conducted for the Atmospheric Environment VEC assessment concluded there are no institutional land uses near the proposed Project that are likely to experience a perceptible change in sound level. A detailed assessment of these environmental effects and possible mitigation measures are addressed in Section 7.2 Air Quality and Climate and Section 7.5 Noise and Vibration.

More importantly, the operation of the proposed Project will reduce the traffic noise, air emissions and facilitate the flow of traffic across the border. The proposed Project will also resulted in an improvement to traffic safety (less congestion) and a reduction in air and noise emissions. No mitigation measures are necessary.

Recreational Land Use

The potential environmental effect of the proposed Project on recreation during the operation phase is the same as the effects from the construction phase, but will continue in perpetuity. Mitigation measures for trails during operation of the Project will include measures that ensure the continuity of the trail system, through the use of existing signage.

Institutional Land Use

There are several positive impacts on the institutional land uses situated within the Local Study Area. Air emissions, noise and vibration from the proposed Project will be moved further away from the institutional uses. No mitigation measures are necessary.

Summary – Ongoing Operation

Based on the consideration of the environmental effects of the individual activities required to operate the proposed Project, and the mitigation measure proposed along with the residual environmental effects rating criteria, the residual environmental effects on Land Use are rated as not significant.

Commercial Land Use

Commercial land use near the proposed Project is unlikely to be adversely affected during the ongoing operation of the proposed Project due to noise, dust, air emissions and other disturbances from the passing traffic. The survey of existing sound levels and forecasts of traffic noise with the proposed Project conducted for the Atmospheric Environment VEC assessment concluded there are no institutional land uses near the proposed Project that are likely to experience a perceptible change in sound level. A detailed assessment of these environmental effects and possible mitigation measures are addressed in Section 7.2 Air Quality and Climate and Section 7.5 Noise and Vibration.

Recreational Land Use

Recreational land use will not be impacted by the ongoing operation of the proposed Project.

Institutional Land Use

Institutional land use near the proposed Project may be adversely affected during the ongoing operation of the proposed Project due to noise, dust, air emissions and other disturbances from the passing traffic. The survey of existing sound levels and forecasts of traffic noise with the proposed Project conducted for the Atmospheric Environment VEC assessment concluded there are no institutional land uses near the proposed Project that are likely to experience a perceptible change in sound level. A detailed assessment of these environmental effects and possible mitigation measures are addressed in Section 7.2 Air Quality and Climate and Section 7.5 Noise and Vibration.

Maintenance

The summary below outlines the analysis of potential environmental effects during maintenance activities of the proposed Project, including mitigation.

Environmental Effects Assessment Matrix for Land Use (Maintenance)

Environmental Effects Assessment Matrix Valued Environmental Component: LAND USE Phase: Operation							
Project Activity	**Potential Environment al Effects, Including Cumulative Environmental Effects**	**Mitigation**	**Magnitude**	**Extent**	**Duration / Frequency**	**Reversibilit y**	**Ecological / Socio-Cultural and Economic Context**
Proposed Maintenance	**Change in Adjacent Residential Use (A)**	None recommended	**1**	**1**	**5 / 2**	**R**	**2**
	Change in Recreational Use (A)	None recommended	**1**	**1**	**5 / 2**	**R**	**2**
	Change in Institutional Use (A)	None recommended	**1**	**1**	**5 / 2**	**R**	**2**

Key

Magnitude

1. Low: e.g., specific group, residence or neighbourhood affected such that adjacent land use activities will not be disrupted such that current activities cannot continue even after short periods of time
2. Medium: e.g. part of a community affected such that adjacent land use activities will not be disrupted such that current activities cannot continue for extended periods of time longer than two years
3. High: e.g. community affected such that adjacent land use activities will not be disrupted such that current activities cannot continue for extended periods of time longer than two years and are not compensated

Geographic Extent

1. <1 square kilometre
2. 1 – 10 square kilometres
3. 11 – 100 square kilometres
4. 101 – 1,000 square kilometres
5. 1,001 – 10,000 square kilometres
6. >10,000 square kilometres

Frequency

1. <11 events / year
2. 11 – 50 events / year
3. 51 – 100 events / year
4. 101 – 200 events / year
5. >201 events / year
6. continuous

Reversibility

	Duration 1. <1 month 2. 1 – 12 months 3. 13 – 36 months 4. 37 – 72 months 5. > 72 months	R Reversible I Irreversible **Ecological / Socio-cultural Context** 1. Relatively pristine area or area not adversely affected by human 2. Evidence of adverse environmental effects N / A Not Applicable (A) adverse (P) positive

Periodic maintenance of the proposed Project, such as resurfacing of the deck, will be required. Typically, major roadway maintenance takes place on average of once every fifteen years. Bridges and major structures have longer structural refurbishment periods. These maintenance activities would create additional noise and dust which could affect adjacent land use. This issue is addressed in Section 7.2 Air Quality and Climate. The potential environmental effects of Project maintenance on Land Use are, in consideration of planned mitigation, rated not significant.

Accidents, Malfunctions and Unplanned Events

The potential environmental effects on Land Use that could occur as a result of Accidents, Malfunctions and Unplanned Events are characterized in the matrix below. Potential mitigation measures during Project operation are also provided. The following provides a detailed discussion of these potential environmental effects.

Environmental Effects Assessment Matrix for Land Use (Accidents, Malfunctions and Unplanned Events)

Environmental Effects Assessment Matrix Valued Environmental Component: LAND USE Phase: Operation							
Project Activity	**Potential Environment al Effects, Including Cumulative Environmental Effects**	**Mitigation**	**Magnitude**	**Extent**	**Duration / Frequency**	**Reversibility**	**Ecological / Socio-Cultural and Economic Context**
Construction	**Change in Adjacent Residential Use (A)**	Adhere to applicable health and safety legislation Emergency response plan	**1**	**1**	**1 /1**	**R**	**2**
	Change in Recreational Use (A)	Adhere to applicable health and safety legislation Emergency response plan s	**1**	**1**	**1 /1**	**R**	**2**
	Change in Institutional Use (A)	Adhere to applicable health and safety legislation Emergency response plan	**1**	**1**	**1 /1**	**R**	**2**
Operation	**Change in Adjacent Residential Use (A)**	Adhere to applicable health and safety legislation **Emergency Response Plan**	**1**	**1**	**1 /1**	**R**	**2**
	Change in Recreational Use (A)	Adhere to applicable health and safety legislation **Emergency Response Plan**	**1**	**1**	**1 /1**	**R**	**2**
	Change in Institutional Use (P)	Adhere to applicable health and safety legislation **Emergency Response Plan**	**1**	**1**	**1 /1**	**R**	**2**
Maintenance	**Change in Adjacent Residential Use (A)**	Adhere to applicable health and safety legislation **Emergency Response Plan**	**1**	**1**	**1 /1**	**R**	**2**
	Change in Recreational Use (A)	Adhere to applicable health and safety legislation **Emergency Response Plan**	**1**	**1**	**1 /1**	**R**	**2**

	Change in Institutional Use (A)	Adhere to applicable health and safety legislation **Emergency Response Plan**	**1**	**1**	**1 /1**	**R**	**2**

Key

Magnitude

1. Low: e.g., specific group, residence or neighbourhood affected such that adjacent land use activities will not be disrupted such that current activities cannot continue even after short periods of time

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Duration

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Reversibility

R Reversible

I Irreversible

Ecological / Socio-cultural Context

1. Relatively pristine area or area not adversely affected by human

2. Evidence of adverse environmental effects

N / A Not Applicable

(A) adverse

(P) positive

Residential Land Use

Accidents, malfunctions and unplanned events could have a range of environmental effects including hazardous material spills and major vehicle accidents. One of the main purposes of the Project is to improve safety of use of the border crossing. However, as indicated above, traffic accidents may occur, albeit at a lesser rate of incidence and severity than along the existing Ambassador Bridge.

The mitigation measures include the enforcement of all applicable environmental and health and safety laws during construction, operation and maintenance. Emergency response measures (e.g. fire, rescue. ambulance, spill response) have been developed by the Ambassador Bridge to address a range of potential events. Additional discussion of hazardous material spills can be found in the sections relating to Groundwater, Surface Water, and Fish and Fish Habitat.

Commercial and Institutional Land Usea

Accidents, malfunctions and unplanned events could have a range of environmental effects including hazardous material spills and major vehicle accidents. One of the main purposes of the proposed Project is to improve safety of the border crossing. However, traffic accidents may occur, albeit at a lesser rate of incidence and severity than along the existing Ambassador Bridge.

The mitigation measures include the enforcement of all applicable environmental and health and safety laws during construction, operation and maintenance. Emergency response measures *(*e.g. fire, rescue. ambulance, spill response) have been developed by the Ambassador Bridge to address a range of potential events. Additional discussion of hazardous material spills can be found in the sections relating to Groundwater**,** Surface Water, and the Fish and Fish Habitat.

Recreational Land Use

Accidents, malfunctions and unplanned events that may occur during construction, operation or maintenance of the Project may diminish the enjoyment / benefits of recreational land use due to noise, dust, air emissions and other undesirable conditions. Taking into account that the recreational activities adjacent to the Project are unorganized and passive, the environmental effects would be limited in magnitude and duration. Normal mitigation measures to minimize the environmental effects of the range of accidents and unplanned events would be appropriate. These include emergency response measures including fire, rescue, ambulance, and spill response.

Summary - Accidents, Malfunctions and Unplanned Events

The potential environmental effects of Accidents, Malfunctions and Unplanned Events based on planned mitigation are rated not significant.

Potential Cumulative Environmental Effects

Assessment of Cumulative Environmental Effects

The current land uses within the assessment boundaries reflect the environmental effects on land uses of all past and present projects and activities, and provide a basis for considering cumulative environmental effects of past and present projects, the proposed Project and other future projects. These include adjacent land uses, such as adjacent residential, commercial and institutional land uses. Land is a finite resource; increases in one land use *(e.g.,* residential / commercial / highway developments) are typically offset by losses in other land uses *(e.g.,* agriculture), unless, as is the situation with the proposed Project, unproductive land is usable for a particular land use.

This cumulative environmental effects assessment on land use focuses on residential land uses because they are the most prevalent form of land use within the Regional Study Area.

Historical Trends

Prior to the beginning of European settlement in the early 1800s, most of the land along the Detroit River was forested. In the succeeding years almost this entire region was cleared for farming or urban land uses. These past settlement activities greatly influenced the conditions that are currently present. By the 1890's cleared agricultural land or urban land uses extended almost completely along both sides of the River. Remnant mature forest patches were selectively harvested by farmers during this time. There was a shift from rural (agricultural) to urban (industrial) economies around the time of the world wars and the construction of the Ambassador Bridge as younger people left the family farm for urban centres. Agriculture is still a dominate land use in the landscape however urban land uses now occupy a high percentage of the landscape. Within agriculture there has been a shift from small family-owned farms to large-scale industrial farming.

Cumulative Environment Effects Analysis

The proposed Project does not require removal of any institutional, residential or commercial properties. There is no cumulative or incremental loss of property available for these purposes. Other projects and activities that may have environmental effects that may act cumulatively with those of the Project include current and future highway expansions, adjacent land use and other planned development.

Current and Future Highway Expansions

Current and future highway expansions will have a cumulative environmental effect that will overlap with the Project, as overall land available for other land uses will be reduced. All other current and future highway projects will provide suitable compensation for the loss of land. There are benefits, however to an improved transportation system. A large portion of Windsor industrial productions are shipped to the US and are highly dependent on timely and efficient transportation.

Planned Developments Adjacent to the Proposed Project

There are no planned developments adjacent to the Project.

Adjacent Land Uses

Adjacent land uses that may act cumulatively with those of the Project include the green buffer area and commercial and residential land redevelopment in Olde Sandwich Towne. Adjacent land uses will be strongly influenced by landowner economic conditions and the market for land uses and redevelopment within the City of Windsor and in Olde Sandwich Towne in particular.

Summary of Cumulative Environmental Effects

The environmental effects of Construction, Operation, Maintenance, Accidents, Malfunctions and Unplanned Events of the Project will be mitigated, such that the environmental effects of the Project in combination with future projects and activities likely to occur will not create a change or disruption that restricts or degrades present land uses such that the activities cannot continue to be undertaken at current levels for extended periods of time and cannot be compensated.

Therefore, the cumulative environmental effects of the Project on all types of land use for all Project phases are rated as not significant.

Determination of Significance

The matrix below presents a summary of the residual environmental effects of the Project on land uses. The table also considers the level of confidence of the Study Team in this determination and the likelihood of potential environmental effects.

The residual environmental effects, including the cumulative environmental effects, of the Project on Land Use in consideration of planned mitigation, compensation and the residual environmental effects rating criteria are rated not significant.

Residual Environmental Summary Matrix for Land Use

Residual Environmental Effects Summary Matrix **Valued Environmental Component: LAND USE**				
Phase	**Residual Environmental Effects Rating, Including Cumulative Environments Effects***	**Level of Confidence**	**Likelihood**	
			Probability of Occurrence	**Scientific Certainty**
Construction	NS	3	3	3
Operation	NS	3	3	3
Maintenance	NS	3	3	3
Accidents, Malfunctions and Unplanned Events	NS	3	2	2
Project Overall	NS	3	2	3

Key	**Level of Confidence**
Residual Environmental Effect Rating S Significant Adverse Environmental Effect NS Not-significant Adverse Environmental Effect P Positive Environmental Effect	1. Low Level of Confidence 2. Medium Level of Confidence 3. High Level of Confidence **Probability of Occurrence: based on professional judgement** 1. Low Probability of Occurrence 2. Medium Probability of Occurrence 3. High Probability of Occurrence **Scientific Certainty: based on scientific information and statistical analysis or professional judgement** 1. Low Level of Confidence 2. Medium Level of Confidence

Residual Environmental Effects Summary Matrix **Valued Environmental Component: LAND USE**				
Phase	**Residual Environmental Effects Rating, Including Cumulative Environments Effects***	**Level of Confidence**	**Likelihood**	
			Probability of Occurrence	**Scientific Certainty**
		3. High Level of Confidence N / A Not Applicable * As determined in consideration of established residual environmental effects rating criteria		

Monitoring and Follow-Up

Monitoring of the environmental effects of the operation of the Project on the residential, institutional and recreational land use within the spatial boundaries is recommended. No significant environmental effects have been identified however, monitoring is appropriate to confirm this conclusion. This would primarily entail traffic counting, and noise monitoring as discussed in greater detail in Section 7. 5 Noise and Vibration.

7.6.6 Likely Effects

Socioeconomic

Benefits of the Project during construction are anticipated to be related to job creation resulting in an estimated 3,700 man-years of employment and longer term job creation, job retention and tourism. Positive impacts on businesses are expected as a result of a large number of construction workers who will be within the Local Study Area for the duration of the construction project. Businesses supplying consumer goods and personal services will have access to a significant new customer base. Also, as additional projects are initiated the construction workers may opt to stay within the Local Study Area creating a permanent increase in the customer base for business.

The ongoing operation of the border crossing in this location will have a beneficial impact on job retention, business activity and economic and tourism development. The economy within the Regional Assessment Area boundaries and beyond has flourished due to cross border trade. The reductions in congestion brought about by the proposed Project will improve the provision of efficient cross border movement of goods and a greater level of assured movement of finished products for the area within the spatial boundaries. As a result there may be a higher level of comfort for industrial operations and a stemming of the relocation of those operations to other locations. The proposed Project, juxtaposed with the existing Ambassador Bridge, may act as a point of interest to tourists and result in an increase in tourism.

Reduced congestion will make motor vehicle access to properties within the spatial boundaries, particularly along the Huron Church Road corridor, more convenient and will likely lead to increased development interest. Better access will provide increased certainty for landowners that their customers can reach them easily, encouraging development to proceed on vacant or underutilized parcels along Huron Church Road resulting in increased property values and an increase in tax revenue.

The Project is anticipated to support local, provincial and federal goals for adjacent land uses and encourage new development and redevelopment through improved accessibility contributing to job creation and retention.

No businesses or residences will need to be acquired. The proposed Project will be built over land adjacent to the existing Ambassador Bridge previously cleared for security purposes and owned by the Proponent.

Since there are no projected changes in traffic volumes or transportation facilities, the Project is not expected to have any measurable impact on population growth projections.

The Ambassador Bridge, the community of Sandwich and the University of Windsor have operated in close proximity for approximately eighty (80) years and taking into account the reduction of noise, dust, vibration and air contaminants with the proposed Project, it is not anticipated there will be any significant adverse effects on the land values in the Local Study Area.

Positive impacts are expected as a result of a large number of construction workers who will be within the spatial boundaries for the duration of the construction project. Businesses supplying consumer goods and personal services will have access to a significant new temporary customer base.

Compared to the rest of Ontario, the area within the Regional Study Area appears to have a larger proportion of residents in the manufacturing and construction industries commuting across the border to work at the same place each shift. Closure, increased delays or requirements to use an alternate future border crossing would have a negative effect on the commute to work routines of many residents within the spatial boundaries.

The sense of belonging to a community or neighbourhood is referred to as “community cohesion.” Disruption in day-to-day activities and patterns of movement and impacts on the general enjoyment of home and neighbourhood is assessed. “Community cohesion” would be affected by bisecting or cutting through neighbourhoods. There is no impact on community cohesion from the proposed Project. The proposed Project follows an existing, well established alignment and as a result the impact on “community cohesion” and connectivity is not significant. The existing Ambassador Bridge corridor has historically served to delineate community areas, and create separation of land uses. The proposed Project will follow the existing alignment, and all existing traffic movements will be accommodated in the design, avoiding any further or existing effects on “community cohesion.” In addition the transient nature of the large student population in rental accommodation indicates a lower level of a sense of belonging to the Sandwich neighbourhood and a much higher sense of belonging to the University of Windsor community.

The Project will not directly affect existing land use by requiring owners within the Local Study Area boundaries to change the use of their property. There may however, be temporary effects on the use of some land within the Site Study Area adjacent to the Project during construction including noise, light, dust and vibration from construction activities and vehicle movements.

Potential pedestrian and cycling amenity use of the proposed green buffer area will compliment the City’s Greenway / Recreationway System and Bicycle Use Master Plan. Public access to the pedestrian and cycling trails of the riverside parks will be temporarily restricted and controlled by signage during construction of the Project that will direct pedestrians and cyclists to alternate routes.

There are no projected changes in traffic volumes on non-bridge related transportation facilities. The Project is not expected to affect access to any properties within the Regional Study Area.

In assessing the likely effects of the Project on Land Use it is important to examine the degree to which it will hinder or assist the City in reaching its goals and objectives through the policies of the Official Plan. The Official Plan lays out the City's goals, objectives and policies for managing and guiding physical change and the effects of that physical change on the socio-economic and natural environments. To address the assessment of the Project's conformity with the Official Plan it is necessary to compare the Project against all of the sections of the Plan.

In conformity with the policy, a noise and vibration study has been completed and increased setbacks are provided by the relocation of the proposed Project further away from the University of Windsor and by providing the green buffer area between the proposed Project and nearby sensitive residential and institutional receptors than currently provided. Additional mitigation sound barriers discussed in the Official Plan such as landscaped berms, walls, buildings, and fences will also be provided as part of the proposed Project.

The proposed Project does not conflict with the Official Plan's requirement that infrastructure undertakings include extensions and improvements to the "Recreationways" such as the Riverfront Recreationway which is intended to follow the Detroit River under the existing Ambassador Bridge span.

The proposed Project can be located entirely outside the Shoreline and Floodprone Areas and therefore, there will be no effects on wave and current patterns, water flows and levels, and water quality nor any requirement for adequate floodproofing measures to be incorporated in the proposed Project. The proposed Project can be set back an appropriate distance from the shoreline based on consideration of the type of shoreline; bank stability; angle of bank slope; degree of erosion protection, and; other relevant aspects as suggested by the Official Plan.

In keeping with the Official Plan's Civic Image policies the proposed green buffer area will continue to provide partial screening of the University of Windsor surface parking lots west of Huron Church Road from the residences on the west side of Indian Road by the use of landscape elements.

With regard to the protection of heritage resources, as mandated by the Official Plan, the studies undertaken as part of this environmental assessment of the Project shall document the removal or mitigation of archaeological resources in advance of land disturbances.

The Project will not hinder the Official Plan's policy encouraging the connection of land designated Waterfront Recreation to the Greenway System (Waterway Corridor).

In conformity with the Official Plan's policy a study of the implications of the Known or Suspected Waste Disposal Site located north of Detroit Street has been completed and there are no negative implications for the Project.

The environmental assessment undertaken for the proposed Project provides information illustrating that it will be protected from the effects of a Regulatory Flood, that potential upstream and downstream impacts will not significantly affect hydrology or hydraulics of the floodplain, and that adequate floodproofing measures are incorporated since the towers for the Project will be located outside the floodplain.

The process of public consultation for the design of the proposed Project has sought to protect and enhance significant views and vistas particularly to and from the Ambassador Bridge as suggested by the Official Plan.

The green buffer area proposed on the east side of Indian Road could lead to the designation of a Theme Street in that location, supporting the anticipated redevelopment of the Sandwich Community.

As there are no designated or proposed cultural heritage resources to be removed, as suggested by the Official Plan's policies, the proposed Project maintains the character of the Sandwich Heritage Area. The existing Ambassador Bridge contained the longest cable suspension bridge span in the world when it was built. A new cable stayed Project will have the longest cable stayed bridge span length in North America when it is built. The two structures will provide a striking side-by-side visualization of what was the state-of-the-art for the 20th century and what is the state of the art for the 21st century. The proximate juxtaposition of the new millennium architecture of the Project with the 1800's architecture of Olde Sandwich Towne and the 1920's architecture of the Ambassador Bridge may provide opportunities to reinforce, enhance and promote the socio-economic values of the cultural heritage resources and the image of Windsor as an international gateway as expressed by the dominance of the Ambassador Bridge and the Project.

No changes are required to the street system to accommodate the proposed Project and no there will be no increases in traffic volumes. Therefore, the Official Plan's policy of maintaining an adequate system of Collector and Arterial roads to serve residential areas is not negatively affected.

The improved efficiency and reduced congestion resulting from the proposed Project will assist the City to ensure the construction of an additional border crossing has minimal negative social, environmental and economic impacts as suggested by Official Plan policies by enabling any new international crossing of the Detroit River to be adequately timed to have the greatest advantage taking into consideration proven need and alternate modes of transportation.

The objectives and policies in the Official Plan are intended to assist in the achievement of the Plan's Strategic Directions. The interpretation of the Official Plan's policies allow for a limited degree of flexibility and therefore, the boundaries between the various land use designations are approximate, except where they relate to some well defined

physical feature such as a Controlled Access Highway, Arterial Road, railway line or watercourse. Minor adjustments to these boundaries do not require an Official Plan amendment provided that the intent of the Plan is maintained. Public infrastructure and municipal facilities and services may be permitted in all areas without requiring an amendment to this Plan.

The Official Plan's Vision, taken from "*Our Vision: Our Future – The City of Windsor Community Strategic Plan*" is:

> "Windsor, Canada's southernmost city and international gateway, is a diverse community of safe, caring neighbourhoods, with a vibrant economy and a healthy, sustainable environment."

Windsor's stated vision in the Official Plan is of the City as an international gateway, a diverse community of safe, caring neighbourhoods, a vibrant economy and a healthy, sustainable environment. The City's commitment to this vision is reflected in an action strategy centred on four interrelated themes that include support of positive physical change in neighbourhoods which respects and improves the existing historical, physical, social, economic and environmental character of these areas. The proposed Project enhances the City's vision of itself as an international gateway by contributing an addition to its skyline and ensuring the continued uninterrupted flow of trade between Canada and the United States.

The proposed Project supports, and does not conflict with, the policies of the Official Plan designed to implement an action strategy centred on the interrelated themes of the Vision as enunciated in the Plan;

- safe, caring and diverse community;
- vibrant economy; and
- sustainable, healthy environment;" [85]

Historic Sandwich Towne, physically separated from the City of Windsor by the University of Windsor since its founding and the Ambassador Bridge since its construction in 1929, developed and, continues to develop several blocks to the west, its own historical character, scale, and sense of community identity in relation to these two significant constant factors of its past. The proposed Project is an opportunity for positive physical change and to mitigate some of the negative effects of the Ambassador Bridge's use and improve the environmental character of Historic Sandwich Towne through the reduction and buffering of the noise, dust, vibration and air pollution emissions resulting in improvements to the environment within the Local Study Area,

[85] City of Windsor, Official Plan, Office Consolidation, November 2006.

while contributing to the vibrant international gateway economy through its positive implications for job creation and job retention.

The Land Use and Roads & Bikeways Schedules of the Official Plan illustrate Lauzon Parkway as a Class I Arterial Road in the "Residential" designation. Other transportation facilities including the Patricia Street Class I Arterial Road, many Class II Arterial Roads and rail lines are illustrated in various land use designations including the Residential designation. The alignment of the Ambassador Bridge is illustrated as being in both the Residential and Waterfront Recreation designations. Some transportation facilities such as Huron Church Road, the interchange at the intersection of Huron Church Road and the E. C. Row Expressway and portions of the rail lines and yards associated with the Rail Tunnel are not in any designation on the Land Use Schedule. Other major infrastructure facilities such as pollution control plants are also illustrated in designated areas on the Land Use Schedule.

The Official Plan provides for flexibility in interpretation provided the intent of the Plan is maintained. The Project, a new span adjacent to the Ambassador Bridge, which in large measure is responsible for the creation of a major international gateway in the Windsor, will continue to help the City achieve its Official Plan's vision of itself as an international gateway with a vibrant economy. The green buffer area will also support positive physical change in the Sandwich neighbourhood by creating a vegetative strip that will buffer noise and vibration impacts from the use of the proposed Project.

The proposed Project conforms to and supports the goals, objectives and policies of the City of Windsor Official Plan because:

- it does not limit the City's ability to provide "Recreationways", "Waterfront Recreation" "Community and Regional Parks", "Open Space" and "Linkages",
- it can be designed to avoid "Shoreline and Floodprone Areas" and "Floodplain Areas",
- it does not affect any designated heritage property of Heritage Conservation District,
- it does not have a significant negatively effect on views and vista or the Sandwich Heritage Area,
- it does not require and changes to the road patterns within the spatial boundaries,
- it continues to maximize the economic development potential provided by cross border traffic, and

- the existing Ambassador Bridge and the proposed green buffer area adjacent to the Indian Road Local Street may be used for public recreation purposes.

The proposed Project conforms to the policies of the Official Plan and supports and assists with the achievement of its Growth Concept. Typically, transportation infrastructure would be permitted within a residential designation and an Official Plan amendment may not be necessary.

The Ambassador Bridge is subject to two sets of zoning provisions, the "CD4.4 Zone" and the "G1.1 Zone" with only the former specifically permitting a motor vehicle bridge. Since the "CD4.4 Zone" specifically refers to the motor vehicle bridge use, it is anticipated that the proposed Project would have to be rezoned to the "CD4.4 Zone."

Visual and Aesthetics

The proposed Project consists of a six-lane cable-stayed bridge parallel to and approximately 30.5 metres (100 feet) to the west of the existing Ambassador Bridge. A simulation of the proposed Project is provided as Figure 21. The deck of the new bridge will be approximately the same height as the existing Ambassador Bridge - 46 metres (152 feet) above the Detroit River.

Figure 20: Simulation of the Proposed Project

The towers for the proposed Project will be land-based to avoid the loss of fish habitat and potential hydraulic effects. These towers will be approximately 167 metres (548 feet) above the elevation of the Detroit River in order to accommodate the wider span and cable-stayed type of construction. The proposed Project will connect between the two existing plazas in Windsor, Ontario and Detroit, Michigan.

The proposed Project will be supported by the main tower piers and approximately 14 sets of 1.8 metre (6 feet) diameter concrete piers spaced at approximately 43 metre (141 foot) intervals. The wider spacing allows for far fewer sets of piers to be used compared to the approximately 29 sets of steel piers for the existing Ambassador Bridge. It is anticipated that the replacement span will be lit at night as an aesthetic proposed as well as for safety purposes in a manner consistent with and complimentary to the existing Ambassador Bridge.

Public consultation was conducted and input sought in both Canada and the U.S. regarding the design of the visual elements of the proposed Project. The preliminary design of the Proposed Project has not been finalized at this time. The simulation photographs included in this section are conceptual only and incorporate an H-shaped tower to be somewhat consistent with, and complement the existing architecture of the Ambassador Bridge. The concept that was incorporated into the design was to provide a visually similar structure that was sensitive to the historic context of the Ambassador Bridge and complemented it with a new structure that is state-of-the-art for the 21st century adjacent to the Ambassador Bridge that was state-of-the-art for the early 20th century. The design of the proposed structure will incorporate non-specular materials into the design of the project components to decrease reflectivity and visibility of project features. The new span is designed to meet standards consistent with the historic character of the Ambassador Bridge.

The Ambassador Bridge is recognized as a physical record of its time, place, and use. The proposed Project is not designed to take away from the significance of the existing Ambassador Bridge by providing a false sense of historical development. Instead, it is differentiated by using safer, modern cable-stayed bridge technology rather than replicating the suspension cable design of the original bridge.

It is also important to preserve the historic materials that characterize the existing Ambassador Bridge. The proposed Project is designed to differentiate between the Ambassador Bridge and will be compatible with the massing, size, scale and architectural features to protect the historic integrity of the property and its environment. The existing span will not be physically affected by the replacement span. In fact, the construction of the new span will extend the life of the existing span through the removal of heavy truck traffic that adversely affects the structural integrity of the existing span.

The proposed Project is differentiated from the Ambassador Bridge in that it incorporates state-of-the-art engineering. The replacement span will be of cable-stay construction in contrast to the suspension cable design of the original bridge. The replacement span will

be constructed primarily of concrete, permitting a clean design that will provide a visual contrast with the intricate exposed steel structure of the existing span. The proposed Project will be wider than the existing span, but will roughly parallel its course and will match its minimum clearance height and the line of its arc over the river.

There are a number of design elements that contribute to the image of the structure that can be modified to reflect the vision of the community. These elements include tower concepts, colour and texture, roadway fixtures and railings and the overall bridge lighting. Input will be sought from the public to determine the most desirable design elements.

As part of the process of providing a comprehensive assessment of the potential impacts of the proposed Project, a visual impact assessment was conducted. Key locations with importance were chosen to provide "key vantage points" within the viewshed surrounding the Ambassador Bridge. The key vantage points were selected giving consideration to guidance to identify the sensitivity of visual receptors including:

- The location and context of the viewpoint;
- The expectations and occupation or activity of the receptor;
- The importance of the view (which may be determined with respect to its popularity or number of people affected, its appearance in guidebooks, on tourist maps, and in the facilities provided for its enjoyment and references to it in literature or art).[86]

The criteria for selection included a high level of public activity such as outdoor recreation or travel conducive to the appreciation of the aesthetics of the natural and man-made environment, designated public outlooks points, features identified by adopted planning documents as visually sensitive receptors, or areas or structures of historic significance that would be incorporated in the setting of the place. Based on these criteria, the key vantage points that were selected for analysis are:

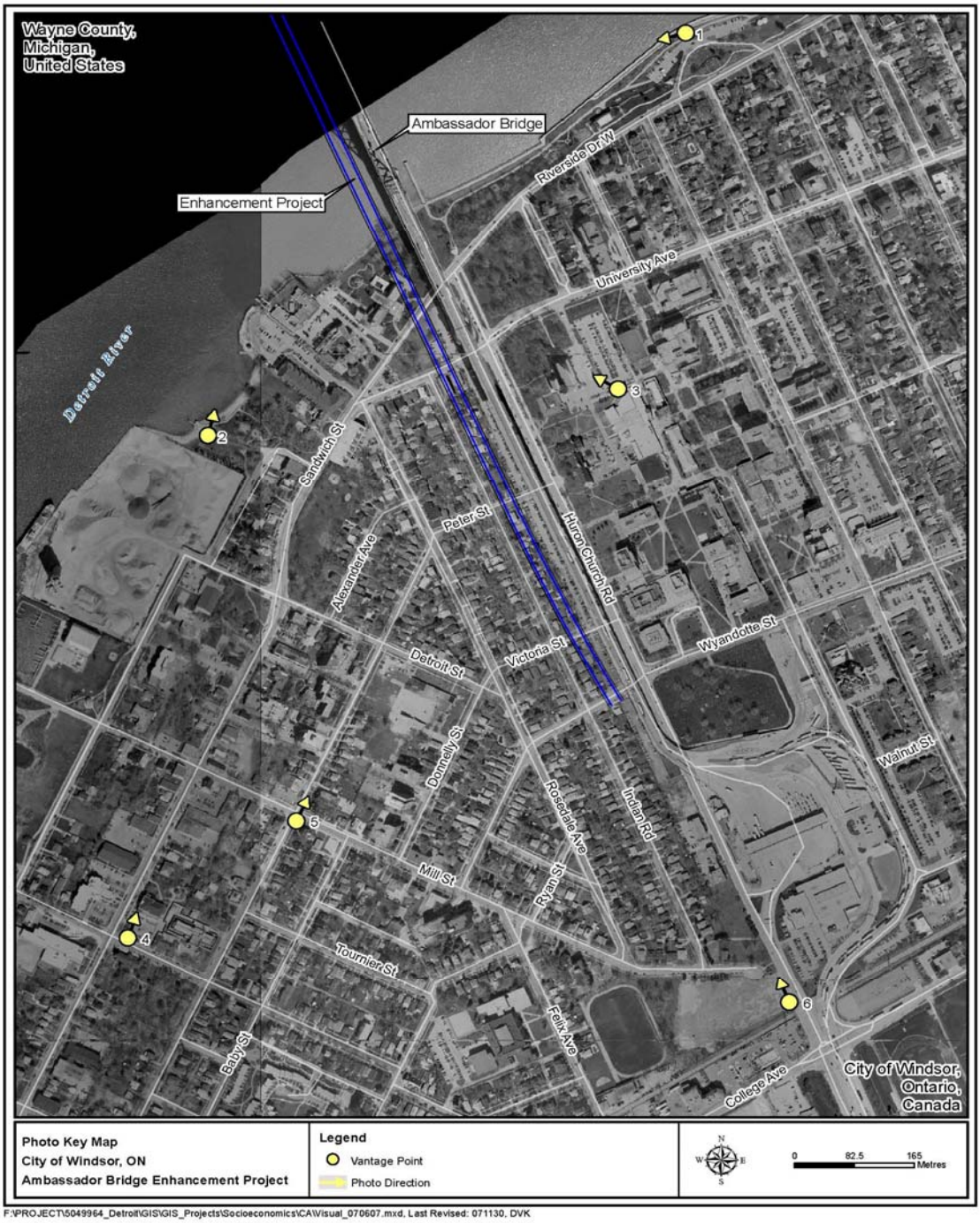
- Assumption Park;
- McKee Park;
- Assumption Church;
- Mackenzie Hall/Olde Sandwich Towne;
- Mason-Girardot Manor; and

[86] The Landscape Institute with the Institute of Environmental Management and Assessment, Guidelines for Landscape and Visual Impact Assessment, Second Edition 2002.

- Huron Church Road.

These key vantage points represent the worst case scenario of visual or aesthetic effects of the proposed Project. Figure 21 depicts the key vantage points and the direction in which photographs were taken. Throughout this evaluation of aesthetic conditions and impacts, categories of visual quality and visual impact significance were systematically used. Visual quality was characterized as being poor, moderate or good. The significance of visual impacts were categorized as being low, neutral or high with the understanding that the impacts could be positive or negative.

Figure 22: Photo Key Map



Assumption Park

Assumption Park is situated along the shoreline of the Detroit River to the east of the Ambassador Bridge. Observers at this vantage point would be engaged in active and passive outdoor recreation including the appreciation of the aesthetic environment. This public open space provides an unobstructed view of the existing Ambassador Bridge and Detroit skyline. A simulation of the visual effect of the proposed Project is provided as Photograph 1. The towers, cable work and support piers will be visible behind the existing Ambassador Bridge which partially obstructs its visibility.

Photograph 1: Simulation of Visual Effect from Assumption Park

The existing aesthetic quality is considered to be "good" as it includes the attractive combination of the natural character of the Detroit River and the historic man-made component of the Ambassador Bridge which is a gateway between Canada and the US. It is anticipated that the visual quality will continue to be "good" after the development of the proposed Project. The impact of the proposed Project is considered to be low and positive as it provides a visually similar structure that is behind the Ambassador Bridge, is sensitive to its historic context, and complements it with a new structure that is state-of-the-art for the 21st century adjacent to the Ambassador Bridge that was state-of-the-art for the early 20th century.

McKee Park

McKee Park is situated along the shoreline of the Detroit River to the west of the Ambassador Bridge. Observers at this vantage point would be engaged in active and passive outdoor recreation including the appreciation of the aesthetic environment. This public open space provides an unobstructed view of the existing Ambassador Bridge and Detroit skyline. A simulation of the visual effect of the proposed Project is provided as Photograph 2.

Photograph 2: Simulation of Visual Effect from McKee Park

The towers, cable work and support piers will be visible in the foreground of the existing Ambassador Bridge. The existing aesthetic quality is considered to be "good" as it includes the attractive combination of the natural character of the Detroit River and the historic man-made component of the Ambassador Bridge which is a gateway between Canada and the U.S. The impact of the proposed Project is considered to be low and negative as it provides a visually similar structure that partially obstructs the visibility of the Ambassador Bridge, is sensitive to its historic context, and complements it with a new structure that is state-of-the-art for the 21st century adjacent to the Ambassador Bridge that was state-of-the-art for the early 20th century.

Assumption Church

The setting of Assumption Church has included visual elements (i.e., tower, anchor pier, decking, and support piers) of the existing Ambassador Bridge for nearly 80 years. The visibility of both the proposed Project within the same view would be limited to areas to the east, northeast, and southeast of Assumption Church (see Photograph 3). The majority of observers at this location will most likely consist of students utilizing the parking lots to the east of the church. Additional observers will also include parishioners or others traveling between the parking areas to worship or other church-related activities or others appreciating the architecture of the historic church.

Photograph 3: Simulation of Visual Effect from Assumption Church

The proposed Project will be situated on the opposite side of the Ambassador Bridge and relocate traffic onto the new bridge where the motion will be less disruptive to the observer. The new towers will be visible from several locations to the east and north of the church. The visibility of the road deck will largely be obstructed by the existing Ambassador Bridge. The support piers will be fewer and further apart than the existing steel support piers and significantly smaller than the existing anchor pier for the Ambassador Bridge.

The existing visual quality would be considered to be "moderate" due to the mixture of historic and modern built environment, good vegetative buffering, and less exposure to the Detroit River than the riverfront parks. It is anticipated that the visual quality will continue to be "moderate" after the development of the proposed Project. The overall impact of the proposed Project is considered to be low and positive as it provides a visually similar structure that is behind the Ambassador Bridge, is sensitive to its historic context and complements it with a new structure that is state-of-the-art for the 21st century adjacent to the Ambassador Bridge that was state-of-the-art for the early 20th century.

Mackenzie Hall

Mackenzie Hall, within the Olde Sandwich Towne area on the southeast corner of Sandwich and Brock Streets, is approximately 1 km (0.6 miles) from the location of the proposed Project. This area is designated as a heritage district in the City of Windsor Official Plan.

The Olde Sandwich Towne area was part of the Huron Church Reserve purchased in 1797.[87] Mackenzie Hall was formerly the County Courthouse and is a site designated under the *Ontario Heritage Act*. The visual quality of the area is "good" with a mixture of historic structures in a relatively pedestrian friendly streetscape. The visibility of the existing Ambassador Bridge and proposed Project is obstructed or screened by local vegetation and structures for the majority of this area. However, they are also clearly visible from some vantage points (see Photograph 4). While the visibility of the historic Ambassador Bridge does contribute to the setting of this area to a small degree, the visual quality of the area would continue to be "good" after the development of the proposed Project as the aesthetic value of the area is primarily derived from the closer pedestrian scale historic architecture.

Photograph 4: Simulation of Visual Impact from Mackenzie Hall

The impact of the proposed Project is considered to be low and negative as it provides a visually similar structure that partially obstructs the visibility of the Ambassador Bridge, is sensitive to its historic context, and complements it with a new structure that is state-of-

[87] City of Windsor Planning Department, Olde Sandwich Towne Community Planning Study Report, October 2006.

the-art for the 21st century adjacent to the Ambassador Bridge that was state-of-the-art for the early 20th century.

Mason-Girardot Manor

The Mason-Girardot Manor was constructed in 1879 and is designated as a heritage property. It is characteristic of the Victorian Era Italianate Style architecture. It is located at 3203 Peter Street on the southwest corner at Mill Street. This historic structure represents a vantage point further south within the Sandwich Planning District. The visibility of the existing Ambassador Bridge is very limited (see Photograph 5) from this vantage point. Visibility is substantially obstructed by local vegetation and the built environment.

Photograph 5: Simulation of Visual Effect from Mason-Girardot Manor

The primary visual feature of good aesthetic quality in the area is the architecture of the Mason-Giradot house. The ability to appreciate this visual quality will not be decreased by the construction of the proposed Project as the majority of viewers will be facing toward the structure which is not in the same direction of the proposed Project. Generally the visual quality of the area is “moderate” and characteristic of an urban environment with a mixture of modern and historic styles. The visual quality from this vantage point will continue to be “moderate” after the completion of the proposed Project.

The significance of the visual impact would be categorized as “low” due to the substantial obstruction of the visibility of the proposed Project by local structures and vegetation.

Huron Church Road

Huron Church Road was considered a key vantage point as part of this assessment of the potential impact of the visibility of the proposed Project. The fact that Huron Church Road is designated as a civic way in the City of Windsor Official Plan, the high number of viewers, and the role of this transportation route and gateway between Canada and the US make it a significant vantage point. Photograph 6 indicates the visibility of the proposed Project as seen from the west side of Huron Church Road near College Street. The new tower will continue to be a dominant visual feature adjacent to the existing Ambassador Bridge. The existing visual quality is considered to be “moderate” as it contains several attractive features including adjacent green space and the Ambassador Bridge in the background. However, there are several visually unattractive attributes of Huron Church Road associated with its vital role as the busiest border crossing between Canada and the U.S.

Photograph 6: Simulation of Visual Effect from Huron Church Road

The visual quality will continue to be “moderate” after the development of the proposed Project. The impact of the proposed Project is considered to be “low” and “positive” as it provides a visually similar structure that is behind the Ambassador Bridge, is sensitive to

its historic context, and complements it with a new structure that is state-of-the-art for the 21st century adjacent to the Ambassador Bridge that was state-of-the-art for the early 20th century.

7.7 Archaeological

This archaeological report as set out in Appendix K describes the nature and results of a Stage 1 archaeological background study and Stage 2 archaeological assessment completed by the Museum for the Ambassador Bridge Enhancement Project, City of Windsor, Essex County, Ontario.

All archaeological projects undertaken in Ontario must conform to the guidelines and procedures for archaeological assessments as mandated by the Ontario Ministry of Culture (1993, 2004). The Ministry's 1993 Archaeological Assessment Technical Guidelines defines the four different stages of archaeological assessment as follows:

Stage 1: Refers to the background or pre-survey phase of an assessment.

Stage 2: Refers to the actual field examination, and involves either surface survey or test pitting.

Stage 3: Refers to those field activities conducted when archaeological remains are encountered during a Stage 2 survey. The purpose of Stage 3 work is to gather information which will be used to delineate and evaluate the significance of the site in question, in order to determine appropriate mitigation measures.

Stage 4: Refers to mitigating the development impacts to archaeological sites, through site excavation or avoidance. This occurs once the field assessment has been completed, and the assessment report has been reviewed by the Ministry of Culture.

Purpose of the Project

The Stage 1 archaeological background study (Part 1 of the present report) and Stage 2 archaeological assessment (Part 2 of the present report) were undertaken at the request of and on behalf of the client, as part of studies being undertaken as part of the Canadian Environmental Assessment Act for the Ambassador Bridge Enhancement Project in the City of Windsor, Ontario (Figures 1 and 2). That project anticipates construction of a new 6-lane wide cable stayed bridge to replace the existing Ambassador Bridge, to be built within the corridor of the existing bridge. The new bridge would be constructed approximately 30.5 metres (100 feet) to the west of the existing bridge (from centre line to centre line). The Enhancement Project bridge would connect directly to the existing plaza on the Ontario side, just south of Wyandotte Street. According to preliminary design specifications, on the Ontario side of the Detroit River the new bridge would entail construction of one new pier support (Pier 6) on the parcel of land between the river and Riverside Drive, three piers (#7-9) in the space between University Avenue and Peter Street, five piers (#10-14) in the space between Peter

Street and Donnelly Street, two piers (#15-16) in the space between Donnelly Street and Wyandotte Street, and three piers (17-19) south of Wyandotte Street (in the existing bridge corridor) connecting to the existing plaza.

Nature and Location of the Subject Property

The Study Area includes the lands located along the west side of Huron Church Road from the existing western limit of the road allowance west to Indian Road, from Wyandotte Street north to the Detroit River (Figures 1 and 2). The project anticipates the demolition of all existing houses along the east side of Indian Road from Wyandotte Street to University Avenue to create a green buffer area. Virtually all of those houses are currently owned by the client.

The 1939 Soils Map of Essex County shows an obvious un-natural break in soil types occurring exactly at Huron Church Road and the existing Ambassador Bridge: soils on the lands immediately east/north of Huron Church Road are classified as Brookston Clay, while soils on the lands immediately west/south of Huron Church Road (within the Study Area) are classified as Burford Loam. A small pocket of a third soil type, Berrien Sand, is situated just beyond the south end of the Study Area (south of Mill Street). The report within which the 1939 Soils Map was contained (Richards, Caldwell and Morwick 1949) depicted a typical soil profile of the Burford Loam series in Essex County which indicates an Ac horizon up to 6 inches (15 cm) thick overlying an A2 horizon from 12 to 18 inches (30.5 to 47.7 cm) thick overlying a B horizon up to 18 inches (47.7 cm thick); thus the combined A and B horizons can be up to 42 inches (106 cm) thick.

The terrain in the Study Area is relatively flat, varying in elevation from just under 590 feet above sea level at the Detroit River to just over 600 feet above sea level at the point where Mill Street intersects Huron Church Road, just south of the Study Area (based on 1960 1:25000 topographic map).

According to recent topographic maps, today there are no secondary or tertiary watercourses within or near the Study Area. However, some 18th century maps and sketches of the Windsor area (discussed in the Stage 1 background study, below) do in fact depict certain watercourses, one of which was identified as “Rivi re de la Vieille Reine” on a 1749 sketch map by Joseph-Gaspard, Chaussegros de Léry, and later as “Rivi re Gervais” on “Plan Topographique du Detroit” circa 1754 by de Léry (Lajeunesee 1960:liv and lviii) (Figures 4 and 5 herein; also see Figure 8 herein). The 1749 sketch by de Léry identifies another watercourse as “Ruisseau de la Parise” (Paris Creek?); it was located midway between the Huron village at La Pointe de Montreal and Rivi re de la Vieille Reine (to be discussed in the Archival Research section, below). Since these two watercourses do not appear on modern topographic maps, they must have been either filled in or buried (channelized) by urban development in the 19th and 20th centuries, or they could simply have dried up to a lower groundwater table. The Soil Map of Essex County (1939) shows a “Marsh” area located along the Detroit River, between Prospect Avenue (at the south) and the western terminus of Hill Avenue (at the north), with a protrusion of the marsh extending inland through the lands of the current West Windsor Pollution Control Plant (i.e. just south of John B Avenue and the southern

terminus of Peter Street) to the ETR rail line. This marsh area (with Muck soils) was the former mouth of the "Rivi re de la Vieille Reine" / "Rivi re Gervais". Lajeunesse (1960:liii) concluded that the mouth of this river was "near the southern limit of the present city of Windsor" (which on the 1939 soils map and 1960 topographic map was just south of the area occupied by the Water Pollution Control Plant, at McKee Street and the Ontario Hydro generating station. The "Rivi re Gervais", also known as "Rivi re au Jarvais" and Knaggs Creek, and extensive marshlands around it, were mentioned in some of the archival documents summarized by Lajeunesse (1960:171, 179, 187), and it was depicted on a sketch map contained as part of the "Sale of the Huron Church Reserve" lands in 1800 (Lajeunesse 1960:206). The 1960 topographic map (1:25,000 scale) depicts the area of the marsh as lands below the 580 foot contour line (whereas all lands surrounding it are above the 590 foot contour line). The centre of the marsh/mouth of the watercourse is approximately one mile (1.6 km) south of the current Ambassador Bridge. According to the 18th century maps, the course of the "Rivi re Gervais" was U-shaped, with the left arm of the U being the mouth; from its mouth, the watercourse went south then curved to the east and then north (the bottom of the U) to go in a northerly direction towards the Detroit River, then at the top of the right arm of the U it veered east. It appears that the "upper" course of the "Rivi re Gervais" may have been in close proximity to the Study Area (see Figures 5 and 8). The existence of former watercourses such as this can create zones of archaeological potential around them. However, there are no known archaeological sites located adjacent to where those watercourses were once located.

7.8 Navigation

The Great Lakes and the Detroit River are part of a vast system linking North America with ports and markets throughout the world. The system is the world's longest deep-draft waterway extending from Duluth, Minnesota to the Gulf of St. Lawrence on the Atlantic Ocean, a distance of more than 3750 kilometres (2340 miles). The system was made possible by the construction of a ship canal and lock system that opened in 1855 at Sault Ste. Marie, Michigan, the development of the Welland Canal in 1829 and the completion of the St. Lawrence Seaway in 1959 (Maritime in the Great Lakes Region). On average, the U.S. and Canadian flag fleets along with overseas vessels move more than 154 million metric tons (170 million short tons) of cargo on the Great Lakes and approximately 40 percent of this cargo travels through the Lake St. Clair-Detroit River system. [88]

The Detroit River connects Lake St. Clair to Lake Erie, flowing south-southwest for approximately 51.5 kilometres (32 miles). At the Ambassador Bridge crossing, the river is approximately 0.64 kilometres (0.4 miles) wide. A number of tributaries drain to the Detroit River. Those tributaries within the project area in Canada include Turkey Creek, Marentette Drain, the Little River and Canard River.

88 U.S. Army Engineer District, Environment Canada and The St. Clair Region Conservation Authority, "St. Clair River and Lake St. Clair Comprehensive Management Plan," Chapter 7, June 2004.

7.8.1 Study Area and Timeframes

The study area for the project is bound by the area of the river from the port of entry of the barges to the Ambassador Bridge crossing. Construction materials originating in Canada that will be transported to the Proposed Project site will be shipped via barge from a port in the Detroit River operated by the Windsor Port Authority. Construction materials originating in the US that will be transported to the Proposed Project site will be shipped via barge from a port in the Detroit River operated by the Detroit/Wayne County Port Authority.

Construction is estimated to take approximately 24 months. The timeframe for construction effects would be limited to the actual construction time of the bridge. The bridge design will employ a clear span cable stay bridge structure, and does not require the placement of piers or other structures in the Detroit River. The absence of piers and other structures means that there is minimal impact on navigation. Once the bridge construction is complete, no adverse operational effects are expected, to interfere with or interrupt navigation.

7.8.2 Administrative Considerations

Competency of Operators of Pleasure Craft Regulations (SOR/99-53) is a regulation to the *Canada Shipping Act*, which requires the operators of pleasure craft in Canada to hold a valid Operators Card or the equivalent thereof. Specifically, Section 4 of SOR/99-53 states that a person is competent if the person has passed a Canadian Coast Guard accredited test with a mark of at least 75 per cent or has completed a boating safety course before April 1, 1999, and has received a Boating Safety Course Completion Card or other written proof of completing the course. The pleasure craft operator requirements serve to ensure that the majority of vessel traffic is aware of the navigational requirements and rights-of-way rules detailed in the Collision Regulations (CRC, VOl. XV, c. 1416). The safety of recreational boaters will be taken into account by ensuring that barge activities will take place in a manner that minimizes impacts to recreational boaters in the area through the use of licensed and qualified barge operators.

In accordance with provisions of the *Canada Shipping Act* as replaced by the *Canada Shipping Act*, 2001, ("Shipping Act") Transport Canada has published regulations entitled Collision Regulations (CRC, VOl. XV, c. 1416) (COLREGS) and The St. Clair and Detroit River Navigation Safety Regulations (SOR/84-335). The *Shipping Act* is the principal piece of legislation dealing with commercial and recreational vessel use in Canadian waters. The COLREGS Schedule I addresses the conduct of vessels. Rule 18 (a), (b), and (c) requires that all other vessels avoid a vessel that is restricted in her ability to manoeuvre. All other vessels are required to keep clear of commercial shipping traffic. SOR/84-335 applies to operation of ships in the Detroit River including floating plants such as a manned barge or scow. The regulation specifies travel directions for certain channels such as restricting the West Outer channel to down bound ships. Among other things, the regulation also specifies anchorage rules. No ship is permitted to anchor in such a manner that it may swing into the channel or across steering

courses. Also, no floating plant may anchor or be moored unless the operator obtains permission from the Regional Director General of the Canadian Coast Guard, the District Commander of the Ninth U.S. Coast Guard, the Captain of the Port or the Harbour Master having jurisdiction in waters in which the floating plant will operate.[89]

The *Shipping Act*, 2001, S.C. 2001, c.26 is the legislation that governs vessels in Canadian waters, barges included. The avoidance of collisions is specifically regulated by the Collision Regulation CRC, Vol. XV, c.146 (COLREGS). The operation of the barge will be required to adhere to all aspects of the regulation governing all types of vessels underway and at anchor as set out in Rules 1 through 46. Rule 9 "Navigation in Narrow Channels" sub-section (j), applies specifically to this situation and states "In the Canadian waters of a narrow channel or fairway a barge or an inconspicuous, partly submerged vessel or object shall not be navigated, moored or anchored so as to impede the safe passage of any other vessel or object using those waters". Regulation SOR/84-335, St. Clair and Detroit River Navigation Safety Regulations will apply, particularly Rules 16 and 17 "Anchorage Rules" and Rule 19 "Towing Ships". The barge operator will be required to meet all requirements of the Marine Certification Regulation (SOR/2007-115). The Ambassador Bridge will ensure that the barge operator is licensed and meets all regulatory requirements. The requirements of SOR/95-53 also ensure that recreational vessels are aware of their responsibilities with respect to safe navigation in the Detroit River during construction.

Notice, under the *Navigable Waters Protection Act*, will be given to the Chief Officer of Customs at nearby ports including the Windsor Port Authority. The Vessel Traffic Services operated by the U.S. Coast Guard, under *The Ports and Waterways Safety Act* and the *Oil Pollution Act* and in Canada under the *Shipping Act*, will be employed as well. A Notice to Mariners will be issued detailing the exact position of the barge and its hours of operation. The Notice to Mariners will be broadcast daily in a continuous cycle on VHF frequencies 161.65 MHz and 161.775 MHz (ch.21B, ch.83B). These services relay traffic information to other mariners using and travelling in the waterway and will be a useful tool in alerting other ship travellers to the presence of barges in the waterway. Measures to minimize navigational obstructions will be followed in accordance with the Department of Fisheries and Oceans Canada and Transport Canada. These include, but are not limited to, ensuring that a sufficient signal or light be maintained to indicate the position of the obstacle (barge). The licensed barge operators will be required to ensure that all of these measures to minimize navigational obstructions are followed. All notifications and provisions required by the St. Clair and Detroit River Navigational Safety Regulations will be fulfilled.

[89] St. Clair and Detroit River Navigation Safety Rules,*Canada Shipping Act*, SOR/84-335, Aug. 2007, http://www.tc.gc.ca/acts-regulations/>.

Navigation

The Detroit River is a major transportation artery as well as a place for recreational boaters. The exact recreational vessel counts are not recorded and only estimates can be made about the number of recreational vessels using the Detroit River in a given period of time. With a boating season extending from February to November, it is considered one of the premier boating areas in North America, with more than 12,000 marina slips for recreational boaters and an economic impact estimated at more than one billion dollars annually. The peak season for recreational boating begins around May and runs through the summer months. The Detroit River also provides year round fishing, with April and May a peak period due to the spawning season for walleye. There is an extensive boating season, the navigation of these boats will not be impeded either in the construction or operational phases of the proposed Project.

The Detroit River also provides a critical passageway for commercial ships moving between the upper and lower Great Lakes, with thousands of commercial vessels traversing its waters annually. Based on information provided by the Windsor Port Authority, there were 10,123 transits with approximately 2,800 being tugs in year 2005 and 9,943 transits with approximately 2,600 being tugs in year 2006. Most of these transits would be classified as commercial and/or government vessels. Also, there were less than 100 yachts recorded during this two year period between 2005 and 2006. The main shipping season begins in early March and ends in late January. Some commercial navigation continues throughout the winter months with the assistance of Canadian or U.S. Coast Guard icebreakers or during periods of little or no ice. [90]

A variety of boats use the Detroit River including lake freighters, tugboats, sailboats, riverboats and pleasure craft. The largest of the lake freighters are approximately 305 metres (1,000 feet) in length with a width of 32 metres (105 feet). More common are boats in the 183 metre (600 feet) and 213 metre (700 feet) classes, due to the limitation of the nearby Welland Canal. Information on commercial navigation channels in the Detroit River and navigational dredging were discussed previously in Section 7.2 Sediment Quality. The main channel in the upper reaches of the Detroit River is the Fleming Channel. The channel lies to the south of Belle Isle and continues downriver past the Ambassador Bridge.

7.8.3 Valued Ecosystem Components

This section describes components of the proposed Project that could have an adverse effect to the ecosystem of the Detroit River insofar as they relate to navigation. Much of the ecosystem that existed within the Detroit River decades ago has been destroyed over the years due to rapid development and industrialization along the river. The entire corridor has been dredged extensively to create and maintain shipping channels. The environmental characteristics of the aquatic environment of the Detroit River in the vicinity of the Proposed Project are discussed in detail in Section 7.8.3. The proposed

[90] Ibid

barge activity during construction has the potential for adverse effects to the existing ecosystem. Water pollution from the barge operating in the river poses the greatest risk for the ecosystem, as well as the potential for navigation interference.

Navigation

Screening for Potential Project – Environment Interactions

Potential project-environment interactions that may be encountered during project construction include potential navigation restrictions and/or the disruption of vessel flows resulting from the necessary use of barges during the project construction period. These include the interactions between the barge while moving and anchored with:

- Lake freighters;
- Tugboats;
- Sailboats;
- Riverboats; and
- Pleasure craft.

All necessary measures to avoid/minimize these impacts will be taken in accordance with the *Navigable Waters Protection Act*, the *Shipping Act*, COLREGS, and SOR/84-335.

Evaluation for Likely Environmental Change

During Construction and Development

During construction of the proposed Project, the potential for project related effects on the natural environment within the Detroit River are low. Barges will be utilized to bring equipment and construction materials such as steel and concrete to the project site. The extent of barge activity at the project site will be limited to the unloading of supplies, and no construction will occur from the barge. When barges are unloading construction materials, coordination with other vessels will be conducted in accordance with the statutory requirements to ensure that navigation on the river will not be impeded.

Assessment of Likely Environmental Effects

The proposed Project does not have any negative impacts since there are no in-water construction activities such as pile driving of cofferdams, dredging, or in-water blasting that would resuspend sediment. The proposed Project provides a minimum clearance of 46 metres (152 feet) above the ordinary high water level of the Detroit River, which is

175.4 metres (575.4 feet) (IGLD, 1985).[91] The height is the same as the clearance provided by the existing Ambassador Bridge and will ensure that commercial navigation is not impeded.

Summary of Residual Adverse Effects of VEC's

Potential VEC's include water quality, fish habitat and navigation. Based on the cable-stayed bridge structure and construction outward from the land, it is anticipated that the residual adverse effects to these VEC's will be negligible.

No residual effects are anticipated during operation of the proposed Project.

[91] US Army Corps of Engineers, Detroit District, Ordinary High Water Mark and Low Water Datum, 21 June 2006 <http://www.lre.usace.army.mil/_kd/go.cfm?destination=Page&pge_ID=1879&dialogue=0>.

Environmental Effects Matrix
Phase: Construction

Project Activity	Valued Ecosystem Component	Potential Environmental Effects	Mitigation	Magnitude	Geographic Extent	Duration	Reversibility	Ecological/Socio-Cultural and Economic Context
Transport of Construction Materials via Barge in the Detroit River	Fish Habitat / Water Quality	• Adverse change in habitat quality • Habitat fragmentation	• No in water construction	1	1	3	R	3
Transport of Construction Materials via Barge in the Detroit River	Navigation	• Interruption or interference of navigation of other vessels	• Coordination with other vessels to ensure navigation not impeded	1	1	3	R	3

Key:

Magnitude:
1 = Low; e.g. localized, specific group, one generation or less

2 = Medium; e.g. portion of population, 1-2 generations, unpredictable

3 = High; e.g. entire population

Geographic Extent:
1 = <1km^2
2 = 1-10 km^2
3 = 11-100 km^2
4 = 101 – 1,000 km^2
5 = 1,001 – 10,000 km^2

Duration:
1= <30 days
2 = 1-12 months
3 = 13-36 months
4 = 37-72 months
5 = >72 months

Reversibility:
R = Reversible
I = Irreversible

Ecological/Socio-cultural and Economic Context (Existing Conditions):
1 = natural and undisturbed
2 = some evidence of human effect on natural environment
3 = high level of human interaction with little natural environment

7.9 Public Consultation

Consultation

Consultation is the process where interested parties are provided an opportunity to contribute to the scoping of the project and the environmental assessment as outlined in section 16(1) (c) of the *Canadian Environmental Assessment Act*. Public consultation also allows for interested parties to contribute local knowledge or expert advice that is useful when conducting the environmental assessment. This public consultation process includes consultation with members of the public, stakeholders, Aboriginal persons and experts.

Consultation with the Public and Stakeholders

The Ambassador Bridge Company, as part of the environmental assessment process, committed to an extensive public consultation plan. The objective of the public consultation plan was to identify all those groups necessary to ensure a public consultation that includes everyone having an interest in the proposed Project. The goal of the public consultation plan was to heighten public awareness of the proposed Project, gather input from interested parties, while providing the Ambassador Bridge the opportunity to respond to, and resolve the issues raised, in a timely manner in an effort to avoid unnecessary delays in the process while at the same time ensuring all interested parties have an opportunity to comment on the proposed Project. A copy of this Public Consultation Plan is attached in Appendix M.

Consultation with the public regarding the proposed Project has been ongoing for several years. Representatives of the proposed Project have reached out to the community since 2005 to discuss and review the proposed Project. The comments made from the public during these meetings have been considered and taken into account in conducting the studies and assessment of the environmental effects of the proposed Project.

The Ambassador Bridge held a series of public information sessions and open houses to discuss and review the Proposed Project. At the public information sessions, attendees were greeted, encouraged to ask questions and to provide any comments or ask any questions on the addressed and stamped comment cards provided. Four public information sessions were held from April 16 – 19, 2007. A series of four locations were chosen throughout Windsor and the County to ensure that all members of the public interested in the Proposed Project had an opportunity to attend a public information session at a convenient location. The four locations included Essex District High School, St. Francis Elementary School in Sandwich Town, the Royal Canadian Legion on Huron Church Road, and the Caboto Club in the City of Windsor.

At the public information sessions, a presentation was provided and representatives from the Proposed Project consulting team and the Ambassador Bridge were available to respond to any issues raised by the public concerning the proposed Project. The public consultation appendix (Appendix M) also includes a comprehensive list of the questions raised at the public information sessions and the responses provided. Public concerns raised at the public information sessions were considered by the proposed Project Study Team during the refinement of the recommended plan. Announcements of the sessions were made on radio and published in the local newspapers including the Windsor Star. There were also several advertisements placed in the Windsor Star over the course of the proposed Project to update

the public on the progress of the technical studies and to provide information relating to the proposed Project.

The Open House meetings were held over two consecutive evenings; at the University of Windsor LaBel Building on June 25 and 26, 2007. The meetings were held to discuss the preliminary results of the technical studies. The preliminary results presented included; air quality, noise and vibration, archaeological, vegetation, wildlife, fish and fish habitat, surface water, groundwater and socioeconomic.

All members of the public who provided their contact information to a study team representative during the public information sessions were sent a letter or an email advising of the date, time and location of the Open House. Announcements of the Open House sessions were made on the local radio station and published in the Saturday edition of the Windsor Star. During the Open House sessions, attendees were greeted and provided with an overview of the presentation, invited to view the displays of the proposed Project and speak with representatives from the Ambassador Bridge Study Team.

Comment cards were available and provided and those attending the public information and open house sessions and individuals were encouraged to provide any questions and/or comments on the stamped cards provided. All questions and comments received during the information sessions and public open houses were responded to by the Ambassador Bridge. Copies of these responses are included in Appendix M.

During the scoping process and for the purposes of conducting the environmental assessment, numerous stakeholders were contacted and provided with the opportunity to express issues regarding the Project and offering information to assist in the preparation of the technical studies.

Several meetings and information sessions were held with the various municipalities, local chambers of commerce, unions, business improvement areas, community groups and any other interested groups who agreed to meet with the Study Team representatives. Representatives from the proposed Project contacted over sixty organizations offering to meet. Meetings were held with over twenty-nine different organizations, consisting of all the organizations who agreed to meet. Throughout the entire consultation process, any concerns raised were considered and taken into account by the Study Team.

Upon completion of the reports prepared in support of the Environmental Impact Statement two open house meetings were held at McKenzie Hall and Ciociaro Club on October 1, 2007 and October 2, 2007 to discuss the final results of the various technical studies and address any remaining concerns expressed by the public. Any concerns raised at the open house meetings were considered and taken into account by the study team and the necessary revisions made to the environmental impact statement.

The Study Team made several attempts to meet with, and discuss, the Proposed Project with the City of Windsor and its representatives. Unfortunately, the City of Windsor indicated that all communications relating to this Project were required to go through the Chief Administrative Office. After numerous attempts to arrange a meeting with City representatives and elected officials, the representatives for the proposed Project were only permitted one ten minute

presentation to the Mayor and Members of Council. Other than the presentation the City of Windsor continued to deny all requests and offers to meet to discuss the Project. It is only after the October public meetings were held that the City of Windsor expressed any interest in meeting to discuss the proposed Project. A meeting was held with the City of Windsor, its representatives and technical consultants on November 15, 2007. At this meeting the Study Team presented its technical findings and draft reports and were willing to engage in meaningful discussion. However, as soon as the presentation was completed, the City of Windsor refused to maintain confidentially over the draft technical reports and would not engage in any meaningful discussion.

The local Members of Parliament (Brian Masse, Jeff Watson and Joe Comartin) and the local Members of Provincial Parliament (Bruce Crozier, the Honourable Sandra Pupatello and the Honourable Dwight Duncan) were also contacted individually and provided an opportunity to meet and discuss the proposed Project. Two letters, on March 23, 2007 and May 24, 2007, were sent to these individuals requesting a meeting to provide an update and information on the environmental assessment and the proposed Project. Further to the letters, meetings were held with Brian Masse and Joe Comartin, Jeff Watson, Bruce Crozier and the Honourable Sandra Pupatello. The Honourable Dwight Duncan was not available to meet.

It should be noted that various meetings have been held since 1994 with both staff and the local Members of Provincial and Federal Parliament, both past and current, to advise them of the Ambassador Bridge's future plans for expansion, safety and security and the changes to those plans, particularly since and as a result of 9/11.

All issues raised during public consultation were reviewed and evaluated for their relevance to the environmental assessment for the scope of the Proposed Project. This information was considered and taken into account during the preparation of the various technical studies and reports in determining the environmental effects of the Proposed Project and the appropriate mitigation measures.

Consultation with First Nations

Consultation with First Nations is important in assessing any potential environmental effects of the Project on the current use of land and resources for traditional purposes by Aboriginal persons. There are four First Nations that have an interest in the Windsor area. These communities are: Aamjiwnaang, Caldwell, Wyandotte (also known as 'Wyandot'), and Walpole Island First Nations. All of these communities were provided an opportunity to participate in the consultation process. Representatives from the CanAm Indian Friendship Centre of Windsor was also contacted and provided with an opportunity to participate in the consultation process.

Letters were both couriered and faxed to the Chief of each of the First Nation to requesting a meeting to discuss the Proposed Project. Information relating to any traditional knowledge of the area to assist in identifying potential environmental effects and any relevant biophysical and historical information otherwise unavailable was also requested. Copies of these letters are attached in Appendix M.

There has also been a Walpole Island consultation initiative. This activity consisted of a presentation to the Walpole Island Heritage Committee, a presentation and meeting with Chief

and Council and a public open house meeting held on June 28, 2007 at Walpole Island United Church. Information relating to the Project and the results of any environmental studies were presented at the open house. Feedback sought and obtained during the consultation process is incorporated into the environmental impact statement.

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APPENDIX A

SPILLS PREVENTATION AND CONTINGENCY PLAN

SPILLS PREVENTION AND CONTINGENCY PLAN

1.0 INTRODUCTION

1.1 Plan Purpose

Despite the Ambassador Bridge's best efforts to prevent spills, no physical operation can attain zero risk. Acts of God, accidents and malfunctions can occur from time to time that result in a spill. To prevent such spills from leaving the site, design features are included in the Enhancement Project. Nevertheless, diligent operational procedures are also required to avoid accidental losses.

The purpose of the plan is to provide a response to spills to minimize:

- Danger to persons;
- Pollution of land and water;
- Size of the affected area;
- Degree of disturbance to plants, fish and animals; and
- Degree of disturbance during cleanup.

This Spill Prevention and Contingency Plan identifies the types of spills that may occur, and provides procedures to respond to such emergencies. This Plan shall supplement other Ambassador Bridge manuals / plans.

The purpose of this Plan is to initiate an immediate response with trained personnel and equipment to clean-up any accidental spill and ensure minimal impact to the land or aquatic environment in the immediate and surrounding area. The Plan includes procedures for clean-up, containment, disposal, and monitoring, including details regarding equipment and personnel allocations.

This Plan is a living document, and would be amended as required, to accommodate change in construction, operational procedures, regulations and guidelines. It first describes the Ambassador Bridge facilities as a component of the Enhancement Project followed by the contingency measures to support them. Onsite operations are planned to run year round, twenty four hours a day due to the demanding nature of an international bridge crossing with respect to its integral role in international traffic and trade.

An abbreviated version of the plan will be posted for all Ambassador Bridge staff, contractors, and visitors to the Enhancement Project site.

1.1.1 Pre-Spill Planning

Noting the nature of the Construction and Operation phases of this project and the very limited quantities of hazardous materials on site at anytime, the possibility of a large spill is very

remote. The text that follows applies to the most likely spill scenario to be encountered, i.e. a small spill needing immediate attention by staff on site.

Hazard Identification

Each Phase of construction and operation will be examined to identify the potential hazards. A Workplace Hazardous Materials Information System sheet will identify all hazardous compounds coming on site and this information will be available to all personnel. Workplace Hazardous Materials Information System training will be provided to all employees. Hazardous compounds will be stored in secure locked containers on site in secured enclosures.

Risk Analysis

The greatest risk for spills during the Construction and Operation Phases of the Enhancement Project will be from petroleum products. These spills will be contained quickly with the available onsite spill equipment. Locations throughout the project will be sufficiently equipped with spill absorbent materials and other tools to address and contain a small spill.

Resources Available

If required, emergency response for larger spills will be available. Local environmental clean-up companies along with local emergency services will be called upon if a larger spill occurs. Response will be consistent with specifications in the Environmental Protection Act, Part X.

Initial Alerting

Timely and accurate reporting of an accidental spill can help to ensure quick and efficient response. This Plan includes detailed information regarding both general and specific notification procedures.

1.1.2 Spill Criteria

A pollutant, as defined by Part X of the Environmental Protection Act means a contaminant other that heat, sound, vibration or radiation, and includes any substance from which a pollutant is derived (R.S.O. 1990, Chapter E. 19). "Spill" when used with reference to a pollutant, means a discharge, (a) into the natural environment, (b) from or out of a structure, vehicle or other container, and (c) that is abnormal in quantity in light of all the circumstances of the discharge (R.S.O. 1990, Chapter E. 19).

It should be noted that O. Reg. 675/98, Classification and Exemptions of Spills, indicates that the majority of the potential spills that could occur during the Operation Phase of the Enhancement Project will be Class VI. A Class VI spill is a spill of not more than 100 litres of fluid, other than fluid transported as cargo, from the fuel system or other operating system of a motor vehicle (O. Reg. 675/98, s. 6 (1)). Class VI spills are exempt from subsections 92 (1) (a) and 92 (3) and (4) of the Environmental Protection Act.

1.2 Applicability

This Spill Prevention and Contingency Plan addresses spills resulting in a release to the environment. It does not include routine operational leaks of oil into building sumps that are specifically designed for the capture and treatment of oily wastes.

If the incident is not part of normal operations, and there is doubt, consider it a spill.

Although the Plan is primarily aimed at hydrocarbon spills due to the large amount of fuel in storage, it also covers chemical spills and gaseous releases.

1.3 Ambassador Bridge Policy on Initiating Cleanup Activities

It is the policy of the Ambassador Bridge to initiate clean up activities when, in the opinion of management, the Ambassador Bridge is clearly, or likely associated with the spill. The guiding principles of the Ambassador Bridge Spills Prevention and Contingency Plan is to comply with existing regulations to ensure protection of the environment, and to keep employees, government officials and the public aware of our Plan.

2.0 ROLES AND RESPONSIBILITIES

2.1 Response Coordinator

The role of the Response Coordinator is to oversee the emergency response to a spill at the plant. The responsibilities of the Response Coordinator will be as follows:

a) The Response Coordinator directs all operations but does not get directly involved in the clean-up activities.

b) The Response Coordinator decides when the spill incident is under control.

c) All information about the spill should be directed to the Response Coordinator and any changes in the situation should be reported to him.

2.2 Generation Manager

The Generation Manager or his designate will be the Response Coordinator and oversee the emergency response to major spills. This will include all spills to the Detroit River.

He or his designate will be the sole communicators for reporting spills to the government, media or other agencies.

2.3 Shift Supervisor

The Shift Supervisor will assume the role of Response Coordinator for minor spills.

For major spills the Shift Supervisor will assume the role of Response Coordinator until the Generation Manager or his designate is able to take over. He will commence the initial response

and take immediate action to stop or reduce the spill and contain it, without endangering the health and safety of workers or the public.

2.4 Safety Officer

The Safety Officer will monitor the safety of workers during the response activities.

2.5 Environmental Health and Safety Officer

The Environmental Health and Safety Officer will be an advisor to the response team and monitor extent of spill.

2.7 Other Staff

All staff have a responsibility to report spills immediately to the Shift Charge Supervisor and assist as directed with spill response.

3.0 STANDARD PROCEDURE FOR ANY SPILL

Consider the safety of all persons first. If any personnel have been affected or injured by the spill, the Diagnostic Clinic should be contacted immediately for advice on treatment. Medical attention should be rendered as soon as possible.

3.1 Identification of Spill

a) All employees must inform the Shift Supervisor at once, of a spill.

b) If the employee can safely stop the spill at the source, this should be done.

c) The Shift Supervisor will investigate and confirm the spill. He will:

- Determine the source, if possible;
- Assess the size and nature of the spilled material (oil, chemicals);
- Mobilize a response team to take immediate action to stop or reduce the spill and contain it, without endangering the health and safety of the workers or local population;
- Take action to reduce hazards to persons working near the spill.

d) The Shift Supervisor will assume the role of Response Coordinator for most minor spill incidents unless relieved as below.

e) The Generation Manager or designate should be called to assume the role of Response Coordinator if the spill is considered major, such as:

- A bulk oil tank rupture;

- A fuel pipeline rupture;
- A release of oil or chemical outside of Ambassador Bridge property;
- A release of oil to the Detroit River;
- A spill to the storm water drainage system that has the potential for release to the Detroit River; or
- It requires additional resources such as mobilizing equipment contractors for response.

3.2 Response

a) Take any actions necessary to prevent the spill from contaminating groundwater or offsite surface water (e.g. clean-up using an absorbent material mixed with sand).

b) If the spill has the potential to leave the site via runoff to the Detroit River then the Generation Manager or designate must contact the Ministry of the Environment Spills Action Centre immediately and keep close contact with the Ministry of the Environment while the response is underway. Refer to Section 6 of this plan for coordinating a response with Ministry of the Environment Spills Action Centre.

c) Actions for the different spill types are documented as follows:

- Oil spills to land see Section 4;
- Oils spills to Detroit River see Section 5;
- Chemical spills see Section 6; and
- Gaseous releases see Section 7.

3.3 Documentation

a) The Shift Supervisor involved in the spill discovery will complete a Spill Reporting Form of the incident by the end of the shift and provide copies to the Safety Officer and the incoming Shift Supervisor. A copy of this form is contained in Appendix A.

b) A daily log will be maintained of the spill cleanup activities.

c) A full report of the incident shall be completed by the Response Coordinator or designate. The report should provide the following information:

- The date and time of spill;
- The name of the personnel involved in initial response;

- Location of incident;
- The substances involved (estimated quantity);
- Actions taken to respond (containment, cleanup);
- Government and agency personnel contacted;
- Media involvement (if any);
- Estimated costs of incident (cleanup and operating);
- Evaluation of response effectiveness (lessons learned);
- Description of ongoing requirements (remediation of soils, monitoring. etc);
- Identification of cause;
- Recommendations for prevention of future incidents; and
- Other relevant information.

3.4 Government Notification

a) The Ministry of the Environment Spills Action Centre should be notified of all spills. A written report should be provided as soon as practical (within one week) giving details of actions taken.

b) For major spills such as releases to the Detroit River or losses off site the Ministry of the Environment Spills Action Centre should be notified immediately by the Generation Manager or designate.

3.5 Communications

a) All external communications to government agencies or the media must go through the Generation Manager or designate.

b) Employees must refrain from making statements about the incident to the media (such as newspaper, radio, television) and refer these enquiries to the Generation Manager or designate.

c) Employees must refer any enquiries from regulatory personnel to the Generation Manager or designate.

4.0 RESPONSE TO OIL SPILLS ON LAND

Consider the safety of all persons first.

Small spills:

a) For small spills the oil should be prevented from escaping to storm water drains;

b) Collect the oil or soak up using absorbent material.

c) Once the spill cleanup is completed, place the used absorbent pads or contaminated materials into drums for disposal. Disposal will be coordinated with the Ministry of the Environment Spills Action Centre.

d) Contaminated soils should be excavated and replaced with clean fill.

e) Oil soaked sand or soil can be removed as directed by the Ministry of the Environment Spills Action Centre.

Major spills:

a) Obtain plastic tarp(s), absorbent sheeting, or other ultra-dry absorbent and any other necessary spill containment equipment, hoses, etc.

b) A berm of soil should be constructed down-slope from the seepage or spill.

c) A tarp can be placed in such a way that the fuel can pool for collection and removal (such as at the foot of a berm).

d) If there is a large volume of spilled product, pump the oil into spare empty drums and store in a secure area for reuse or disposal.

e) Absorbent sheeting or sand can be used to soak up spilled oil.

f) Contaminated soils should be excavated and replaced with clean fill.

g) Once the spill cleanup is completed, place the used absorbent pads or contaminated materials into the drums for disposal. Disposal will be coordinated with the Ministry of the Environment Spills Action Centre.

5.0 RESPONSE TO OIL SPILLS IN THE DETROIT RIVER

Consider the safety of all persons first.

a) Spills to the Detroit River must be promptly reported by the Generation Manager or designate and the Ministry of the Environment Spills Action Centre.

b) Relevant contact numbers for the Ministry of the Environment Spills Action Centre are provided in Section 10.

c) The spill notification should be as complete as possible and include:

a. Name, address and telephone number of reporting source;

b. On-scene telephone number;

c. Exact location and time of spill;

d. Estimated amount and type of pollutant;

e. Source of pollutant and cause of spill;

f. Actions being taken to control spill;

g. Wind speed and direction;

h. The damage observed.

d) Ambassador Bridge personnel will be responsible for the cleanup under the direction of the Ministry of the Environment Spills Action Centre.

6.0 RESPONSE TO CHEMICAL SPILLS

Consider the safety of all persons first. If any personnel becomes affected or injured by the spill during response, the Diagnostic Clinic should be contacted immediately for advice on treatment. Medical attention should be rendered as soon as possible.

a) The Safety Officer should be notified immediately.

b) Determine chemical released (refer to Inventory of Chemicals in Appendix B).

c) Refer to Table 6-1 for response to releases of commonly used chemicals.

d) Review the Manufacturers Safety Data Sheets (MSDS) of the material spilled before starting clean up to ensure safe procedures are in effect.

e) Assemble the necessary safety equipment before attempting to contain the spill, (such as latex or other protective gloves, goggles or safety glasses, masks or breathers, etc.).

f) Apply absorbents to soak up liquids (refer to MSDS for appropriate type).

g) Place plastic sheeting over solid chemicals, such as dusts and powders, to prevent them from spreading by wind and to prevent attraction by birds or other mammals.

h) Neutralize acids or caustics (refer to MSDS sheet). Place spilled material and contaminated cleanup supplies in an empty refuse drum and label and seal drums for disposal.

i) The disposal containers must be transferred to a secure storage area for future disposal. Disposal will be coordinated with the Ministry of the Environment Spills Action Centre.

7.0 RESPONSE TO GASEOUS RELEASES

Consider the safety of all persons first.

a) The Safety Officer should be notified immediately.

b) Assess the hazard of the released material by referring to the Manufacturers Safety Data Sheets (MSDS) where possible.

c) Attempt to shut off the source if it is safe to do so.

d) Determine if there are safety issues for on site and off-site and take action.

e) If it is a natural gas leak contact the Ministry of the Environment Spills Action Centre.

f) If releases of sulphur hexafluoride occur ensure that personnel do not enter without personal protective equipment (self contained breathing apparatus).

For most gaseous releases there is no ability to capture the release and hence the response is to shut off the source and rely on dispersion. As these releases can affect persons on neighbouring properties, it is important to observe wind direction and conditions to assess areas of potential impact.

8.0 RESPONSE EQUIPMENT

8.1 General Equipment

The Ambassador Bridge has maintenance vehicles and heavy equipment available to respond to emergencies and spills. The current facilities are well equipped to respond to emergencies and spills and the same standard will be kept throughout the Enhancement Project Construction and Operation.

8.2 Spill Kits

Complete spill kits will be available on both sides of the Ambassador Bridge located in the Windsor and the Detroit plazas during the Enhancement Project Construction and Operation Phases.

The following items will be contained in each spill kit:

Large Spill Kit

1 45 gallon, 16 gauge open top drum, c/w bolting ring and gasket

1	package polyethylene disposable bags
2	personal protective equipment packages: nitrile gloves, splash goggles, poly coated Tyvek® suit and boots.
1	shovel (spark proof)
4	123 inch x 10 feet absorbent booms
100	16 ½ inch x 20 inch universal absorbent mats
1	roll oil only absorbent mats 150 feet x 33 inches
12	drain cover, neoprene 36 inch x 36 inch
1	roll barrier tape, 300 feet.
1	list detailing contents of spill kit
1	set of instructions on use of each item in spill kit

Individual Spill Kit

20	absorbent pads
2	absorbent socks
10	refuse bags
2	goggles and gloves

In the case of a very large spill, spill kit inventory and off-site materials can be called upon. Other materials available for spill response from outside and on-site sub-contractors include:

- Shovels
- Vacuum trucks
- Booms
- Excavators
- Bags of absorbent
- Loaders

Emergency Back-up

In the event of large spills Ambassador Bridge will call on the resources of commercial spill clean-up companies, the Ministry Of The Environment, and local fire response teams.

9.0 TRAINING

Spill response training will be provided as part of the health and safety program for site personnel. This training program will familiarize the staff with the location and use of spill equipment and the need to report all spills to the Segment Manager. The review will focus on:

- Due diligence to prevent spills;
- Safety procedures;
- Roles and responsibilities;
- Spill assessment;
- Site security and safety;
- Characteristics of petroleum products;
- Spill containment and recovery;
- Site restoration; and
- Spill documentation.

Field demonstrations of correct procedures for spill response and mitigation will be scheduled periodically during mass safety meetings for each Project Segment.

10.0 UPDATE AND REVIEW

The Spill Prevention and Contingency Plan will be reviewed and updated as information changes or at least annually. The review should include checks of all relevant contacts (confirmation of correct telephone numbers) and availability of resources. The most recent review of the plan was completed in September 2007.

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APPENDIX B

Report

ORTECH Environmental
a division of ORTECH Consulting Inc.

PRIVILEGED AND CONFIDENTIAL

Air Quality Assessment for the Ambassador Bridge Enhancement Project

A Report to: The Canadian Transit Company
780 Huron Church Road, Suite 202
Windsor, Ontario
N9C 2K2

Attention: Mr. Craig Stamper
Tel: (586) 939-7000, Ext. 2971
Fax: (586) 755-4899

Submitted by: Hank Van Bakel, P.Eng.
Manager, Compliance and Permitting
Tel: (905) 822-4120, Ext. 628
Fax: (905) 855-0406
E-mail: hvanbakel@ortech.ca
and
Scott Manser, P.Eng
Senior Environmental Engineer
Tel: (519) 966-8798
Fax: (519) 966-8014
E-mail: smanser@ortech.ca

Project No.: 90433
59 pages, 15 Appendices

Date: November 30, 2007

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EXECUTIVE SUMMARY

The overall purpose of the air quality assessment is to determine if the construction and operation of the Ambassador Bridge Enhancement Project (ABEP) will result in any environmental effects and consider any mitigation measures to avoid significant environmental effects.

The study scope was carefully planned to provide insight into a variety of substances, locations and future scenarios. The study scope was based on the factors for air quality and climate change outlined in the Environmental Assessment Guidelines: August 2007 (EA Guidelines) provided by the federal EA review team. Prior to commencing the air quality assessment, ORTECH documented the intended study scope in an Air Quality Work Plan (AQWP) and submitted to Environment Canada for review and comment.

In conducting the assessment, the current air quality conditions were compared to air quality conditions that are expected to occur in the future. The areas surrounding the bridge, the customs plaza, and the stretch of public roadway leading from the bridge to Highway 401, known as Huron Church Road/Talbot Road (Highway 3) were included in the assessment. The air quality impacts related to construction activities were also taken into account.

Traffic data from publicly available sources such as The City of Windsor, Canadian Transit Company and Detroit River International Crossing as described in detail in Section 3.2, was used for estimating vehicle flow and profile for existing and future scenarios. The roadway fleet data, combined with MOBILE6.2C (a model developed by USEPA and enhanced by Environment Canada to reflect Canadian standards) was used to develop emission factors for vehicle emissions. A USEPA Compilation of Emission factors (AP-42: Chapter 13.2) was used to develop emission factors for roadway emissions (road dust).

State-of-science air dispersion modeling tools were utilized based on the Air Dispersion Modelling Guide for Ontario (ADMGO), specifically the USEPA CAL3QHCR was used to evaluate vehicle emissions and road dust and the USEPA AERMOD was used to evaluate construction activities. Cumulative effects were considered by adding the background concentration to the concentrations predicted using the dispersion models.

The key findings of the assessment were:

1. The **existing conditions** indicate that the greatest air quality impacts do not occur at the bridge or the customs plaza, but occur around key intersection locations along Huron Church Road. The impacts generally occur in close proximity (within $\simeq$ <150 m) to Huron Church Road and decrease significantly with distance. Air quality modeling indicates that concentrations above the air quality criteria may occur at these locations for certain pollutants of interest (NO_X, PM_{10} and $PM_{2.5}$). Idling and acceleration of vehicles related to traffic control lights appear to be a significant contributor to the air quality impacts. Air quality impacts could be reduced by measures that would allow thru-traffic to flow more freely such as enhanced signal timing and/or the removal of lights at key intersections.

2. The **existing conditions** indicate that the greatest impact, aside from Huron Church Road intersections, occurs at the customs plaza. Air quality modeling indicates that concentrations above the air quality criteria could occur in close proximity to this location for certain pollutants of interest. Idling and acceleration of vehicles in the customs queue seem to be the primary contributor. At the time of this study, additional customs processing stations were under construction but not yet completed. The expected improvement was considered in modeling of the future scenarios.

3. Under the future scenario, in **2011**, that considers impacts from **construction activities** related to the replacement span, air quality in close proximity to the bridge will be impacted due to emissions from construction equipment. The potential exists for concentrations of NO_X, PM_{10} and $PM_{2.5}$ above the air quality criteria. The project proponent plans a number of practical measures that will mitigate the construction impacts, including when, how and where the construction equipment will be deployed. Specific mitigation measures are discussed in detail in Section 6.2 of this report.

4. Under the future scenario, in **2021** with the **Ambassador Bridge** referred to as "future do nothing" or 2021 (FDN), the greatest air quality impacts are still predicted to occur along Huron Church Road, but are reduced in magnitude and aerial extent relative to the present (baseline) as more stringent fuel and vehicle emission standards take effect. For most pollutants of interest, the model suggests that the effect of more stringent standards outweighs the increase in traffic volumes. The improvement is most apparent for substances that are closely tied to the standards, such as NO_X. Under this scenario, NO_X concentrations are predicted to be below the air quality criteria. The policy assumptions considered by Environment Canada in the development of the model (MOBILE 6.2C) used to estimate current and future vehicle emissions are detailed in the model documentation. Policies impacting future vehicle emissions include but are not limited to a reduction in the gasoline and diesel sulphur content to 25 ppm and 15 ppm, respectively; 10% ethanol replacement; emission standards for passenger vehicles and light duty trucks phased in according to the schedules specified in Tier 1, NLEV and Tier 2 regulations; Canadian motorcycle emission regulations phased in during the period 2006 to 2010 as well as regular incremental reductions in volatile organic compound emissions under the United States 1990 Clean Air Act Requirements for ozone non-attainments areas. It should be is noted that the new emission standards for heavy duty vehicles implemented in the United States in 2007 are not accounted for in MOBILE6.2C.

5. Under the future scenario, in **2021**, 10 years after construction and operation of the **replacement span** referred to as 2021 (A), the greatest air quality impacts are still predicted to occur along Huron Church Road, but are reduced in magnitude and aerial extent relative to the present (baseline) as more stringent fuel and vehicle emission standards take effect as described above. In addition, the air quality in the area near the customs plaza and on the bridge is predicted to benefit from improved traffic flow due to the higher capacity of the expanded customs plaza and the new bridge. The reduced vehicle emissions appear to outweigh the increase in traffic volumes for most pollutants of interest. The reduced magnitude and aerial extent is most apparent for substances that are closely tied to the standards, such as NO_X. Under this scenario, NO_X concentrations are predicted to be below the air quality criteria.

6. Under the future scenario, in **2021**, 10 years after construction and operation of the **replacement span plus Ambassador Bridge** referred to as 2021 (B), the greatest air quality impacts are still predicted to occur along Huron Church Road, but are reduced in magnitude and aerial extent relative to the present (baseline) as more stringent fuel and vehicle emission standards take effect as described above. In addition, the air quality in the area near the customs plaza and on the bridge is predicted to benefit from improved traffic flow due to the higher capacity of the expanded customs plaza and the new bridge. The reduced vehicle emissions appear to outweigh the increase in traffic volumes for most pollutants of interest. The reduced magnitude and aerial extent is most apparent for substances that are closely tied to the standards, such as NO_X. Under this scenario, NO_X concentrations are predicted to be below the air quality criteria.

7. A comparison of the future 2021 "do nothing" and **replacement span** only scenarios, indicate that the replacement span and customs plaza will result in an improvement in air quality, notably in the area close to the bridge and the customs plaza. The future 2021 replacement span plus existing Ambassador Bridge scenario results in an increase in air quality concentrations of some contaminants in the vicinity of the customs plaza relative to the other 2021 scenarios. This is due to the "worst case" nature of this "two bridge scenario" which assumes all heavy duty vehicle traffic occurs on the replacement span with all light duty vehicle traffic on the Ambassador Bridge. The increased concentration of higher emitting heavy duty vehicles along the replacement span (particularly in the southbound direction) is predicted to result in slightly higher concentrations of some pollutants of interest, particularly PM_{10} and $PM_{2.5}$ associated with road dust, in the vicinity of the customs plaza. Operation of the replacement span plus the Ambassador Bridge is not considered a practical scenario by the proponent but has been assessed at the request of the federal EA review team.

8. The greatest potential for improving air quality exits where air quality is impacted the most, along Huron Church Road. Comparing areas along Huron Church Road where traffic flows freely to areas with major arterial intersections suggests that air quality impacts could be reduced significantly by measures that would allow thru-traffic to flow more freely such as enhanced signal timing and/or the removal lights at key intersections. Such measures fall outside the jurisdiction of the project proponent and as such strategies for mitigation in this area were not considered in the context of this air quality assessment.

1. INTRODUCTION

ORTECH Environmental (ORTECH) was contracted by the Canadian Transit Company (CTC) to carry out an air quality assessment as part of the Environmental Impact Statement (EIS) related to the Ambassador Bridge Enhancement Project (replacement span).

For over 50 years, industry and government have turned to ORTECH for independent technology-based environmental science and air quality services. As a recognized leader, ORTECH provides the highest quality services in technical consulting, problem solving, testing and evaluation with emphasis on air quality assessment and advanced computational techniques.

The overall purpose of the air quality assessment is to determine if the construction and operation of the replacement span will result in any significant adverse impacts on the environment.

The scope of the air quality assessment was originally developed to address requirements set forth by the federal Environmental Assessment review team in the document titled "Draft Federal Environmental Assessment Guidelines Under the Canadian Environmental Assessment Act for the Ambassador Bridge Environmental Assessment (2006)" dated March 2007. The guidelines were revised in August 2007 ("EA Guidelines"). The EA Guidelines include a summary of the air quality and climate requirements provided in the Appendix 1.

As recommended in the draft EA Guidelines, prior to commencing the air quality assessment, ORTECH documented the intended study scope in a document titled "draft Air Quality Work Plan" dated June 8, 2007. Incorporating comments and suggestions provided by Environment Canada (July 13, 2007), a revised Air Quality Work Plan (AQWP) dated August 10, 2007 was submitted and reviewed by Environment Canada. Further information for clarification purposes was provided to Environment Canada on October 23, 2007.

The scope of the air quality assessment involved:

- preparation of a AQWP including defining the study area, receptors and pollutants of interest;
- relevant data collection and analysis;
- assessment of current and projected fleet profile and traffic flow;
- preparation of an air emission inventory (air pollutant burden);
- setup and completion of dispersion modeling; and
- assessment of results including assessing cumulative effects and mitigation measures where necessary.

The scope of the air quality assessment is described in detail in Section 2.

The emission estimation tools and air quality models used were those identified by Transport Canada in the revised EA Guidelines dated August 2007 and are widely used and state-of-the-art tools for such analysis. Ambient air quality background data from government sources was relied upon for the purposes of this analysis. The results related to concentrations of substances were based on model predictions and are sophisticated estimates only; actual measured at physical locations by analytical methods may give different results.

2. SCOPE OF THE AIR QUALITY ASSESSMENT

The scope of the air quality assessment, based on the AQWP is summarized in the following sections and is shown graphically in the flow chart presented in Figure 1.

The air quality assessment considered maximum (worst case) impacts for specific scenarios through the use of conservative model inputs and selection of maximum model outputs to develop the maximum credible air pollution emission scenarios for comparison with air quality criteria.

2.1 The Study Area

Since the replacement span is situated predominantly within the Windsor urban area, the impacts on residences and other potentially sensitive receptors were addressed. Impacts on other nearby potentially sensitive environmental areas such as First Nations lands and transboundary receptors were also considered.

The study area was defined in three zones (site, local and regional) as described below.

2.1.1 The Site Study Area

Consistent with the EA Guidelines, the Site Study Area will consist of the project footprint, identified as the area where new construction takes place. The Site Study Area is shown in Figure 2.

2.1.2 The Local Study Area

The Local Study Area is defined as the area existing outside the Site Study Area boundary, where there may be the possibility for potential environmental effects of the project on air quality.

For the purpose of air quality impacts, the Local Study Area has been defined as areas within 300 m of Huron Church Road extending from the Site Study Area to Highway 401. An ambient air quality study conducted by the Ontario Ministry of the Environment (2004) concluded *"Increases in particulate matter above ambient conditions were measured at distances from a few metres to 300 metres from the roadway"*. The Local Study Area will also include impacts around the main Huron Church intersections.

The Local Study Area is described below and shown in detail in Figure 2. Figure 3 provides the outline of Area B, which comprised part of the initial impact assessment.

Figure 1: Air Quality Assessment Flow Diagram

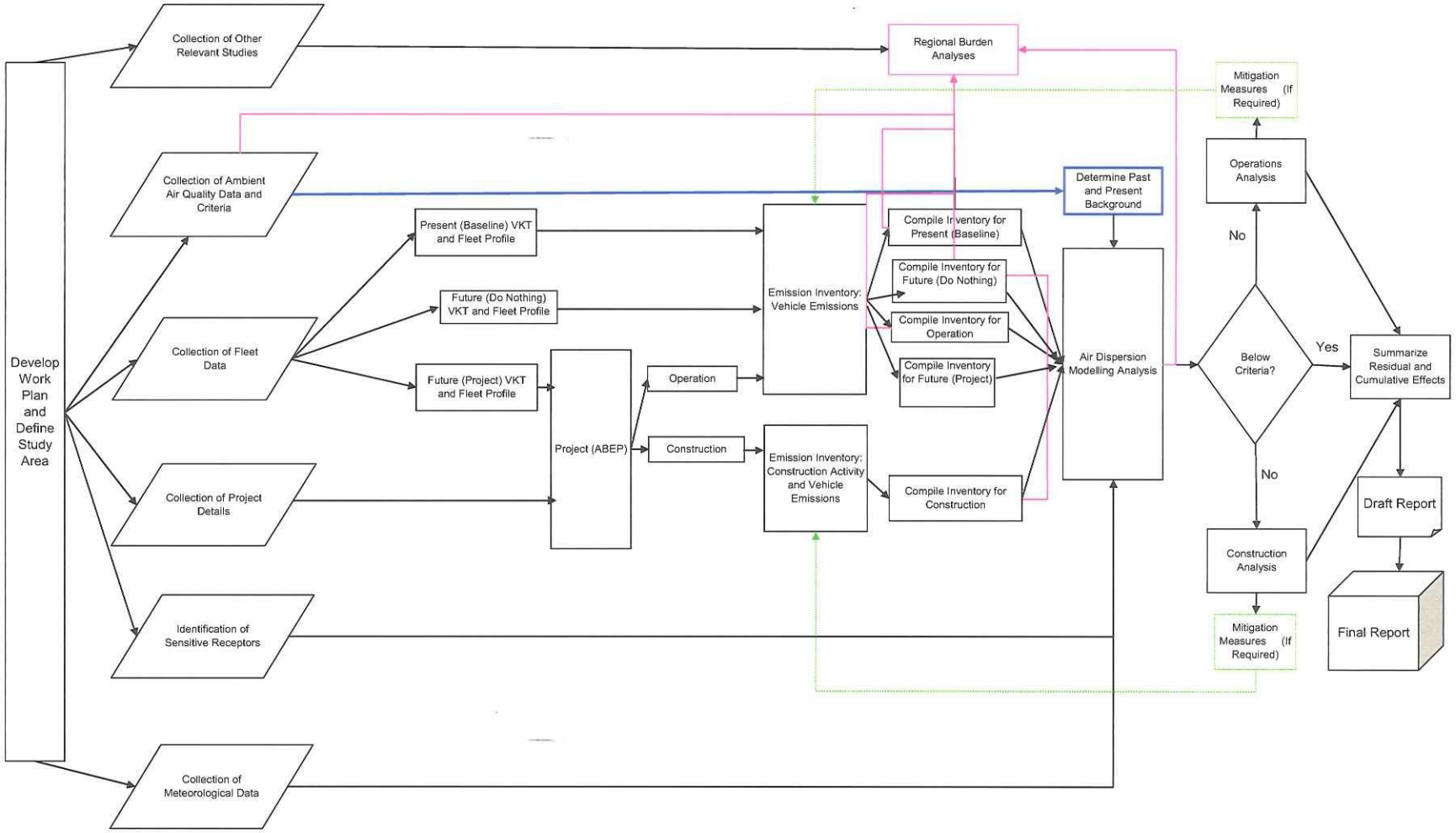


Figure 2: Site Study Area and Local Study Area

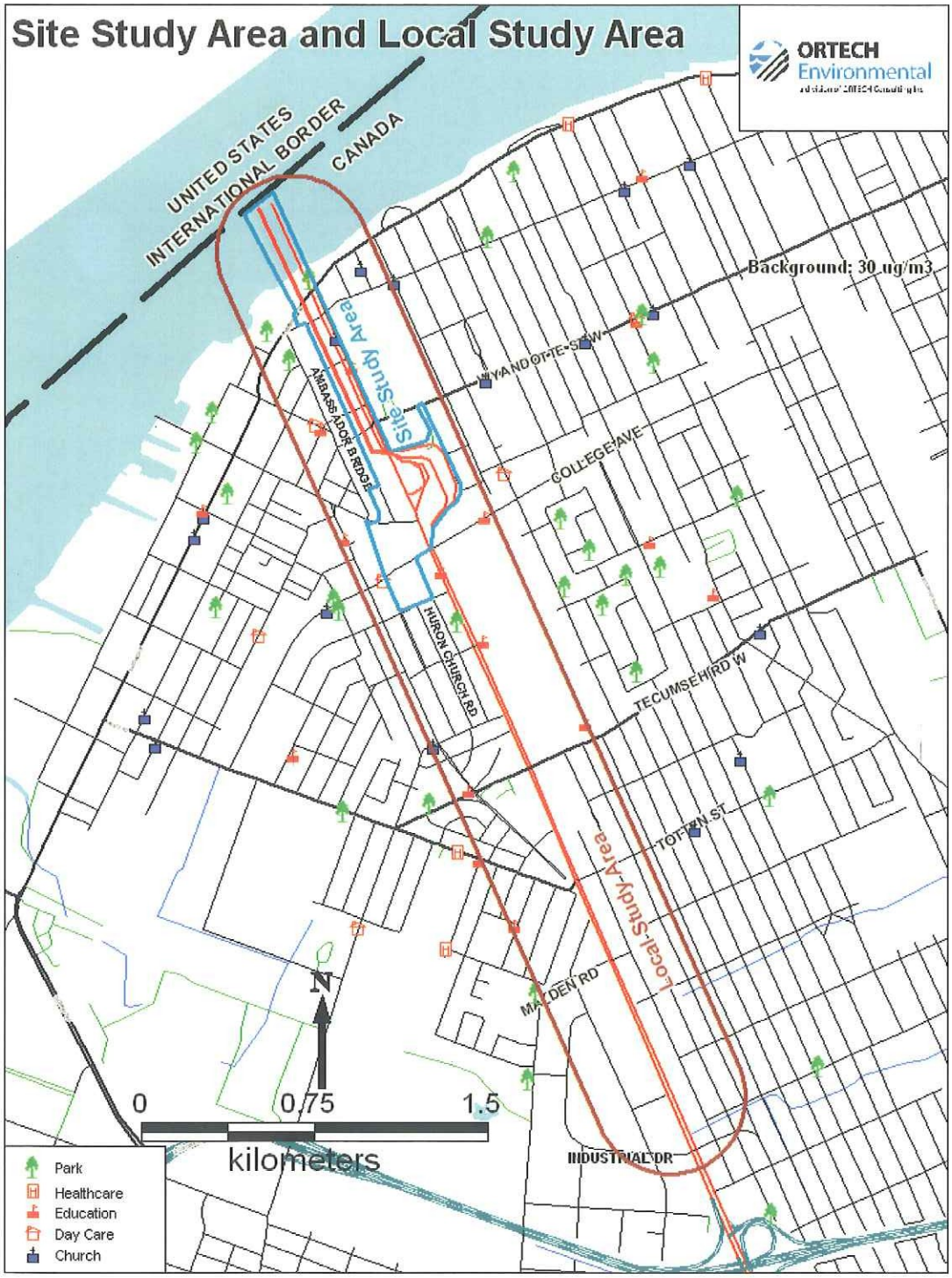
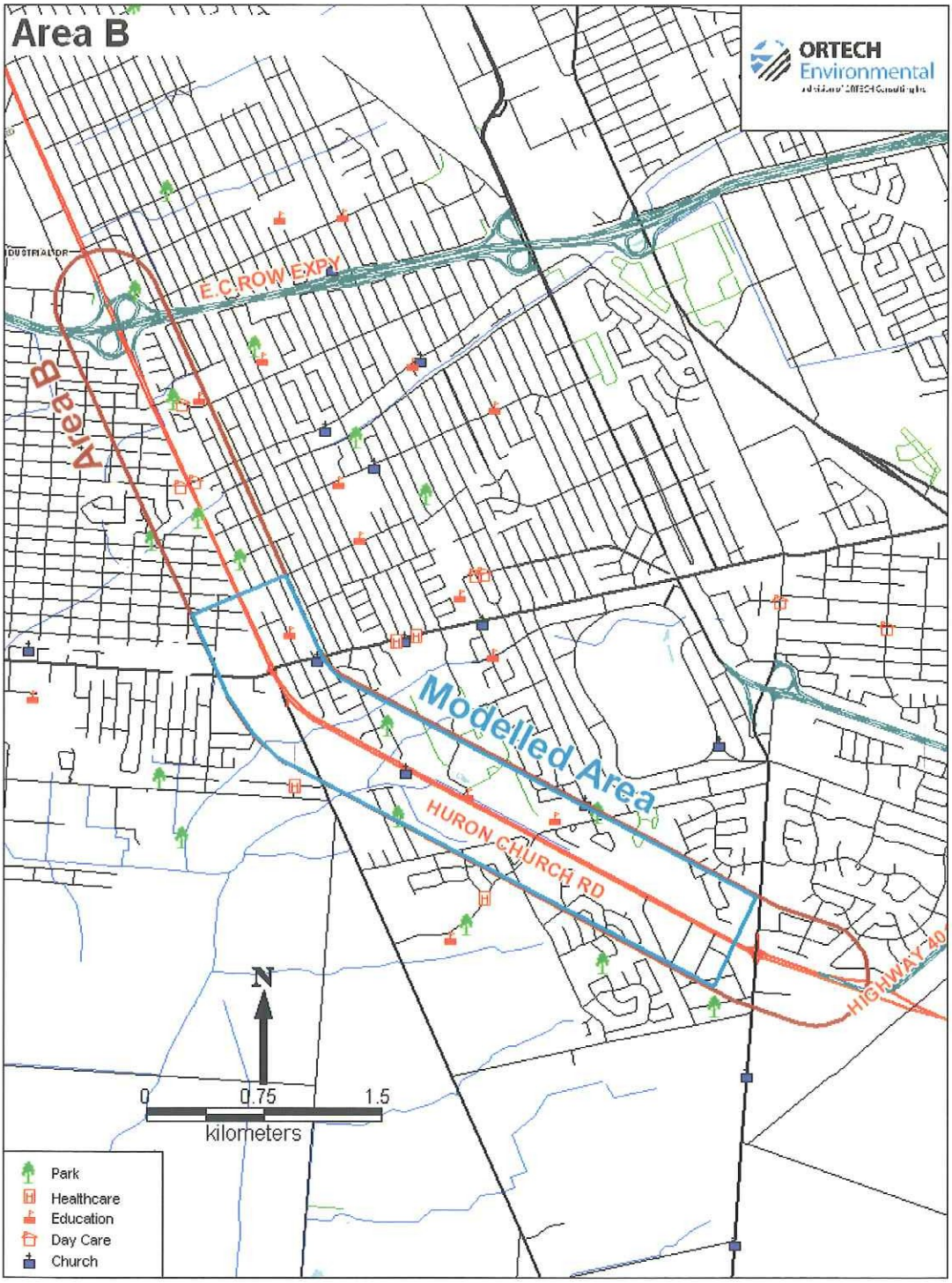


Figure 3: Area B



Local Study Area:

This section of the Local Study Area closest to the site, commences from the international boundary line near the middle of the Detroit River and includes the section of Huron Church Road extending from the edge of the Site Study Area (i.e. edge of the customs plaza) to a distance of approximately 2 km to include the turn for secondary inspection at Industrial Drive;

The following approach was used to perform the air quality assessment for Local Study Area:

- due to the complex activities in the vicinity of the Site Study Area, the assessment of air emissions warranted a detailed analysis including quantification of emission rates from vehicle exhaust and roadway emissions (road dust) (using USEPA MOBILE 6.2/6.2C and USEPA emission factors that have been adjusted to reflect Canadian standards, where appropriate as recommended by EA Guidelines) associated with traffic along Huron Church Road using site specific fleet data and peak traffic flow obtained from the Canadian Transit Company, City of Windsor and DRIC reports that is representative of this section of Huron Church Road;
- the results were used as input for detailed dispersion modeling (using CALQ3HCR and based on the Air Dispersion Modelling Guide for Ontario) to generate concentration profiles; the predicted concentrations were added to suitable background concentrations for comparison with relevant criteria; and
- impacts, if any, were assessed on special receptors described in detail in Section 2.2.2.

Area B:

This section includes the section of Huron Church Road from the 2 km point to Highway 401. Initially this area was selected for study to determine the potential for impacts resulting from the project, an enhanced bridge crossing. Based upon the results and analysis of the Local Study Area and the initial analysis of Area B it has been determined that there are no impacts associated with the project in this area.

The following approach was used to perform an initial air quality assessment in this area further from the Site Study Area:

- a 2 km sub-section within Area B was selected to assess the significance of changes in the physical road and traffic flow conditions along this stretch of Huron Church Road. The sub-section includes the transition in Huron Church Road from 3 lanes in each direction north of Cabana Road W (speed limit 60 km/h) to 2 lanes in each direction south of Cabana Road W (speed limit 80 km/h) because the intersection of Huron Church Road and Cabana Road has historically experienced congestion;
- the emission rates from vehicle exhaust and roadway emissions (road dust) were estimated for this sub-section of the road as described for Local Study Area. Similar to Local Study Area, the traffic flow considers queuing/idling along the section of Huron Church Road;
- modeling was performed as per Local Study Area using CALQ3HCR and based on the Air Dispersion Modelling Guide for Ontario to assess emissions from this point on the road and to generate a concentration profile;
- concentration profiles (concentration as a function of distance from Huron Church Road) were prepared for the points in Area B and compared with similar profiles prepared for Local Study Area;
- the predicted concentrations were added to suitable background concentrations for comparison with relevant criteria; and
- impacts, if any, were assessed on special receptors described in Section 2.2.2.

2.1.3 The Regional Study Area

The Regional Study Area is defined as the area within which there is the potential for cumulative effects (with other projects). The level of detail provided in the assessment of cumulative effects is more conceptual and less detailed as these effects become more remote in distance and time to the project. The assessment examined the annual emissions associated with the project relative to annual regional emissions for Essex County (Ontario) and Wayne County (Michigan).

2.2 Receptors

Receptors included in the air quality assessment are categorized in two groups: Virtual Receptors and Special Receptors, as summarized below.

2.2.1 Virtual Receptors

Virtual receptors are defined points in space used in air dispersion modeling to define locations at which pollutant concentrations are predicted and subsequently used to generate concentration contour plots. A grid system is used to define the location of the virtual receptors.

2.2.2 Special Receptors

Additional special receptors considered in the air quality assessment include potentially sensitive receptors such as residences, education facilities, healthcare facilities, day care facilities, places of worship and municipal parks. These special receptors represent those that are likely to be most sensitive to impacts from all phases of the project. Impacts on other potentially sensitive environmental areas such as First Nations Lands, federal and provincial parks and transboundary receptors were also considered as special receptors.

2.3 Pollutants of Interest

Consistent with the EA Guidelines, the air quality assessment addressed the pollutants of interest summarized in Table 1.

As described in Section 4, for polycyclic aromatic hydrocarbons (PAHs), emphasis was placed on benzo (a) pyrene as this contaminant has air quality criteria at least 100 times lower than the other PAH compounds commonly associated with vehicle emissions.

Table 1: Pollutants of Interest

Group	Pollutants of Interest
Pollutants and Precursors	Carbon monoxide (CO) Nitrogen oxides (NO_X) (include nitric oxide (NO) and nitrogen dioxide (NO_2) expressed and NO_2) Sulphur dioxide (SO_2) Particulate matter ≤ 10 microns (10^{-6} meters) in diameter (PM_{10}) Particulate matter ≤ 2.5 microns (10^{-6} meters) in diameter ($PM_{2.5}$) volatile organic compounds expressed as non-methane hydrocarbons (NMHC)
Air Toxics	Benzene (C_6H_6) Acetaldehyde (CH_3CHO) Formaldehyde (H_2CO) 1,3-butadiene (C_2H_4) acrolein (C_3H_4O) benzo(a) pyrene plus other polycyclic aromatic hydrocarbons (PAHs) compounds listed below
Greenhouse Gases	Carbon dioxide (CO_2) Nitrous oxide (N_2O) Methane (CH_4)
Other	ground level ozone (O_3)
Other PAH Compounds	acenaphthylene acenaphthene anthracene benzo (a) anthracene benzo (b) fluoranthene benzo (g,h,i) pyrene benzo (k) fluorene chrysene dibenzo (ah) anthracene fluoranthene fluorene ideno (1,2,3-cd) pyrene naphthalene phenanthrene pyrene

2.4 The Emission Scenarios

In accordance with the EA Guidelines, the scenarios listed in Table 2 were assessed.

Table 2: Emission Scenarios for Air Quality Assessment

Identification	Code	Description
Past	Past	Operation of Ambassador Bridge only (recent 5-year period)
Present (Baseline)	Present (Baseline)	Operation of Ambassador Bridge only (recent 1-year period)
Construction	2011 (Construction)	Construction of replacement span and operation of Ambassador Bridge only (2008-2011)
Operation	2011 (Operation)	Operation of replacement span only on expected date of completion (2011)
Future (Do Nothing)	2021 (FDN)	Operation of Ambassador Bridge only (2021)
Future (A)	2021 (A)	Operation of replacement span only (10 Years Post Construction) (2021)
Future (B)	2021 (B)	Operation of replacement span (heavy duty vehicles only) and Ambassador Bridge (light duty vehicles only) (10 Years Post Construction) (2021)

2.5 Air Quality Criteria and Background Concentrations

The air quality criteria and ambient air quality monitoring data utilized for this study were obtained from a variety of municipal, provincial, federal and state regulatory jurisdictions. The air quality monitoring data was assessed and the 90th percentile concentration was selected to represent the background ambient air concentrations within the study area.

The assessment of ambient air quality criteria and background concentrations are described in detail in Section 3.

2.6 Tiered Approach

The air quality assessment was performed using a 3-tier approach as summarized below. Details on the approach related to the air emission inventory and dispersion modelling assessment are provided in Section 4 and Section 5, respectively.

Tier 1: Very Conservative Screening Basis

Initially, the air quality assessment was performed on a very conservative screening basis. Traffic flow recorded during the peak morning or afternoon rush hours periods was applied to all hours of the day. Where maximum air quality concentrations predicted for Tier 1 were below ambient air quality criteria, further refinements were not required. If the maximum air quality concentrations for Tier 1 indicate that concentrations above the criteria may occur, further refinements were warranted as described in Tier 2.

Tier 2: Refined Basis

For Tier 2, the very conservative basis (Tier 1) assumptions were refined to a more realistic yet still conservative basis. The peak traffic flow recorded during the higher of the morning or afternoon peak hour was used as the basis to develop an hourly traffic flow distribution. Non peak hours were proportioned according to the hourly traffic flow distribution for Huron Church Road. Where the maximum air quality concentrations predicted for Tier 2 were below ambient air quality criteria, assessment of further action was not required. If the maximum air quality concentrations predicted for Tier 2 indicate that concentrations above the criteria may occur, an analysis of further study required is warranted as summarized below.

Tier 3: Further Study Required

Tier 3 includes an assessment of further action that may be required in cases where the maximum air quality concentrations predicted for Tier 2 indicate that concentrations above the criteria may occur. Such further actions include mitigation measures used to reduce short-term impacts during the construction activities to ensure no significant environmental effects. Areas requiring further study and mitigation measures proposed are described in Section 6.

3. DATA COLLECTION AND ANALYSIS

3.1 Ambient Air Quality Data

Air quality criteria (National Ambient Air Quality Criteria, Canada Wide Standards (CWS) and Ontario Ministry of Environment Ambient Air Quality Criteria) and averaging periods for the pollutants of interest were researched and summarized. For pollutants of interest without Canadian or Ontario air quality criteria, available criteria from other jurisdictions were used including the State of Michigan and the State of New Hampshire. The hierarchy of selection of air quality criteria was the Ontario Ministry of Environment ambient air quality criteria and point of impingements standards and guidelines and Environment Canada (CWS) followed by the State of Michigan and then other jurisdictions, as needed.

In instances where a pollutant of interest has more than one averaging period (e.g., CO, NO_X, SO_2, PM_{10}, $PM_{2.5}$), the most commonly used averaging period was selected as the relevant averaging period (RAP) used in the subsequent air quality assessment. In the case of NO_X, the air quality was assessed against both the 1-hour and 24-hour standard for completeness since for some emission scenarios the predicted concentration is significant relative to the criteria. The pollutants of interest, criteria and selected RAP are summarized in Table 3.

Air quality monitoring data for the specified pollutants of interest, used to identify background ambient air concentrations within the study area, were examined from a variety of information sources and published network monitoring results. The data sources examined with an indication of the monitoring period used and the most recent publication date includes:

- the Ontario Ministry of the Environment (MOE) Air Quality in Ontario annual reports (2000 – 2005) dated 2006;
- the Environment Canada National Air Pollutant Surveillance Program (NAPS) reports (2000 – 2004) dated 2007;
- the Michigan Department of Environmental Quality (DEQ) annual air quality report (2005) dated 2006;
- MOE air quality assessment related to traffic congestion at Windsor's Ambassador Bridge (2002 – 2003) dated 2004;
- the Detroit River International Crossing (DRIC) initial report of monitoring adjacent to Huron Church Road (2006) dated 2007;

- Environment Canada Integrated Atmospheric Deposition Network (IADN) monitoring (1996 – 2000) dated 2007;
- Sarnia Lambton Environmental Association (SLEA) monitoring data (2002 – 2003) dated 2007; and
- other published data such as Environment Canada Detroit Incinerator Monitoring reports (1987 – 1990) dated 1992 and recognized air pollution publications (Seinfeld and Pandis) dated 1998.

Ambient air quality data spanning a recent five-year period for stations located in the study area for the pollutants of interest were gathered. This included local monitoring data from within the City of Windsor and other identified air quality studies pertinent to the study area. Data were used to the extent possible from the MOE Windsor West and Downtown monitoring sites which were considered to conservatively represent the urban area-specific background levels.

Details related to the collection and analysis of ambient air quality data including the location of the ambient monitoring stations considered in the analysis and past ambient air quality data are provided in Appendix 2. Where available, the mean, 90th percentile, maximum, and frequency of exceedences were summarized. The 90th percentile value was selected to represent a suitable background concentration as per the EA Guidelines. The background concentration data are also summarized in Table 3.

Table 3: Summary of Air Quality Criteria and Background Concentration

Pollutant of Interest	Averaging Period	Air Quality Criteria	Units	Reference	Selected Relevant Averaging Period	Background Concentration[1]
Pollutants and Precursors						
CO	1 hr	30	ppm	MOE (Reg 419/05: Standard)	1 hr	0.38
	8 hr	13	ppm	MOE (Reg 419/05: Standard)		
NOx	1 hr	400	µg/m^3	MOE (Reg 419/05: Standard)	24 hr	30
	24 hr	200	µg/m^3	MOE (Reg 419/05: Standard)		
SO_2	1 hr	690	µg/m^3	MOE (Reg 419/05: Standard)	24 hr	13
	24 hr	275	µg/m^3	MOE (Reg 419/05: Standard)		
PM_{10}	24 hr	50	µg/m^3	MOE (Interim AAQC)	24 hr	46
$PM_{2.5}$	24 hr	30	µg/m^3	Environment Canada (Canada Wide Standard)	24 hr	24
VOC (NMHC)	1 hr	NA	ppm		1 hr	0.29
Air Toxics						
benzene	24 hr	30	µg/m^3	Michigan (Department of Environmental Quality)	24 hr	3.4
acetaldehyde	24 hr	500	µg/m^3	MOE (Reg 419/05: Standard)	24 hr	2.0
	24 hr	5,000	µg/m^3	MOE (Reg 419/05: Upper Risk Threshold) - currently applicable		
formaldehyde	24 hr	65	µg/m^3	MOE (Reg 419/05: Standard)	24 hr	4.5
1,3-butadiene	24 hr	2	µg/m^3	Michigan (Department of Environmental Quality)	24 hr	0.21
acrolein	24 hr	0.8	µg/m^3	MOE (Reg 419/05: Upper Risk Threshold) - currently applicable	24 hr	0.081
	24 hr	0.08	µg/m^3	MOE (Reg 419/05: Standard) - applicable starting 2020		
enzo (a) pyrene	24 hr	0.0011	µg/m^3	MOE (Reg 419/05: AAQC)	24 hr	0.00081
	annual	0.0003	µg/m^3	MOE (Reg 419/05: AAQC)		
Greenhouse Gases						
CO_2	annual	NA	µg/m^3		annual	650,000
N_2O	24 hr	9,000	µg/m^3	MOE (Reg 419/05: AAQC)	24 hr	560
CH_4	annual	NA	µg/m^3		annual	1,130
Other						
ozone	1 hr	165	µg/m^3	MOE (Reg 419/05: Standard)	1 hr	< 50
	8 hr	130	µg/m^3	Environment Canada (Canada Wide Standard)		
Other PAH Compounds						
acenaphthylene	24 hr	35	µg/m^3	Michigan (Department of Environmental Quality)	24 hr	0.0094
acenaphthene	24 hr	210	µg/m^3	Michigan (Department of Environmental Quality)	24 hr	0.0086
anthracene	24 hr	1000	µg/m^3	Michigan (Department of Environmental Quality)	24 hr	0.013
benzo (a) anthracene	24 hr	0.36	µg/m^3	New Hampshire (Code of Administration Rules)	24 hr	0.0011
benzo (b) fluoranthene	24 hr	0.36	µg/m^3	New Hampshire (Code of Administration Rules)	24 hr	0.0033
benzo (g,h,i) perylene	24 hr	12	µg/m^3	Michigan (Department of Environmental Quality)	24 hr	0.0012
benzo (k) fluoranthene	-	NA	-		-	0.0002
chrysene	24 hr	0.36	µg/m^3	New Hampshire (Code of Administration Rules)	24 hr	0.0049
dibenzo (ah) anthracene	-	NA	-		-	Not Detected
fluoranthene	24 hr	140	µg/m^3	Michigan (Department of Environmental Quality)	24 hr	0.024
fluorene	24 hr	140	µg/m^3	Michigan (Department of Environmental Quality)	24 hr	0.010
indeno (1,2,3-cd) pyrene	-	NA	-		-	0.0012
naphthalene	24 hr	22.5	µg/m^3	MOE (Reg 419/05: AAQC)	24 hr	0.84
phenanthrene	24 hr	0.71	µg/m^3	New Hampshire (Code of Administration Rules)	24 hr	0.049
pyrene	24 hr	100	µg/m^3	Michigan (Department of Environmental Quality)	24 hr	0.015

Note: (1) selected as 90th percentile value of ambient air quality data, where available. For benzo (a) pyrene and other PAH species (excluding naphthalene) the average concentration plus one standard deviation was used and for ozone the mean concentrati

3.2 Fleet Data

Information on fleet profile and traffic flow from the following sources (described in detail in Appendix 3) were collected and analyzed:

- Transport Canada;
- The City of Windsor;
- Canadian Transit Company (CTC);
- Detroit River International Crossing (DRIC);
- Statistics Canada; and
- Environment Canada

Fleet data (fleet profile and traffic flow) was identified for present and future scenarios for the bridge, Huron Church Road and other Arterial Routes within the study area. Details related to the collection and analysis of fleet data is provided in Appendix 3 and summarized in Section 4.

Information on traffic signaling was obtained from The City of Windsor. This information combined with traffic flow and the CAL3QHCR model described in Section 3.5 provided information on vehicle queuing and idling (including spatial, frequency and duration considerations) at intersections, customs plazas and approaches were incorporated into the analysis.

The fleet data, combined with MOBILE6.2C, were used to develop emission factors for vehicle emissions including exhaust plus evaporative emissions, tire wear and brake wear as described in detail in Section 4.1.

The fleet data, combined with USEPA AP-42 (Chapter 13.2: Fugitive Dust Sources – Paved Roads), were used to develop emission factors for roadway emissions (road dust). The road dust estimation method is described in detail in Section 4.2.

3.3 Ambassador Bridge Enhancement Project Data

The fleet data associated with future emissions scenarios which include the replacement span were collected and analyzed as described above. This includes projected future improvements in the flow of traffic associated with the replacement span including the reduction in queuing and idling associated with improvements in the customs plaza and the two additional lanes.

Data related to activities during construction of the replacement span were collected and analyzed. This data included information on the approximate schedule, location, type of machinery and other details necessary to calculate and assess emissions from the type of construction activities identified in the revised EA Guidelines including:

- movement and storage of materials;
- demolition activities;
- heavy equipment exhaust; and
- roadway emissions (road dust) from movement of heavy equipment.

Information on further action potentially required to minimize short-term impacts during construction activities were collected and assessed where appropriate.

Details related to the collection and analysis of construction activity data is provided in Appendix 4 and summarized in Section 4.3.

3.4 Receptor Data

The EA Guidelines state "*the identification of residences and sensitive receptors should include those that are likely to be most-heavily impacted by air emissions and fugitive dust emissions from all project phases, including construction, operation and decommissioning. This should include the closest residences to the customs plaza and the closest residences along the most frequently congested section(s) of Huron Church Road approaching the customs plaza*".

Data on the identification and location of special receptors described in Section 2.2 was obtained from the following sources:

- City of Windsor;
- City of Windsor and Essex County School Boards – Public and Catholic;
- Listings of education, healthcare and day care facilities, places of worship and municipal parks; and
- supplemented by local knowledge

Details were confirmed by field observations where appropriate. Details related to the collection and analysis of receptor data, including the location of specified receptors, is provided in Appendix 5.

3.5 Dispersion Models and Input Data

Meteorological data available through federal, provincial or state agencies was assessed. The surface data from the Windsor Airport in combination with upper air data from Detroit was selected.

Dispersion modelling was performed based on the Air Dispersion Modelling Guide for Ontario (ADMGO), version 1.0, July 2005 and guidance provided with the selected air quality dispersion models, USEPA CAL3QHCR and USEPA AERMOD. The selection of these models is described in more detail in Section 5.

The CAL3QHCR model, one of the alternative models described in the ADMGO, requires at least one year of preprocessed meteorological data. A 5-year surface meteorological data set (2002 - 2006) was provided by the Ontario Ministry of Environment (Air Modelling and Emissions Unit). Upper air meteorological data for the same 5-year period was obtained from the National Oceanic Atmospheric Administration. The CAL3QHCR was run separately for each year with the present (baseline) inventory and the year that predicted the highest concentrations (2005) selected for subsequent model runs.

The USEPA AERMOD model was used for assessing the impact from the construction phase of the project. The 5-year meteorological data set (2002 - 2006) described above was used with AERMOD.

Details related to the collection and analysis of meteorological and other dispersion modeling data including a wind rose for the selected data is provided in Appendix 6 and summarized in Section 5.

4. EMISSION INVENTORY

The air quality assessment included the development of emission factors and quantification of emission rates related to vehicle emissions (exhaust, evaporative losses, tire wear and brake wear), dust generated from vehicles traveling over the surface of roads (road dust) and emissions from construction activities.

Emission factors and emission rates were developed for each emission scenario as summarized in the following sections.

4.1 Vehicle Emissions

The techniques used to estimate emissions associated with vehicles including exhaust, evaporative loses, tire wear and brake wear are provided in detail in Appendix 7 and summarized below.

MOBILE 6.2C, a Canadian mobile emission factor model, was developed by Environment Canada based on the USEPA MOBILE6.2 model. This model was used to generate composite emission factors (i.e., grams of pollutant emitted per vehicle mile traveled, g/VmT). Emission factors were developed for the months of January and July for each of the following emission scenarios:

- present (baseline);
- construction / operation – 2011 (Construction / Operation);
- future (do nothing) – 2021 (FDN);
- future (A: replacement span only) – 2021 (A); and
- future (B: replacement span and Ambassador Bridge) – 2021 (B)

The MOBILE6.2C model was used for emission calculations for most of the pollutants of interest. Emission calculations for benzo (a) pyrene, nitrous oxide (N_2O) and methane (CH_4) were developed using the techniques as described in Section 4.1.2.

MOBILE6.2C is reflective of Canadian standards and conditions and MOBILE6.2 is reflective of US standards and conditions. A sensitivity analysis was performed comparing the emission factors predicted for the baseline and future (2021 (A)) emission scenarios using MOBILE6.2C and MOBILE6.2. Emission factors were generated for January and July for a full range of vehicle speeds (2.5 to 50 mph) for pollutants of interest. For the present (baseline) emission scenario, MOBILE6.2C consistently predicts higher ($\approx$ +5% to +18%) emission factors than MOBILE6.2. For the future (ABEP: 2021 (A)) emission scenario, the difference between the two models is marginal (ranging from $\approx$ -1% to +3%).

It should be noted that the new emission standards for heavy duty vehicles implemented in the United States in 2007 are not considered in MOBILE6.2C.

4.1.1 Vehicle Emission Factors from MOBILE6.2C

Tier 1: Very Conservative Screening Basis

As a first-level screening air quality assessment, very conservative assumptions were made to assist in identifying areas of interest as described below.

The peak present (baseline) and future traffic flow for the bridge and in Local Study Area generally occurs during morning (7:00 to 10:00) and afternoon (15:00 to 19:00) periods. The fleet profile and traffic flow data during these peak periods are described in detail in Appendix 3 and summarized in Table 4.

The above data, based on the annual fleet profile, were entered into MOBILE 6.2C to generate emission factors for January and July. Peak hourly traffic flow is primarily attributed to passenger cars as truck traffic levels remain relatively constant throughout the day. On an annual basis, the fleet profile consists of approximately 75% passenger cars and 25% heavy duty trucks. However, during peak hours, the fleet profile consists of approximately 80% passenger cars and 20% heavy duty trucks. As a consequence, use of the annual fleet profile will over predict contributions from heavy duty truck traffic during peak hours.

The maximum of the two seasonal emission factors (January or July) were used in subsequent assessment of vehicle emissions and are summarized in Appendix 7.

For simplicity, the vehicle $PM_{2.5}$ emission factors were considered equal to the PM_{10} emission factors (i.e., all particulate emissions from vehicle emissions are considered to be <2.5 μm in diameter). This simplification represents a conservative approach, especially for gasoline vehicles. However, it is not unreasonable that considering the results, discussed in Section 6, indicate that the contribution of $PM_{2.5}$ from vehicle emissions is small relative to the background concentration, especially in future emission scenarios.

Table 4: Summary of Traffic Profile and Peak Hourly Traffic Flow – Tier 1

Parameter	Units	Bridge (Existing)			Bridge (Enhanced)			Huron Church Road (Local Study Area)			Arterial Roads (Local Study Area)		
		Baseline	2021 (FDN)	2021 (B)	2011	2021 (A)	2021 (B)	Baseline	2011	2021 (FDN), (A) & (B)	Baseline	2011	2021 (FDN), (A) & (B)
Annual Fleet Profile - Light Duty Vehicles	%	62.8	59.4	100.0	62.3	59.4	0	75.0	68.1	66.5	91.7	91.7	91.7
Annual Fleet Profile - Buses	%	0.2	0.2	0.0	0.2	0.2	0.2	0.3	default	default	0.3	default	default
Annual Fleet Profile - Heavy Duty Vehicles	%	37.0	40.4	0.0	37.5	40.4	99.8	24.7	31.9	33.5	8.0	8.3	8.3
Hourly Peak Traffic Flow (Tier 1)	Vehicles / hr	2,725	4,625	3,598	3,003	4,625	1,027	3,367	3,717	4,455	highly variable	highly variable	highly variable

Note: light duty vehicles includes light duty cars and trucks and motorcycles (this group consists of vehicle classes 1 to 5 and 16 as specified in MOBILE 6.2C)
Note: buses considerd to include school buses and transit/urban buses (this group consists of vehicle classes 14 and 15 specified in MOBILE 6.2C)
Note: heavy duty vehicles includes heavy duty trucks (this group consists of vehicle classes 2b to 8b specified in MOBILE 6.2C)
Note: 2021 (FDN) refers to future operation of existing bridge only, 2021 (A) refers to future operation of ABEP only and 2021 (B) refers to future operation of ABEP plus existing bridge.

Tier 2: Refined Basis

Where concentrations above the air quality criteria may occur, the approach was refined as described below.

The peak hourly traffic flow used in Tier 1 was refined using the hourly traffic flow distribution to provide a more realistic traffic flow distribution throughout the day. This refinement was applied to all areas (i.e. bridge, Huron Church Road and Arterial Roads) as described in detail in Appendix 3. The refined traffic flow and the Tier 1 emission factors presented in Appendix 7 were used.

This Tier 2 approach is more realistic but still conservative. As with Tier 1, the use of the annual fleet profile will over predict contributions from heavy duty truck traffic during peak hours since peak hourly traffic flow is primarily attributed to passenger cars and truck traffic levels remain relatively constant throughout the day.

4.1.2 Vehicle Emission Factors for Other Pollutants of Interest

Tier 1: Very Conservative Screening Basis

As described in detail in Appendix 7, emission calculations for polycyclic aromatic hydrocarbons (PAHs) were developed based on the MOBILE6.2C emission factors for PM_{10} and $PM_{2.5}$. Many PAH compounds, including benzo (a) pyrene, are associated with the particulate emissions in vehicle exhaust. Naphthalene, although sometimes considered a PAH, is generally more volatile and may partition in the gas phase rather than the particulate phase.

The emission factors for common PAH compounds for the present (baseline) scenario for vehicles traveling on the bridge at low speed (2.5 mph), which generally results in the highest emission factors, are summarized in Table 5.

A list of common PAH compounds and the respective air quality criteria were provided previously in Table 3. A comparison of PAH emission factors to air quality criteria is also provided in Table 5.

Except for naphthalene, the emission factors for the list of common PAHs were similar or lower than benzo (a) pyrene and the air quality criteria for these other PAHs are 2 or more orders of magnitude higher than benzo (a) pyrene. Naphthalene has an emission factor that is 2 to 3 orders of magnitude higher than benzo (a) pyrene but has air quality criteria that is more than 4 orders of magnitude higher than benzo (a) pyrene. Therefore, the emphasis of the detailed air quality assessment, including dispersion modeling as described in Section 5, was placed on benzo (a) pyrene on the basis that when benzo (a) pyrene is predicted to be below the air quality criteria, it is reasonable to conclude that the other common PAH compounds are also below the air quality criteria.

Benzo (a) pyrene emission factors for the present (baseline), 2011, 2021 (FDN), 2021 (A) and 2021 (B) scenarios are provided in Appendix 7.

Table 5: Comparison of PAH Emission Factors to Air Quality Criteria

Pollutant of Interest	Units	Emission Factor	Air Quality Criteria (24-hour) $\mu g/m^3$	Ratio of Emission Factor to Criteria
Air Toxics				
benzo (a) pyrene	mg / VmT	0.0028	0.0011	2.5
Other PAH Compounds				
acenaphthylene	mg / VmT	0.0641	35	<0.01
acenaphthene	mg / VmT	0.0129	210	<0.01
anthracene	mg / VmT	0.0161	1000	<0.01
benzo (a) anthracene	mg / VmT	0.0042	0.36	0.01
benzo (b) fluoranthene	mg / VmT	0.0030	0.36	<0.01
benzo (g,h,i) perylene	mg / VmT	0.0047	12	<0.01
benzo (k) fluoranthene	mg / VmT	0.0030	NA	-
chrysene	mg / VmT	0.0023	0.36	<0.01
dibenzo (ah) anthracene	mg / VmT	5.5E-06	NA	-
fluoranthene	mg / VmT	0.0164	140	<0.01
fluorene	mg / VmT	0.0271	140	<0.01
indeno (1,2,3-cd) pyrene	mg / VmT	0.0013	NA	-
naphthalene	mg / VmT	1.421	22.5	0.06
phenanthrene	mg / VmT	0.0441	0.71	0.06
pyrene	mg / VmT	0.0232	100	<0.01

Note: for presemt (baseline) scenario for vehicles travelling on the bridge at low speed (2.5 mph)

The MOBILE6.2C model does not include predictions for nitrous oxide (N_2O) and methane (CH_4). Emission calculations for these pollutants of interest were developed using the published data described below.

Published vehicle exhaust emission factors for N_2O and CH_4 for light duty (LD) gasoline vehicles and heavy duty (HD) diesel vehicles were obtained from the USEPA (Office of Transportation and Air Quality). Similar to the MOBILE6 models, the vehicle exhaust composite emission factor (EF) was estimated for the fleet profile. The methodology and composite N_2O and CH_4 emission factors are summarized in Appendix 7.

4.2 Road Dust

Roadway emissions (road dust) calculation procedures are summarized below with detailed calculations provided in Appendix 8.

Road dust emissions were calculated using USEPA AP-42 Chapter 13 – Miscellaneous Sources, Section 13.2.1 (Fugitive Dust Sources – Paved Roads). Consistent with the pollutants of interest identified in the EA Guideline, road dust emissions were quantified for PM_{10} and $PM_{2.5}$.

Data on silt loading, vehicle weight profile and number of precipitation days were used in conjunction with the equation shown in Appendix 8 to calculate the road dust emission factor for the bridge along Huron Church Road and the Arterial Roads. These, emission factors were developed for present (baseline), 2011 (construction/operation), 2021 (FDN), 2021 (A) and 2021 (B) emission scenarios.

The road dust emission factor calculation methodology and composite emission factor results for each road segment and emission scenario is summarized in Appendix 8.

Tier 1: Very Conservative Screening Basis

The initial air quality assessment was based on very conservative assumptions as described below.

The input for the air dispersion modeling (CAL3QHCR described in detail in Section 5) requires an emission factor expressed in terms of mass of road dust emitted per hour per unit distance (i.e. g / hr / mile). Each 24-hour period includes peak traffic flow northbound (approximately 8:00 – 9:00 am) and southbound (approximately 4:00 – 5:00 pm). The fleet profile shown previously in Table 4 was used to estimate the maximum traffic flow for each hour. The peak morning and afternoon traffic flow applied to all hours were considered separately and the maximum emission factor was selected.

Maximum traffic flows in conjunction with the road dust emission factors summarized in Appendix 8 were used as input to the air dispersion model. Theses road dust emission factors are conservative and do not account for potential reductions due to precipitation or the fact that road dust emissions are applicable to free flowing traffic and should not be applied to queuing and idling segments of the road. Also, the emission factors are conservatively based on the average GVWR as discussed in Appendix 8.

Tier 2: Refined Basis

As identified in the dispersion modeling and results section, Section 5 and Section 6, PM_{10} and/or $PM_{2.5}$ are predicted to exceed the air quality criteria when background is considered for some emission scenarios. Use of the very conservative Tier 1 emission factors generated from USEPA AP-42 was refined as described below.

The selected USEPA emissions factors are applicable for free flowing traffic whereas stop and go emission rates will be much lower. Therefore, it is not appropriate for the Tier 1 emission factors to be applied to a segment of the customs plaza leading to the customs booths and queue links at signalized intersections where traffic is stop and go (the factors were set to zero in these areas).

4.3 Construction Activities

Emissions associated with construction activities are described in detail in Appendix 9 and summarized below.

PM_{10} and $PM_{2.5}$ were calculated for the main construction activities such as land clearing, ground excavation, cut and fill operations, demolition activities, structure and facility construction and road dust from movement of heavy equipment and heavy equipment exhaust.

In addition diesel engine combustion emissions of nitrogen oxides, carbon monoxide and sulphur dioxide were calculated for the non-road equipment engines and licensed vehicle engines.

The inventory was based on construction activities being carried out over a period of 10 hours per day, 5 days a week during the period 2008 to 2011 and in compliance with municipal by-laws.

Tier 1: Very Conservative Screening Basis

A Midwest Research Institute (MRI) generic emission factor for PM_{10} and $PM_{2.5}$ dust generated from construction activities was used. The emission factor is expressed in terms of tonnes of particulate matter emitted per hectare per month of construction (tonnes/hectare/month of activity): a PM_{10} emission factor of 0.25 tonnes/hectare/month of activity and a $PM_{2.5}$ emission factor of 0.05 tonnes/hectare/month of activity.

The construction particulate emission factor is assumed to include the effects of typical control measures, such as routine watering which reflect the intended implementation of a Best Management Plan (BMP) to control dust emissions. The mitigation measures during construction, including the BMP, are discussed in more detail in Section 6.

The total Site Study Area where construction activities could take place is 125 hectares (includes Canadian side of the construction activities). At any give time, it is estimated that construction activities will be occurring on up to 10% of the Site Study Area or 12.5 hectares.

The PM_{10} and $PM_{2.5}$ emission rate calculation results are provided in Appendix 9.

Diesel engines of the construction equipment on-site will emit combustion products such as nitrogen oxides, carbon monoxide and sulphur dioxide. These engines also emit particulate; however, the particulate emissions are included in the total heavy construction activities particulate emissions (MRI generic emission factors).

For licensed road equipment such as the haul trucks and concrete trucks, published emission factors for idling emissions of NO_X and CO from heavy duty diesel equipment were used together with the maximum number of these vehicles operating simultaneously on-site.

For other on-site diesel powered equipment, such as cranes, the US EPA Non-road Diesel Engine Level 3 Emission Standards for NO_X and CO were used. The Level 3 emission standards were used together with the maximum number of each type of equipment operating simultaneously on-site, the kW rating of the equipment engines and the anticipated load factors to calculate the diesel engine NO_X and CO emissions for the different construction activities.

Since the river barges will not be operating on the land based construction site, particulate emissions were calculated separately for the marine diesel engines of these barges. Emissions were calculated using a marine engine emission and load factors.

For the all on-site diesel powered equipment, including the licensed road equipment, the US EPA AP-42 Section 2.3 (Table 3.3-1) sulphur dioxide emission factor was used. This emission factor was used together with the maximum number of each type of equipment operating simultaneously on-site, the kW rating of the equipment engines and the anticipated load factors to calculate the diesel engine sulphur dioxide emissions for the different construction activities.

Nitrogen oxides, carbon monoxide and sulphur dioxide emission rate calculation results are provided in Appendix 9.

The above emission rates were used with the USEPA AERMOD air dispersion model to assess emissions from construction activities as described in Section 5.2.

4.4 Summary of Annual Emissions (Burden)

Annual mass emissions (burden) calculations from vehicle and road dust associated with traffic on the bridge as well as regional annual emissions are described in detail in Appendix 10 and summarized below.

4.4.1 Bridge Annual Vehicle and Road Dust Emissions

Annual releases associated with vehicle emissions and road dust emissions were estimated for the existing bridge (baseline and 2021) and the future enhanced bridge (2011 and 2021). These annual emission calculations include traffic flow for the bridge and in the customs plaza.

Vehicle emission factors generated using MOBILE6.2C for free flow and queuing traffic and road dust emission factors generated using USEPA AP-42 (Section 13.2.1) for the Ambassador Bridge and customs plaza area as described previously were utilized. Annual road dust emission factors employ the precipitation correction factor to account for the number of 'wet" days experienced in the Windsor area.

These emission factors were used in combination with the distance traveled on the Canadian side of the bridge and the customs plaza to calculate annual emissions. The annual emission calculations are described in detail in Appendix 10 and summarized in Table 6.

Table 6: Summary of Bridge Annual Emissions

Parameter	Units	Bridge (Existing)		Bridge (Enhanced)		
		Baseline	2021 (FDN)	2011	2021 (A)	2021 (B)
Pollutants and Precursors						
CO	tonnes / year	231	129	158	129	129
NOx	tonnes / year	82	19	50	19	19
SO_2	tonnes / year	1.5	0.26	0.21	0.26	0.27
PM_{10}	tonnes / year	27	42	31	42	42
$PM_{2.5}$	tonnes / year	4.0	3.8	3.4	3.8	3.8
VOC	tonnes / year	27	12	18	12	12
Air Toxics						
benzene	tonnes / year	0.55	0.22	0.35	0.22	0.19
acetaldehyde	tonnes / year	0.16	0.088	0.11	0.088	0.089
formaldehyde	tonnes / year	0.44	0.22	0.28	0.22	0.23
1,3-butadiene	tonnes / year	0.089	0.032	0.050	0.032	0.032
acrolein	tonnes / year	0.023	0.010	0.013	0.010	0.011
benzo (a) pyrene	tonnes / year	5.1E-05	1.4E-05	2.9E-05	1.4E-05	1.5E-05
Greenhouse Gases						
CO_2	tonnes / year	13,808	21,711	16,841	21,711	21,235
N_2O	tonnes / year	0.58	0.89	0.71	0.89	0.90
CH_4	tonnes / year	1.7	2.5	2.0	2.5	2.5
Other						
ozone	tonnes / year	-	-	-	-	-

Note: 2021 (FDN) refers to future operation of existing bridge only, 2021 (A) refers to future operation of ABEP only and 2021 (B) refers to future operation of ABEP plus existing bridge.

4.4.2 Regional Annual Emissions

Annual bridge emissions were compared with regional annual emission inventory data where available. For the purpose of this comparison, regional emissions were defined by the Essex County (Ontario) and Wayne County (Michigan). Regional emissions inventory information was developed from the following sources:

- Environment Canada (2005 Reporting Year) Criteria Air Contaminants Emission Inventory from Environment Canada National Pollutant Release Inventory (NPRI)
- Environment Canada National Pollutant Release Inventory (NPRI)
- Great Lakes Commission (2002 Revised) Benzo (a) Pyrene Air Emissions Inventory (March 2007)

- MOBILE6.2C emission factors generated for this study
- US Environmental Protection Agency National Emission Inventory Database for Criteria Air Pollutants (2001) and Hazardous Air Pollutants (1999)
- Michigan Department of Environmental Quality Report "Michigan Greenhouse Gas Inventory 1990 and 2002, April 2005"
- Great Lakes Commission Report "Assessment of Benzo(a)pyrene Air Emissions In the Great Lakes Region", March 2007

The regional annual emissions are described in detail in Appendix 10 and summarized in Table 7.

A comparison of the annual bridge and regional emissions is provided in Table 8. The total annual bridge emissions of the pollutants of interest are less than 1% and in many cases less than 0.1% of the total annual regional emissions for Essex County (Ontario) and Wayne County (Michigan).

Table 7: Summary of Annual Regional Emissions

Parameter	Units	Essex County (Ontario)					Wayne County (Michigan)				
		Area	Industrial	Transport & Road Dust	Non Road	Total	Area	Point	Mobile	Non Road	Total
Pollutants and Precursors											
CO	tonnes / year	-	9,221	28,662	-	37,883	-	-	-	-	720,519
NOx	tonnes / year	-	2,477	10,549	-	13,026	-	-	-	-	109,331
SO_2	tonnes / year	-	1,208	488	-	1,696	-	-	-	-	60,845
PM_{10}	tonnes / year	-	2,626	55,931	-	58,557	-	-	-	-	17,811
$PM_{2.5}$	tonnes / year	-	1,439	12,791	-	14,230	-	-	-	-	9,330
VOC	tonnes / year	-	9,582	3,367	-	12,949	-	-	-	-	100,217
Air Toxics											
benzene	tonnes / year	-	-	1,762	-	1,762	117	9.0	1,506	212	1,844
acetaldehyde	tonnes / year	-	-	373	-	373	2.1	0.55	203	88	293
formaldehyde	tonnes / year	-	-	1,001	-	1,001	15	1.7	522	230	768
1,3-butadiene	tonnes / year	-	-	262	-	262	0.22	1.4	173	41	216
acrolein	tonnes / year	-	-	9.6	-	9.6	6.9	0.25	28	18	53
benzo (a) pyrene	tonnes / year	-	-	0.09	-	0.09	0.22	0.49	0.027	0.027	0.76
Greenhouse Gases											
CO_2	tonnes / year	-	3,654,788	-	-	3,654,788	-	-	-	-	8,122,500
N_2O	tonnes / year	-	540	-	-	540	-	-	-	-	1,031
CH_4	tonnes / year	-	4,379	-	-	4,379	-	-	-	-	37,000
Other											
ozone	tonnes / year	-	-	-	-	-	-	-	-	-	-

Table 8: Comparison of Annual Emissions

Parameter	Units	Essex County (Ontario)	Wayne County (Michigan)	Bridge (Existing)						Bridge (Enhanced)								
				Baseline			2021 (FDN)			2011			2021 (A)			2021 (B)		
				Total	Percent of Essex County (Ontario) %	Percent of Wayne County (Michigan) %	Total	Percent of Essex County (Ontario) %	Percent of Wayne County (Michigan) %	Total	Percent of Essex County (Ontario) %	Percent of Wayne County (Michigan) %	Total	Percent of Essex County (Ontario) %	Percent of Wayne County (Michigan) %	Total	Percent of Essex County (Ontario) %	Percent of Wayne County (Michigan) %
Pollutants and Precursors																		
CO	tonnes / year	37,883	720,519	231	0.61	0.03	129	0.34	0.02	158	0.42	0.02	129	0.34	0.02	129	0.34	0.02
NOx	tonnes / year	13,026	109,331	82	0.63	0.07	19	0.15	0.02	50	0.39	0.05	19	0.15	0.02	19	0.15	0.02
SO_2	tonnes / year	1,696	60,845	1.5	0.09	0.003	0.26	0.02	0.0004	0.21	0.01	0.0003	0.26	0.02	0.0004	0.27	0.02	0.00
PM_{10}	tonnes / year	58,557	17,811	27	0.05	0.15	42	0.07	0.24	31	0.05	0.18	42	0.07	0.24	42	0.07	0.24
$PM_{2.5}$	tonnes / year	14,230	9,330	4.0	0.03	0.04	3.8	0.03	0.04	3.4	0.02	0.04	3.8	0.03	0.04	3.8	0.03	0.04
VOC	tonnes / year	12,949	100,217	27	0.21	0.03	12	0.09	0.01	18	0.14	0.02	12	0.09	0.01	12	0.09	0.01
Air Toxics																		
benzene	tonnes / year	1,762	1,844	0.55	0.03	0.03	0.22	0.01	0.01	0.35	0.02	0.02	0.22	0.01	0.01	0.19	0.01	0.01
acetaldehyde	tonnes / year	373	293	0.16	0.04	0.05	0.088	0.02	0.03	0.11	0.03	0.04	0.088	0.02	0.03	0.089	0.02	0.03
formaldehyde	tonnes / year	1,001	768	0.44	0.04	0.06	0.22	0.02	0.03	0.28	0.03	0.04	0.22	0.02	0.03	0.23	0.02	0.03
1,3-butadiene	tonnes / year	262	216	0.089	0.03	0.04	0.032	0.01	0.01	0.050	0.02	0.02	0.032	0.01	0.01	0.032	0.01	0.01
acrolein	tonnes / year	10	53	0.023	0.24	0.04	0.010	0.11	0.02	0.013	0.14	0.02	0.010	0.11	0.02	0.011	0.11	0.02
benzo (a) pyrene	tonnes / year	0.09	0.76	5.1E-05	0.05	0.01	1.4E-05	0.01	0.002	2.9E-05	0.03	0.004	1.4E-05	0.01	0.002	1.5E-05	0.02	0.00
Greenhouse Gases																		
CO_2	tonnes / year	3,654,788	8,122,500	13,808	0.38	0.17	21,711	0.59	0.27	16,841	0.46	0.21	21,711	0.59	0.27	21,235	0.58	0.26
N_2O	tonnes / year	540	1,031	0.58	0.11	0.06	0.89	0.16	0.09	0.71	0.13	0.07	0.89	0.16	0.09	0.90	0.17	0.09
CH_4	tonnes / year	4,379	37,000	1.7	0.04	0.005	2.5	0.06	0.01	2.0	0.05	0.01	2.5	0.06	0.01	2.5	0.06	0.01
Other																		
ozone	tonnes / year	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: 2021 (FDN) refers to future operation of existing bridge only, 2021 (A) refers to future operation of ABEP only and 2021 (B) refers to future operation of ABEP plus existing bridge.

5. DISPERSION MODELLING

Two air dispersion models, CAL3QHCR and AERMOD, were used to predict concentrations of the pollutants of interest at receptors based on the emission factors (Tier 1 and Tier 2) described in Section 4. CAL3QHCR was used to evaluate roadways and AERMOD was used to evaluate construction activities. The application of these dispersion models are described in detail in Appendix 11 and summarized below.

5.1 CAL3QHCR Dispersion Modelling (Roadways)

The CAL3QHCR air dispersion model is a recognized tool developed by the USEPA for assessing emissions from linear sources such as roadways. The main inputs to the model are described in detail in Appendix 11 and summarized below:

- vehicle exhaust emission factors (i.e., g/VmT) for the road segments in each area (bridge, Huron Church Road and Arterial Roads) and each emission scenario as described in Section 4.1;
- road dust emission factors (i.e., g/hr/mile) for the road segments in each area and each emission scenario as described in Section 4.2;
- the location and length of each road segment;
- the location of receptors;
- for Tier 1, the overall peak hourly traffic flow in each area for all hours of the day (i.e., the overall peak flow is assumed for all hours of the day);
- for Tier 2, the peak hourly traffic flow in each area for each hour (i.e., the peak hourly flow changes throughout the day);
- traffic signal timing used to calculate idle times and length of traffic queuing; and
- one-year (2005) meteorological data set (hourly projections). Note: 2005 data was selected on the basis that it predicted the highest concentrations for the 5-year data set (2002 – 2006).

Tier 1: Very Conservative Screening Basis

The CAL3QHCR model predicts concentrations for each hour of the representative 1-year meteorological data set (i.e., up to 8,760 individual hourly predictions) as a function of location relative to the emission sources. For the Tier 1 (very conservative) assessment, the above input data was input to the CAL3QHCR model to predict the maximum concentration for each pollutant of interest and each emission scenario.

As discussed previously, this maximum concentration is considered very conservative as the maximum emission factors and peak traffic flow are used for all hours of the one-year modeling period when in reality the actual emission factors and traffic flow are less at times. Provided the predicted maximum concentrations resulting from this Tier 1 assessment are below the air quality criteria, further refinement of the input data, was not considered warranted (i.e., even considering these very conservative assumptions, compliance is predicted).

Tier 2: Refined Basis

In instances where these very conservative assumptions predict that concentrations above the air quality criteria may occur for any of the defined emission scenarios, the more realistic Tier 2 assessment was performed.

5.1.1 Area B

Air dispersion modeling was performed using the USEPA CAL3QHCR model as described above to assess emissions from Huron Church Road in Area B to generate a concentration profile. The sub-section of Area B considered in the analysis is shown in Figure 3.

As described in Section 2.1.2, Area B was selected to assess the potential for impacts related to the project (enhanced bridge) between the Study Area and Highway 401. A sub-section was selected to include the transition in Huron Church Road from 3 lanes in each direction north of Cabana Road W (speed limit 60 km/h) to 2 lanes in each direction south of Cabana Road W (speed limit 80 km/h). Although traffic flow is less that than experienced in Local Study Area, traditionally the Huron Church Road and Cabana Road intersection experiences some congestion.

Tier 1: Very Conservative Screening Basis

The vehicle and road dust emission factors were calculated using USEPA MOBILE6.2C and USEPA AP-42, respectively as per Study Area. These emission factors were calculated based the fleet profile and traffic flow that is conservative yet representative of this section of Huron Church Road.

The impact from vehicle emissions and road dust from traffic on Huron Church Road in Area B remains unchanged based upon a comparison of the 2021 Future Do Nothing and 2021 Operation scenario. Air quality impacts associated with the project are therefore not predicted to occur within this area. A similar comparison between the 2021 Future Do Nothing and 2021 Operation scenario within the Local Study Area also indicates impacts associated with the project are contained within this Local Study Area.

5.2 AERMOD Dispersion Modelling (Construction Activities)

The AERMOD air dispersion model is a recognized tool developed by the USEPA for assessing emissions from a variety of sources including many of the construction activities expected for the replacement span. It is more suitable than CAL3QHCR for assessing emissions from these types of sources.

The main inputs to the AERMOD model are discussed in detail in Appendix 11 and summarized below:

- maximum emission rate associated with the main construction activities including dust emissions from material movement and storage piles, heavy equipment movement on paved and unpaved roads, demolition activities and heavy equipment exhaust as described in Section 4.3;
- information related to the expected schedule (daily, seasonal and year) of these construction activities;
- information related to the expected location of these construction activities; and
- a five-year (2002 – 2006) meteorological data set (hourly projections).

Tier 1: Very Conservative Screening Basis

The AERMOD model predicts concentrations for each hour of the representative 5-year meteorological data set (i.e. up to 43,800 individual hourly predictions) as a function of location relative to the emission sources. For the Tier 1 assessment, the above input data was used with the AERMOD model to predict the maximum concentration for each pollutant of interest on the basis that all construction activities are occurring simultaneously and continuously. This maximum concentration is considered very conservative as not all construction activities will result in maximum emissions and these maximum emissions may not occur simultaneously and continuously for the entire construction period (estimated to be 2008 to 2011).

Provided the predicted maximum concentrations resulting from this Tier 1 assessment are below the air quality criteria (when cumulative effects are considered as discussed in Section 6), further refinement of the input data was not considered warranted (i.e., even considering these conservative assumptions, compliance is predicted).

Tier 2: Refined Basis

In instances where these very conservative assumptions predict that concentrations above the air quality criteria may occur, the more realistic Tier 2 assessment was performed. The adjustment to the AERMOD inputs used in the Tier 2 assessment is to use the actual daily schedule of main construction activities were considered and set to zero during the period nighttime periods (5:00 pm to 7:00 am).

The assessment of dispersion modeling results, including cumulative effects and mitigation measures are discussed in Section 6.

5.3 Ozone Predictions

The potential impacts due to O_3 for each emission scenario were assessed using the NO_X and VOC output from the CAL3QHCR model combined with the Ozone Isopleth Method. The method is described in detail in Appendix 12.

6. ASSESSMENT OF RESULTS

The maximum air quality concentration within the study area was simulated by adding the maximum concentrations predicted by dispersion modelling (Tier 1 or Tier 2) at a given receptor to the 90th percentile background concentration. The cumulative concentrations (cumulative effects) are discussed in detail in Section 6.1.

In instances where the Tier 2 results indicate that cumulative concentrations greater than the air quality criteria may occur, mitigation measures are under further study as discussed in detail in Section 6.2.

A Tier 2 assessment was performed only for the specific pollutants of interest and emission scenarios as listed in Table 9. The Tier 2 assessment was not necessary for other pollutants of interest since compliance was predicted even when the very conservative Tier 1 assumptions were used.

Table 9: Summary of Tier 2 Assessments

Pollutant of Interest	Relevant Averaging Period	Emission Scenario (s)
NO_X	1-hr	Baseline, 2011, 2021 (FDN), 2021 (A), 2021 (B)
NO_X	24-hr	Baseline, 2011, 2021 (FDN), 2021 (A), 2021 (B)
PM_{10}	24-hr	Baseline, 2011, 2021 (FDN), 2021 (A), 2021 (B)
$PM_{2.5}$	24-hr	Baseline, 2011, 2021 (FDN), 2021 (A), 2021 (B)
acrolein	24-hr	Baseline, 2011, 2021 (FDN), 2021 (A), 2021 (B)

The assessment of dispersion modeling results, including cumulative effects and further study that may be required following the Tier 2 assessment, are discussed below.

6.1 Cumulative Effects

6.1.1 Maximum Modelling Concentrations

The maximum concentrations predicted from vehicle emissions and roadway emissions (road dust) using the CAL3QHCR model are described in Section 5.1 and the maximum concentrations predicted from emissions from construction activities using the AERMOD model are described in Section 5.2.

For the construction emission scenario, the maximum concentrations consider the maximum concentrations predicted from both CAL3QHCR for roadways plus AERMOD for specific construction activities at a given receptor. For all other emissions scenarios, the maximum modeling concentrations are equivalent to the maximum concentrations from vehicle emissions and road dust as predicted using CAL3QHCR.

The maximum modeling concentrations (Tier 1 or Tier 2) are summarized in Table 10.

Table 10: Summary of Maximum Modelling Concentration Results

Pollutant of Interest	Units	Tier	Baseline Maximum Modelled Concentration	2011 (Construction) Maximum Modelled Concentration	2011 (Operation) Maximum Modelled Concentration	2021 (FDN) Maximum Modelled Concentration	2021 (A) Maximum Modelled Concentration	2021 (B) Maximum Modelled Concentration
Pollutants and Precursors								
CO	ppm	1	4.4	2.6	2.5	2.6	2.0	2.4
NOx (1 hr)	$\mu g/m^3$	2	652	587	423	149	149	149
NOx (24 hr)	$\mu g/m^3$	2	248	157	157	54	54	54
SO_2 (1 hr)	$\mu g/m^3$	1	18	165	1.9	2.2	2.2	2.2
SO_2 (24 hr)	$\mu g/m^3$	1	6.9	21	0.99	1.3	1.3	1.3
PM_{10}	$\mu g/m^3$	2	63	82	82	89	89	89
$PM_{2.5}$	$\mu g/m^3$	2	7.2	10	7.8	6.9	6.9	6.9
VOC	ppm	1	0.50	-	0.20	0.40	0.23	0.23
Air Toxics								
benzene	$\mu g/m^3$	1	6.8	-	3.4	2.9	2.9	2.9
acetaldehyde	$\mu g/m^3$	1	1.4	-	0.66	0.72	1.3	1.3
formaldehyde	$\mu g/m^3$	1	3.6	-	2.1	2.2	3.6	3.6
1,3-butadiene	$\mu g/m^3$	1	0.94	-	0.38	0.21	0.21	0.21
acrolein	$\mu g/m^3$	2	0.11	-	0.054	0.044	0.034	0.034
benzo (a) pyrene	$\mu g/m^3$	2	0.00010	-	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Greenhouse Gases								
CO_2	$\mu g/m^3$	-	-	-	-	-	-	-
N_2O	$\mu g/m^3$	1	2.6	-	3.2	4.2	4.3	4.3
CH_4	$\mu g/m^3$	-	-	-	-	-	-	-
Other								
ozone	$\mu g/m^3$	-	< 80	-	< 80	< 130	< 130	< 130

Note: 2021 (FDN) refers to future operation of existing bridge only, 2021 (A) refers to future operation of ABEP only and 2021 (B) refers to future operation of ABEP plus existing bridge.
Note: ozone estimate includes background ozone.

6.1.2 Cumulative Concentrations

The selection of the background concentration as described in the EA Guidelines is summarized in Section 3.1.

The cumulative effect was assessed by adding the maximum concentration predicted by dispersion modeling (Tier 1 or Tier 2) to the 90th percentile background to establish the maximum air quality concentration. This approach provides a very conservative assessment of the maximum air quality concentration. The selected background for urban areas may already include impacts from roadways. The maximum air quality concentration results are summarized in Table 11.

The maximum air quality concentration results and comparison to air quality standards and guidelines were used to evaluate impacts to human health and sensitive ecosystems. These results will be provided to the federal EA review team for further guidance on potential human health effects and impact on sensitive ecosystems.

In general, the contribution of vehicle emissions is minor relative to the current background for PM_{10}, $PM_{2.5}$ and benzo (a) pyrene especially for future emission scenarios. Vehicle emissions for these and other pollutants of interest are predicted to decline due to future improvements to fuel standards and emission controls. The policy assumptions considered by Environment Canada and USEPA in the development of the model (MOBILE6.2C and MOBILE6.2, respectively) used to estimate current and future vehicle emissions are detailed in the model documentation. Policies impacting future vehicle emissions include:

- a reduction in the gasoline sulphur content to 25 ppm from current level of 42 ppm;
- a reduction in the diesel sulphur content to 15 ppm from current level of 320 ppm;
- 10% ethanol replacement;
- emission standards for passenger vehicles and light duty trucks phased in according to the schedules specified in United States Tier 1, Tier 2 and Low Emission Vehicle regulations;
- Canadian motorcycle emission regulations phased in during the period 2006 to 2010;
- regular incremental reductions in volatile organic compound emissions under the United States 1990 Clean Air Act Requirements for ozone non-attainments areas.

As noted in Section 4.1, the new emission standards for heavy duty vehicles implemented in the United States in 2007 are not considered in MOBILE6.2C.

For illustrative purposes, concentration contours were generated for NO_X and $PM_{2.5}$ for select emissions scenarios. The concentration contours are provided in Appendix 13.

The potential for transboundary air quality impacts as well as any impacts on First Nations' lands (Walpole Island) from the replacement span are deemed insignificant. A comparison of the annual bridge and regional emissions concludes that less than 1% and in many cases, less than 0.1% of the total annual regional emissions for Essex County (Ontario) and Wayne County (Michigan) emissions originate from the Ambassador Bridge.

Although transboundary air pollutants from the United States may account for up to 50 per cent of smog in Southwestern Ontario and may be as high as 90 per cent for Windsor, *(Preliminary Air Quality Assessment Related to Traffic Congestion at Windsor's Ambassador Bridge, MOE, 2004)* the contribution from the project area, consisting of approximately 3 kilometers of plaza, customs inspection and bridge roadway is not a significant source of regional air pollution in itself. The main purpose of the project is to improve the flow of traffic across the international border through the construction of a replacement span. This improvement in traffic flow will reduce emissions originating from the project area compared to the "do-nothing" scenario. Additional details regarding regional emissions from the project are discussed in Section 4.4.2.

Impacts from the US side of the project are generally localized and within 300 meters from the project area. Construction impacts will be mitigated on both sides of the bridge, with the greatest potential for transboundary impacts resulting from the operation of tug boats and barges operating close to international waters. Impacts associated with construction activities are discussed in Section 4.3 and 6.2.2.

Table 11: Summary of Maximum Air Quality Concentration Results

Pollutant of Interest	Relevant Averaging Period	Air Quality Criteria	Units	Baseline			2011 (Construction)			2011 (Operation)			2021 (FDN)			2021 (A)			2021 (B)		
				Maximum Modelling Concentration	Background Concentration	Maximum Air Quality Concentration	Maximum Modelling Concentration	Background Concentration	Maximum Air Quality Concentration	Maximum Modelling Concentration	Background Concentration	Maximum Air Quality Concentration	Maximum Modelling Concentration	Background Concentration	Maximum Air Quality Concentration	Maximum Modelling Concentration	Background Concentration	Maximum Air Quality Concentration	Maximum Modelling Concentration	Background Concentration	Maximum Air Quality Concentration
Pollutants and Precursors																					
CO	1 hr	30	ppm	4.4	0.38	4.8	2.6	0.38	2.9	2.5	0.38	2.9	2.6	0.38	3.0	2.0	0.38	2.4	2.4	0.38	2.8
NOx	1 hr	400	$\mu g/m^3$	652	62	714	587	62	649	423	62	485	149	62	211	149	62	211	149	62	211
NOx	24 hr	200	$\mu g/m^3$	248	30	278	157	30	187	157	30	187	54	30	84	54	30	84	54	30	84
SO_2	1 hr	690	$\mu g/m^3$	18	37	55	165	37	202	1.9	37	39	2.2	37	39.2	2.2	37	39	2.2	37	39
SO_2	24 hr	275	$\mu g/m^3$	6.9	13	20	21	13	34	0.99	13	14	1.3	13	14	1.3	13	14	1.3	13	14
PM_{10}	24 hr	50	$\mu g/m^3$	63	46	109	82	46	128	82	46	128	89	46	135	89	46	135	89	46	135
$PM_{2.5}$	24 hr	30	$\mu g/m^3$	7.2	24	31	10	24	34	7.8	24	32	6.9	24	31	6.9	24	31	6.9	24	31
VOC	1 hr	NA	ppm	0.50	0.29	0.79	-	0.29	0.29	0.20	0.29	0.49	0.4	0.29	0.69	0.23	0.29	0.52	0.23	0.29	0.52
Air Toxics																					
benzene	24 hr	30	$\mu g/m^3$	6.8	3.4	10	-	3.4	3.4	3.4	3.4	6.8	2.9	3.4	6.2	2.9	3.4	6.2	2.9	3.4	6.2
acetaldehyde	24 hr	500	$\mu g/m^3$	1.4	2.0	3.4	-	2.0	2.0	0.66	2.0	2.7	0.72	2.0	2.7	1.3	2.0	3.3	1.3	2.0	3.3
formaldehyde	24 hr	65	$\mu g/m^3$	3.6	4.5	8.2	-	4.5	4.5	2.1	4.5	6.7	2.2	4.5	6.7	3.6	4.5	8.1	3.6	4.5	8.1
1,3-butadiene	24 hr	2	$\mu g/m^3$	0.94	0.21	1.2	-	0.21	0.21	0.38	0.21	0.59	0.21	0.21	0.42	0.21	0.21	0.42	0.21	0.21	0.42
acrolein[1]	24 hr	0.8	$\mu g/m^3$	0.11	0.081	0.19	-	0.081	0.08	0.054	0.081	0.14	0.044	0.081	0.13	0.034	0.081	0.12	0.034	0.081	0.12
benzo (a) pyrene	24 hr	0.0011	$\mu g/m^3$	0.00010	0.00081	0.00091	-	0.00081	0.00081	< 0.00001	0.00081	0.00082	< 0.00001	0.00081	0.00082	< 0.00001	0.00081	0.00082	< 0.00001	0.00081	0.00082
Greenhouse Gases																					
CO_2	annual	NA	$\mu g/m^3$	-	650,000	-	-	650,000	-	-	650,000	-	-	650,000	-	-	650,000	-	-	650,000	-
N_2O	24 hr	9,000	$\mu g/m^3$	2.6	560	563	-	560	560	3.2	560	563	4.2	560	564	4.3	560	564	4.3	560	564
CH_4	annual	NA	$\mu g/m^3$	-	1,130	-	-	1,130	-	-	1,130	-	-	1,130	-	-	1,130	-	-	1,130	-
Other																					
ozone[2]	1 hr	165	$\mu g/m^3$	< 110			< 110			< 110			< 150			< 150			< 150		

Note: (1) the current acrolein air quality criteria is represented by the Upper Risk Threshold (URT) value of 0.8 µg/m3 under Ontario Regulation 419/05. The future (2020) air quality standard under Ontario Regulation 419/05 is 0.08 µg/m3.
Note: (2) estimate based on the VOC / NOx ratio and ispoleth method includes background ozone.
Note: 2021 (FDN) refers to future operation of existing bridge only, 2021 (A) refers to future operation of ABEP only and 2021 (B) refers to future operation of ABEP plus existing bridge.

6.2 Mitigation Measures

This air quality assessment identified areas which may require further study in cases where the predicted maximum air quality concentrations (following Tier 2 and including background) above the air quality criteria may occur. Predicted maximum air quality concentrations (following Tier 2) above the air quality criteria may occur for the pollutants of interest and emission scenarios listed in Table 12.

Proposed mitigation measures are outlined below and are both technically and economically feasible.

Table 12: Summary of Areas Under Further Study

Pollutant of Interest	Relevant Averaging Period	Emission Scenario (s)
NO_X	1 hr	Baseline, 2011(Construction), 2011 (Operation)
NO_X	24 hr	Baseline
PM_{10}	24 hr	Baseline, 2011(Construction), 2011 (Operation), 2021(FDN), 2021(A), 2021(B)
$PM_{2.5}$	24 hr	Baseline, 2011(Construction), 2011 (Operation), 2021(FDN), 2021(A), 2021(B)
acrolein	24 hr	2021(FDN), 2021(A), 2021(B)

6.2.1 Vehicle and Road Dust Emissions

The greatest potential for improving air quality exits where air quality is impacted the most, along Huron Church Road. Comparing areas along Huron Church Road where traffic flows freely to areas with major arterial intersections suggests that air quality impacts could be reduced significantly by measures that would allow thru-traffic to flow more freely such as enhanced signal timing and/or the removal lights at key intersections. Such measures fall outside the jurisdiction of the project proponent.

Further details related to pollutants of interest for which predicted maximum air quality concentrations (following Tier 2) above the air quality criteria may occur, are discussed below. Pollutants of interest related to construction activities are discussed in Section 6.2.2.

Nitrogen Oxides

Maximum 1-hour NO_X air quality concentrations (following Tier 2 and including background) above the air quality criteria may occur for the baseline and 2011 (Operation) scenarios. Maximum 24-hour NO_X air quality concentrations (following Tier 2 and including background) above the air quality criteria may occur for the baseline scenario only.

The areas of highest NO_X concentrations are predicted to occur near many of the intersections along Huron Church Road. The future reductions in NO_X air quality concentrations (1-hour and 24-hour) are related to improved traffic flow with the replacement span and expanded customs processing resulting in less queuing and idling. Projected future reductions in vehicle emissions due to improved fuel standards and emission controls also contribute to future reductions in NO_X air quality concentrations. The policy assumptions considered by Environment Canada in the development of the model (MOBILE 6.2C) used to estimate current and future vehicle emissions are discussed in Section 6.1.2.

PM_{10} and $PM_{2.5}$

Maximum 24-hour PM_{10} air quality concentrations (following Tier 2 and including background) above the air quality criteria may occur for the baseline, 2011 (Operation), 2021 (FDN), 2021(A) and 2021(B) scenarios. Also, maximum 24-hour $PM_{2.5}$ air quality concentrations (following Tier 2 and including background) above the air quality criteria may occur for these same scenarios.

It should be noted that for both PM_{10} and $PM_{2.5}$, the selected background is a significant fraction of the maximum air quality concentration for all scenarios. The PM_{10} background accounts for approximately 25% to 40% of the maximum 24-hour PM_{10} air quality concentrations whereas the $PM_{2.5}$ background accounts for approximately 45% to 80% of the maximum 24-hour $PM_{2.5}$ air quality concentrations. The approach of adding the background to the maximum modeled concentration provides a very conservative assessment of the maximum air quality concentration as the selected background for urban areas would already include impacts from roadways.

Vehicle emissions (exhaust, evaporative loses, tire wear and brake wear) and roadway emissions (road dust) contribute to the maximum PM_{10} and $PM_{2.5}$ air quality concentrations. As with NO_X, vehicle emissions of PM_{10} and $PM_{2.5}$ are predicted to reduce due to improved traffic flow with the replacement span and expanded customs processing resulting in less queuing and idling. Vehicle emissions of PM_{10} and $PM_{2.5}$ are also predicted to decline in the future due to improved fuel standards and emission controls. The policy assumptions considered by Environment Canada in the development of the model (MOBILE6.2C) used to estimate current and future vehicle emissions are discussed in Section 6.1.2.

Countering these predicted future reductions in vehicle emissions is the predicted increase in PM_{10} and $PM_{2.5}$ roadway emissions (road dust) due to future increases in traffic flow resulting in a marginal increase in the maximum PM_{10} and $PM_{2.5}$ air quality concentrations for future scenarios.

The areas of highest PM_{10} and $PM_{2.5}$ concentrations are predicted to occur along Huron Church Road. Further study to assess the silt loading values used to calculate roadway emissions and municipal actions (e.g., road cleaning) to further reduce material on the surface of the road may be warranted.

Other Pollutants of Interest

The cumulative concentrations of all other pollutants of interest are predicted to be below the air quality criteria at all locations for all emission scenarios with the exception of acrolein for the 2021(FDN), 2021(A) and 2021(B) emission scenarios.

Acrolein from vehicle emissions are predicted to reduce due to improved traffic flow with the replacement span and expanded customs processing resulting in less queuing and idling and improved fuel standards and emission controls. The policy assumptions considered by Environment Canada in the development of the model (MOBILE6.2C) used to estimate current and future vehicle emissions are discussed in Section 6.1.2. The maximum acrolein air quality concentrations associated with vehicle emissions for the present (baseline) scenario are predicted to reduce by approximately 70% for the 2021 emission scenarios.

Under Regulation 419/05, the current MOE air quality criterion for acrolein is represented by the upper risk threshold (URT) value of 0.8 $\mu g/m^3$ (24-hour basis). The future air quality a criterion is a factor of 10 lower (0.08 $\mu g/m^3$ on a 24-hour basis) and will be applicable to approvals for all stationary sources starting in 2020. The 90th percentile background for acrolein of 0.081 $\mu g/m^3$ (24-hour basis) is higher than the future MOE air quality criteria.

The maximum modeled concentration of acrolein from vehicle emissions in 2021 is predicted to be a fraction (approximately 30%) of the maximum air quality concentration which includes background.

6.2.2 Construction Activity Emissions

During the construction phase, maximum 1-hour NO_X air quality concentrations above the air quality criteria may occur whereas the maximum 24-hour NO_X air quality concentrations are below the air quality criteria.

Also during the construction phase, the maximum 24-hour PM_{10} and $PM_{2.5}$ air quality concentration is predicted to be higher than the operational emission scenario for the same period (2011). The maximum concentrations during construction consider the combined impacts of construction activities and vehicle emissions and roadway emissions associated with traffic on the bridge, customs plaza, Huron Church Road and Arterial Roads in Local Study Area.

Measures to be used to reduce NO_X, PM_{10} and $PM_{2.5}$ air quality concentrations during construction activities include:

- limiting activities to daytime periods (7:00 to 17:00);
- implementation of a Best Management Plan (BMP) described in detail in Appendix 14;
- contract documents requiring that the BMP be used to minimize short-term impacts;
- contract documents requiring heavy equipment to meet design specifications for emission controls and that licensed vehicles conform to provincial Drive Clean standards, where appropriate;
- idling of heavy equipment will be monitored and limited consistent with the municipal by-law to the extent possible;
- the contractors most polluting heavy equipment will be identified and use will be limited during smog advisories;
- the number and/or size of heavy equipment that will be operating simultaneously will be monitored. The river barges are predicted to be a significant contributor to the maximum NO_X concentrations during construction and as such the number and/or size of these will be limited; and
- since the NO_X concentrations are predicted to be highest at the virtual receptors located on the water versus virtual and special receptors located on land, restrictions will be imposed to limit the distance between operating barges and water based receptors such as pleasure boats.

6.3 Significance of Environmental Effects

6.3.1 Environmental Effects of Project (ABEP)

As presented in the EA Guidelines, the definitions of "environment" and "environmental effect" are as follows:

"Environment" means the components of the Earth, and includes:

a) Land, water and air, including all layers of the atmosphere;
b) All organic and inorganic matter and living organisms; and
c) The interacting natural systems that include components referred to in paragraphs (a) and (b).

"Environmental effect" means, with respect to a project:

a) Any change that the project may cause in the environment, including any change it may cause to a listed wildlife species, it's critical habitat or the residences of individuals of that species, as those terms are defined in subsection (2(1) of the Species at Risk Act,
b) Any effect of any such change referred to in paragraph (a) on:
  i) Health and socio-economic conditions,
  ii) Physical and cultural heritage,
  iii) The current use of lands and resources for traditional purposes by aboriginal persons, or
  iv) Any structure, site or thing that is of historical, archaeological, paleontological or architectural significance, or
c) Any change to the project that may be caused by the environment,

Whether any such change or effect occurs within or outside Canada.

The significance of the environmental effects is summarized in this air quality assessment in qualitative terms including magnitude, geographic extent, frequency, duration, degree of reversibility and ecological context. As described in the EA Guidelines, the Responsible Authority (Transport Canada) will make the final decision on the significance of environmental effects including air quality.

The air quality assessment includes an assessment of the cumulative effects of the project plus background concentrations.

The results show a positive environmental change as the future air quality is predicted to improve with the replacement span. These improvements are both direct, due to predicted improvements in traffic flow resulting in less queuing and idling and indirect due to improved fuel standards and vehicle emission controls. The policy assumptions considered by Environment Canada in the development of the model (MOBILE6.2C) used to estimate current and future vehicle emissions as discussed in Section 6.1.2.

The impacts that occur along Huron Church Road are localized and immediately adjacent to the roadway. The air quality assessment does not consider possible future improvements to Huron Church Road that will further reduce queuing and idling and improve air quality.

The total annual bridge emissions of the pollutants of interest are less than 1% and in many cases less than 0.1% of the total annual regional emissions for Essex County (Ontario) and Wayne County (Michigan).

Measures to further reduce the environmental effect of the project, including mitigation of short-term nuisance during all phases of construction, are discussed in Section 6.2.

Nitrogen Oxides

A detailed assessment of the predicted frequency of air quality concentrations (including background) above the air quality criteria was performed for NO_X and $PM_{2.5}$ for the present (baseline) emission scenario for illustrative purposes. At virtual and special receptors located close to Huron Church Road, the frequency was established as the number of days during which the 24-hour average air quality concentration is predicted to be above the air quality criteria expressed as a percentage of the number of days in the modeling period (2005), in this case 365 days.

For the present (baseline) scenario, of the more than 900 virtual receptors included in the dispersion modeling analysis, only 27 (or 3%) predict that 24-hour NO_X concentrations above the air quality criteria may occur. The virtual receptor with the single highest maximum 24-hour NO_X air quality concentration (278 $\mu g/m^3$ of which 30 $\mu g/m^3$ are attributed to background) located near Huron Church and Tecumseh Road West is predicted to have concentrations that may be above the air quality criteria of 200 $\mu g/m^3$ for 10 days per year (i.e., frequency of approximately 3%). For the remaining 26 affected virtual receptors with predicted 24-hour NO_X concentrations above the air quality criteria, the frequencies are lower with most less than 1%. A histogram plot of the predicted 24-hour NO_X air quality concentrations (including background) for the virtual receptor with the highest concentration, for the present (baseline) scenario, versus days per year are shown in Appendix 15. Implementation of the additional mitigation measures proposed such as enhanced signaling and removal of traffic lights to improve traffic flow along Huron Church Road can reduce concentrations below the air quality criteria.

None of the special receptors defined in this analysis are predicted to have a 24-hour NO_X air quality concentration above the air quality criteria. The special receptor with the highest maximum 24-hour NO_X air quality concentration (183 $\mu g/m^3$ of which 30 $\mu g/m^3$ are attributed to background) compared to the air quality criteria of 200 $\mu g/m^3$ is the University of Windsor (School of Visual Arts). This maximum concentration is predicted on the property near Huron Church Road and will be lower at the buildings set back from the road. The NO_X air quality criteria has been set to be below the effects level so no significant environmental effects are expected from these predicted concentrations.

The 24-hour NO_X air quality concentration (including background) was predicted to be below the air quality criteria for all receptors for all other emission scenarios.

$\underline{PM_{2.5}}$

For the present (baseline) scenario, of the more than 900 virtual receptors included in the dispersion modeling analysis, only 5 (or 0.6%) predict that 24-hour $PM_{2.5}$ concentrations above the air quality criteria may occur. The virtual receptor with the single highest maximum 24-hour $PM_{2.5}$ air quality concentration (31 $\mu g/m^3$ of which 24 $\mu g/m^3$ are attributed to background) located near Huron Church and College Avenue is predicted to have concentrations that may be above the air quality criteria of 30 $\mu g/m^3$ for 2 days per year (i.e., frequency of approximately 0.5%). For the remaining 4 affected virtual receptors with predicted 24-hour $PM_{2.5}$ concentrations above the air quality criteria, the frequencies are lower. A histogram plot of the predicted 24-hour $PM_{2.5}$ air quality concentrations (including background) for the virtual receptor with the highest concentration, for the present (baseline) scenario, versus days per year are shown in Appendix 15. Implementation of the additional mitigation measures proposed such as additional road cleaning and enhanced signaling and removal of traffic lights to improve traffic flow along Huron Church Road can reduce concentrations below the air quality criteria.

None of the special receptors defined in this analysis are predicted to have a 24-hour $PM_{2.5}$ air quality concentration above the air quality criteria. The special receptor with the highest maximum 24-hour $PM_{2.5}$ air quality concentration is the University of Windsor (School of Visual Arts) (28.7 $\mu g/m^3$ of which 24 $\mu g/m^3$ are attributed to background) compared to the air quality criteria of 30 $\mu g/m^3$. As with NO_X, this maximum concentration is predicted on the University property near Huron Church Road and will be lower at the buildings set back from the road. The $PM_{2.5}$ air quality criteria has been set to be below the effects level so no significant environmental effects are expected from these predicted concentrations.

The 24-hour $PM_{2.5}$ air quality concentrations (including background) for all other emission scenarios ranging from 31 to 34 $\mu g/m^3$ are predicted to be marginally above the air quality criteria of 30 $\mu g/m^3$. For the 2011 (operational) scenario, only 13 (or 1.4 %) of the virtual receptors predict that 24-hour $PM_{2.5}$ concentrations above the air quality criteria may occur. The virtual receptor with the single highest maximum 24-hour $PM_{2.5}$ air quality concentration (32 $\mu g/m^3$ of which 24 $\mu g/m^3$ are attributed to background) is predicted to have concentrations that may be above the air quality criteria of 30 $\mu g/m^3$ for 3 days per year (i.e., frequency of approximately 0.8%). For the remaining 12 affected virtual receptors with predicted 24-hour $PM_{2.5}$ concentrations above the air quality criteria, the frequencies are less than 0.5%.

For all 2021 scenarios, 2021(FDN), 2021(A) and 2021(B), only 3 (or 0.3 %) of the virtual receptors predict that 24-hour $PM_{2.5}$ concentrations above the air quality criteria may occur. In all cases, the virtual receptor with the single highest maximum 24-hour $PM_{2.5}$ air quality concentration (31 $\mu g/m^3$ of which 24 $\mu g/m^3$ are attributed to background) is predicted to have concentrations that may be above the air quality criteria of 30 $\mu g/m^3$ for 1 day per year (i.e., frequency of approximately 0.3%). For the remaining 2 affected virtual receptors with predicted 24-hour $PM_{2.5}$ concentrations above the air quality criteria, the frequencies are also 0.3%.

As discussed previously, these predicted air quality concentrations (including the 90th percentile background value of 24 $\mu g/m^3$) are very conservative. The air quality index (AQI) was calculated based on MOE procedures and compared with actual AQI data reported for Windsor for 2005. Using the predicted 24-hour $PM_{2.5}$ air quality concentrations including the overly conservative 90th percentile background (values shown previously in Table 11), a total of 185 poor air quality days were predicted for 2005. However, using the predicted 24-hour $PM_{2.5}$ air quality concentrations including the more realistic average background ($\approx$ 10 $\mu g/m^3$ for $PM_{2.5}$), a total of 24 days with an AQI rating of "poor air quality" were predicted which is comparable to the 37 days with at least 1-hour of poor air quality reported by the MOE for the same period.

The above assessment confirms the conservatism of the 90th percentile background used to establish the air quality concentrations presented in this study.

PM_{10}

The study predicts that the 24-hour PM_{10} concentrations above the air quality criteria may occur more frequently than the 24-hour $PM_{2.5}$ concentrations at both virtual receptors and special receptors. For the present (baseline) scenario the special receptor with the highest maximum 24-hour PM_{10} air quality concentration is Assumption High School (72 $\mu g/m^3$ of which 46 $\mu g/m^3$ are attributed to background) compared to the air quality criteria of 50 $\mu g/m^3$. This maximum concentration is predicted on the school property near Huron Church Road and will be lower at the buildings set back from the road. The model predicts 24-hour PM_{10} air quality concentrations (including background) at this special receptor may be above the ambient air quality criteria for 268 days per year (i.e., frequency of approximately 73%).

It should be noted that the road dust component accounts for over 95% of the overall PM_{10} emission factor with vehicle emissions being a minor contributor (<5%). Implementation of the additional mitigation measures proposed such as additional road cleaning and enhanced signaling and removal of traffic lights to improve traffic flow along Huron Church Road can reduce concentrations below the air quality criteria.

Considering the conservatism of the 90th percentile background (46 $\mu g/m^3$) when compared to the more realistic average background ($\approx$ 25 $\mu g/m^3$) as discussed above for $PM_{2.5}$, the fact that over 95% of the PM_{10} air quality concentrations are attributed to road dust and not vehicle emissions and that the primary particulate component of concern related to vehicle emissions is the very fine fraction (i.e. $PM_{2.5}$ and less), a more detailed analysis of the frequency of exceedances of PM_{10} is not warranted.

Also, air quality impacts associated with the project are based upon the extent, frequency and duration of queuing and idling representative of the $PM_{2.5}$ fraction. Road dust emissions are influenced by vehicle volumes and weights. Implementation of this project is not predicted to change these impacts along Huron Church Road. There are no predicted PM_{10} exceedances adjacent to the project footprint and as such a more detailed analysis of the frequency of exceedances of PM_{10} is not warranted.

6.3.2 Environmental Effects of Other Projects

A screening level assessment of cumulative effects that are likely to result from the project (replacement span) in conjunction with other projects or activities that are reasonably foreseeable was performed. This included an assessment of residual environmental effects from the project as described in detail in Section 6.1 and an assessment as to whether other projects and activities may overlap to produce a cumulative effect.

Identified projects and activities with the potential for cumulative impacts with this project that are of interest from an air quality perspective include:

- the Ambassador Bridge;
- the US side of the replacement span and the Gateway Project currently being constructed on the US side; and
- the Detroit River International Crossing (DRIC).

The cumulative effects of the replacement span with the existing Ambassador Bridge are described in detail in Section 6.1 (Table 11) and summarized in Table 13. In summary the environmental effects associated with vehicle emissions are predicted to improve relative to the present (baseline) scenario. Although PM_{10} and $PM_{2.5}$ vehicle emissions are predicted to decline relative to the present (baseline) due to predicted improvements in traffic flow resulting in less queuing and idling and improved fuel standards and vehicle emission controls, emissions associated with road dust are predicted to increase due to increased traffic flow.

The cumulative effects of the replacement span with the US side of the replacement span were discussed in Section 6.1.2. The potential for transboundary air quality impacts is deemed insignificant since impacts from these activities are generally localized (within 300 metres). The proposed mitigation measures for construction impacts will be applied on both sides of the bridge.

The DRIC project is considered remote (>2 km) from the replacement span and as such the effects are not likely to overlap with the effects of the replacement span and do not produce a cumulative effect. It is expected that TC, through a separate EA process, will require DRIC to assess environmental impacts from the proposal (including build and no-build scenarios).

The cumulative concentrations (including 90th percentile background) discussed in Section 6.2 included, but are not limited to, the following maximum credible emission scenarios:

- 2021 (FDN): operation of the existing Ambassador Bridge only (4 lanes; future do nothing)
- 2021 (A): operation of replacement span only (6 lanes)
- 2021 (B): operation of replacement span (6 lanes) plus Ambassador Bridge (4 lanes)

For the purpose of this cumulative effects assessment, if it is assumed that the DRIC project is implemented and that no increase in the predicted traffic volumes across the Ambassador Bridge and/or replacement span occurs, the cumulative effects including the DRIC will be less than presented in this report (Table 11).

Table 13: Summary of Cumulative Environmental Effects Relative to Present (Baseline)

Emission Scenario	Air Quality Effects, Including Cumulative Effects	Potential Mitigation	Significance of Environmental Effects in Local Study Area A				
			Pollutant of Interest (POI)	Magnitude	Geographic Extent	Degree of Reversibility	Ecological Context
Present (Baseline)	vehicle emissions, road dust emissions	- enhance traffic flow with additional customs processing - government policies (improved fuel standards, ethanol replacement, more stringent emission controls) - government infrastructure improvements to enhance traffic flow along HC Road	NOx (24-hour)	-	-	R	EAE
			PM_{10} (24-hour)	-	-	R	EAE
			$PM_{2.5}$ (24-hour)	-	-	R	EAE
		no mitigation required	All Other POI	-	-	R	EAE
Construction: 2011	vehicle emissions, road dust emissions, dust generation from construction activities, vehicle emissions from construction equipment	- enhance traffic flow with additional customs processing - government policies (improved fuel standards, ethanol replacement, more stringent emission controls) - government infrastructure improvements to enhance traffic flow along HC Road	PM_{10} (24-hour)	++	NIL	R	EAE
		- for construction activities, develop Best Management Plan, limit to daytime hours, use low emission equipment, enforce idling by-law, monitor and limt the number and size of equipment operating simultaneously	$PM_{2.5}$ (24-hour)	+	+++	R	EAE
		no mitigation required	NOx (24-hour)	NIL	NIL	R	EAE
			All Other POI	NIL	NIL	R	EAE
Operation: 2011	vehicle emissions, road dust emissions	- enhance traffic flow with additional customs processing - government policies (improved fuel standards, ethanol replacement, more stringent emission controls) - government infrastructure improvements to enhance traffic flow along HC Road	PM_{10} (24-hour)	++	++	R	EAE
			$PM_{2.5}$ (24-hour)	NIL	+++	R	EAE
		no mitigation required	NOx (24-hour)	NIL	NIL	R	EAE
			All Other POI	NIL	NIL	R	EAE
Future (Do Nothing): 2021 (FDN)	vehicle emissions, road dust emissions	- enhance traffic flow with additional customs processing - government policies (improved fuel standards, ethanol replacement, more stringent emission controls) - government infrastructure improvements to enhance traffic flow along HC Road	PM_{10} (24-hour)	+++	++	R	EAE
			$PM_{2.5}$ (24-hour)	NIL	NIL	R	EAE
		no mitigation required	NOx (24-hour)	NIL	NIL	R	EAE
			All Other POI	NIL	NIL	R	EAE
Future (ABEP): 2021 (A)	vehicle emissions, road dust emissions	- enhance traffic flow with additional customs processing - government policies (improved fuel standards, ethanol replacement, more stringent emission controls) - government infrastructure improvements to enhance traffic flow along HC Road	PM_{10} (24-hour)	+++	+++	R	EAE
			$PM_{2.5}$ (24-hour)	NIL	NIL	R	EAE
		no mitigation required	NOx (24-hour)	NIL	NIL	R	EAE
			All Other POI	NIL	NIL	R	EAE
Future (ABEP plus Existing Bridge): 2021 (B)	vehicle emissions, road dust emissions	- enhance traffic flow with additional customs processing - government policies (improved fuel standards, ethanol replacement, more stringent emission controls) - government infrastructure improvements to enhance traffic flow along HC Road	PM_{10} (24-hour)	+++	+++	R	EAE
			$PM_{2.5}$ (24-hour)	NIL	NIL	R	EAE
		no mitigation required	NOx (24-hour)	NIL	NIL	R	EAE
			All Other POI	NIL	NIL	R	EAE

Environmental Effect	Description
All	"NIL" indicates **negligible increase** (≤ 5%) or **no increase** in environmental effect relative to present (baseline) condition
Magnitude	+ = > 5% and ≤ 10% increase in the maximum air quality concentration relative to present (baseline) condition ++ = > 10% and ≤ 20% increase in the maximum air quality concentration relative to present (baseline) condition +++ = > 20% increase in the maximum air quality concentration relative to present (baseline) condition
Geographic Extent	+ = > 5% and ≤ 10% increase in the geographic area where there are predicted exceedances of the air quality criteria relative to the present (baseline) condition ++ = > 10% and ≤ 20% increase in the geographic area where there are predicted exceedances of the air quality criteria relative to the present (baseline) condition +++ = > 20% increase in the geographic area where there are predicted exceedances of the air quality criteria relative to the present (baseline) condition
Degree of Reversibility	R = reversible I = irreversible
Ecological Context	NAE = area not adversely effected by human activity (pristine area) EAE = evidence of adverse effects due to human activity

7. SUMMARY OF KEY FINDINGS

The air quality assessment documented in this report has been carried out as part of the Environmental Impact Statement related to the federal environmental assessment for the Ambassador Bridge Enhancement Project (replacement span), located in Windsor, Ontario.

The purpose of the air quality assessment is to determine if the construction and operation of the proposed new bridge will result in any significant adverse impacts to the environment.

The study scope was carefully planned to provide insight into a variety of substances, locations and future scenarios and is based on the EA Guidelines provided by the federal Environmental Assessment review team. In conducting the assessment, the current air quality conditions were compared to air quality conditions that are anticipated to occur in the future. Specifically assessed were the areas surrounding the bridge, the customs plaza, and the stretch of public roadway leading from the bridge to Highway 401, known as Huron Church Road/Talbot Road (Highway 3). Traffic data from publicly available sources was used for estimating vehicle flow and profile for existing and future scenarios. Publicly available ambient air quality data were assessed and used to establish background concentrations which were added to the predicted air quality impacts of the project to assess cumulative effects.

The key findings of the assessment were:

1. The **existing conditions** indicate that the greatest air quality impacts do not occur at the bridge or the customs plaza, but occur around key intersection locations along Huron Church Road. The impacts generally occur in close proximity (within $\simeq$ <150 m) to Huron Church Road and decrease significantly with distance. Air quality modeling indicates that concentrations above the air quality criteria may occur at these locations for certain pollutants of interest (NO_X, PM_{10} and $PM_{2.5}$). Idling and acceleration of vehicles related to traffic control lights appear to be a significant contributor to the air quality impacts. Air quality impacts could be reduced by measures that would allow thru-traffic to flow more freely such as enhanced signal timing and/or the removal of lights at key intersections.

2. The **existing conditions** indicate that the greatest impact, aside from Huron Church Road intersections, occurs at the customs plaza. Air quality modeling indicates that concentrations above the air quality criteria could occur in close proximity to this location for certain pollutants of interest. Idling and acceleration of vehicles in the customs queue seem to be the primary contributor. At the time of this study, additional customs processing stations were under construction but not yet completed. The expected improvement was considered in modeling of the future scenarios.

3. Under the future scenario, in **2011**, that considers impacts from **construction activities** related to the **replacement span**, air quality in close proximity to the bridge will be impacted due to emissions from construction equipment. The potential exists for concentrations of NO_X, PM_{10} and $PM_{2.5}$ above the air quality criteria. The project proponent plans a number of practical measures that will mitigate the construction impacts, including when, how and where the construction equipment will be deployed. Specific mitigation measures are discussed in detail in Section 6.2 of this report.

4. Under the future scenario, in **2021** with the **Ambassador Bridge** referred to as "future do nothing" or 2021 (FDN), the greatest air quality impacts are still predicted to occur along Huron Church Road, but are reduced in magnitude and aerial extent relative to the present (baseline) as more stringent fuel and vehicle emission standards take effect. For most pollutants of interest, the model suggests that the effect of more stringent standards outweighs the increase in traffic volumes. The improvement is most apparent for substances that are closely tied to the standards, such as NO_X. Under this scenario, NO_X concentrations are predicted to be below the air quality criteria. The policy assumptions considered by Environment Canada in the development of the model (MOBILE 6.2C) used to estimate current and future vehicle emissions are detailed in the model documentation. Policies impacting future vehicle emissions include but are not limited to a reduction in the gasoline and diesel sulphur content to 25 ppm and 15 ppm, respectively; 10% ethanol replacement; emission standards for passenger vehicles and light duty trucks phased in according to the schedules specified in Tier 1, NLEV and Tier 2 regulations; Canadian motorcycle emission regulations phased in during the period 2006 to 2010 as well as regular incremental reductions in volatile organic compound emissions under the United States 1990 Clean Air Act Requirements for ozone non-attainments areas. It should be is noted that the new emission standards for heavy duty vehicles implemented in the United States in 2007 are not accounted for in MOBILE6.2C.

5. Under the future scenario, in **2021**, 10 years after construction and operation of the **replacement span** referred to as 2021 (A), the greatest air quality impacts are still predicted to occur along Huron Church Road, but are reduced in magnitude and aerial extent relative to the present (baseline) as more stringent fuel and vehicle emission standards take effect as described above. In addition, the air quality in the area near the customs plaza and on the bridge is predicted to benefit from improved traffic flow due to the higher capacity of the expanded customs plaza and the new bridge. The reduced vehicle emissions appear to outweigh the increase in traffic volumes for most pollutants of interest. The reduced magnitude and aerial extent is most apparent for substances that are closely tied to the standards, such as NO_X. Under this scenario, NO_X concentrations are predicted to be below the air quality criteria.

6. Under the future scenario, in **2021**, 10 years after construction and operation of the **replacement span plus Ambassador Bridge** referred to as 2021 (B), the greatest air quality impacts are still predicted to occur along Huron Church Road, but are reduced in magnitude and aerial extent relative to the present (baseline) as more stringent fuel and vehicle emission standards take effect as described above. In addition, the air quality in the area near the customs plaza and on the bridge is predicted to benefit from improved traffic flow due to the higher capacity of the expanded customs plaza and the new bridge. The reduced vehicle emissions appear to outweigh the increase in traffic volumes for most pollutants of interest. The reduced magnitude and aerial extent is most apparent for substances that are closely tied to the standards, such as NO_X. Under this scenario, NO_X concentrations are predicted to be below the air quality criteria.

7. A comparison of the future 2021 "do nothing" and replacement span only scenarios, indicate that the replacement span and customs plaza will result in an improvement in air quality, notably in the area close to the bridge and the customs plaza. The future 2021 replacement span plus Ambassador Bridge scenario results in an increase in air quality concentrations of some contaminants in the vicinity of the customs plaza relative to the other 2021 scenarios. This is due to the "worst case" nature of this "two bridge scenario" which assumes all heavy duty vehicle traffic occurs on the replacement span with all light duty vehicle traffic on the Ambassador Bridge. The increased concentration of higher emitting heavy duty vehicles along the replacement span (particularly in the southbound direction) is predicted to result in slightly higher concentrations of some pollutants of interest, particularly PM_{10} and $PM_{2.5}$ associated with road dust, in the vicinity of the customs plaza. Operation of the replacement span plus the Ambassador Bridge is not considered a practical scenario by the proponent but has been assessed at the request of the federal EA review team.

8. The greatest potential for improving air quality exits where air quality is impacted the most, along Huron Church Road. Comparing areas along Huron Church Road where traffic flows freely to areas with major arterial intersections suggests that air quality impacts could be reduced significantly by measures that would allow thru-traffic to flow more freely such as enhanced signal timing and/or the removal lights at key intersections. Such measures fall outside the jurisdiction of the project proponent and as such strategies for mitigation in this area were not considered in the context of this air quality assessment.

APPENDIX 1

Revised Federal Environmental Assessment Guidelines Ambassador Bridge Enhancement Project (2006): August 2007 – Scope of Factors for Air Quality and Climate (5 pages)

Table 1: Scope of Factors for Air Quality and Climate

Factor	Issues to be Examined
Air Quality[2] and Climate	• Description of ambient air quality (including mean, 90th percentile, maximum observed values as well as the number and frequency of exceedances of criteria and standards) in the study area over a recent 5-year period, drawing from provincial, federal and any other monitoring programs, with reported results from monitoring locations in the City of Windsor. Include key results of localized studies focused within or near the study area • Identification of residences and sensitive receptors potentially impacted by air emissions and fugitive dust from all project phases, including construction, operation, and decommissioning. This should include the residences and receptors closest to the most heavily congested roadways in the study area such as the approaches to the customs plaza. • The analysis should take into account the potential alternatives for the existing structure, in order to reasonably predict potential effects that may result from the implementation of the proposed project. • Identification of potential effects associated with construction, and any required demolition activity, such as exhaust emissions from operation of heavy equipment and dust generation • Identification of the measures that will be used to reduce dust and particle emissions from construction activities and construction vehicle movements • Identification of potential air quality effects associated with the operations phase of the project, including emissions associated with increased traffic in the proposed study area, using recognized air quality modeling techniques; • Development of emissions scenarios for past (baseline) present and future (project completion and 10 years later) milestone dates. The future operating scenarios should include all credible options including continued operation of the existing bridge. • Use of an appropriate transportation model to estimate current and projected vehicle kilometres travelled and use of an recognized approach to project fleet composition • Estimation of vehicle exhaust and roadway emissions using recognized tools such as MOBILE6/6.2C and United States EPA emission factors. Include information on current and future vehicle queuing and idling (including spatial extent, frequency and duration) • Assessment of air quality effects for key pollutants and precursors

2 Annex A provides additional guidance on air quality. The proponent may wish to submit a draft Air Quality work plan to federal authorities for review to ensure that all relevant parameters are addressed.

Factor	Issues to be Examined
	(CO, NO_x, SO_2, $PM_{2.5}$, PM_{10} and VOCs), air toxics (benzene, acetaldehyde, formaldehyde, 1-3 butadiene, acrolein and PAHs) and greenhouse gases (CO_2, N_2O and CH_4) • Evaluation of regional impacts through pollutant burden analyses for the pollutants listed above. • Use of a 5-year meteorological data set representative of conditions in the study area to support dispersion modeling. • Use of a recognized dispersion model (such as the US EPA's CALQ3HCR) for the pollutants listed above for the baseline, do nothing and future operating scenarios. The application of the models(s) should be consistent with published guidelines and recommendations. • Consideration of the additional impact of other local and regional emissions through addition of a suitably conservative background concentration (i.e. 90th percentile) or through use of another approach such as combined effects assessment • Comparison of the predicted effects on residences and sensitive receptors with the National Ambient Air Quality Objectives and Canada Wide Standards. • Identification of related impacts to human health and sensitive ecosystems. • Discussion of the potential for transboundary air quality impacts as well as any potential for impacts on First Nations' lands. • Description of any proposed mitigation measures as well as their anticipated impact on the magnitude and frequency of the predicted effects of the project. • Opinion on the significance of residual effects

2 Annex A provides additional guidance on air quality. The proponent may wish to submit a draft Air Quality work plan to federal authorities for review to ensure that all relevant parameters are addressed.

Annex A
Ambassador Bridge Enhancement Project – Air Quality Requirements

Air quality was identified as an environmental component of specific concern to the federal EA review team. This annex provides additional information on how the federal review team expects the air quality assessment to be conducted. It is recommended that the proponent consider providing a draft Air Quality work plan to federal reviewers before carrying out the air quality study, in order to ensure that all requirements will be met.

It should be noted that the environmental assessment will also need to address potential human health effects associated with project-related effects on air quality. Additional guidance on how to carry out this assessment this can be provided by the federal review team later in the process, once preliminary air quality results are available.

The ambient air quality concentrations in the study area should be described for key pollutants based on local monitoring data within the City of Windsor from provincial, federal and any other available stations. Pollutants of interest include NO_X, SO_2, CO, particulate matter (PM_{10} and $PM_{2.5}$) and transportation-related volatile organic compounds (see later in this section) and PAHs. The analysis should span a recent five-year period and include mean and 90th percentile values, as well as maximum observed values and the number and frequency of exceedences of provincial and national criteria and standards. Local air quality studies focused within or near the study area would also assist in the description of the existing air quality conditions.

The identification of residences and sensitive receptors should include those that are likely to be most-heavily impacted by air emissions and fugitive dust emissions from all project phases, including construction, operation and any decommissioning activities. This should include the closest residences to the customs plaza and the closest residences along the most frequently congested section(s) of Huron Church Road approaching the customs plaza.

Emission scenarios should be developed for past, present and future milestone dates, to illustrate changes in emissions that are likely to result from the project. The assessment should include appropriate milestone years to reflect the existing conditions, the expected date of project completion, and10 years post-construction. The future operating scenarios should include both the continued operation and the decommissioning of the existing bridge. The analysis should also include a "do nothing" case for the future dates. Particular attention should be paid to the fleet mix as well as particulate and VOC emissions from heavy trucks.

An appropriate transportation model should be used to estimate current and projected future Vehicle Kilometres Traveled (VKT) for the project area. The projected vehicle fleet composition for the project area should also be evaluated. Emissions from vehicle exhaust and roadway surfaces should be generated using recognized tools such as United States Environmental Protection Agency (EPA) emission factors that have been adjusted

2 Annex A provides additional guidance on air quality. The proponent may wish to submit a draft Air Quality work plan to federal authorities for review to ensure that all relevant parameters are addressed.

to reflect Canadian standards where appropriate. MOBILE6 and the Canadian version MOBILE6.2C are the standard tools used to generate vehicle exhaust emissions estimates. Information on current and projected vehicle queuing and idling (including spatial extent, frequency and duration) at intersections, customs plazas and approaches should also be collected and incorporated into the analysis. These methodologies should be used to determine the pollutant emission rates and quantities for the pollutant burden analysis.

Pollutant burdens for each operational scenario should be calculated for the following pollutants and precursors: carbon monoxide (CO), nitrogen oxides (NOx), SO2, CO2, CH4, particulate matter less than 10 microns (PM10), particulate matter less than 2.5 microns (PM2.5) (which includes Diesel Particulate Matter (DPM)), and volatile organic compounds (VOC), and for the following air toxics: benzene, acetaldehyde, formaldehyde, 1,3-butadiene, acrolein, and polycyclic aromatic hydrocarbons (PAH). Potential impacts due to ground level ozone (GLO) should be considered through an assessment of emissions changes in ozone precursors and their ratios, in relation to ambient ozone concentrations.

Maximum emission scenarios should be developed for all relevant averaging time frames. The highest predicted traffic flow scenario for each project corridor and each operating scenario should be used to develop the maximum credible air pollutant emission scenarios. The emission rates shall be input to the dispersion model to predict the maximum concentrations at ground level and elevated receptors.

A 5-year meteorological data set, representative of conditions in the study area should be used in conjunction with an approved air dispersion model, to assess the maximum concentrations of the contaminants emitted from the project. Meteorological data from readily available sources, such as federal, provincial and state agencies is recommended. Dispersion modeling should be undertaken using a recognized model (such as the US EPA's CALQ3HCR) for each of the pollutants identified earlier in this section, for the baseline, do-nothing and future operational scenarios. The application of the model(s) should be consistent with published guidelines and recommendations for that model. In order to obtain an accurate representation of the predicted worst-case air quality conditions at any point, the impact of roadway operating emissions should be combined with the contributions from other local, regional and distant air pollution sources. This may be done by adding the worst-case modeled concentration at a given receptor to a suitably conservative background concentration (such as the 90th percentile of hourly observations) to arrive at the worst-case concentration at the receptor. Another acceptable approach to incorporate ambient influences would be to undertake what is referred to as a combined effects analysis. Under this approach, modeled concentrations for each hour of the 5-year data set are added to the representative background concentration of that pollutant for the exact same time to determine the worst-case concentrations.

The predicted worst-case concentrations should be compared to provincial (MOE Ambient Air Quality Criteria (AAQC)) and federal (Canada-wide Standards and National Ambient Air Quality Objectives) guidelines, as available. For receptors where an air

2 Annex A provides additional guidance on air quality. The proponent may wish to submit a draft Air Quality work plan to federal authorities for review to ensure that all relevant parameters are addressed.

quality standard or criterion is predicted to be exceeded, an analysis of the frequency of exceedances should be completed. If any criterion or objective is expected to be exceeded, then suitable mitigation measures should be evaluated. Additional dispersion modeling could be undertaken to estimate the frequency and magnitude of the residual impacts after the application of the mitigation measures.

The modeling results and their comparison to air quality standards and guidelines should then be used to evaluate the related impacts to human health and sensitive ecosystems. It is recommended that interim air quality modeling results be provided to the review team when available so that additional guidance on potential human health effects can be provided.

The potential for transboundary air quality impacts should be discussed as well as any potential impacts on First Nations lands.

An assessment of the construction-phase emissions (including dust, exhaust from the operation of heavy equipment and any demolition-related emissions) would help to identify and minimize any short-term nuisance effects. In addition, where possible, effects due to traffic disruption (i.e. increased idle times and queuing) should also be assessed. These analyses should take into account the plans for the existing structure, in order to reasonably predict potential effects that may result from the implementation of this proposed project.

The assessment should also discuss the measures that will be used to reduce dust and particle emissions from construction activities and construction vehicle movements. It should also outline how contract documents will stipulate that motorized equipment must meet design specifications for emission controls and conform to provincial Drive Clean standards, where appropriate, and that idling of any equipment should be limited to an absolute minimum and be strictly monitored. Provisions should also be made for contractors to avoid, or at least limit, the use of their most polluting motorized equipment during smog advisories.

The assessment should include an opinion concerning the significance of residual effects.

2 Annex A provides additional guidance on air quality. The proponent may wish to submit a draft Air Quality work plan to federal authorities for review to ensure that all relevant parameters are addressed.

APPENDIX 2

Ambient Air Quality Data Collection and Analysis
(19 pages)

A2-1: Data Sources and Availability

Air quality monitoring data for the specified pollutants of interest, to denote background ambient air concentrations within the study area, were examined from a variety of information sources and published network monitoring results as described in the main body of the report (Section 3.1).

Most of the relevant data were acquired from MOE network monitoring reports and all Windsor monitoring station concentrations were summarized from the year 2000 to the most recent year for which data were available (i.e., usually 2004 or 2005 for some pollutants of interest). For pollutants of interest which were monitored at more than one Windsor site, average concentrations for pertinent statistics (e.g., arithmetic mean level, 90th percentile, maximum concentration, number of exceedences) were determined for each of the sites within the available years in order to deduce both year-specific and between-site differences.

The summarized concentrations for each of the relevant parameters are provided in the series of Tables A2-1 to A2-15. It can be seen that some pollutants of interest were monitored at several Windsor sites (i.e., SO_2, NO_X, PM_{10}, $PM_{2.5}$), others at only one Windsor site (i.e., CO, VOC species, PAH) whereas greenhouse gases are not routinely monitored in urban air quality networks. Other reported data were acquired for both the greenhouse gas components (CO_2, CH_4, N_2O) and total non-methane hydrocarbons (NMHC). Similarly, some pollutants of interest have not been recently monitored in Ontario networks (i.e., PM_{10}) and/ or data have not been recently published (i.e., PAH).

In some instances, data from other nearby locales were examined as a means to verify the Windsor levels which were used preferentially. For example, PAH constituents are currently being reported for rural locales in Ontario (IADN network, L Erie sites) but urban background concentrations were considered to be more relevant to the assessment requirements. Therefore, previously measured PAH concentrations in Windsor were used not withstanding the age of the associated data. Recent Detroit PAH data, of similar concentrations, tended to confirm the validity of the previous Windsor PAH measurements as well as specific VOC constituents.

A2-2: Background Concentrations

The air quality monitoring stations selected for Windsor background level data were:

- MOE Station #12008, 467 University, Downtown Windsor, and
- MOE Station #12016, College/South St., West Windsor.

For parameters that were monitored at both stations, the associated statistical data were combined (i.e., averaged for the two stations). Alternatively, the specific levels for either of the above-noted stations were used for pollutants of interest that were monitored at only site.

The average and 90th percentile concentrations by pollutant of interest, along with the average member of regulatory level exceedences for these stations, are summarized in Table A2-16 for two time periods. The annual period designated as 'current' represented the levels for the most recent available year (typically 2004 or 2005) and the period designated as 'past' included the average levels for the entire data period (typically 2000 to the most recent year). The current 90th concentrations for these sites were selected as the background levels for this assessment and were considered conservative as noted below.

The background total PAH, and associated constituent PAH concentrations, comprised the mean concentration plus one standard deviation from the mean since 90th percentile levels are not normally reported for these substances. Average annual levels of the greenhouse gases, that have been reported (Seinfeld and Pandis, 1998) and might be regarded as global-averaged atmospheric levels, were used as background levels for the area. In the absence of total VOC measurements in most locales, the maximum NMHC level measured in Sarnia (Lasalle Road) by ORTECH Environmental for the SLEA program over a two-year period (2002-2003) was used as the background level after conversion to applicable reporting units (ppm-carbon). The average methane level measured at this same SLEA site was of similar magnitude to that measured in other global areas. It is also relevant to note that ambient levels in exceedance of specific regulatory limits (e.g., existing or future Ontario air quality standards) occurred in both the current and past periods for some pollutants of interest (i.e., O_3, PM_{10}, $PM_{2.5}$, acrolein and benzo (a) pyrene).

A2-3: Data Conservatism

The data selected to represent background ambient air concentrations in Windsor was considered to be conservative for the following reasons:

- the Windsor air quality monitoring stations, selected to obtain background levels, were located in generally populated/busy areas of the City which typically have elevated levels of most pollutants of interest as opposed to stations more remote from urban emission sources,
- the associated monitoring data from these sites could be expected to encompass parameter contributions from sources under all wind directions, including existing bridge and road traffic components, since data for complete years were applied rather than selected directionally-dependent data,
- assignment of 90th percentile concentrations to represent background levels for most pollutants of interest, with the exception of applied mean levels for the greenhouse gases, provided a significant degree of conservatism,
- selection of the most recent year of available data for the background levels was considered to be more applicable than the average of several years since the more recent data should more closely represent current conditions with respect to emission sources. For some key pollutants of interest (e.g., O_3, NO_X, PM_{10}, $PM_{2.5}$, certain VOC species), the 90th percentile data for the most recent year (i.e., current levels) were either higher or nearly the same as the average 90th percentile data for the previous years (i.e., past levels). Similarly, generally poorer air quality occurred in Southern Ontario during 2005 than in the other previous years (e.g., a greater member of elevated air quality indices and smog advisories in 2005),
- the selected $PM_{2.5}$ background level (24 $\mu g/m^3$ for 24-hour averaging time) was higher than the overall mean concentrations that are currently being monitored at two sites along Huron Church Road for the period October-December 2006 (i.e., 19 and 21 $\mu g/m^3$) and also higher than most of the short-term (3-hour) $PM_{2.5}$ concentrations that were measured upwind near Huron Church Road during the MOE 2002-2003 Windsor bridge traffic studies,
- the selected NMHC background level was particularly conservative (i.e., significantly higher than the sum of measured individual VOC species at the Windsor site on the basis of species conversion to ppm-carbon),
- the predicted traffic-related NO_X concentrations, which may contain both nitric oxide (NO) and nitrogen dioxide (NO_2) components, have been compared with the Ontario AAQC that is relevant to NO_2 only.

Table A2-1: Ambient Carbon Monoxide Data

Windsor Air Quality Monitoring
Parameter: Carbon Monoxide — Standard, Criterion, Guideline: 30 ppm (1 hour)
Units: ppm — 13 ppm (8 hour)

Monitoring Location	Year	Avg. Period (hours)	Valid Hours	Concentrations		Maximum		Number of Exceedances	
				Mean	90th %	1 h	24 h	1 h	8 h
MOE # 12008	2005	1	7867	0.19	0.38	1.33	1.12	0	0
Downtown	2004	1	8573	0.48	0.72	2.33	1.75	0	0
467 University Ave.	2003	1	5035[a]	INS[a]	1.20	4.34	2.45	0	0
	2002	1	7303	0.46	1.10	4.25	2.77	0	0
	2001	1	8487	0.26	0.57	4.94	2.00	0	0
	2000	1	8586	0.27	0.60	11.82	3.57	0	0
	Avg.			0.33	0.76	4.84	2.28	0	0

[a] INS - flagged as insufficient measurements for statistically valid mean

Table A2-2: Ambient Sulphur Dioxide Data

Windsor Air Quality Monitoring
Parameter: Sulphur Dioxide
Units: ppb

Standard, Criterion, Guideline: 250 ppb (1 hour)
100 ppb (24 hour)
20 ppb (1 year)

Monitoring Location	Year	Avg. Period (hours)	Valid Hours	Concentrations		Maximum		Number of Exceedances		
				Mean	90th %	1 h	24 h	1 h	24 h	1 year
MOE # 12008	2005	1	8387	4.9	13	127	20	0	0	0
Downtown	2004	1	8750	4.8	13	86	20	0	0	0
467 University Ave.	2003	1	8564	5.9	14	98	41	0	0	0
	2002	1	7295	5.7	15	73	29	0	0	0
	2001	1	8680	6.1	15	82	21	0	0	0
	2000	1	8671	6.1	15	91	25	0	0	0
	Avg.			5.6	14	93	26	0	0	0
MOE # 12016	2005	1	8584	5.1	14	98	22	0	0	0
West	2004	1	8766	4.6	12	72	20	0	0	0
College/South St.	2003	1	6656[a]	INS[a]	15	110	31	0	0	0
	2002	1	7272	7.9	19	127	46	0	0	0
	2001	1	8410	9.3	20	158	41	0	0	0
	2000	1	8776	8.8	20	182	45	0	0	0
	Avg.			7.1	17	125	34	0	0	0
MOE # 12007	2002	1	7156	4.8	11	73	23	0	0	0
	2001	1	8594	6.3	13	69	29	0	0	0
Wright/Water St.	2000	1	7975	5.6	12	100	20	0	0	0
	Avg.			5.6	12	81	24	0	0	0
MOE # 12009	2001	1	4764[a]	INS[a]	10	73	15	0	0	0
Little River	2000	1	8645	4.4	10	98	19	0	0	0
9725 Riverside Drive Tecumseth Water Treatment Plant	Avg.			4.4	10	86	17	0	0	0
All Sites (2000-2005)				5.7	13	96	25	0	0	0

[a] INS - flagged as insufficient measurements for statistically valid mean

Table A2-3: Ambient Ozone Data

Windsor Air Quality Monitoring
Parameter: Ozone
Units: ppb

Standard, Criterion, Guideline: 80 ppb (1 hour)

Monitoring Location	Year	Avg. Period (hours)	Valid Hours	Concentrations		Maximum		Number of Exceedances	
				Mean	90th %	1 h	24 h	1 h	8h
MOE # 12008	2005	1	8723	26.0	53	108	70	126	
Downtown	2004	1	8745	20.2	40	92	48	10	
467 University Ave.	2003	1	8524	22.9	46	111	61	60	
	2002	1	7299	21.9	49	124	64	153	
	2001	1	8688	20.5	45	112	62	63	
	2000	1	8663	18.6	41	103	61.4	22	
	Avg.			21.7	46	108	61.1	72	
MOE # 12016	2005	1	8633	25.6	54	111	68	150	
West	2004	1	8765	22.6	44	92	56	19	
College/South St.	2003	1	8618	22.80	47	123	73	90	
	2002	1	7275	20.2	50	127	66	164	
	2001	1	8316	19.0	43	112	58	58	
	2000	1	8773	17.0	40	106	59.3	13	
	Avg.			21.2	46	112	63.4	82	
All Sites (2000-2005)				21.4	46	110	62.2	77	

Note: 10 yr trend at both stations - fairly flat concentration behaviour between 1996-2004, 2005 higher

[a] INS - flagged as insufficient measurements for statistically valid mean

Table A2-4: Ambient Nitrogen Oxides Data

Windsor Air Quality Monitoring
Parameter: Oxides of Nitrogen — Standard, Criterion, Guideline: see NO_2
Units: ppb — (no MOE standard for NO_X)

Monitoring Location	Year	Avg. Period (hours)	Valid Hours	Concentrations		Maximum		Number of Exceedances	
				Mean	90th %	1 h	24 h	1 h	24 h
MOE # 12008	2005	1	8541	24.9	52	225	128	—	—
Downtown	2004	1	8563	29.3	58	477	170	—	—
467 University Ave.	2003	1	3415[a]	INS[a]	72	613	164	—	—
	2002	1	7285	29.2	53	313	190	—	—
	2001	1	8589	30.5	57	261	97	—	—
	2000	1	8552	36.0	64	527	159	—	—
	Avg.			30.0	59	403	151		
MOE # 12016	2005	1	8561	25.6	52	422	132	—	—
West	2004	1	8766	29.1	56	493	145	—	—
College/South St.	2003	1	6218[a]	INS[a]	69	655	221	—	—
	2002	1	7274	32.5	56	717	320	—	—
	2001	1	8434	31.1	58	347	123	—	—
	2000	1	4395[a]	INS[a]	71	412	149	—	—
	Avg.			29.6	60	508	182		
MOE # 12009	2001	1	4841[a]	INS[a]	43	203	79	—	—
Little River	2000	1	7286	23.4	44	328	99	—	—
9725 Riverside Drive Tecumseth Water Treatment Plant	Avg.			23.4	44	266	89		
All Sites (2000-2005)				27.7	54.4	391.9	140.7		

[a] INS - flagged as insufficient measurements for statistically valid mean

Table A2-5: Ambient Nitrogen Dioxide Data

Windsor Air Quality Monitoring
Parameter: Nitrogen Dioxide — Standard, Criterion, Guideline: 200 ppb (1 hour)
Units: ppb — 100 ppb (24 hour)

Monitoring Location	Year	Avg. Period (hours)	Valid Hours	Concentrations		Maximum		Number of Exceedances	
				Mean	90th %	1 h	24 h	1 h	24 h
MOE # 12008	2005	1	8541	16.9	33	66	53	0	0
Downtown	2004	1	8563	18.30	36	97	48	0	0
467 University Ave.	2003	1	3415[a]	INS[a]	39	80	50	0	0
	2002	1	7285	19.1	32	69	46	0	0
	2001	1	8589	19.4	33	87	41	0	0
	2000	1	8552	21.6	37	104	45	0	0
	Avg.			19.1	35	84	47	0	0
MOE # 12016	2005	1	8561	17.1	33	71	58	0	0
West	2004	1	8766	17.6	33	94	42	0	0
College/South St.	2003	1	6218[a]	INS[a]	37	97	49	0	0
	2002	1	7274	19.6	33	93	62	0	0
	2001	1	8434	20.8	35	69	44	0	0
	2000	1	4395[a]	INS[a]	35	73	40	0	0
	Avg.			18.8	34	83	49	0	0
MOE # 12009	2001	1	4841[a]	INS[a]	30	63	40	0	0
Little River	2000	1	7286	16.0	31	73	40	0	0
9725 Riverside Drive	Avg.			16.0	31	68	40	0	0
All Sites (2000-2005)				17.9	33	78	45	0	0

[a] INS - flagged as insufficient measurements for statistically valid mean

Table A2-6: Ambient Nitric Oxide Data

Windsor Air Quality Monitoring
Parameter: Nitric Oxide
Units: ppb

Standard, Criterion, Guideline: N/A (see NO_2)

Monitoring Location	Year	Avg. Period (hours)	Valid Hours	Concentrations		Maximum		Number of Exceedances	
				Mean	90th %	1 h	24 h	1 h	24 h
MOE # 12008	2005	1	8541	7.8	20	184	74	—	—
Downtown	2004	1	8563	10.5	25	403	122	—	—
467 University Ave.	2003	1	3415[a]	INS[a]	35	544	114	—	—
	2002	1	7285	10.9	24	250	144	—	—
	2001	1	8589	11.0	26	202	71	—	—
	2000	1	8552	13.9	30	444	115	—	—
	Avg.			10.8	27	338	107		
MOE # 12016	2005	1	8561	8.3	20	356	73	—	—
West	2004	1	8766	11.3	25	439	112	—	—
College/South St.	2003	1	6218[a]	INS[a]	34	572	175	—	—
	2002	1	7274	13.0	25	624	257	—	—
	2001	1	8434	10.4	25	292	91	—	—
	2000	1	4395[a]	INS[a]	38	366	108	—	—
	Avg.			10.8	28	442	136		
MOE # 12009	2001	1	4841[a]	INS[a]	17	203	60	—	—
Little River	2000	1	7286	8.4	17	277	78	—	—
9725 Riverside Drive	Avg.			8.4	17	240	69		
Tecumseth Water Treatment Plant									
All Sites (2000-2005)				10.0	23.8	339.8	103.9		

[a] INS - flagged as insufficient measurements for statistically valid mean

Table A2-7: Ambient PM_{10} Data

Windsor Air Quality Monitoring
Parameter: Particulate Matter, diameter 10 micron or less
Units: $\mu g/m^3$ Standard, Criterion, Guideline: 50 $\mu g/m^3$ (24 hour)

Monitoring Location	Year	Avg. Period (hours)	Valid Hours	Concentrations		Maximum		Number of Exceedances
				Mean[b]	90th %	1 h	24 h	24 h
MOE # 12016	2001	1	8365	23.0	43	180	73	17
West	2000	1	8607	24.2	45	307	78	9
College/South St.	Avg.			23.6	44	244	76	13
MOE # 12507	2002	24	—	27.6	51	—	88	5
	2001	24	—	22.0	31	—	61	2
Wright/Water St.	2000	24	—	29.5	48	—	146	5
	Avg.			26.4	43		98	4
MOE # 12508	2002	24	—	24.7	42	—	76	4
Downtown	2001	24	—	29.4	51	—	79	6
467 University	2000	24	—	29.5	50	—	82	5
	Avg.			27.9	48		79	5
MOE # 12513	2002	24	—	26.9	51	—	82	5
3665 Wyandette St.	2001	24	—	32.8	58	—	95	8
Filtration Plant	2000	24	—	31.1	52	—	91	6
	Avg.			30.3	54		89	6
MOE # 12556	2002	24	—	18.9	32	—	55	1
1400 Roselawn Dr.	2001	24	—	19.6	29	—	46	0
St. Gabriel SS	2000	24	—	21.7	37	—	57	1
	Avg.			20.1	33		53	1
MOE # 12559	2002	24	—	24.0	48	—	70	5
5305 Adstol Ave.	2001	24	—	25.2	36	—	64	2
St. Alexander SS	2000	24	—	23.4	40	—	60	1
	Avg.			24.2	41		65	3
MOE # 12583	2002	24	—	17.3	29	—	55	1
13765 St. Gregory's	2001	24	—	16.9	27	—	48	0
St. Gregory SS	2000	24	—	23.0	35	—	71	2
	Avg.			19.1	30		58	1
All Sites (2000-2002)				24.5	42	244	74	5

[a] INS - flagged as insufficient measurements for statistically valid mean

[b] Arithmetic Mean

Table A2-8: Ambient $PM_{2.5}$ Data

Windsor Air Quality Monitoring
Parameter: Particulate Matter, diameter 2.5 micron or less
Units: $\mu g/m^3$ Standard, Criterion, Guideline: 30 $\mu g/m^3$ (24 hour)

Monitoring Location	Year	Avg. Period (hours)	Valid Hours	Concentrations		Maximum		Number of Exceedances
				Mean	90th %	1 h	24 h	24 h
MOE # 12008	2005	1	8665	10.4	24	72	48	12
Downtown	2004	1	8597	8.6	19	54	39	8
467 University Ave.	2003	1	8480	8.5	19	64	43	5
	2002	1	6697	9.8	21	75	56	10
	2001	1	8303	9.4	20	72	40	7
	Avg.			9.3	21	67	45	8
MOE # 12016	2005	1	8643	10.5	24	74	52	9
West	2004	1	8757	9.5	21	56	38	9
College/South St.	2003	1	8605	9.6	20	64	41	7
	2002	1	7045	11.8	26	74	56	18
	Avg.			10.4	23	67	47	11
MOE # 12009	2001	1	4821[a]	INS[a]	20	72	44	5
Little River	2000	1	8499	13.0	25	88	39	8
9725 Riverside Drive	Avg.			13.0	23	80	42	7
Tecumseth Water Treatment Plant								
MOE # 12007	2002	1	7101	12.2	26	88	54	14
	2001	1	1805[a]	INS[a]	18	41	33	1
Wright/Water St.	Avg.			12.2	22	65	44	8
All Sites (2000-2005)				11.2	22	70	44	8

[a] INS - flagged as insufficient measurements for statistically valid mean

Table A2-9: Ambient Butadiene Data

Windsor Air Quality Monitoring
Parameter: 1,3-Butadiene
Units: $\mu g/m^3$ Standard, Criterion, Guideline: ?

Monitoring Location	Year	Avg. Period (hours)	Valid Hours	Concentrations		Maximum		Number of Exceedances
				Mean	90th %	1 h	24 h	1 h
MOE # 12016	2004	24	—	0.109	0.211	—	0.461	—
West	2003	24	—	0.109	0.218	—	0.459	—
College/South St.	2002	24	—	0.130	0.210	—	0.619	—
	2001	24	—	0.143	0.227	—	0.440	—
	2000	24	—	0.187	0.300	—	0.430	—
	Avg.			0.136	0.233		0.482	
Michigan DEQ Detroit								
Allan Park	2005	24	—	0.17	—	—	0.974	
W. Fort	2005	24	—	0.035	—	—	0.280	
W. Jefferson	2005	24	—	0.098	—	—	0.354	

[a] INS - flagged as insufficient measurements for statistically valid mean

Table A2-10: Ambient Acetaldehyde Data

Windsor Air Quality Monitoring
Parameter: Acetaldehyde
Units: $\mu g/m^3$ Standard, Criterion, Guideline: 500 $\mu g/m^3$ (24 hour)

Monitoring Location	Year	Avg. Period (hours)	Valid Hours	Concentrations		Maximum		Number of Exceedances	
				Mean	90th %	1 h	24 h	1 h	24 h
MOE # 12016	2004	24	—	1.199	2.022	—	2.298	—	0
West	2003	24	—	1.711	2.738	—	4.569	—	0
College/South St.	2002	24	—	1.731	3.040	—	6.040	—	0
	2001	24	—	1.856	2.620	—	5.606	—	0
	2000	24	—	1.841	2.685	—	3.417	—	0
	Avg.			1.668	2.621		4.386		0
Michigan DEQ Detroit Sites									
Allan Park	2005	24	—	1.56	—	—	4.63	—	—
W. Fort	2005	24	—	1.72	—	—	4.37	—	—

[a] INS - flagged as insufficient measurements for statistically valid mean

Table A2-11: Ambient Acrolein Data

Windsor Air Quality Monitoring
Parameter: Acrolein
Units: $\mu g/m^3$

Standard, Criterion, Guideline: 0.08 $\mu g/m^3$ (24 hour)
9.6 $\mu g/m^3$ (24 hour)
SENES Report ?

Monitoring Location	Year	Avg. Period (hours)	Valid Hours	Concentrations		Maximum		Number of Exceedances	
				Mean	90th %	1 h	24 h	1 h	24 h
MOE # 12016	2004	24	—	0.064	0.081	—	0.133	—	~1
West	2003	24	—	0.134	0.284	—	0.315	—	~13
College/South St.	2002	24	—	0.108	0.156	—	0.694	—	~14
	2001	24	—	0.109	0.207	—	0.398	—	~20
	2000	24	—	0.120	0.219	—	0.349	—	~14
	Avg.			0.107	0.189		0.378		

[a] INS - flagged as insufficient measurements for statistically valid mean

Table A2-12: Ambient Benzene Data

Windsor Air Quality Monitoring
Parameter: Benzene
Units: $\mu g/m^3$

Standard, Criterion, Guideline: 60 $\mu g/m^3$ (24 hour) SENES Report ?

Monitoring Location	Year	Avg. Period (hours)	Valid Hours	Concentrations		Maximum		Number of Exceedances	
				Mean	90th %	1 h	24 h	1 h	24 h
MOE # 12016	2004	24	—	1.754	3.360	—	6.257	—	0
West	2003	24	—	1.746	2.833	—	6.287	—	0
College/South St.	2002	24	—	1.497	3.321	—	4.090	—	0
	2001	24	—	1.692	3.352	—	4.470	—	0
	2000	24	—	2.161	4.000	—	5.170	—	0
	Avg.			1.770	3.373		5.255		0
Michigan DEQ Detroit Sites									
Allan Park	2005	24	—	2.21	—	—	8.5	—	—
W. Fort	2005	24	—	1.77	—	—	7.0	—	—
W. Jefferson	2005	24	—	8.18	—	—	47.9	—	—

[a] INS - flagged as insufficient measurements for statistically valid mean

Table A2-13: Ambient Formaldehyde Data

Windsor Air Quality Monitoring
Parameter: Formaldehyde
Units: $\mu g/m^3$ Standard, Criterion, Guideline: 65 $\mu g/m^3$ (24 hour)

Monitoring Location	Year	Avg. Period (hours)	Valid Hours	Concentrations		Maximum		Number of Exceedances	
				Mean	90th %	1 h	24 h	1 h	24 h
MOE # 12016	2004	24	—	2.076	4.543	—	4.548	—	0
West	2003	24	—	3.141	4.957	—	11.347	—	0
College/South St.	2002	24	—	2.672	5.044	—	15.021	—	0
	2001	24	—	2.605	3.569	—	9.595	—	0
	2000	24	—	2.555	4.157	—	4.157	—	0
	Avg.			2.610	4.454		8.934		0
Michigan DEQ Detroit Sites									
Allan Park	2005	24	—	2.08	—	—	5.37	—	—
W. Fort	2005	24	—	1.62	—	—	3.90	—	—

[a] INS - flagged as insufficient measurements for statistically valid mean

Table A2-14: Ambient PAH Data

Windsor Air Quality Monitoring
Parameter: Poly Aromatic Hydrocarbons
Units: µg/m^3

Standard, Criterion, Guideline: 0.001 µg/m^3 [24 hour B(a)P]

Monitoring Location	Year	Avg. Period (hours)	PAH Species	Concentration		Exceedances	Std Dev
				Mean	24 -h Max	24 h	
ECNAPS # 60204	1987 -	24	Acenaphthylene	0.0049	0.0292		0.0064
MOE # 12008	1990		Acenaphthene	0.0053	0.0600		0.0082
467 University			Fluorene	0.0050	0.0307		0.0057
			2-Methyl Fluorene	0.0049	0.0154		0.0027
			Phenanthrene	0.0312	0.1550		0.0265
			Anthracene	0.0035	0.0649		0
			Fluoranthene	0.0103	0.1040		0.011
			Pyrene	0.0066	0.0636		0.0067
			Benzo(a)Fluorene	0.0010	0.0099		0.0013
			Benzo(b)Fluorene	0.0006	0.0074		0.0009
			1-Methyl Pyrene	0.0003	0.0022		0.0004
			Benzo(g,h,i)Fluoranthene	0.0007	0.0036		0.0006
			Benz(a)Anthracene	0.0007	0.0090		0.0012
			Chrysene + Triphenylene	0.0020	0.0226		0.0028
			7-Methyl Benzo(a)Anthracene	ND	0.00002		
			Benzo(b)Fluoranthene	0.0024	0.0161		0.0026
			Benzo(k)Fluoranthene	ND	0.0019		
			Benzo(e)Pyrene	0.0008	0.0056		0.0008
			Benzo(a)Pyrene	0.0006	0.0063	✓	0.0008
			Perylene	0.0001	0.0014		0.0002
			3-Methyl Cholanthene	ND	0.00007		
			Indeno(1,2,3-cd)Pyrene	0.0008	0.0055		0.0009
			Dibenz(a,c&a,h)Anthracene	ND	0.0009		
			Benzo(b)Chrysene	ND	0.0004		
			Benzo(g,h,i)Perylene	0.0007	0.0048		0.0007
			Anthanthrene	0.00004	0.0090		0.0001
			Total PAH	0.0824	0.6295		
ECNAPS #60204	1990	24	Acenaphthylene	0.0042	0.0223		0.0053
MOE #12008			Acenaphthene	0.0042	0.0178		0.0044
467 University			Fluorene	0.0055	0.0269		0.0047
			2-Methyl Fluorene	0.0039	0.0081		0.002
			Phenanthrene	0.0247	0.1103		0.024
			Anthracene	0.0036	0.0649		0.0097
			Fluoranthene	0.0092	0.1038		0.0144
			Pyrene	0.0062	0.0636		0.0088
			Benzo(a)Fluorene	0.0009	0.0099		0.0014
			Benzo(b)Fluorene	0.0004	0.0023		0.0005
			1-Methyl-Pyrene	0.0002	0.0019		0.0003
			Benzo(g,h,i)Fluoranthene	0.0007	0.0033		0.0006
			Benzo(a)Anthracene	0.0005	0.0025		0.0006
			Chrysene + Triphenylene	0.0018	0.0226		0.0031
			7-Methyl-Benzo(a)Anthracene	ND	ND		
			Benzo(b)Fluoranthene	0.0018	0.0067		0.0015
			Benzo(k)Fluoranthene	0.0001	0.0004		0.0001
			Benzo(e)Pyrene	0.0007	0.0041		0.0007
			Benzo(a)Pyrene	0.0004	0.0016		0.0004
			Perylene	0.0001	0.0004		0.0001
			3-Methyl-Cholanthrene	ND	ND		
			Indeno(1,2,3-cd)Pyrene	0.0006	0.0023		0.0005
			Dibenz(a,c&a,h)Anthracene	ND	0.0004		
			Benzo(b)Chrysene	ND	0.0002		
			Benzo(g,h,i)Perylene	0.0007	0.0023		0.0005
			Anthanthrene	0.00004	0.00023		0.0001
			Total PAH	0.0704	0.427		0.0661
AIRS #261630027	2005	24	Acenaphthylene	0.0034	0.0418		
Detroit			Acenaphthene	0.0107	0.086		
W. Jefferson			Fluorene	0.0102	0.0704		
			Phenanthrene	0.0274	0.117		
			Anthracene	0.0027	0.0125		
			Fluoranthene	0.0073	0.0352		
			Pyrene	0.0045	0.0206		
			Benzo(a)Anthracene	0.0006	0.0054		
			Chrysene	0.001	0.006		
			Benzo(b)Fluoranthene	0.0008	0.0064		
			Benzo(k)Fluoranthene	0.0007	0.0053		
			Benzo(a)Pyrene	0.0005	0.0063		
			Indeno(1,2,3-cd)Pyrene	0.0005	0.0058		
			Dibenz(a,h)Anthracene	0.0001	0.0008		
			Benzo(g,h,i)Perylene	0.0005	0.0043		
			Total PAH	0.0781	0.4236		

Table A2-15: Ambient Greenhouse Gas Data

Windsor Air Quality Monitoring
Parameter: Greenhouse Gases / Other
Units: ppb Standard, Criterion, Guideline: N/A

Parameter & Location	Monitoring	Year	Avg. Period (hours)	Concentration		Maximum		Number of Exceedances	
				Mean	90th %	1 h	24 h	1 h	24 h
NMHC (as CH_4) Sarnia Lasalle Road		2003	Grab Samples	15	—	392	—	—	—
Methane (CH_4) Sarnia Lasalle Road		late 1990's	Grab Samples	1,800	—	—	—	—	—
Methane (CH_4) Global Background ref: Seinfeld & Pardis (1998)		late 1990's	Grab Samples	1,720	—	—	—	—	—
Nitrous Oxide (N_2O) Global Background ref: Seinfeld & Pardis (1998)		late 1990's	Grab Samples	311	—	—	—	—	—
Carbon Dioxide (CO_4) Global Background ref: Seinfeld & Pardis (1998)		late 1990's	Grab Samples	360,000	—	—	—	—	—

Table A2-16: Windsor Air Quality Mean and 90 Percentile Parameter Concentrations

Parameter	Designated Annual Period	Averaging Period	Average Concentrations		90%ile Concentrations		Number of Exceedances	Type of Limit	Data Year	Location
		(hours)	($\mu g/m^3$)	ppb	($\mu g/m^3$)	ppb				
CO	Current	1	220	190	433	380	0	1 h Std	2005	Windsor
	Past	1	380	330	870	760	0	1 h Std	2000-05	
SO_2	Current	1	13	5.0	37	14	0	1 h Std	2005	Windsor
	Past	1	17	6.4	42	16	0	1 h Std	2000-05	
O_3	Current	1	51	26	106	54	138	1 h Std	2005	Windsor
	Past	1	41	21	90	46	77	1 h Std	2000-05	
NO_X (as NO_2)	Current	1	47	25	98	52	—	—	2005	Windsor
	Past	1	56	30	113	60	—	—	2000-05	
NO_2	Current	1	32	17	62	33	0	1 h Std	2005	Windsor
	Past	1	36	19	66	35	0	1 h Std	2000-05	
NO	Current	1	10	8	25	20	—	—	2005	Windsor
	Past	1	13	11	34	28	—	—	2000-05	
PM_{10}	Current	24	24	—	46	—	10	24 h Int Guide	2002	Windsor
	Past	24	26	—	46	—	9		2000-02	
$PM_{2.5}$	Current	24	10	—	24	—	11	24 h CWS	2005	Windsor
	Past	24	10	—	22	—	10	24 h CWS	2001-05	
1,3-Butadiene	Current	24	0.11	—	0.21	—	—	—	2004	Windsor
	Past	24	0.14	—	0.23	—	—	—	2000-04	
Acetaldehyde	Current	24	1.1	—	2.0	—	0	24 h AAQC	2004	Windsor
	Past	24	1.7	—	2.6	—	0	24 h AAQC	2000-04	
Acrolein	Current	24	0.064	—	0.08	—	1	24 h AAQC	2004	Windsor
	Past	24	0.11	—	0.19	—	20	24 h AAQC	2000-04	
Benzene	Current	24	1.8	—	3.4	—	—	—	2004	Windsor
	Past	24	1.8	—	3.4	—	—	—	2000-04	
Formaldehyde	Current	24	2.1	—	4.5	—	0	24 h AAQC	2004	Windsor
	Past	24	2.6	—	4	—	0	24 h AAQC	2000-04	
PAH (Total)	Current	24	0.078	—	0.14	—	—	—	2005	Detroit
	Past	24	0.082	—	0.15	—	—	—	1987-90	Windsor
B(a)P	Current	24	0.00051	—	0.0008	—	✓	24 h AAQC	2005	Detroit
	Past	24	0.0006	—	0.0014	—	✓	24 h AAQC	1987-90	Windsor
NMHC (as C)	Current	—	—	—	—	—	—	—		
	Past	1	—	11	—	294	—	—	2003-04	Sarnia
CO_2	Current	—	—	—	—	—	—	—		
	Past	annual	650,000	360,000	—	—	—	—	~1995	N. Amer.
CH_4	Current	—	—	—	—	—	—	—		
	Past	annual	1,130	1,720	—	—	—	—	~1995	N. Amer.
N_2O	Current	—	—	—	—	—	—	—		
	Past	annual	560	311	—	—	—	—	~1990	N. Amer.

APPENDIX 3

Fleet Data Collection and Analysis
(12 pages)

A3-1: Fleet Profiles

MOBILE6.2C categorizes the on road vehicle fleet into 16 vehicle categories through the use of vehicle registration data. Vehicle fleet distributions specific for the province of Ontario were obtained from Environment Canada. An analysis of the Ontario fleet profile contained within MOBILE6.2C was conducted and compared against site specific fleet profile information for vehicles operating along the Ambassador Bridge, Huron Church Road and the local cross streets (Arterial Roads) intersecting Huron Church Road.

Fleet data obtained from the Ambassador Bridge and the City of Windsor provides two vehicle categories "Cars" and "Trucks". For the Ambassador Bridge "Trucks" refers to commercial vehicles passing through the "Truck" inspection lanes and will contain minor quantities of commercial vehicles such as cargo vans and light duty trucks. Conservatively, these vehicles were all considered to be represented by the MOBILE 6.2C vehicle classes 6 through 13 "Heavy Duty Vehicles". Buses are recorded separately by Ambassador Bridge and are assumed to represent vehicle class 15 "Transit and Urban Buses". Table A3-1 provides a summary of the annual fleet profile for the Ambassador Bridge.

Table A3-1: Annual Fleet Profile for Ambassador Bridge (Vehicles/year)

	CAR	TRUCK	BUS	TOTAL
Northbound (CTC)	2,909,353	1,709,828	8,207	4,627,388
Southbound (DIBC)	2,983,787	1,777,293	8,800	4,769,880
Total:	5,893,140	3,487,121	17,007	9,397,268
Fleet Composition	**62.7%**	**37.1%**	**0.2%**	

The "Truck" category contained within the turning movement count data (total vehicle count) from the City of Windsor for intersections along Huron Church Road covers vehicle classes 6 through 15. This information is representative of conditions during calendar years 2004 through 2006. A summary of the fleet profile for Huron Church Road and cross streets is provided in Tables A3-2 and A3-3.

Table A3-2: Fleet Profile for Huron Church

	Light Duty (Cars)		Heavy Duty (Trucks)		Total
One Hour Morning Peak	**Vehicles**	**%**	**Vehicles**	**%**	**Vehicles:**
Huron Church/College (NB)	1281	81.7%	286	18.3%	1567
Huron Church/College (SB)	474	73.8%	168	26.2%	642
Huron Church/Tecumseh (NB)	1158	80.2%	286	19.8%	1444
Huron Church/Tecumseh (SB)	429	71.3%	173	28.7%	602
Huron Chruch/Malden (NB)	1531	83.8%	295	16.2%	1826
Huron Chruch/Malden (SB)	692	74.6%	235	25.4%	927
Huron Church/Industrial (NB)	1691	83.8%	327	16.2%	2018
Huron Church/Industrial (SB)	811	82.2%	176	17.8%	987
One Hour Mid-day Peak					
Huron Church/College (NB)	587	62.7%	349	37.3%	936
Huron Church/College (SB)	702	73.0%	259	27.0%	961
Huron Church/Tecumseh (NB)	1646	85.3%	284	14.7%	1930
Huron Church/Tecumseh (SB)	717	76.4%	221	23.6%	938
Huron Chruch/Malden (NB)	923	77.3%	271	22.7%	1194
Huron Chruch/Malden (SB)	853	69.7%	371	30.3%	1224
Huron Church/Industrial (NB)	788	69.1%	353	30.9%	1141
Huron Church/Industrial (SB)	897	69.3%	398	30.7%	1295
One Hour Afternoon Peak					
Huron Church/College (NB)	512	60.4%	335	39.6%	847
Huron Church/College (SB)	1345	80.7%	321	19.3%	1666
Huron Chruch/Malden (NB)	882	79.5%	228	20.5%	1110
Huron Chruch/Malden (SB)	1546	82.2%	334	17.8%	1880
Huron Church/Tecumseh (NB)	747	68.8%	338	31.2%	1085
Huron Church/Tecumseh (SB)	762	67.2%	372	32.8%	1134
Huron Church/Industrial (NB)	995	74.3%	345	25.7%	1340
Huron Church/Industrial (SB)	1241	76.3%	386	23.7%	1627
Average AM Values		78.9%		21.1%	
Average MDay Values		72.9%		27.1%	
Average PM Values		73.7%		26.3%	
Average Peak Values:		**75.2%**		**24.8%**	

Note: values refer to number of vehicles per hour for northbound (NB) and southbound (SB) traffic

Table A3-3: Fleet Profile for Cross Streets

	Light Duty (Cars)		Heavy Duty (Trucks)		Total
Total Count 07:00 - 18:00	**Vehicles**	**%**	**Vehicles**	**%**	**Vehicles:**
Huron Church/College (WB)	1,844	96.5%	67	3.5%	1,911
Huron Church/College (EB)	1,980	93.0%	149	7.0%	2,129
Huron Church/Tecumseh (WB)	165	94.3%	10	5.7%	175
Huron Church/Tecumseh (EB)	371	91.8%	33	8.2%	404
Huron Chruch/Malden (WB)	2,193	91.1%	214	8.9%	2,407
Huron Chruch/Malden (EB)	1,120	93.5%	78	6.5%	1,198
Huron Church/Industrial (WB)	259	82.2%	56	17.8%	315
Huron Church/Industrial (EB)	186	91.2%	18	8.8%	204
Average		**91.7%**		**8.3%**	

Note: values refer to number of vehicles per hour for westbound (WB) and eastbound (EB) traffic

Table A3-4 provides a comparison of the default vehicle profiles contained within MOBILE 6.2C and the Ambassador Bridge, Huron Church Road and the local cross streets for the present (baseline) scenario. Limited information is available for Motorcycles and Buses. Motorcycles are combined with the light duty vehicle category 'Cars" whereas Buses were assigned default values when specific information was not available.

Table A3-4: Fleet Profile (Baseline)

Category #	Vehicle Class Code	MOBILE6.2C DESCRIPTION	MOBILE6.2C DEFAULT	MOBILE 6.2C DEFAULT GROUPED	Ambassador Bridge	Huron Church	Local Study Area Cross Roads
1	LDV	Light-Duty Vehicles (Passenger Cars)	35.4%	*87.8%*	*62.7%*	*75.0%*	*91.7%*
2	LDT1	Light-Duty Trucks 1	8.9%				
3	LDT2	Light Duty Trucks 2	29.7%				
4	LDT3	Light Duty Trucks 3	9.2%				
5	LDT4	Light Duty Trucks 4	4.1%				
16	MC	Motorcycles (All)	0.5%				
14	HDBS	School Busses	0.2%	*0.3%*	*0.2%*	*6.2C Default*	*6.2C Default*
15	HDBT	Transit and Urban Busses	0.1%				
6	HDV2B	Class 2b Heavy Duty Vehicles	4.0%	*11.9%*	*37.1%*	*25.0%*	*8.3%*
7	HDV3	Class 3 Heavy Duty Vehicles	0.4%				
8	HDV4	Class 4 Heavy Duty Vehicles	0.3%				
9	HDV5	Class 5 Heavy Duty Vehicles	0.2%				
10	HDV6	Class 6 Heavy Duty Vehicles	0.8%				
11	HDV7	Class 7 Heavy Duty Vehicles	1.0%				
12	HDV8A	Class 8a Heavy Duty Vehicles	1.2%				
13	HDV8B	Class 8b Heavy Duty Vehicles	4.0%				
		Total:	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Note: Bus contributions in local study area are subtracted from the Truck category

Adjustments to the default MOBILE 6.2C vehicle profile were made to reflect the distribution of vehicles operating along the Ambassador Bridge, Huron Church and the local cross streets. These adjustments were made through use of the following equation:

$$\text{MOBILE 6.2C (adjusted)} = \frac{\text{MOBILE 6.2C}}{\text{MOBILE 6.2C Default Grouped \%}} * \text{Ambassador Bridge \%}$$

For Light duty Vehicles (LDV) (passenger cars)

$$\text{MOBILE 6.2C (adjusted)} = \frac{35.4\%}{87.8\%} * 62.7\%$$

$$\text{LDV (adjusted)} = 25.3\%$$

Table A3-5 provides a detailed summary of the adjusted MOBILE 6.2C fleet profile for the baseline scenario.

Table A3-5: Adjusted MOBILE 6.2C Fleet Profile (Baseline)

Category #	Vehicle Class Code	MOBILE6.2C DESCRIPTION	MOBILE6.2C DEFAULT	Ambassador Bridge MOBILE6.2C	Huron Church MOBILE 6.2C	Local Study Area Cross Roads MOBILE6.2C
1	LDV	Light-Duty Vehicles (Passenger Cars)	35.4%	25.3%	30.2%	37.0%
2	LDT1	Light-Duty Trucks 1	8.9%	6.4%	7.6%	9.3%
3	LDT2	Light Duty Trucks 2	29.7%	21.2%	25.4%	31.0%
4	LDT3	Light Duty Trucks 3	9.2%	6.6%	7.9%	9.6%
5	LDT4	Light Duty Trucks 4	4.1%	2.9%	3.5%	4.3%
16	MC	Motorcycles (All)	0.5%	0.4%	0.4%	0.5%
14	HDBS	School Busses	0.2%	0.1%	***0.2%***	***0.2%***
15	HDBT	Transit and Urban Busses	0.1%	0.1%	***0.1%***	***0.1%***
6	HDV2B	Class 2b Heavy Duty Vehicles	4.0%	12.5%	8.3%	2.7%
7	HDV3	Class 3 Heavy Duty Vehicles	0.4%	1.2%	0.8%	0.3%
8	HDV4	Class 4 Heavy Duty Vehicles	0.3%	0.9%	0.6%	0.2%
9	HDV5	Class 5 Heavy Duty Vehicles	0.2%	0.6%	0.4%	0.1%
10	HDV6	Class 6 Heavy Duty Vehicles	0.8%	2.5%	1.7%	0.5%
11	HDV7	Class 7 Heavy Duty Vehicles	1.0%	3.1%	2.1%	0.7%
12	HDV8A	Class 8a Heavy Duty Vehicles	1.2%	3.7%	2.5%	0.8%
13	HDV8B	Class 8b Heavy Duty Vehicles	4.0%	12.5%	8.3%	2.7%
		Total:	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Similar adjustments were required for future study years 2011 and 2021 scenarios. The fleet profile for local cross streets was assumed to remain unchanged in future years.

Traffic forecasts contained within the Detroit River International Crossing (DRIC) Travel Demands Forecasts (September 2005) provide future projections for passenger and commercial vehicles for the Ambassador Bridge. Presently the influence of Ambassador Bridge traffic along Huron Church Road represents 55% of the total Huron Church Road annual volume. This influence was applied to future year fleet profile projections for Huron Church Road.

Tables A3-6 through A3-10 provide a summary of the future fleet profiles for 2011, 2021(FDN), 2021(A) and 2021(B).

Table A3-6: Adjusted MOBILE 6.2C Fleet Profile (2011)

Category #	Vehicle Class Code	MOBILE6.2C DESCRIPTION	MOBILE6.2C DEFAULT	MOBILE 6.2C DEFAULT GROUPED	Ambassador Bridge	Huron Church	Local Study Area Cross Roads
1	LDV	Light-Duty Vehicles (Passenger Cars)	35.4%	*87.8%*	*62.3%*	*68.1%*	*91.7%*
2	LDT1	Light-Duty Trucks 1	8.9%				
3	LDT2	Light Duty Trucks 2	29.7%				
4	LDT3	Light Duty Trucks 3	9.2%				
5	LDT4	Light Duty Trucks 4	4.1%				
16	MC	Motorcycles (All)	0.5%				
14	HDBS	School Busses	0.2%	*0.3%*	*0.2%*	*6.2C Default*	*6.2C Default*
15	HDBT	Transit and Urban Busses	0.1%				
6	HDV2B	Class 2b Heavy Duty Vehicles	4.0%	*11.9%*	*37.5%*	*31.9%*	*8.3%*
7	HDV3	Class 3 Heavy Duty Vehicles	0.4%				
8	HDV4	Class 4 Heavy Duty Vehicles	0.3%				
9	HDV5	Class 5 Heavy Duty Vehicles	0.2%				
10	HDV6	Class 6 Heavy Duty Vehicles	0.8%				
11	HDV7	Class 7 Heavy Duty Vehicles	1.0%				
12	HDV8A	Class 8a Heavy Duty Vehicles	1.2%				
13	HDV8B	Class 8b Heavy Duty Vehicles	4.0%				
		Total:	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Table A3-7: Adjusted MOBILE 6.2C Fleet Profile (2021 (FDN))

Category #	Vehicle Class Code	MOBILE6.2C DESCRIPTION	MOBILE6.2C DEFAULT	MOBILE 6.2C DEFAULT GROUPED	Ambassador Bridge	Huron Church	Local Study Area Cross Roads
1	LDV	Light-Duty Vehicles (Passenger Cars)	35.4%	*87.8%*	*59.4%*	*66.5%*	*91.7%*
2	LDT1	Light-Duty Trucks 1	8.9%				
3	LDT2	Light Duty Trucks 2	29.7%				
4	LDT3	Light Duty Trucks 3	9.2%				
5	LDT4	Light Duty Trucks 4	4.1%				
16	MC	Motorcycles (All)	0.5%				
14	HDBS	School Busses	0.2%	*0.3%*	*0.2%*	*6.2C Default*	*6.2C Default*
15	HDBT	Transit and Urban Busses	0.1%				
6	HDV2B	Class 2b Heavy Duty Vehicles	4.0%	*11.9%*	*40.4%*	*33.5%*	*8.3%*
7	HDV3	Class 3 Heavy Duty Vehicles	0.4%				
8	HDV4	Class 4 Heavy Duty Vehicles	0.3%				
9	HDV5	Class 5 Heavy Duty Vehicles	0.2%				
10	HDV6	Class 6 Heavy Duty Vehicles	0.8%				
11	HDV7	Class 7 Heavy Duty Vehicles	1.0%				
12	HDV8A	Class 8a Heavy Duty Vehicles	1.2%				
13	HDV8B	Class 8b Heavy Duty Vehicles	4.0%				
		Total:	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Table A3-8: Adjusted MOBILE 6.2C Fleet Profile (2021 (A))

Category #	Vehicle Class Code	MOBILE6.2C DESCRIPTION	MOBILE6.2C DEFAULT	MOBILE 6.2C DEFAULT GROUPED	Ambassador Bridge	Huron Church	Local Study Area Cross Roads
1	LDV	Light-Duty Vehicles (Passenger Cars)	35.4%	*87.8%*	*59.4%*	*66.5%*	*91.7%*
2	LDT1	Light-Duty Trucks 1	8.9%				
3	LDT2	Light Duty Trucks 2	29.7%				
4	LDT3	Light Duty Trucks 3	9.2%				
5	LDT4	Light Duty Trucks 4	4.1%				
16	MC	Motorcycles (All)	0.5%				
14	HDBS	School Busses	0.2%	*0.3%*	*0.2%*	*6.2C Default*	*6.2C Default*
15	HDBT	Transit and Urban Busses	0.1%				
6	HDV2B	Class 2b Heavy Duty Vehicles	4.0%	*11.9%*	*40.4%*	*33.5%*	*8.3%*
7	HDV3	Class 3 Heavy Duty Vehicles	0.4%				
8	HDV4	Class 4 Heavy Duty Vehicles	0.3%				
9	HDV5	Class 5 Heavy Duty Vehicles	0.2%				
10	HDV6	Class 6 Heavy Duty Vehicles	0.8%				
11	HDV7	Class 7 Heavy Duty Vehicles	1.0%				
12	HDV8A	Class 8a Heavy Duty Vehicles	1.2%				
13	HDV8B	Class 8b Heavy Duty Vehicles	4.0%				
		Total:	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Table A3-9: Adjusted MOBILE 6.2C Fleet Profile (2021 (B) – New Bridge)

Category #	Vehicle Class Code	MOBILE6.2C DESCRIPTION	MOBILE6.2C DEFAULT	MOBILE 6.2C DEFAULT GROUPED	Ambassador Bridge	Huron Church	Local Study Area Cross Roads
1	LDV	Light-Duty Vehicles (Passenger Cars)	35.4%	*87.8%*	*0.0%*	*66.5%*	*91.7%*
2	LDT1	Light-Duty Trucks 1	8.9%				
3	LDT2	Light Duty Trucks 2	29.7%				
4	LDT3	Light Duty Trucks 3	9.2%				
5	LDT4	Light Duty Trucks 4	4.1%				
16	MC	Motorcycles (All)	0.5%				
14	HDBS	School Busses	0.2%	*0.3%*	*0.2%*	*6.2C Default*	*6.2C Default*
15	HDBT	Transit and Urban Busses	0.1%				
6	HDV2B	Class 2b Heavy Duty Vehicles	4.0%	*11.9%*	*99.8%*	*33.5%*	*8.3%*
7	HDV3	Class 3 Heavy Duty Vehicles	0.4%				
8	HDV4	Class 4 Heavy Duty Vehicles	0.3%				
9	HDV5	Class 5 Heavy Duty Vehicles	0.2%				
10	HDV6	Class 6 Heavy Duty Vehicles	0.8%				
11	HDV7	Class 7 Heavy Duty Vehicles	1.0%				
12	HDV8A	Class 8a Heavy Duty Vehicles	1.2%				
13	HDV8B	Class 8b Heavy Duty Vehicles	4.0%				
		Total:	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Table A3-10: Adjusted MOBILE6.2C Fleet Profile (2021 (B) – Existing Bridge)

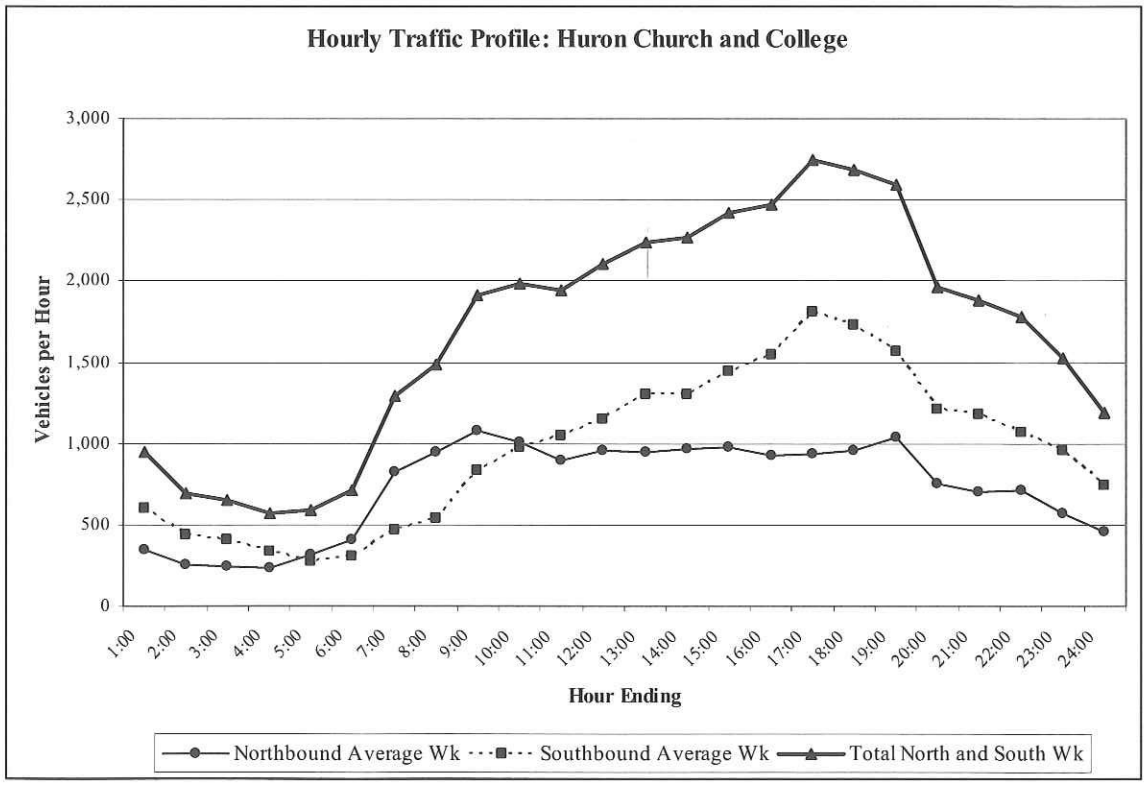
Category #	Vehicle Class Code	MOBILE6.2C DESCRIPTION	MOBILE6.2C DEFAULT	MOBILE 6.2C DEFAULT GROUPED	Ambassador Bridge	Huron Church	Local Study Area Cross Roads
1	LDV	Light-Duty Vehicles (Passenger Cars)	35.4%	*87.8%*	*100.0%*	*66.5%*	*91.7%*
2	LDT1	Light-Duty Trucks 1	8.9%				
3	LDT2	Light Duty Trucks 2	29.7%				
4	LDT3	Light Duty Trucks 3	9.2%				
5	LDT4	Light Duty Trucks 4	4.1%				
16	MC	Motorcycles (All)	0.5%				
14	HDBS	School Busses	0.2%	*0.3%*	*0.0%*	*6.2C Default*	*6.2C Default*
15	HDBT	Transit and Urban Busses	0.1%				
6	HDV2B	Class 2b Heavy Duty Vehicles	4.0%	*11.9%*	*0.0%*	*33.5%*	*8.3%*
7	HDV3	Class 3 Heavy Duty Vehicles	0.4%				
8	HDV4	Class 4 Heavy Duty Vehicles	0.3%				
9	HDV5	Class 5 Heavy Duty Vehicles	0.2%				
10	HDV6	Class 6 Heavy Duty Vehicles	0.8%				
11	HDV7	Class 7 Heavy Duty Vehicles	1.0%				
12	HDV8A	Class 8a Heavy Duty Vehicles	1.2%				
13	HDV8B	Class 8b Heavy Duty Vehicles	4.0%				
		Total:	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

A3-2: Traffic Flow Pattern

Available information related to current traffic flow patterns and volume along the Ambassador Bridge and Huron Church Road were collected from the City of Windsor, Ambassador Bridge and other relevant sources such as DRIC.

On an hourly basis, peak traffic flow in the northbound direction is encountered in the morning periods between the hours of 7:00 and 10:00 whereas southbound traffic peaks during the afternoon hours of 15:00 to 19:00. The maximum total peak traffic flow (northbound and southbound) along the Ambassador Bridge and Huron Church Road is encountered during the afternoon peak hours. Figure A3-1 provides an hourly distribution of the traffic flow for the Huron Church Road and College Avenue intersection based upon City of Windsor hourly traffic counts taken during April 10th – 16th, 2006.

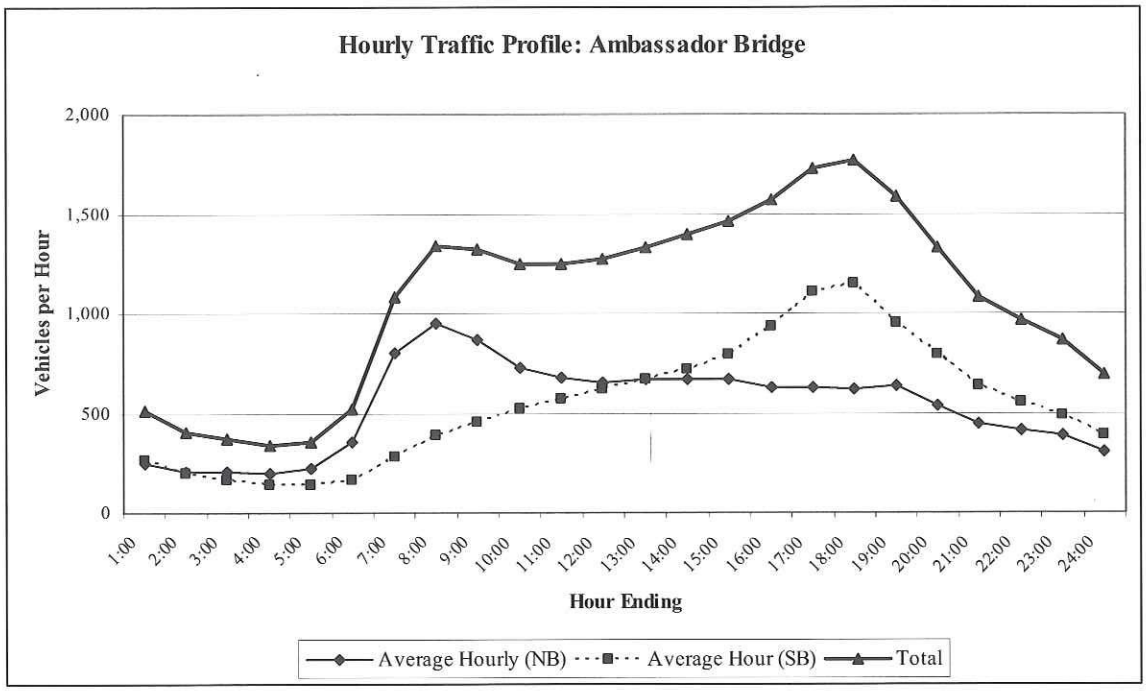
Figure A3-1: Hourly Traffic Flow Distribution: Huron Church Road and College Avenue (April 10-16, 2006 Average)



A similar analysis for the Huron Church Road and Industrial Road intersection (May 8th – 14th, 2006) was conducted and compared to the distribution above. Based upon this analysis it was determined that the Huron Church Road and College Avenue intersection would yield a more conservative hourly traffic flow distribution than the Huron Church Road and Industrial Road intersection due to the sustained peak afternoon hours shown in Figure A3-1.

Hourly traffic flow data from the Ambassador Bridge was analyzed for the 2006 calendar year for both northbound and southbound directions to arrive at a similar distribution as shown in Figure A3-2.

Figure A3-2: Hourly Traffic Flow Distribution: Ambassador Bridge (2006 Average)



The hourly traffic flow distributions shown in Figure A3-1 and A3-2 were used to arrive at an hourly traffic flow distribution for the remaining segments of Huron Church Road in Local Study Area and Area B. Peak traffic flows in the northbound direction are experienced during morning periods. The morning peak hourly traffic flow distribution was applied to north; west and east bound traffic to represent the peak traffic flow entering the study area and queuing at intersections. The afternoon peak hourly traffic flow distribution was applied to southbound traffic representing the peak traffic flow in this direction.

A3-3: Peak Hourly Traffic Flow Conditions

Hourly traffic flows for calendar year 2006 were analyzed to identify the peak hourly traffic flow across the bridge for both northbound and southbound vehicles. The peak hourly traffic flow for northbound vehicles of 1,544 occurred on September 19th during the hours 7:00-8:00. The peak hourly traffic flow for southbound vehicles of 1,754 occurred on June 28th during 16:00-17:00. Annual average peak hourly traffic flow for northbound and southbound traffic across the bridge, shown in Figure A3-2, are 954 and 1,149 corresponding to the peak hourly traffic flow for the morning and afternoon conditions. This analysis served as a comparative tool for other sources of data.

City of Windsor information pertaining to peak hourly traffic flow along Huron Church Road is limited to one week samples taken at College (April 2006), shown in Figure A3-1, and Industrial Drive (May 2006). Similarly, DRIC conducted a coordinated traffic survey along Huron Church Road covering several major intersections during February 2006 to collect, among other data, peak hourly traffic flow data. The findings of this survey are presented in the document entitled *"DRIC Draft Level 2 Traffic Operations Analysis of Practical Alternatives, November 2006"* ("DRIC Traffic Study"). An assessment of the available City of Windsor and DRIC data was conducted. For the purpose of this study it was determined that information contained within the DRIC study was applicable to the scope and requirements of this assessment.

Peak hourly traffic flow along Huron Church Road and cross street intersections for both morning and afternoon peak hours were used for all hours of the day for Tier 1 CAL3QHCR model input. For Tier 2 CAL3QHCR modeling, hourly traffic flows were utilized to provide a more realistic emission scenario for the road segments.

Detailed peak hourly traffic flow for the various road segments is available from the DRIC Traffic Study covering years 2006 and 2015 and to a lesser extent 2025. A linear interpolation between study years 2006 and 2015 was applied to arrive at projected 2011 peak hourly traffic flow for Huron Church Road and cross streets. Linear interpolations using the 2015 and 2025 data was conducted to calculate the peak hourly traffic flow along Huron Church Road for future study years (2021).

The DRIC Traffic Study projects a growth rate of 3.6 vehicles per hour per year for the period 2006 to 2015 for the west and east road segments. This growth factor was used to calculate the peak hourly traffic flow for cross streets for future study years (2021).

Table A3-11 provides a summary of the peak hourly traffic flow for the Huron Church Road, Industrial Drive and Northwood Street intersections.

Table A3-11: Summary of Peak Hourly Traffic Flow (Vehicles/hour)

Huron Church Intersection	2006 DRIC	2011 Est	2015 DRIC	2017 (1) Est	2021 (1) Est	2025 DRIC
Huron Church Northbound @ Industrial Drive	2,018	2,144	2,244	2,277	2,344	**2,410**
Huron Church Southbound @ Industrial Drive	2,027	2,220	2,374	2,437	2,564	**2,690**
Industrial Drive Westbound	315	346	370	377	391	
Industrial DriveEastbound	116	128	137	144	158	
Northwood Street Westbound	229	251	269	276	290	
Northwood Street Eastbound	204	223	239	246	260	

Notes: (1) Average growth per year 2006 - 2015 = 3.6 vehicles per year, for all west and east road segments.

Annual Vehicle Volumes:

Annual vehicle volumes representing calendar year 2006 for the Ambassador Bridge were obtained from the DIBC and are summarized in Table A3-12. Annual vehicle volumes along the Ambassador Bridge serve as the basis for the calculation of annual emissions (burden analysis) associated with the project.

Table A3-12: 2006 Ambassador Bridge Annual Vehicle Volumes (Vehicles/year)

	2006 Ambassador Bridge Annual Volumes			
	CAR	TRK	BUS	Total
Jan	473,019	276,259	1,730	751,008
Feb	425,855	280,641	1,786	708,282
Mar	503,948	319,643	1,717	825,308
Apr	481,974	286,090	1,539	769,603
May	467,949	306,721	1,289	775,959
Jun	498,417	318,165	1,487	818,069
July	544,292	231,860	1,422	777,574
Aug	543,301	313,504	1,291	858,096
Sept	502,337	297,872	1,220	801,429
Oct	502,689	301,384	1,162	805,235
Nov	470,589	300,105	1,230	771,924
Dec	478,770	254,877	1,134	734,781
Total:	**5,893,140**	**3,487,121**	**17,007**	**9,397,268**

Note: total for northbound and southbound traffic

A comprehensive analysis conducted by Detroit River International Crossing (DRIC) 'Travel Demands Forecast" (September 2005) indicates commercial vehicle volumes will grow at substantially higher rates than passenger car traffic. Table A3-13 provides estimates of annual traffic volumes for study years 2011 and 2021 based upon the DRIC forecasts.

Table A3-13: Ambassador Bridge Future Annual Vehicle Volumes

	Baseline	2011	2015	2017	2021	2025
Passenger Cars	6,170,000	7,384,425	8,180,000	8,311,404	8,580,577	8,820,000
Commercial Vehicles	3,370,000	4,316,663	4,980,000	5,232,113	5,775,273	6,400,000
Total:	9,540,000	11,701,089	13,160,000	13,543,516	14,355,850	15,220,000

Source: DRIC Travel Demand Forecast, September 2005; Exhibit 5-23. Data points 2011, 2017 and 2021 are interpolated from DRIC

APPENDIX 4

Construction Activities Data Collection and Analysis
(3 pages)

A4-1: Background

The DIBC is proposing to construct a 6-lane cable stayed bridge over the Detroit River, west of the existing Ambassador Bridge. The new bridge will connect directly into the existing plazas in both Windsor and Detroit. The new structure is proposed to be 31.24 meters wide and 1889.76 meters long, with approximately 670.56 meters traversing the Detroit River. No supporting structures (piers and towers) will be placed in the Detroit River.

Construction of the cable stayed bridge will occur over approximately a 30 month time period, simultaneously on both the Canadian and American sides of the Detroit River. Activities related to construction will occur 5 days per week, 10 hours per day weather permitting.

Construction impacts occurring within Canadian boundaries have been considered in the assessment of emissions related to construction.

Traffic flow along the existing bridge will be maintained during construction. Access to sections of local roads passing through the construction site will be rerouted with minimal impact to local residents. The section of Indian Road adjacent to the construction site may experience localized traffic restrictions related to equipment staging and movement of large equipment. In general these localized impacts will occur over short time periods as construction progresses to the next construction area.

A4-2: Construction Sequence

Initially, construction activities will consist of site preparation including the removal of structures and materials from the site to accommodate equipment and the bridge supports. The total site area for development is 125 hectares and includes the DIBC owned properties along the east side of Indian Road adjacent to the existing bridge and properties along the Detroit River. The active work area(s) at a given point in time will vary according to construction requirements and is estimated to account for 10%, or 12.5 hectares, of the total site area. Active and inactive construction areas will be controlled through the development and implementation of a best management plan to control dust emissions, further discussed in Appendix 9.

The general sequence of constructing the cable stayed bridge consists of the following activities:

- Tower Pier Foundation Construction
- Pylon Construction
- Pier Table Construction
- Balanced Cantilever Construction
- Back Span and Main Span Continuity

Upon completion of the back span and main span final grading and landscaping of the site will occur, although this activity may be conducted on an ongoing basis as the project progresses as part of an overall fugitive dust management plan.

Table A4-1 provides a preliminary summary of the equipment requirements and the general construction sequence for the purpose of identifying impacts and potential mitigation controls which may be employed during construction. The sequence of construction and estimate of equipment activity was provided by American Consulting Engineers, acting as the lead designer on the replacement span. This information was based upon the level of information available from construction drawings at the time of this report and historical knowledge from similar projects. The actual number, size and type of equipment will be determined by the constructor and subject to the development of the construction best management plan (BMP) to mitigate impacts to within the scope outlined in this section as well as that of Appendix 9. The constructor may thus be permitted to increase the number of and type of equipment active on-site above those quantities shown in Table A4-1 provided that the constructor can demonstrate mitigation measures will control emissions to within those specified in this document.

Activities listed in Table A4-1 may occur in parallel or in series to other activities listed for a given time period. The general approach to the development of the construction equipment timing chart was based on the following logic;

- to present the best case construction scenario for the bridge;
- quantification of potential off property impacts;
- assessment of predicted impacts with applicable air quality standards;
- development of mitigation strategies;
- quantification of potential off property impacts with mitigation measures in place, and
- assessment of off property impacts with mitigation measures in place.

Appendix 9 provides a detailed discussion regarding the various emission scenarios and emission estimation sources considered.

Table A4-1: Construction Activities and Associated Equipment

				Project Timing											
				2009				2010				2011			
Acitivity/ Source ID	Construction Activity	Equipment	Max Qty on Site	1	2	3	4	1	2	3	4	1	2	3	4
1	**Site Preparation**	Excavators	3	x											
		Haul trucks	6	x											
		Compactors	3	x											
		Diesel gen set	2	x											
2	**Tower Pier Foundation**	Auger	1	x	x										
		Haul trucks	3	x	x										
		Excavator	1	x	x										
		Crane	1	x	x										
		Concrete trucks	3	x	x										
		Diesel Gensets	2	x	x										
3	**Pylon Construction**	Crane	1			x	x	x							
		Concrete trucks	3			x	x	x							
		Diesel Gensets	2			x	x	x							
		Haul trucks	3			x	x	x							
4	**Pier Table Construction**	Crane	1					x	x						
		Concrete trucks	3					x	x						
		Diesel Gensets	2					x	x						
		Haul trucks	5					x	x						
5	**Balanced Cantilever Construction**	Crane	2						x	x	x				
		Barges	1						x	x	x				
		Diesel Gensets	2						x	x	x				
		Haul trucks	5						x	x	x				
6	**Back Span & Main Span Continuity**	Crane	2								x				
		Barges	1								x				
		Diesel Gensets	2								x				
		Haul trucks	2								x				
7	**Cdn Bridge - Span Excavation / Drilling of Footings**	Pile Driver	1	x	x										
		Haul Trucks	5	x	x										
		Gen Sets	2	x	x										
8	**Forming / Pouring of Footings**	Haul Trucks	4	x	x	x									
		Concrete trucks	4	x	x	x									
		Gen Sets	2	x	x	x									
9	**Forming / Pouring of Pier Columns & Caps**	Haul Trucks	4		x	x	x								
		Concrete Trucks	4		x	x	x								
		Gen Sets	2		x	x	x								
10	**Erection of Beams**	Haul Trucks	6				x	x							
		Gen Sets	2				x	x							
		Cranes	2				x	x							
11	**Bridge Deck Construction**	Concrete Truck	6						x	x					
		Gen Sets	2						x	x					
		Haul trucks	4						x	x					
		Concrete Finishing	1						x	x					
12	**Final Site Grading**	Haul trucks	4								x	x			
		Compactor	2								x	x			
		Gen Sets	2								x	x			
		Paver	1								x	x			

APPENDIX 5

Receptor Data Collection and Analysis
(1 page)

In addition to the virtual receptors which define points where the dispersion models predict concentrations, other special receptors were identified. These special receptors include education facilities, healthcare facilities, daycare facilities, places of worship and municipal parks. First Nations and transboundary receptors were also considered.

The procedures used to identify and locate special receptors are described below.

The Forward Sorting Area (FSA) identifying the first three letters of the postal code were used as a first level screen to determine if special receptors were close to the study area. The FSAs near the study area were N8X, N9A, N9B, N9C, N9E, N9G, N9H and N9J. Special receptors were then located with Google Earth to determine WGS UTM co-ordinates and the closest distance to a point along Huron Church Road / Talbot Road.

The location of the special receptor building and the property boundaries were considered. The point chosen to represent the special receptor was the point on the property closest to Huron Church Road / Talbot Road. For special receptors located on Huron Church Road / Talbot Road, a point on the special receptor property located 3 m away from the road was selected. Special receptors within 1 km of the study area were identified and plotted.

The initial list of receptors was sourced as follows:

- Public Schools - Public School Directory
- Catholic Schools - Windsor-Essex Catholic District School Board Directory (http://www.wecdsb.on.ca/ourschools.asp)
- Day Care Centres - list of Windsor/Essex County Licensed Child Care Services Providers (http://www.citywindsor.ca/DisplayAttach.asp?AttachID=7878)
- Colleges and Universities - University of Windsor and St. Clair College (Windsor Campus), checked against list of colleges from Ontario Ministry of Training, Colleges and Universities (http://www.edu.gov.on.ca/eng/general/list/college.html)
- Hospitals - Windsor Regional Hospital and Hotel Dieu Grace Hospital
- Health Care & Recreation Facilities – search in Windsor area (www.canada411.ca), City of Windsor Online (http://www.citywindsor.ca/000267.asp)
- Places of Worship – search in Windsor area (www.canada411.ca)
- Municipal Parks - City of Windsor Park Index Map (http://www.citywindsor.ca/000350.asp) and Town of LaSalle Road Map (http://www.town.lasalle.on.ca/planning/pdf/LA_2006_Street_Map.pdf)
- Provincial Park - Ojibway Prairie Provincial Park
- National Park - Fort Malden National Historic Park
- First Nations - Bkejwanong Territory (Walpole Island)
- Transboundary - Canada / US International Border

APPENDIX 6

Meteorological Data Collection and Analysis
(8 pages)

The CAL3QHCR and AERMOD models require actual hourly meteorological conditions as inputs. These models require pre-processed surface and upper air meteorological data. These data are typically provided in a raw or partially processed format that requires processing through a meteorological pre-processor. The CAL3QHCR model makes use of a pre-processor called PCRAMMET, while AERMOD uses a pre-processor known as AERMET. These two preprocessors are discussed below.

Hourly Surface Meteorological Data and Upper Air Sounding

The Air Dispersion Modelling Guideline for Ontario (ADMGO), version 1.0, July 2005 requires a 5-year meteorological data set for air dispersion modeling analysis using AERMOD, and at least 1-year meteorological data set using CAL3QHCR. The nearest surface meteorological observation station for this study with long-term observational records is at the Windsor Airport, operated by Environment Canada. There is currently no routine upper air measurement in Ontario. The nearest routine upper air station is in Detroit, Michigan, US.

The most recent readily available consecutive 5-year meteorological data from these two stations was obtained from 2002 to 2006.

The hourly surface values of wind speed, wind direction, temperature, opaque cloud cover and ceiling height were quality controlled and formatted by the MOE (Air Modelling and Emissions Unit) and provided to ORTECH.

The upper air sounding data were downloaded from National Oceanic Atmospheric Administration (NOAA) Radiosonde Database at http://raob.fsl.noaa.gov/.

PCRAMMET and the CAL3QHCR Model

The PCRAMMET is a meteorological pre-processor used to prepare meteorological data for input CAL3QHCR as well as other common models such as ISC3 and CALPUFF when used in screening mode.

The input data requirements for PCRAMMET depend on the dispersion model and the model options for which the data is being processed. The minimum input data requirements are:

- the hourly surface observations of wind speed, wind direction, temperature, cloud cover and ceiling height; and
- the twice-daily mixing heights (upper are sounding).

Although not considered in the air quality assessment, an analysis of the rate of deposition of particulate matter also requires hourly values of station pressure, precipitation type and amount.

The PCRAMMET takes the above mentioned input data to:

- Calculate hourly values for atmospheric stability classes (unstable: A-C; neutral: D; stable: E-F);
- Interpolate the twice daily mixing heights to hourly values; and
- Optionally calculate the parameters for deposition processes.

The final CAL3QHCR model ready meteorological data set was provided by the MOE (Air Modelling and Emissions Unit).

In consideration of the number of model runs, the CAL3QHCR model was initially run for the present (baseline) scenario for carbon monoxide (CO) following the Tier 1 approach with the 5-year meteorological data set (2002 – 2006). The highest CO concentration was predicted with the 2005 meteorological data. All subsequent model runs were based on the meteorological data set in 2005.

Figures A6-1 and A6-2 show the wind roses for the 5-year period (2002 – 2006) and 1-year period (2005), respectively.

Figures A6-3 and A6-4 show the stability roses for the 5-year period (2002 – 2006) and 1-year period (2005), respectively.

From these figures it is concluded that the 2005 meteorological data set is reasonably representative of the 5-year meteorological data set.

AERMET and AERMOD Model

AERMET is a meteorological pre-processor which prepares hourly meteorological data set for use in the AERMOD.

AERMET is designed to be run as a three-stage process, as described below, and operate on three types of data – routine hourly surface observations, twice-daily upper air soundings, and meteorological data collected from an on-site measurement program such as from an instrumented tower.

The first stage extracts data and assesses data quality. The second stage merges all data available for 24-hour periods and stores them in a single file. The third stage reads the merged meteorological data along with land use data to estimate the necessary boundary layer parameters for use by AERMOD.

AERMET produces two files for AERMOD including a surface file of boundary layer parameters and a profile file of multiple-level observations of wind speed, wind direction, temperature, and standard deviation of the fluctuating wind components.

For this project, the input data includes:

- The 5-year surface hourly values of wind speed, wind direction, temperature and opaque cloud cover, at Windsor Airport, Ontario (2002 – 2006);
- The 5-year twice-daily upper air soundings at Detroit, Michigan (2002 – 2006), and
- The sector-wise land use data as summarized in Table A6-1 and shown in Figure A6-5.

The AERMOD was run with the 5-year meteorological data set.

Table A6-1: Sector-Wise Surface Characters as Input to AERMET

Sector	Land Use Make-up	Season	Albedo	Bowen Ratio	Roughness Height
0 - 54 (1)	38.7% Urban 2% Forest 59.3% Water	Winter	0.26	1.50	0.41
		Spring	0.13	0.46	0.41
		Summer	0.12	0.84	0.41
		Autumn	0.16	0.85	0.41
54 - 225 (2)	98.0% Urban 2.0% Forest	Winter	0.35	1.50	1.00
		Spring	0.14	0.99	1.00
		Summer	0.16	1.97	1.01
		Autumn	0.18	1.98	1.00
225 - 270 (3)	28.0% Urban 2% Forest 70.0% Water	Winter	0.25	1.50	0.30
		Spring	0.13	0.36	0.30
		Summer	0.12	0.64	0.31
		Autumn	0.15	0.65	0.30
270 - 360 (4)	57.8% Urban 2% Forest 40.2% Water	Winter	0.29	1.50	0.60
		Spring	0.13	0.63	0.60
		Summer	0.14	1.20	0.60
		Autumn	0.16	1.21	0.60

Surface Met Station:	Windsor Airport
Location of Surface Met Station:	43.27°N (lat.), 82.95°W (lon.)
Base Elevation of Surface Met Station (m):	189.6
Upper Air Station:	Detroit
Location of Upper Air Station:	42.70°N (lat.), 83.47° (lon.)
Application Site:	Ambassador Bridge
Location of Application Site:	42.30°N (lat.), 83.07°W (lon.)

Forest was assumed to consist of 50% deciduous and 50% coniferous
Note: see Figure A6-5 for description of sectors.

Figure A6-1: Wind Rose at Windsor Airport (2002 – 2006)

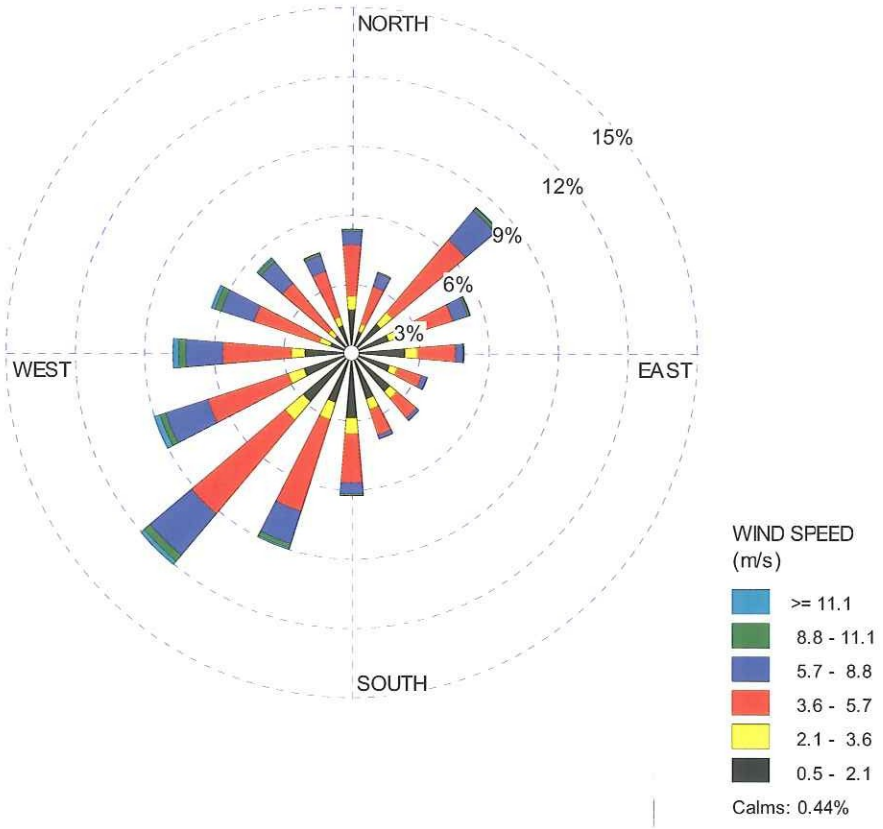


Figure A6-2: Wind Rose at Windsor Airport (2005)

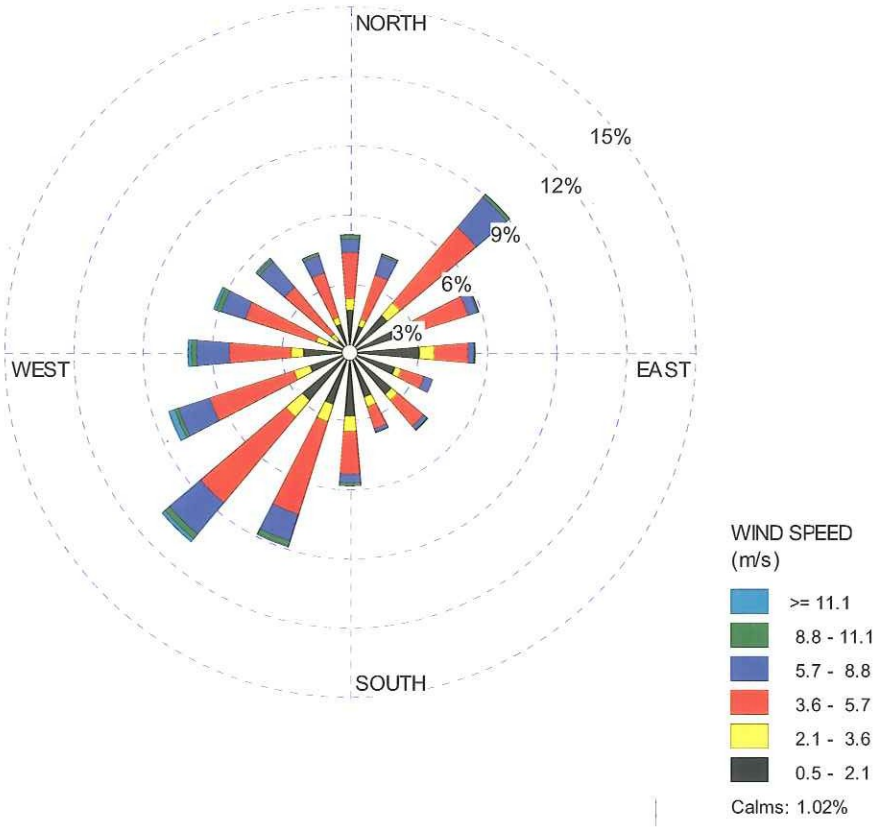


Figure A6-3: Stability Rose at Windsor Airport (2002 - 2006)

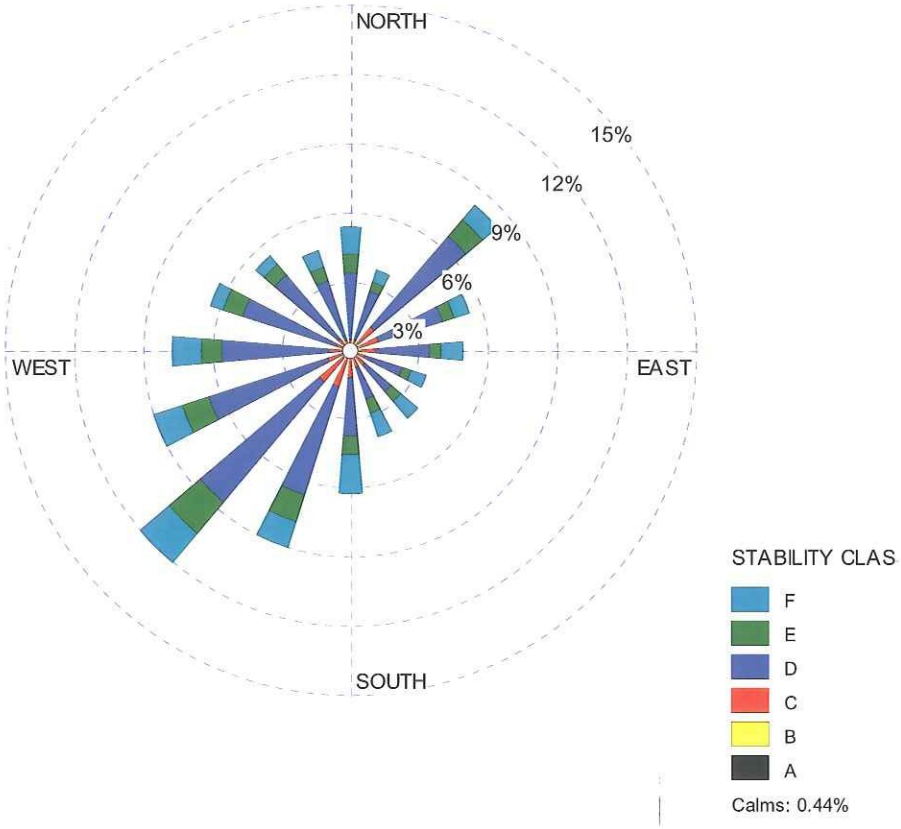


Figure A6-4: Stability Rose at Windsor Airport (2005)

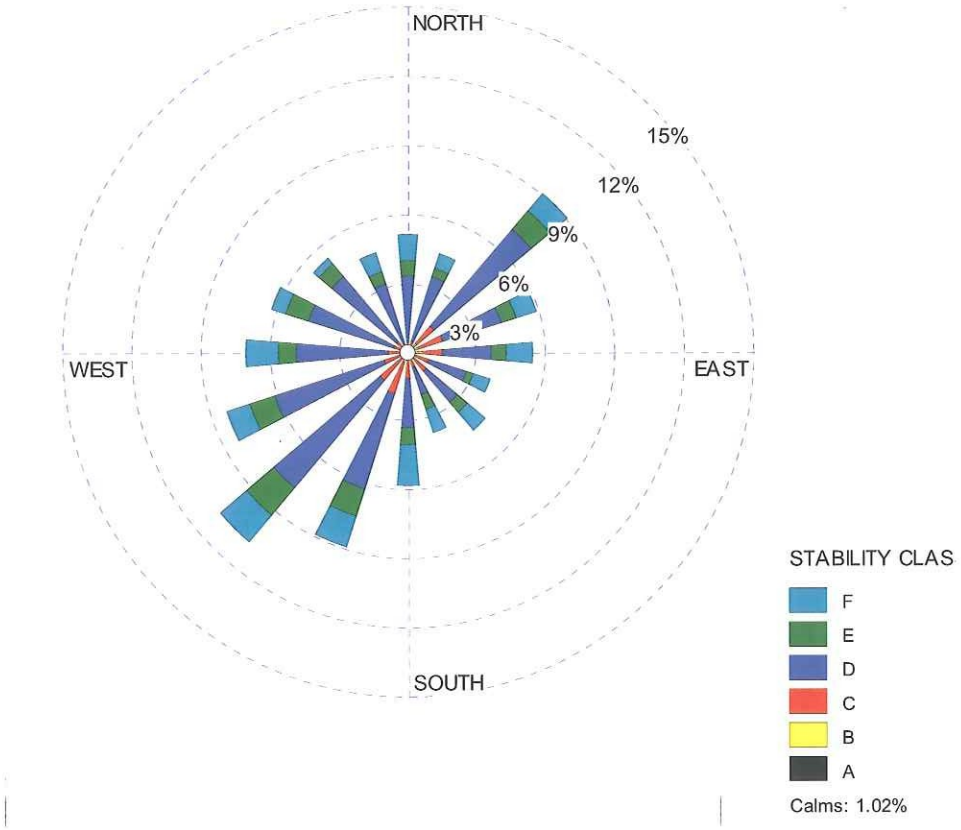
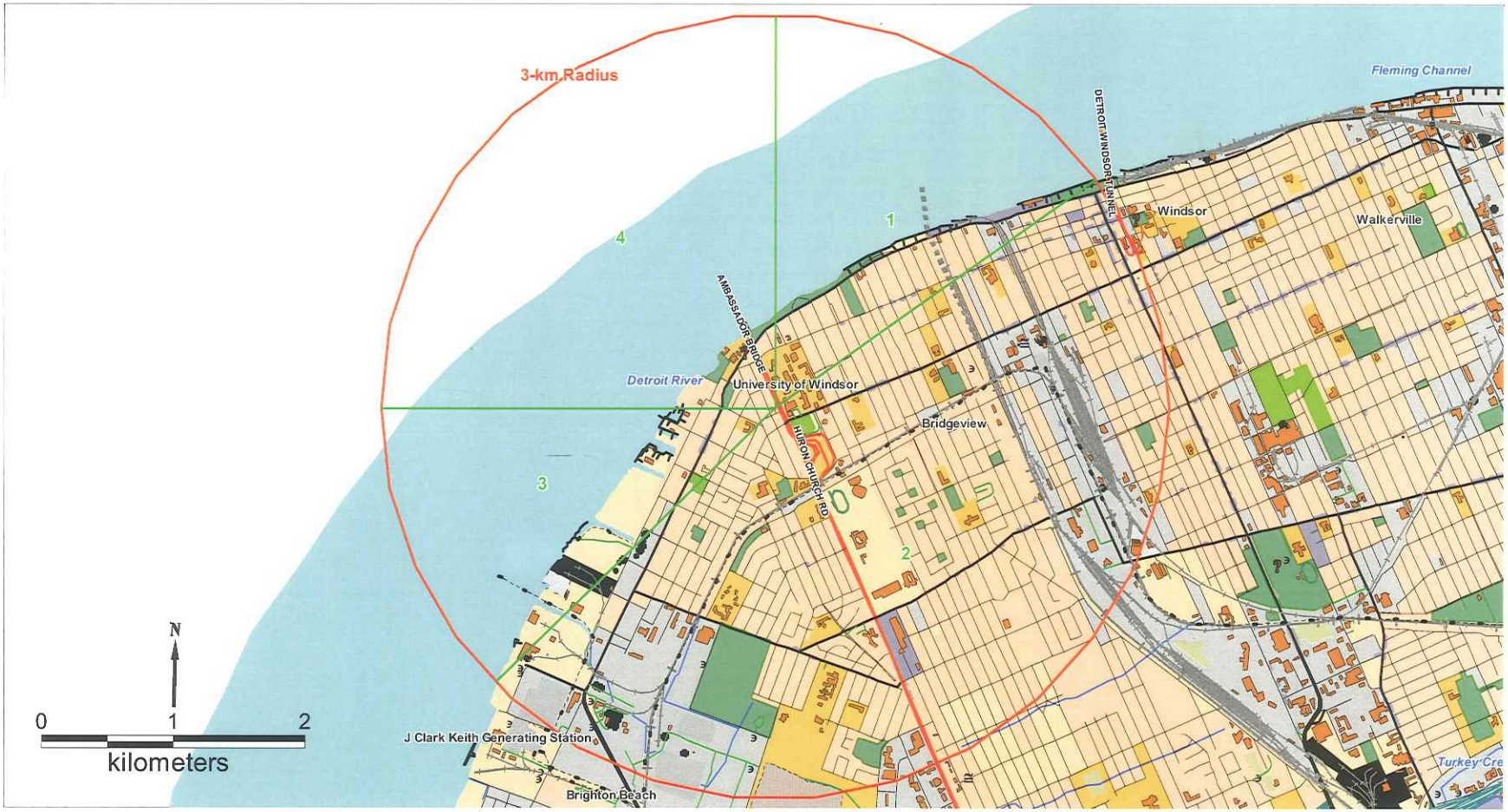


Figure A6-5: Land Use Near Ambassador Bridge



APPENDIX 7

Vehicle Emission Calculations
(13 pages)

A7-1: Mobile Vehicle Emission Factor Estimates

Mobile vehicle emissions are categorized as: (i) exhaust emissions that are the products of fuel combustion, (ii) evaporative emissions and (iii) particulate emissions associated with break wear and tire wear.

Evaporative emissions are divided into five emission sub-categories (hot soak, diurnal, running, resting and refueling losses) that describe the different phases of a vehicle operating cycle that include a standing hot or cold engine, a running engine, fuel tank vapour losses due to the diurnal air temperature cycle and vapour displacement losses due to refueling.

The USEPA has developed an emission factor model (MOBILE) for estimating both exhaust and evaporative emissions from a defined fleet of vehicles operating with a defined driving cycle. The most recent available version of the model is MOBILE6.2 (Version 6.2.03 dated 24 Sept 2003, particulate matter emission factor file was updated on 17 March 2006) was downloaded from http://www.epa.gov/otaq/m6.htm#m60. Besides the algorithms that are used to estimate the exhaust and evaporative emissions, the MOBILE model includes a suit of default model input files that can be used to run the MOBILE model. The default files provided with MOBILE6.2 are typical of the vehicle fleet, vehicle operating patterns and emission regulations in the United States. Recognizing the difference between Canada and the U.S. regarding the default information in the MOBILE files as well as some differences in the algorithms used for estimating mobile source emissions, Environment Canada developed a Canadian version of the EPA emission model known as MOBILE6.2C (Environment Canada, 27-05-2005). The default information provided with MOBILE6.2C is applicable for estimating Canadian mobile source emission. The MOBILE model allows the user to override the default data with site specific data in order to estimated site specific emissions; this capability has been used in the air quality assessment to estimate mobile source emissions specifically for Windsor and the present and proposed bridges.

Table A7-1 summarizes the input data required to run MOBILE6.2C and data sources. For each input in the first column, the source of data used for the Windsor area is noted in the second column. Where default data included in MOBILE6.2C are deemed appropriate for Windsor and bridge mobile sources, these default data have been used. In some instances, as noted in the third column of Table A7-1, the default data have been used for urban traffic in Windsor, but for the bridge and Huron Church Road, specific data are used (see also Appendix 3).

Table A7-1: Summary of MOBILE6.2C Inputs

	Input	Reference
External Conditions		
Calender year of evaluation	2004, 2011, 2021	(1)
Month	Janaury / July	(2)
Altitude	Low	(2)
Temperature	Hourly temperature at Windsor Airport	Temperature recorded at Windsor Airport during 1996 - 2006
Humidity	Hourly relative humidity, Pressure	Relative Humidity recorded at Windsor Airport during 1996 - 2007
Fuel Options		
RVP (PSI)	8.9 psi (summer) / 14.7 psi (winter)	(3)
Diesel sulphur content	320 ppm (2004) / 15 ppm (2011, 2021)	(4)
Gasoline sulphur content	42 ppm (2004) / 25 ppm (2011, 2021)	(3)
Air toxics		
Gasoline aromatics (%)	28.4	(3)
Gasoline olefin (%)	10.3	(3)
Gasoline benzene (%)	0.8	(3)
Vapor percentage of gasoline at 200 F (%)	47.3 (summer) / 53.7 (winter)	(3)
Vapor percentage of gasoline at 300 F (%)	83.3	(3)
Oxygenate volume % of Ethanol or Ethyl Alcohol (Ethanol)	(10% volume, 8.6% market share, in 2004), (10% volume, 20% market share, in 2011, 2021)	(5)
Vehicle Fleet Characteristic		
Distribution of Vehicle Registrations	default	(6)
Disel fractions	default	(6)
Annual mileage accumulation rates	Ontario created by EC	(6)
Vehicle Miles Travaled (VMT) fraction	default	(6)
Natural gas vehicles (NGVs) fraction	default	(6)
Alternate emission factors for NGVs	Default	(6)
Vehicle Activity		
Fractions of Vehicle Miles Traveled (VMT)	Appendix 3	
VMT by facility, hour and speed	Appendix 3	
Starts per day	Appendix 3	
Distribution of vehicle starts during the day	default	(6)
Soak distribution	default	(6)
hot soak activity	default	(6)
Diurnal soak activity	default	(6)
Weekday trip length distribution	default	(6)
Weekend trip length distribution	default	(6)
Use weekend vehicle activity	default	(6)
Average speed (mph)	5,10,15,20,25,30,35,40,45,50	
Idle (mph)	Average speed=2.5 mph	

(1) ORTECH's Air Quality Assessnebt Work Plan
(2) US EPA, Office of Transportation and Air Quality,"Technical Guidance on the use of MOBILE6.2 for emission inventory preparation , EPA420-R-04-013, August 2004
(3) SENES Consultants Limited and Air Improvement Resource Inc., Emissions of Air Toxics from on-Highway Sources in Canada, M6C-02-E, 8 March 2002
(4) MOE Drive Clean Program
(5) http://www.ec.gc.ca/cleanair-airpur/CAOL/transport/publications/ethgas/ethgas3.htm
(6) Default file of MOBILE6.2C

The MOBILE 6.2C emission factors (for winter) for the bridge, Huron Church Road and Arterial Roads at select speeds for the pollutants of interest except PAHs are summarized in Table A7-2. Emission factors for PAHs are discussed in Section A7-4.

Table A7-2: MOBILE6.2C Emission Factors (Winter) for Pollutants of Interest (excluding PAHs)

Area	Traffic Speed		CO	NOx	SO2	PM_{10}†	PM10 Road Dust	PM_{25}†	PM25 Road Dust	VOC (NMHC)	Benzene	Acetaldehyde	Formaldehyde	1,3-Butadiene	Acrolein	CO2	N2O	CH4
	mile/hr	km/hr	g/mile	g/mile	g/mile	g/mile	g/mile	g/mile	g/mile	g/mile	mg/mile	mg/mile	mg/mile	mg/mile	mg/mile	g/mile	g/mile	g/mile
Present (Baseline)																		
Bridge	2.5	4	58.615	7.813	0.084	0.116	-	0.116	-	8.048	162.246	34.848	99.753	23.429	5.490	762.150	0.032	0.093
	30	48	11.206	4.516	0.084	0.141	-	0.141	-	1.014	23.658	7.720	21.556	3.903	1.127	762.150	0.032	0.093
	35	56	10.837	4.499	0.084	0.141	-	0.141	-	0.935	20.999	6.759	18.780	3.416	0.973	762.150	0.032	0.093
	40	64	11.110	4.601	0.084	0.141	-	0.141	-	0.890	19.752	6.151	17.018	3.164	0.874	762.150	0.032	0.093
Huron Church Road	2.5	4	62.154	6.210	0.061	0.081	-	0.081	-	8.660	174.936	31.442	88.394	24.363	4.620	660.930	0.034	0.103
	35	56	11.667	3.497	0.061	0.105	-	0.105	-	0.959	28.057	5.582	15.303	3.380	0.778	660.930	0.034	0.103
Arterial roads	2.5	4	86.080	4.390	0.029	0.035	-	0.035	-	13.106	230.513	32.218	87.265	31.197	4.040	523.100	0.035	0.116
	30	48	32.003	2.517	0.029	0.056	-	0.056	-	1.979	65.349	9.933	26.418	9.374	1.182	523.100	0.035	0.116
2011																		
Bridge	2.5	4	31.607	4.112	0.009	0.049	-	0.049	-	5.234	79.937	18.542	45.405	10.099	2.260	757.580	0.032	0.092
	30	48	6.646	2.306	0.009	0.074	-	0.074	-	0.526	12.228	4.462	11.283	1.885	0.545	757.580	0.032	0.092
	35	56	6.479	2.295	0.009	0.074	-	0.074	-	0.480	10.937	3.923	9.887	1.671	0.478	757.580	0.032	0.092
	40	64	6.703	2.349	0.009	0.074	-	0.074	-	0.450	10.320	3.571	8.952	1.556	0.435	757.580	0.032	0.092
Huron Church Road	2.5	4	32.669	3.750	0.009	0.042	-	0.042	-	5.444	82.926	17.478	42.082	10.331	2.116	711.880	0.033	0.097
	35	56	6.770	2.074	0.009	0.067	-	0.067	-	0.484	14.118	3.572	8.868	1.661	0.434	711.880	0.033	0.097
Arterial roads	2.5	4	48.675	2.443	0.008	0.016	-	0.016	-	6.631	113.307	15.521	33.117	13.543	1.783	522.910	0.035	0.116
	30	48	19.832	1.372	0.008	0.037	-	0.037	-	0.939	32.438	4.893	10.307	4.260	0.544	522.910	0.035	0.116
2021 (FDN) and 2021 (A)																		
Bridge	2.5	4	20.433	1.284	0.010	0.013	-	0.013	-	2.672	39.151	10.885	26.292	4.513	2.150	780.090	0.032	0.090
	30	48	4.391	0.701	0.010	0.039	-	0.039	-	0.380	6.208	2.899	7.332	0.979	0.326	780.090	0.032	0.090
	35	56	4.276	0.696	0.010	0.039	-	0.039	-	0.330	5.599	2.555	6.440	0.875	0.287	780.090	0.032	0.090
	40	64	4.442	0.713	0.010	0.039	-	0.039	-	0.300	5.322	2.322	5.819	0.815	0.260	780.090	0.032	0.090
Huron Church Road	2.5	4	20.433	1.284	0.010	0.013	-	0.013	-	2.672	40.681	10.885	26.292	4.513	1.289	780.090	0.033	0.096
	35	56	4.276	0.696	0.010	0.039	-	0.039	-	0.245	7.164	2.555	6.440	0.875	0.307	780.090	0.033	0.096
Arterial roads	2.5	4	32.179	0.986	0.008	0.006	-	0.006	-	3.401	56.491	7.400	14.143	5.505	0.883	523.710	0.035	0.116
	30	48	13.788	0.547	0.008	0.028	-	0.028	-	0.459	17.127	2.489	4.691	1.876	0.285	523.710	0.035	0.116
2021 (B) - Cars Only for Bridge																		
Bridge	2.5	4	24.697	0.777	0.0069	0.0043	-	0.0043	-	2.469	48.315	4.961	8.45	4.408	0.612	454.45	0.036	0.120
	30	48	5.613	0.381	0.007	0.025	-	0.025	-	0.244	7.188	0.829	1.411	0.738	0.103	454.450	0.036	0.120
	35	56	5.643	0.374	0.007	0.025	-	0.025	-	0.227	6.666	0.769	1.306	0.683	0.095	454.450	0.036	0.120
	40	64	6.042	0.380	0.007	0.025	-	0.025	-	0.220	6.547	0.757	1.282	0.670	0.093	454.450	0.036	0.120
Huron Church Road	2.5	4	20.433	1.284	0.010	0.013	-	0.013	-	2.672	40.681	10.885	26.292	4.513	1.289	780.090	0.033	0.096
	35	56	4.276	0.696	0.010	0.039	-	0.039	-	0.245	7.164	2.555	6.440	0.875	0.307	780.090	0.033	0.096
Arterial roads	2.5	4	32.179	0.986	0.008	0.006	-	0.006	-	3.401	56.491	7.400	14.143	5.505	0.883	523.710	0.035	0.116
	30	48	13.788	0.547	0.008	0.028	-	0.028	-	0.459	17.127	2.489	4.691	1.876	0.285	523.710	0.035	0.116
2021 (B) - Trucks Only for Bridge																		
Bridge	2.5	4	14.359	2.016	0.013	0.060	-	0.060	-	1.452	25.933	19.543	52.377	4.708	2.277	1251.100	0.027	0.043
	30	48	2.620	1.164	0.013	0.060	-	0.060	-	0.296	4.797	5.917	15.966	1.336	0.705	1251.100	0.027	0.043
	35	56	2.292	1.162	0.013	0.060	-	0.060	-	0.262	4.060	5.159	13.928	1.160	0.615	1251.100	0.027	0.043
	40	64	2.117	1.194	0.013	0.060	-	0.060	-	0.238	3.551	4.605	12.436	1.032	0.550	1251.100	0.027	0.043
Huron Church Road	2.5	4	20.433	1.284	0.010	0.013	-	0.013	-	2.672	40.681	10.885	26.292	4.513	1.289	780.090	0.033	0.096
	35	56	4.276	0.696	0.010	0.039	-	0.039	-	0.245	7.164	2.555	6.440	0.875	0.307	780.090	0.033	0.096
Arterial roads	2.5	4	32.179	0.986	0.008	0.006	-	0.006	-	3.401	56.491	7.400	14.143	5.505	0.883	523.710	0.035	0.116
	30	48	13.788	0.547	0.008	0.028	-	0.028	-	0.459	17.127	2.489	4.691	1.876	0.285	523.710	0.035	0.116

† Factors for total particulate matter emissions were used except for at 2.5 mile/hr (4 km/hr) where the factor for exhaust only particulate emission was used.

A7-2: Comparison of Emission Factor Estimates made by MOBILE6.2 and 6.2C

Since the bridge at Windsor carries both Canadian and United States traffic, an investigation was made of the sensitivity of the emission factor estimates to the application of either MOBILE6.2 or MOBILE6.2C. In comparing these models, the default or site specific data as indicated in Table A7-1 were used for the Huron Church Road in both model versions. The sensitivity of the emission factor results to the model used is provided in Table A7-3. From Table A7-3, it is noted that the largest percentage differences in the estimates from the two model versions are for the present (baseline) scenario (ranging from +4.5% to +17.6%) with the Canadian model predicting higher non-methane hydrocarbon (NMHC), CO and NO_X emission at all vehicle speeds. The differences in estimates for the 2021 scenario are much smaller (ranging from -0.9% to +2.5%). For the present (baseline) scenario, the largest percentage differences were noted for CO and the smallest for NO_X. In 2021, the largest percentage differences are noted for NO_X, while MOBILE6.2C NMHC emission factors are slightly lower (-0.4% to -0.9%) than the corresponding estimates made by MOBILE6.2.

A7-3: Particulate Matter Emissions: PM_{10} and $PM_{2.5}$

Tier 1 treatment of particulate matter makes the conservative assumption that all particulate matter is $PM_{2.5}$ whereas in reality a significant portion of particulate matter emissions are larger than 2.5 microns (10^{-6} m). To illustrate the extent to which the Tier 1 assumption for particulate matter is conservative, MOBILE6.2C was used to estimate emission factors for both PM_{10} and $PM_{2.5}$ for the present (baseline), 2011, 2017 and 2021 scenarios for Huron Church Road. Table A7-4 summarizes the results that show that $PM_{2.5}$ as a percentage of total particulate matter (PM_{10}) is essentially independent of both vehicle speed and season, and varies from about 78% for the present (baseline) to 52% in 2021.

Table A7-3: Comparison of MOBILE6.2 and MOBILE6.2C for NMHC, CO and NO_X

Year	Speed	Pollutant		MOB6.2	MOB6.2C	Diff %		MOB6.2	MOB6.2C	Diff %
2004	2.5	Composite NMHC	JULY	7.06	7.715	8.5%	JANUARY	8.012	8.66	7.5%
2004		Composite CO	JULY	37.562	45.588	17.6%	JANUARY	54.721	62.154	12.0%
2004		Composite Nox	JULY	5.131	5.371	4.5%	JANUARY	5.893	6.21	5.1%
2004										
2004	5	Composite NMHC	JULY	2.998	3.366	10.9%	JANUARY	3.433	3.777	9.1%
2004		Composite CO	JULY	22.157	25.366	12.7%	JANUARY	31.486	35.423	11.1%
2004		Composite Nox	JULY	4.603	4.841	4.9%	JANUARY	5.281	5.593	5.6%
2004										
2004	10	Composite NMHC	JULY	1.728	1.925	10.2%	JANUARY	1.924	2.09	7.9%
2004		Composite CO	JULY	13.784	15.4	10.5%	JANUARY	19.365	21.348	9.3%
2004		Composite Nox	JULY	3.866	4.091	5.5%	JANUARY	4.437	4.73	6.2%
2004										
2004	15	Composite NMHC	JULY	1.342	1.497	10.4%	JANUARY	1.448	1.572	7.9%
2004		Composite CO	JULY	10.79	12.012	10.2%	JANUARY	15.203	16.696	8.9%
2004		Composite Nox	JULY	3.383	3.598	6.0%	JANUARY	3.887	4.164	6.7%
2004										
2004	20	Composite NMHC	JULY	1.133	1.268	10.6%	JANUARY	1.191	1.294	8.0%
2004		Composite CO	JULY	9.085	10.104	10.1%	JANUARY	12.941	14.189	8.8%
2004		Composite Nox	JULY	3.089	3.299	6.4%	JANUARY	3.558	3.827	7.0%
2004										
2004	25	Composite NMHC	JULY	1.002	1.125	10.9%	JANUARY	1.03	1.121	8.1%
2004		Composite CO	JULY	8.159	9.057	9.9%	JANUARY	11.64	12.736	8.6%
2004		Composite Nox	JULY	2.91	3.117	6.6%	JANUARY	3.361	3.625	7.3%
2004										
2004	30	Composite NMHC	JULY	0.92	1.034	11.0%	JANUARY	0.931	1.012	8.0%
2004		Composite CO	JULY	7.663	8.478	9.6%	JANUARY	10.933	11.922	8.3%
2004		Composite Nox	JULY	2.817	3.021	6.8%	JANUARY	3.255	3.516	7.4%
2004										
2004	35	Composite NMHC	JULY	0.855	0.959	10.8%	JANUARY	0.85	0.921	7.7%
2004		Composite CO	JULY	7.541	8.296	9.1%	JANUARY	10.758	11.667	7.8%
2004		Composite Nox	JULY	2.801	3.004	6.8%	JANUARY	3.238	3.497	7.4%
2004										
2004	40	Composite NMHC	JULY	0.818	0.918	10.9%	JANUARY	0.806	0.873	7.7%
2004		Composite CO	JULY	7.846	8.582	8.6%	JANUARY	11.217	12.096	7.3%
2004		Composite Nox	JULY	2.867	3.069	6.6%	JANUARY	3.313	3.572	7.3%
2004										
2004	45	Composite NMHC	JULY	0.789	0.885	10.8%	JANUARY	0.771	0.835	7.7%
2004		Composite CO	JULY	8.227	8.945	8.0%	JANUARY	11.763	12.612	6.7%
2004		Composite Nox	JULY	3.001	3.203	6.3%	JANUARY	3.46	3.718	6.9%
2004										
2004	50	Composite NMHC	JULY	0.762	0.856	11.0%	JANUARY	0.739	0.799	7.5%
2004		Composite CO	JULY	8.677	9.377	7.5%	JANUARY	12.389	13.207	6.2%
2004		Composite Nox	JULY	3.211	3.412	5.9%	JANUARY	3.686	3.943	6.5%

Year	Speed	Pollutant		MOB6.2	MOB6.2C	Diff %		MOB6.2	MOB6.2C	Diff %
2021	2.5	Composite NMHC	JULY	2.812	2.801	-0.4%	JANUARY	2.145	2.133	-0.6%
2021		Composite CO	JULY	14.209	14.3	0.6%	JANUARY	21.614	21.624	0.0%
2021		Composite Nox	JULY	0.998	1.014	1.6%	JANUARY	1.192	1.21	1.5%
2021										
2021	5	Composite NMHC	JULY	1.125	1.118	-0.6%	JANUARY	0.959	0.952	-0.7%
2021		Composite CO	JULY	8.982	9.053	0.8%	JANUARY	13.394	13.399	0.0%
2021		Composite Nox	JULY	0.887	0.902	1.7%	JANUARY	1.06	1.078	1.7%
2021										
2021	10	Composite NMHC	JULY	0.618	0.615	-0.5%	JANUARY	0.558	0.554	-0.7%
2021		Composite CO	JULY	5.765	5.811	0.8%	JANUARY	8.556	8.559	0.0%
2021		Composite Nox	JULY	0.734	0.749	2.0%	JANUARY	0.881	0.899	2.0%
2021										
2021	15	Composite NMHC	JULY	0.455	0.452	-0.7%	JANUARY	0.42	0.418	-0.5%
2021		Composite CO	JULY	4.452	4.484	0.7%	JANUARY	6.663	6.664	0.0%
2021		Composite Nox	JULY	0.635	0.65	2.3%	JANUARY	0.765	0.783	2.3%
2021										
2021	20	Composite NMHC	JULY	0.352	0.35	-0.6%	JANUARY	0.344	0.342	-0.6%
2021		Composite CO	JULY	3.661	3.685	0.7%	JANUARY	5.628	5.63	0.0%
2021		Composite Nox	JULY	0.577	0.591	2.4%	JANUARY	0.698	0.715	2.4%
2021										
2021	25	Composite NMHC	JULY	0.303	0.301	-0.7%	JANUARY	0.295	0.293	-0.7%
2021		Composite CO	JULY	3.236	3.255	0.6%	JANUARY	5.021	5.022	0.0%
2021		Composite Nox	JULY	0.541	0.555	2.5%	JANUARY	0.658	0.674	2.4%
2021										
2021	30	Composite NMHC	JULY	0.27	0.268	-0.7%	JANUARY	0.264	0.262	-0.8%
2021		Composite CO	JULY	3.01	3.025	0.5%	JANUARY	4.705	4.706	0.0%
2021		Composite Nox	JULY	0.522	0.535	2.4%	JANUARY	0.636	0.652	2.5%
2021										
2021	35	Composite NMHC	JULY	0.245	0.244	-0.4%	JANUARY	0.241	0.24	-0.4%
2021		Composite CO	JULY	2.931	2.945	0.5%	JANUARY	4.612	4.613	0.0%
2021		Composite Nox	JULY	0.517	0.531	2.6%	JANUARY	0.631	0.647	2.5%
2021										
2021	40	Composite NMHC	JULY	0.229	0.227	-0.9%	JANUARY	0.229	0.227	-0.9%
2021		Composite CO	JULY	3.047	3.06	0.4%	JANUARY	4.824	4.825	0.0%
2021		Composite Nox	JULY	0.53	0.543	2.4%	JANUARY	0.646	0.662	2.4%
2021										
2021	45	Composite NMHC	JULY	0.216	0.215	-0.5%	JANUARY	0.219	0.218	-0.5%
2021		Composite CO	JULY	3.198	3.21	0.4%	JANUARY	5.08	5.081	0.0%
2021		Composite Nox	JULY	0.554	0.568	2.5%	JANUARY	0.674	0.69	2.3%
2021										
2021	50	Composite NMHC	JULY	0.205	0.204	-0.5%	JANUARY	0.211	0.21	-0.5%
2021		Composite CO	JULY	3.381	3.394	0.4%	JANUARY	5.378	5.378	0.0%
2021		Composite Nox	JULY	0.592	0.606	2.3%	JANUARY	0.716	0.732	2.2%

Table A7-4: PM2.5 / PM10 Emission Factor Ratio

Year	Speed	Pollutant	Month	PM10	PM2.5	PM2.5/PM10 %	Month	PM10	PM2.5	PM2.5/PM10 %
2004	2.5	Total PM	JULY	0.1021	0.0793	77.7%	JANUARY	0.1052	0.0821	78.0%
2004	5	Total PM	JULY	0.1021	0.0793	77.7%	JANUARY	0.1052	0.0821	78.0%
2004	10	Total PM	JULY	0.1021	0.0793	77.7%	JANUARY	0.1052	0.0821	78.0%
2004	15	Total PM	JULY	0.1021	0.0793	77.7%	JANUARY	0.1052	0.0821	78.0%
2004	20	Total PM	JULY	0.1020	0.0793	77.7%	JANUARY	0.1052	0.0821	78.0%
2004	25	Total PM	JULY	0.1020	0.0793	77.7%	JANUARY	0.1051	0.0820	78.0%
2004	30	Total PM	JULY	0.1019	0.0792	77.7%	JANUARY	0.1050	0.0820	78.1%
2004	35	Total PM	JULY	0.1019	0.0792	77.7%	JANUARY	0.1050	0.0819	78.0%
2004	40	Total PM	JULY	0.1019	0.0792	77.7%	JANUARY	0.1050	0.0819	78.0%
2004	45	Total PM	JULY	0.1019	0.0792	77.7%	JANUARY	0.1050	0.0819	78.0%
2004	50	Total PM	JULY	0.1019	0.0792	77.7%	JANUARY	0.1050	0.0819	78.0%
2011	2.5	Total PM	JULY	0.0644	0.0447	69.4%	JANUARY	0.0671	0.0472	70.3%
2011	5	Total PM	JULY	0.0644	0.0447	69.4%	JANUARY	0.0671	0.0472	70.3%
2011	10	Total PM	JULY		0.0447		JANUARY		0.0472	
2011	15	Total PM	JULY		0.0447		JANUARY		0.0472	
2011	20	Total PM	JULY		0.0447		JANUARY		0.0472	
2011	25	Total PM	JULY	0.0644	0.0447	69.4%	JANUARY	0.0671	0.0472	70.3%
2011	30	Total PM	JULY		0.0447		JANUARY		0.0471	
2011	35	Total PM	JULY		0.0447		JANUARY		0.0471	
2011	40	Total PM	JULY	0.0644	0.0447	69.4%	JANUARY	0.0670	0.0471	70.3%
2011	45	Total PM	JULY		0.0447		JANUARY		0.0471	
2011	50	Total PM	JULY		0.0447		JANUARY		0.0471	
2017	2.5	Total PM	JULY	0.0413	0.0237	57.4%	JANUARY	0.0421	0.0244	58.0%
2017	5	Total PM	JULY	0.0413	0.0237	57.4%	JANUARY	0.0421	0.0244	58.0%
2017	10	Total PM	JULY		0.0237		JANUARY		0.0244	
2017	15	Total PM	JULY		0.0237		JANUARY		0.0244	
2017	20	Total PM	JULY		0.0237		JANUARY		0.0244	
2017	25	Total PM	JULY	0.0413	0.0237	57.4%	JANUARY	0.0421	0.0244	58.0%
2017	30	Total PM	JULY		0.0237		JANUARY		0.0244	
2017	35	Total PM	JULY		0.0237		JANUARY		0.0244	
2017	40	Total PM	JULY	0.0413	0.0237	57.4%	JANUARY	0.0421	0.0244	58.0%
2017	45	Total PM	JULY		0.0237		JANUARY		0.0244	
2017	50	Total PM	JULY		0.0237		JANUARY		0.0244	
2021	2.5	Total PM	JULY	0.0362	0.0188	51.9%	JANUARY	0.0366	0.0192	52.5%
2021	5	Total PM	JULY	0.0362	0.0188	51.9%	JANUARY	0.0366	0.0192	52.5%
2021	10	Total PM	JULY	0.0362	0.0188	51.9%	JANUARY	0.0366	0.0192	52.5%
2021	15	Total PM	JULY	0.0362	0.0188	51.9%	JANUARY	0.0366	0.0192	52.5%
2021	20	Total PM	JULY	0.0362	0.0188	51.9%	JANUARY	0.0366	0.0192	52.5%
2021	25	Total PM	JULY	0.0362	0.0188	51.9%	JANUARY	0.0366	0.0192	52.5%
2021	30	Total PM	JULY	0.0362	0.0188	51.9%	JANUARY	0.0366	0.0191	52.2%
2021	35	Total PM	JULY	0.0362	0.0188	51.9%	JANUARY	0.0366	0.0191	52.2%
2021	40	Total PM	JULY	0.0362	0.0188	51.9%	JANUARY	0.0366	0.0191	52.2%
2021	45	Total PM	JULY	0.0362	0.0188	51.9%	JANUARY	0.0366	0.0191	52.2%
2021	50	Total PM	JULY	0.0362	0.0188	51.9%	JANUARY	0.0366	0.0191	52.2%

A7-4: Polycyclic Aromatic Hydrocarbon (PAH) Emission Factors

MOBILE6.2C includes default emission factors that were used in this study for air toxics that include benzene, acetaldehyde, formaldehyde, 1,3-butadiene and acrolein. The MOBILE model also includes default emission factors for the PAH class of pollutants (hazardous air pollutants – HAPS). The default HAPS emission factors in MOBILE6.2C, were not used for the Windsor area, instead the default factors were replaced by emission factors specific to the Great Lakes Region obtained from a Great Lakes Commission report titled "Great Lakes Regional Toxic Air Emissions Inventory Steering Committee: Assessment of Benzo (a) Pyrene Air Emissions in the Great Lakes Region, March 2007" ("Great Lakes Commission Report"). PAH emission factors expressed as fractions of particulate matter are provided in the Great Lake Commission Report for light duty gasoline vehicles (as fraction PM_{10}), light duty diesel vehicles (as fraction of PM_{10}) and trucks and heavy duty diesel vehicles (as fraction of $PM_{2.5}$). Table A7-5 gives the emission factors extracted from the Great Lakes Commission Report that were used (with the exception of naphthalene) in this study.

Table A7-5: PAH Emission Factors

PAH	LDGV Fraction of PM10	LDDV Fraction of PM10	HDDV Fraction of PM2.5
benzo(a)anthracene	0.000100	0.000048	0.000040
benzo(a)pyrene	0.000100	0.000045	0.000013
benzo(b)fluoranthene	0.000120	0.000078	0.000011
benzo(k)fluoranthene	0.000120	0.000078	0.000011
chrysene	0.000100	0.000057	0.000007
dibenzo(a,h)anthacene	0.000000	0.000002	0.000000
indeno(1,2,3-cd)pyrene	0.000080	0.000021	0.000001
acenaphthlene	0.000730	0.000086	0.000024
acenaphthalene	0.004120	0.000971	0.000037
anthracene	0.000850	0.000182	0.000037
benzo(ghi)perylene	0.000260	0.000053	0.000009
fluoranthene	0.000910	0.000536	0.000022
fluorene	0.001510	0.000381	0.000049
naphthalene	0.090730	0.003663	0.001401
phenanthrene	0.002540	0.001058	0.000056
pyrene	0.001240	0.000689	0.000039

Naphthalene has a high vapour pressure compared to the other PAH compounds that are largely semi-volatile. The high vapour pressure of naphthalene suggests that it will partition in favour of the gas phase rather than the particulate phase which is favoured by other semi-volatile PAH compounds such as benzo (a) pyrene (Pankow, JF, 1987, Review and Comparative Analysis of the Theories on Partitioning between the Gas and Aerosol Particulate Phases in the Atmosphere, Atmospheric Environment, V21, p.2275-2283.). The default MOBILE6.2C emission factor file for PAH compounds contains emission factors for naphthalene in terms of the fraction of both VOC (the gas phase, RATIOVOC) and particulate matter (RATIOPM). The sensitivity of the naphthalene emission factors calculated by MOBILE6.2C to the choice of its association with either VOC or particulate matter was investigated; the results are shown in Table A7-6. It is evident from Table A7-6 that if naphthalene emission factors are expressed in terms of particulate matter, the factors are essentially independent of vehicle speed which is consistent with the particulate emission factors in Table A7-4 that shown very little dependence on speed. If the naphthalene emissions factors are expressed in terms of VOC (the gas phase) then, in terms of the model, naphthalene emissions decrease significantly with speed as do VOC emissions. In the present study, naphthalene is assumed to be associated with the gas phase and the factors expressed in term of VOC have been used.

The MOBILE 6.2C emission factors for the bridge, Huron Church Road and Arterial Roads at select speeds for PAHs are summarized in Table A7-7.

Table A7-6: Naphthalene Emission Factors

SPEED	JULY RATIOVOC	JULY RATIOPM	JANUARY RATIOVOC	JANUARY RATIOPM	SPEED	JULY RATIOVOC	JULY RATIOPM	JANUARY RATIOVOC	JANUARY RATIOPM
2.5 Htsk	0.002		0		30 Htsk	0.002		0	
Drnl	0.053		0		Drnl	0.053		0	
Rung	1.691		1.802		Rung	0.050		0.05287	
Rest	0.047		0.03215		Rest	0.047		0.03215	
Refu	0.055		0.06649		Refu	0.055		0.06649	
TOTAL	**1.848**	**1.204**	**1.901**	**1.24**	TOTAL	**0.207**	**1.194**	**0.152**	**1.23**
5 Htsk	0.002		0		35 Htsk	0.002		0	
Drnl	0.053		0		Drnl	0.053		0	
Rung	0.423		0.4504		Rung	0.043		0.04531	
Rest	0.047		0.1586		Rest	0.047		0.03215	
Refu	0.055		0.06649		Refu	0.055		0.06649	
TOTAL	**0.580**	**1.204**	**0.675**	**1.24**	TOTAL	**0.200**	**1.190**	**0.144**	**1.225**
10 Htsk	0.002		0		40 Htsk	0.002		0	
Drnl	0.053		0		Drnl	0.053		0	
Rung	0.149		0.1586		Rung	0.037		0.03965	
Rest	0.047		0.03215		Rest	0.047		0.03215	
Refu	0.055		0.06649		Refu	0.055		0.06649	
TOTAL	**0.306**	**1.204**	**0.257**	**1.24**	TOTAL	**0.194**	**1.190**	**0.138**	**1.225**
15 Htsk	0.002		0		45 Htsk	0.002		0	
Drnl	0.053		0		Drnl	0.053		0	
Rung	0.099		0.1057		Rung	0.033		0.03524	
Rest	0.047		0.03215		Rest	0.047		0.03215	
Refu	0.055		0.06649		Refu	0.055		0.06649	
TOTAL	**0.256**	**1.204**	**0.204**	**1.24**	TOTAL	**0.190**	**1.190**	**0.134**	**1.225**
20 Htsk	0.002		0		50 Htsk	0.002		0	
Drnl	0.053		0		Drnl	0.053		0	
Rung	0.074		0.0793		Rung	0.029		0.03039	
Rest	0.047		0.03215		Rest	0.047		0.03215	
Refu	0.055		0.06649		Refu	0.055		0.06649	
TOTAL	**0.232**	**1.204**	**0.178**	**1.24**	TOTAL	**0.186**	**1.190**	**0.129**	**1.225**
25 Htsk	0.002		0						
Drnl	0.053		0						
Rung	0.060		0.06344						
Rest	0.047		0.03215						
Refu	0.055		0.06649						
TOTAL	**0.217**	**1.199**	**0.162**	**1.235**					

Table A7-7: MOBILE6.2C Emission Factors for PAHs

Area	Traffic Speed		acenaphthylene	acenaphthene	anthracene	benzo (a) anthracene	Benzo (a) pyrene	benzo (b) fluoranthene	benzo (g,h,i) pyrene	benzo (k) fluorene	chrysene	dibenzo (ah) anthracene	fluoranthene	fluorene	indeno (1,2,3-cd) pyrene	naphthalene	phenanthrene	pyrene
	mile/hr	km/hr	mg/mile	mg/mile	mg/mile	mg/mile	mg/mile	mg/mile	mg/mile	mg/mile	mg/mile	mg/mile	mg/mile	mg/mile	mg/mile	mg/mile	mg/mile	mg/mile
Present (Baseline)																		
Bridge	2.5	4	0.0641	0.0129	0.0161	0.0042	0.0028	0.0030	0.0047	0.0030	0.0023	5.5E-06	0.0164	0.0271	0.0013	1.4210	0.0441	0.0232
	30	48	0.0641	0.0129	0.0161	0.0042	0.0028	0.0030	0.0047	0.0030	0.0023	5.5E-06	0.0164	0.0271	0.0013	1.4210	0.0441	0.0232
	35	56	0.0640	0.0128	0.0160	0.0042	0.0028	0.0030	0.0047	0.0030	0.0022	5.5E-06	0.0164	0.0270	0.0013	1.4170	0.0440	0.0231
	40	64	0.0636	0.0128	0.0160	0.0042	0.0028	0.0030	0.0047	0.0030	0.0022	5.5E-06	0.0163	0.0269	0.0013	1.4100	0.0438	0.0230
Huron Church Road	2.5	4	0.0569	0.0110	0.0136	0.0029	0.0022	0.0025	0.0040	0.0025	0.0019	5.7E-06	0.0144	0.0233	0.0011	1.2400	0.0386	0.0201
	35	56	0.0566	0.0109	0.0136	0.0029	0.0022	0.0024	0.0040	0.0024	0.0019	5.7E-06	0.0143	0.0232	0.0011	1.2350	0.0384	0.0200
Arterial roads	2.5	4	0.0470	0.0084	0.0103	0.0011	0.0015	0.0017	0.0031	0.0017	0.0014	6.0E-06	0.0117	0.0181	0.0009	0.9950	0.0311	0.0159
	30	48	0.0464	0.0083	0.0102	0.0011	0.0014	0.0017	0.0030	0.0017	0.0014	6.0E-06	0.0115	0.0178	0.0009	0.9816	0.0307	0.0158
2011																		
Bridge	2.5	4	0.0327	0.0065	0.0079	0.0017	0.0013	0.0014	0.0023	0.0014	0.0011	1.03E-06	0.0079	0.0134	0.0006	0.7342	0.0217	0.0112
	30	48	0.0327	0.0065	0.0079	0.0017	0.0013	0.0014	0.0023	0.0014	0.0011	1.03E-06	0.0079	0.0134	0.0006	0.7342	0.0217	0.0112
	35	56	0.0326	0.0065	0.0079	0.0017	0.0013	0.0014	0.0023	0.0014	0.0011	1.03E-06	0.0079	0.0134	0.0006	0.7335	0.0217	0.0112
	40	64	0.0326	0.0064	0.0079	0.0017	0.0013	0.0014	0.0023	0.0014	0.0011	1.03E-06	0.0079	0.0134	0.0006	0.7324	0.0217	0.0112
Huron Church Road	2.5	4	0.0314	0.0061	0.0075	0.0015	0.0012	0.0013	0.0022	0.0013	0.0010	1.46E-06	0.0077	0.0128	0.0006	0.6994	0.0209	0.0107
	35	56	0.0314	0.0061	0.0075	0.0015	0.0012	0.0013	0.0022	0.0013	0.0010	1.46E-06	0.0076	0.0128	0.0006	0.6986	0.0208	0.0107
Arterial roads	2.5	4	0.0256	0.0046	0.0055	0.0004	0.0007	0.0009	0.0017	0.0009	0.0007	1.53E-06	0.0060	0.0097	0.0005	0.5544	0.0164	0.0082
	30	48	0.0254	0.0046	0.0055	0.0004	0.0007	0.0009	0.0017	0.0009	0.0007	1.53E-06	0.0060	0.0097	0.0005	0.5517	0.0163	0.0082
2021 (FDN) and 2021 (A)																		
Bridge	2.5	4	0.0182	0.0034	0.0040	0.0004	0.0005	0.0006	0.0012	0.0006	0.0005	2.0E-07	0.0042	0.0070	0.0004	0.4041	0.0116	0.0058
	30	48	0.0182	0.0034	0.0040	0.0004	0.0005	0.0006	0.0012	0.0006	0.0005	2.0E-07	0.0042	0.0070	0.0004	0.4041	0.0116	0.0058
	35	56	0.0182	0.0034	0.0040	0.0004	0.0005	0.0006	0.0012	0.0006	0.0005	2.0E-07	0.0042	0.0070	0.0004	0.4042	0.0116	0.0058
	40	64	0.0182	0.0034	0.0040	0.0004	0.0005	0.0006	0.0012	0.0006	0.0005	2.0E-07	0.0042	0.0070	0.0004	0.4045	0.0116	0.0058
Huron Church Road	2.5	4	0.0181	0.0033	0.0039	0.0003	0.0005	0.0006	0.0012	0.0006	0.0005	2.8E-07	0.0041	0.0069	0.0004	0.3991	0.0114	0.0057
	35	56	0.0181	0.0033	0.0039	0.0003	0.0005	0.0006	0.0012	0.0006	0.0005	2.8E-07	0.0041	0.0069	0.0004	0.3994	0.0114	0.0057
Arterial roads	2.5	4	0.0176	0.0031	0.0037	0.0001	0.0005	0.0005	0.0011	0.0005	0.0004	3.1E-07	0.0040	0.0065	0.0003	0.3857	0.0110	0.0054
	30	48	0.0176	0.0031	0.0037	0.0001	0.0005	0.0005	0.0011	0.0005	0.0004	3.1E-07	0.0040	0.0065	0.0003	0.3867	0.0110	0.0054
2021 (B) - Cars Only for Bridge																		
Bridge	2.5	4	0.0036	0.0031	0.0036	0.0174	0.0174	0.0175	0.0036	0.0175	0.0031	3.1E-03	0.0036	0.0000	0.0031	0.0000	0.0000	0.0000
	30	48	0.0036	0.0036	0.0036	0.0175	0.0175	0.0031	0.0000	0.0031	0.0031	3.1E-03	0.0000	0.0000	0.0036	0.0000	0.0004	0.0004
	35	56	0.0036	0.0036	0.0000	0.0175	0.0031	0.0031	0.0000	0.0031	0.0031	3.6E-03	0.0000	0.0000	0.0036	0.0004	0.0004	0.0004
	40	64	0.0036	0.0036	0.0000	0.0175	0.0031	0.0031	0.0000	0.0031	0.0031	3.6E-03	0.0000	0.0000	0.0036	0.0004	0.0004	0.0004
Huron Church Road	2.5	4	0.0181	0.0033	0.0039	0.0003	0.0005	0.0006	0.0012	0.0006	0.0005	2.8E-07	0.0041	0.0069	0.0004	0.3991	0.0114	0.0057
	35	56	0.0181	0.0033	0.0039	0.0003	0.0005	0.0006	0.0012	0.0006	0.0005	2.8E-07	0.0041	0.0069	0.0004	0.3994	0.0114	0.0057
Arterial roads	2.5	4	0.0176	0.0031	0.0037	0.0001	0.0005	0.0005	0.0011	0.0005	0.0004	3.1E-07	0.0040	0.0065	0.0003	0.3857	0.0110	0.0054
	30	48	0.0176	0.0031	0.0037	0.0001	0.0005	0.0005	0.0011	0.0005	0.0004	3.1E-07	0.0040	0.0065	0.0003	0.3867	0.0110	0.0054
2021 (B) - Trucks Only for Bridge																		
Bridge	2.5	4	0.0046	0.0038	0.0046	0.0194	0.0194	0.0194	0.0046	0.0193	0.0038	3.8E-03	0.0046	0.0009	0.0038	0.0009	0.0009	0.0009
	30	48	0.0046	0.0046	0.0046	0.0194	0.0193	0.0038	0.0009	0.0038	0.0038	3.8E-03	0.0009	0.0009	0.0046	0.0009	0.0007	0.0007
	35	56	0.0046	0.0046	0.0009	0.0193	0.0038	0.0038	0.0009	0.0038	0.0038	4.6E-03	0.0009	0.0009	0.0046	0.0007	0.0007	0.0007
	40	64	0.0046	0.0046	0.0009	0.0193	0.0038	0.0038	0.0009	0.0038	0.0038	4.6E-03	0.0009	0.0009	0.0046	0.0007	0.0007	0.0007
Huron Church Road	2.5	4	0.0181	0.0033	0.0039	0.0003	0.0005	0.0006	0.0012	0.0006	0.0005	2.8E-07	0.0041	0.0069	0.0004	0.3991	0.0114	0.0057
	35	56	0.0181	0.0033	0.0039	0.0003	0.0005	0.0006	0.0012	0.0006	0.0005	2.8E-07	0.0041	0.0069	0.0004	0.3994	0.0114	0.0057
Arterial roads	2.5	4	0.0176	0.0031	0.0037	0.0001	0.0005	0.0005	0.0011	0.0005	0.0004	3.1E-07	0.0040	0.0065	0.0003	0.3857	0.0110	0.0054
	30	48	0.0176	0.0031	0.0037	0.0001	0.0005	0.0005	0.0011	0.0005	0.0004	3.1E-07	0.0040	0.0065	0.0003	0.3867	0.0110	0.0054

A7-5: N_2O and CH_4 Vehicle Emission Factors

The MOBILE 6.2C model does not include predictions for nitrous oxide (N_2O) and methane (CH_4). Emission calculations for these pollutants of interest were developed using published data. Published vehicle exhaust emission factors for N_2O and CH_4 for light duty (LD) gasoline vehicles and heavy duty (HD) diesel vehicles were obtained from the USEPA (Office of Transportation and Air Quality) report titled "Update of Methane and Nitrous Oxide Emission Factors for On-Highway Vehicles" dated November 2004. The report provided a summary of the development of emission factors using methodology from the Intergovernmental Panel on Climate Change (IPCC) and the USEPA Federal test Procedures (FTP). The two sets of raw emission factors for light duty and heavy duty vehicles are summarized in Table A7-8.

The average raw emission factor was used to develop a composite emission factor for the air quality assessment. Similar to the MOBILE6 models, the vehicle exhaust composite emission factor (EF) was estimated as follows:

Composite EF = LD Gasoline EF x LD Fraction + HD Diesel EF x HD Fraction

The LD Fraction and HD Fraction refer to the fraction of light duty and heavy duty vehicles for each emission scenario and in each area (i.e., existing/enhanced bridge, Huron Church Road in Local Study Area and Arterial Roads in Local Study Area). For simplicity, the composite emission factor was based on all light duty vehicles using unleaded gasoline and that all heavy duty vehicles using diesel. Only a small fraction of light duty vehicles are diesel whereas a large fraction of heavy duty vehicles are diesel. This approach will provide a conservative composite emission factor as it does not consider possible future improvements (reduction) in vehicle exhaust emission factors through changing fuel standards and emissions controls as predicted by the MOBILE model for other pollutants of interest.

The resulting composite N_2O and CH_4 emission factors are summarized in Table A7-9.

Table A7-8: Nitrous Oxide and Methane Raw Emission Factors

GHG Compound	Units	LD Gasoline Vehicle[1]			HD Diesel Vehicle[2]		
		IPCC	FTP	Average	IPCC	FTP	Average
N_2O	g/VmT	0.040	0.032	0.036	0.048	0.005	0.027
CH_4	g/VmT	0.15	0.10	0.12	0.081	0.004	0.043

Note: Data from USEPA (Office of Transportation and Air Quality: "Update of Methane and Nitrous Oxide Emission Factors for On-Highway Vehicles" November 2004. IPCC refers to emission factors developed using methodology from the Intergovernmental Panel on Climate Change (Revised 1996). FTP refers to emission factors developed using the Federal Test Procedure.

Note: (1) raw emission factor shown represents the average of the identified published data for gasoline passenger cars, light duty trucks and motorcycles (miscellaneous control technologies).

Note: (2) raw emission factor shown represents the average of the identified published data for heavy duty diesel vehicles (miscellaneous control technologies).

Table A7-9: Summary of Vehicle Emissions Composite N_2O and CH_4 Emission Factors

PAH Compound	Units	Raw Emission Factor[1]		Composite Emission Factor											
		LD Gasoline	HD Diesel	Bridge (Existing)			Bridge (Enhanced)			Huron Church Road (Local Study Area)			Arterial Roads (Local Study Area)		
				Baseline	2021 (FDN)	2021 (B)	2011	2021 (A)	2021 (B)	Baseline	2011	2021 (FDN), (A) & (B)	Baseline	2011	2021 (FDN), (A) & (B)
Percentage of Light Duty Vehicles[2]	%	-	-	62.8	59.4	100	62.3	59.4	0	75	68.1	66.5	91.7	91.7	91.7
Percentage of Heavy Duty Vehicles[3]	%	-	-	37.2	40.6	0	37.7	40.6	100	25	31.9	33.5	8.3	8.3	8.3
N_2O	g/VmT	3.6E-02	2.7E-02	3.2E-02	3.2E-02	3.6E-02	3.2E-02	3.2E-02	2.7E-02	3.4E-02	3.3E-02	3.3E-02	3.5E-02	3.5E-02	3.5E-02
CH_4	g/VmT	1.2E-01	4.3E-02	9.3E-02	9.0E-02	1.2E-01	9.2E-02	9.0E-02	4.3E-02	1.0E-01	9.7E-02	9.6E-02	1.2E-01	1.2E-01	1.2E-01

Note: (1) raw emission factor shown represents the average in the identified published data.
Note: (2) for the purpose of this analysis, light duty vehicles includes passenger cars, light duty trucks and motorcycles
Note: (3) for the purpose of this analysis, heavy duty vehicles includes buses and heavy duty vehicles (Class 2b to 8b)
Note: 2021 (FDN) refers to future operation of existing bridge only, 2021 (A) refers to future operation of ABEP only and 2021 (B) refers to future operation of ABEP plus existing bridge.

APPENDIX 8

Road Dust Emission Calculations
(9 pages)

A8-1: USEPA Road Dust Emission Factor Estimates

Particulate emissions from paved roads originate from the loose material present on the surface. The surface loading is moved or removed and is continuously replenished by other sources such as break wear, tire wear and spillage of material.

Dust emissions from paved roads have been shown to vary with the amount of material on the road, the average weight of the vehicles traveling the road as well as the amount of precipitation.

The road dust calculations are based on the results of tests conducted at numerous sources including paved public and industrial roads. The calculation is specifically applicable to freely flowing (not stop and go) traffic at constant speed on level roads. Stop and go emission rates as well as elevated roadway sections will be much lower than the calculations predict.

Silt Loading

Silt loading (sL) refers to the mass of silt-sized particles (particles with a physical diameter equal to or less than 75 μm) per unit area of the travel surface.

The USEPA AP-42 "default ubiquitous baseline" silt loading value of 0.03 g/m^2 for a paved road with daily traffic flow >10,000 was used for the bridge (present and future), Huron Church Road and Arterial Roads. Based on daily traffic flow >10,000, the USEPA AP-42 "default ubiquitous winter baseline" silt loading multiplier during months with frozen precipitation is 1 and as such the winter silt loading value was also 0.03 g/m^2.

Each road segment was assigned this default average silt loading value in the calculation of the road dust emission factor.

Vehicle Weight

The same fleet profile used to estimate vehicle emissions described in the main body of the report (Section 4.1), was used to estimate the weight of vehicles traveling on the paved roads. The vehicle weight was assigned a value equivalent to the average gross vehicle weight rating (GVWR) provided in MOBILE6.2C for each vehicle class where available. This is conservative since the GVWR refers to the total weight of the vehicle plus load whereas in reality a fraction of these vehicles will have an empty payload and others will not be fully loaded. In cases where GVWR were not provided in MOBILE6.2C, vehicle weights for light duty passenger cars, motorcycles, school buses, transit and urban buses and Class 8b heavy duty vehicles were estimated based on information available on various government websites.

Precipitation Days

Precipitation data recorded by Environment Canada at the Windsor Airport for the period 2000 to 2007 was obtained and analyzed as described in detail below. Emission factors used for dispersion modelling utilized the conservative approach of assuming precipitation does not occur during the worst case emission scenario.

The average number of precipitation days per month was used in the calculation of annual road dust emission factors. Annual road dust emission calculations are discussed in detail in the main body of the report (Section 4.4).

USEPA AP-42 Section 13.2.1 provides an empirical expression to calculate the quantity of particulate emissions from re-suspension of loose material on the road surface due to vehicle travel on paved roads:

$$\mathbf{E = [k\,(sL/2)^{0.65}\,(W/3)^{1.5} - C]\ x\ PCF\ x\ LCF}$$

where:

E = particulate emission factor (having units of k, g/vehicle mile traveled)
k = particle size multiplier for particle size range and units of interest (= 4.6 g/vehicle kilometer traveled for airborne particulate matter with an aerodynamic diameter of 10 μm or less (PM_{10}); and 0.66 g/vehicle kilometer traveled for airborne particulate matter with an aerodynamic diameter of 2.5 μm or less ($PM_{2.5}$))
sL = ubiquitous baseline default road surface silt loading (= 0.03 g/m^2 for >10,000 vehicles per day)
W = average 'fleet' weight (tons) of all types of vehicles traveling the road
C = emission factor for 1980's vehicle fleet exhaust, brake wear and tire wear (0.1005 g/VKT for $PM_{2.5}$ and 0.1317 g/VKT for PM_{10})
PCF = Precipitation correction factor = [(1-(P/4N)], where:

P = number of precipitation or "wet" days (any day with at least 0.254 mm (0.01 in) of total precipitation (rain and snow) during the averaging period
N = number of days in the averaging period.

LCF = Length conversion factor from kilometers to miles (1 mi = 1.609 km)

The USEPA AP-42 uses an emission factor quality rating system with "A" denoting the highest quality and "E" the lowest.

The above equation was developed based on a regression analysis of numerous emission tests, including 65 tests for PM_{10}. The sources that were tested include public paved roads, as well as controlled and uncontrolled industrial paved roads. It is important to note that all of the sources tested were under conditions of freely flowing vehicles traveling at constant speed on relatively level roads. Thus, the equation retains the data quality rating of "A" for PM_{10} ("B" for $PM_{2.5}$) if applied within the following range of source conditions that were tested in the development of the equation:

- Silt loading (sL): 0.03 – 400 g/m^2;
- Mean vehicle weight: 1.8 – 38 Mg (megagrams);
- Mean vehicle speed: 16 – 88 km/h.

The application of the above equation outside of the range of variables and operating conditions specified above (e.g., roadways or road networks with speeds <16 km/h and with stop-and-go traffic) will result in emission estimates with a higher level of uncertainty.

The use of site-specific silt loading values is recommended with the above formula. However, site-specific silt loading data was not available for the study area and thus default silt loading values were used. As a consequence, the data quality ratings for the PM_{10} and $PM_{2.5}$ emission factors were downgraded 2 levels (data quality rating of "C" for PM_{10} and "D" for $PM_{2.5}$).

The vehicle weights used in the calculation of road dust emissions are shown in Tables A8-1a to A8-1d and were based on average vehicle weights detailed in MOBILE6.2C (where available) supplemented by information available on various government websites for passenger cars, motorcycles, transit and urban buses. The average loaded vehicle weights (LVW) were used in the emission calculations.

An average weight of all vehicles traveling the road was calculated based on the percentage distribution for each vehicle weight class shown on Tables A8-1a to A8-1c for the fleet profile on the bridge, along Huron Church Road and the Arterial Roads. Emission factors were developed for present (baseline), construction / operation, future (do nothing) and future (ABEP) emission scenarios. It is important to note that the above equation is not intended to be used to calculate a separate emission factor for each vehicle weight class. Thus, a single emission factor, one for PM_{10} and one for $PM_{2.5}$, was calculated to represent the "fleet" average weight of all vehicles traveling the road.

For conservatism, the precipitation correction factor (PCF) was not applied to the hourly emission calculations (i.e., assumed no precipitation occurs in any hour for a given day and thus assume maximum PM_{10} and $PM_{2.5}$ emissions). The PCF was calculated based on monthly average and monthly minimum number of precipitation days recorded at Windsor Airport during the period (January 1, 2001 to June 6, 2007), which are summarized on Table A8-2.

The PCF was applied to the above equation to calculate annual emissions. Annual emission calculations are discussed in more detail in Appendix 10.

Tables A8-3a and A8-3b includes a summary of the PM_{10} and $PM_{2.5}$ hourly and annual emission factors. The PM_{10} and $PM_{2.5}$ emission factors were utilized for free flow road segments. Road dust contributions from queue and custom plaza idling segments were set to zero to account for these reduced speed zones.

Table A8-1a: Average "Fleet" Weights for Present (Baseline)

Vehicle Class Code	MOBILE6.2C DESCRIPTION	AVG LVW (lbs)	Vehicle Weight Percentage Distributions			Vehicle Weights (lbs)		
			Ambassador Bridge MOBILE6.2C	Local Study Area MOBILE6.2C	Local Study Area Cross Roads MOBILE6.2C	Ambassador Bridge MOBILE6.2C	Local Study Area MOBILE6.2C	Local Study Area Cross Roads MOBILE6.2C
			25.3%	30.2%	37.0%	758	907	1,109
LDT1	Light-Duty Trucks 1	1,875	6.4%	7.6%	9.3%	119	143	174
LDT2	Light Duty Trucks 2	4,751	21.2%	25.4%	31.0%	1,008	1,205	1,474
LDT3	Light Duty Trucks 3	1,875	6.6%	7.9%	9.6%	123	147	180
LDT4	Light Duty Trucks 4	4,751	2.9%	3.5%	4.3%	139	166	203
MC	Motorcycles (All)	500#	0.4%	0.4%	0.5%	2	2	3
HDBS	School Buses	10,000#	0.1%	0.2%*	0.2%*	13	20	20
HDBT	Transit and Urban Buses	15,000#	0.1%	0.1%*	0.1%*	10	15	15
HDV2B	Class 2b Heavy Duty Vehicles	9,251	12.5%	8.3%	2.7%	1,154	768	249
HDV3	Class 3 Heavy Duty Vehicles	12,001	1.2%	0.8%	0.3%	150	100	32
HDV4	Class 4 Heavy Duty Vehicles	15,001	0.9%	0.6%	0.2%	140	93	30
HDV5	Class 5 Heavy Duty Vehicles	17,751	0.6%	0.4%	0.1%	111	74	24
HDV6	Class 6 Heavy Duty Vehicles	22,751	2.5%	1.7%	0.5%	567	378	122
HDV7	Class 7 Heavy Duty Vehicles	29,501	3.1%	2.1%	0.7%	920	612	198
HDV8A	Class 8a Heavy Duty Vehicles	46,501	3.7%	2.5%	0.8%	1,740	1,158	375
HDV8B	Class 8b Heavy Duty Vehicles	60,000	12.5%	8.3%	2.7%	7,482	4,982	1,613
	Total:	--	**100.0%**	**100.0%**	**100.0%**	--	--	--
					Average "Fleet" Weight (lbs):	**14,436**	**10,770**	**5,823**
					Average "Fleet" Weight (tons):	**7.2**	**5.4**	**2.9**

\# conservative estimate

* Bus category reflects MOBILE6.2C default values. No bus data available within study area. Bus contributions in local study area are subtracted from the Truck category.

Table A8-1b: Average "Fleet" Weights for 2011 (Construction/Operation)

Vehicle Class Code	MOBILE6.2C DESCRIPTION	AVG LVW (lbs)	Vehicle Weight Percentage Distributions			Vehicle Weights (lbs)		
			Ambassador Bridge MOBILE 6.2C	Local Study Area MOBILE 6.2C	Local Study Area Cross Roads MOBILE 6.2C	Ambassador Bridge MOBILE 6.2C	Local Study Area MOBILE 6.2C	Local Study Area Cross Roads MOBILE 6.2C
LDV	Light-Duty Vehicles (Passenger Cars)	3,000#	25.1%	27.4%	37.0%	754	823	1,109
LDT1	Light-Duty Trucks 1	1,875	6.3%	6.9%	9.3%	118	129	174
LDT2	Light Duty Trucks 2	4,751	21.1%	23.0%	31.0%	1,001	1,094	1,474
LDT3	Light Duty Trucks 3	1,875	6.5%	7.1%	9.6%	122	134	180
LDT4	Light Duty Trucks 4	4,751	2.9%	3.2%	4.3%	138	151	203
MC	Motorcycles (All)	500#	0.4%	0.4%	0.5%	2	2	3
HDBS	School Buses	10,000#	0.1%	*0.2%**	***0.2%****	13	20	20
HDBT	Transit and Urban Buses	15,000#	0.1%	*0.1%**	***0.1%****	10	15	15
HDV2B	Class 2b Heavy Duty Vehicles	9,251	12.6%	10.6%	2.7%	1,166	983	249
HDV3	Class 3 Heavy Duty Vehicles	12,001	1.3%	1.1%	0.3%	151	128	32
HDV4	Class 4 Heavy Duty Vehicles	15,001	0.9%	0.8%	0.2%	142	120	30
HDV5	Class 5 Heavy Duty Vehicles	17,751	0.6%	0.5%	0.1%	112	94	24
HDV6	Class 6 Heavy Duty Vehicles	22,751	2.5%	2.1%	0.5%	574	484	122
HDV7	Class 7 Heavy Duty Vehicles	29,501	3.2%	2.7%	0.7%	930	784	198
HDV8A	Class 8a Heavy Duty Vehicles	46,501	3.8%	3.2%	0.8%	1,758	1,483	375
HDV8B	Class 8b Heavy Duty Vehicles	60,000	12.6%	10.6%	2.7%	7,563	6,378	1,613
	Total:	--	**100.0%**	**100.0%**	**100.0%**	--	--	--
					Average "Fleet" Weight (lbs):	**14,554**	**12,821**	**5,823**
					Average "Fleet" Weight (tons):	**7.3**	**6.4**	**2.9**

\# conservative estimate

* Bus category reflects MOBILE6.2C default values. No bus data available within study area. Bus contributions in local study area are subtracted from the Truck category.

Table A8-1c: Average "Fleet" Weights for 2021

Vehicle Class Code	MOBILE6.2C DESCRIPTION	AVG LVW (lbs)	Vehicle Weight Percentage Distributions			Vehicle Weights (lbs)		
			Ambassador Bridge MOBILE6.2C	Local Study Area MOBILE6.2C	Local Study Area Cross Roads MOBILE6.2C	Ambassador Bridge MOBILE6.2C	Local Study Area MOBILE6.2C	Local Study Area Cross Roads MOBILE6.2C
LDV	Light-Duty Vehicles (Passenger Cars)	3,000#	23.9%	26.8%	37.0%	718	804	1,109
LDT1	Light-Duty Trucks 1	1,875	6.0%	6.7%	9.3%	113	126	174
LDT2	Light Duty Trucks 2	4,751	20.1%	22.5%	31.0%	954	1,068	1,474
LDT3	Light Duty Trucks 3	1,875	6.2%	7.0%	9.6%	117	131	180
LDT4	Light Duty Trucks 4	4,751	2.8%	3.1%	4.3%	132	147	203
MC	Motorcycles (All)	500#	0.3%	0.4%	0.5%	2	2	3
HDBS	School Buses	10,000#	0.1%	*0.2%**	*0.2%**	13	20	20
HDBT	Transit and Urban Buses	15,000#	0.1%	*0.1%**	*0.1%**	10	15	15
HDV2B	Class 2b Heavy Duty Vehicles	9,251	13.6%	11.2%	2.7%	1,257	1,033	249
HDV3	Class 3 Heavy Duty Vehicles	12,001	1.4%	1.1%	0.3%	163	134	32
HDV4	Class 4 Heavy Duty Vehicles	15,001	1.0%	0.8%	0.2%	153	126	30
HDV5	Class 5 Heavy Duty Vehicles	17,751	0.7%	0.6%	0.1%	121	99	24
HDV6	Class 6 Heavy Duty Vehicles	22,751	2.7%	2.2%	0.5%	618	508	122
HDV7	Class 7 Heavy Duty Vehicles	29,501	3.4%	2.8%	0.7%	1,002	824	198
HDV8A	Class 8a Heavy Duty Vehicles	46,501	4.1%	3.4%	0.8%	1,895	1,558	375
HDV8B	Class 8b Heavy Duty Vehicles	60,000	13.6%	11.2%	2.7%	8,150	6,700	1,613
	Total:	--	100.0%	100.0%	100.0%	--	--	--
					Average "Fleet" Weight (lbs):	15,417	13,295	5,823
					Average "Fleet" Weight (tons):	7.7	6.6	2.9

\# conservative estimate

* Bus category reflects MOBILE6.2C default values. No bus data available within study area. Bus contributions in local study area are subtracted from the Truck category.

Table A8-2: Summary of Precipitation Days for Windsor Airport Precipitation Data (2000 to 2007)

Month	Average No. of Precipitation Days per Month	Minimum No. of Precipitation Days per Month
January	14	11
February	11	7
March	14	10
April	12	8
May	14	7
June	10	4
July	11	7
August	9	7
September	8	5
October	11	8
November	12	10
December	15	11
Total	141	95

Note: Based on 2000 - 2007 data recorded by Environment Canada (Windsor Airport)

Table A8-3a: Summary of PM_{10} and $PM_{2.5}$ Road Dust Emission Factors for Calculation of Hourly Emissions

Scenario	Ambassador Bridge MOBILE6.2C		Local Study Area MOBILE6.2C		Local Study Area Cross Roads MOBILE6.2C	
	PM_{10} (g/veh-mile)	$PM_{2.5}$ (g/veh-mile)	PM_{10} (g/veh-mile)	$PM_{2.5}$ (g/veh-mile)	PM_{10} (g/veh-mile)	$PM_{2.5}$ (g/veh-mile)
Present (Baseline)	1.59	0.10	0.95	0.005	0.25	0.00*
2011 (Construction/Operation)	1.61	0.10	1.30	0.05	0.25	0.00*
2021 (FDN)	1.78	0.12	1.38	0.07	0.25	0.00*
2021 (A)	1.78	0.12	1.38	0.07	0.25	0.00*
2021 (B) - Cars	0.00*	0.00*	1.38	0.07	0.25	0.00*
2021 (B) - Trucks	6.02	0.73	1.38	0.07	0.25	0.00*

Note: For conservatism, the precipitation correction factor (PCF) was not applied to the calculation of the hourly PM_{10} and $PM_{2.5}$ emission factors.

* In situations where low silt loading and/or low average weight yield calculated negative emission factors based on the above equation, the emission factor calculated was set to zero as per USEPA AP-42.

Table A8-3b: Summary of PM_{10} and $PM_{2.5}$ Road Dust Emission Factors for Calculation of Annual Emissions

Scenario	Ambassador Bridge MOBILE6.2C		Local Study Area MOBILE6.2C		Local Study Area Cross Roads MOBILE6.2C	
	PM_{10} (g/veh-mile)	$PM_{2.5}$ (g/veh-mile)	PM_{10} (g/veh-mile)	$PM_{2.5}$ (g/veh-mile)	PM_{10} (g/veh-mile)	$PM_{2.5}$ (g/veh-mile)
Annual Emission Factors (based on AVG Precipitation Correction Factor)						
Present (Baseline)	1.45	0.09	0.86	0.00	0.23	0.00*
Future (Construction/Operation)	1.47	0.09	1.18	0.05	0.23	0.00*
2021 (FDN)	1.62	0.11	1.26	0.06	0.23	0.00*
2021 (A)	1.62	0.11	1.26	0.06	0.23	0.00*
2021 (B) - Cars	0.00*	0.00*	1.26	0.06	0.23	0.00*
2021 (B) - Trucks	5.47	0.67	1.26	0.06	0.23	0.00*

* In situations where low silt loading and/or low average weight yield calculated negative emission factors based on the above equation, the emission factor calculated was set to zero as per USEPA AP-42.

APPENDIX 9

Construction Emission Calculations
(10 pages)

Particulate will be emitted from the general construction activities and particulate, nitrogen oxides and other pollutants of interest will be emitted from the diesel combustion engines of the equipment used during construction. The construction activity emission rate calculations are discussed in Sections A9-1 to A9-3 below.

A9-1: Heavy Construction Particulate Emissions

Particulate emissions from construction operations of the project have been computed using a PM_{10} emission factor developed by Midwest Research Institute (MRI) during 1996 (Ref.A.9-1). This emission factor is a refinement of the emission factor presented in the US EPA AP-42 document (Ref.A.9-2), which is based on studies in the 1970s and early 1990s. The MRI emission factor also includes the effects of typical control measures such as routine watering. These particulate emissions include emissions from land clearing, ground excavation, cut and fill operations, road dust from on-site vehicle traffic, vehicle tailpipe emissions and construction of the particular facility or structure.

The construction emission factors are:

PM_{10} Emission Factor = 0.11 tons / acre-month, or 0.25 tonnes / hectare-month

$PM_{2.5}$ Emission Factor = PM_{10} Emission Factor x 0.2
= 0.25 tonnes / hectare-month x 0.2
= 0.05 tonnes / hectare-month

The total area of the site from the Detroit River to Mall Street, north of Indian Road was estimated to be 125 hectares. Not all of this area will be under active construction at the same time, and therefore, it was assumed that $1/10^{th}$, or 12.5 hectares, would be under active construction.

Example Calculation

PM_{10} Emission = PM_{10} Emission Factor x 12.5 ha / 30 days/month / 24 h/day / 3600 s/h x 10^6 g/tonne
= 0.25 tonnes /ha-month x 12.5 ha / 30 days/month / 24 h/d / 3600 s/h x 10^6 g/tonne
= 1.21 g/s

Although the construction will not be for 30 days per month and 24 hours per day, the emission factor is an average for a 30 day month and 24-hours per day.

The heavy construction particulate emission rate results are summarized in Table A9-1.

Table A9-1: Heavy Construction Particulate Emissions

Particulate	Emission (g/s)
PM_{10}	1.21
$PM_{2.5}$	0.24

A9-2: Diesel Combustion Engine Emissions

Diesel engines of the construction equipment on-site will emit combustion products such as nitrogen oxides, carbon monoxide and sulphur dioxide. These engines also emit particulate, however, the particulate emissions are included in the total heavy construction activities particulate emissions estimated above.

Nitrogen Oxides:

For licensed road equipment such as the haul trucks and concrete trucks an idling emission rate of 55 g/h per vehicle was used (Ref: A.9-3).

For the other on-site diesel powered equipment such as cranes, the US EPA Non-Road Level 3 limit of 4.0 g/kWh was used. Although this Level 3 limit of 4.0 g/kWh is for combined NO_X and NMHC, it was conservatively assumed to be all NO_X. This Level 3 limit was used together with the maximum number of each type of equipment operating simultaneously on-site, the kW rating of the equipment engines and the anticipated load factors to calculate the diesel engine nitrogen oxides emissions for the different construction activities. The nitrogen oxides emission rate results are summarized in Table A9-2.

Carbon Monoxide:

For licensed road equipment such as the haul trucks and concrete trucks an idling emission rate of 94 g/h per vehicle was used (Ref: A.9-3).

For the other on-site diesel powered equipment such as cranes, the US EPA Non-Road Level 3 limit of 3.5 g/kWh was used. This Level 3 limit was used together with the maximum number of each type of equipment operating simultaneously on-site, the kW rating of the equipment engines and the anticipated load factors to calculate the diesel engine carbon monoxide emissions for the different construction activities. The carbon monoxide emission rate results are summarized in Table A9-3.

Table A9-2: Construction Diesel Engine NO_X Emissions

Acitivity/ Source ID	Construction Activity	Equipment	Max Qty on Site	Average kW rating	g/kWh	% Load	Idling, g/h	g/s
1	**Site Preparation**	Excavators	3	180	4	50		0.30
		Haul trucks	6				55	0.09
		Compactors	3	350	4	50		0.58
		Diesel gen set	2	200	4	25		0.11
		Total						1.09
2	**Tower Pier Foundation**	Auger	1	500	4	50		0.28
		Haul trucks	3				55	0.05
		Excavator	1	180	4	50		0.10
		Crane	1	350	4	50		0.19
		Concrete trucks	3				55	0.05
		Diesel Gensets	2	200	4	25		0.11
		Total						0.78
3	**Pylon Construction**	Crane	1	150	4	50		0.08
		Concrete trucks	3				55	0.05
		Diesel Gensets	2	200	4	25		0.11
		Haul trucks	3	350			55	0.05
		Total						0.29
4	**Pier Table Construction**	Crane	1	150	4	50		0.08
		Concrete trucks	3				55	0.05
		Diesel Gensets	2	200	4	25		0.11
		Haul trucks	5	350			55	0.08
		Total						0.32
5	**Balanced Cantilever Construction**	Crane	2	150	4	50		0.17
		Barges	1	600	4	50		0.33
		Diesel Gensets	2	200	4	25		0.11
		Haul trucks	5				55	0.08
		Total						0.69
6	**Back Span & Main Span Continuity**	Crane	2	150	4	50		0.17
		Barges	1	600	4	50		0.33
		Diesel Gensets	2	200	4	25		0.11
		Haul trucks	2	350			55	0.03
		Total						0.64
7	**Cdn Bridge - Tens Spans** Excavation / Drilling of Footings	Pile Driver	1	350	4	50		0.19
		Haul Trucks	5				55	0.08
		Gen Sets	2	200	4	25		0.11
								0.38
8	Forming / Pouring of Footings	Haul Trucks	4	350			55	0.06
		Concrete trucks	4				55	0.06
		Gen Sets	2	200	4	25		0.11
		Total						0.23
9	Forming / Pouring of Pier Columns & Caps	Haul Trucks	4				55	0.06
		Concrete Trucks	4				55	0.06
		Gen Sets	2	200	4	25		0.11
		Total						0.23
10	Erection of Beams	Haul Trucks	6				55	0.09
		Gen Sets	2	200	4	25		0.11
		Cranes	2	150	4	50		0.17
		Total						0.37
11	Bridge Deck Construction	Concrete Truck	6				55	0.09
		Gen Sets	2	200	4	25		0.11
		Haul trucks	4				55	0.06
		Concrete Finishing	1	100	4	50		0.06
								0.32
12	**Final Site Grading**	Haul trucks	4				55	0.06
		Compactor	2	350	4	50		0.39
		Gen Sets	2	200	4	25		0.11
		Paver	1	100	4	50		0.06
								0.62

Notes:
1. NOx for nonroad vehicles based on US EPA Tier 3 limits of 4.0 g/kWh for both NOx and NMHC. Assumed worst case - all NOx.
2. NOx for road vehicles (Haul Trucks and Concrete Trucks) considered emission factor for long time period (>15 min) idling diesel truck engines of 135 g/h. However, alternate of 55 g/h for shorter idling times was used.
3. Nonroad equipment not operating at full rated load for full operation, med operating at 50% of average rated load.
4. Gensets operating at 25% of average rated load.

Table A9-3: Construction Diesel Engine CO Emissions

Acitivity/ Source ID	Construction Activity	Equipment	Max Qty on Site	Average kW rating	g/kWh	% Load	Idling, g/h	g/s
1	**Site Preparation**	Excavators	3	180	3.5	50		0.26
		Haul trucks	6				94	0.16
		Compactors	3	350	3.5	50		0.51
		Diesel gen set	2	200	3.5	25		0.10
		Total						1.03
2	**Tower Pier Foundation**	Auger	1	500	3.5	50		0.24
		Haul trucks	3				94	0.08
		Excavator	1	180	3.5	50		0.09
		Crane	1	350	3.5	50		0.17
		Concrete trucks	3				94	0.08
		Diesel Gensets	2	200	3.5	25		0.10
		Total						0.75
3	**Pylon Construction**	Crane	1	150	3.5	50		0.07
		Concrete trucks	3				94	0.08
		Diesel Gensets	2	200	3.5	25		0.10
		Haul trucks	3	350			94	0.08
		Total						0.33
4	**Pier Table Construction**	Crane	1	150	3.5	50		0.07
		Concrete trucks	3				94	0.08
		Diesel Gensets	2	200	3.5	25		0.10
		Haul trucks	5	350			94	0.13
		Total						0.38
5	**Balanced Cantilever Construction**	Crane	2	150	3.5	50		0.15
		Barges	1	600	3.5	50		0.29
		Diesel Gensets	2	200	3.5	25		0.10
		Haul trucks	5				94	0.13
		Total						0.67
6	**Back Span & Main Span Continuity**	Crane	2	150	3.5	50		0.15
		Barges	1	600	3.5	50		0.29
		Diesel Gensets	2	200	3.5	25		0.10
		Haul trucks	2	350			94	0.05
		Total						0.59
7	**Cdn Bridge - Tens Spans** Excavation / Drilling of Footings	Pile Driver	1	350	3.5	50		0.17
		Haul Trucks	5				94	0.13
		Gen Sets	2	200	3.5	25		0.10
								0.40
8	Forming / Pouring of Footings	Haul Trucks	4	350			94	0.10
		Concrete trucks	4				94	0.10
		Gen Sets	2	200	3.5	25		0.10
		Total						0.31
9	Forming / Pouring of Pier Columns & Caps	Haul Trucks	4				94	0.10
		Concrete Trucks	4				94	0.10
		Gen Sets	2	200	3.5	25		0.10
		Total						0.31
10	Erection of Beams	Haul Trucks	6				94	0.16
		Gen Sets	2	200	3.5	25		0.10
		Cranes	2	150	3.5	50		0.15
		Total						0.40
11	Bridge Deck Construction	Concrete Truck	6				94	0.16
		Gen Sets	2	200	3.5	25		0.10
		Haul trucks	4				94	0.10
		Concrete Finishing	1	100	3.5	50		0.05
								0.41
12	**Final Site Grading**	Haul trucks	4				94	0.10
		Compactor	2	350	3.5	50		0.34
		Gen Sets	2	200	3.5	25		0.10
		Paver	1	100	3.5	50		0.05
								0.59

Notes: 1. CO for nonroad vehicles based on US EPA Tier 3 limits of 3.5 g/kWh
2. CO for road vehicles (Haul Trucks and Concrete Trucks) used 94 g/h
3. Nonroad equipment not operating at full rated load for full operation, ed operating at 50% of average rated load
4. Gensets operating at 25% of average rated load.

Sulphur Dioxide:

For the all on-site diesel powered equipment, including the licensed road equipment and other on-site diesel powered equipment such as cranes, the US EPA AP-42 Section 3.3 (Table 3.3-1) sulphur dioxide emission factor was used. This emission factor was used together with the maximum number of each type of equipment operating simultaneously on-site, the kW rating of the equipment engines and the anticipated load factors to calculate the diesel engine sulphur dioxide emissions for the different construction activities. The sulphur dioxide emission rate results are summarized in Table A9-4.

Particulate – River Barges

Since the river barges will not be operating on the land based construction site, particulate emissions were calculated for the marine diesel engines of these barges in addition to the heavy construction particulate emissions described in Section A9-1. Emissions were calculated using a marine engine emission factor of 0.272 g/kWh, an engine rating of 600kW and a load factor of 50%. The rive barge particulate emissions were 0.023 g/s per barge.

A9-5: Scheduling of Construction Emissions

The overall site construction emissions will vary depending on the construction activity underway. Each construction activity will involve different equipment and will occur at different times during the approximate two year period of construction. Information on the construction activity scheduling and the number of equipment operating at the site for each activity was used together with the equipment emission rates to develop emissions schedules for the contaminants for each quarter in 2009 and 2010. Emissions schedules for nitrogen dioxide, carbon monoxide and sulphur dioxide are presented in Tables A9-5, 6 and 7, respectively.

It was assumed that the land based construction site particulate emissions will remain the same throughout the 2 year construction period. The river barge particulate emissions would occur only for the last three quarters of 2010.

Table A9-4: Construction Diesel Engine SO_2 Emissions

Acitivity/ Source ID	Construction Activity	Equipment	Max Qty on Site	Average kW rating	g/kWh	% Load	g/s
1	**Site Preparation**	Excavators	3	180	1.25	50	0.09
		Haul trucks	6	350	1.25	10	0.07
		Compactors	3	350	1.25	50	0.18
		Diesel gen set	2	200	1.25	25	0.03
		Total					0.38
2	**Tower Pier Foundation**	Auger	1	500	1.25	50	0.09
		Haul trucks	3	350	1.25	10	0.04
		Excavator	1	180	1.25	50	0.03
		Crane	1	350	1.25	50	0.06
		Concrete trucks	3	350	1.25	10	0.04
		Diesel Gensets	2	200	1.25	25	0.03
		Total					0.29
3	**Pylon Construction**	Crane	1	150	1.25	50	0.03
		Concrete trucks	3	350	1.25	10	0.04
		Diesel Gensets	2	200	1.25	25	0.03
		Haul trucks	3	350	1.25	10	0.04
		Total					0.13
4	**Pier Table Construction**	Crane	1	150	1.25	50	0.03
		Concrete trucks	3	350	1.25	10	0.04
		Diesel Gensets	2	200	1.25	25	0.03
		Haul trucks	5	350	1.25	10	0.06
		Total					0.16
5	**Balanced Cantilever Construction**	Crane	2	150	1.25	50	0.05
		Barges	1	600	1.25	50	0.10
		Diesel Gensets	2	200	1.25	25	0.03
		Haul trucks	5	350	1.25	10	0.06
		Total					0.25
6	**Back Span & Main Span Continuity**	Crane	2	150	1.25	50	0.05
		Barges	1	600	1.25	50	0.10
		Diesel Gensets	2	200	1.25	25	0.03
		Haul trucks	2	350	1.25	10	0.02
		Total					0.22
7	**Cdn Bridge - Tens Spans** Excavation / Drilling of Footings	Pile Driver	1	350	1.25	50	0.06
		Haul Trucks	5	350	1.25	10	0.06
		Gen Sets	2	200	1.25	25	0.03
							0.16
8	Forming / Pouring of Footings	Haul Trucks	4	350	1.25	10	0.05
		Concrete trucks	4	350	1.25	10	0.05
		Gen Sets	2	200	1.25	25	0.03
		Total					0.13
9	Forming / Pouring of Pier Columns & Caps	Haul Trucks	4	350	1.25	10	0.05
		Concrete Trucks	4	350	1.25	10	0.05
		Gen Sets	2	200	1.25	25	0.03
		Total					0.13
10	Erection of Beams	Haul Trucks	6	350	1.25	10	0.07
		Gen Sets	2	200	1.25	25	0.03
		Cranes	2	150	1.25	50	0.05
		Total					0.16
11	Bridge Deck Construction	Concrete Truck	6	350	1.25	10	0.07
		Gen Sets	2	200	1.25	25	0.03
		Haul trucks	4	350	1.25	10	0.05
		Concrete Finishing	1	100	1.25	50	0.02
							0.17
12	**Final Site Grading**	Haul trucks	4	350	1.25	10	0.05
		Compactor	2	350	1.25	50	0.12
		Gen Sets	2	200	1.25	25	0.03
		Paver	1	100	1.25	50	0.02
							0.22

Notes: 1. SO2 for nonroad vehicles based on US EPA AP-42 Sec 3.3 Table 3.3-1
2. Idling road vehicles (Haul Trucks and Concrete Trucks) used 10% load factor.
3. Nonroad equipment not operating at full rated load for full operation, assumed operating at 50% of average rated load.
4. Gensets operating at 25% of average rated load.

Table A9-5: Schedule of Construction NO_X Emissions

Timing	Nitrogen Oxides (g/s) Source Activity IDs												
	1	2	3	4	5	6	7	8	9	10	11	12	Total
2009	Land Sources												
1st	1.09						0.38	0.23					1.70
2nd	1.09	0.78					0.38	0.23	0.23				2.71
3rd			0.29					0.23	0.23				0.75
4th			0.29						0.23	0.37			0.89
2010													
1st			0.29	0.32						0.37			0.97
2nd				0.32	0.35						0.32		0.99
3rd					0.35						0.32		0.67
4th					0.35	0.31						0.62	1.28

2009	Rivers Sources												
1st													0.00
2nd													0.00
3rd													0.00
4th													0.00
2010													
1st													0.00
2nd					0.33								0.33
3rd					0.33								0.33
4th					0.33	0.33							0.67

Source Activity IDs

1 Site Preparation
2 Tower Pier Foundation
3 Pylon Construction
4 Pier Table Construction
5 Balanced Cantilever Construction
6 Back Span & Main Span Continuity
7 Excavation / Drilling of Footings
8 Forming / Pouring of Footings
9 Forming / Pouring of Pier Columns & Caps
10 Erection of Beams
11 Bridge Deck Construction
12 Final Site Grading

Table A9-6: Schedule of Construction CO Emissions

Timing	Carbon Monoxide (g/s) Source Activity IDs												
	1	2	3	4	5	6	7	8	9	10	11	12	Total
2009	Land Sources												
1st	1.03						0.40	0.31					1.73
2nd	1.03	0.75					0.40	0.31	0.31				2.79
3rd			0.33					0.31	0.31				0.94
4th			0.33						0.31	0.40			1.03
2010													
1st			0.33	0.38						0.40			1.11
2nd				0.38	0.37						0.41		1.16
3rd					0.37						0.41		0.78
4th					0.37	0.30						0.59	1.26
2009	Rivers Sources												
1st													0.00
2nd													0.00
3rd													0.00
4th													0.00
2010													
1st													0.00
2nd					0.29								0.29
3rd					0.29								0.29
4th					0.29	0.29							0.58

Source Activity IDs

1 Site Preparation
2 Tower Pier Foundation
3 Pylon Construction
4 Pier Table Construction
5 Balanced Cantilever
6 Back Span & Main Span Continuity
7 Excavation / Drilling of Footings
8 Forming / Pouring of Footings
9 Forming / Pouring of Pier Columns & Caps
10 Erection of Beams
11 Bridge Deck Construction
12 Final Site Grading

Table A9-7: Schedule of Construction SO_2 Emissions

Timing	Sulphur Dioxide (g/s)												
	Source Activity IDs												
	1	2	3	4	5	6	7	8	9	10	11	12	Total
2009	Land Sources												
1st	0.38						0.16	0.13					0.67
2nd	0.38	0.29					0.16	0.13	0.13				1.09
3rd			0.13					0.13	0.13				0.40
4th			0.13						0.13	0.16			0.43
2010													
1st			0.13	0.16						0.16			0.45
2nd				0.16	0.15						0.17		0.48
3rd					0.15						0.17		0.32
4th					0.15	0.11						0.22	0.48
2009	Rivers Sources												
1st													0.00
2nd													0.00
3rd													0.00
4th													0.00
2010													
1st													0.00
2nd					0.10								0.10
3rd					0.10								0.10
4th					0.10	0.10							0.21

Source Activity IDs

1 Site Preparation
2 Tower Pier Foundation
3 Pylon Construction
4 Pier Table Construction
5 Balanced Cantilever
6 Back Span & Main Span Continuity
7 Excavation / Drilling of Footings
8 Forming / Pouring of Footings
9 Forming / Pouring of Pier Columns & Caps
10 Erection of Beams
11 Bridge Deck Construction
12 Final Site Grading

A.9-6: References

1- Muleski, Greg. Improvement of Specific Emission Factors (BACM Project No. 1). Final Report. Midwest Research Institute, March 29, 1996
2- U.S. Environmental Protection Agency. Compilation of Air Pollutant Emission Factors, AP-42, Section 13.2.3 Fifth Edition, January 1995.
3- U.S. Environmental Protection Agency. Emission Facts Idling Vehicle Emissions, Office of Mobile Sources, EPA420-F-98-014, April 1998.

APPENDIX 10

Annual Bridge and Regional Emissions
(10 pages)

Annual releases associated with vehicles operating on the bridge and customs plaza were calculated for each emission scenario. Also, annual regional emissions from the nearest counties, specifically Essex County: Ontario and Wayne County: Michigan was calculated to assess the relative contribution of the annual emissions from the bridge.

A10-1: Annual Bridge Emissions

The following approach was used to estimate annual bridge emissions based on the emission factors for vehicle emissions and road dust developed as described in Appendix 7 and Appendix 8, respectively.

The annual vehicle volumes (total northbound and southbound) presented in Appendix 3 for each emission scenario (baseline, 2011 and 2021) were used. The 2006 monthly traffic volume (total northbound and southbound) collected by the Ambassador Bridge was used to assign these annual totals to two periods, winter and summer. For the purpose of this analysis, winter includes the months of November to March and summer includes the months April to October. Based on the 2006 monthly data, winter accounts for 48.9% of the total annual traffic volume across the bridge and summer accounts for 51.1%.

Vehicle emission factors generated using MOBILE 6.2C for the Ambassador Bridge and customs plaza area for winter and summer for two vehicle speeds (2.5 mph and 35 mph) were utilized. The vehicle emission factor at 35 mph was used to represent free flowing traffic on the bridge and customs plaza area. Although actual speeds in this area may vary somewhat, the results indicate that emission factors in the speed range of 15 to 40 mph do not change significantly. The vehicle emission factor at 2.5 mph was used to represent queuing (idling) traffic.

The road dust emission factors were generated using USEPA AP-42 (Section 13.2.1) as described in Appendix 8. The same road dust emission factors were applied for both winter and summer periods. This is supported by the fact that the USEPA AP-42 silt loading value used to calculate the emission factor for a paved roads with daily traffic flow >10,000 is the same for summer and winter months.

Annual road dust emission factors employ the precipitation correction factor to account for the number of 'wet" days experienced in the Windsor area.

The total one way distance traveled on the Canadian side of the bridge and the customs plaza is 1.90 miles with the estimated distance representing free flowing traffic ranging from 0.33 miles (or 1.57 miles representing the distance for queuing traffic) for the 2021 (FDN) scenario to 1.74 miles (or 0.16 miles representing the distance for queuing traffic) for the present (baseline) scenario.

The annual emissions associated with free flow and queuing traffic on the bridge and in the customs plaza for the baseline, 2011 and 2021 emission scenarios are summarized in Tables A10-1 to A10-6.

Table A10-1: Annual Bridge Emissions – Present (Baseline)

Mobile 6.2C Emission Factor for: **Baseline**

Winter Vehicles: **4,666,353** Factor: 1
Summer Vehicles **4,873,647** 0.001 (use 0.001 for toxics because the emisison factor for toxics is in mg/mile, but not PAH)
Total Vehicles: **9,540,000** 1,000,000 grams per metric tonne

Mobile 6.2C Emission Factor for: Ambassador Bridge

		CO		Nox		SO2		PM10		PM2.5		VOC	
Average Speed (mph)	**Average Speed (kmph)**	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)
2.5	4.0	5.86E+01	4.22E+01	7.81E+00	6.99E+00	8.42E-02	8.41E-02	1.16E-01	1.11E-01	1.16E-01	1.11E-01	8.05E+00	7.17E+00
35	56	1.08E+01	7.87E+00	4.50E+00	4.01E+00	8.42E-02	8.41E-02	1.41E-01	1.36E-01	1.41E-01	1.36E-01	9.01E-01	9.35E-01
Road Dust EF (g/VMT)								1.45E+00	1.45E+00	9.00E-02	9.00E-02		

			CO		Nox		SO2		PM10		PM2.5		VOC	
	Average Speed (mph)	**Trip Distance (mi)**	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)
Free Flow Vehicle Emissions	35	1.74	88.0	66.8	36.5	34.0	0.7	0.7	1.1	1.2	1.1	1.2	7.3	7.9
Total Queue	2.5	0.16	43.76	32.91	5.83	5.45	0.06	0.07	0.09	0.09	0.09	0.09	6.01	5.59
Estimated Emission (Free Flow + Queue)			**131.8**	**99.7**	**42.4**	**39.4**	**0.7**	**0.8**	**1.2**	**1.2**	**1.2**	**1.2**	**13.3**	**13.5**
Total Annual Emission (MT/yr)	**Total:**	**1.90**		**231.4**		**81.8**		**1.5**		**2.5**		**2.5**		**26.8**
Road Dust MT/yr									11.8	12.3	0.7	0.8		
Total Exhaust + Road Dust										**26.5**		**4.0**		

Mobile 6.2C Emission Factor for: **Baseline**

Winter Vehicles: **4,666,353**
Summer Vehicles **4,873,647**
Total Vehicles: **9,540,000**

Mobile 6.2C Emission Factor for: Ambassador Bridge

		benzene		acetaldehyde		formaldehyde		1,3-butadiene		acrolein		benzo (a) pyrene		CO2		N2O		CH4	
Average Speed (mph)	**Average Speed (kmph)**	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)
2.5	4.0	1.62E+02	1.36E+02	3.48E+01	3.06E+01	9.98E+01	8.92E+01	2.34E+01	2.13E+01	5.49E+00	4.60E+00	2.80E-03	2.80E-03	7.62E+02	7.61E+02	3.20E-02	3.20E-02	9.30E-02	9.30E-02
35	56	2.10E+01	1.84E+01	6.76E+00	6.16E+00	1.88E+01	1.73E+01	3.42E+00	3.18E+00	9.73E-01	8.52E-01	2.80E-03	2.80E-03	7.62E+02	7.61E+02	3.20E-02	3.20E-02	9.30E-02	9.30E-02
Road Dust EF (g/VMT)																			

			benzene		acetaldehyde		formaldehyde		1,3-butadiene		acrolein		benzo (a) pyrene		CO2		N2O		CH4	
	Average Speed (mph)	**Trip Distance (mi)**	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)
Free Flow Vehicle Emissions	35	1.74	0.17	0.16	0.05	0.05	0.15	0.15	0.03	0.03	0.01	0.01	2.E-05	2.E-05	6,188.2	6,457.2	0.3	0.3	0.8	0.8
Total Queue	2.5	0.16	0.12	0.11	0.03	0.02	0.07	0.07	0.02	0.02	0.00	0.00	2.E-06	2.E-06	569.03	593.77	0.02	0.02	0.07	0.07
Estimated Emission (Free Flow + Queue)			**0.29**	**0.26**	**0.08**	**0.08**	**0.23**	**0.22**	**0.05**	**0.04**	**0.01**	**0.01**	**2.E-05**	**3.E-05**	**6,757.3**	**7,051.0**	**0.3**	**0.3**	**0.8**	**0.9**
Total Annual Emission (MT/yr)	**Total:**	**1.90**		**0.55**		**0.16**		**0.44**		**0.09**		**0.02**		**5.E-05**		**13,808**		**0.6**		**1.7**
Road Dust MT/yr																				
Total Exhaust + Road Dust																				

Table A10-2: Annual Bridge Emissions – 2011 (ABEP)

Mobile 6.2C Emission Factor for: **2011**

Winter Vehicles: **5,723,419**
Summer Vehicles **5,977,670**
Total Vehicles: **11,701,089**

Factor: 1
0.001 (use 0.001 for toxics because the emisison factor for toxics is in mg/mile, but not PAH)
1,000,000 grams per metric tonne

Mobile 6.2C Emission Factor for: Ambassador Bridge

			CO		Nox		SO2		PM10		PM2.5		VOC	
	Average Speed (mph)	**Average Speed (kmph)**	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)
	2.5	4	3.16E+01	2.10E+01	4.11E+00	3.54E+00	9.40E-03	9.40E-03	4.89E-02	4.58E-02	4.89E-02	4.58E-02	4.03E+00	5.23E+00
	35	56	6.48E+00	4.23E+00	2.30E+00	1.96E+00	9.40E-03	9.40E-03	7.44E-02	7.12E-02	7.44E-02	7.12E-02	4.72E-01	4.80E-01
Road Dust EF (g/VMT)									1.47E+00	1.47E+00	9.00E-02	9.00E-02		

			CO		Nox		SO2		PM10		PM2.5		VOC	
	Average Speed (mph)	**Trip Distance (mi)**	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)
Free Flow Vehicle Emissions	35	1.74	64.5	44.0	22.9	20.4	0.1	0.1	0.7	0.7	0.7	0.7	4.7	5.0
Total Queue	2.5	0.16	28.94	20.08	3.77	3.39	0.01	0.01	0.04	0.04	0.04	0.04	3.69	5.01
Estimated Emission (Free Flow + Queue)			**93.5**	**64.1**	**26.6**	**23.8**	**0.1**	**0.1**	**0.8**	**0.8**	**0.8**	**0.8**	**8.4**	**10.0**
Total Annual Emission (MT/yr)	**Total:**	**1.90**		**157.5**		**50.4**		**0.2**		1.6		1.6		**18.4**
Road Dust MT/yr									14.6	15.3	0.9	0.9		
Total Exhaust + Road Dust										**31.5**		**3.4**		

Mobile 6.2C Emission Factor for: **2011**

Winter Vehicles: **5,723,419**
Summer Vehicles **5,977,670**
Total Vehicles: **11,701,089**

Mobile 6.2C Emission Factor for: Ambassador Bridge

			benzene		acetaldehyde		formaldehyde		1,3-butadiene		acrolein		benzo (a) pyrene		CO2		N2O		CH4	
	Average Speed (mph)	**Average Speed (kmph)**	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)
	2.5	4	7.99E+01	7.41E+01	1.85E+01	1.64E+01	4.54E+01	4.20E+01	1.01E+01	9.03E+00	2.26E+00	1.90E+00	1.30E-03	1.30E-03	7.58E+02	7.57E+02	3.20E-02	3.20E-02	9.20E-02	9.20E-02
	35	56	1.09E+01	9.41E+00	3.92E+00	3.61E+00	9.89E+00	9.41E+00	1.67E+00	1.53E+00	4.78E-01	4.26E-01	1.30E-03	1.30E-03	7.58E+02	7.57E+02	3.20E-02	3.20E-02	9.20E-02	9.20E-02
Road Dust EF (g/VMT)																				

			benzene		acetaldehyde		formaldehyde		1,3-butadiene		acrolein		benzo (a) pyrene		CO2		N2O		CH4	
	Average Speed (mph)	**Trip Distance (mi)**	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)
Free Flow Vehicle Emissions	35	1.74	0.11	0.10	0.04	0.04	0.10	0.10	0.02	0.02	0.00	0.00	1.E-05	1.E-05	7,544.5	7,878.3	0.3	0.3	0.9	1.0
Total Queue	2.5	0.16	0.07	0.07	0.02	0.02	0.04	0.04	0.01	0.01	0.00	0.00	1.E-06	1.E-06	693.75	724.45	0.03	0.03	0.08	0.09
Estimated Emission (Free Flow + Queue)			**0.18**	**0.17**	**0.06**	**0.05**	**0.14**	**0.14**	**0.03**	**0.02**	**0.01**	**0.01**	**1.E-05**	**1.E-05**	**8,238.3**	**8,602.8**	**0.3**	**0.4**	**1.0**	**1.0**
Total Annual Emission (MT/yr)	**Total:**	**1.90**		**0.35**		**0.11**		**0.28**		**0.05**		**0.01**		**3.E-05**		**16,841.1**		**0.7**		**2.0**
Road Dust MT/yr																				
Total Exhaust + Road Dust																				

Table A10-3: Annual Bridge Emissions – 2021 (FDN)

Winter Vehicles:	**7,021,957**	Factor:	1	
Summer Vehicles	**7,333,893**		0.001	(use 0.001 for toxics because the emisison factor for toxics is in mg/mile, but not PAH)
Total Vehicles:	**14,355,850**		1,000,000	grams per metric tonne

~~Mobile 6.2C Emission Factor for: Ambassador Bridge~~

			CO		Nox		SO2		PM10		PM2.5		VOC	
	Average Speed (mph)	**Average Speed (kmph)**	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)
	2.5	4	2.04E+01	1.37E+01	1.28E+00	1.10E+00	9.50E-03	9.50E-03	1.31E-02	1.26E-02	1.31E-02	1.26E-02	2.05E+00	2.67E+00
	35	56	4.28E+00	2.76E+00	6.96E-01	5.85E-01	9.50E-03	9.50E-03	3.89E-02	3.85E-02	3.89E-02	3.85E-02	2.41E-01	2.45E-01
Road Dust EF (g/VMT)									1.62E+00	1.62E+00	1.10E-01	1.10E-01		

			CO		Nox		SO2		PM10		PM2.5		VOC	
	Average Speed (mph)	**Trip Distance (mi)**	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)
Free Flow Vehicle Emissions	35	1.74	52.2	35.3	8.5	7.5	0.1	0.1	0.5	0.5	0.5	0.5	2.9	3.1
Total Queue	2.5	0.16	22.96	16.08	1.44	1.29	0.01	0.01	0.01	0.01	0.01	0.01	2.31	3.14
Estimated Emission (Free Flow + Queue)			**75.2**	**51.3**	**9.9**	**8.8**	**0.1**	**0.1**	**0.5**	**0.5**	**0.5**	**0.5**	**5.3**	**6.3**
Total Annual Emission (MT/yr)	**Total:**	**1.90**		**126.5**		**18.7**		**0.3**		1.0		1.0		**11.5**
Road Dust MT/yr									19.8	20.7	1.3	1.4		
Total Exhaust + Road Dust										**41.5**		**3.7**		

Winter Vehicles:	**7,021,957**	
Summer Vehicles	**7,333,893**	
Total Vehicles:	**14,355,850**	

~~Mobile 6.2C Emission Factor for: Ambassador Bridge~~

			benzene		acetaldehyde		formaldehyde		1,3-butadiene		acrolein		benzo (a) pyrene		CO2		N2O		CH4	
	Average Speed (mph)	**Average Speed (kmph)**	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)
	2.5	4	3.92E+01	3.71E+01	1.09E+01	1.00E+01	2.63E+01	2.55E+01	4.51E+00	4.22E+00	1.29E+00	1.16E+00	5.00E-04	5.00E-04	7.80E+02	7.80E+02	3.20E-02	3.20E-02	9.00E-02	9.00E-02
	35	56	5.60E+00	4.91E+00	2.56E+00	2.43E+00	6.44E+00	6.34E+00	8.75E-01	8.33E-01	3.07E-01	2.87E-01	5.00E-04	5.00E-04	7.80E+02	7.80E+02	3.20E-02	3.20E-02	9.00E-02	9.00E-02
Road Dust EF (g/VMT)																				

			benzene		acetaldehyde		formaldehyde		1,3-butadiene		acrolein		benzo (a) pyrene		CO2		N2O		CH4	
	Average Speed (mph)	**Trip Distance (mi)**	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)
Free Flow Vehicle Emissions	35	1.74	0.07	0.06	0.03	0.03	0.08	0.08	0.01	0.01	0.00	0.00	6.E-06	6.E-06	9,531.2	9,954.7	0.4	0.4	1.1	1.1
Total Queue	2.5	0.16	0.04	0.04	0.01	0.01	0.03	0.03	0.01	0.00	0.00	0.00	6.E-07	6.E-07	876.43	915.38	0.04	0.04	0.10	0.11
Estimated Emission (Free Flow + Queue)			**0.11**	**0.11**	**0.04**	**0.04**	**0.11**	**0.11**	**0.02**	**0.02**	**0.01**	**0.01**	**7.E-06**	**7.E-06**	**10,407.6**	**10,870.1**	**0.4**	**0.4**	**1.2**	**1.3**
Total Annual Emission (MT/yr)	**Total:**	**1.90**		**0.22**		**0.09**		**0.22**		**0.03**		**0.01**		**1.E-05**		**21,277.7**		**0.9**		**2.5**
Road Dust MT/yr																				
Total Exhaust + Road Dust																				

Table A10-4: Annual Bridge Emissions – 2021 (A)

Winter Vehicles:	**7,021,957**	Factor:	1	
Summer Vehicles	**7,333,893**		0.001	(use 0.001 for toxics because the emisison factor for toxics is in mg/mile, but not PAH)
Total Vehicles:	**14,355,850**		1,000,000	grams per metric tonne

Mobile 6.2C Emission Factor for: Ambassador Bridge

			CO		Nox		SO2		PM10		PM2.5		VOC	
	Average Speed (mph)	**Average Speed (kmph)**	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)
	2.5	4	2.04E+01	1.37E+01	1.28E+00	1.10E+00	9.50E-03	9.50E-03	1.31E-02	1.26E-02	1.31E-02	1.26E-02	2.05E+00	2.67E+00
	35	56	4.28E+00	2.76E+00	6.96E-01	5.85E-01	9.50E-03	9.50E-03	3.89E-02	3.85E-02	3.89E-02	3.85E-02	2.41E-01	2.45E-01
Road Dust EF (g/VMT)									1.62E+00	1.62E+00	1.10E-01	1.10E-01		

			CO		Nox		SO2		PM10		PM2.5		VOC	
	Average Speed (mph)	**Trip Distance (mi)**	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)
Free Flow Vehicle Emissions	35	1.74	52.2	35.3	8.5	7.5	0.1	0.1	0.5	0.5	0.5	0.5	2.9	3.1
Total Queue	2.5	0.16	22.96	16.08	1.44	1.29	0.01	0.01	0.01	0.01	0.01	0.01	2.31	3.14
Estimated Emission (Free Flow + Queue)			**75.2**	**51.3**	**9.9**	**8.8**	**0.1**	**0.1**	0.5	0.5	0.5	0.5	**5.3**	**6.3**
Total Annual Emission (MT/yr)	**Total:**	**1.90**		**126.5**		**18.7**		**0.3**		1.0		1.0		**11.5**
Road Dust MT/yr									19.8	20.7	1.3	1.4		
Total Exhaust + Road Dust										**41.5**		**3.7**		

Winter Vehicles:	**7,021,957**	
Summer Vehicles	**7,333,893**	
Total Vehicles:	**14,355,850**	

Mobile 6.2C Emission Factor for: Ambassador Bridge

		benzene		acetaldehyde		formaldehyde		1,3-butadiene		acrolein		benzo (a) pyrene		CO2		N2O		CH4	
Average Speed (mph)	**Average Speed (kmph)**	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)
2.5	4	3.92E+01	3.71E+01	1.09E+01	1.00E+01	2.63E+01	2.55E+01	4.51E+00	4.22E+00	1.29E+00	1.16E+00	5.00E-04	5.00E-04	7.80E+02	7.80E+02	3.20E-02	3.20E-02	9.00E-02	9.00E-02
35	56	5.60E+00	4.91E+00	2.56E+00	2.43E+00	6.44E+00	6.34E+00	8.75E-01	8.33E-01	3.07E-01	2.87E-01	5.00E-04	5.00E-04	7.80E+02	7.80E+02	3.20E-02	3.20E-02	9.00E-02	9.00E-02
Road Dust EF (g/VMT)																			

		benzene		acetaldehyde		formaldehyde		1,3-butadiene		acrolein		benzo (a) pyrene		CO2		N2O		CH4	
Average Speed (mph)	**Trip Distance (mi)**	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)
Free Flow Vehicle Emissions	35	1.74	0.07	0.06	0.03	0.03	0.08	0.08	0.01	0.01	0.00	0.00	6.E-06	6.E-06	9,531.2	9,954.7	0.4	0.4	1.1	1.1
Total Queue	2.5	0.16	0.04	0.04	0.01	0.01	0.03	0.03	0.01	0.00	0.00	0.00	6.E-07	6.E-07	876.43	915.38	0.04	0.04	0.10	0.11
Estimated Emission (Free Flow + Queue)			**0.11**	**0.11**	**0.04**	**0.04**	**0.11**	**0.11**	**0.02**	**0.02**	**0.01**	**0.01**	**7.E-06**	**7.E-06**	**10,407.6**	**10,870.1**	**0.4**	**0.4**	**1.2**	**1.3**
Total Annual Emission (MT/yr)	**Total:**	**1.90**		**0.22**		**0.09**		**0.22**		**0.03**		**0.01**		**1.E-05**		**21,277.7**		**0.9**		**2.5**
Road Dust MT/yr																				
Total Exhaust + Road Dust																				

Table A10-5: Annual Bridge Emissions – 2021 (B) – Cars Only on Existing Bridge

Mobile 6.2C Emission Factor for: **2021 (B) - Cars Only on Existing Bridge**

Winter Vehicles:	**4,197,065**	Factor:	1
Summer Vehicles	**4,383,512**		0.001 (use 0.001 for toxics because the emisison factor for toxics is in mg/mile, but not PAH)
Total Vehicles:	**8,580,577**		1,000,000 grams per metric tonne

Mobile 6.2C Emission Factor for: Ambassador Bridge

			CO		Nox		SO2		PM10		PM2.5		VOC	
	Average Speed (mph)	**Average Speed (kmph)**	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)
	2.5	4	2.47E+01	1.53E+01	7.77E-01	5.48E-01	6.90E-03	6.90E-03	4.30E-03	4.30E-03	4.30E-03	4.30E-03	2.47E+00	3.37E+00
	35	56	3.41E+00	5.64E+00	3.74E-01	2.44E-01	7.00E-03	7.00E-03	2.48E-02	2.48E-02	2.48E-02	2.48E-02	2.27E-01	2.33E-01
Road Dust EF (g/VMT)									1.62E+00	1.62E+00	1.10E-01	1.10E-01		

			CO		Nox		SO2		PM10		PM2.5		VOC	
	Average Speed (mph)	**Trip Distance (mi)**	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)
Free Flow Vehicle Emissions	35	1.74	24.9	43.0	2.7	1.9	0.1	0.1	0.2	0.2	0.2	0.2	1.7	1.8
Total Queue	2.5	0.16	16.58	10.75	0.52	0.38	0.00	0.00	0.00	0.00	0.00	0.00	1.66	2.36
Estimated Emission (Free Flow + Queue)			**41.5**	**53.8**	**3.3**	**2.2**	**0.1**	**0.1**	0.2	0.2	0.2	0.2	**3.3**	**4.1**
Total Annual Emission (MT/yr)	**Total:**	**1.90**		**95.3**		**5.5**		**0.1**		0.4		0.4		**7.5**
Road Dust MT/yr									11.8	12.4	0.8	0.8		
Total Exhaust + Road Dust										**24.6**		**2.0**		

On an annual basis there should be no difference between 2021 FDN, 2021 A and 2021 B. Same number of vehicles, similar trip difference. Customs inspection determines wait times / idling.

Mobile 6.2C Emission Factor for: **2021 (B) - Cars Only on Existing Bridge**

Winter Vehicles:	**4,197,065**
Summer Vehicles	**4,383,512**
Total Vehicles:	**8,580,577**

Mobile 6.2C Emission Factor for: Ambassador Bridge

			benzene		acetaldehyde		formaldehyde		1,3-butadiene		acrolein		benzo (a) pyrene		CO2		N2O		CH4	
	Average Speed (mph)	**Average Speed (kmph)**	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)
	2.5	4	4.02E+01	3.41E+01	4.96E+00	4.19E+00	8.45E+00	8.83E+00	4.41E+00	4.20E+00	6.12E-01	4.54E-01	4.24E-04	4.23E-04	2.47E+01	1.53E+01	3.60E-02	3.60E-02	1.20E-01	1.20E-01
	35	56	6.24E+00	5.31E+00	7.69E-01	6.51E-01	1.31E+00	1.37E+00	6.83E-01	6.49E-01	9.50E-02	7.00E-02	4.24E-04	4.23E-04	4.54E+02	4.54E+02	3.60E-02	3.60E-02	1.20E-01	1.20E-01
Road Dust EF (g/VMT)																				

			benzene		acetaldehyde		formaldehyde		1,3-butadiene		acrolein		benzo (a) pyrene		CO2		N2O		CH4	
	Average Speed (mph)	**Trip Distance (mi)**	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)
Free Flow Vehicle Emissions	35	1.74	0.05	0.04	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	3.E-06	3.E-06	3,318.4	3,465.8	0.3	0.3	0.9	0.9
Total Queue	2.5	0.16	0.03	0.02	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	3.E-07	3.E-07	16.58	10.75	0.02	0.03	0.08	0.08
Estimated Emission (Free Flow + Queue)			**0.07**	**0.06**	**0.01**	**0.01**	**0.02**	**0.02**	**0.01**	**0.01**	**0.00**	**0.00**	**3.E-06**	**4.E-06**	**3,335.0**	**3,476.6**	**0.3**	**0.3**	**1.0**	**1.0**
Total Annual Emission (MT/yr)	**Total:**	**1.90**		**0.14**		**0.02**		**0.03**		**0.02**		**0.00**		**7.E-06**		**6,811.6**		**0.6**		**2.0**
Road Dust MT/yr																				
Total Exhaust + Road Dust																				

On an annual basis there should be no difference between 2021 FDN, 2021 A and 2021 B. Same number of vehicles, similar trip difference. Customs inspection determines wait times / idling.

Table A10-6: Annual Bridge Emissions – 2021 (B) – Trucks Only on Enhanced Bridge

Winter Vehicles:	**2,824,892**		Factor:	1														
Summer Vehicles	**2,950,382**			0.001	(use 0.001 for toxics because the emisison factor for toxics is in mg/mile, but not PAH)													
Total Vehicles:	**5,775,273**			1,000,000	grams per metric tonne													
Mobile 6.2C Emission Factor for: Ambassador Bridge			CO		Nox		SO2		PM10		PM2.5		VOC	
	Average Speed (mph)	**Average Speed (kmph)**	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)
	2.5	4	1.44E+01	1.15E+01	2.02E+00	1.89E+00	1.33E-02	1.33E-02	2.48E-02	2.48E-02	2.48E-02	2.48E-02	1.45E+00	1.66E+00
	35	56	2.29E+00	1.83E+00	1.16E+00	1.08E+00	1.32E-02	1.32E-02	5.35E-02	5.95E-02	5.35E-02	5.95E-02	2.62E-01	2.62E-01
Road Dust EF (g/VMT)									1.62E+00	1.62E+00	1.10E-01	1.10E-01		
			CO		Nox		SO2		PM10		PM2.5		VOC	
	Average Speed (mph)	**Trip Distance (mi)**	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)
Free Flow Vehicle Emissions	35	1.74	11.3	9.4	5.7	5.5	0.1	0.1	0.3	0.3	0.3	0.3	1.3	1.3
Total Queue	2.5	0.16	6.49	5.41	0.91	0.89	0.01	0.01	0.01	0.01	0.01	0.01	0.66	0.78
Estimated Emission (Free Flow + Queue)			**17.8**	**14.8**	**6.6**	**6.4**	**0.1**	**0.1**	0.3	0.3	0.3	0.3	**1.9**	**2.1**
Total Annual Emission (MT/yr)	**Total:**	**1.90**		**32.6**		**13.0**		**0.1**		0.6		0.6		**4.1**
Road Dust MT/yr									8.0	8.3	0.5	0.6		
Total Exhaust + Road Dust										**16.9**		**1.7**		

Winter Vehicles:	**2,824,892**																	
Summer Vehicles	**2,950,382**																	
Total Vehicles:	**5,775,273**																	
Mobile 6.2C Emission Factor for: Ambassador Bridge			benzene		acetaldehyde		formaldehyde		1,3-butadiene		acrolein		benzo (a) pyrene		CO2		N2O		CH4	
	Average Speed (mph)	**Average Speed (kmph)**	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (mg/mi)	Summer (mg/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)	Winter (g/mi)	Summer (g/mi)
	2.5	4	2.31E+01	1.71E+01	1.95E+01	1.85E+01	5.24E+01	4.98E+01	4.71E+00	4.29E+00	2.28E+00	2.19E+00	7.30E-04	7.07E-04	1.25E+03	1.25E+03	2.70E-02	2.70E-02	4.30E-02	4.30E-02
	35	56	3.75E+00	3.04E+00	5.16E+00	5.02E+00	1.39E+01	1.36E+01	1.16E+00	1.11E+00	6.15E-01	6.02E-01	7.30E-04	7.07E-04	1.25E+03	1.25E+03	2.70E-02	2.70E-02	4.30E-02	4.30E-02
Road Dust EF (g/VMT)																				
			benzene		acetaldehyde		formaldehyde		1,3-butadiene		acrolein		benzo (a) pyrene		CO2		N2O		CH4	
	Average Speed (mph)	**Trip Distance (mi)**	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)	Winter (MT)	Summer (MT)
Free Flow Vehicle Emissions	35	1.74	0.02	0.02	0.03	0.03	0.07	0.07	0.01	0.01	0.00	0.00	4.E-06	4.E-06	6,149.5	6,422.7	0.1	0.1	0.2	0.2
Total Queue	2.5	0.16	0.01	0.01	0.01	0.01	0.02	0.02	0.00	0.00	0.00	0.00	3.E-07	3.E-07	565.48	590.60	0.01	0.01	0.02	0.02
Estimated Emission (Free Flow + Queue)			**0.03**	**0.02**	**0.03**	**0.03**	**0.09**	**0.09**	**0.01**	**0.01**	**0.00**	**0.00**	**4.E-06**	**4.E-06**	**6,715.0**	**7,013.3**	**0.1**	**0.2**	**0.2**	**0.2**
Total Annual Emission (MT/yr)	**Total:**	**1.90**		**0.05**		**0.07**		**0.19**		**0.02**		**0.01**		**8.E-06**		**13,728.3**		**0.3**		**0.5**
Road Dust MT/yr																				
Total Exhaust + Road Dust																				

A10-2: Essex County: Ontario

Essex County was defined using the Forward Sorting Areas (FSAs) using the first three characters of postal code. The Essex county FSAs are:

N0R, N8H, N8M, N8N, N8P, N8R, N8S, N8T, N8V, N8W, N8X, N8Y, N9A, N9B, N9C, N9E, N9G, N9H, N9J, N9K, N9V and N9Y.

The National Pollutant Release Inventory (NPRI), at search location http://www.ec.gc.ca/pdb/querysite/query_e.cfm, was used to obtain annual Criteria Air Contaminant (CAC) summaries for the FSAs. CAC emission summaries catalog vehicle emissions and open source releases as well as industrial point sources from NPRI Reports (http://www.ec.gc.ca/pdb/cac/cac_home_e.cfm). The most recent reviewed data from the 2005 NPRI Reporting Year was used. Provincial summaries also show open source releases broken down into various categories including paved and unpaved roads. The Ontario ratio of paved plus unpaved road emissions to total open source releases was used to scale Essex County open source releases for road emissions.

The annual greenhouse gas (GHG) emission for the 2005 NPRI Reporting Year includes only a total of 85 facilities for all of Ontario. The average of the ratios of annual CAC emissions from Essex County versus annual CAC emissions from Ontario (5%) was used to scale the annual Ontario GHG emissions to Essex County GHG emissions. NPRI reports GHG emissions in tonnes CO_{2e} so this data was converted into tonnes of the individual GHG species using Global Warming Potentials (1 for CO_2, 21 for CH_4 and 310 for N_2O). It should be noted that GHG Emissions summary from the 2005 NPRI Reporting Year includes only 85 industrial emitters above the defined threshold (Point Sources) and not vehicle emissions. Although this will underestimate the annual regional emissions, in the absence other more recent annual GHG emissions data, the above data was used for the purpose of comparing with emissions related to the bridge.

Annual vehicle emissions of benzo (a) pyrene were scaled from annual vehicle emissions of PM_{10}. This approach is consistent with the "Assessment of Benzo(a)pyrene Air Emissions In the Great Lakes Region - A Report of the Great Lakes Regional Toxic Air Emissions Inventory Steering Committee" March 2007 as discussed in detail in Appendix 7. The scaling was performed for each vehicle class. Annual emissions of other air toxics (benzene, formaldehyde, etc.) were calculated using emission factors from MOBILE6.2C for local roads for the present (baseline) scenario to determine scaling factors (versus VOC's), for each vehicle class. For aircraft and rail emissions, an average of vehicle emissions ratios for the contaminant versus benzo(a)pyrene was used for scaling.

A10-3: Wayne County: Michigan

The US EPA AirData website (http://www.epa.gov/air/data/) provides publicly accessible air pollution data for the United States. AirData presents annual summaries of air pollution data from two EPA databases; the Air Quality System (AQS) database and the National Emission Inventory (NEI) database. The NEI was used to provide the annual regional emissions for Wayne County, Michigan.

The NEI database contains information for sources that emit Criteria Air Pollutants (CAPs) and Hazardous Air Pollutants (HAPs). The database provides annual air pollutant emission estimates on both the state and county level for point, non-point and mobile sources.

There are six CAPs that have health-based standards set by the US EPA. NEI provides information on four of these substances; carbon monoxide, nitrogen oxides and particulate matter as PM_{10} and $PM_{2.5}$. Ozone, one of the two remaining CAPs, is not included in CAP database. The NEI also includes emission data for volatile organic compounds as these substances enable the formation of CAPs.

The NEI database provides annual CAP emission estimates on the county and state level for years 1990 through 2001. In 2002, the NEI was replaced by two separate EPA databases for emissions of criteria air pollutants (National Emission Trends, or NET) and hazardous air pollutants (National Toxics Inventory, or NTI). However, these new databases don't provide a breakdown of emissions on the county level.

HAPs are substances that are known or suspected to cause serious health problems such as cancer. NEI provides emission data for 181 individual compounds, the sum of all 188 US EPA designated HAPs and the sum of all 33 US EPA designated Urban HAPs. The NEI provides HAPs emission estimates for 1999 on the county and state level for all types of sources.

Greenhouse gas emission estimates were not publicly accessible on the county level. However, a Michigan Department of Environmental Quality report entitled "Michigan Greenhouse Gas Inventory 1990 and 2002" provided emission estimates for carbon dioxide, methane and nitrous oxide on the state level. In order to provide an approximate Wayne County value for greenhouse gases, the ratio of the nitrogen oxides emissions in Wayne County versus the nitrogen oxides emission in Michigan was determined using the NEI database 2001 CAP emission estimates. It was determined that approximately 15% of Michigan's nitrogen oxides emissions were produced in Wayne County.

The greenhouse gas emissions published in the Michigan Department of Environmental Quality report were reported as carbon equivalent amounts. Carbon dioxide, methane and nitrous oxide have carbon equivalent factors of 1, 21 and 310, respectively. The published emissions for 2002 were converted from carbon equivalent metric tonnes to metric tonnes and multiplied by 15% to obtain an estimate of the greenhouse gases produced by Wayne County.

Benzo(a)pyrene emission estimates were not publicly accessible on the county. A Great Lakes Commission report entitled "Assessment of Benzo(a)pyrene Air Emissions in the Great Lakes Region" provided emission estimates for Michigan State. The published emissions for 2002 were also multiplied by 15% to obtain an estimate of benzo(a)pyrene emissions for Wayne County.

APPENDIX 11

Dispersion Modelling
(32 pages)

Air dispersion modeling analysis was performed to assess the impact of vehicular emissions, road dust and emissions from the construction activities, on the air quality for various emission scenarios. The US EPA CAL3QHCR model was employed to assess the impact of vehicular emissions and road dust on the air quality. The US EPA AERMOD model was used to assess the impact of emissions resulting from the construction activities. The ground-level ozone production was assessed using the Ozone Isopleth Method, as described in Appendix 12. The air dispersion modeling analysis was based on the Air Dispersion Modelling Guideline for Ontario (ADMGO), version 1, July 2005.

A11-1: Selection of Air Dispersion Models

The revised EA Guideline states *"Dispersion modeling should be undertaken using a recognized model (such as the US EPA's CAL3QHCR) for each of the pollutants identified..."*

CAL3QHCR is a more refined version based on CAL3QHC that requires local meteorological data. CAL3QHC is a CALINE3 based CO model with queuing and hot spot calculations and with a traffic model to calculate delays and queues that occur at signalized intersections. It is one of the preferred / recommended models by the US EPA. It is also one of the acceptable alternative models, particularly recommended for modeling of intersections, in the ADMGO. Accordingly, the CAL3QHCR model was selected to assess the impact of emissions, except those resulting from the construction activities, on the air quality.

AERMOD is a steady-state plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain. It is one of the preferred / recommended models by the US EPA, and one of the approved dispersion models by the MOE. It's flexibility in handling variable emissions makes it a suitable model for simulating the dispersions of emissions from construction activities.

A11-2: CAL3QHCR Model

CAL3QHCR is an enhanced, but separate, version of CAL3QHC. CAL3QHCR has been programmed to process up to a year of hourly meteorological data (MET), and vehicular emissions, traffic and signalization (ETS) data in one run using the basic algorithms from CAL3QHC. CAL3QHCR calculates 1-hour and running 8-hour average concentrations when run in carbon monoxide (CO) mode or 24-hour and annual block averaged concentrations when run particulate matter (PM) mode.

Flexibility has been built into CAL3QHCR to allow a two tired approach. In the first approach, called Tier 1, a full year of hourly MET data are entered into CAL3QHCR, along with one hour of ETS data reflective of peak hourly traffic flow as discussed in Appendix 3. In the second approach, called Tier 2, the same MET data as used in Tier 1 approach are entered into the model. The EST data however, are more detailed and reflect traffic conditions for each hour of a week. The refined Tier 2 hourly traffic flow is discussed in Appendix 3. CAL3QHCR is capable of reading up to 7 sets of hourly ETS data to form diurnal patterns (one for each day of the week).

There are four major types of data sets that have to be prepared before using the CAL3QHCR model. These data sets contain the Site Geometry, ETS, MET and the input control data as described below.

A11-2-1: Site Geometry

Site geometry refers to data related to roadway links and receptors. CAL3QHCR permits the specification of up to 120 roadway links and 60 receptor locations within an XYZ plane.

All roadway links and receptors are defined in UTM projection (NAD83).

For this project, more than 100 links were defined for modeling analysis as detailed in Tables A11-1 to A11-5 and shown in Figure A11-1, for the Local Study Area. The total number of links remained the same for all emission scenarios, but the beginning points and end points are different to simulate the different queue lengths and locations for both the existing and new bridge. The modeling scenario 2021 (B) assesses both the existing bridge and future bridge operation and as such contains an additional 16 links to for this reason.

For the assessment of Area B, a total of 39 links were defined as detailed in Table A11-6 and Table A11-7 and shown Figure A11-2.

The roadway links and receptors are described in more detail below.

A11-2-1-1: Roadway Links

Links are defined as straight-line segments. A link can be specified as either a free flow link or a queue link. The program automatically sums the contributions from each link to each receptor.

Free Flow Links

A free flow link is defined as a straight segment of roadway having a constant width, height, traffic flow, travel speed, and vehicle emission factor. The location of the link is specified by its end point coordinates, XL1, YL1, and XL2, YL2.

Link width, or mixing zone width (WL) is defined as the width of the traveled roadway (lanes of moving traffic only) plus 3 meters on each side to account for the dispersion of the plume generated by the wake of moving vehicles. For this project, the width of a single lane was set at 3 meters. For the new bridge, the lane width was set at 3.5 meters.

Link height (HL) can be elevated or depressed, but is limited within +10 m for elevated links and -10 m for depressed links. For this project, only the bridge was assumed to be elevated (Bridge), all other roadways included in the study area were assumed to be at grade (i.e., the height is zero meters). On each side of the bridge, the link height on a sloping up section was set at 5 m above grade and on the remaining section of the bridge was set at 10 m above grade. This will result in a conservative assessment as the elevation of a significant portion of the existing and new bridge is considerably greater than 10 m above grade.

The queuing vehicles on the bridge and inspection plaza were simulated as free flow links using the emission factor at 2.5 miles per hour derived by the MOBILE6.2C.

Queue Links

A queue link is defined as a straight segment of roadway with a constant width and vehicle emission factor, on which vehicles are idling for a specified period of time. The location of a queue link is determined by its beginning point (i.e., XL1, YL1 coordinates of the locations at which vehicles start queuing at an intersection "stopping line") and an end point (i.e., XL2, YL2 coordinates of any point along the line where the queue is forming). The purpose of specifying a queue link end point is to specify the direction of the queue, and also the maximum queue length for that segment. The actual length of the queue is estimated by CAL3QHCR based on the traffic flow and the capacity of the approach.

Queue link width is determined by the width of the traveled roadway only (width of the lanes on which vehicles are idling). Three meters are not added on each side to account for the mixing zone as for free flow links since vehicles are not moving and no wake is generated. Similarly to the free flow links, the width of a single lane was assumed to be 3 meters and 3.5 meters for the new bridge.

A11-2-1-2: Receptors

Virtual receptor locations are specified in terms of X, Y, and Z coordinates. The virtual receptors are located outside the "mixing zone" of the free flow links. The mixing zone is considered to be the area of uniform emissions but with turbulent air flow extending 3 meters on either side of the edge of the road for free flow links.

In consideration of the limit of 60 receptors imposed by CAL3QHCR, the virtual receptor grid was set up on approximately parallel lines with the following densities:

- about 10 m away from the edge of the mixing zone (i.e. about 13 m from the edge of the road), and then every 50 m extending out to approximately 300 m;
- approximately 50 m spacing along Huron Church Road and the bridge, increased to about 100 m spacing and placed in the middle along uniform links; and
- residences at the University of Windsor.

All the receptors were entered at an assigned breathing height of 1.8 m above grade, except for the residences at the University of Windsor which were assumed to be at 10 m above grade, the same height as the link height used for bridge.

Within the Local Study Area, a total of 903 receptors were entered for the existing bridge, as shown in Figure A11-1. For the new bridge, a total of 890 receptors were entered.

Within the section of Area B considered in the initial analysis, a total of 693 receptors were used, as shown in Figure A11-2.

Because of the limitation of 60 receptors, the CAL3QHCR model with all links, was run for groups of 60 receptors. The results were then merged together for all the receptors.

A11-2-2: Emissions, Traffic and Signalization Data (ETS)

Separate emissions estimates must be provided as input data for each free flow and queue link. Emissions from vehicles traveling on a free flow link are calculated using the composite emission factor for the length of the link. When vehicles are idling at an intersection, emissions are calculated using the idle emission rate for the duration of the idling time.

A11-2-2-1: ETS for Free Flow Links

Vehicles are assumed to be traveling without delay along free flow links. The ETS input for a free flow link includes the emission factor (g/mile) and traffic flow (vehicles/hour). The emission factor depends on the traffic speed (miles/hour). The traffic speed for each free flow link used for this project was based on the posted speed limits rounded down to the closest speed bin used in the MOBILE 6.2C, as shown in Tables A11-8 and A11-9.

The emission factors (representing the maximum emission factor for summer or winter) used for each link for the different emission scenarios are tabulated in Tables A11-8 and A11-9, for the Local Study Area and Area B, respectively.

The peak traffic flow for each free flow link is tabulated in Tables A11-1 through A11-7.

A11-2-2-2: ETS for Queue Links

The ETS input for a queue link includes:

- idling emission rate (g/hour);
- traffic flow (vehicles/hour);
- average signal cycle length (seconds);
- average red light time length (seconds);
- clearance lost time (seconds);
- saturation flow (vehicles/hour);
- signal type (pre-timed, actuated, or semi-actuated); and
- arrival rate (worst, below average, average, above average, best progression).

For the Tier 2 analysis, a pattern consisting of 24 hours of hourly ETS data is required. CAL3QHCR is capable of processing up to 7 patterns, one for each day of the week. The analysis utilizes the same traffic one week patterns throughout the year or the period of the time being modeled.

The idling emission rate for a queue link is calculated by:

Idle emission rate (g/hour) = emission factor (g/mile) @ 2.5 mph x 2.5 mph

The other input parameters at peak traffic flow are presented in Tables A11-1 through A11-7.

Detailed ETS pattern is discussed in Appendix 3.

A11-2-3: Meteorological Data (MET)

A 5-year meteorological data set (2002-2006) was provided by the MOE (Air Modelling and Emissions Unit). The CAL3QHCR was run for the consecutive 5 years for CO for the present (baseline) emission scenario, with the year that predicted the highest CO concentrations (2005) selected for subsequent model runs. The details are described in Appendix 6.

A11-2-4: Input Control Data

The main input control data includes:

- Run averaging time (minutes) – 60-minute was used in this project;
- Roughness length (cm) – 400 cm used for Local Study Area and 100 cm used for Area B;
- Settling velocity (cm/s) – set to 0.0 cm/s for this project;
- Deposition velocity (cm/s) – set to 0.0 cm/s for this project;
- Rural (R)/Urban (U) switch – Urban was used for both study areas;
- Pollutant type – the model was run in PM mode for all pollutants of interest except CO and VOC (non-methane hydrocarbon) which were modeled in CO mode;
- Output unit (meter or feet) – meter was used for this project; and
- Meteorological data - as described in Appendix 6.

A11-3: AERMOD

AERMOD is a steady-state plume model, formulated based on the "state-of-science" modeling platform. It is applicable to rural and urban areas, flat and complex terrain, surface and elevated releases, and multiple sources (including point, area and volume sources).

In the stable boundary layer, the concentration distribution is assumed to be Gaussian in both the vertical and horizontal dimensions. In the convective boundary, the horizontal distribution is assumed to be Gaussian, but the vertical distribution is described with a bi-Gaussian probability density function. One of the major improvements that AERMOD brings to applied dispersion modelling is its ability to characterize the Planetary Boundary Layer (PBL) through both surface and mixed layer scalings based on measurements and extrapolation of those measurements using similarity theory. Additionally, AERMOD treats the penetration of the plume into the top of PBL and re-entering of plume back to PBL when and if appropriate.

AERMOD also incorporates the two fundamental features associated with the building downwash: enhanced plume dispersion coefficients due to the turbulent wake and reduced plume rise caused by a combination of the descending streamlines in the lee of the building and the increased entrainment in the wake. It addresses the entire structure of the wake from the cavity immediately downwind of the building to the far wake.

A11-3-1: Air Dispersion Model Options

A11-3-1-1: Model Selection

The most recent version of the AERMOD model (Version 07026) was used.

A11-3-1-2: Regulatory Options

The default regulatory options were selected for the dispersion modelling run.

A11-3-1-3: Dispersion Coefficients

The Auer land-use approach as per the USEPA guideline was used to determine the urban versus rural dispersion options for the construction site. Over 50% of the land use is classified as urban, the 'urban' dispersion coefficients therefore, were selected.

A11-3-2*: Coordinate System*

The Universal Transverse Mercator (UTM) projection (NAD 83, Zone 17) was used as the coordinate system for defining all model objects.

A11-3-3: Source Information

A11-3-3-1: Source Summary

Construction activities span over the construction sites. All the emissions were modeled as two lines sources, one representing the construction activities on the land and the other representing the construction activities on the river (i.e. barges). The modelling input parameters are listed in Table A11-10.

The constructions activities were assumed to occur between 7:00 am and 5:00 pm, on Monday through Friday.

A11-3-3-2: Building Downwash

Because all the emissions were modeled as line sources, no building downwash was considered.

A11-3-4: Receptor Information

The following virtual receptor grid layout, as shown in Figure A11-3, was used in the dispersion modelling:

- 10 m spacing along the property line;
- 20 m spacing within 200 m of the property line;
- 50 m spacing from 200-300 m;

Because the emissions from construction activities are predominantly ground based low release sources, all virtual receptors were set to 1.8 m above grade consistent with CAL3QHCR modeling. The impact on elevated receptors would be lower than that predicted for the 1.8 m receptors.

A11-3-5: Terrain Conditions

The United States Geographical Service (USGS) 7.5-minute Ontario data set was used as digital terrain input to the AERMAP processor used with AERMOD.

The US EPA recommended elevation data import technique was used to import the elevations for receptors and sources.

A11-3-6: Meteorological Data

The processing of the meteorological data is discussed in Appendix 6.

A11-4: Benchmarking

The highest concentrations at various averaging time periods calculated by CAL3QHCR were taken as the designed concentrations for comparing with standards. Elimination of the single highest 24-hour concentration and the 8 highest 1-hour concentrations for each year of meteorological data as allowed by the ADMGO was not practical due to the format of the output from the CAL3QHCR model.

The highest 24-hour average predicted concentrations and the 8 highest 1-hour average predicted concentrations in each single meteorological year were eliminated from the AERMOD modelling results as per the ADMGO (Section 6.6).

For construction activities, AERMOD was run for NO_X. The predicted maximum concentrations for other pollutants of interest were calculated based on the dispersion factors derived for NO_X.

For the 2011 emission scenario, with both construction activities (AEREMOD) and vehicle traffic on the existing bridge (CAL3QHCR) were considered. The maximum concentrations were predicted by taking the higher of the following:

- maximum concentration predicted by AERMOD plus the maximum concentration predicted by CAL3QHCR at the receptor of the maximum concentration predicted by AERMOD; and
- maximum concentration predicted by CAL3QHCR plus the maximum concentration predicted by AERMOD at the receptor of the maximum concentration predicted by CAL3QHCR.

A11-5: Modelling Results

A11-5-1: Modelling Results in Local Study Area

Table A11-11 to A11-16 summarizes the modeling results (maximum concentrations) for different emission scenarios in Local Study Area.

A11-5-2: Modelling Results in Area B

The assessment of Area B included NO_X, PM_{10} and $PM_{2.5}$ for the present (baseline) and 2021(A) emission scenarios. All other pollutants of interest were predicted to be well below the air quality criteria throughout the Local Study Area and as such a detailed modeling analysis for parameters other than NO_X, PM_{10} and $PM_{2.5}$ was not warranted.

Area B was selected to assess the potential for impacts from the project within this area. Within the area there are significant changes in the physical road and traffic flow conditions along this stretch of Huron Church Road. The sub-section was selected to include the transition in Huron Church Road from 3 lanes in each direction north of Cabana Road W (speed limit 60 km/h) to 2 lanes in each direction south of Cabana Road W (speed limit 80 km/h). Although traffic flow is less that that experienced in the Local Study Area, traditionally the Huron Church Road and Cabana Road intersection experiences congestion.

Table A11-1: Link Parameters and Peak Traffic Flow for Present (Baseline) Emission Scenario in Local Study Area

CAL3QHCR - Link Parameters (METERS) for 2004

Variabl	Type	Unit	Description
LNK=	Character	na	Link ID (up to 20 characters)
TYP=	Character	na	Link Type: AG = at grade, FL = fill, BR = bridge, DP = depressed
XL1=	Real	Meters	X coordinate for Endpoint 1 at intersection stopping line
YL1=	Real	Meters	Y coordinate for Endpoint 1 at intersection stopping line
XL2=	Real	Meters	X coordinate for Endpoint 2
YL2=	Real	Meters	Y coordinate for Endpoint 2
HL=	Real	Meters	Source height
WL=	Real	Meters	Mixing zone width
VPHL=	Real	vehicle/hour	Traffic volume for free flow links and approach traffic volume for queue links
NLANE	Integer	na	Number of travel lanes in queue link
CAVG	Integer	Seconds	Average total signal cycle length
RAVG	Integer	Seconds	Average red total signal cycle length
YFAC	Real	Seconds	Clearance lost time (portion of the yellow phase that is not used by motorist)
SFR=	Interger	vehicle/hour-lane	Saturation flow rate [vehicles per hour of effective green time]
ST=	Integer	na	Traffic signal type [pretimed (=1), actuated (=2), or semiactuated (=3)]
AT=	Integer	na	Arrival type of vehicle platoon [worst (=1) through most favorable (=5)]
DESCR	Character	na	Link description

LNK	TYP	XL1	YL1	XL2	YL2	HL	WL	VPHL	NLANES	CAVG	RAVG	YFAC	SFR	ST	AT	DESCRIP
1	AG	330921	4682388	330561	4683201	0	15	1340								NB Sect 100
2	AG	330566	4683186	330914	4682406	0	9	1340	3	110	49	4	1750	2	3	NB Sect 100Q
3	AG	330553	4683195	330912	4682387	0	15	2027								SB Sect 100
4	AG	330905	4682404	330557	4683184	0	9	2027	3	110	49	4	1750	2	3	SB Sect 100Q
5	AG	331250	4682322	330922	4682387	0	9	191								WWB Sect100
6	AG	330937	4682384	331250	4682322	0	3	174	1	110	86	4	1750	2	3	EWB Sect100Q
7	AG	330500	4682385	330915	4682384	0	9	184								WEB Sect 100
8	AG	330898	4682384	330500	4682385	0	3	184	1	110	86	4	1750	2	3	WEB Sect100Q
9	AG	330562	4683198	330413	4683549	0	15	1373								NB Sect 90
10	AG	330420	4683533	330550	4683229	0	9	1373	3	110	48	4	1750	2	3	NB Sect 90Q
11	AG	330403	4683546	330552	4683195	0	15	1933								SB Sect 90
12	AG	330540	4683225	330410	4683530	0	9	1933	3	110	48	4	1750	2	3	SB Sect 90Q
13	AG	330644	4683242	330557	4683210	0	9	227								EWB Sect 90
14	AG	330572	4683215	330643	4683242	0	3	227	1	110	86	4	1750	2	3	EWB Sect 90Q
15	AG	330352	4683115	330553	4683199	0	9	281								WEB Sect 90
16	AG	330535	4683192	330352	4683115	0	3	281	1	110	86	4	1750	2	3	WEB Sect 90Q
17	AG	330412	4683551	330330	4683763	0	15	1194								NB Sect 80
18	AG	330335	4683752	330403	4683573	0	9	1194	3	110	50	4	1750	2	3	NB Sect 80Q
19	AG	330319	4683759	330401	4683547	0	15	1876								SB Sect 80
20	AG	330392	4683570	330321	4683749	0	9	1876	3	110	50	4	1750	2	3	SB Sect 80Q
21	AG	330671	4683667	330415	4683553	0	9	139								EWB Sect 80
22	AG	330424	4683557	330667	4683665	0	3	139	1	110	84	4	1750	2	3	EWB Sect 80Q
23	AG	330158	4683580	330403	4683539	0	9	77								WEB Sect 80
24	AG	330387	4683542	330158	4683580	0	3	77	1	110	84	4	1750	2	3	WEB Sect 80Q
25	AG	330329	4683764	330206	4684041	0	15	1136								NB Sect 70
26	AG	330218	4684014	330311	4683797	0	9	1136	3	110	50	4	1750	2	3	NB Sect 70Q
27	AG	330192	4684037	330315	4683760	0	15	1780								SB Sect 70
28	AG	330300	4683792	330207	4684009	0	9	1780	3	110	50	4	1750	2	3	SB Sect 70Q
29	AG	330399	4683811	330328	4683776	0	9	149								EWB Sect 70
30	AG	330332	4683779	330401	4683811	0	3	149	1	110	83	4	1750	2	3	EWB Sect 70Q
31	AG	330222	4683698	330322	4683762	0	9	52								WEB Sect 70
32	AG	330306	4683751	330222	4683698	0	3	52	1	110	83	4	1750	2	3	WEB Sect 70Q
33	AG	330205	4684042	329972	4684576	0	15	1072								NB Sect 50
34	AG	329982	4684551	330193	4684067	0	9	1072	3	110	72	4	1750	1	1	NB Sect 50Q
35	AG	329959	4684571	330192	4684037	0	15	1743								SB Sect 50
36	AG	330180	4684063	329969	4684547	0	9	1743	3	110	72	4	1750	1	1	SB Sect 50Q
37	AG	330451	4684163	330197	4684046	0	12	551								EWB Sect 50
38	AG	330227	4684059	330451	4684163	0	6	551	2	110	75	4	1750	1	1	EWB Sect 50Q
39	AG	329902	4683911	330199	4684039	0	12	376								WEB Sect 50
40	AG	330174	4684029	329902	4683911	0	6	376	2	110	75	4	1750	1	1	WEB Sect 50Q
41	AG	329971	4684576	329791	4684994	0	15	1040								NB Sect 30
42	AG	329805	4684959	329962	4684599	0	9	1040	3	110	50	4	1750	2	3	NB Sect 30Q
43	AG	329777	4684984	329957	4684566	0	15	1819								SB Sect 30
44	AG	329948	4684593	329791	4684953	0	9	1819	3	110	50	4	1750	2	3	SB Sect 30Q
45	AG	329678	4684431	329966	4684573	0	9	37								WEB Sect 30
46	AG	329946	4684563	329678	4684431	0	3	37	1	110	84	4	1750	2	3	WEB Sect 30Q
47	AG	330027	4685146	329785	4684998	0	9	316								EWB Sect 10
48	AG	329801	4685007	330025	4685146	0	3	316	1	110	84	4	1750	2	3	EWB Sect 10Q
49	AG	329508	4684821	329786	4684991	0	12	265								WEB Sect 10
50	AG	329759	4684974	329508	4684821	0	12	265	4	130	82	4	1750	2	3	WEB Sect 10Q
51	AG	329791	4684994	329767	4685077	0	12	886								passing canadian plaza (NB) no stop 1
52	AG	329767	4685077	329859	4685193	0	12	886								passing canadian plaza (NB) no stop 2
53	AG	329859	4685193	329769	4685361	0	12	886								passing canadian plaza (NB) no stop 3
54	AG	329769	4685361	329601	4685375	0	12	886								passing canadian plaza (NB) no stop 4
55	BR	329601	4685375	329474	4685649	5	12	886								bridge NB (sloping up)
56	BR	329474	4685648	329056	4686518	10	12	886								bridge NB elevated section (canada)
57	BR	329056	4686518	328794	4687069	10	12	886								bridge NB elevated section (US)
58	BR	328794	4687068	328751	4687152	10	12	886								bridge NB slopdown 1
59	BR	328751	4687152	328668	4687233	10	12	886								bridge NB slopdown 2
60	BR	328668	4687233	328609	4687350	10	12	886								bridge NB slopdown 3
61	BR	328609	4687349	328564	4687450	5	12	886								bridge NB sloping down 4
62	AG	328564	4687451	328532	4687643	0	30	886								US plaza for NB inspection
63	AG	328448	4687617	328542	4687444	0	15	1839								SB starts
64	BR	328543	4687443	328596	4687342	5	12	1839								after US Palaza SB, sloping up
65	BR	328596	4687343	328661	4687216	10	12	1839								bridge SB elevated section 1
66	BR	328661	4687216	328741	4687136	10	12	1839								bridge SB elevated section 2
67	BR	328741	4687136	329049	4686494	10	12	1839								bridge SB elevated section (end of US)
68	BR	329049	4686494	329459	4685640	10	12	1839								bridge SB elevated (Canada)
69	BR	329460	4685640	329593	4685357	5	12	1839								bridge SB sloping down
70	AG	329594	4685356	329756	4685248	0	30	1839								Canadian plaza for SB inspection
71	AG	329756	4685247	329714	4685135	0	12	1839								After Canadian plaza inspection to SB Sect 10
72	AG	329714	4685135	329778	4684984	0	12	1839								After Canadian plaza inspection SB to Sect 10
73	AG	329769	4685002	329714	4685134	0	9	811	3	110	54	4	1750	2	3	SB Sect 10Q 1
74	AG	329714	4685134	329756	4685247	0	9	811	3	110	54	4	1750	2	3	SB Sect 10Q 2
75	AG	329773	4684989	329505	4684827	0	9	260								WWB SECT 10
76	AG	329507	4684828	329758	4684980	0	3	260	1	110	82	4	1750	2	3	WWB Sect 10Q
77	AG	329790	4684994	330030	4685142	0	12	401								EEB SECT 10
78	AG	330029	4685142	329803	4685003	0	6	401	2	110	82	4	1750	2	3	EEB SECT 10Q
79	AG	330185	4684041	329901	4683917	0	12	370								WWB SECT 50
80	AG	329905	4683919	330172	4684035	0	6	370	2	110	75	4	1750	1	1	WWB SECT 50Q
81	AG	330205	4684043	330454	4684158	0	12	619								EEB SECT 50
82	AG	330453	4684158	330229	4684054	0	6	619	2	110	75	4	1750	1	1	EEB SECT 50Q
83	AG	330311	4683761	330220	4683702	0	9	86								WWB SECT 70
84	AG	330304	4683756	330221	4683704	0	3	86	1	110	83	4	1750	2	3	WWB SECT 70Q
85	AG	330329	4683769	330402	4683804	0	9	105								EEB SECT 70
86	AG	330400	4683804	330336	4683772	0	3	105	1	110	83	4	1750	2	3	EEB SECT 70Q
87	AG	330398	4683547	330158	4683585	0	9	99								WWB SECT 80
88	AG	330160	4683585	330387	4683548	0	3	99	1	110	84	4	1750	2	3	WWB SECT 80Q
89	AG	330416	4683549	330674	4683664	0	9	174								EEB SECT 80
90	AG	330669	4683662	330425	4683553	0	3	174	1	110	84	4	1750	2	3	EEB SECT 80Q
91	AG	330544	4683203	330351	4683122	0	9	396								WWB SECT 90
92	AG	330351	4683123	330533	4683199	0	3	396	1	110	86	4	1750	2	3	WWB SECT 90Q
93	AG	330560	4683204	330646	4683237	0	9	169								EEB SECT 90
94	AG	330644	4683237	330574	4683209	0	3	169	1	110	86	4	1750	2	3	EEB SECT 90Q
95	AG	330903	4682390	330499	4682390	0	9	191								WWB SECT100
96	AG	330505	4682390	330897	4682390	0	3	191	1	110	86	4	1750	2	3	WWB SECT100Q
97	AG	330921	4682384	331247	4682319	0	9	73								EEB SECT100
98	AG	331238	4682321	330937	4682381	0	3	73	1	110	86	4	1750	2	3	EEB SECT100Q
99	AG	329950	4684570	329676	4684435	0	9	116								WWB SECT 30
100	AG	329945	4684567	329678	4684437	0	3	116	1	110	84	4	1750	2	3	WWB SECT 30Q

Table A11-2: Link Parameters and Peak Traffic Flow for 2011 Emission Scenario in Local Study Area

CAL3QHCR - Link Parameters (METERS) for 2011

Variabl	Type	Unit	Description
LNK=	Character	na	Link ID (up to 20 characters)
TYP=	Character	na	Link Type: AG = at grade, FL = fill, BR = bridge, DP = depressed
XL1=	Real	Meters	X coordinate for Endpoint 1 at intersection stopping line
YL1=	Real	Meters	Y coordinate for Endpoint 1 at intersection stopping line
XL2=	Real	Meters	X coordinate for Endpoint 2
YL2=	Real	Meters	Y coordinate for Endpoint 2
HL=	Real	Meters	Source height
WL=	Real	Meters	Mixing zone width
VPHL=	Real	vehicle/hour	Traffic volume for free flow links and approach traffic volume for queue links
EFL=	Real	gram/vehicle-mile	Free flow emission factor
EFL_Q:	Real	grams/vehicle-hour	Idle emission factor for queue links
NLANE	Integer	na	Number of travel lanes in queue link
CAVG	Integer	Seconds	Average total signal cycle length
RAVG	Integer	Seconds	Average red total signal cycle length
YFAC	Real	Seconds	Clearance lost time (portion of the yellow phase that is not used by motorist)
SFR=	Interger	vehicle/hour-lane	Saturation flow rate [vehicles per hour of effective green time]
ST=	Integer	na	Traffic signal type [pretimed (=1), actuated (=2), or semiactuated (=3)]
AT=	Integer	na	Arrival type of vehicle platoon [worst (=1) through most favorable (=5)]
DESCR	Character	na	Link description

LNK	TYP	XL1	YL1	XL2	YL2	HL	WL	VPHL	NLANES	CAVG	RAVG	YFAC	SFR	ST	AT	DESCRIP
1	AG	330921	4682388	330561	4683201	0	15	1497								NB Sect 100
2	AG	330566	4683186	330914	4682406	0	9	1497	3	110	49	4	1750	2	3	NB Sect 100Q
3	AG	330553	4683195	330912	4682387	0	15	2220								SB Sect 100
4	AG	330905	4682404	330557	4683184	0	9	2220	3	110	49	4	1750	2	3	SB Sect 100Q
5	AG	331250	4682322	330922	4682387	0	9	213								WWB Sect100
6	AG	330937	4682384	331250	4682322	0	3	193	1	110	86	4	1750	2	3	EWB Sect100Q
7	AG	330500	4682385	330915	4682384	0	9	205								WEB Sect 100
8	AG	330898	4682384	330500	4682385	0	3	205	1	110	86	4	1750	2	3	WEB Sect100Q
9	AG	330562	4683198	330413	4683549	0	15	1534								NB Sect 90
10	AG	330420	4683533	330550	4683229	0	9	1534	3	110	48	4	1750	2	3	NB Sect 90Q
11	AG	330403	4683546	330552	4683195	0	15	2116								SB Sect 90
12	AG	330540	4683225	330410	4683530	0	9	2116	3	110	48	4	1750	2	3	SB Sect 90Q
13	AG	330644	4683242	330557	4683210	0	9	253								EWB Sect 90
14	AG	330572	4683215	330643	4683242	0	3	253	1	110	86	4	1750	2	3	EWB Sect 90Q
15	AG	330352	4683115	330553	4683199	0	9	313								WEB Sect 90
16	AG	330535	4683192	330352	4683115	0	3	313	1	110	86	4	1750	2	3	WEB Sect 90Q
17	AG	330412	4683551	330330	4683763	0	15	1334								NB Sect 80
18	AG	330335	4683752	330403	4683573	0	9	1334	3	110	50	4	1750	2	3	NB Sect 80Q
19	AG	330319	4683759	330401	4683547	0	15	2055								SB Sect 80
20	AG	330392	4683570	330321	4683749	0	9	2055	3	110	50	4	1750	2	3	SB Sect 80Q
21	AG	330671	4683667	330415	4683553	0	9	155								EWB Sect 80
22	AG	330424	4683557	330667	4683665	0	3	155	1	110	84	4	1750	2	3	EWB Sect 80Q
23	AG	330158	4683580	330403	4683539	0	9	140								WEB Sect 80
24	AG	330387	4683542	330158	4683580	0	3	140	1	110	84	4	1750	2	3	WEB Sect 80Q
25	AG	330329	4683764	330206	4684041	0	15	1269								NB Sect 70
26	AG	330218	4684014	330311	4683797	0	9	1269	3	110	50	4	1750	2	3	NB Sect 70Q
27	AG	330192	4684037	330315	4683760	0	15	1948								SB Sect 70
28	AG	330300	4683792	330207	4684009	0	9	1948	3	110	50	4	1750	2	3	SB Sect 70Q
29	AG	330399	4683811	330328	4683776	0	9	177								EWB Sect 70
30	AG	330332	4683779	330401	4683811	0	3	177	1	110	83	4	1750	2	3	EWB Sect 70Q
31	AG	330222	4683698	330322	4683762	0	9	58								WEB Sect 70
32	AG	330306	4683751	330222	4683698	0	3	58	1	110	83	4	1750	2	3	WEB Sect 70Q
33	AG	330205	4684042	329972	4684576	0	15	1198								NB Sect 50
34	AG	329982	4684551	330193	4684067	0	9	1198	3	110	72	4	1750	1	1	NB Sect 50Q
35	AG	329959	4684571	330192	4684037	0	15	1896								SB Sect 50
36	AG	330180	4684063	329969	4684547	0	9	1896	3	110	72	4	1750	1	1	SB Sect 50Q
37	AG	330451	4684163	330197	4684046	0	12	600								EWB Sect 50
38	AG	330227	4684059	330451	4684163	0	6	600	2	110	75	4	1750	1	1	EWB Sect 50Q
39	AG	329902	4683911	330199	4684039	0	12	419								WEB Sect 50
40	AG	330174	4684029	329902	4683911	0	6	419	2	110	75	4	1750	1	1	WEB Sect 50Q
41	AG	329971	4684576	329791	4684994	0	15	1163								NB Sect 30
42	AG	329805	4684959	329962	4684599	0	9	1163	3	110	50	4	1750	2	3	NB Sect 30Q
43	AG	329777	4684984	329957	4684566	0	15	1990								SB Sect 30
44	AG	329948	4684593	329791	4684953	0	9	1990	3	110	50	4	1750	2	3	SB Sect 30Q
45	AG	329678	4684431	329966	4684573	0	9	41								WEB Sect 30
46	AG	329946	4684563	329678	4684431	0	3	41	1	110	84	4	1750	2	3	WEB Sect 30Q
47	AG	330027	4685146	329785	4684998	0	9	353								EWB Sect 10
48	AG	329801	4685007	330025	4685146	0	3	353	1	110	84	4	1750	2	3	EWB Sect 10Q
49	AG	329508	4684821	329786	4684991	0	12	295								WEB Sect 10
50	AG	329759	4684974	329508	4684821	0	12	295	4	130	82	4	1750	2	3	WEB Sect 10Q
51	AG	329791	4684994	329767	4685077	0	12	990								passing canadian plaza (NB) no stop 1
52	AG	329767	4685077	329859	4685193	0	12	990								passing canadian plaza (NB) no stop 2
53	AG	329859	4685193	329769	4685361	0	12	990								passing canadian plaza (NB) no stop 3
54	AG	329769	4685361	329581	4685377	0	12	990								passing canadian plaza (NB) no stop 4
55	BR	329581	4685377	329455	4685647	5	16	990								bridge NB (sloping up)
56	BR	329455	4685648	329037	4686518	10	16	990								bridge NB elevated section (canada)
57	BR	329036	4686519	328819	4686968	10	16	990								bridge NB elevated section (US)
58	BR	328822	4686962	328735	4687129	10	16	990								bridge NB slopdown 1
59	BR	328734	4687130	328684	4687219	10	16	990								bridge NB slopdown 2
60	BR	328683	4687220	328621	4687335	10	16	990								bridge NB slopdown 3
61	BR	328619	4687336	328566	4687450	5	16	990								bridge NB sloping down 4
62	AG	328564	4687451	328532	4687643	0	30	990								US plaza for NB inspection
63	AG	328444	4687617	328538	4687444	0	16	2013								SB starts
64	BR	328539	4687445	328593	4687339	5	16	2013								after US Palaza SB, sloping up
65	BR	328593	4687338	328659	4687211	10	16	2013								bridge SB elevated section 1
66	BR	328661	4687210	328708	4687132	10	16	2013								bridge SB elevated section 2
67	BR	328709	4687132	329024	4686496	10	16	2013								bridge SB elevated section (end of US)
68	BR	329026	4686494	329308	4685906	10	16	2013								bridge SB elevated (Canada)
69	BR	329307	4685909	329564	4685357	10	16	2013								bridge SB sloping down
70	AG	329565	4685358	329756	4685248	0	30	2013								Canadian plaza for SB inspection
71	AG	329756	4685247	329714	4685135	0	12	2013								After Canadian plaza inspection to SB Sect 10
72	AG	329714	4685135	329778	4684984	0	12	2013								After Canadian plaza inspection SB to Sect 10
73	AG	329769	4685002	329714	4685134	0	9	2091	3	110	54	4	1750	2	3	SB Sect 10Q 1
74	AG	329714	4685134	329756	4685247	0	9	2091	3	110	54	4	1750	2	3	SB Sect 10Q 2
75	AG	329773	4684989	329505	4684827	0	9	290								WWB SECT 10
76	AG	329507	4684828	329758	4684980	0	3	290	1	110	82	4	1750	2	3	WWB Sect 10Q
77	AG	329790	4684994	330030	4685142	0	12	447								EEB SECT 10
78	AG	330029	4685142	329803	4685003	0	6	447	2	110	82	4	1750	2	3	EEB SECT 10Q
79	AG	330185	4684041	329901	4683917	0	12	412								WWB SECT 50
80	AG	329905	4683919	330172	4684035	0	6	412	2	110	75	4	1750	1	1	WWB SECT 50Q
81	AG	330205	4684043	330454	4684158	0	12	690								EEB SECT 50
82	AG	330453	4684158	330229	4684054	0	6	690	2	110	75	4	1750	1	1	EEB SECT 50Q
83	AG	330311	4683761	330220	4683702	0	9	107								WWB SECT 70
84	AG	330304	4683756	330221	4683704	0	3	107	1	110	83	4	1750	2	3	WWB SECT 70Q
85	AG	330329	4683769	330402	4683804	0	9	117								EEB SECT 70
86	AG	330400	4683804	330336	4683772	0	3	117	1	110	83	4	1750	2	3	EEB SECT 70Q
87	AG	330398	4683547	330158	4683585	0	9	131								WWB SECT 80
88	AG	330160	4683585	330387	4683548	0	3	131	1	110	84	4	1750	2	3	WWB SECT 80Q
89	AG	330416	4683549	330674	4683664	0	9	193								EEB SECT 80
90	AG	330669	4683662	330425	4683553	0	3	193	1	110	84	4	1750	2	3	EEB SECT 80Q
91	AG	330544	4683203	330351	4683122	0	9	441								WWB SECT 90
92	AG	330351	4683123	330533	4683199	0	3	441	1	110	86	4	1750	2	3	WWB SECT 90Q
93	AG	330560	4683204	330646	4683237	0	9	223								EEB SECT 90
94	AG	330644	4683237	330574	4683209	0	3	223	1	110	86	4	1750	2	3	EEB SECT 90Q
95	AG	330903	4682390	330499	4682390	0	9	213								WWB SECT100
96	AG	330505	4682390	330897	4682390	0	3	213	1	110	86	4	1750	2	3	WWB SECT100Q
97	AG	330921	4682384	331247	4682319	0	9	81								EEB SECT100
98	AG	331238	4682321	330937	4682381	0	3	81	1	110	86	4	1750	2	3	EEB SECT100Q
99	AG	329950	4684570	329676	4684435	0	9	129								WWB SECT 30
100	AG	329945	4684567	329678	4684437	0	3	129	1	110	84	4	1750	2	3	WWB SECT 30Q

Table A11-4: Link Parameters and Peak Traffic Flow for 2021 (A) Emission Scenario in Local Study Area

CAL3QHCR - Link Parameters (METERS) for 2021

Variabl	Type	Unit	Description
LNK=	Character	na	Link ID (up to 20 characters)
TYP=	Character	na	Link Type: AG = at grade, FL = fill, BR = bridge, DP = depressed
XL1=	Real	Meters	X coordinate for Endpoint 1 at intersection stopping line
YL1=	Real	Meters	Y coordinate for Endpoint 1 at intersection stopping line
XL2=	Real	Meters	X coordinate for Endpoint 2
YL2=	Real	Meters	Y coordinate for Endpoint 2
HL=	Real	Meters	Source height
WL=	Real	Meters	Mixing zone width
VPHL=	Real	vehicle/hour	Traffic volume for free flow links and approach traffic volume for queue links
EFL=	Real	gram/vehicle-mile	Free flow emission factor
EFL_Q	Real	grams/vehicle-hour	Idle emission factor for queue links
NLANE	Integer	na	Number of travel lanes in queue link
CAVG	Integer	Seconds	Average total signal cycle length
RAVG	Integer	Seconds	Average red total signal cycle length
YFAC	Real	Seconds	Clearance lost time (portion of the yellow phase that is not used by motorist)
SFR=	Interger	vehicle/hour-lane	Saturation flow rate [vehicles per hour of effective green time]
ST=	Integer	na	Traffic signal type [pretimed (=1), actuated (=2), or semiactuated (=3)]
AT=	Integer	na	Arrival type of vehicle platoon [worst (=1) through most favorable (=5)]
DESCR	Character	na	Link description

LNK	TYP	XL1	YL1	XL2	YL2	HL	WL	VPHL	NLANES	CAVG	RAVG	YFAC	SFR	ST	AT	DESCRIP
1	AG	330921	4682388	330561	4683201	0	15	2047								NB Sect 100
2	AG	330566	4683186	330914	4682406	0	9	2047	3	110	49	4	1750	2	3	NB Sect 100Q
3	AG	330553	4683195	330912	4682387	0	15	2408								SB Sect 100
4	AG	330905	4682404	330557	4683184	0	9	2408	3	110	49	4	1750	2	3	SB Sect 100Q
5	AG	331250	4682322	330922	4682387	0	9	264								WWB Sect100
6	AG	330937	4682384	331250	4682322	0	3	243	1	110	86	4	1750	2	3	EWB Sect100Q
7	AG	330500	4682385	330915	4682384	0	9	255								WEB Sect 100
8	AG	330898	4682384	330500	4682385	0	3	255	1	110	86	4	1750	2	3	WEB Sect100Q
9	AG	330562	4683198	330413	4683549	0	15	2171								NB Sect 90
10	AG	330420	4683533	330550	4683229	0	9	2171	3	110	48	4	1750	2	3	NB Sect 90Q
11	AG	330403	4683546	330552	4683195	0	15	2297								SB Sect 90
12	AG	330540	4683225	330410	4683530	0	9	2297	3	110	48	4	1750	2	3	SB Sect 90Q
13	AG	330644	4683242	330557	4683210	0	9	307								EWB Sect 90
14	AG	330572	4683215	330643	4683242	0	3	307	1	110	86	4	1750	2	3	EWB Sect 90Q
15	AG	330352	4683115	330553	4683199	0	9	372								WEB Sect 90
16	AG	330535	4683192	330352	4683115	0	3	372	1	110	86	4	1750	2	3	WEB Sect 90Q
17	AG	330412	4683551	330330	4683763	0	15	1880								NB Sect 80
18	AG	330335	4683752	330403	4683573	0	9	1880	3	110	50	4	1750	2	3	NB Sect 80Q
19	AG	330319	4683759	330401	4683547	0	15	2232								SB Sect 80
20	AG	330392	4683570	330321	4683749	0	9	2232	3	110	50	4	1750	2	3	SB Sect 80Q
21	AG	330671	4683667	330415	4683553	0	9	202								EWB Sect 80
22	AG	330424	4683557	330667	4683665	0	3	202	1	110	84	4	1750	2	3	EWB Sect 80Q
23	AG	330158	4683580	330403	4683539	0	9	224								WEB Sect 80
24	AG	330387	4683542	330158	4683580	0	3	224	1	110	84	4	1750	2	3	WEB Sect 80Q
25	AG	330329	4683764	330206	4684041	0	15	1798								NB Sect 70
26	AG	330218	4684014	330311	4683797	0	9	1798	3	110	50	4	1750	2	3	NB Sect 70Q
27	AG	330192	4684037	330315	4683760	0	15	2117								SB Sect 70
28	AG	330300	4683792	330207	4684009	0	9	2117	3	110	50	4	1750	2	3	SB Sect 70Q
29	AG	330399	4683811	330328	4683776	0	9	233								EWB Sect 70
30	AG	330332	4683779	330401	4683811	0	3	233	1	110	83	4	1750	2	3	EWB Sect 70Q
31	AG	330222	4683698	330322	4683762	0	9	96								WEB Sect 70
32	AG	330306	4683751	330222	4683698	0	3	96	1	110	83	4	1750	2	3	WEB Sect 70Q
33	AG	330205	4684042	329972	4684576	0	15	1840								NB Sect 50
34	AG	329982	4684551	330193	4684067	0	9	1840	3	110	72	4	1750	1	1	NB Sect 50Q
35	AG	329959	4684571	330192	4684037	0	15	2052								SB Sect 50
36	AG	330180	4684063	329969	4684547	0	9	2052	3	110	72	4	1750	1	1	SB Sect 50Q
37	AG	330451	4684163	330197	4684046	0	12	674								EWB Sect 50
38	AG	330227	4684059	330451	4684163	0	6	674	2	110	75	4	1750	1	1	EWB Sect 50Q
39	AG	329902	4683911	330199	4684039	0	12	487								WEB Sect 50
40	AG	330174	4684029	329902	4683911	0	6	487	2	110	75	4	1750	1	1	WEB Sect 50Q
41	AG	329971	4684576	329791	4684994	0	15	1830								NB Sect 30
42	AG	329805	4684959	329962	4684599	0	9	1830	3	110	50	4	1750	2	3	NB Sect 30Q
43	AG	329777	4684984	329957	4684566	0	15	2160								SB Sect 30
44	AG	329948	4684593	329791	4684953	0	9	2160	3	110	50	4	1750	2	3	SB Sect 30Q
45	AG	329678	4684431	329966	4684573	0	9	78								WEB Sect 30
46	AG	329946	4684563	329678	4684431	0	3	78	1	110	84	4	1750	2	3	WEB Sect 30Q
47	AG	330027	4685146	329785	4684998	0	9	416								EWB Sect 10
48	AG	329801	4685007	330025	4685146	0	3	416	1	110	84	4	1750	2	3	EWB Sect 10Q
49	AG	329508	4684821	329786	4684991	0	12	353								WEB Sect 10
50	AG	329759	4684974	329508	4684821	0	12	353	4	130	82	4	1750	2	3	WEB Sect 10Q
51	AG	329791	4684994	329767	4685077	0	12	1773								passing canadian plaza (NB) no stop 1
52	AG	329767	4685077	329859	4685193	0	12	1773								passing canadian plaza (NB) no stop 2
53	AG	329859	4685193	329769	4685361	0	12	1773								passing canadian plaza (NB) no stop 3
54	AG	329769	4685361	329581	4685377	0	12	1773								passing canadian plaza (NB) no stop 4
55	BR	329581	4685377	329455	4685647	5	16	1773								bridge NB (sloping up)
56	BR	329455	4685648	329037	4686518	10	16	1773								bridge NB elevated section (canada)
57	BR	329036	4686519	328819	4686968	10	16	1773								bridge NB elevated section (US)
58	BR	328822	4686962	328735	4687129	10	16	1773								bridge NB slopdown 1
59	BR	328734	4687130	328684	4687219	10	16	1773								bridge NB slopdown 2
60	BR	328683	4687220	328621	4687335	10	16	1773								bridge NB slopdown 3
61	BR	328619	4687336	328566	4687450	5	16	1773								bridge NB sloping down 4
62	AG	328564	4687451	328532	4687643	0	30	1773								US plaza for NB inspection
63	AG	328444	4687617	328538	4687444	0	16	2853								SB starts
64	BR	328539	4687445	328593	4687339	5	16	2853								after US Palaza SB, sloping up
65	BR	328593	4687338	328659	4687211	10	16	2853								bridge SB elevated section 1
66	BR	328661	4687210	328708	4687132	10	16	2853								bridge SB elevated section 2
67	BR	328709	4687132	329024	4686496	10	16	2853								bridge SB elevated section (end of US)
68	BR	329026	4686494	329308	4685906	10	16	2853								bridge SB elevated (Canada)
69	BR	329307	4685909	329564	4685357	10	16	2853								bridge SB sloping down
70	AG	329565	4685358	329756	4685248	0	30	2853								Canadian plaza for SB inspection
71	AG	329756	4685247	329714	4685135	0	12	2853								After Canadian plaza inspection to SB Sect 10
72	AG	329714	4685135	329778	4684984	0	12	2853								After Canadian plaza inspection SB to Sect 10
73	AG	329769	4685002	329714	4685134	0	9	2853	3	110	54	4	1750	2	3	SB Sect 10Q 1
74	AG	329714	4685134	329756	4685247	0	9	2853	3	110	54	4	1750	2	3	SB Sect 10Q 2
75	AG	329773	4684989	329505	4684827	0	9	348								WWB SECT 10
76	AG	329507	4684828	329758	4684980	0	3	348	1	110	82	4	1750	2	3	WWB Sect 10Q
77	AG	329790	4684994	330030	4685142	0	12	518								EEB SECT 10
78	AG	330029	4685142	329803	4685003	0	6	518	2	110	82	4	1750	2	3	EEB SECT 10Q
79	AG	330185	4684041	329901	4683917	0	12	480								WWB SECT 50
80	AG	329905	4683919	330172	4684035	0	6	480	2	110	75	4	1750	1	1	WWB SECT 50Q
81	AG	330205	4684043	330454	4684158	0	12	780								EEB SECT 50
82	AG	330453	4684158	330229	4684054	0	6	780	2	110	75	4	1750	1	1	EEB SECT 50Q
83	AG	330311	4683761	330220	4683702	0	9	158								WWB SECT 70
84	AG	330304	4683756	330221	4683704	0	3	158	1	110	83	4	1750	2	3	WWB SECT 70Q
85	AG	330329	4683769	330402	4683804	0	9	161								EEB SECT 70
86	AG	330400	4683804	330336	4683772	0	3	161	1	110	83	4	1750	2	3	EEB SECT 70Q
87	AG	330398	4683547	330158	4683585	0	9	191								WWB SECT 80
88	AG	330160	4683585	330387	4683548	0	3	191	1	110	84	4	1750	2	3	WWB SECT 80Q
89	AG	330416	4683549	330674	4683664	0	9	243								EEB SECT 80
90	AG	330669	4683662	330425	4683553	0	3	243	1	110	84	4	1750	2	3	EEB SECT 80Q
91	AG	330544	4683203	330351	4683122	0	9	511								WWB SECT 90
92	AG	330351	4683123	330533	4683199	0	3	511	1	110	86	4	1750	2	3	WWB SECT 90Q
93	AG	330560	4683204	330646	4683237	0	9	300								EEB SECT 90
94	AG	330644	4683237	330574	4683209	0	3	300	1	110	86	4	1750	2	3	EEB SECT 90Q
95	AG	330903	4682390	330499	4682390	0	9	264								WWB SECT100
96	AG	330505	4682390	330897	4682390	0	3	264	1	110	86	4	1750	2	3	WWB SECT100Q
97	AG	330921	4682384	331247	4682319	0	9	122								EEB SECT100
98	AG	331238	4682321	330937	4682381	0	3	122	1	110	86	4	1750	2	3	EEB SECT100Q
99	AG	329950	4684570	329676	4684435	0	9	174								WWB SECT 30
100	AG	329945	4684567	329678	4684437	0	3	174	1	110	84	4	1750	2	3	WWB SECT 30Q

Table A11-3: Link Parameters and Peak Traffic Flow for 2021 (FDN) Emission Scenario in Local Study Area

CAL3QHCR - Link Parameters (METERS) 2021 Future Do Nothing

Variabl	Type	Unit	Description
LNK=	Character	na	Link ID (up to 20 characters)
TYP=	Character	na	Link Type: AG = at grade, FL = fill, BR = bridge, DP = depressed
XL1=	Real	Meters	X coordinate for Endpoint 1 at intersection stopping line
YL1=	Real	Meters	Y coordinate for Endpoint 1 at intersection stopping line
XL2=	Real	Meters	X coordinate for Endpoint 2
YL2=	Real	Meters	Y coordinate for Endpoint 2
HL=	Real	Meters	Source height
WL=	Real	Meters	Mixing zone width
VPHL=	Real	vehicle/hour	Traffic volume for free flow links and approach traffic volume for queue links
EFL=	Real	gram/vehicle-mile	Free flow emission factor
EFL_Q	Real	grams/vehicle-hour	Idle emission factor for queue links
NLANE	Integer	na	Number of travel lanes in queue link
CAVG	Integer	Seconds	Average total signal cycle length
RAVG	Integer	Seconds	Average red total signal cycle length
YFAC	Real	Seconds	Clearance lost time (portion of the yellow phase that is not used by m
SFR=	Interger	vehicle/hour-lane	Saturation flow rate [vehicles per hour of effective green time]
ST=	Integer	na	Traffic signal type [pretimed (=1), actuated (=2), or semiactuated (=3)]
AT=	Integer	na	Arrival type of vehicle platoon [worst (=1) through most favorable (=5)]
DESCR	Character	na	Link description

LNK	TYP	XL1	YL1	XL2	YL2	HL	WL	VPHL	NLANES	CAVG	RAVG	YFAC	SFR	ST	AT	DESCRIP
1	AG	330921	4682388	330561	4683201	0	15	2047								NB Sect 100
2	AG	330566	4683186	330914	4682406	0	9	2047	3	130	57	4	1750	2	3	NB Sect 100Q
3	AG	330553	4683195	330912	4682387	0	15	2408								SB Sect 100
4	AG	330905	4682404	330557	4683184	0	9	2408	3	130	57	4	1750	2	3	SB Sect 100Q
5	AG	331250	4682322	330922	4682387	0	9	264								WWB Sect100
6	AG	330937	4682384	331250	4682322	0	3	243	1	130	104	4	1750	2	3	EWB Sect100Q
7	AG	330500	4682385	330915	4682384	0	9	255								WEB Sect 100
8	AG	330898	4682384	330500	4682385	0	3	255	1	130	104	4	1750	2	3	WEB Sect100Q
9	AG	330562	4683198	330413	4683549	0	15	2171								NB Sect 90
10	AG	330420	4683533	330550	4683229	0	9	2171	3	130	51	4	1750	2	3	NB Sect 90Q
11	AG	330403	4683546	330552	4683195	0	15	2297								SB Sect 90
12	AG	330540	4683225	330410	4683530	0	9	2297	3	130	51	4	1750	2	3	SB Sect 90Q
13	AG	330644	4683242	330557	4683210	0	9	307								EWB Sect 90
14	AG	330572	4683215	330643	4683242	0	3	307	1	130	103	4	1750	2	3	EWB Sect 90Q
15	AG	330352	4683115	330553	4683199	0	9	372								WEB Sect 90
16	AG	330535	4683192	330352	4683115	0	3	372	1	130	103	4	1750	2	3	WEB Sect 90Q
17	AG	330412	4683551	330330	4683763	0	15	1880								NB Sect 80
18	AG	330335	4683752	330403	4683573	0	9	1880	3	130	52	4	1750	2	3	NB Sect 80Q
19	AG	330319	4683759	330401	4683547	0	15	2232								SB Sect 80
20	AG	330392	4683570	330321	4683749	0	9	2232	3	130	52	4	1750	2	3	SB Sect 80Q
21	AG	330671	4683667	330415	4683553	0	9	202								EWB Sect 80
22	AG	330424	4683557	330667	4683665	0	3	202	1	130	103	4	1750	2	3	EWB Sect 80Q
23	AG	330158	4683580	330403	4683539	0	9	224								WEB Sect 80
24	AG	330387	4683542	330158	4683580	0	3	224	1	130	103	4	1750	2	3	WEB Sect 80Q
25	AG	330329	4683764	330206	4684041	0	15	1798								NB Sect 70
26	AG	330218	4684014	330311	4683797	0	9	1798	3	130	52	4	1750	2	3	NB Sect 70Q
27	AG	330192	4684037	330315	4683760	0	15	2117								SB Sect 70
28	AG	330300	4683792	330207	4684009	0	9	2117	3	130	52	4	1750	2	3	SB Sect 70Q
29	AG	330399	4683811	330328	4683776	0	9	233								EWB Sect 70
30	AG	330332	4683779	330401	4683811	0	3	233	1	130	103	4	1750	2	3	EWB Sect 70Q
31	AG	330222	4683698	330322	4683762	0	9	96								WEB Sect 70
32	AG	330306	4683751	330222	4683698	0	3	96	1	130	103	4	1750	2	3	WEB Sect 70Q
33	AG	330205	4684042	329972	4684576	0	15	1840								NB Sect 50
34	AG	329982	4684551	330193	4684067	0	9	1840	3	130	82	4	1750	1	1	NB Sect 50Q
35	AG	329959	4684571	330192	4684037	0	15	2052								SB Sect 50
36	AG	330180	4684063	329969	4684547	0	9	2052	3	130	82	4	1750	1	1	SB Sect 50Q
37	AG	330451	4684163	330197	4684046	0	12	674								EWB Sect 50
38	AG	330227	4684059	330451	4684163	0	6	674	2	130	94	4	1750	1	1	EWB Sect 50Q
39	AG	329902	4683911	330199	4684039	0	12	487								WEB Sect 50
40	AG	330174	4684029	329902	4683911	0	6	487	2	130	94	4	1750	1	1	WEB Sect 50Q
41	AG	329971	4684576	329791	4684994	0	15	1830								NB Sect 30
42	AG	329805	4684959	329962	4684599	0	9	1830	3	130	55	4	1750	2	3	NB Sect 30Q
43	AG	329777	4684984	329957	4684566	0	15	2160								SB Sect 30
44	AG	329948	4684593	329791	4684953	0	9	2160	3	130	55	4	1750	2	3	SB Sect 30Q
45	AG	329678	4684431	329966	4684573	0	9	78								WEB Sect 30
46	AG	329946	4684563	329678	4684431	0	3	78	1	130	102	4	1750	2	3	WEB Sect 30Q
47	AG	330027	4685146	329785	4684998	0	9	416								EWB Sect 10
48	AG	329801	4685007	330025	4685146	0	3	416	1	130	100	4	1750	2	3	EWB Sect 10Q
49	AG	329508	4684821	329786	4684991	0	12	353								WEB Sect 10
50	AG	329759	4684974	329508	4684821	0	12	353	4	130	100	4	1750	2	3	WEB Sect 10Q
51	AG	329791	4684994	329767	4685077	0	12	1773								passing canadian plaza (NB) no stop 1
52	AG	329767	4685077	329859	4685193	0	12	1773								passing canadian plaza (NB) no stop 2
53	AG	329859	4685193	329769	4685361	0	12	1773								passing canadian plaza (NB) no stop 3
54	AG	329769	4685361	329601	4685375	0	12	1773								passing canadian plaza (NB) no stop 4
55	BR	329601	4685375	329474	4685649	5	12	1773								bridge NB (sloping up)
56	BR	329474	4685648	329056	4686518	10	12	1773								bridge NB elevated section (canada)
57	BR	329056	4686518	328794	4687069	10	12	1773								bridge NB elevated section (US)
58	BR	328794	4687068	328751	4687152	10	12	1773								bridge NB slopdown 1
59	BR	328751	4687152	328668	4687233	10	12	1773								bridge NB slopdown 2
60	BR	328668	4687233	328609	4687350	10	12	1773								bridge NB slopdown 3
61	BR	328609	4687349	328564	4687450	5	12	1773								bridge NB sloping down 4
62	AG	328564	4687451	328532	4687643	0	30	1773								US plaza for NB inspection
63	AG	328448	4687617	328542	4687444	0	15	2853								SB starts
64	BR	328543	4687443	328596	4687342	5	12	2853								after US Palaza SB, sloping up
65	BR	328596	4687343	328661	4687216	10	12	2853								bridge SB elevated section 1
66	BR	328661	4687216	328741	4687136	10	12	2853								bridge SB elevated section 2
67	BR	328741	4687136	329049	4686494	10	12	2853								bridge SB elevated section (end of US)
68	BR	329049	4686494	329459	4685640	10	12	2853								bridge SB elevated (Canada)
69	BR	329460	4685640	329593	4685357	5	12	2853								bridge SB sloping down
70	AG	329594	4685356	329756	4685248	0	30	2853								Canadian plaza for SB inspection
71	AG	329756	4685247	329714	4685135	0	12	2853								After Canadian plaza inspection to SB Sect 10
72	AG	329714	4685135	329778	4684984	0	12	2853								After Canadian plaza inspection SB to Sect 10
73	AG	329769	4685002	329714	4685134	0	9	2853	3	130	59	4	1750	2	3	SB Sect 10Q 1
74	AG	329714	4685134	329756	4685247	0	9	2853	3	130	59	4	1750	2	3	SB Sect 10Q 2
75	AG	329773	4684989	329505	4684827	0	9	348								WWB SECT 10
76	AG	329507	4684828	329758	4684980	0	3	348	1	130	100	4	1750	2	3	WWB Sect 10Q
77	AG	329790	4684994	330030	4685142	0	12	518								EEB SECT 10
78	AG	330029	4685142	329803	4685003	0	6	518	2	130	100	4	1750	2	3	EEB SECT 10Q
79	AG	330185	4684041	329901	4683917	0	12	480								WWB SECT 50
80	AG	329905	4683919	330172	4684035	0	6	480	2	130	94	4	1750	1	1	WWB SECT 50Q
81	AG	330205	4684043	330454	4684158	0	12	780								EEB SECT 50
82	AG	330453	4684158	330229	4684054	0	6	780	2	130	94	4	1750	1	1	EEB SECT 50Q
83	AG	330311	4683761	330220	4683702	0	9	158								WWB SECT 70
84	AG	330304	4683756	330221	4683704	0	3	158	1	130	103	4	1750	2	3	WWB SECT 70Q
85	AG	330329	4683769	330402	4683804	0	9	161								EEB SECT 70
86	AG	330400	4683804	330336	4683772	0	3	161	1	130	103	4	1750	2	3	EEB SECT 70Q
87	AG	330398	4683547	330158	4683585	0	9	191								WWB SECT 80
88	AG	330160	4683585	330387	4683548	0	3	191	1	130	103	4	1750	2	3	WWB SECT 80Q
89	AG	330416	4683549	330674	4683664	0	9	243								EEB SECT 80
90	AG	330669	4683662	330425	4683553	0	3	243	1	130	103	4	1750	2	3	EEB SECT 80Q
91	AG	330544	4683203	330351	4683122	0	9	511								WWB SECT 90
92	AG	330351	4683123	330533	4683199	0	3	511	1	130	103	4	1750	2	3	WWB SECT 90Q
93	AG	330560	4683204	330646	4683237	0	9	300								EEB SECT 90
94	AG	330644	4683237	330574	4683209	0	3	300	1	130	103	4	1750	2	3	EEB SECT 90Q
95	AG	330903	4682390	330499	4682390	0	9	264								WWB SECT100
96	AG	330505	4682390	330897	4682390	0	3	264	1	130	104	4	1750	2	3	WWB SECT100Q
97	AG	330921	4682384	331247	4682319	0	9	122								EEB SECT100
98	AG	331238	4682321	330937	4682381	0	3	122	1	130	104	4	1750	2	3	EEB SECT100Q
99	AG	329950	4684570	329676	4684435	0	9	174								WWB SECT 30
100	AG	329945	4684567	329678	4684437	0	3	174	1	130	102	4	1750	2	3	WWB SECT 30Q

Table A11-5: Link Parameters and Peak Traffic Flow for 2021 (B) Emission Scenario in Local Study Area

CAL3QHCR - Link Parameters (METERS) Two Bridge Operation 2021 (B)

Variabl	Type	Unit	Description
LNK=	Character	na	Link ID (up to 20 characters)
TYP=	Character	na	Link Type: AG = at grade, FL = fill, BR = bridge, DP = depressed
XL1=	Real	Meters	X coordinate for Endpoint 1 at intersection stopping line
YL1=	Real	Meters	Y coordinate for Endpoint 1 at intersection stopping line
XL2=	Real	Meters	X coordinate for Endpoint 2
YL2=	Real	Meters	Y coordinate for Endpoint 2
HL=	Real	Meters	Source height
WL=	Real	Meters	Mixing zone width
VPHL=	Real	vehicle/hour	Traffic volume for free flow links and approach traffic volume for queue links
EFL=	Real	gram/vehicle-mile	Free flow emission factor
EFL_Q	Real	grams/vehicle-hour	Idle emission factor for queue links
NLANE	Integer	na	Number of travel lanes in queue link
CAVG	Integer	Seconds	Average total signal cycle length
RAVG	Integer	Seconds	Average red total signal cycle length
YFAC	Real	Seconds	Clearance lost time (portion of the yellow phase that is not used by m
SFR=	Interger	vehicle/hour-lane	Saturation flow rate [vehicles per hour of effective green time]
ST=	Integer	na	Traffic signal type [pretimed (=1), actuated (=2), or semiactuated (=3)]
AT=	Integer	na	Arrival type of vehicle platoon [worst (=1) through most favorable (=5)]
DESCR	Character	na	Link description

LNK	TYP	XL1	YL1	XL2	YL2	HL	WL	VPHL	NLANES	CAVG	RAVG	YFAC	SFR	ST	AT	DESCRIP
1	AG	330921	4682388	330561	4683201	0	15	2047								NB Sect 100
2	AG	330566	4683186	330914	4682406	0	9	2047	3	110	49	4	1750	2	3	NB Sect 100Q
3	AG	330553	4683195	330912	4682387	0	15	2408								SB Sect 100
4	AG	330905	4682404	330557	4683184	0	9	2408	3	110	49	4	1750	2	3	SB Sect 100Q
5	AG	331250	4682322	330922	4682387	0	9	264								WWB Sect100
6	AG	330937	4682384	331250	4682322	0	3	243	1	110	86	4	1750	2	3	EWB Sect100Q
7	AG	330500	4682385	330915	4682384	0	9	255								WEB Sect 100
8	AG	330898	4682384	330500	4682385	0	3	255	1	110	86	4	1750	2	3	WEB Sect100Q
9	AG	330562	4683198	330413	4683549	0	15	2171								NB Sect 90
10	AG	330420	4683533	330550	4683229	0	9	2171	3	110	48	4	1750	2	3	NB Sect 90Q
11	AG	330403	4683546	330552	4683195	0	15	2297								SB Sect 90
12	AG	330540	4683225	330410	4683530	0	9	2297	3	110	48	4	1750	2	3	SB Sect 90Q
13	AG	330644	4683242	330557	4683210	0	9	307								EWB Sect 90
14	AG	330572	4683215	330643	4683242	0	3	307	1	110	86	4	1750	2	3	EWB Sect 90Q
15	AG	330352	4683115	330553	4683199	0	9	372								WEB Sect 90
16	AG	330535	4683192	330352	4683115	0	3	372	1	110	86	4	1750	2	3	WEB Sect 90Q
17	AG	330412	4683551	330330	4683763	0	15	1880								NB Sect 80
18	AG	330335	4683752	330403	4683573	0	9	1880	3	110	50	4	1750	2	3	NB Sect 80Q
19	AG	330319	4683759	330401	4683547	0	15	2232								SB Sect 80
20	AG	330392	4683570	330321	4683749	0	9	2232	3	110	50	4	1750	2	3	SB Sect 80Q
21	AG	330671	4683667	330415	4683553	0	9	202								EWB Sect 80
22	AG	330424	4683557	330667	4683665	0	3	202	1	110	84	4	1750	2	3	EWB Sect 80Q
23	AG	330158	4683580	330403	4683539	0	9	224								WEB Sect 80
24	AG	330387	4683542	330158	4683580	0	3	224	1	110	84	4	1750	2	3	WEB Sect 80Q
25	AG	330329	4683764	330206	4684041	0	15	1798								NB Sect 70
26	AG	330218	4684014	330311	4683797	0	9	1798	3	110	50	4	1750	2	3	NB Sect 70Q
27	AG	330192	4684037	330315	4683760	0	15	2117								SB Sect 70
28	AG	330300	4683792	330207	4684009	0	9	2117	3	110	50	4	1750	2	3	SB Sect 70Q
29	AG	330399	4683811	330328	4683776	0	9	233								EWB Sect 70
30	AG	330332	4683779	330401	4683811	0	3	233	1	110	83	4	1750	2	3	EWB Sect 70Q
31	AG	330222	4683698	330322	4683762	0	9	96								WEB Sect 70
32	AG	330306	4683751	330222	4683698	0	3	96	1	110	83	4	1750	2	3	WEB Sect 70Q
33	AG	330205	4684042	329972	4684576	0	15	1840								NB Sect 50
34	AG	329982	4684551	330193	4684067	0	9	1840	3	110	72	4	1750	1	1	NB Sect 50Q
35	AG	329959	4684571	330192	4684037	0	15	2052								SB Sect 50
36	AG	330180	4684063	329969	4684547	0	9	2052	3	110	72	4	1750	1	1	SB Sect 50Q
37	AG	330451	4684163	330197	4684046	0	12	674								EWB Sect 50
38	AG	330227	4684059	330451	4684163	0	6	674	2	110	75	4	1750	1	1	EWB Sect 50Q
39	AG	329902	4683911	330199	4684039	0	12	487								WEB Sect 50
40	AG	330174	4684029	329902	4683911	0	6	487	2	110	75	4	1750	1	1	WEB Sect 50Q
41	AG	329971	4684576	329791	4684994	0	15	1830								NB Sect 30
42	AG	329805	4684959	329962	4684599	0	9	1830	3	110	50	4	1750	2	3	NB Sect 30Q
43	AG	329777	4684984	329957	4684566	0	15	2160								SB Sect 30
44	AG	329948	4684593	329791	4684953	0	9	2160	3	110	50	4	1750	2	3	SB Sect 30Q
45	AG	329678	4684431	329966	4684573	0	9	78								WEB Sect 30
46	AG	329946	4684563	329678	4684431	0	3	78	1	110	84	4	1750	2	3	WEB Sect 30Q
47	AG	330027	4685146	329785	4684998	0	9	416								EWB Sect 10
48	AG	329801	4685007	330025	4685146	0	3	416	1	110	84	4	1750	2	3	EWB Sect 10Q
49	AG	329508	4684821	329786	4684991	0	12	353								WEB Sect 10
50	AG	329759	4684974	329508	4684821	0	12	353	4	130	82	4	1750	2	3	WEB Sect 10Q
51	AG	329791	4684994	329767	4685077	0	12	1773								passing canadian plaza (NB) no stop 1
52	AG	329767	4685077	329859	4685193	0	12	1773								passing canadian plaza (NB) no stop 2
53	AG	329859	4685193	329769	4685361	0	12	1773								passing canadian plaza (NB) no stop 3
54	AG	329769	4685361	329566	4685376	0	12	382								passing canadian plaza (NB) no stop 4
55	BR	329566	4685376	329437	4685644	5	16	382								bridge NB (sloping up)
56	BR	329437	4685644	329018	4686515	10	16	382								bridge NB elevated section (canada)
57	BR	329018	4686515	328800	4686965	10	16	382								bridge NB elevated section (US)
58	BR	328800	4686965	328712	4687133	10	16	382								bridge NB slopdown 1
59	BR	328712	4687133	328684	4687219	10	16	382								bridge NB slopdown 2
60	BR	328684	4687219	328621	4687335	10	16	382								bridge NB slopdown 3
61	BR	328619	4687336	328566	4687450	5	16	382								bridge NB sloping down 4
62	AG	328564	4687451	328532	4687643	0	30	382								US plaza for NB inspection
63	AG	328444	4687617	328538	4687444	0	16	2853								SB starts
64	BR	328539	4687445	328593	4687339	5	16	645								after US Palaza SB, sloping up
65	BR	328593	4687338	328659	4687211	10	16	645								bridge SB elevated section 1
66	BR	328661	4687210	328695	4687133	10	16	645								bridge SB elevated section 2
67	BR	328695	4687133	329009	4686495	10	16	645								bridge SB elevated section (end of US)
68	BR	329009	4686495	329480	4685501	10	16	645								bridge SB elevated (Canada)
69	BR	329480	4685501	329550	4685354	10	16	645								bridge SB sloping down
70	AG	329550	4685354	329756	4685248	0	30	645								Canadian plaza for SB inspection
71	AG	329756	4685248	329714	4685135	0	12	2853								After Canadian plaza inspection to SB Sect 10
72	AG	329714	4685135	329778	4684984	0	12	2853								After Canadian plaza inspection SB to Sect 10
73	AG	329769	4685002	329714	4685134	0	9	2853	3	110	54	4	1750	2	3	SB Sect 10Q 1
74	AG	329714	4685134	329756	4685247	0	9	2853	3	110	54	4	1750	2	3	SB Sect 10Q 2
75	AG	329773	4684989	329505	4684827	0	9	348								WWB SECT 10
76	AG	329507	4684828	329758	4684980	0	3	348	1	110	82	4	1750	2	3	WWB Sect 10Q
77	AG	329790	4684994	330030	4685142	0	12	518								EEB SECT 10
78	AG	330029	4685142	329803	4685003	0	6	518	2	110	82	4	1750	2	3	EEB SECT 10Q
79	AG	330185	4684041	329901	4683917	0	12	480								WWB SECT 50
80	AG	329905	4683919	330172	4684035	0	6	480	2	110	75	4	1750	1	1	WWB SECT 50Q
81	AG	330205	4684043	330454	4684158	0	12	780								EEB SECT 50
82	AG	330453	4684158	330229	4684054	0	6	780	2	110	75	4	1750	1	1	EEB SECT 50Q
83	AG	330311	4683761	330220	4683702	0	9	158								WWB SECT 70
84	AG	330304	4683756	330221	4683704	0	3	158	1	110	83	4	1750	2	3	WWB SECT 70Q
85	AG	330329	4683769	330402	4683804	0	9	161								EEB SECT 70
86	AG	330400	4683804	330336	4683772	0	3	161	1	110	83	4	1750	2	3	EEB SECT 70Q
87	AG	330398	4683547	330158	4683585	0	9	191								WWB SECT 80
88	AG	330160	4683585	330387	4683548	0	3	191	1	110	84	4	1750	2	3	WWB SECT 80Q
89	AG	330416	4683549	330674	4683664	0	9	243								EEB SECT 80
90	AG	330669	4683662	330425	4683553	0	3	243	1	110	84	4	1750	2	3	EEB SECT 80Q
91	AG	330544	4683203	330351	4683122	0	9	511								WWB SECT 90
92	AG	330351	4683123	330533	4683199	0	3	511	1	110	86	4	1750	2	3	WWB SECT 90Q
93	AG	330560	4683204	330646	4683237	0	9	300								EEB SECT 90
94	AG	330644	4683237	330574	4683209	0	3	300	1	110	86	4	1750	2	3	EEB SECT 90Q
95	AG	330903	4682390	330499	4682390	0	9	264								WWB SECT100
96	AG	330505	4682390	330897	4682390	0	3	264	1	110	86	4	1750	2	3	WWB SECT100Q
97	AG	330921	4682384	331247	4682319	0	9	122								EEB SECT100
98	AG	331238	4682321	330937	4682381	0	3	122	1	110	86	4	1750	2	3	EEB SECT100Q
99	AG	329950	4684570	329676	4684435	0	9	174								WWB SECT 30
100	AG	329945	4684567	329678	4684437	0	3	174	1	110	84	4	1750	2	3	WWB SECT 30Q
101	AG	329769	4685361	329601	4685375	0	12	1390								exiting bridge passing canadian plaza (NB) no stop 4
102	BR	329601	4685375	329474	4685649	5	12	1390								exiting bridge NB (sloping up)
103	BR	329474	4685648	329056	4686518	10	12	1390								exiting bridge NB elevated section (canada)
104	BR	329056	4686518	328842	4686969	10	12	1390								exiting bridge NB elevated section (US)
105	BR	328842	4686969	328751	4687152	10	12	1390								exiting bridge NB slopdown 1
106	BR	328751	4687152	328668	4687233	10	12	1390								exiting bridge NB slopdown 2
107	BR	328668	4687233	328609	4687350	10	12	1390								exiting bridge NB slopdown 3
108	BR	328609	4687349	328564	4687450	5	12	1390								exiting bridge NB sloping down 4
109	AG	328564	4687450	328532	4687643	0	30	1390								US plaza for NB inspection cars
110	BR	328543.41	4687443	328596.03	4687342	5	12	2208								exiting bridge after US Palaza SB, sloping up
111	BR	328596.28	4687343	328660.91	4687216	10	12	2208								exiting bridge SB elevated section 1
112	BR	328660.91	4687216	328741	4687136	10	12	2208								exiting bridge SB elevated section 2
113	BR	328741	4687136	329049	4686494	10	12	2208								exiting bridge SB elevated section (end of US)
114	BR	329049	4686494	329320	4685933	10	12	2208								exiting bridge SB elevated (Canada)
115	BR	329320	4685933	329605.44	4685330.02	5	12	2208								exiting bridge SB sloping down
116	AG	329605.44	4685330.02	329756	4685248	0	30	2208								Canadian plaza for SB inspection cars

Table A11-6: Link Parameters and Peak Traffic Flow for Present (Baseline) Emission Scenario in Area B

CAL3QHCR - Link Parameters (METERS) for 2004 in Study Area B

Variabl	Type	Unit	Description
LNK=	Character	na	Link ID (up to 20 characters)
TYP=	Character	na	Link Type: AG = at grade, FL = fill, BR = bridge, DP = depressed
XL1=	Real	Meters	X coordinate for Endpoint 1 at intersection stopping line
YL1=	Real	Meters	Y coordinate for Endpoint 1 at intersection stopping line
XL2=	Real	Meters	X coordinate for Endpoint 2
YL2=	Real	Meters	Y coordinate for Endpoint 2
HL=	Real	Meters	Source height
WL=	Real	Meters	Mixing zone width
VPHL=	Real	vehicle/hour	Traffic volume for free flow links and approach traffic volume for queue links
NLANE	Integer	na	Number of travel lanes in queue link
CAVG	Integer	Seconds	Average total signal cycle length
RAVG	Integer	Seconds	Average red total signal cycle length
YFAC	Real	Seconds	Clearance lost time (portion of the yellow phase that is not used by motorist)
SFR=	Interger	vehicle/hour-lane	Saturation flow rate [vehicles per hour of effective green time]
ST=	Integer	na	Traffic signal type [pretimed (=1), actuated (=2), or semiactuated (=3)]
AT=	Integer	na	Arrival type of vehicle platoon [worst (=1) through most favorable (=5)]
DESCR	Character	na	Link description

LNK	TYP	XL1	YL1	XL2	YL2	HL	WL	VPHL	NLANES	CAVG	RAVG	YFAC	SFR	ST	AT	DESCRIP	
1	AG	332137	4679685	331830	4680363	0	15	1786								Sect 180 NB	'Huron Church NB S of Cabana
2	AG	331822	4680359	332121	4679677	0	15	1035								Sect 170 SB	'Huron Church NB S of Cabana Rd
3	AG	332109	4679704	331822	4680359	0	9	1035	3	130	82	4	1750	2	3	Sect 170 SB Q	'Huron Church SB S of Cabana Rd Q
4	AG	332119	4679679	332092	4679658	0	9	312								Sect 180 WWB 1	'Huron Church SB S of Cabana Rd Q
5	AG	332092	4679658	332015	4679635	0	9	312								Sect 180 WWB 2	'Huron Church SB S of Cabana Rd Q
6	AG	332015	4679635	331755	4679652	0	9	312								Sect 180 WWB 3	'Huron Church SB S of Cabana Rd Q
7	AG	331755	4679648	332015	4679629	0	9	560								Sect 180 WEB 3	'Huron Church SB S of Cabana Rd Q
8	AG	332015	4679629	332094	4679655	0	9	560								Sect 180 WEB 2	'Huron Church SB S of Cabana Rd Q
9	AG	332094	4679655	332124	4679672	0	12	560								Sect 180 WEB 1	'Huron Church SB S of Cabana Rd Q
10	AG	332113	4679665	332063	4679643	0	6	560	2	130	94	4	1750	1	1	Sect 180 WEB 1Q	'Todd Lane EB Queue
11	AG	332570	4679800	332216	4679721	0	9	411								Sect 180 EWB 2	'Todd Lane EB Queue
12	AG	332216	4679721	332131	4679701	0	12	411								Sect 180 EWB 1	'Todd Lane EB Queue
13	AG	332139	4679703	332214	4679720	0	6	411	2	130	94	4	1750	1	1	Sect 180 EWB Q1	'Todd Lane EB Queue
14	AG	332139	4679679	332182	4679709	0	9	449								Sect 180 EEB 1	'Todd Lane EB Queue
15	AG	332182	4679709	332571	4679797	0	9	449								Sect 180 EEB 2	'Todd Lane EB Queue
16	AG	332239	4679521	332140	4679678	0	12	1383								Sect 190 NB	'Todd Lane EB Queue
17	AG	332147	4679664	332232	4679531	0	6	1383	2	130	57	4	1750	2	3	Sect 190 NB Q	'Todd Lane EB Queue
18	AG	332124	4679672	332185	4679564	0	12	1035								Sect 180 SB 1	'Todd Lane EB Queue
19	AG	332185	4679564	332232	4679501	0	12	1035								Sect 180 SB 2	'Todd Lane EB Queue
20	AG	332223	4679515	332185	4679564	0	6	1035	2	130	57	4	1750	2	3	Sect 190 SB Q	'Todd Lane EB Queue
21	AG	332184	4679565	332225	4679449	0	9	256								Sect 190 WWB 1	'Todd Lane EB Queue
22	AG	332225	4679449	332691	4678409	0	9	256								Sect 190 WWB 2	'Todd Lane EB Queue
23	AG	332698	4678411	332226	4679454	0	9	516								Sect 190 WEB 2	'Todd Lane EB Queue
24	AG	332226	4679454	332234	4679499	0	9	516								Sect 190 WEB 1	'Todd Lane EB Queue
25	AG	332233	4679494	332235	4679435	0	6	516	2	130	104	4	1750	2	3	Sect 190 WEB Q	'Todd Lane EB Queue
26	AG	333346	4678874	332412	4679375	0	12	856								Sect 200 NB 3	'Todd Lane EB Queue
27	AG	332412	4679375	332343	4679420	0	12	856								Sect 200 NB 2	'Todd Lane EB Queue
28	AG	332343	4679420	332238	4679522	0	12	856								Sect 200 NB 1	'Todd Lane EB Queue
29	AG	332248	4679513	332343	4679419	0	6	856	2	130	57	4	1750	2	3	Sect 200 NB Q	'Todd Lane EB Queue
30	AG	332234	4679499	332291	4679443	0	12	1035								Sect 190 SB 1	'Todd Lane EB Queue
31	AG	332291	4679443	332394	4679365	0	12	1035								Sect 190 SB 2	'Todd Lane EB Queue
32	AG	332394	4679365	333339	4678858	0	12	1035								Sect 190 SB 3	'Todd Lane EB Queue
33	AG	333327	4678865	332677	4679213	0	6	1035	2	130	57	4	1750	2	3	Sect 190 SB Q	'Todd Lane EB Queue
34	AG	333340	4678857	333807	4678610	0	12	1168								Sect 200 SB	'Todd Lane EB Queue
35	AG	333815	4678624	333347	4678874	0	12	1341								Sect 210 NB	'Talbot Rd S of St Clair College
36	AG	333355	4678870	333803	4678630	0	6	1341	2	130	57	4	1750	2	3	Sect 210 NB Q	'Talbot Rd NB S of St Clair College
37	AG	333372	4678928	333346	4678876	0	9	218								Sect 200 EWB	'Geraedts Dr. towards Talbot
38	AG	333350	4678875	333375	4678926	0	9	793								Sect 200 EEB	'Geraedts Dr. Leaving Talbot Dr.
39	AG	333347	4678880	333371	4678928	0	3	218	1	130	104	4	1750	2	3	Sect 200 EWB Q	'Geraedts Dr. Towards Talbot Dr. Q

Table A11-7: Link Parameters and Peak Traffic Flow for 2021 (A) Emission Scenario in Area B

CAL3QHCR - Link Parameters (METERS) for 2021 in Study Area B

Variabl	Type	Unit	Description
LNK=	Character	na	Link ID (up to 20 characters)
TYP=	Character	na	Link Type: AG = at grade, FL = fill, BR = bridge, DP = depressed
XL1=	Real	Meters	X coordinate for Endpoint 1 at intersection stopping line
YL1=	Real	Meters	Y coordinate for Endpoint 1 at intersection stopping line
XL2=	Real	Meters	X coordinate for Endpoint 2
YL2=	Real	Meters	Y coordinate for Endpoint 2
HL=	Real	Meters	Source height
WL=	Real	Meters	Mixing zone width
VPHL=	Real	vehicle/hour	Traffic volume for free flow links and approach traffic volume for queue links
NLANE	Integer	na	Number of travel lanes in queue link
CAVG	Integer	Seconds	Average total signal cycle length
RAVG	Integer	Seconds	Average red total signal cycle length
YFAC	Real	Seconds	Clearance lost time (portion of the yellow phase that is not used by motorist)
SFR=	Interger	vehicle/hour-lane	Saturation flow rate [vehicles per hour of effective green time]
ST=	Integer	na	Traffic signal type [pretimed (=1), actuated (=2), or semiactuated (=3)]
AT=	Integer	na	Arrival type of vehicle platoon [worst (=1) through most favorable (=5)]
DESCR	Character	na	Link description

LNK	TYP	XL1	YL1	XL2	YL2	HL	WL	VPHL	NLANES	CAVG	RAVG	YFAC	SFR	ST	AT	DESCRIP	
1	AG	332137	4679685	331830	4680363	0	15	1876								Sect 180 NB	'Huron Church NB S of Cabana
2	AG	331822	4680359	332121	4679677	0	15	2134								Sect 170 SB	'Huron Church NB S of Cabana Rd
3	AG	332109	4679704	331822	4680359	0	9	2134	3	130	82	4	1750	2	3	Sect 170 SB Q	'Huron Church SB S of Cabana Rd Q
4	AG	332119	4679679	332092	4679658	0	12	416								Sect 180 WWB 1	'Huron Church SB S of Cabana Rd Q
5	AG	332092	4679658	332015	4679635	0	12	416								Sect 180 WWB 2	'Huron Church SB S of Cabana Rd Q
6	AG	332015	4679635	331755	4679652	0	12	416								Sect 180 WWB 3	'Huron Church SB S of Cabana Rd Q
7	AG	331755	4679648	332015	4679629	0	12	707								Sect 180 WEB 3	'Huron Church SB S of Cabana Rd Q
8	AG	332015	4679629	332094	4679655	0	12	707								Sect 180 WEB 2	'Huron Church SB S of Cabana Rd Q
9	AG	332094	4679655	332124	4679672	0	12	707								Sect 180 WEB 1	'Huron Church SB S of Cabana Rd Q
10	AG	332113	4679665	332076	4679649	0	6	707	1	130	94	4	1750	1	1	Sect 180 WEB 1Q	'Todd Lane EB Queue
11	AG	332570	4679800	332397	4679761	0	12	577								Sect 180 EWB 2	'Todd Lane EB Queue
12	AG	332397	4679761	332131	4679701	0	12	577								Sect 180 EWB 1	'Todd Lane EB Queue
13	AG	332139	4679703	332214	4679720	0	6	577	1	130	94	4	1750	1	1	Sect 180 EWB Q1	'Todd Lane EB Queue
14	AG	332139	4679679	332182	4679709	0	12	532								Sect 180 EEB 1	'Todd Lane EB Queue
15	AG	332182	4679709	332571	4679797	0	12	532								Sect 180 EEB 2	'Todd Lane EB Queue
16	AG	332239	4679521	332140	4679678	0	12	1530								Sect 190 NB	'Todd Lane EB Queue
17	AG	332147	4679664	332232	4679531	0	6	1530	2	130	57	4	1750	2	3	Sect 190 NB Q	'Todd Lane EB Queue
18	AG	332124	4679672	332185	4679564	0	12	1728								Sect 180 SB 1	'Todd Lane EB Queue
19	AG	332185	4679564	332232	4679501	0	12	1728								Sect 180 SB 2	'Todd Lane EB Queue
20	AG	332223	4679515	332185	4679564	0	6	1728	2	130	57	4	1750	2	3	Sect 180 SB Q	'Todd Lane EB Queue
21	AG	332184	4679565	332225	4679449	0	12	350								Sect 190 WWB 1	'Todd Lane EB Queue
22	AG	332225	4679449	332691	4678409	0	12	350								Sect 190 WWB 2	'Todd Lane EB Queue
23	AG	332698	4678411	332226	4679454	0	12	655								Sect 190 WEB 2	'Todd Lane EB Queue
24	AG	332226	4679454	332234	4679499	0	12	655								Sect 190 WEB 1	'Todd Lane EB Queue
25	AG	332233	4679494	332226	4679454	0	6	655	1	130	104	4	1750	2	3	Sect 190 WEB Q	'Todd Lane EB Queue
26	AG	333346	4678874	332412	4679375	0	12	990								Sect 200 NB 3	'Todd Lane EB Queue
27	AG	332412	4679375	332343	4679420	0	12	990								Sect 200 NB 2	'Todd Lane EB Queue
28	AG	332343	4679420	332238	4679522	0	12	990								Sect 200 NB 1	'Todd Lane EB Queue
29	AG	332248	4679513	332343	4679419	0	6	990	2	130	57	4	1750	2	3	Sect 200 NB Q	'Todd Lane EB Queue
30	AG	332234	4679499	332291	4679443	0	12	1137								Sect 190 SB 1	'Todd Lane EB Queue
31	AG	332291	4679443	332394	4679365	0	12	1137								Sect 190 SB 2	'Todd Lane EB Queue
32	AG	332394	4679365	333339	4678858	0	12	1137								Sect 190 SB 3	'Todd Lane EB Queue
33	AG	333327	4678865	332677	4679213	0	6	1137	2	130	57	4	1750	2	3	Sect 190 SB Q	'Todd Lane EB Queue
34	AG	333340	4678857	333807	4678610	0	12	1266								Sect 200 SB	'Todd Lane EB Queue
35	AG	333815	4678624	333347	4678874	0	12	1556								Sect 210 NB	'Talbot Rd S of St Clair College
36	AG	333355	4678870	333803	4678630	0	6	1556	2	130	57	4	1750	2	3	Sect 210 NB Q	'Talbot Rd NB S of St Clair College
37	AG	333372	4678928	333346	4678876	0	12	204								Sect 200 EWB	'Geraedts Dr. towards Talbot
38	AG	333350	4678875	333375	4678926	0	12	980								Sect 200 EEB	'Geraedts Dr. Leaving Talbot Dr.
39	AG	333347	4678880	333371	4678928	0	6	204	1	130	104	4	1750	2	3	Sect 200 EWB Q	'Geraedts Dr. Towards Talbot Dr. Q

Table A11-8: Traffic Speed and Emission Factors Used for Each Link in Local Study Area

Area	Traffic Speed		Link IDs	CO	NOx	SO2	PM_{10}†	PM10 Road Dust	PM_{25}†	PM25 Road Dust	VOC (NMHC)	Benzene	Acetaldehyde	Formaldehyde	1,3-Butadiene	Acrolein	Benzo (a) pyrene	Naphthalene	Phenanthrene	CO2	N2O	CH4
	mile/hr	km/hr		g/mile	g/mile	g/mile	g/mile	g/mile	g/mile	g/mile	g/mile	mg/mile	mg/mile	mg/mile	mg/mile	mg/mile	mg/mile	mg/mile	mg/mile	g/mile	g/mile	g/mile
Present (Baseline)																						
Bridge	2.5	4	57-62, 68-70,73-74*	58.615	7.813	0.084	0.116	-	0.116	-	8.048	162.246	34.848	99.753	23.429	5.490	0.003	1.421	0.044	762.150	0.032	0.093
	30	48	51-54, 71-72	11.206	4.516	0.084	0.141	-	0.141	-	1.014	23.658	7.720	21.556	3.903	1.127	0.003	1.421	0.044	762.150	0.032	0.093
	35	56	63-64	10.837	4.499	0.084	0.141	-	0.141	-	0.935	20.999	6.759	18.780	3.416	0.973	0.003	1.421	0.044	762.150	0.032	0.093
	40	64	55-56, 65-67	11.110	4.601	0.084	0.141	-	0.141	-	0.890	19.752	6.151	17.018	3.164	0.874	0.003	1.421	0.044	762.150	0.032	0.093
Huron Church Road	2.5	4	2, 4, 10, 12, 18, 20, 26, 28, 34, 36, 42, 44	62.154	6.210	0.061	0.081	-	0.081	-	8.660	174.936	31.442	88.394	24.363	4.620	0.002	1.240	0.039	660.930	0.034	0.103
	35	56	1, 3, 9, 11, 17, 19, 25, 27, 33, 35, 41, 43	11.667	3.497	0.061	0.105	-	0.105	-	0.959	28.057	5.582	15.303	3.380	0.778	0.002	1.240	0.039	660.930	0.034	0.103
Arterial roads	2.5	4	6, 8, 14, 16, 22, 24, 30, 32, 38, 40, 46, 48, 50, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100	86.080	4.390	0.029	0.035	-	0.035	-	13.106	230.513	32.218	87.265	31.197	4.040	0.001	0.995	0.031	523.100	0.035	0.116
	30	48	5, 7, 13, 15, 21, 23, 29, 31, 37, 39, 45, 47, 49, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99	32.003	2.517	0.029	0.056	-	0.056	-	1.979	65.349	9.933	26.418	9.374	1.182	0.001	0.995	0.031	523.100	0.035	0.116
2011																						
Bridge	2.5	4	58-62, 69-70,73-74*	31.607	4.112	0.009	0.049	-	0.049	-	5.234	79.937	18.542	45.405	10.099	2.260	0.001	0.734	0.022	757.580	0.032	0.092
	30	48	51-54, 71-72	6.646	2.306	0.009	0.074	-	0.074	-	0.526	12.228	4.462	11.283	1.885	0.545	0.001	0.734	0.022	757.580	0.032	0.092
	35	56	63-64	6.479	2.295	0.009	0.074	-	0.074	-	0.480	10.937	3.923	9.887	1.671	0.478	0.001	0.734	0.022	757.580	0.032	0.092
	40	64	55-57, 65-68	6.703	2.349	0.009	0.074	-	0.074	-	0.450	10.320	3.571	8.952	1.556	0.435	0.001	0.734	0.022	757.580	0.032	0.092
Huron Church Road	2.5	4	2, 4, 10, 12, 18, 20, 26, 28, 34, 36, 42, 44	32.669	3.750	0.009	0.042	-	0.042	-	5.444	82.926	17.478	42.082	10.331	2.116	0.001	0.699	0.021	711.880	0.033	0.097
	35	56	1, 3, 9, 11, 17, 19, 25, 27, 33, 35, 41, 43	6.770	2.074	0.009	0.067	-	0.067	-	0.484	14.118	3.572	8.868	1.661	0.434	0.001	0.699	0.021	711.880	0.033	0.097
Arterial roads	2.5	4	6, 8, 14, 16, 22, 24, 30, 32, 38, 40, 46, 48, 50, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100	48.675	2.443	0.008	0.016	-	0.016	-	6.631	113.307	15.521	33.117	13.543	1.783	0.001	0.554	0.016	522.910	0.035	0.116
	30	48	5, 7, 13, 15, 21, 23, 29, 31, 37, 39, 45, 47, 49, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99	19.832	1.372	0.008	0.037	-	0.037	-	0.939	32.438	4.893	10.307	4.260	0.544	0.001	0.554	0.016	522.910	0.035	0.116
2021 (FDN) and 2021 (A)																						
Bridge	2.5	4	55-62, 64-70,71-72, 73-74*	20.433	1.284	0.010	0.013	-	0.013	-	2.672	39.151	10.885	26.292	4.513	2.150	0.001	0.404	0.012	780.090	0.032	0.090
	30	48	51-54	4.391	0.701	0.010	0.039	-	0.039	-	0.380	6.208	2.899	7.332	0.979	0.326	0.001	0.404	0.012	780.090	0.032	0.090
	35	56	63	4.276	0.696	0.010	0.039	-	0.039	-	0.330	5.599	2.555	6.440	0.875	0.287	0.001	0.404	0.012	780.090	0.032	0.090
	40	64	65-67	4.442	0.713	0.010	0.039	-	0.039	-	0.300	5.322	2.322	5.819	0.815	0.260	0.001	0.404	0.012	780.090	0.032	0.090
Huron Church Road	2.5	4	2, 4, 10, 12, 18, 20, 26, 28, 34, 36, 42, 44	20.433	1.284	0.010	0.013	-	0.013	-	2.672	40.681	10.885	26.292	4.513	1.289	0.001	0.399	0.011	780.090	0.033	0.096
	35	56	1, 3, 9, 11, 17, 19, 25, 27, 33, 35, 41, 43	4.276	0.696	0.010	0.039	-	0.039	-	0.245	7.164	2.555	6.440	0.875	0.307	0.001	0.399	0.011	780.090	0.033	0.096
Arterial roads	2.5	4	6, 8, 14, 16, 22, 24, 30, 32, 38, 40, 46, 48, 50, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100	32.179	0.986	0.008	0.006	-	0.006	-	3.401	56.491	7.400	14.143	5.505	0.883	0.000	0.386	0.011	523.710	0.035	0.116
	30	48	5, 7, 13, 15, 21, 23, 29, 31, 37, 39, 45, 47, 49, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99	13.788	0.547	0.008	0.028	-	0.028	-	0.459	17.127	2.489	4.691	1.876	0.285	0.000	0.386	0.011	523.710	0.035	0.116
2021 (B) - Cars Only for Bridge																						
Bridge	2.5	4	105-109, 115, 116 Note: links 71-74 are represented by 2021 (A) with combined traffic flow	24.697	0.777	0.0069	0.0043	-	0.0043	-	2.469	48.315	4.961	8.45	4.408	0.612	0.0004237	0.3827	0.01076	454.45	0.036	0.120
	30	48	101	5.613	0.381	0.007	0.025	-	0.025	-	0.244	7.188	0.829	1.411	0.738	0.103	0.000	0.383	0.011	454.450	0.036	0.120
	35	56		5.643	0.374	0.007	0.025	-	0.025	-	0.227	6.666	0.769	1.306	0.683	0.095	0.000	0.383	0.011	454.450	0.036	0.120
	40	64	102-10, 110-114	6.042	0.380	0.007	0.025	-	0.025	-	0.220	6.547	0.757	1.282	0.670	0.093	0.000	0.383	0.011	454.450	0.036	0.120
Huron Church Road	2.5	4	2, 4, 10, 12, 18, 20, 26, 28, 34, 36, 42, 44	20.433	1.284	0.010	0.013	-	0.013	-	2.672	40.681	10.885	26.292	4.513	1.289	0.001	0.399	0.011	780.090	0.033	0.096
	35	56	1, 3, 9, 11, 17, 19, 25, 27, 33, 35, 41, 43	4.276	0.696	0.010	0.039	-	0.039	-	0.245	7.164	2.555	6.440	0.875	0.307	0.001	0.399	0.011	780.090	0.033	0.096
Arterial roads	2.5	4	6, 8, 14, 16, 22, 24, 30, 32, 38, 40, 46, 48, 50, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100	32.179	0.986	0.008	0.006	-	0.006	-	3.401	56.491	7.400	14.143	5.505	0.883	0.000	0.386	0.011	523.710	0.035	0.116
	30	48	5, 7, 13, 15, 21, 23, 29, 31, 37, 39, 45, 47, 49, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99	13.788	0.547	0.008	0.028	-	0.028	-	0.459	17.127	2.489	4.691	1.876	0.285	0.000	0.386	0.011	523.710	0.035	0.116
2021 (B) - Trucks Only for Bridge																						
Bridge	2.5	4	59-62, 69, 70 Note: links 71-74 are represented by 2021 (A) with combined traffic flow	14.359	2.016	0.013	0.060	-	0.060	-	1.452	25.933	19.543	52.377	4.708	2.277	0.001	0.438	0.013	1251.100	0.027	0.043
	30	48	54	2.620	1.164	0.013	0.060	-	0.060	-	0.296	4.797	5.917	15.966	1.336	0.705	0.001	0.437	0.013	1251.100	0.027	0.043
	35	56	55-58, 64	2.292	1.162	0.013	0.060	-	0.060	-	0.262	4.060	5.159	13.928	1.160	0.615	0.001	0.437	0.013	1251.100	0.027	0.043
	40	64	65-68	2.117	1.194	0.013	0.060	-	0.060	-	0.238	3.551	4.605	12.436	1.032	0.550	0.001	0.437	0.013	1251.100	0.027	0.043
Huron Church Road	2.5	4	2, 4, 10, 12, 18, 20, 26, 28, 34, 36, 42, 44	20.433	1.284	0.010	0.013	-	0.013	-	2.672	40.681	10.885	26.292	4.513	1.289	0.001	0.399	0.011	780.090	0.033	0.096
	35	56	1, 3, 9, 11, 17, 19, 25, 27, 33, 35, 41, 43	4.276	0.696	0.010	0.039	-	0.039	-	0.245	7.164	2.555	6.440	0.875	0.307	0.001	0.399	0.011	780.090	0.033	0.096
Arterial roads	2.5	4	6, 8, 14, 16, 22, 24, 30, 32, 38, 40, 46, 48, 50, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100	32.179	0.986	0.008	0.006	-	0.006	-	3.401	56.491	7.400	14.143	5.505	0.883	0.000	0.386	0.011	523.710	0.035	0.116
	30	48	5, 7, 13, 15, 21, 23, 29, 31, 37, 39, 45, 47, 49, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99	13.788	0.547	0.008	0.028	-	0.028	-	0.459	17.127	2.489	4.691	1.876	0.285	0.000	0.386	0.011	523.710	0.035	0.116

† Factors for total particulate matter emissions were used except for at 2.5 mile/hr (4 km/hr) where the factor for exhaust only particulate emission was used.

Table A11-9: Traffic Speed and Emission Factors Used for Each Link in Area B

Area	Traffic Speed		Link IDs	CO	NOx	SO_2	PM_{10} Exhaust	PM_{10} Road Dust	PM_{25} Exhaust	PM_{25} Road Dust	VOC (NMHC)	Benzene	Acetaldehyde	Formaldehyde	1,3-Butadiene	Acrolein	Benzo (a) pyrene	Naphthalene	Phenanthrene	CO_2	N_2O	CH_4
	mile/hr	km/hr		g/mile	g/mile	g/mile	g/mile	g/mile	g/mile	g/mile	g/mile	mg/mile	mg/mile	mg/mile	mg/mile	mg/mile	mg/mile	mg/mile	mg/mile	g/mile	g/mile	g/mile
2004																						
Huron Church Road	2.5	4	3, 17, 20, 29, 33, 36	62.154	6.21	0.0607	0.1052		0.1052		8.66	151.213	31.442	88.394	24.363	4.62	0.00224	1.24	0.03856	660.93	0.033625	0.1025
	35	56	1, 2	11.667	3.497	0.0607	0.105		0.105		0.959	20.707	5.582	15.303	3.38	0.778	0.00224	1.24	0.03856	660.93	0.033625	0.1025
	50	80	16, 18-19, 26-28, 30-32, 34-35	13.207	3.943	0.0607	0.105		0.105		0.856	17.956	4.525	12.276	2.837	0.613	0.00224	1.24	0.03856	660.93	0.033625	0.1025
Arterial roads	2.5	4	10, 13, 25, 39	86.08	4.39	0.0286	0.0565		0.0565		13.106	203.54	32.218	87.265	31.197	4.04	0.001464	0.995	0.03108	523.1	0.035212	0.11586
	30	48	4-9, 11-12, 14-15, 21-24, 37-38	32.003	2.517	0.0287	0.0563		0.0563		1.979	63.404	9.933	26.418	9.374	1.182	0.001464	0.995	0.03108	523.1	0.035212	0.11586
2021																						
Huron Church Road	2.5	4	3, 17, 20, 29, 33, 36	20.433	1.284	0.0095	0.0389		0.0389		2.672	33.149	10.885	26.292	4.513	1.289	0.000527	0.3991	0.01143	780.09	0.032818	0.0957
	35	56	1, 2	4.276	0.696	0.0095	0.0389		0.0389		0.245	5.219	2.555	6.44	0.875	0.307	0.000527	0.3991	0.01143	780.09	0.032818	0.0957
	50	80	16, 18-19, 26-28, 30-32, 34-35	4.924	0.793	0.0095	0.0389		0.0389		0.209	4.627	2.036	5.059	0.74	0.244	0.000527	0.3991	0.01143	780.09	0.032818	0.0957
Arterial roads	2.5	4	10, 13, 25, 39	32.179	0.986	0.0075	0.0277		0.0277		3.401	48.789	7.4	14.143	5.505	0.883	0.000451	0.3857	0.01097	523.71	0.035212	0.11586
	30	48	4-9, 11-12, 14-15, 21-24, 37-38	13.788	0.547	0.0075	0.0277		0.0277		0.459	16.676	2.489	4.691	1.876	0.285	0.000451	0.3857	0.01097	523.71	0.035212	0.11586

Table A11-10: Source Input Parameters for AERMOD

```
LINE Source ID = RIVER
DESCRSRC SOURCE ON THE RIVER
Length of Side = 45.00
NOx Emission Rate = 0.67
Elevated
Vertical Dimension = 12.00
SZINIT = 2.79
Nodes = 2
329148.64, 4686243.30, 180.00, 6.00, 0.0
329047.92, 4686468.82, 179.00, 6.00, 31.31
-------------------------------------------
LINE Source ID = LAND
DESCRSRC FOR land
Length of Side = 45.00
NOx Emission Rate = 1.28
Elevated
Vertical Dimension = 12.00
SZINIT = 2.79
Nodes = 2
329671.06, 4685109.60, 180.00, 6.00, 0.0
329170.77, 4686191.70, 180.00, 6.00, 41.04
```

Table A11-11: Summary of Maximum Modelling Results for Present (Baseline) Emission Scenario in Local Study Area

Emission Scenario:	Baseline

Emission Scenario	Relevant Averaging Period	Units	Tier	Maximum CALQ3HCR Concentration
Pollutants and Precursors				
CO	1 hr	ppm	1	4.4
NOx	1 hr	$\mu g/m^3$	2	652
NOx	24 hr	$\mu g/m^3$	2	248
SO_2	1 hr	$\mu g/m^3$	1	18
SO_2	24 hr	$\mu g/m^3$	1	6.9
PM_{10}	24 hr	$\mu g/m^3$	2	63
$PM_{2.5}$	24 hr	$\mu g/m^3$	2	7.2
VOC	1 hr	ppm	1	0.50
Air Toxics				
benzene	24 hr	$\mu g/m^3$	1	6.8
acetaldehyde	24 hr	$\mu g/m^3$	1	1.4
formaldehyde	24 hr	$\mu g/m^3$	1	3.6
1,3-butadiene	24 hr	$\mu g/m^3$	1	0.94
acrolein	24 hr	$\mu g/m^3$	2	0.11
benzo (a) pyrene	24 hr	$\mu g/m^3$	1	0.0001
Greenhouse Gases				
CO_2	annual	$\mu g/m^3$	-	-
N_2O	24 hr	$\mu g/m^3$	1	2.6
CH_4	annual	$\mu g/m^3$	-	-
Other				
ozone	1 hr	$\mu g/m^3$		< 80

Note: ozone estimate includes background ozone.

Table A11-12: Summary of Maximum Modelling Results for 2011 (Construction) Emission Scenario in Local Study Area

Emission Scenario:	2011 (Construction)

Emission Scenario	Relevant Averaging Period	Units	Tier	at Maximum AERMOD Receptor Location[1]		at Maximum CALQ3HCR Receptor Location[2]		Maximum[3] Modelling Concentration
				CALQ3HCR Concentration at Maximum AERMOD Receptor Location	Maximum AERMOD Concentration	Maximum CALQ3HCR Concentration	AERMOD Concentration at Maximum CALQ3HCR Receptor Location	
Pollutants and Precursors								
CO	1 hr	ppm	1	0.40	0.36	2.5	0.055	2.6
NOx	1 hr	$\mu g/m^3$	2	120	467	423	47	587
NOx	24 hr	$\mu g/m^3$	2	30	60	157	0.070	157
SO_2	1 hr	$\mu g/m^3$	1	0.30	165	1.9	17	165
SO_2	24 hr	$\mu g/m^3$	1	0.13	21	0.99	0.038	21
PM_{10}	24 hr	$\mu g/m^3$	2	8.2	37	82	0.019	82
$PM_{2.5}$	24 hr	$\mu g/m^3$	2	1.6	8.8	7.8	0.0044	10
VOC	1 hr	ppm	1	-	-	0.20	-	-
Air Toxics								
benzene	24 hr	$\mu g/m^3$	1	-	-	3.4	-	-
acetaldehyde	24 hr	$\mu g/m^3$	1	-	-	0.66	-	-
formaldehyde	24 hr	$\mu g/m^3$	1	-	-	2.1	-	-
1,3-butadiene	24 hr	$\mu g/m^3$	1	-	-	0.38	-	-
acrolein	24 hr	$\mu g/m^3$	2	-	-	0.054	-	-
benzo (a) pyrene	24 hr	$\mu g/m^3$	1	-	-	< 0.00001	-	-
Greenhouse Gases								
CO_2	annual	$\mu g/m^3$	-	-	-	-	-	-
N_2O	24 hr	$\mu g/m^3$	1	-	-	3.2	-	-
CH_4	annual	$\mu g/m^3$	-	-	-	-	-	-
Other								
ozone	1 hr	$\mu g/m^3$	0	-	-	< 80	-	-

Note: (1) represented by the maximum concentration receptor predicted with AERMOD for construction activities. The contribution from vehicles travelling on the bridge, Huron Church Road and Arterial Roads predicted with CALQ3HCR at this same receptor are given.

Note: (2) represented by the maximum concentration receptor predicted with CALQ3HCR from vehicles travelling on the bridge, Huron Church Road and Arterial Roads. The contribution from construction activities predicted with AERMOD at this same receptor are given.
Note: (3) represents the overall maximum concentration considering both construction activities and vehicle traffic.
Note: ozone estimate includes background ozone.

Table A11-13: Summary of Maximum Modelling Results for 2011 (Operation) Emission Scenario in Local Study Area

Emission Scenario:	2011 (Operation)

Emission Scenario	Relevant Averaging Period	Units	Tier	Maximum CALQ3HCR Concentration
Pollutants and Precursors				
CO	1 hr	ppm	1	2.5
NOx	1 hr	$\mu g/m^3$	2	423
NOx	24 hr	$\mu g/m^3$	2	157
SO_2	1 hr	$\mu g/m^3$	1	1.9
SO_2	24 hr	$\mu g/m^3$	1	0.99
PM_{10}	24 hr	$\mu g/m^3$	2	82
$PM_{2.5}$	24 hr	$\mu g/m^3$	2	7.8
VOC	1 hr	ppm	1	0.20
Air Toxics				
benzene	24 hr	$\mu g/m^3$	1	3.4
acetaldehyde	24 hr	$\mu g/m^3$	1	0.66
formaldehyde	24 hr	$\mu g/m^3$	1	2.1
1,3-butadiene	24 hr	$\mu g/m^3$	1	0.38
acrolein	24 hr	$\mu g/m^3$	2	0.054
benzo (a) pyrene	24 hr	$\mu g/m^3$	1	< 0.00001
Greenhouse Gases				
CO_2	annual	$\mu g/m^3$	-	-
N_2O	24 hr	$\mu g/m^3$	1	3.2
CH_4	annual	$\mu g/m^3$	-	-
Other				
ozone	1 hr	$\mu g/m^3$		< 80

Note: ozone estimate includes background ozone.

Table A11-14: Summary of Maximum Modelling Results for 2021 (FDN) Emission Scenario in Local Study Area

Emission Scenario:	2021 (FDN)

Emission Scenario	Relevant Averaging Period	Units	Tier	Maximum CALQ3HCR Concentration
Pollutants and Precursors				
CO	1 hr	ppm	1	2.6
NOx	1 hr	$\mu g/m^3$	2	149
NOx	24 hr	$\mu g/m^3$	2	54
SO_2	1 hr	$\mu g/m^3$	1	2.2
SO_2	24 hr	$\mu g/m^3$	1	1.3
PM_{10}	24 hr	$\mu g/m^3$	2	89
$PM_{2.5}$	24 hr	$\mu g/m^3$	2	6.9
VOC	1 hr	ppm	1	0.40
Air Toxics				
benzene	24 hr	$\mu g/m^3$	1	2.9
acetaldehyde	24 hr	$\mu g/m^3$	1	0.72
formaldehyde	24 hr	$\mu g/m^3$	1	2.2
1,3-butadiene	24 hr	$\mu g/m^3$	1	0.21
acrolein	24 hr	$\mu g/m^3$	2	0.044
benzo (a) pyrene	24 hr	$\mu g/m^3$	1	< 0.00001
Greenhouse Gases				
CO_2	annual	$\mu g/m^3$	-	-
N_2O	24 hr	$\mu g/m^3$	1	4.2
CH_4	annual	$\mu g/m^3$	-	-
Other				
ozone	1 hr	$\mu g/m^3$		< 130

Note: 2021 (FDN) refers to future operation of existing bridge only.
Note: ozone estimate includes background ozone.

Table A11-15: Summary of Maximum Modelling Results for 2021 (A) Emission Scenario in Local Study Area

Emission Scenario:	2021 (A)

Emission Scenario	Relevant Averaging Period	Units	Tier	Maximum CALQ3HCR Concentration
Pollutants and Precursors				
CO	1 hr	ppm	1	2.0
NOx	1 hr	$\mu g/m^3$	2	149
NOx	24 hr	$\mu g/m^3$	2	54
SO_2	1 hr	$\mu g/m^3$	1	2.2
SO_2	24 hr	$\mu g/m^3$	1	1.3
PM_{10}	24 hr	$\mu g/m^3$	2	89
$PM_{2.5}$	24 hr	$\mu g/m^3$	2	6.9
VOC	1 hr	ppm	1	0.23
Air Toxics				
benzene	24 hr	$\mu g/m^3$	1	2.9
acetaldehyde	24 hr	$\mu g/m^3$	1	1.3
formaldehyde	24 hr	$\mu g/m^3$	1	3.6
1,3-butadiene	24 hr	$\mu g/m^3$	1	0.21
acrolein	24 hr	$\mu g/m^3$	2	0.034
benzo (a) pyrene	24 hr	$\mu g/m^3$	1	< 0.00001
Greenhouse Gases				
CO_2	annual	$\mu g/m^3$	-	-
N_2O	24 hr	$\mu g/m^3$	1	4.3
CH_4	annual	$\mu g/m^3$	-	-
Other				
ozone	1 hr	$\mu g/m^3$		< 130

Note: 2021 (A) refers to future operation of ABEP only.
Note: ozone estimate includes background ozone.

Table A11-16: Summary of Maximum Modelling Results for 2021 (B) Emission Scenario in Local Study Area

Emission Scenario:	2021 (B)

Emission Scenario	Relevant Averaging Period	Units	Tier	Maximum CALQ3HCR Concentration
Pollutants and Precursors				
CO	1 hr	ppm	1	2.4
NOx	1 hr	$\mu g/m^3$	2	149
NOx	24 hr	$\mu g/m^3$	2	54
SO_2	1 hr	$\mu g/m^3$	1	2.2
SO_2	24 hr	$\mu g/m^3$	1	1.3
PM_{10}	24 hr	$\mu g/m^3$	2	89
$PM_{2.5}$	24 hr	$\mu g/m^3$	2	6.9
VOC	1 hr	ppm	1	0.23
Air Toxics				
benzene	24 hr	$\mu g/m^3$	1	2.9
acetaldehyde	24 hr	$\mu g/m^3$	1	1.3
formaldehyde	24 hr	$\mu g/m^3$	1	3.6
1,3-butadiene	24 hr	$\mu g/m^3$	1	0.21
acrolein	24 hr	$\mu g/m^3$	2	0.034
benzo (a) pyrene	24 hr	$\mu g/m^3$	1	< 0.00001
Greenhouse Gases				
CO_2	annual	$\mu g/m^3$	-	-
N_2O	24 hr	$\mu g/m^3$	1	4.3
CH_4	annual	$\mu g/m^3$	-	-
Other				
ozone	1 hr	$\mu g/m^3$		< 130

Note: 2021 (B) refers to future operation of ABEP plus existing bridge.
Note: ozone estimate includes background ozone.

Figure A11-1: Links and Receptors for Local Study Area

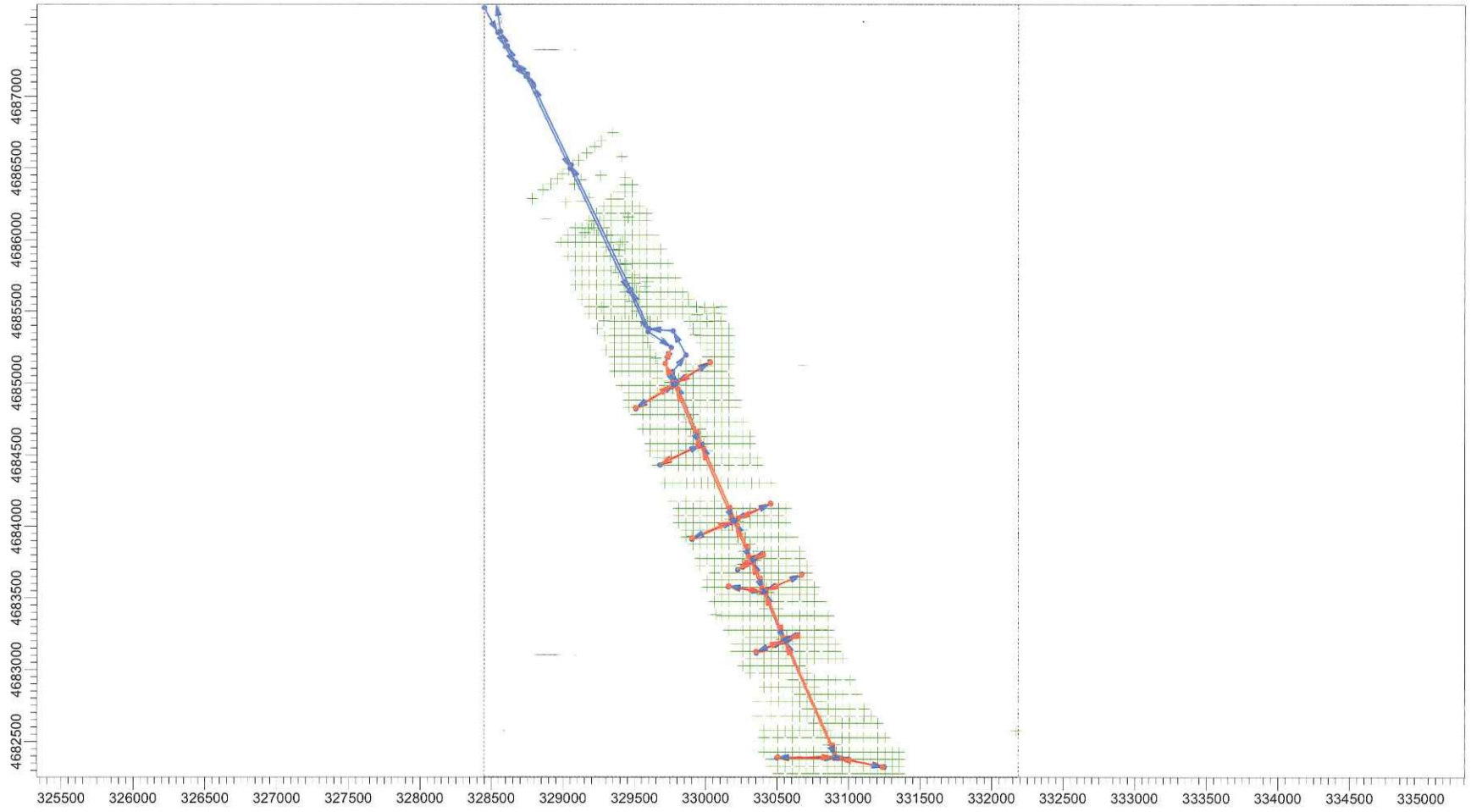


Figure A11-2: Links and Receptors for Area B

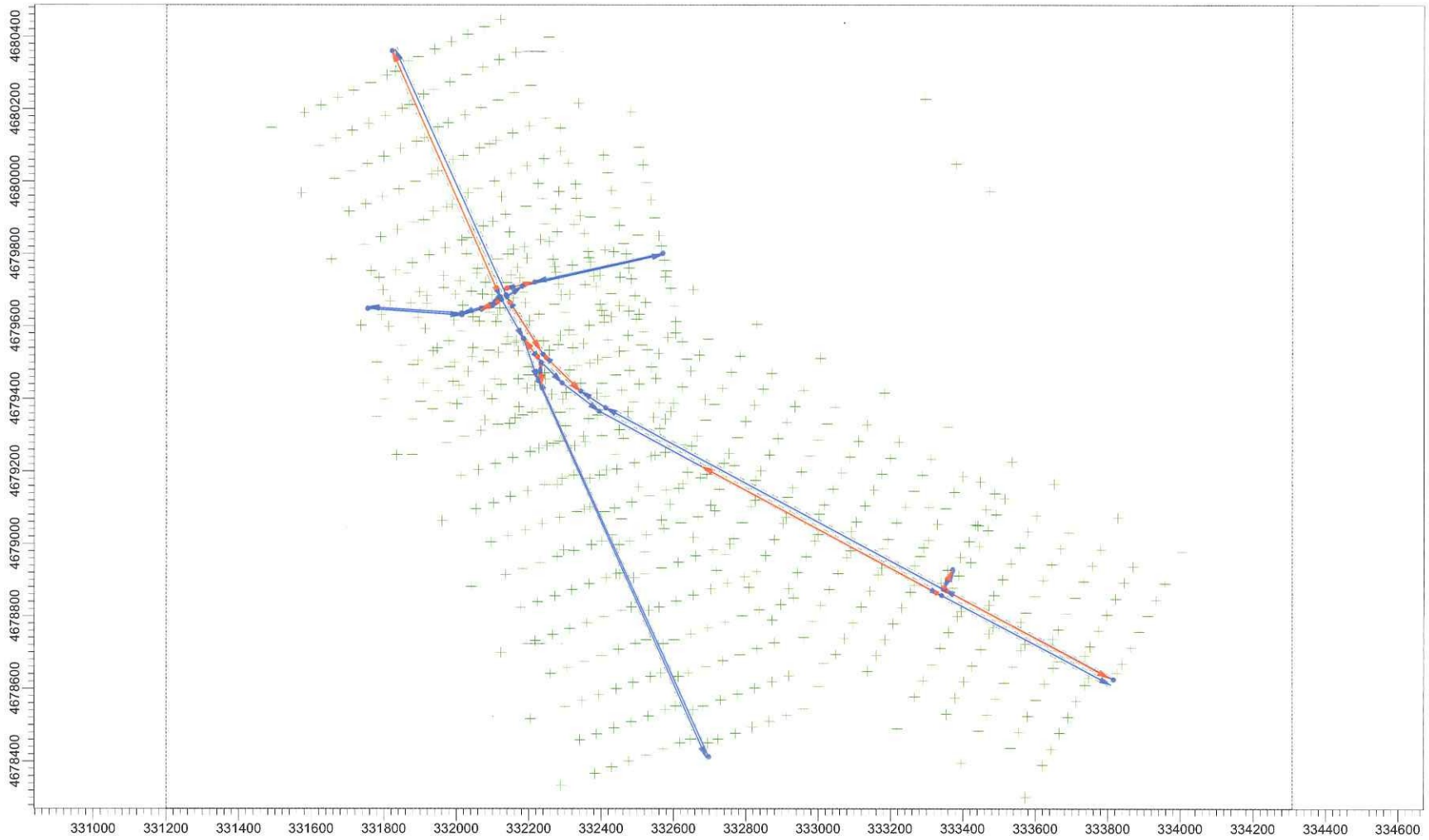


Figure A11-3: Receptors for Modelling Construction Activities

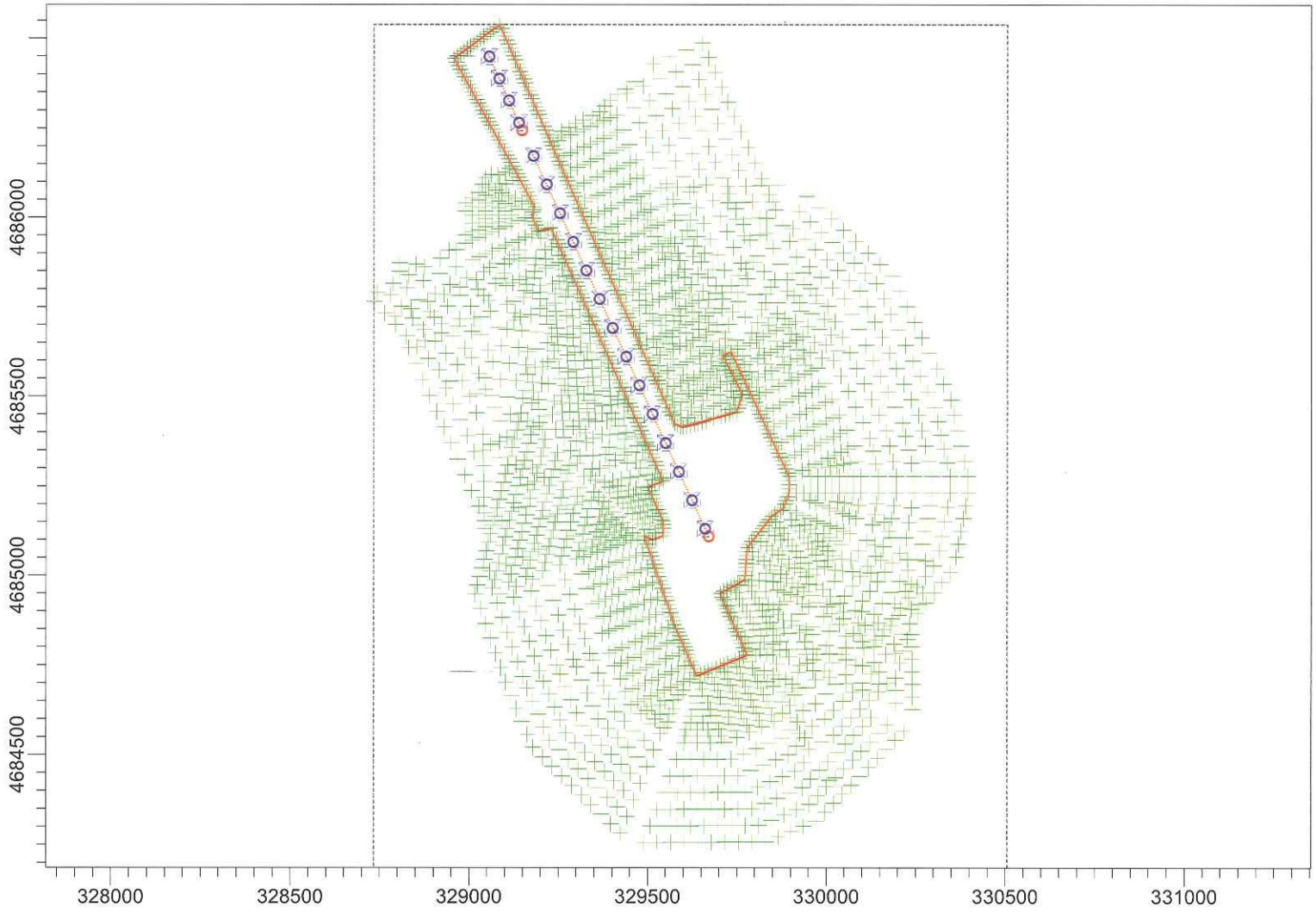


Figure A11-4: Cross Section Profile for NO_X (Baseline and 2021(A) Scenarios)

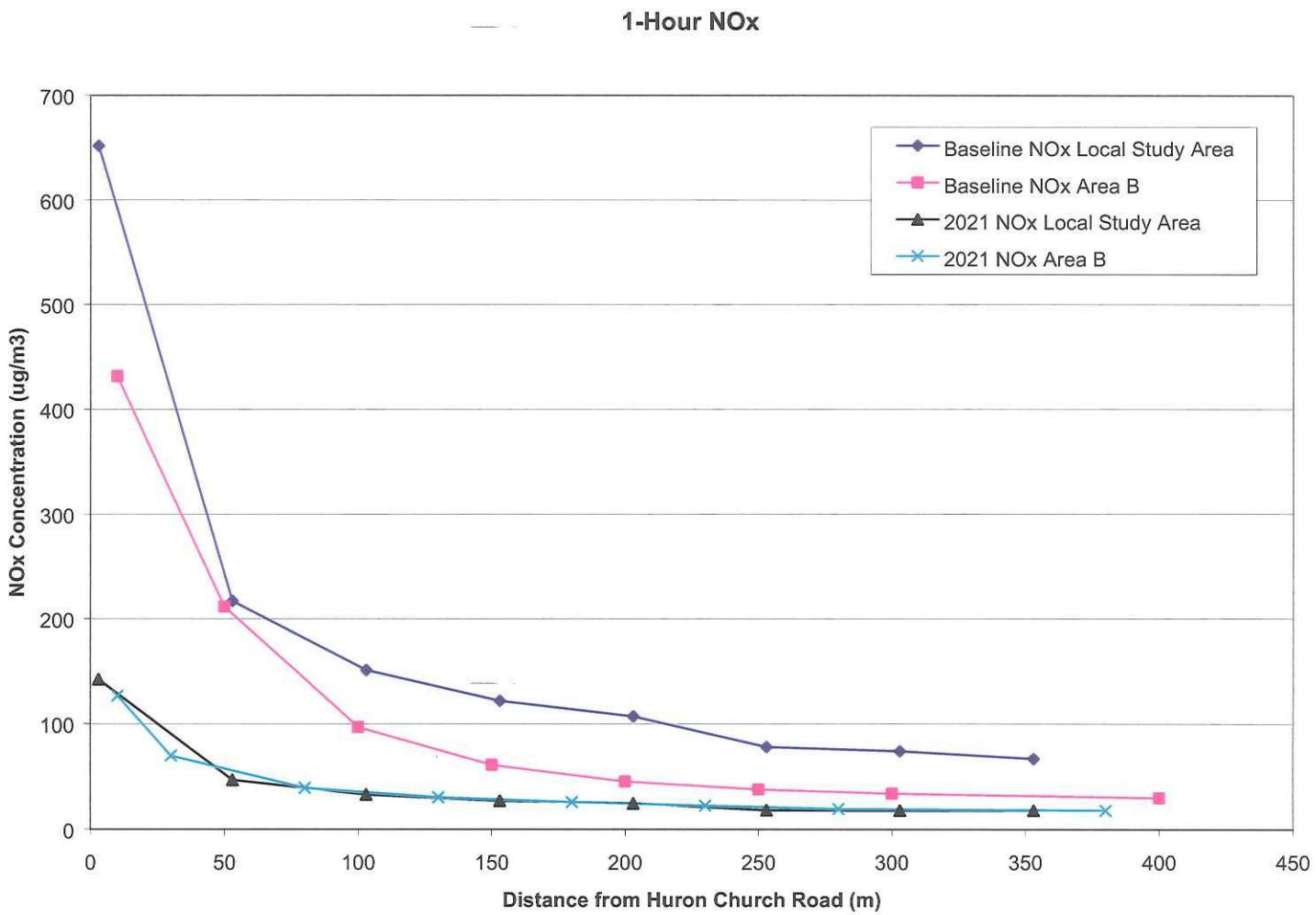


Figure A11-5: Cross Section Profile for PM_{10} (Baseline and 2021(A) Scenarios)

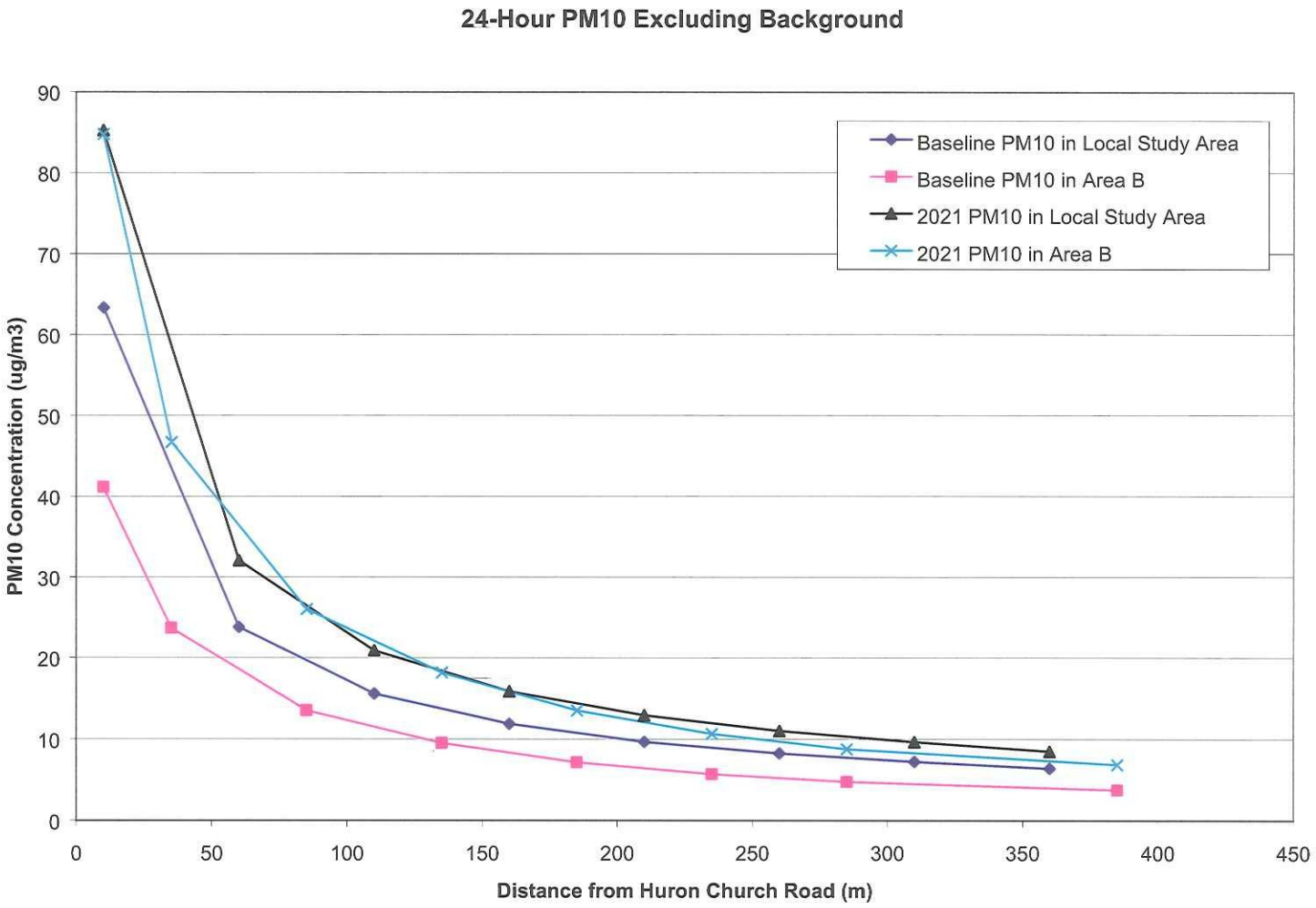
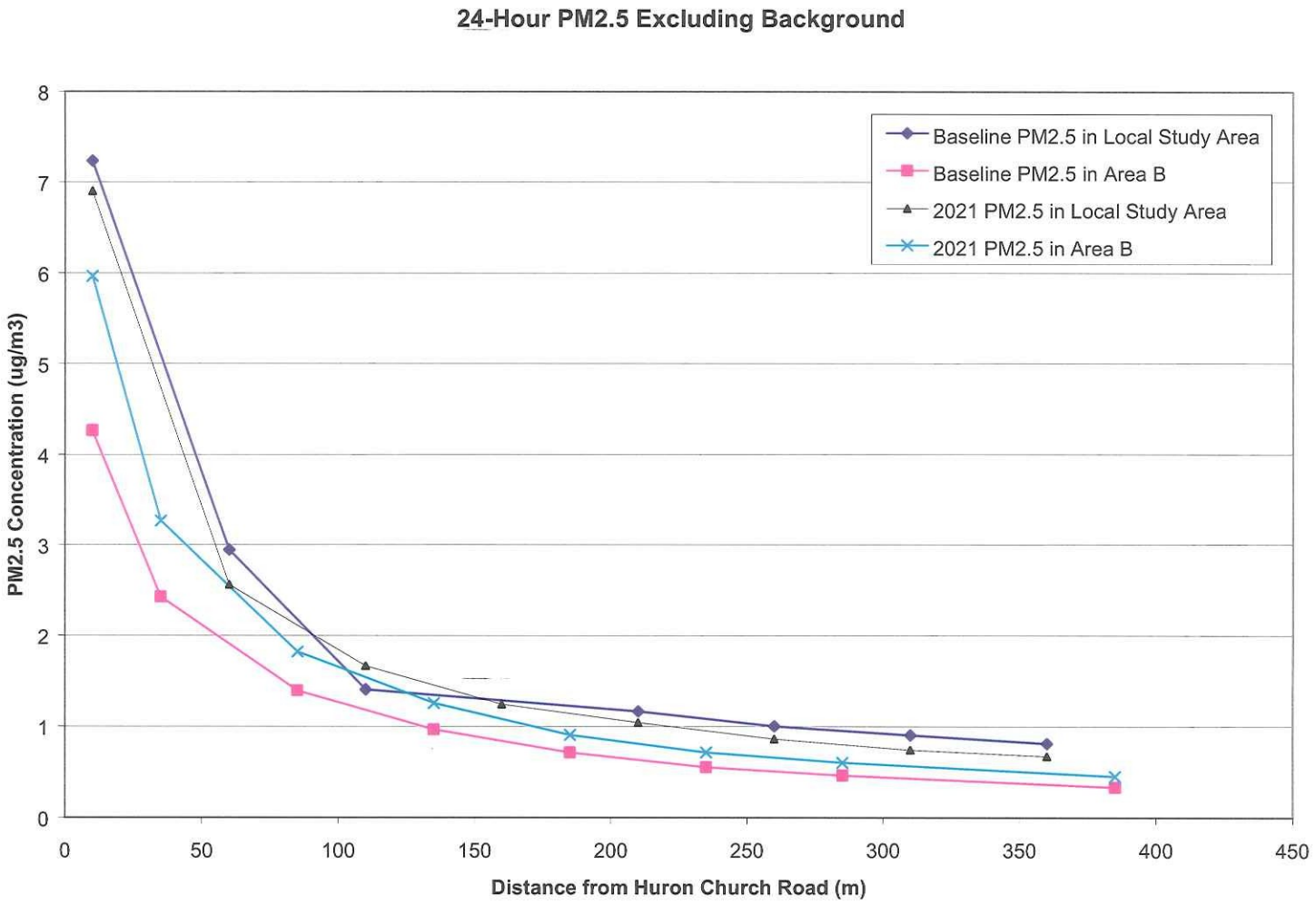


Figure A11-6: Cross Section Profile for $PM_{2.5}$ (Baseline and 2021(A) Scenarios)



APPENDIX 12

Ozone Isopleth Method
(2 pages)

A12-1: Background Approach

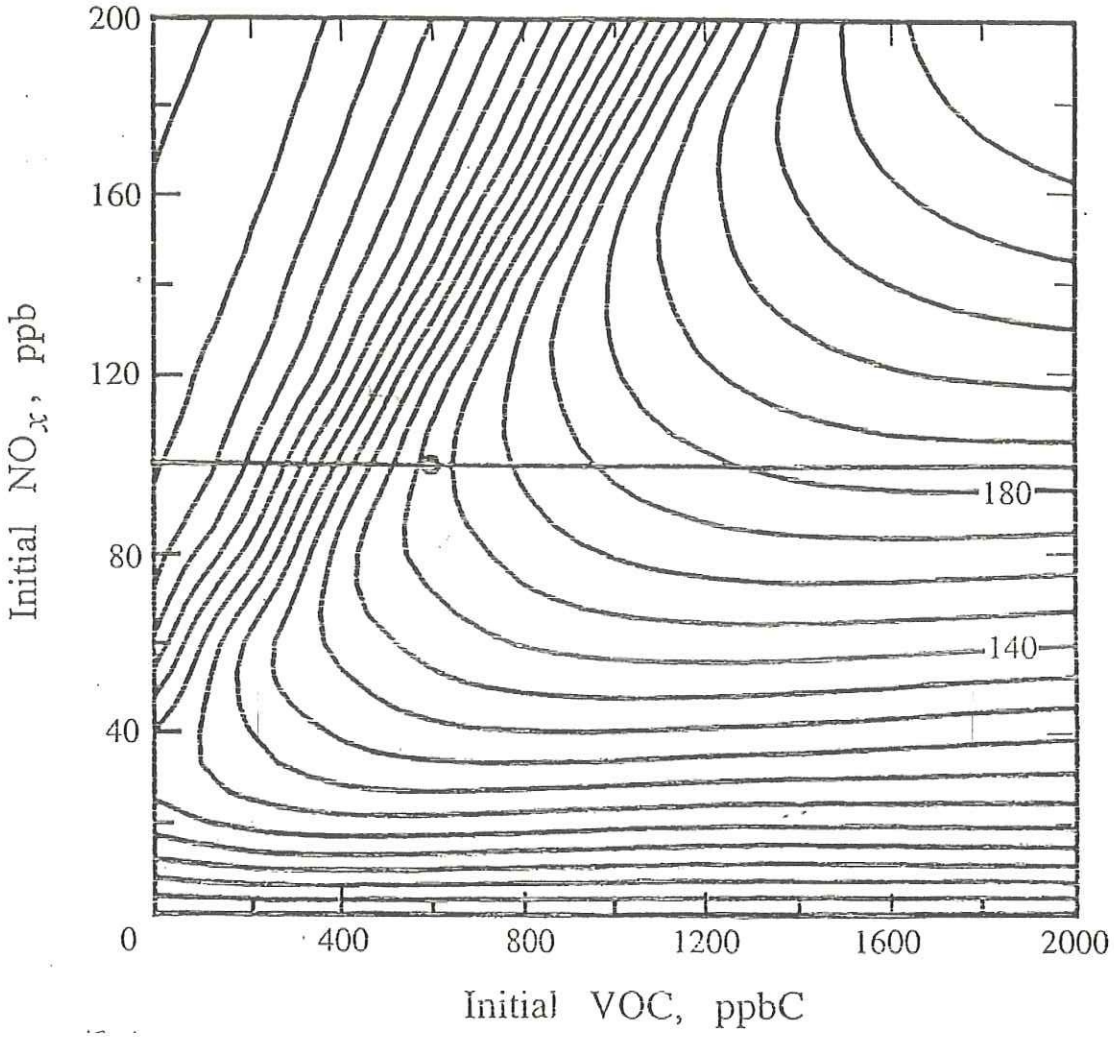
To address the potential impacts due to O_3 (ground level ozone), the NO_X and VOC (NMHC) output from the CAL3QHCR model was combined with the Ozone Isopleth Method (Seinfeld, J.H. and S. N. Pandis, Atmospheric Chemistry and Physics: From Air Pollution to Climate Change, John Wiley, NY, 1326 pages, 1998). This method uses emission changes in O_3 precursors (e.g. NO_X and VOCs) and their ratio to predict maximum downwind ambient O_3 concentration changes. As the factors involved in ozone generation are complex, only an approximation can be expected by this simplified method.

A reported O_3 isopleth profile for Atlanta, as a function of initial NO_X and NMHC concentrations within the downtown urban source area in combination with box model simulations and other fixed conditions, is shown in Figure A12-1. The resulting downwind short-term maximum O_3 concentrations, which include a background level representative of the region, are then depicted by the empirically-based isopleths contours. This approach may be applicable to other urban areas with the assumption of similar air shed conditions (e.g., background VOC species concentrations, mixing heights, upper air O_3/VOC levels which enter the cell as well as relevant solar/meteorological conditions).

A12-2: Data Application

The maximum modelling concentrations of the mobile source NO_X and NMHC for the various traffic scenarios were applied to the isopleths to predict the approximate peak O_3 concentrations which would occur downwind of the source area. The calculated source NMHC concentrations were converted to the relevant ppb_c units on the basis that the mobile NMHC emissions represented propane-equivalent emission rates. It was also assumed that the predicted peak ozone concentrations represented hourly averaged levels. For the present (baseline), 2011 construction and operation scenarios, the predicted maximum ozone concentrations were beyond the isopleth plot boundaries and presumed below the lowest extrapolated O_3 isobar concentration (VOC limited region below the elevated ozone ridge). These conditions were predicted to result in peak downwind ozone concentrations, including background, of <80 $\mu g/m^3$ ($\approx$ <40 ppb). The 2021 (future do nothing) scenario, as well as the 2021 (A) and 2021 (B) operating scenarios predict peak downwind O_3 concentrations, including background, in the range of approximately <80 to 110 $\mu g/m^3$ ($\approx$ <40 to 55 ppb) and was assigned a conservative value of <130 $\mu g/m^3$ ($\approx$ 65 ppb) ozone. It is pertinent to note that the maximum hourly O_3 concentration measured at either of the two MOE Windsor sites during 2005 was approximately 220 $\mu g/m^3$ or 111 ppb (see Appendix 2, Table A2-3) which most likely reflects input for other distant source emissions.

Figure A12-1: Ozone isopleths plot based on simulations of chemistry along air trajectories in Atlanta (Jeffries and Crouse, 1990). Each isopleths is 10 ppb higher in O_3 as one moves upward and to the right (Seinfeld and Pandis, 1998)



APPENDIX 13

Concentration Contours
(9 pages)

Figure A13-1: Nitrogen Oxides (24-hour) – Present (Baseline)

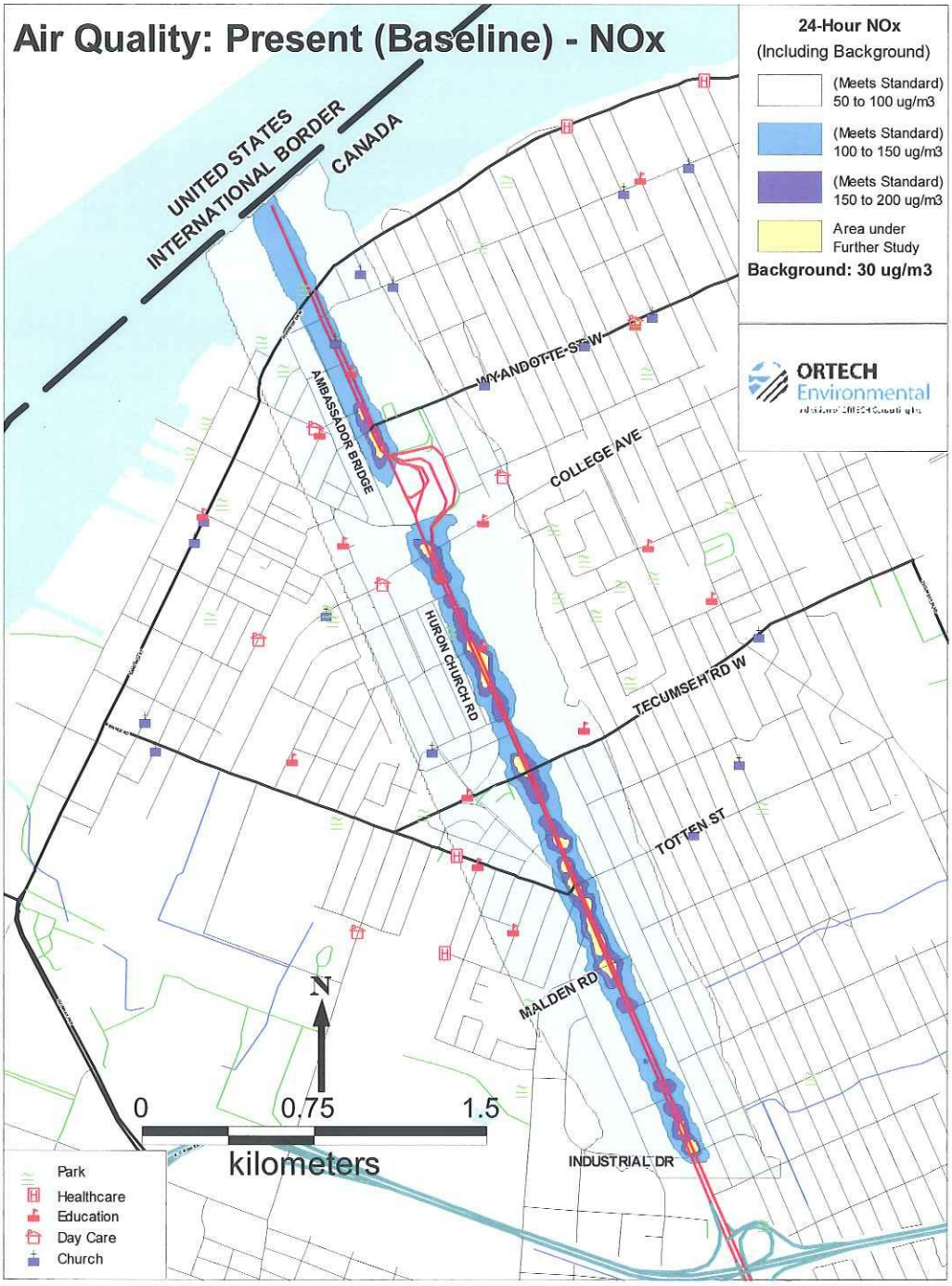


Figure A13-2: Nitrogen Oxides (24-hour) – 2011 Operation (ABEP)

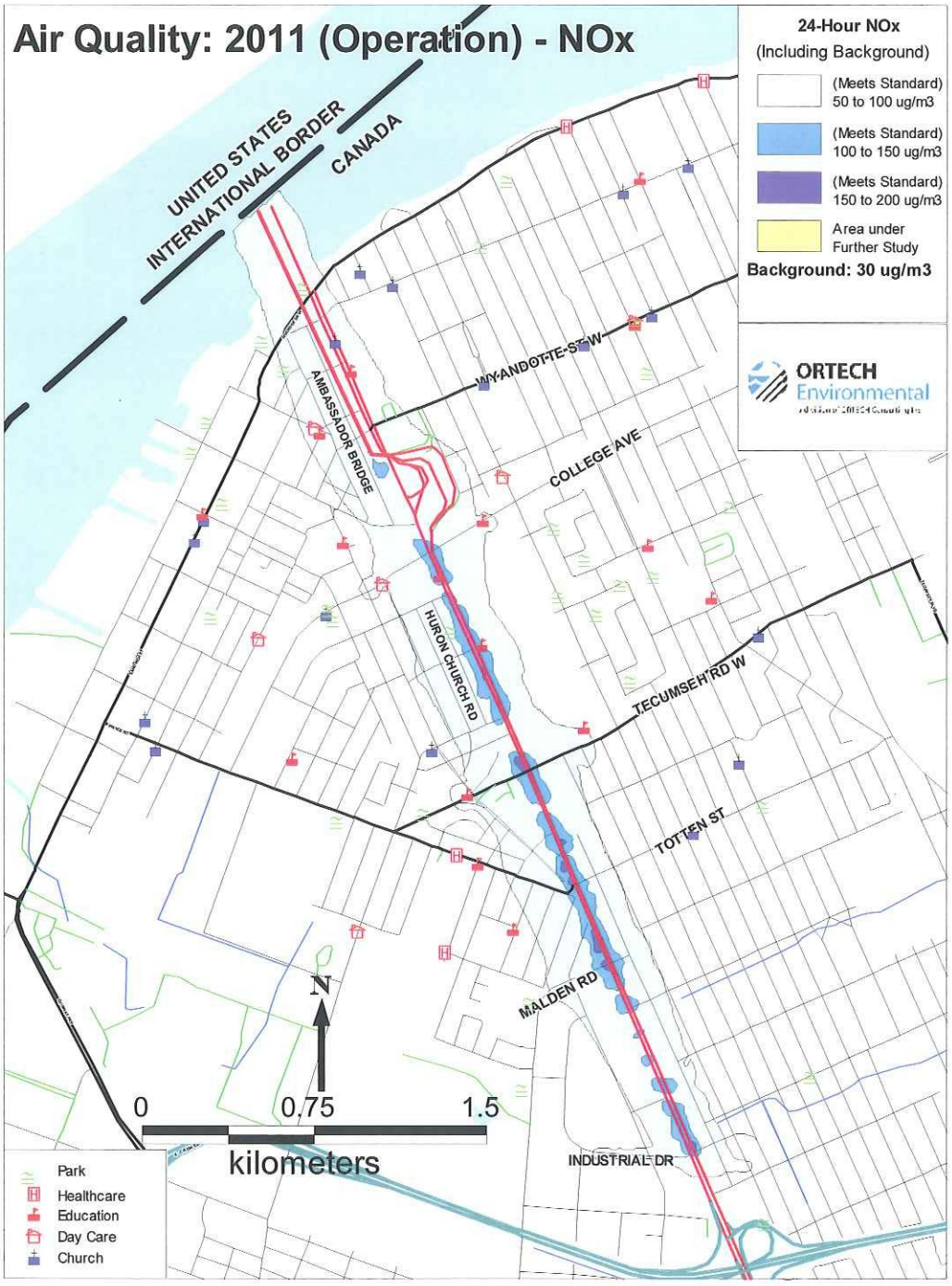


Figure A13-3: Nitrogen Oxides (24-hour) – 2021 (FDN)

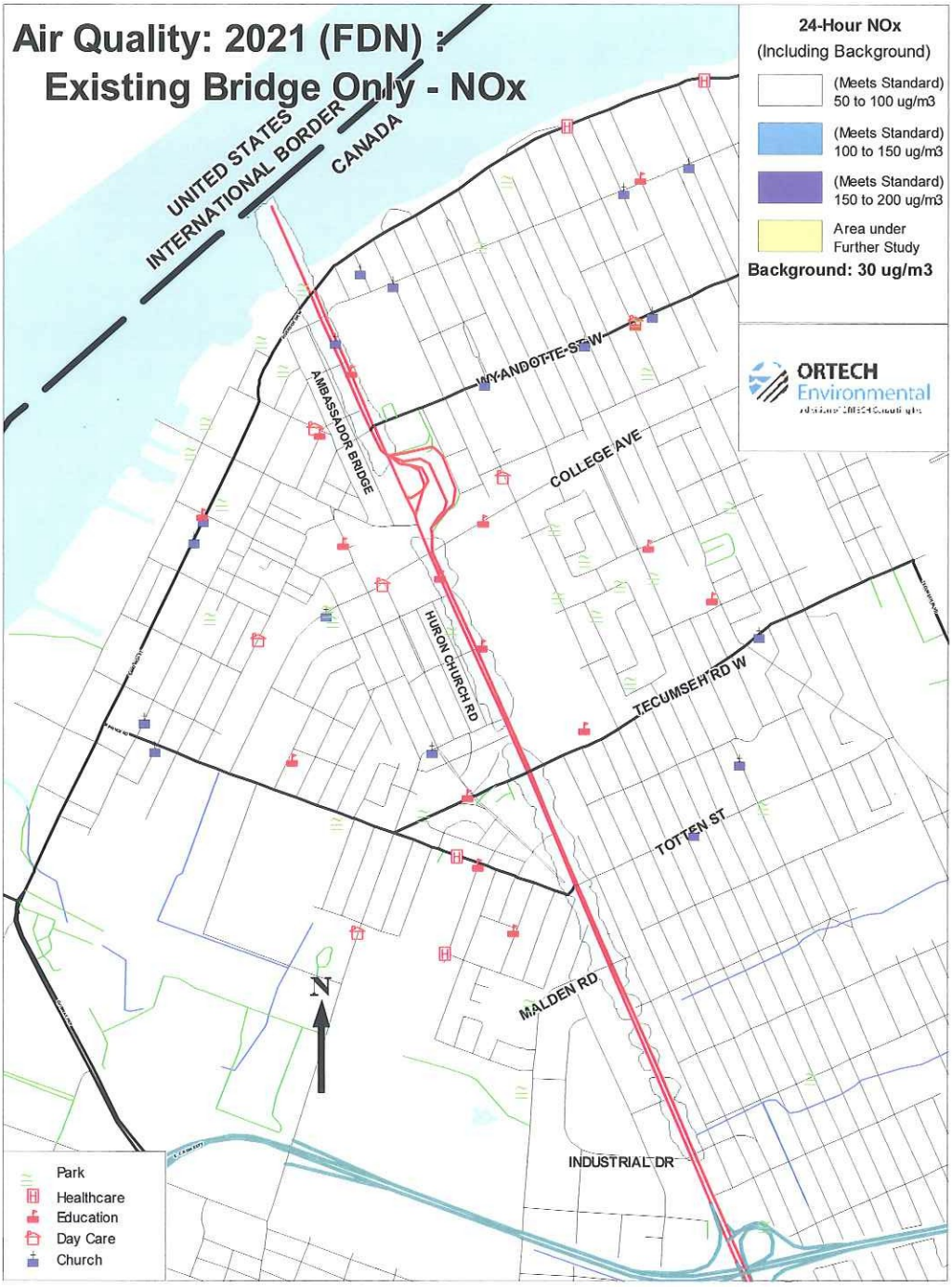


Figure A13-4: Nitrogen Oxides (24-hour) – 2021 (A)

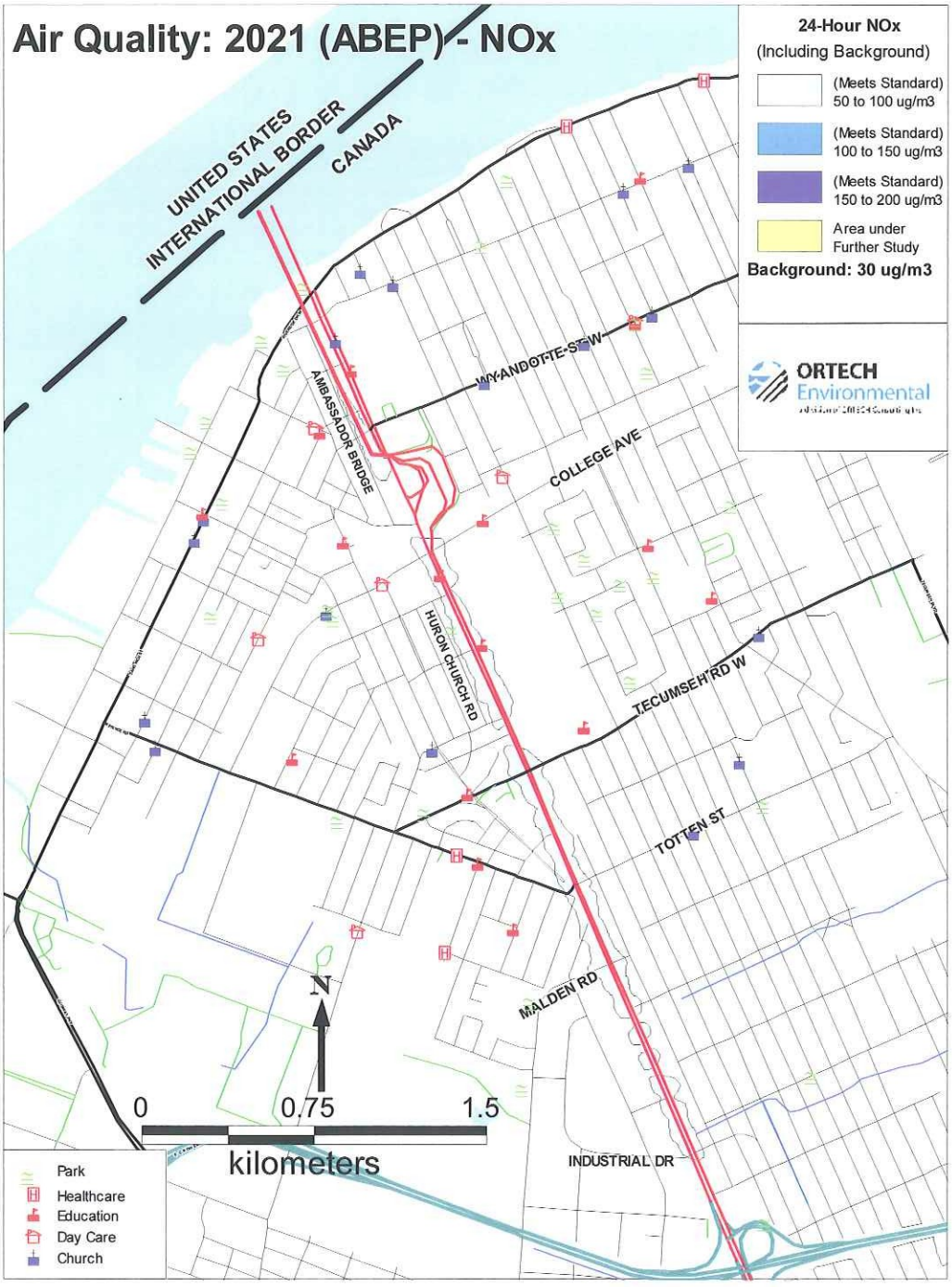


Figure A13-5: Nitrogen Oxides (24-hour) – 2021 (B)

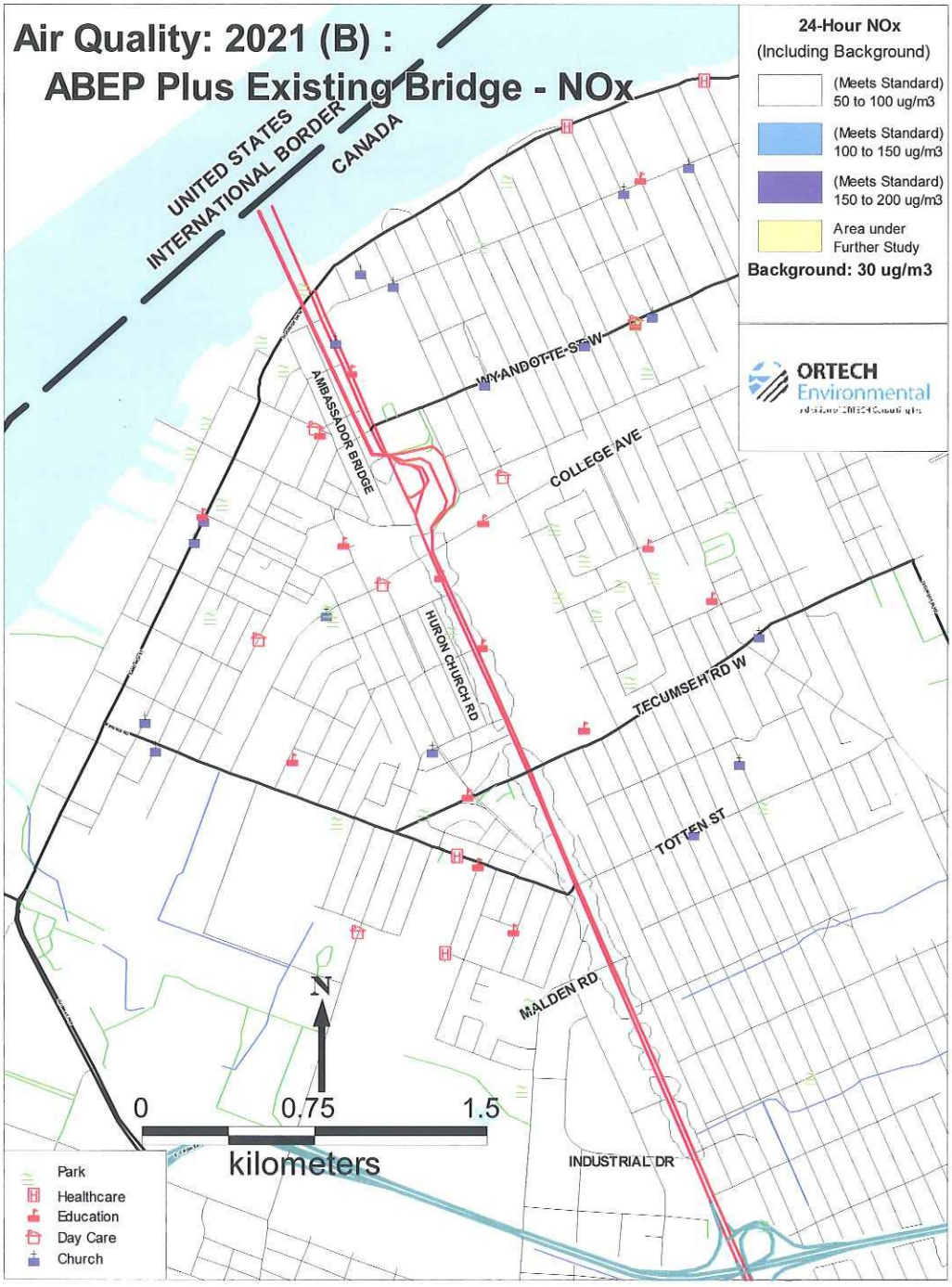


Figure A13-6: $PM_{2.5}$ (24-hour) – Present (Baseline)

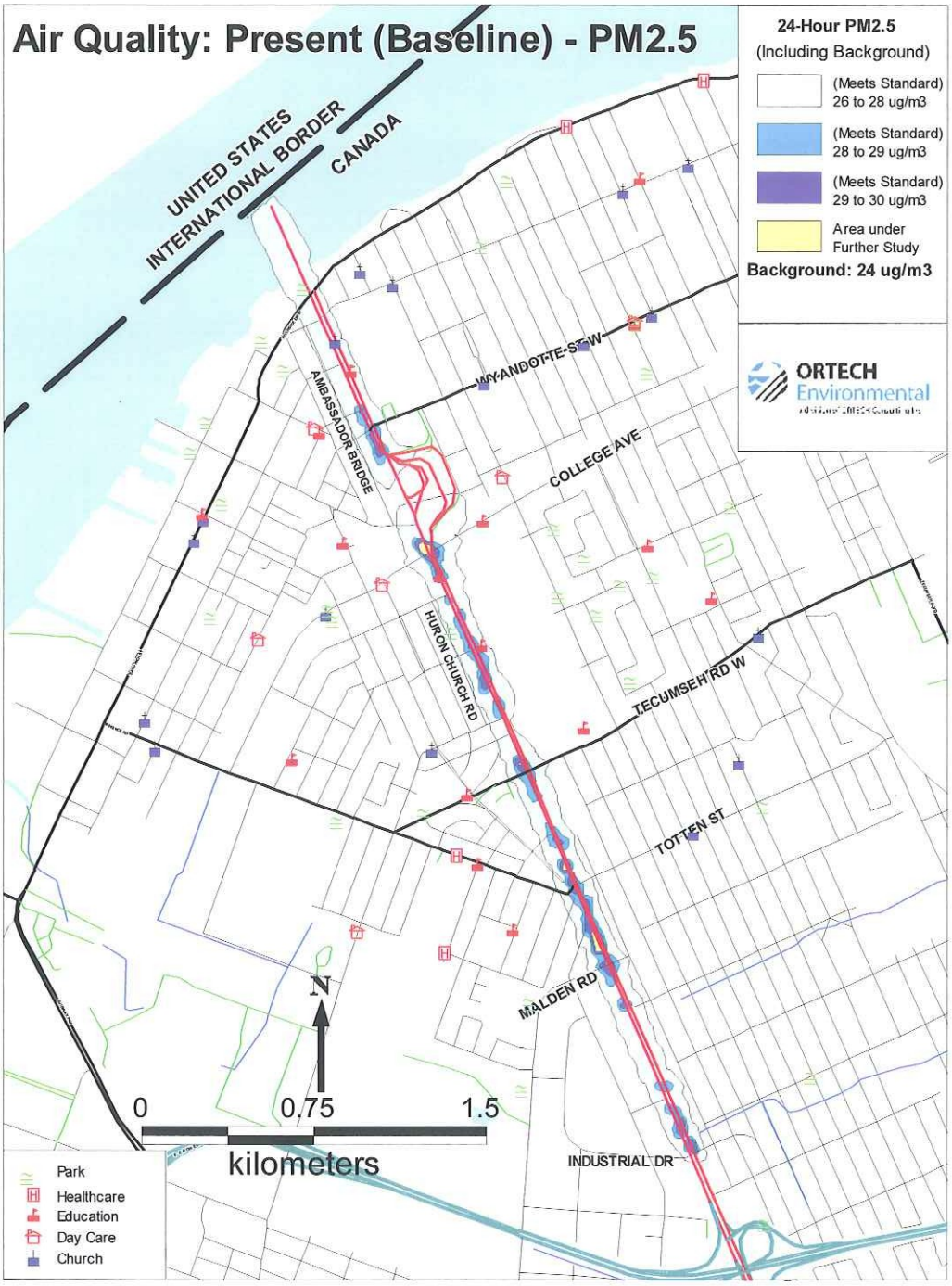


Figure A13-7: $PM_{2.5}$ (24-hour) – 2021 (FDN)

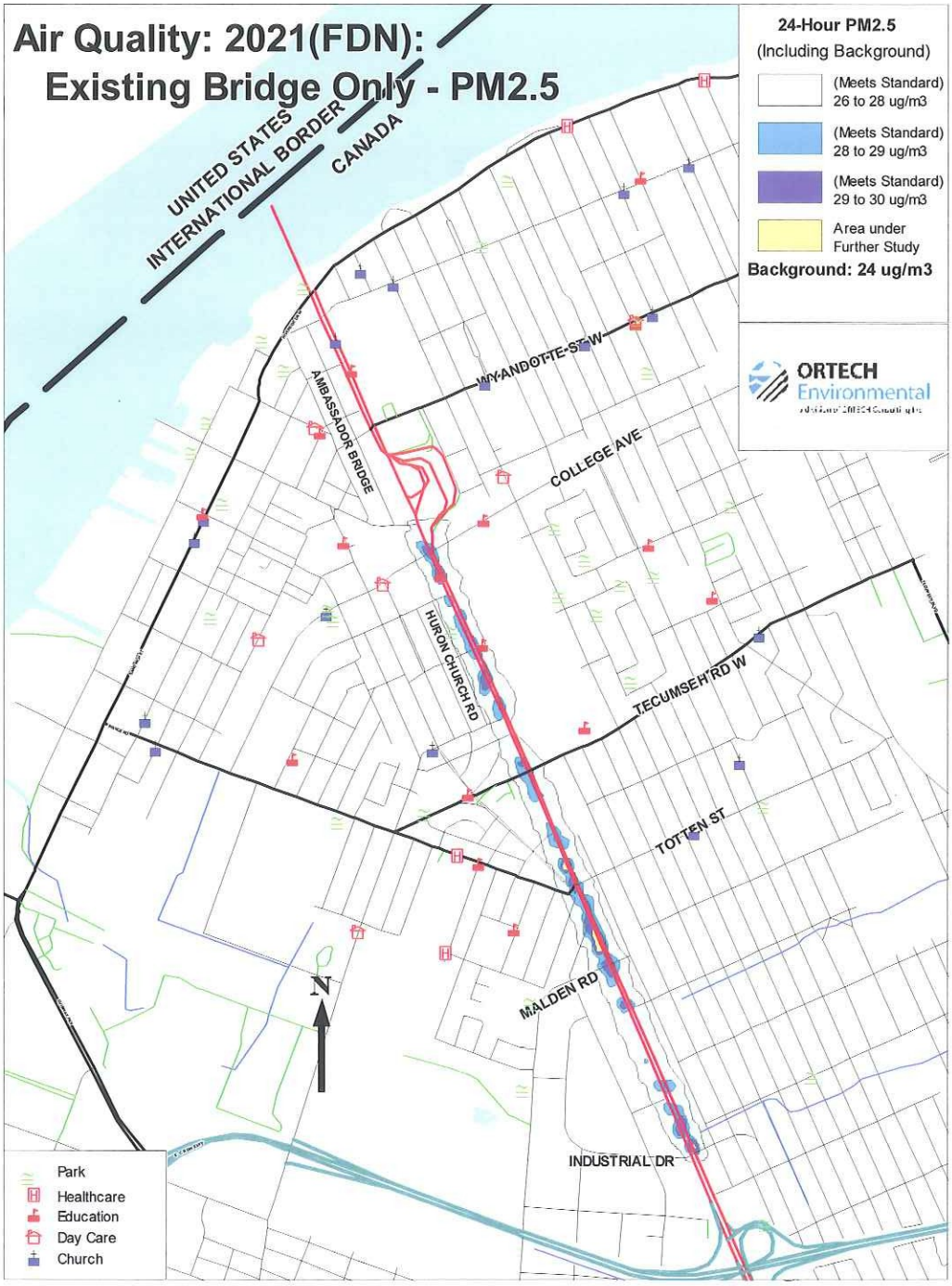


Figure A13-8: $PM_{2.5}$ (24-hour) – 2021 (A)

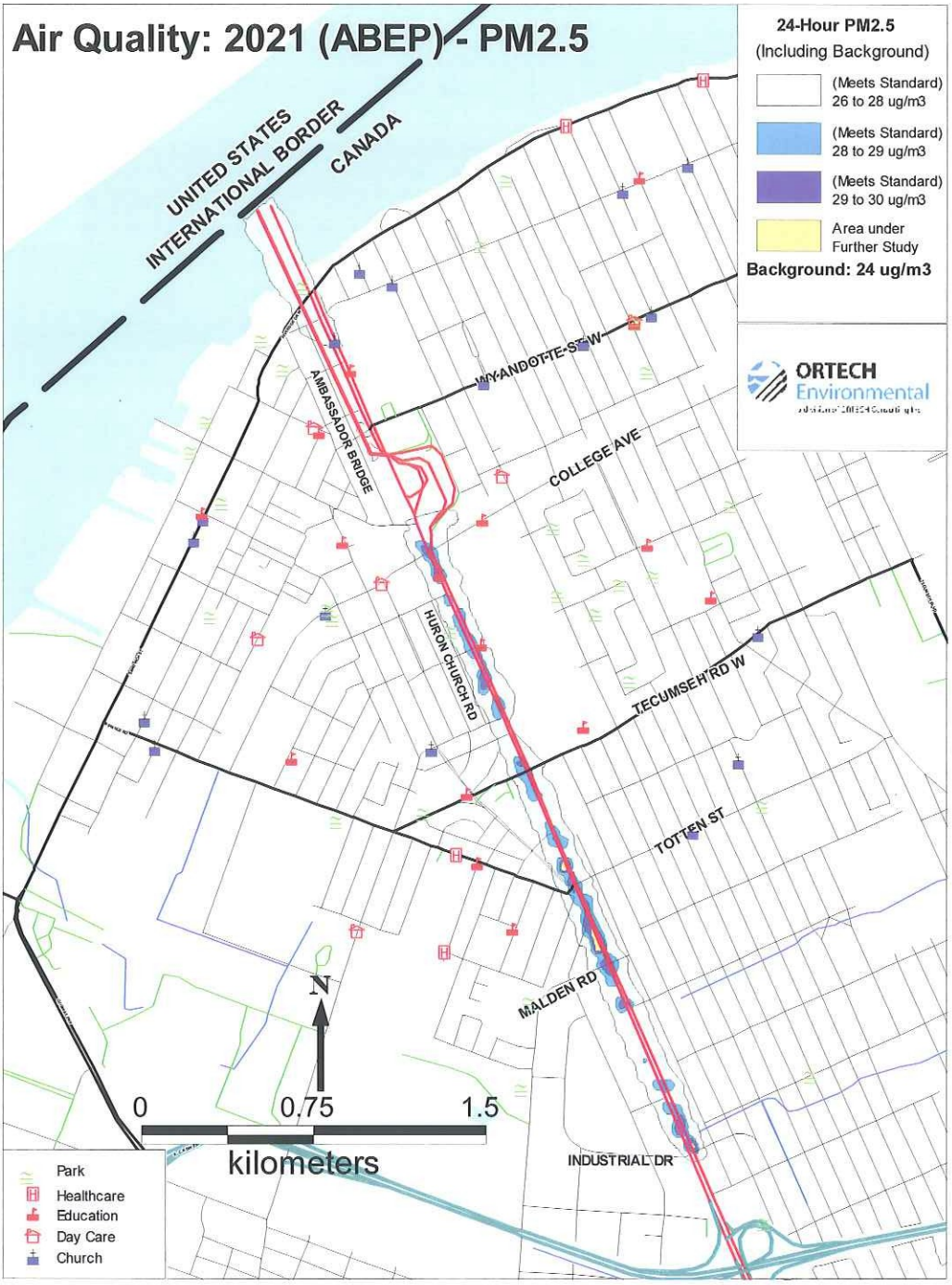
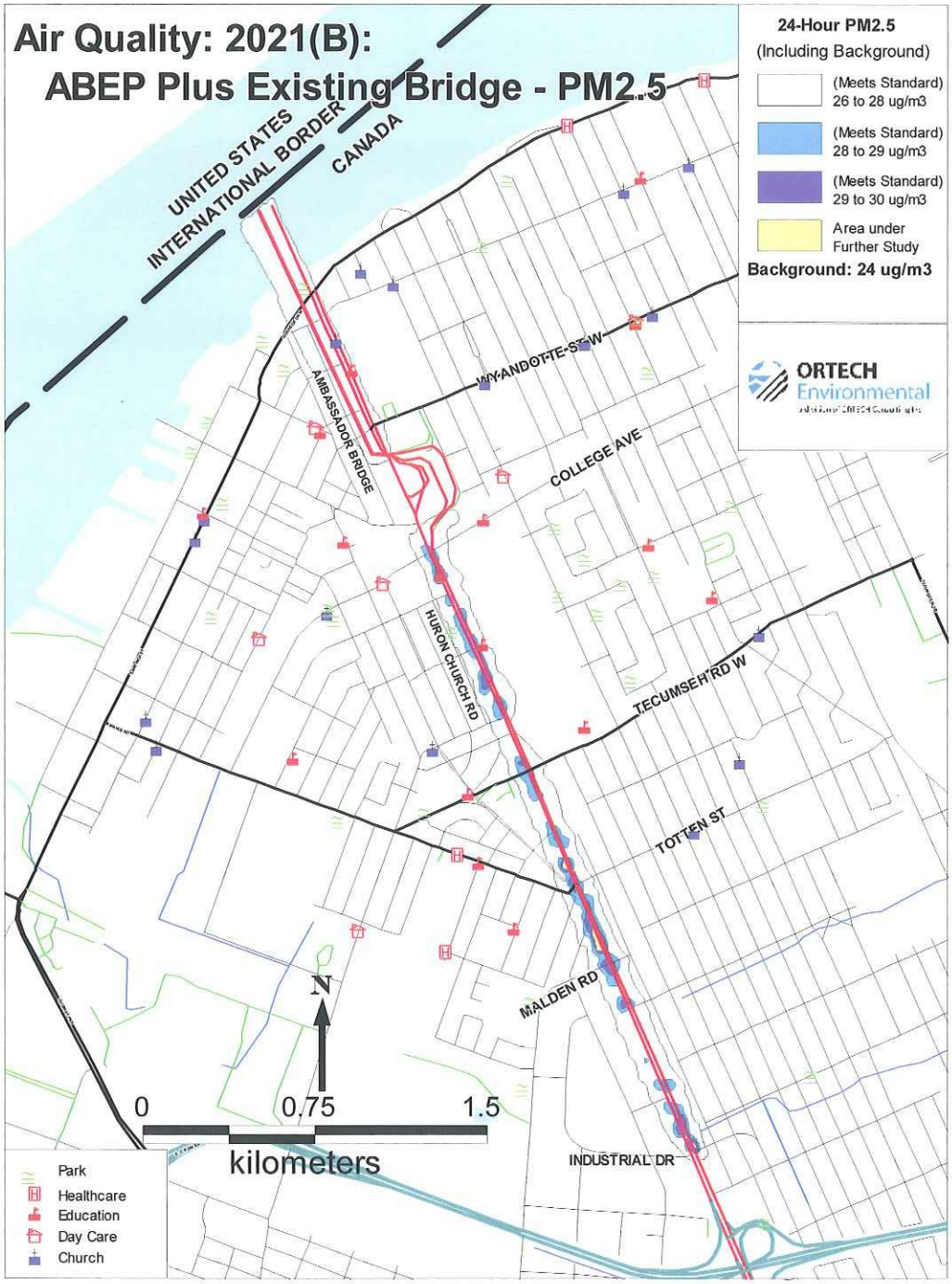


Figure A13-9: $PM_{2.5}$ (24-hour) – 2021 (B)



APPENDIX 14

Mitigation Measures for Construction Activities
(14 pages)

A14-1: Introduction

During bridge construction traffic across the existing Ambassador Bridge will be maintained. Emissions related to construction activities described in Appendix 9 are additive to the mobile on road emissions from the bridge described in Appendix 7.

Due to the proximity of construction activities relative to residential receptors, primarily along Indian Road, construction emissions may impact the surrounding community.

The temporary nature of construction differentiates it from other emission sources as to estimation and control of emissions. Generally, construction consists of a series of different operations each with a unique combination of equipment activity and emission generation potential. For this reason the approach for construction has been to estimate fleet-based emissions for nitrogen oxides (NO_X) and area wide emissions for fugitive dust. Emissions are assumed to be evenly distributed over the active construction area and impacts determined via AERMOD dispersion modeling as described in Appendix 11.

Under specific meteorological conditions and equipment activity scenarios, concentrations of NO_X and fine particulate matter above the air quality criteria within the immediate vicinity of the construction site may occur. Emissions of these substances are therefore the subject to practical mitigation controls.

The development of a formalized mitigation plan for the control of construction emissions is proposed as a means towards ensuring the replacement span can be constructed with minimal impacts on the environment and surrounding community ensuring no adverse environmental effects. Several mitigation measures are presented within this section to provide the constructor limited flexibility in selecting appropriate mitigation control measures and alternate control measures. Alternate methods proposed by the constructor should be proven to achieve at least the same level of control as those methods outlined in below.

A14-2: Mitigation of Nitrogen Oxides

Heavy Duty Diesel non-road engines historically have not been subjected to the stringent emission regulations of on road vehicles and can be a significant source of NO_X and fine particulate matter ($PM_{10}/PM_{2.5}$). An initial mitigation control strategy assumes all non-road vehicles, with the exception of marine engines, will comply with USEPA Tier 3 heavy duty diesel emission standards for NO_X and fine particulate matter.

Construction of the main bridge span across the Detroit River will require the use of Tug Boats and Barges to position sections of the main span under the cantilever bridge crane traversing along the constructed bridge deck. Marine diesel engines below 30 liters per cylinder displacement are not subject to USEPA Tier 3 type emission standards until 2009 with larger engines achieving this standard in 2012. USEPA Tier 3 diesel standards for non-road engines (including marine) seek to reduce emissions of NO_X and particulate matter by 80 to 90% from current (2004) levels.

USEPA Tier 3 emission standards apply to new engines and there is currently no requirement to retrofit existing engines. For this reason it may not be practical to impose USEPA Tier 3 emissions standards on construction equipment specific to bridge work, such as rotary augers and cantilever bridge cranes. Additionally, limited verified retrofit technology for NO_X reduction is available for non-road diesel engines. Table A14-1 provides a summary of verified retrofit technologies from the USEPA website. Consideration shall be given to the use of available equipment conforming to USEPA Tier 3 non-road emission standards.

Table A14-1: Diesel Retrofit Verified Technologies

Verified Retrofit Technologies			
Manufacturer	**Technology**	**Applicability**	**Reduction %** NOx
[Caterpillar, Inc.]b	[Emissions Upgrade Group]b	[Caterpillar model 3306 diesel engines for nonroad applications with model years from 1988 to 1995 with mechanical direct fuel injection.]b	[27] b
Clean Diesel Technologies, Inc.	Platinum Plus Purifier System (fuel borne catalyst plus DOC)	Highway, medium heavy- and heavy heavy-duty, 4 cycle, model year 1988 - 2003, turbocharged or naturally aspirated engines	0 to 5
Clean Diesel Technologies, Inc.	Platinum Plus Fuel Borne Catalyst/Catalyzed Wire Mesh Filter (FBC/CWMF) System	Highway, medium heavy-duty, 4 cycle, model year 1991 - 2003, non-EGR, turbocharged or naturally aspirated engines	0 to 9
International Truck & Engine Corp.	Green Diesel Technology-Low NOx Calibration plus Diesel Oxidation Catalyst with Ultra Low Sulfur Diesel (ULSD)	Highway, light heavy-duty, 4 cycle, Navistar/International engines, model years 1999 - 2003 in the following families: XNVXH0444ANA, YNVXH0444ANB, 1NVXH0444ANB, 2NVXH0444ANB, 3NVXH0444ANB	25
Lubrizol	PuriNOx Water emulsion fuel	Highway & Non-road, heavy-duty, 2 & 4 cycle	9 to 20
Various	Biodiesel (1 to 100%)	Highway, heavy-duty, 2 & 4 cycle	-10 to 0
Various	Cetane Enhancers	Highway, heavy-duty, 4 cycle, non-EGR-equipped engines	0 to 5

a - Total PM reduction figures reflect reductions from both tailpipe and crankcase emissions.
b - This verification is conditional. Full verification will be achieved upon completion of additional testing and other requirements.
Note: For after-treatment devices the reductions are based on the installation of retrofits to engines that were originally produced without diesel oxidation catalysts or diesel particulate filters.

A second mitigation strategy for the reduction of non-road based NO_X emissions is enforcement of the City of Windsor anti-idling bylaw. City of Windsor by-law number 233-2001 *"A by-law to prohibit excessive idling of vehicles and boats"* specifies that;

> *2. (1) "No person shall cause of permit a vehicle or boat to idle for more than five (5) minutes in a sixty minute period.'*
> *2. (2) subsection 2 (1) does not apply to:*
> *(c) boats not at anchor or tied to a dock*
> *(l) vehicles or boats when the ambient temperature inside a vehicle or boat is:*
> *(i) more than twenty-seven degrees Celsius (27^{oC}); or*
> *(ii) less than five degrees Celsius (5^{oC}).*

Enforcement of the anti-idling by-law will reduce both aggregate emissions during bridge construction as well as off-property impacts by effectively reducing the number of "active" vehicles on site.

A third mitigation strategy, a reduction in the number of "active" vehicles on site, was not considered practical as this would not support efficient construction operations. A reduction in the number of active vehicles on site would reduce short term air quality impacts but would also extend the construction period of the bridge and impacts on the local community. Increasing the duration of construction activities would further have the potential to increase impacts related to fugitive emissions of fine particulate matter. In specific construction phases a reduction in the number of active vehicles would not likely be practical due to the requirement to supply the project with materials on a timely basis.

A14-3: Mitigation of Fugitive Dust

Similar to NO_X, fugitive dust emissions associated with construction are additive to the mobile source particulate matter ($PM_{10}/PM_{2.5}$) contributions from the existing bridge and local roads. Although fugitive dust considers all particulate matter size ranges, focus has been given to the fine particulate fraction ($PM_{10}/PM_{2.5}$). Control measures for fine particulate matter will also effectively address total suspended particulate matter (TSP).

Fugitive dust emitted from construction activities may originate from:

- vehicle traffic across unpaved and paved road areas;
- material handling;
- wind erosion;
- material storage piles;
- material track out and transport; and
- engine exhaust emissions.

The amount of particulate emission is related to several factors including:

- silt content of traveled surfaces;
- meteorological conditions (wind and precipitation);
- frequency of disturbances of aggregate piles and surfaces; and
- control measures in place to mitigate dust emissions.

Several jurisdictions in North America, including Ontario and Michigan, have developed policies surrounding the development of "Best Management Plans" (BMP) for the control of fugitive dust emissions from industrial and construction activities. The Ontario Ministry of the Environment Technical bulletin "Review of Approaches to Manage Industrial Fugitive Dust Sources" (January 2004) indicates that the following elements should be incorporated into a BMP for controlling fugitive emissions:

- identify the sources of fugitive dust emissions;
- review the composition and size range of the fugitive dust;
- describe how fugitive dust will be controlled from each source;
- contain a schedule by which the plan will be implemented;
- describe how the plan will be implemented;
- describe inspection and maintenance procedures, and
- describe methods of monitoring and record keeping to verify compliance with the plan.

The elements are described in detail below.

A14-3.1: Identification of Fugitive Dust Sources

The various stages of bridge construction will differ in their potential to emit fugitive dust emissions based upon equipment activity levels, type and quantity of materials used in the construction operation and mobility of the equipment. Table A14-2 provides a summary of fugitive dust sources associated with each phase of construction.

The General Construction Activities category identifies sources of emissions related to operations occurring throughout the construction site whereas subsequent category descriptions cover specific construction events related to defined areas of the site. The greatest potential for fugitive dust emissions will occur during site preparation and final site grading. Emissions from these activities are representative of the general emission factor related to Heavy Construction Operations associated with building and road construction as described in Appendix 9.

Table A14-2: Sources of Fugitive Dust Emissions

Activity/ Source ID	Construction Activity	Sources of Fugitive Particulate Emissions
1	**General Consruction Activities**	Paved and Unpaved Roads Material Handling Wind Erosion Material Storage Piles Material Trackout and Transport Engine Exhaust Emissions
2	**Site Preparation**	Paved and Unpaved Roads Material Handling Wind Erosion Material Storage Piles Material Trackout and Transport
3	**Tower Pier Foundation**	Material Handling Material Storage Piles
4	**Pylon Construction**	Material Handling Material Storage Piles
5	**Pier Table Construction**	Material Handling Material Storage Piles
6	**Balanced Cantilever Construction**	Material Handling Material Storage Piles
7	**Back Span & Main Span Continuity**	Material Handling Material Storage Piles
8	**Cdn Bridge - Span Excavation / Drilling of Footings**	Material Handling Material Storage Piles
9	**Forming / Pouring of Footings**	Material Handling Material Storage Piles
10	**Forming / Pouring of Pier Columns & Caps**	Material Handling Material Storage Piles
11	**Erection of Beams**	not identified as a significant source
12	**Bridge Deck Construction**	not identified as a significant source
13	**Final Site Grading**	Paved and Unpaved Roads Material Handling Wind Erosion Material Storage Piles

A14-3.2: Composition and Size Range of Particulate Matter

The construction area consists of previously developed single family residential and institutionally zoned areas. During site preparation and final grading, topsoil and underlying soil layers will be exposed to disturbances from vehicle traffic and material handling activities. These soil layers will have a significant PM_{10} fraction and may exhibit high variability within the construction area.

Backfill and construction aggregate will consist of relatively coarser materials and hence have a lower potential for fugitive fine particulate emissions.

A14-3.3: Best Management Plan for Controlling Fugitive Dust Emissions

The Best Management Plan (BMP) plan for controlling fugitive dust emissions is described in Sections A14-3.3.1 through A14-3.3.10. This program is based on limiting the causes of dust emissions from the major source categories through physical, design and/or operational controls.

The following sections discuss the dust management program for the sources of fugitive particulate emissions identified in Table A14-1. Implementation, inspection and record keeping requirements are discussed separately.

A14-3.3.1: Road Dust from Unpaved Roads and Surfaces

Dust emissions due to traffic on unpaved roads are influenced by the following:

Particle Size: Emissions increase as the fines content of the road bed or surface loading material increases. Minimizing the number of trips helps to reduce crushing of the material on the road surface, which helps to limit the silt content. Unpaved sections will not be used as primary haul routes within the construction area, but will be required to access the construction site. In general these distances will be kept to less than 100 meters in length. Unpaved road sections greater than 100 meters shall be covered with coarse gravel within the construction site as a control measure to reduce surface silt loadings and hence particulate emissions.

Moisture Content: Emissions of dust are reduced as the moisture content increases. Special attention to moisture content is required during dry conditions at any time of the year. A water truck operated by the constructor to apply water to on-site unpaved roadways will ensure adequate moisture of the surface to prevent excessive particulate emissions from unpaved roads. The control efficiency is dependant upon how fast the road surface dries, the quantity (per unit area) of water added at each application as well as the weight and speed of vehicles traveling over the surface. An increase of two in the moisture ratio, defined as the moisture content of controlled surfaces over uncontrolled surfaces, results in predicted control efficiency of 75%. (US EPA, AP-42, 13.2.2)

Similarly chemical dust suppressants may be utilized to control emissions and may prove to be a more cost effective method to control emissions. Control efficiencies of up to 80% may be achieved when chemical suppressants are applied to unpaved roads at regular intervals of 2 weeks to 1 month (US EPA, AP-42, 13.2.2).

Distance: The emissions increase as the total distance traveled increases. In order to minimize this, the best approach is to minimize the number of times the material is handled and to choose direct routes. To this end, consideration will be given to the removal of excavated materials directly from the construction site and backfill material brought onto the construction site directly to the area under construction. When these materials are directed to temporary staging areas for future use, efforts will be made to limit traffic in these areas as a further means to reduce emissions and trackout of material from the area.

Weight: The emissions increase as the weight of the vehicle and loads increase.

Speed: The emissions decrease as the vehicle speeds decrease. Vehicle speeds across unpaved sections will be limited to 10 kilometers per hour.

A14-3.3.2: Road Dust from Paved Roads and Surfaces

Particulate emissions from paved roads result from re-suspension of loose material on the road surface. These emissions are influence by:

Silt Loading: Emissions increase with increasing silt loadings. Road silt loading may significantly increase in the vicinity of material storage piles and unpaved road sections resulting from material track out, spillage and wind erosion. Access and egress routes to the construction site, as well as local roads adjacent to the site, should be maintained in a manner to prevent the accumulation of material on the surface of paved roads. The frequency of cleanup and road sweeping activities required to maintain this level is dependent upon construction activity, implementation of BMP and weather conditions such as precipitation.

Distance: The emissions increase as the total distance traveled increases. In order to minimize this, the best approach is to minimize the number of times the material is handled and to choose direct routes. To this end, consideration will be given to the removal of excavated materials directly from the construction site and backfill material brought onto the construction site directly to the area under construction. When these materials are directed to temporary staging areas for future use, efforts will be made to limit traffic in these areas as a further means to reduce emissions and track out of material from the area.

Weight: The emissions increase as the average weight of the vehicles traversing the road increase.

Other factors: Although not direct inputs into the emission factor equation, mean vehicle speed, average daily traffic volume, number of lanes, and the presence/absence of curbs is believed to influence fugitive dust emissions from paved roads.

A14-3.3.3: Material Handling

Emissions due to material handling are influenced and controlled by the following:

Volume of Material Handled: The volume of material handled is minimized by minimizing the number of times the material is handled. To this end, consideration will be given to maximize efficiencies by minimizing double handling of materials. Careful planning to limit the volume of material stored within the construction site will have further benefits to emissions caused by vehicle traffic and wind erosion.

Moisture Content: Emissions of dust are reduced as the moisture content increases. Watering and the use of chemical wetting agents are the principal means for control of aggregate storage piles. Watering is useful to reduce emissions from vehicle traffic operating adjacent to the storage pile whereas chemical agents (such as surfactants) permit more through wetting of the storage pile. Consideration will be given to these control methods if on site storage of soil, aggregates or backfill materials is required. Prompt removal and or deliver of materials are additional control strategies which should be balanced against efficient construction methods.

Particle Size: Emissions increase as the fines content of the material being handled increases. Therefore materials with higher fines content, such as topsoil, require more controls for materials handling than coarse granular "A" type material with lower fines content.

Wind Speed: Emissions increase as the wind speed increases. Working in protected areas reduces the emissions from material handling sources. The erection of hoarding and or wind screens around the construction site combined with maintaining trees and vegetation is an effective means to reduce wind blown fugitive emissions from the site. Halting work during high wind events may be required for specific phases of construction such as site preparation and final grading where large sections of disturbed soil may be exposed. For other construction activities, such as bridge deck construction, continuation of work and thus minimizing the amount of time unprotected areas are exposed to natural elements, may be the most effective means to control fugitive emissions.

Drop Heights: Decreases in drop heights decrease the potential for dust to become entrained. Elevated stacking conveyors for aggregate handling will not be used on site and drop heights will be kept to minimum levels practical.

A14-3.3.4: Wind Erosion

Dust emissions due to wind erosion are influenced by the following:

Active Surface Area: The larger the active surface, the larger the potential for wind erosion. The total construction site area is 125 hectares, in effort to control emissions it is recommended that the simultaneous active site area(s) be kept to within 10% or 12.5 hectares. Consistent with material handling control strategies outlined above, minimizing the time that material spends in holding piles limits the surface area. Where material must be stored in long term inactive areas, application of controls, such as wetting agents or covers, also limits the surfaces open to wind erosion.

Consideration will be given to maintaining vegetation within the construction area as a means to reduce the exposed surface area. Coordination of final site grading requirements and construction activities will be conducted as a control measure to reduce the time period and extent of wind erosion from the site. Covering of large exposed areas with coarse material, such as mulch is a viable alternative control measure.

Moisture Content: Emissions of dust are reduced as the moisture content increases. Special attention is paid to moisture content during dry conditions at any time of the year. The amount of moisture that can be added must be considered to prevent track out emissions. Sufficient time should be allowed between the application of dust suppressants and vehicle traffic to allow for penetration of the wetting agent through the top layer of soil.

Particle Size: Emissions increase as the fines content of the material decreases. Covering of large exposed areas with coarse material, such as mulch is a viable control measure which should be coordinated with final site grading and other activities.

Wind Speed: Emissions increase as the wind speed increases. Working in protected areas reduces the emissions due to wind erosion. Erection of hoarding or wind screens around the construction site in conjunction with maintaining existing trees is an effective measure to reduce ground level wind speeds.

Surface Roughness: Contouring and shaping reduces turbulence, resulting in reduced wind erosion. The general topography of the construction site is flat, evenly graded land. Limiting the size and height of storage piles on site is an effective measure to reduce the overall surface roughness of the site.

A14-3.3.5: Material Track out

Dust emissions due to material track out result from materials adhered onto the wheels of vehicles leaving the site and from spillage/leakage of material away from material storage piles. Material track out results in increase paved and unpaved road dust and wind erosion emissions. Measures to control the quantity of material tracked out from the site include:

Vehicle Inspections: Vehicles traveling over unpaved surfaces either during precipitation events or following such events should be inspected prior to leaving the site to remove excess quantities of material from tires and undercarriages. Due to the arrangement of the construction site and multiple points of access/egress the establishment of multiple truck or tire wash station(s) may not be a practical mitigation measure.

Vehicle Maintenance: Seals and latches on haul trucks should be inspected and maintained to prevent the release of materials onto the roadway.

Cleanup: Egress locations and material storage piles located throughout the construction site should be routinely inspected and accumulation of debris promptly removed.

A14-3.3.6: Vehicle Emissions

Particulate emissions from engine exhaust will be controlled as with vehicle NO_X emissions as described in section A14-2.

A14-3.3.7: Best Management Plan Schedule

The BMP will be finalized by the constructor, submitted to the owner and implemented as construction progresses.

A14-3.3.8: Implementation of Best Management Plan

The constructor will develop the final BMP based upon a review of the proposed fugitive dust mitigation measures for each source. Table 14-3 provides a framework for the development of the BMP. Upon completion of the BMP, the constructor shall provide training to personnel on the construction site prior to commencing with the applicable project phase. The constructor shall ensure materials and or structures are in place, or readily available, as required by the BMP prior to commencing the applicable project phase.

A14-3.3.9: Inspection and Maintenance Procedures

The constructor shall conduct routine inspections of the construction site, record site conditions and initiate corrective measures as appropriate consistent with the BMP.

A14-3.3.10: Monitoring and Record Keeping

The constructor shall be responsible for the development of a daily log sheet consistent with the requirements of the BMP to assist with the recording of activities identified in the BMP. Records shall be kept on site.

Table A14-3: Development of a Fugitive Dust Best Management Plan

Fugitive Dust Management Plan: Ambassador Bridge Enhancement Project

Item: 1	Fugitive Dust Source:	Unpaved Roads and Routes
	Control Method:	
	Frequency of Application/Inspection:	
	Record Keeping Requirements:	
	Monitoring of Control Efforts:	
	Summary of Mitigation Methods:	

Item: 2	Fugitive Dust Source:	Paved Roads
	Control Method:	
	Frequency of Application/Inspection:	
	Record Keeping Requirements:	
	Monitoring of Control Efforts:	
	Summary of Mitigation Methods:	

Item: 3	Fugitive Dust Source:	Material Handling
	Control Method:	
	Frequency of Application/Inspection:	
	Record Keeping Requirements:	
	Monitoring of Control Efforts:	
	Summary of Mitigation Methods:	

Item: 4	Fugitive Dust Source:	Loading and Unloading Operations
	Control Method:	
	Frequency of Application/Inspection:	
	Record Keeping Requirements:	
	Monitoring of Control Efforts:	
	Summary of Mitigation Methods:	

Table A14-3: Development of a Fugitive Dust Best Management Plan (continued)

Fugitive Dust Management Plan: Ambassador Bridge Enhancement Project

Item: 5	Fugitive Dust Source:	Wind Erosion
	Control Method:	
	Frequency of Application/Inspection:	
	Record Keeping Requirements:	
	Monitoring of Control Efforts:	
	Summary of Mitigation Methods:	

Item: 6	Fugitive Dust Source:	Material Storage Piles
	Control Method:	
	Frequency of Application/Inspection:	
	Record Keeping Requirements:	
	Monitoring of Control Efforts:	
	Summary of Mitigation Methods:	

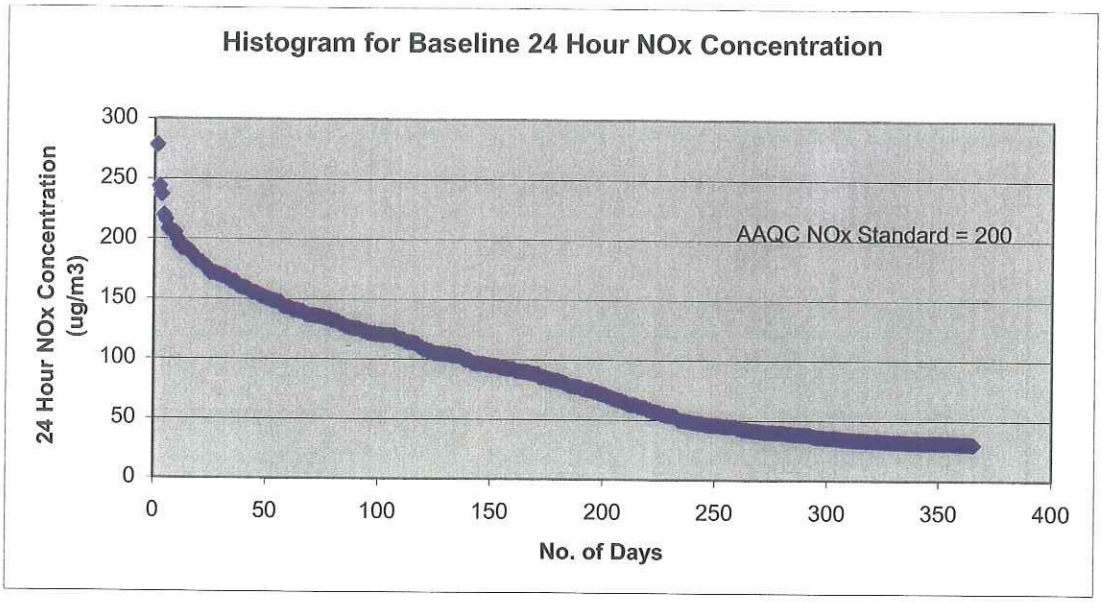
Item: 7	Fugitive Dust Source:	Material Trackout and Transport
	Control Method:	
	Frequency of Application/Inspection:	
	Record Keeping Requirements:	
	Monitoring of Control Efforts:	
	Summary of Mitigation Methods:	

Item: 8	Fugitive Dust Source:	Engine Exhaust Emissions
	Control Method:	
	Frequency of Application/Inspection:	
	Record Keeping Requirements:	
	Monitoring of Control Efforts:	
	Summary of Mitigation Methods:	

APPENDIX 15

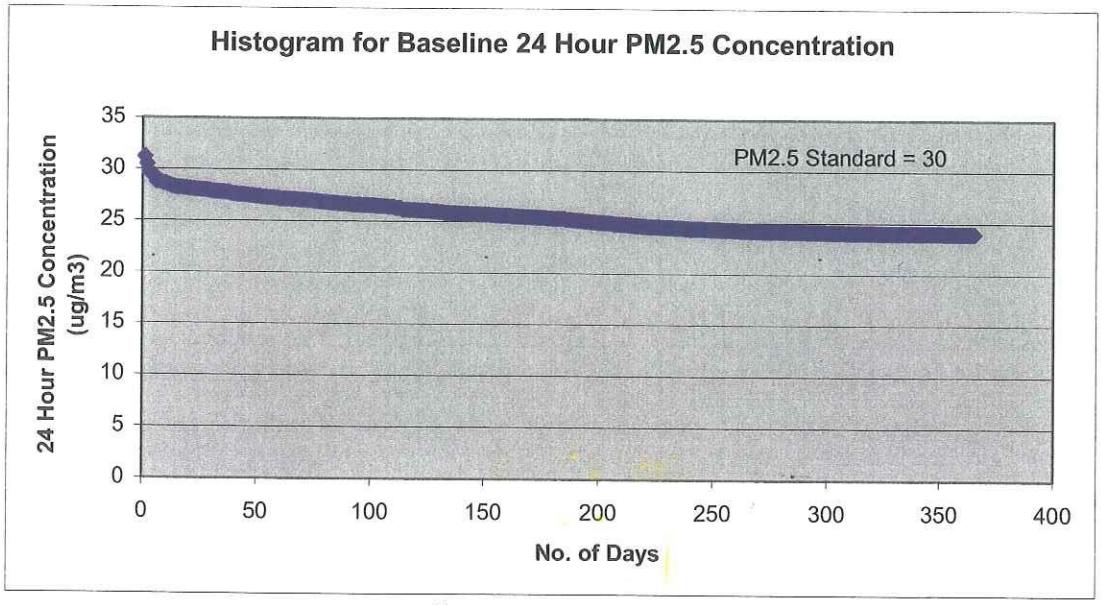
Frequency Plots
(1 page)

Figure A15-1: Frequency Histogram for Virtual Receptor with Maximum 24-hour NOx Air Quality Concentration (Including Background): Present (Baseline)



Note: background level = 30 $\mu g/m^3$

Figure A15-2: Frequency Histogram for Virtual Receptor with Maximum 24-hour $PM_{2.5}$ Air Quality Concentration (Including Background): Present (Baseline)



Note: background level = 24 $\mu g/m^3$

CEAA ENVIRONMENTAL CEAA ENVIRONMENTAL
ENVIRONMENTAL IMPACT ASSESSMENT

AMBASSADOR BRIDGE ENHANCEMENT PROJECT

Replacement Span

APPENDIX C

DRAFT EROSION AND SEDIMENT CONTROL PLAN

Avalon Consulting Professionals of Ontario LLP
December 2007

Draft Erosion and Sediment Control Plan

Introduction

Erosion and sediment are an issue during construction and measures need to be implemented to mitigate any negative impacts on the Detroit River. Unchecked erosion from an active construction site can have a substantial impact ranging from hazardous driving conditions to short and long term reduction of water quality in receiving water courses and wetlands. Soil particles and other forms of suspended matter in surface runoff can eventually accumulate as sediment, thereby restricting drainage, exacerbating flooding, and diverting flows. This can increase the erosion of the beds and banks of receiving water bodies, damage adjacent property, and harm aquatic ecosystems that are associated with wetlands and surface waters. To mitigate any impacts associated with erosion and sediment a control plan will be developed in detail and implemented prior to commencing construction on the Enhancement Project. The following represents a conceptual erosion and sediment control plan that will be reviewed and revised during the engineering design of the Enhancement Project. It will also be subject to review and revision by the provincial Ministry of the Environment (MOE) during their consideration of the application for a Certificate of Authorization.

Construction Phase

Erosion and sediment control measures shall be implemented during construction in order to address water quality leaving the site. This can be achieved with an Erosion and Sediment Control Plan (ESCP). The primary objective of the ESCP is to prevent erosion and control sediments from leaving the construction site. The attached Figure 1 represents the conceptual erosion and sediment control plan. The stormwater treatment facility, outfall, stormwater pipe, and drain inlets will be designed to function as the main form of stormwater conveyance and treatment through both construction and operation.

The ESCP defines the measures and methods that will be employed throughout the project that comply with provincial and local agency guidelines for erosion and sediment control. The interested federal agency is Transport Canada. The interested provincial agency is the MOE. The interested local agency is the Essex Region Conservation Authority. The Ontario Provincial Standards for Roads and Public Works (OPS), prepared by the provincial Ministry of Transportation (MTO) and the Municipal Engineers Association (MEA), has developed and published a comprehensive set of standard specifications and drawings for use in the construction of roads and public works in Ontario. These standard specifications and drawings provide clear and concise measures for a wide range of construction activities. There are two components of the published OPS material that will address erosion and sediment control, the Ontario Provincial Standard Specification (OPSS) 577 and the Ontario Provincial Standard Drawings (OPSD) 219. OPSS 577 describes the requirements for the installation, maintenance and removal of temporary erosion and sediment control measures and the removal of sediment accumulated by the control measure. OPSD 219 illustrates several placement methods for various control devices. The ongoing review and revision of this document will give consideration to the MTO Sediment and Erosion Guidelines "Environmental Guide for Erosion & Sediment Control During Construction of Highway Projects" issued in February 2007 and as may be amended.

The selection of the control devices is dependent upon the existing site characteristics including soils, drainage patterns, terrain and groundcover. Maintaining the control measures identified on figure 1 throughout the construction phase is as important as implementation. It is necessary to inspect, repair and update the erosion and sediment control devices throughout the course of construction.

OPSS 577 temporary erosion and sediment control measures include the following:

- Light-duty sediment barriers
  - Straw bale
  - Silt fence
- Heavy-duty sediment barriers
  - Silt fence
  - Berm
  - Sandbag
- Flow check dams
  - Straw bale
  - Silt fence
  - Sandbag
  - Rock
- Excavated sediment traps
- Chutes
- Dewatering traps
- Turbidity curtains
- Cofferdams
- Sediment removal
- Control measure removal

Consideration will be given to incorporating these temporary erosion and sediment control measures to supplement those identified on Figure 1. The ESCP is best managed by monitoring and updating the plan throughout the construction phase, allowing issues to be addressed that were not anticipated during the development of the original plan. Planned site modifications, if necessary, will be reviewed during preconstruction meetings with appropriate approval agencies to insure that the erosion and sedimentation control measures are properly applied and when necessary, additional protective measures (such as those identified in OPSS 577) will be applied to protect adjacent property and surface waters.

The ESCP will include a written report and detailed plans that shall be developed during the design phase of this Project. The report will discuss the drainage issues relevant to the site, construction staging and seasonal timing, and types of control measures that will be used during construction. The report will also outline the construction schedule and maintenance schedule for inspection and repairs, if necessary, for the control measures. The detailed plans will illustrate and identify the following:

- Location maps and site property lines
- Surrounding streams and sensitive lands

- Limits of disturbance and limits of construction
- Existing site topography and features including slope characteristics
- Proposed site works
- Proposed site grading
- Proposed cross-section details
- Drainage details including boundaries and flow direction
- Temporary control measure location and details that best suit the site
- Permanent control measure location and details
- Stormwater management facility including discharge points
- Slope stabilization details, if necessary.

Measures are formulated to prevent, control and abate erosion, sedimentation, and water pollution. These measures will be used at the locations described in the approved ESCP or as directed by the project engineer to comply with all federal, provincial and local regulations and review requirements. Throughout the project, inspection of established erosion and sediment control measures will take place to ensure the measures are in proper working order.

The ESCP also defines the proposed methods for minimizing off-site vehicle tracking of sediments and generating dust. The proposed methods include the following:

- Cover loaded haul trucks with tarpaulins;
- Remove excess soil materials from roads daily;
- Stabilize construction entrances;
- Use roadway sweepers during dust generating activities such as excavation and milling operations; and
- Prohibit the operation of vehicles and equipment in waters or wetlands within or adjacent to the project site unless specifically authorized by the responsible regulatory agencies.

The following regulatory permits will be applied for and approved before construction on this project:

- Ontario Ministry of Natural Resources Work Permit and Land Occupational Authority Permit
- Stormwater Management Plan approved by Ontario Ministry of Environment and Essex Region Conservation Authority

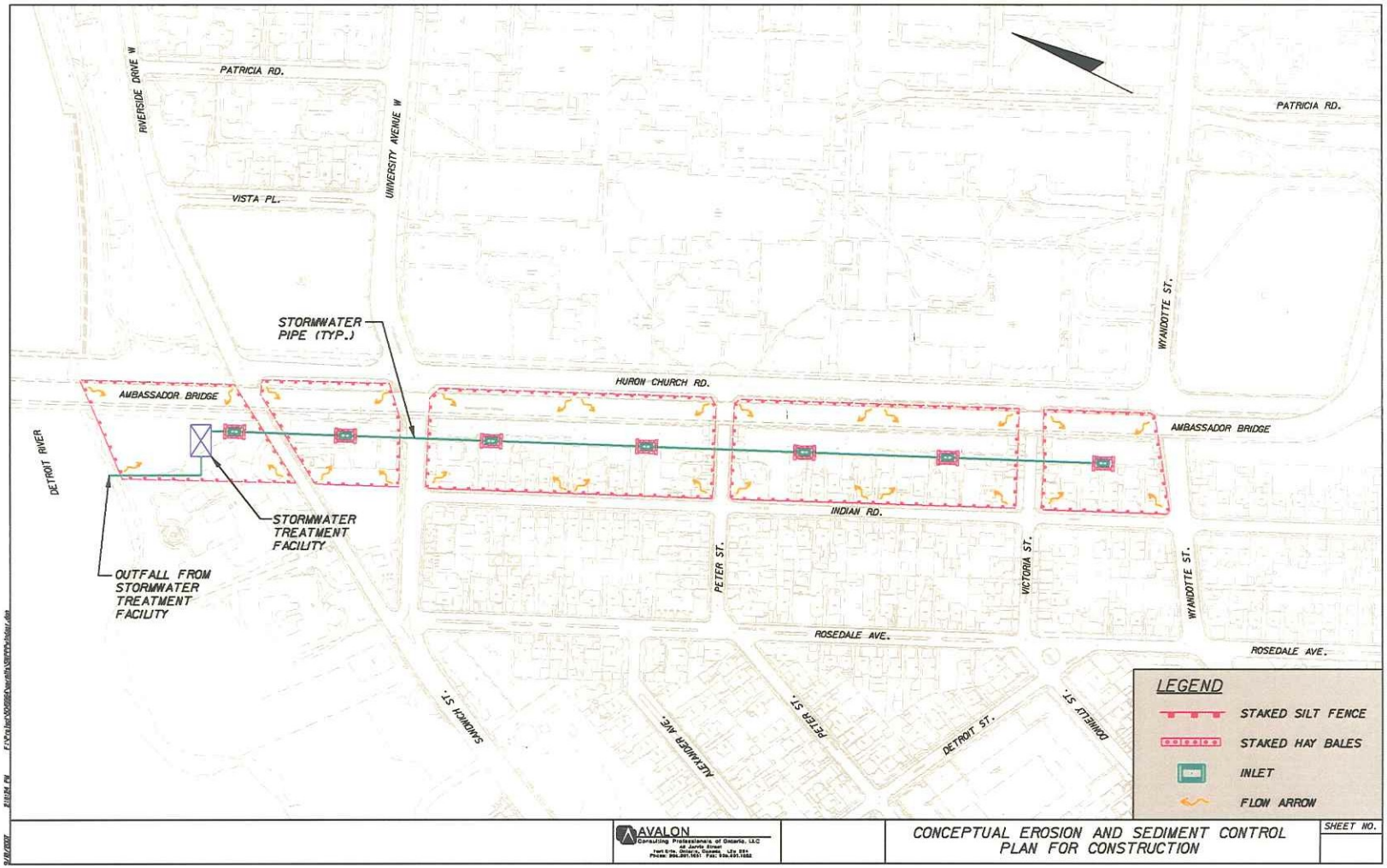
All anticipated non-stormwater discharges (except flows from fire fighting activities) shall be identified in the ESCP and fully defined. If the on-site contractor encounters contaminated soil or groundwater, work will immediately cease. Immediate measures will be implemented prior to the arrival of authorities to insure that contaminants do not reach receiving water bodies either directly or indirectly.

Operation Phase

Any additional storm and surface water runoff resulting from construction activities must be contained on-site via a stormwater management facility. Provisions for a stormwater management facility will be provided during the design phase for this project. The design and maintenance for the stormwater management facility will require review and approval from several agencies including the MOE and the Essex Region Conservation Authority (ERCA). The facility will be designed to control the post-development water quantity as well as quality. The technical and procedural guidelines that will be utilized in the planning and development of the stormwater facility will be in accordance with the *MOE Stormwater Management Planning and Design Manual*, (March 2003). The erosion and sediment control features identified on Figure 1 will form the basis for the operational stormwater management system. Silt fence and staked hay bales will be removed only after disturbed portions of the site have been stabilized with ground cover vegetation.

Runoff from the new bridge will be collected in a stormwater conveyance system, located on the bridge deck. This runoff will be connected to a pipeline that will drain into the project storm water management facility for further treatment and discharge. Runoff from the existing bridge will be treated as it is being treated today. The Detroit River is the eventual destination for all project related surface runoff after treatment.

The proposed project will add to the impervious area that already exists, thereby increasing the rate of peak surface water discharges during storm events. To mitigate the impact on surface runoff, a stormwater management and treatment facility shall be created. The facility will be designed to store and slowly release storm water to prevent flooding and to minimize the release of soil particles and suspended particulate matter that could compromise the water quality of receiving water bodies. The facility would be designed to accommodate a specific storm event frequency as specified in applicable Canadian statutory requirements. If stormwater retention ponds are required, they will be designed to fit into the project landscape scheme.


PATRICIA RD.
RIVERSIDE DRIVE W
UNIVERSITY AVENUE W
VISTA PL.
PATRICIA RD.
WYANDOTTE ST.
STORMWATER PIPE (TYP.)
HURON CHURCH RD.
AMBASSADOR BRIDGE
AMBASSADOR BRIDGE
DETROIT RIVER
STORMWATER TREATMENT FACILITY
OUTFALL FROM STORMWATER TREATMENT FACILITY
INDIAN RD.
PETER ST.
VICTORIA ST.
WYANDOTTE ST.
ROSEDALE AVE.
ROSEDALE AVE.
SANDWICH ST.
ALEXANDER AVE.
PETER ST.
DETROIT ST.
DOMINELLY ST.
LEGEND
STAKED SILT FENCE
STAKED HAY BALES
INLET
FLOW ARROW
AVALON
CONCEPTUAL EROSION AND SEDIMENT CONTROL PLAN FOR CONSTRUCTION
SHEET NO.

CEAA ENVIRONMENTAL CEAA ENVIRONMENTAL
ENVIRONMENTAL IMPACT ASSESSMENT

AMBASSADOR BRIDGE ENHANCEMENT PROJECT

Replacement Span

APPENDIX D

FISH SPECIES COMMONLY FOUND IN THE DETROIT RIVER

Common Name	Scientific Name	
By Family	**Genus**	**Species**
Lepisosteidae		
Longnose Gar	*Lepisosteus*	*osseus*
Amiidae		
Bowfin	*Amia*	*Calva*
Clupeidae		
Alewife	*Alosa*	*pseudoharengus*
Gizzard Shad	*Dorosoma*	*cepedianum*
Esocidae		
Northern Pike	*Esox*	*lucius*
Muskellunge	*Esox*	*masquinongy*
Cyprinidae		
Goldfish	*Carassius*	*auratus*
Common Carp	*Cyprinus*	*carpio*
Golden Shiner	*Notemigonus*	*crysoleucas*
Emerald Shiner	*Notropis*	*atherinoides*
Blackchin Shiner	*Notropis*	*heterodon*
Spottail Shiner	*Notropis*	*hudsonius*
Blacknose Shiner	*Notropis*	*heterolepis*
River Chub	*Nocomis*	*micropogon*
Sand Shiner	*Notropis*	*stramineus*
Mimic Shiner	*Notropis*	*volucellus*
Bluntnose Minnow	*Pimephales*	*notatus*
Spotfin Shiner	*Cyprinella*	*spiloptera*
Hornyhead Chub	*Nocomis*	*biguttatus*
Golden Shiner	*Notemigonus*	*crysoleucas*
Fathead Minnow	*Pimephales*	*promelas*
Western Blacknose Dace	*Rhinichthys*	*obtusus*
Creek Chub	*Semotilus*	*Atromaculatus*

Common Name	Scientific Name	
By Family	**Genus**	**Species**
Catostomidae		
Quillback	*Carpiodes*	*cyprinus*
White Sucker	*Catostomus*	*commersonii*
Longnose Sucker	*Catostomus*	*catostomus*
Northern Hog Sucker	*Hypentelium*	*nigricans*
Bigmouth Buffalo	*Ictiobus*	*cyprinellus*
Smallmouth Buffalo	*Ictiobus*	*bubalus*
Spotted Sucker	*Minytrema*	*melanops*
Silver Redhorse	*Moxostoma*	*anisurum*
Shorthead Redhorse	*Moxostoma*	*macrolepidotum*
Ictaluridae		
Brown Bullhead	*Ameiurus*	*nebulosus*
Black Bullhead	*Ameiurus*	*melas*
Yellow Bullhead	*Ameiurus*	*natalis*
Channel Catfish	*Ictalurus*	*punctatus*
Stonecat	*Noturus*	*flavus*
Tadpole Madtom	*Noturus*	*gyrinus*
Umbridae		
Central Mudminnow	*Umbra*	*limi*
Osmeridae		
Rainbow Smelt	*Osmerus*	*mordax*
Salmonidae		
Chinook Salmon	*Oncorhynchus*	*tschawytscha*
Coho Salmon	*Oncorhynchus*	*kisutch*
Rainbow Trout	*Oncorhynchus*	*mykiss*
Brown Trout	*Salmo*	*trutta*
Lake Trout	*Salvelinus*	*namaycush*
Lake Whitefish (T-Ontario)	*Coregonus*	*clupeaformis*
Percopsidae		

Common Name	Scientific Name	
By Family	**Genus**	**Species**
Trout-perch	*Percopsis*	*omiscomaycus*
Anguillidae		
American Eel	*Anguilla*	*rostrata*
Fundulidae		
Western Banded Killifish	*Fundulus*	*diaphanus menona*
Atherinidae		
Brook Silverside	*Labidesthes*	*sicculus*
Gasterosteidae		
Brook Stickleback	*Culaea*	*inconstans*
Ninespine Stickleback	*Pungitius*	*pungitius*
Cottidae		
Mottled Sculpin	*Cottus*	*bairdi*
Moronidae		
White Bass	*Morone*	*chrysops*
White Perch	*Morone*	*americana*
Petromyzontidae		
Silver Lamprey	*Ichthyomyzon*	*unicuspis*
Sea Lamprey	*Petromyzon*	*marinus*
Acipenseridae		
Lake Sturgeon (T-Michigan)	*Acipenser*	*fulvescens*
Hiodontidae		
Mooneye	*Hiodon*	*tergisus*
Centrarchidae		
Rockbass	*Ambloplites*	*rupestris*
Green Sunfish	*Lepomis*	*cyanellus*
Pumpkinseed	*Lepomis*	*gibbosus*
Bluegill	*Lepomis*	*macrochirus*
Northern Longear sunfish	*Lepomis*	*peltastes*
Smallmouth Bass	*Micropterus*	*dolomieui*

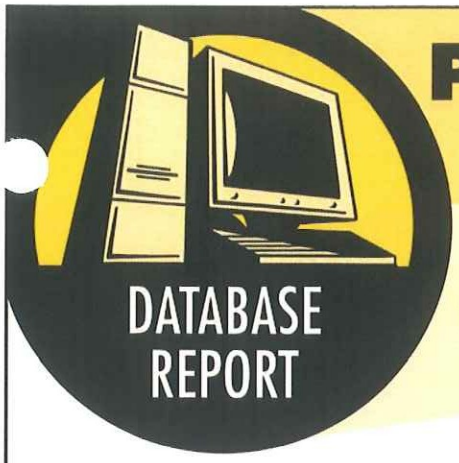
Common Name	Scientific Name	
By Family	**Genus**	**Species**
Largemouth Bass	*Micropterus*	*salmoides*
White Crappie	*Pomoxis*	*annularis*
Black Crappie	*Pomoxis*	*nigromaculatus*
Gadidae		
Burbot	*Lota*	*lota*
Percidae		
Greenside Darter	*Etheostoma*	*blennioides*
Rainbow Darter	*Etheostoma*	*caeruleum*
Iowa Darter	*Etheostoma*	*exile*
Barred Fantail Darter	*Etheostoma*	*flabellare flabellare*
Least Darter	*Etheostoma*	*microperca*
Johnny Darter	*Etheostoma*	*nigrum*
Yellow Perch	*Perca*	*flavescens*
Northern Logperch	*Percina*	*caprodes semifasciata*
Channel Darter (T-Ontario, E-Michigan)	*Percina*	*copelandi*
Blackside Darter	*Percina*	*maculata*
Sauger	*Sander*	*canadensis*
Walleye	*Sander*	*vitreus*
Sciaenidae		
Freshwater Drum	*Aplodinotus*	*grunniens*
Gobiidae		
Round Goby	*Neogobius*	*melanostomus*

CEAA ENVIRONMENTAL CEAA ENVIRONMENTAL
ENVIRONMENTAL IMPACT ASSESSMENT

AMBASSADOR BRIDGE ENHANCEMENT PROJECT

Replacement Span

APPENDIX E



Pinpointing Your Environmental Risks

Environmental Risk Information Service

ECOLOG ERIS

Project Site:	**Ambassador Bridge** **Huron Church Rd** **Windsor, ON**
Client:	**Shannon Williams** **Avalon Consulting** **48 Jarvis Street** **Fort Erie, ON L2A 2S4**
ERIS Project No:	**20070523007**
Report Type:	**Custom Report - 0.5km Search Radius**
Prepared By:	**Mark Mattei** mmattei@ecologeris.com
Date:	**May 25, 2007**

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12 Concorde Place, Suite 800 Toronto, Ontario M3C 4J2
Phone: (416) 510-5204 Fax: (416) 510-5133 Toll Free: 1-877-512-5204
www.ecologERIS.com info@ecologERIS.com

Table of Contents

Order Number: 20070523007
Site Name: Ambassador Bridge
Site Address: Huron Church Rd Windsor, ON
Report Type: Custom Report, 0.50 km Search Radius

	Section
Report Summary *This outlines the number of records from each database that fall on the site, and within various distances from the site.*	i
Site Diagram *The records that were found within a specified distance from the project property (the primary search radius) have been plotted on a diagram to provide you with a visual representation of the information available. Sites will be plotted on the diagram if there is sufficient information from the database source to determine accurate geographic coordinates. Each plotted site is marked with an acronym identifying the database in which the record was found (i.e., WDS for Waste Disposal Sites). These are referred to as "Map Keys". A variety of problems are inherent when attempting to associate various government or private source records with locations. EcoLog ERIS has attempted to make the best fit possible between the available data and their positions on the site diagram.*	ii
Site Profile *This table describes the records that relate directly to the property that is being researched.*	iii
Detail Report *This section represents information, by database, for the records found within the primary search radius. Listed at the end of each database are the sites that could not be plotted on the locator diagram because of insufficient address information. These records will not have map keys. They have been included because they may be found to be relevant during a more detailed investigation.*	iv

	Page
Certificates of Approval	1
Environmental Registry	4
ERIS Historical Searches	5
Ontario Regulation 347 Waste Generators Summary	6
National PCB Inventory	13
National Pollutant Release Inventory	14
Inventory of PCB Storage Sites	15
Occurrence Reporting Information System	16
Private Fuel Storage Tanks	17
Retail Fuel Storage Tanks	18
Scott's Manufacturing Directory	19
Water Well Information System	20

Appendix: Database Descriptions

Report Summary

Order Number: 20070523007
Site Name: Ambassador Bridge
Site Address: Huron Church Rd Windsor, ON
Report Type: Custom Report, 0.50 km Search Radius

Number of Mappable Records Surrounding the Site

Database		Selected	On-site	Within 0.50	0.50km to 2.00km	Total
AAGR	Abandoned Aggregate Inventory	Y	0	0	0	0
AGR	Aggregate Inventory	Y	0	0	0	0
AMIS	Abandoned Mine Information System	Y	0	0	0	0
ANDR	Anderson's Waste Disposal Sites	Y	0	0	0	0
AUWR	Automobile Wrecking & Supplies	Y	0	0	0	0
CA	Certificates of Approval	Y	0	9	0	9
CFOT	Commercial Fuel Oil Tanks	Y	0	0	0	0
CHEM	Chemical Register	Y	0	0	0	0
COAL	Coal Gasification Plants	Y	0	0	0	0
CONV	Compliance and Convictions	Y	0	0	0	0
DRL	Drill Hole Database	Y	0	0	0	0
EBR	Environmental Registry	Y	0	2	0	2
EEM	Environmental Effects Monitoring	Y	0	0	0	0
EHS	ERIS Historical Searches	Y	0	2	0	2
EIIS	Environmental Issues Information System	Y	0	0	0	0
FCON	Federal Convictions	Y	0	0	0	0
FCS	Contaminated Sites on Federal Land	Y	0	0	0	0
FOFT	Fisheries & Oceans Fuel Storage Tanks	Y	0	0	0	0
GEN	Ontario Regulation 347 Waste Generators Summary	Y	0	32	0	32
IAFT	Indian & Northern Affairs Fuel Tanks	Y	0	0	0	0
MINE	Canadian Mine Locations	Y	0	0	0	0
MNR	Mineral Occurrences	Y	0	0	0	0
NATE	National Analysis of Trends in Emergencies System (NATES)	Y	0	0	0	0
NCPL	Non-Compliance Reports	Y	0	0	0	0
NDFT	National Defence & Canadian Forces Fuel Storage Tanks	Y	0	0	0	0
NDSP	National Defence & Canadian Forces Spills	Y	0	0	0	0
NDWD	National Defence & Canadian Forces Waste Disposal Sites	Y	0	0	0	0
NEES	National Environmental Emergencies System (NEES)	Y	0	0	0	0
NPCB	National PCB Inventory	Y	0	3	0	3
NPRI	National Pollutant Release Inventory	Y	0	4	0	4
OGW	Oil and Gas Wells	Y	0	0	0	0
OOGW	Ontario Oil and Gas Wells	Y	0	0	0	0
OPCB	Inventory of PCB Storage Sites	Y	0	1	0	1
ORD	Orders	Y	0	0	0	0
ORIS	Occurrence Reporting Information System	Y	0	3	0	3
PAP	Canadian Pulp and Paper	Y	0	0	0	0
PCFT	Parks Canada Fuel Storage Tanks	Y	0	0	0	0
PES	Pesticide Register	Y	0	0	0	0
PST	Private Fuel Storage Tanks	Y	0	1	0	1
REC	Ontario Regulation 347 Waste Receivers Summary	Y	0	0	0	0
RSC	Record of Site Condition	Y	0	0	0	0
RST	Retail Fuel Storage Tanks	Y	0	6	0	6

Report Summary

Order Number: 20070523007
Site Name: Ambassador Bridge
Site Address: Huron Church Rd Windsor, ON
Report Type: Custom Report, 0.50 km Search Radius

Database		Selected	On-site	Within 0.50	0.50km to 2.00km	Total
SCT	Scott's Manufacturing Directory	Y	0	2	0	2
SRDS	Wastewater Discharger Registration Database	Y	0	0	0	0
TANK	Anderson's Storage Tanks	Y	0	0	0	0
TCFT	Transport Canada Fuel Storage Tanks	Y	0	0	0	0
WDS	Waste Disposal Sites - MOE CA Inventory	Y	0	0	0	0
WDSH	Waste Disposal Sites - MOE 1991 Historical Approval Inventory	Y	0	0	0	0
WWIS	Water Well Information System	Y	0	2	0	2
		TOTAL	0	67	0	67

The databases chosen by the client as per the submitted order form are denoted in the 'Selected' column in the above table. Counts have been provided outside the primary buffer area for cursory examination only. These records have not been examined or verified, therefore, they are subject to change.

SITE DIAGRAM

ECOLOG ERIS
Pinpointing Your Environmental Risks
12 Concorde Pl, Suite 800 North York, ON M3C 4J2
416-510-5204

Project Property: Ambassador Bridge
Huron Church Rd
Windsor, ON

ERIS Project #: 20070523007

Date: MAY-23-2007

LEGEND

- Project Property
- Database Location

Points of Interest
- Chimney
- Silo

Pipe & Transmission Lines
- Pipeline
- Transmission Line
- Transmission Tower
- Transformer Station

Rail
- Railway - Main
- Railway - Sidetrack
- Railway - Abandoned
- Bridge
- Tunnel

Transportation - Other
- Embankment
- Trail
- Runway

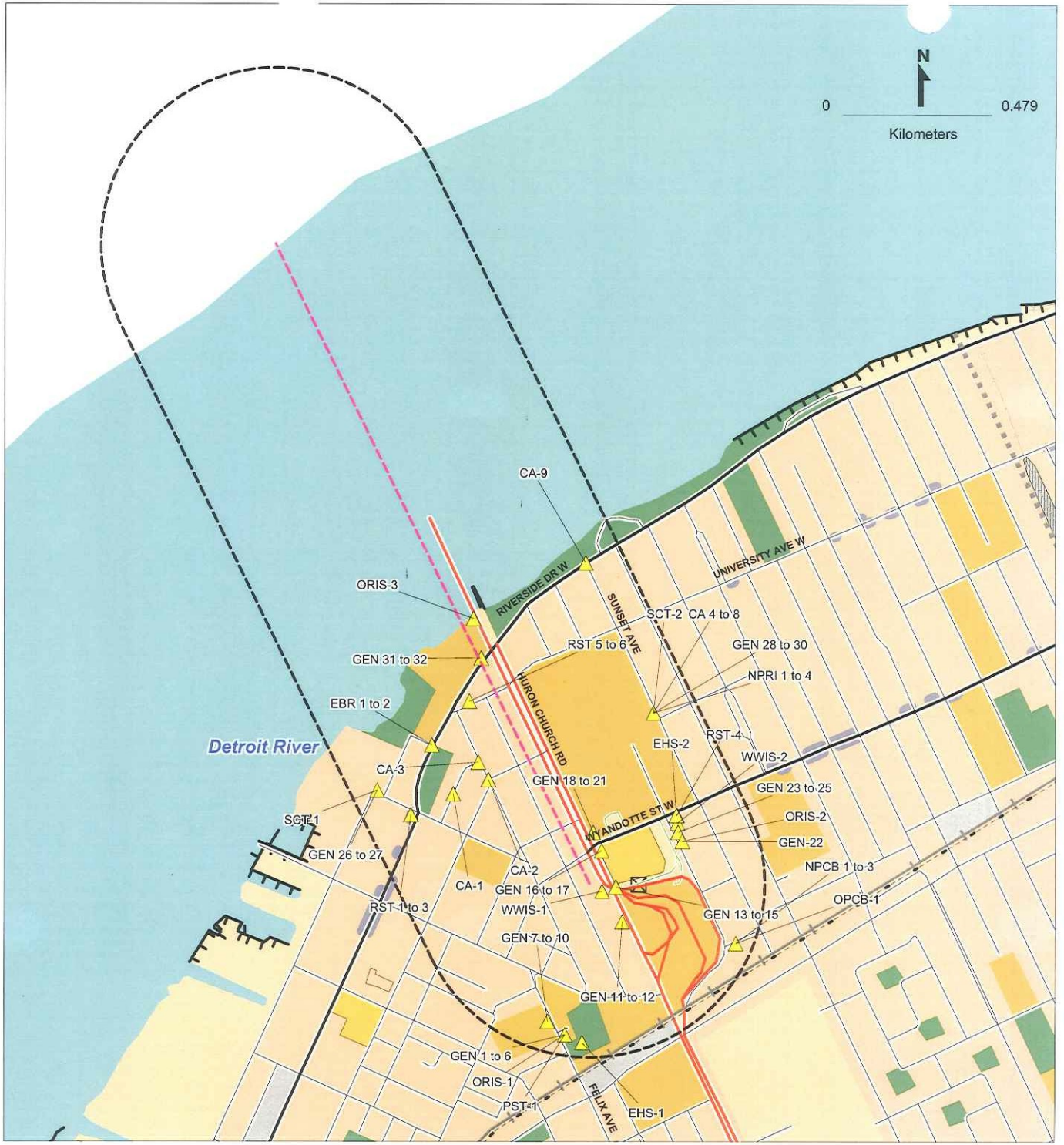
Hydrographic Features
- Permanent Waterway
- Intermittent Waterway
- Open Reservoir
- Dyke/Levee
- Dam
- Breakwall
- Wetland

Landuse Classifications
- Open Area
- Residential
- Commercial
- Resource and Industrial
- Government and Institutional
- Parks and Recreational
- Waterbody

Recreation
- Golf Course/Driving Range
- Park/Sports Field
- Other Recreation Area
- Sports/Race Track
- Cemetery
- Campground

Vegetation
- Wooded Area
- Orchard
- Vineyard

Industrial Resources
- Conveyor
- Crane: Moveable
- Crane: Stationary
- Tank
- Rock Cut
- Auto Wrecker
- Lumber Yard
- Pit



This diagram is to be used solely for relative street location purposes.
It may not accurately portray street or site positions.

Site Re rt

Order Number: 20070523007
Site Name: Ambassador Bridge
Site Address: Huron Church Rd Windsor, ON
Report Type: Custom Report, 0.50 km Search Radius

FOR COMPLETE INFORMATION, REFER TO DETAIL REPORT

A search has been conducted for this site (address) and company name. No records were found, within the database(s) selected, that meet either of these criteria.

Detail F ort

Order Number: 20070523007
Site Name: Ambassador Bridge
Site Address: Huron Church Rd Windsor ON
Report Type: Custom Report, 0.50 km Search Radius

If information is required for sites located beyond the selected address, please contact your ERIS representative.

Certificates of Approval

Environmental Registry

ERIS Historical Searches

Ontario Regulation 347 Waste Generators Summary

National PCB Inventory

National Pollutant Release Inventory

Inventory of PCB Storage Sites

Occurrence Reporting Information System

Private Fuel Storage Tanks

Retail Fuel Storage Tanks

Scott's Manufacturing Directory

Water Well Information System

Certificat f Approval

Map Key	Company	Address	Certificate #	Application Year	Issue Date	Approval Type	Status	Application Type
CA-1	WINDSOR CITY	ALEXANDER AVE./INDIAN RD. WINDSOR CITY	3-1508-94-	94	11/22/1994	Municipal sewage	Approved	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:					
			Contaminants:					
			Emission Control:					
CA-2	P.U.C. WINDSOR	ROSEDALE AVE./PETER ST. WINDSOR CITY	7-0962-95-	95	9/27/1995	Municipal water	Approved	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:					
			Contaminants:					
			Emission Control:					
CA-3	WINDSOR CITY	ALEXANDER AVE./ROSEDALE AVE. WINDSOR CITY	7-1117-94-	94	11/22/1994	Municipal water	Approved	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:					
			Contaminants:					
			Emission Control:					
CA-4	WINDSOR UNIVERSITY	401 SUNSET AVE., ESSEX HALL WINDSOR CITY N9B 3P4	8-1161-95-	95	9/12/1995	Industrial air	Approved	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:	CHEMICAL CONTROL CENTRE PROJECT				
			Contaminants:	Hydrogen Chloride, Nitric Acid, Sulphuric Acid, Acetone, Ethyl Ether, Ethyl Alcohol,Denat,D, Hexane, Mineral Spirits Med., Methyl Alcohol, Isopropyl Alcohol				
			Emission Control:	No Controls				

Certificate Approval

Map Key	Company	Address	Certificate #	Application Year	Issue Date	Approval Type	Status	Application Type
CA-5	UNIVERSITY OF WINDSOR, ESSEX HALL	401 SUNSET AVE.,GLOVE BOX LAB. WINDSOR CITY N9B 3P4	8-1028-97-	97	3/21/1997	Industrial air	Approved	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:	EXH. FAN FOR TWO FUME EXHAUSTERS				
			Contaminants:					
			Emission Control:					
CA-6	WINDSOR UNIVERSITY	401 SUNSET AVENUE WINDSOR CITY N9B 3P4	8-1274-97-	97	1/28/1998	Industrial air		
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:	MACDONALD/LAURIER & VANIER HALL GEN-SET				
			Contaminants:	Nitrogen Oxides				
			Emission Control:	Muffler				
CA-7	UNIVERSITY OF WINDSOR	401 SUNSET AVE. WINDSOR CITY N9B 3P4	8-1045-89-006	89	5/23/89	Industrial air	Approved	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:	LABORATORY FUME HOODS (11 ROOMS)				
			Contaminants:	Hydrogen Sulphide, Other Organic Compounds, Toluene(Pentyl Methane)(Methyl Benzene)				
			Emission Control:	No Controls				
CA-8	UNIVERSITY OF WINDSOR	401 SUNSET AVENUE WINDSOR CITY N9B 3P4	8-1043-87-	87	6/4/1987	Industrial air	Approved	
			Client Name:					
			Client Address:					
			Client City:					
			Client Postal Code:					
			Project Description:	VENTIL. MODIF.				
			Contaminants:	Other Organic Compounds, Toluene(Pentyl Methane)(Methyl Benzene), Acetone, Benzene (Carcinogen Requires Bact), Chloroform				
			Emission Control:	No Controls				

Certificat f Approval

Map Key	Company	Address	Certificate #	Application Year	Issue Date	Approval Type	Status	Application Type
CA-9	P.U.C. WINDSOR	RIVERSIDE DR.W./SUNSET AVE. WINDSOR CITY	7-0031-94-	94	2/7/1994	Municipal water	Approved	

Client Name:
Client Address:
Client City:
Client Postal Code:
Project Description:
Contaminants:
Emission Control:

Environme Registry

Map Key	Company	Address	Reg No.	Type	Status	Reference No.	Ministry
EBR-1	619637 Ontario Limited	between Sandwich Street and Russell Street City of Windsor	IA01E0014	Instrument	Proposal	A010105	Environment

Proponent: 619637 Ontario Limited, o/a Border City Environmental Services3890 Sandwich Street,Windsor, Ontario, N9C 1C1
Activity Location: City of Windsor
Location Info: Part of Lots 27 & 28, Plan #40, between Sandwich Street and Russell Street
Abstract: 619637 Ontario Limited, o/a Border City Environmental Services Approval for a waste disposal site.
Proposal Loaded: 1/3/01
Decision Loaded:
Comment Period: 30
Comments: Written submissions may be made between January 03, 2001 and February 02, 2001.
Comments Received:
Received Date:
Date Placed:
Decision Appeal Date:
Decision Placed:
Date Exception:
Date Claim Issued:
Received by Env:
Notice Loaded Date:
Notice of: PROPOSAL FOR AN INSTRUMENT;© Queen's Printer for Ontario, 2001
Instrument Type: EPA s. 27 - Approval for a waste disposal site.
Appeal Application:
Date Last Modified: 1/3/01 7:57:09 PM

Map Key	Company	Address	Reg No.	Type	Status	Reference No.	Ministry
EBR-2	619637 Ontario Limited	between Sandwich Street and Russell Street City of Windsor	IA01E0014	Instrument	Decision	A010105	Environment

Proponent: 619637 Ontario Limited, o/a Border City Environmental Services3890 Sandwich Street,Windsor, Ontario, N9C 1C1
Activity Location: City of Windsor
Location Info: Part of Lots 27 & 28, Plan #40, between Sandwich Street and Russell Street
Abstract: 619637 Ontario Limited, o/a Border City Environmental Services Approval for a waste disposal site.
Proposal Loaded:
Decision Loaded: 12/19/01
Comment Period: 30
Comments: Written submissions were permitted between January 03, 2001 and February 02, 2001.
Comments Received: 0
Received Date:
Date Placed:
Decision Appeal Date:
Decision Placed:
Date Exception:
Date Claim Issued:
Received by Env:
Notice Loaded Date:
Notice of: DECISION FOR AN INSTRUMENT;© Queen's Printer for Ontario, 2001
Instrument Type: EPA s. 27 - Approval for a waste disposal site.
Appeal Application:
Date Last Modified: 12/19/01 4:30:05 PM

ERIS Histr ıl Searches

Map Key	Company	Address	Order No.	Report Date	Report Type	Search Radius (km)
EHS-1		826 Felix Ave. Windsor N9C 3K8	20000519007	5/26/00	Custom Report	0.25
			Addit. Info Ordered:			
EHS-2		2585 Wyandotte Street Windsor	20040817018	8/26/04	Complete Report	0.25
			Addit. Info Ordered:	Fire Insur. Maps and/or Site Plans; Aerials Photos and/or Topographical Maps		

Ontario Regulation 347 ' te Generators Summary

Map Key	Company	Address	SIC Code	SIC Description	Waste Code	Waste Description
GEN-1	BROWNING-FERRIS INDUSTRIES	826 FELIX AVENUE WINDSOR N9C 3K8	4569	OTHER TRUCK./TRANS.	213	PETROLEUM DISTILLATES
			Generator #:	ON0040003	252	WASTE OILS & LUBRICANTS
			Approval Yrs:	86,87,88,89		
GEN-2	BROWNING-FERRIS INDUSTRIES LIMITED	826 FELIX AVENUE WINDSOR N9C 3K8	4569	OTHER TRUCK./TRANS.	212	ALIPHATIC SOLVENTS
			Generator #:	ON0040003	213	PETROLEUM DISTILLATES
			Approval Yrs:	98	252	WASTE OILS & LUBRICANTS
GEN-3	BROWNI(SEE & USE ON2544304)LIMITED	826 FELIX AVENUE WINDSOR N9C 3K8	4569	OTHER TRUCK./TRANS.	212	ALIPHATIC SOLVENTS
			Generator #:	ON0040003	213	PETROLEUM DISTILLATES
			Approval Yrs:	99,00	252	WASTE OILS & LUBRICANTS
GEN-4	BROWNING-FERRIS INDUSTRIES LTD.	826 FELIX AVENUE WINDSOR N9C 3K8	4569	OTHER TRUCK./TRANS.	212	ALIPHATIC SOLVENTS
			Generator #:	ON0040003	213	PETROLEUM DISTILLATES
			Approval Yrs:	92,93,94,95,96,97	252	WASTE OILS & LUBRICANTS
GEN-5	BROWNING-FERRIS INDUSTRIES	826 FELIX AVENUE WINDSOR N9C 3K8	4569	OTHER TRUCK./TRANS.	213	PETROLEUM DISTILLATES
			Generator #:	ON0040003	252	WASTE OILS & LUBRICANTS
			Approval Yrs:	90		
GEN-6	BFI CANADA INC.	826 FELIX AVENUE WINDSOR N9C 3K8	4569	OTHER TRUCK./TRANS.	212	ALIPHATIC SOLVENTS
			Generator #:	ON2544304	213	PETROLEUM DISTILLATES
			Approval Yrs:	99,00,01,02,03,04,05	252	WASTE OILS & LUBRICANTS
					251	OIL SKIMMINGS & SLUDGES
GEN-7	WINDSOR BOARD OF EDUCATION	J.L. FORSTER S.S. 749 FELIX WINDSOR N9C 3K9	0008	EXEMPT	213	PETROLEUM DISTILLATES
			Generator #:	ON0198606	252	WASTE OILS & LUBRICANTS
			Approval Yrs:	86,87,88,89,90		

Ontario Regulation 347 W e Generators Summary

Map Key	Company	Address	SIC Code	SIC Description	Waste Code	Waste Description
GEN-8	WINDSOR BOARD OF EDUCATION	J.L. FORSTER SECONDARY SCHOOL 749 FELIX AVENUE WINDSOR N9C 3K9	8511	ELEMT./SECON. EDUC.	145	PAINT/PIGMENT/COATING RESIDUES
			Generator #:	ON0198606	148	INORGANIC LABORATORY CHEMICALS
			Approval Yrs:	98,99,00,01	213	PETROLEUM DISTILLATES
					252	WASTE OILS & LUBRICANTS
					263	ORGANIC LABORATORY CHEMICALS
					264	PHOTOPROCESSING WASTES
					331	WASTE COMPRESSED GASES
GEN-9	WINDSOR BOARD OF EDUCATION 42-465	J.L. FORSTER SECONDARY SCHOOL 749 FELIX AVENUE WINDSOR N9C 3K9	8511	ELEMT./SECON. EDUC.	145	PAINT/PIGMENT/COATING RESIDUES
			Generator #:	ON0198606	148	INORGANIC LABORATORY CHEMICALS
			Approval Yrs:	92,93,94,95,96,97	213	PETROLEUM DISTILLATES
					252	WASTE OILS & LUBRICANTS
					263	ORGANIC LABORATORY CHEMICALS
					264	PHOTOPROCESSING WASTES
					331	WASTE COMPRESSED GASES
GEN-10	Greater Essex County District School Board	J.L. FORSTER SECONDARY SCHOOL 749 FELIX AVENUE WINDSOR N9C 3K9	611110	Elementary & Secondary Schools	112	ACID WASTE - HEAVY METALS
			Generator #:	ON0198606	122	ALKALINE WASTES - OTHER METALS
			Approval Yrs:	02,03,04,05	148	INORGANIC LABORATORY CHEMICALS
					211	AROMATIC SOLVENTS
					263	ORGANIC LABORATORY CHEMICALS
					213	PETROLEUM DISTILLATES
					252	WASTE OILS & LUBRICANTS
GEN-11	ROCKWELL INTERNATIONAL OF CANADA L	721 HURON CHURCH RD. WINDSOR N9C 2K1	0000	*** NOT DEFINED ***		
			Generator #:	ON0151001		
			Approval Yrs:	86,87,88,89,90		

Ontario Regulation 347 Waste Generators Summary

Map Key	Company	Address	SIC Code	SIC Description	Waste Code	Waste Description
GEN-12	ROCKWELL INTERNATIONAL OF CANADA LTD.	721 HURON CHURCH RD. WINDSOR N9C 2K1	0000	*** NOT DEFINED ***		
			Generator #:	ON0151001		
			Approval Yrs:	92,93,94		
GEN-13	GVT. OF CANADA-CUSTOMS & EXCISE	780 HURON CHURCH ROAD WINDSOR N9C 2K2	8153	TAXATION ADMIN.	212	ALIPHATIC SOLVENTS
					221	LIGHT FUELS
			Generator #:	ON0426524		
			Approval Yrs:	98		
GEN-14	GVT. OF (OUT OF BUSINESS)& EXCISE	780 HURON CHURCH ROAD WINDSOR N9C 2K2	8153	TAXATION ADMIN.	212	ALIPHATIC SOLVENTS
					221	LIGHT FUELS
			Generator #:	ON0426524		
			Approval Yrs:	00,01		
GEN-15	GVT. OF CANADA - CUSTOMS & EXCISE	780 HURON CHURCH ROAD WINDSOR N9C 2K2	8153	TAXATION ADMIN.	212	ALIPHATIC SOLVENTS
					221	LIGHT FUELS
			Generator #:	ON0426524		
			Approval Yrs:	99		
GEN-16	CANADIAN TRANSIT COMPANY 07-288	712 HURON CHURCH ROAD WINDSOR N9C 2K2	4599	OTHER TRANS. SERV.	221	LIGHT FUELS
			Generator #:	ON1501100		
			Approval Yrs:	92,93,94,95,96,97,98		
GEN-17	CANADIAN TRANSIT COMPANY	712 HURON CHURCH ROAD WINDSOR N9C 2K2	4599	OTHER TRANS. SERV.	221	LIGHT FUELS
			Generator #:	ON1501100		
			Approval Yrs:	99,00,01,03		
GEN-18	CLAYTON ENVIRONMENTAL CNSLTNS. LTD	400 HURON CHURCH ROAD WINDSOR N9C 2J9	7759	OTHER SCI./TECH. OF.	212	ALIPHATIC SOLVENTS
					241	HALOGENATED SOLVENTS
			Generator #:	ON0290300		
			Approval Yrs:	86,87,88,89,90		
GEN-19	CLAYTON ENVIRONMENTAL CNSLTNS. LTD	400 HURON CHURCH ROAD WINDSOR N9C 2J9	7759	OTHER SCI./TECH. OF.	212	ALIPHATIC SOLVENTS
					241	HALOGENATED SOLVENTS
			Generator #:	ON0290300		
			Approval Yrs:	92,93,97		
GEN-20	CLAYTON ENVIRONMENTAL CONSULTANTS LTD.	400 HURON CHURCH ROAD WINDSOR N9C 2J9	7759	OTHER SCI./TECH. OF.	212	ALIPHATIC SOLVENTS
					241	HALOGENATED SOLVENTS
			Generator #:	ON0290300		
			Approval Yrs:	98,99,00,01		

Ontario Regulation 347 Waste Generators Summary

Map Key	Company	Address	SIC Code	SIC Description	Waste Code	Waste Description
GEN-21	CLAYTON ENVIRONMENTAL CNSLTNS. LTD10-269	400 HURON CHURCH ROAD WINDSOR N9C 2J9	7759	OTHER SCI./TECH. OF.	212	ALIPHATIC SOLVENTS
			Generator #:	ON0290300	241	HALOGENATED SOLVENTS
			Approval Yrs:	94,95,96		
GEN-22	UNIVERSITY OF WINDSOR	660 PATRICIA STREET WINDSOR N9B 3P4	0000	*** NOT DEFINED ***		
			Generator #:	ON0179603		
			Approval Yrs:	94		
GEN-23	UNIVERSITY OF WINDSOR	640 PATRICIA AVE. WINDSOR N9B 3P4	8531	UNIVERSITY EDUCATION	252	WASTE OILS & LUBRICANTS
			Generator #:	ON0179602		
			Approval Yrs:	86,87,88,89,90		
GEN-24	UNIVERSITY OF WINDSOR	640 PATRICIA AVENUE WINDSOR N9B 3P4	8531	UNIVERSITY EDUCATION	146	OTHER SPECIFIED INORGANICS
			Generator #:	ON0179602	213	PETROLEUM DISTILLATES
			Approval Yrs:	92,93,97,98,99,00,01,02,03,04,05	112	ACID WASTE - HEAVY METALS
					131	NEUTRALIZED WASTES - HEAVY METALS
					145	PAINT/PIGMENT/COATING RESIDUES
					148	INORGANIC LABORATORY CHEMICALS
					211	AROMATIC SOLVENTS
					212	ALIPHATIC SOLVENTS
					222	HEAVY FUELS
					241	HALOGENATED SOLVENTS
					242	HALOGENATED PESTICIDES
					243	PCB'S
					252	WASTE OILS & LUBRICANTS
					263	ORGANIC LABORATORY CHEMICALS
					264	PHOTOPROCESSING WASTES
					331	WASTE COMPRESSED GASES

Ontario Regulation 347 ste Generators Summary

Map Key	Company	Address	SIC Code	SIC Description	Waste Code	Waste Description
GEN-25	UNIVERSITY OF WINDSOR 39-219	640 PATRICIA AVE. WINDSOR N9B 3P4	8531	UNIVERSITY EDUCATION	252	WASTE OILS & LUBRICANTS
			Generator #:	ON0179602		
			Approval Yrs:	94,95,96		
GEN-26	LAKE ONTARIO CEMENT LTD.	210 DETROIT STREET WINDSOR N9C 2P1	3521	HYDRAULIC CEMENT IND	251	OIL SKIMMINGS & SLUDGES
			Generator #:	ON0418619		
			Approval Yrs:	88,89,90		
GEN-27	LAKE ONTARIO CEMENT LTD. 24-512	210 DETROIT STREET WINDSOR N9C 2P1	3521	HYDRAULIC CEMENT IND	251	OIL SKIMMINGS & SLUDGES
			Generator #:	ON0418619		
			Approval Yrs:	92,93,94,95,96,97,98		
GEN-28	UNIVERSITY OF WINDSOR	401 SUNSET AVE. WINDSOR N9B 3P4	8531	UNIVERSITY EDUCATION	131	NEUTRALIZED WASTES - HEAVY METALS
			Generator #:	ON0179600	148	INORGANIC LABORATORY CHEMICALS
			Approval Yrs:	86,87,88,89,90	212	ALIPHATIC SOLVENTS
					213	PETROLEUM DISTILLATES
					241	HALOGENATED SOLVENTS
					252	WASTE OILS & LUBRICANTS
					263	ORGANIC LABORATORY CHEMICALS
					331	WASTE COMPRESSED GASES
GEN-29	UNIVERSITY OF WINDSOR 39-214	401 SUNSET AVE. WINDSOR N9B 3P4	8531	UNIVERSITY EDUCATION	131	NEUTRALIZED WASTES - HEAVY METALS
			Generator #:	ON0179600	148	INORGANIC LABORATORY CHEMICALS
			Approval Yrs:	94,95,96	212	ALIPHATIC SOLVENTS
					213	PETROLEUM DISTILLATES
					241	HALOGENATED SOLVENTS
					252	WASTE OILS & LUBRICANTS
					263	ORGANIC LABORATORY CHEMICALS
					331	WASTE COMPRESSED GASES

Ontario Regulation 347 ´ ste Generators Summary

Map Key	Company	Address	SIC Code	SIC Description	Waste Code	Waste Description
GEN-30	UNIVERSITY OF WINDSOR	401 SUNSET AVENUE WINDSOR N9B 3P4	8531	UNIVERSITY EDUCATION	146	OTHER SPECIFIED INORGANICS
			Generator #:	ON0179600	131	NEUTRALIZED WASTES - HEAVY METALS
			Approval Yrs:	92,93,97,98,99,00,01,04,05	145	PAINT/PIGMENT/COATING RESIDUES
					148	INORGANIC LABORATORY CHEMICALS
					211	AROMATIC SOLVENTS
					212	ALIPHATIC SOLVENTS
					213	PETROLEUM DISTILLATES
					221	LIGHT FUELS
					222	HEAVY FUELS
					241	HALOGENATED SOLVENTS
					242	HALOGENATED PESTICIDES
					243	PCB'S
					252	WASTE OILS & LUBRICANTS
					263	ORGANIC LABORATORY CHEMICALS
					264	PHOTOPROCESSING WASTES
					269	NON-HALOGENATED PESTICIDES
					331	WASTE COMPRESSED GASES
					112	ACID WASTE - HEAVY METALS
					121	ALKALINE WASTES - HEAVY METALS
GEN-31	HOPITAL HOTEL DIEU GRACE HOSPITAL	VILLA MARIA 2856 RIVERSIDE DRIVE WEST WINDSOR N9C 1A2	8613	EXTENDED CARE HOSP.	145	PAINT/PIGMENT/COATING RESIDUES
			Generator #:	ON0331501	148	INORGANIC LABORATORY CHEMICALS
			Approval Yrs:	95,96,97,98,99,00,01,02	263	ORGANIC LABORATORY CHEMICALS
					312	PATHOLOGICAL WASTES

Ontario Regulation 347 ste Generators Summary

Map Key	Company	Address	SIC Code	SIC Description	Waste Code	Waste Description
GEN-32	The Religious Hospitallers of Hotel-Dieu	VILLA MARIA 2856 RIVERSIDE DRIVE WEST WINDSOR	**Generator #:** **Approval Yrs:**	ON0331501 03,04	145 148 263 312	PAINT/PIGMENT/COATING RESIDUES INORGANIC LABORATORY CHEMICALS ORGANIC LABORATORY CHEMICALS PATHOLOGICAL WASTES

National [illegible] Inventory

Map Key	Company	Address	Company Code	Transaction Date	Inspection Date	Industry	Site Status
NPCB-1	UNIVERSITY OF WINDSOR	2601 UNION ST. WINDSOR N9B 3P4	F0088	1/29/1996			

State	Status	Item	Pcb Type/Code	Location
	Stored for Disposal		Low 50 - 10,000 ppm	
	Stored for Disposal		Low 50 - 10,000 ppm	
	Stored for Disposal		Unknown concentration	
	Stored for Disposal		Askarel	
	Stored for Disposal		Askarel	

Map Key	Company	Address	Company Code
NPCB-2	UNIVERSITY OF WINDSOR	2601 UNION ST. UNION ST. WINDSOR N9B 3P4	F0090

State	Status	Item	Pcb Type/Code	Location
	In-Storage			

Map Key	Company	Address	Company Code	Transaction Date	Industry	Site Status
NPCB-3	UNIVERSITY OF WINDSOR	2601 UNION ST. WINDSOR	F0094	30/12/1995	Undefined	Stored for Disposal

State	Status	Item	Pcb Type/Code	Location
Full	Stored for disposal	Barrel Debris, etc	Other Waste/Low	
Full	Stored for disposal	Capacitor	Askarel/Askarel	

National Pollutar elease Inventory

Map Key	Company	Address	NPRI #	Year	Longitude	Latitude
NPRI-1	University of Windsor	401 Sunset Avenue Windsor N9B 3P4	7698	2002		

Air	Water	Land	Units	Substances Released
51.026	0	0	tonnes	Oxides of nitrogen (expressed as NO2)

Map Key	Company	Address	NPRI #	Year	Longitude	Latitude
NPRI-2	University of Windsor	401 SUNSET Avenue SUITE G07 Windsor N9B 3P4	7698	2004	-83.066	42.3069

Air	Water	Land	Units	Substances Released
65.07			tonnes	Oxides of nitrogen (expressed as NO2)

Map Key	Company	Address	NPRI #	Year	Longitude	Latitude
NPRI-3	University of Windsor	401 Sunset Avenue Windsor N9B 3P4	7698	2003		

Air	Water	Land	Units	Substances Released
65.63	0.00	0.00	tonnes	Oxides of nitrogen (expressed as NO2)

Map Key	Company	Address	NPRI #	Year	Longitude	Latitude
NPRI-4	University of Windsor	401 Sunset Avenue Suite G07 Windsor N9B 3P4	7698	2005	-83.066	42.3069

Air	Water	Land	Units	Substances Released
64.23			tonnes	Oxides of nitrogen (expressed as NO2)

Inventory of PCB Storage Sites

Map Key	Company	Address	Year	Site Number	Quantity	Description
OPCB-1	UNIVERSITY OF WINDSOR	2601 UNION ST. WINDSOR N9B 3P4	2004	10286A133	1	Number of Drums of Other Material with Low Level PCBs (< 1000 ppm) kg
					100	Weight of Drums of Other Material with Low Level PCBs (< 1000 ppm) kg
					7	Number of Drums of Ballasts with High Level PCBs (>1000 ppm)
					1400	Calculated Weight (Kg) of Drums of Ballasts with High Level PCBs (>1000 ppm)
					11	Number of Capacitors with High Level PCBs (>1000 ppm)
					500	Weight of Capacitors with High Level PCBs (>1000 ppm) kg

Occurrence Report Information System

Map Key	Company	Address	Spill ID	Medium	Environmental Impact	Date of Occurrence	Nature of Impact
ORIS-1	BROWNING-FERRIS INDUSTRIES (BF	826 FELIX AVE MOTOR VEHICLE (OPERATING FLUID) WINDSOR CITY N9C 3K8	102442	LAND	POSSIBLE	7/7/1994	Soil contamination
			Synopsis:		BFI-UKN QTY GASOLINE TO GROUND FROM LEAK IN PIPE TO FUEL DISPENSER.		
			Cause:		PIPE/HOSE LEAK EQUIPMENT FAILURE		
ORIS-2	UNIVERSITY OF WINDSOR	660 PATRICIA ST. WINDSOR CITY	98459	LAND	POSSIBLE	4/7/1994	Soil contamination
			Synopsis:		UNIVERSITY OF WINDSOR: 25 L OF FUR. OIL-LEAKED FROM UNDERGROUND PIPE		
			Cause:		PIPE/HOSE LEAK UNKNOWN		
ORIS-3		AMBASSADOR BRIDGE, NEAR CANADA CUSTOMS \ WINDSOR CITY	139170	LAND		4/6/1997	
			Synopsis:				
			Cause:				

Private Fuel rage Tanks

Map Key	Company	Address	Location ID	Expiry Date	Capacity (L)	Facility Description	Licence #
PST-1	BROWNING FERRIS INDUSTRIES	826 FELIX AV WINDSOR N9C 3K8	17182		27276.00	PRIVATE FUEL OUTLET	0001040373

Retail Fue' rage Tanks

Map Key	Company	Address	Location ID	Expiry Date	Capacity (L)	Licence #	Facility:
RST-1	BERRO SERVICE CENTRE & AUTOMOTIVE	3110 SANDWICH ST WINDSOR	17246	1991-01-31	23000	0054898001	GASOLINE STATION - FS
			Description:				
RST-2	HADWAN TOM HADWAN SERVICE	3110 SANDWICH ST WINDSOR	17246	1992-04-30	0	0057025001	
			Description:				
RST-3		3110 SANDWICH ST. WINDSOR	17247				GASOLINE STATION - FULL SER
			Description:				
RST-4	SOUTHLAND CANADA 2830 ATTN MARYANN GRAHOVAC	2585 WYANDOTTE ST W WINDSOR N9B1K6	17321	1995-11-30	0	0051451001	GASOLINE STATION - SS
			Description:				
RST-5	NICKS AUTO CLINIC	2970 UNIVERSITY AV W WINDSOR N9C1G2	17291	1996-01-31	68190	0048369001	GASOLINE STATION - FS
			Description:				
RST-6	NICK'S AUTO CLINIC	2970 UNIVERSITY AVE W WINDSOR N9C1G2					Service Stations-Gasoline, Oil & Natural Gas
			Description:				

Scott's Manuf ring Directory

Map Key	Company	Address	Established	Plant Size (ft^2)	Employment	SIC/NAICS Code	Description
SCT-1	Essroc Cement Inc.	210 Detroit St Windsor N9C 2P1	1967		2	416390	Other Specialty-Line Building Supplies Wholesaler-Distributors
SCT-2	View Magazine - U of Windsor	401 Sunset Ave G07 Windsor N9B 3P4	1963		1500	511120	Periodical Publishers

Water Well Information System

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-1		WINDSOR CITY	2105835				ESSEX	WINDSOR CITY

Easting Nad83:	329550
Northing Nad83:	4685409
Zone:	17
Utm Reliability:	
Construction Date:	3/9/2005
Primary Water Use:	NOT USED
Secondary Water Use:	
Well Depth (ft):	128
Pump Rate (gpm):	
Static Water Level (ft):	
Flow Rate (gpm):	
Clear/Cloudy:	
Specific Capacity:	
Final Well Status:	OBSERVATION WELLS
Construction Method:	ROTARY (CONVENT.)
Flowing (y/n):	0
Elevation (ft):	
Elevation Reliability:	
Depth to Bedrock (ft):	118
Overburden/Bedrock:	Bedrock
Water Type:	FRESH
Casing Material:	PLASTIC

Map Key	Company	Address	Well Id	Lot	Concession	Concession Name	County	Municipality
WWIS-2		WINDSOR CITY	2105807				ESSEX	WINDSOR CITY

Easting Nad83:	329770
Northing Nad83:	4685600
Zone:	17
Utm Reliability:	margin of error : 10 - 30 m
Construction Date:	8/23/2004
Primary Water Use:	
Secondary Water Use:	
Well Depth (ft):	20
Pump Rate (gpm):	
Static Water Level (ft):	
Flow Rate (gpm):	
Clear/Cloudy:	
Specific Capacity:	
Final Well Status:	OBSERVATION WELLS
Construction Method:	BORING
Flowing (y/n):	0
Elevation (ft):	
Elevation Reliability:	
Depth to Bedrock (ft):	
Overburden/Bedrock:	Overburden
Water Type:	FRESH
Casing Material:	PLASTIC

Appendix: Ontario Database Descriptions

EcoLog Environmental Risk Information Services Ltd can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to EcoLog ERIS at the time of update. **Note:** Databases denoted with "*" indicates that the database will no longer be updated. See the individual database descriptions for more information.

Federal Government Source Databases: **Diagram Identifier:**

Environmental Effects Monitoring 1992-2004 **EEM**

The Environmental Effects Monitoring program assesses the effects of effluent from industrial or other sources on fish, fish habitat and human usage of fisheries resources. Since 1992, pulp and paper mills have been required to conduct EEM studies under the Pulp and Paper Effluent Regulations. This database provides information on the mill name, geographical location and sub-lethal toxicity data.

Environmental Issues Inventory System 1992-2001 **EIIS**

The Environmental Issues Inventory System was developed through the implementation of the Environmental Issues and Remediation Plan. This plan was established to determine the location and severity of contaminated sites on inhabited First Nation reserves, and where necessary, to remediate those that posed a risk to health and safety; and to prevent future environmental problems. The EIIS provides information on the reserve under investigation, inventory number, name of site, environmental issue, site action (Remediation, Site Assessment), and date investigation completed.

Federal Convictions 1988-Jan 2002 **FCON**

Environment Canada maintains a database referred to as the "Environmental Registry" that details prosecutions under the Canadian Environmental Protection Act (CEPA) and the Fisheries Act (FA). Information is provided on the company name, location, charge date, offence and penalty.

Contaminated Sites on Federal Land June 2000-2005 **FCS**

The Treasury Board of Canada Secretariat maintains an inventory of all known contaminated sites held by various Federal departments and agencies. This inventory does not include properties owned by Crown corporations, but does contain non-federal sites for which the Government of Canada has accepted some or all financial responsibility. All sites have been classified through a system developed by the Canadian Council of Ministers of the Environment. The database provides information on company name, location, site ID #, property use, classification, current status, contaminant type and plan of action for site remediation.

Fisheries & Oceans Fuel Tanks 1964-Sept 2003 **FOFT**

Fisheries & Oceans Canada maintains an inventory of all aboveground & underground fuel storage tanks located on Fisheries & Oceans property or controlled by DFO. Our inventory provides information on the site name, location, tank owner, tank operator, facility type, storage tank location, tank contents & capacity, and date of tank installation.

Indian & Northern Affairs Fuel Tanks 1950-Aug 2003 **IAFT**

The Department of Indian & Northern Affairs Canada (INAC) maintains an inventory of all aboveground & underground fuel storage tanks located on both federal and crown land. Our inventory provides information on the reserve name, location, facility type, site/facility name, tank type, material & ID number, tank contents & capacity, and date of tank installation.

National Analysis of Trends in Emergencies System (NATES) 1974-1994* **NATE**

In 1974 Environment Canada established the National Analysis of Trends in Emergencies System (NATES) database, for the voluntary reporting of significant spill incidents. The data was to be used to assist in directing the work of the emergencies program. NATES ran from 1974 to 1994. Extensive information is available within this database including company names, place where the spill occurred, date of spill, cause, reason and source of spill, damage incurred, and amount, concentration, and volume of materials released.

National Defence & Canadian Forces Fuel Tanks Up to May 2001 **NDFT**

The Department of National Defence and the Canadian Forces maintains an inventory of all aboveground & underground fuel storage tanks located on DND lands. Our inventory provides information on the base name, location, tank type & capacity, tank contents, tank class, date of tank installation, date tank last used, and status of tank as of May 2001. Please note that due to the September 2001 terrorist attack, new National Security protocols have prohibited any release of updates to this database.

National Defence & Canadian Forces Spills March 1999-Feb 2005 **NDSP**

The Department of National Defence and the Canadian Forces maintains an inventory of spills to land and water. All spill sites have been classified under the "Transportation of Dangerous Goods Act - 1992". Our inventory provides information on the facility name, location, spill ID #, spill date, type of spill, as well as the quantity of substance spilled & recovered.

National Defence & Canadian Forces Waste Disposal Sites 2001, 2003 **NDWD**

The Department of National Defence and the Canadian Forces maintains an inventory of waste disposal sites located on DND lands. Where available, our inventory provides information on the base name, location, type of waste received, area of site, depth of site, year site opened/closed and status.

National Environmental Emergencies System (NEES) 1974-2003 **NEES**

In 2000, the Emergencies program implemented NEES, a reporting system for spills of hazardous substances. For the most part, this system only captured data from the Atlantic Provinces, some from Quebec and Ontario and a portion from British Columbia. Data for Alberta, Saskatchewan, Manitoba and the Territories was not captured. However, NEES is also a repository for all previous Environment Canada spill datasets. NEES is composed of the historic datasets – or Trends – which dates from approximately 1974 to present. **NEES Trends** is a compilation of historic databases, which were merged and includes data from NATES (National Analysis of Trends in Emergencies System), ARTS (Atlantic Regional Trends System), and NEES. In 2001, the Emergencies Program determined that variations in reporting regimes and requirements between federal and provincial agencies made national spill reporting and trend analysis difficult to achieve. As a consequence, the department has focused efforts on capturing data on spills of substances which fall under its legislative authority only (CEPA and FA). As such, the NEES database will be decommissioned in December 2004.

National PCB Inventory 1988-June 2004 **NPCB**

Environment Canada's National PCB inventory includes information on in-use PCB containing equipment in Canada including federal, provincial and private facilities. All federal out-of-service PCB containing equipment and all PCB waste owned by the federal government or by federally regulated industries such as airlines, railway companies, broadcasting companies, telephone and telecommunications companies, pipeline companies, etc. are also listed. Although it is not Environment Canada's mandate to collect data on non-federal PCB waste, the National PCB inventory includes some information on provincial and private PCB waste and storage sites.

National Pollutant Release Inventory 1993-2005 **NPRI**

Environment Canada has defined the National Pollutant Release Inventory ("NPRI") as a federal government initiative designed to collect comprehensive national data regarding releases to air, water, or land, and waste transfers of 178 specified substances.

Parks Canada Fuel Storage Tanks **1920-Jan 2005** **PCFT**

Canadian Heritage maintains an inventory of all known fuel storage tanks operated by Parks Canada, in both National Parks and at National Historic Sites. The database details information on site name, location, tank install/removal date, capacity, fuel type, facility type, tank design and owner/operator.

Transport Canada Fuel Storage Tanks **1970- May 2003** **TCFT**

Within the provinces of BC, MB, NB, NF, ON, PE, and QC; Transport Canada currently owns and operates 90 fuel storage tanks. Our inventory provides information on the site name, location, tank age, capacity and fuel type.

Provincial Government Source Databases:

Abandoned Aggregate Inventory **Up to Sept 2002** **AAGR**

The MAAP Program maintains a database of all abandoned pits and quarries. Please note that the database is only referenced by lot and concession and city/town location. The database provides information regarding the location, type, size, land use, status and general comments.

Aggregate Inventory **Up to May 2005** **AGR**

The Ontario Ministry of Natural Resources maintains a database of all active pits and quarries. Please note that the database is only referenced by lot\concession and city/town location. The databases provides information regarding the registered owner/operator, location, status, licence type, and maximum tonnage.

Abandoned Mines Information System **1800- 2005** **AMIS**

The Abandoned Mines Information System contains data on known abandoned and inactive mines located on both Crown and privately held lands. The information was provided by the Ministry of Northern Development and Mines (MNDM), with the following disclaimer: "the database provided has been compiled from various sources, and the Ministry of Northern Development and Mines makes no representation and takes no responsibility that such information is accurate, current or complete". Reported information includes official mine name, status, background information, mine start/end date, primary commodity, mine features, hazards and remediation.

Certificates of Approval **1985-Sept 2002** **CA**

This database contains the following types of approvals: Certificates of Approval (Air) issued under Section 9 of the Ontario EPA; Certificates of Approval (Industrial Wastewater) issued under Section 53 of the Ontario Water Resources Act ("OWRA"); and Certificates of Approval (Municipal/Provincial Sewage and Waterworks) issued under Sections 52 and 53 of the OWRA.

Coal Gasification Plants **1987, 1988*** **COAL**

This inventory of all known and historical coal gasification plants was collected by the Ministry of Environment. It identifies industrial sites that produced and continue to produce or use coal tar and other related tars. Detailed information is available and includes: facility type, size, landuse, soil condition, site operators/occupants, site description, and potential environmental impacts. This information is effective to 1988, but the program has since been discontinued.

Compliance and Convictions **1989-2003** **CONV**

This database summarizes the fines and convictions handed down by the Ontario courts beginning in 1989. Companies and individuals named here have been found guilty of environmental offenses in Ontario courts of law.

Drill Holes **1886-2005** **DRL**

The Ontario Drill Hole Database contains information on more than 113,000 percussion, overburden, sonic and diamond drill holes from assessment files on record with the department of Mines and Minerals. Please note that limited data is available for southern Ontario, as it was the last area to be completed. The database was created when surveys submitted to the Ministry were converted in the Assessment File Research Image Database (AFRI) project. However, the degree of accuracy (coordinates) as to the exact location of drill holes is dependent upon the source document submitted to the MNDM. Levels of accuracy used to locate holes are: centering on the mining claim; a sketch of the mining claim; a 1:50,000 map; a detailed company map; or from submitted a "Report of Work".

Environmental Registry **1994-July 2003*** **EBR**

The Environmental Registry lists proposals, decisions and exceptions regarding policies, Acts, instruments, or regulations that could significantly affect the environment. Through the Registry, provincial ministries notify the public of upcoming proposals and invite their comments. For example, if a local business is requesting a permit, licence, or certificate of approval to release substances into the air or water; these are notified on the registry.

Ontario Regulation 347 Waste Generators Summary **1986-2005** **GEN**

Regulation 347 of the Ontario EPA defines a waste generation site as any site, equipment and/or operation involved in the production, collection, handling and/or storage of regulated wastes. A generator of regulated waste is required to register the waste generation site and each waste produced, collected, handled, or stored at the site. This database contains the registration number, company name and address of registered generators including the types of hazardous wastes generated. This information is a summary of all years from 1986 including the most currently available data. Some records may contain, within the company name, the phrase "See & Use…" followed by a series of letters and numbers. This occurs when one company is amalgamated with or taken over by another registered company. The number listed as "See & Use", refers to the new ownership and the other identification number refers to the original ownership. This phrase serves as a link between the 2 companies until operations have been fully transferred.

Mineral Occurrences **1846-Oct 2004** **MNR**

In the early 70's, the Ministry of Northern Development and Mines created an inventory of approximately 19,000 mineral occurrences in Ontario, in regard to metallic and industrial minerals, as well as some information on building stones and aggregate deposits. Please note that the "Horizontal Positional Accuracy" is approximately +/- 200 m. Many reference elements for each record were derived from field sketches using pace or chain/tape measurements against claim posts or topographic features in the area. The primary limiting factor for the level of positional accuracy is the scale of the source material. The testing of horizontal accuracy of the source materials was accomplished by comparing the planimetric (X and Y) coordinates of that point with the coordinates of the same point as defined from a source of higher accuracy.

Non-Compliance Reports **1992(water only), 1994-2005** **NCPL**

The Ministry of the Environment provides information about non-compliant discharges of contaminants to air and water that exceed legal allowable limits, from regulated industrial and municipal facilities. A reported non-compliance failure may be in regard to a Control Order, Certificate of Approval, Sectoral Regulation or specific regulation/act.

Ontario Oil and Gas Wells **1800-Oct 2006** **OOGW**

In 1998, the MNR handed over to the Ontario Oil, Gas and Salt Resources Corporation, the responsibility of maintaining a database of oil and gas wells drilled in Ontario. Information available for all wells in the ERIS database include well owner/operator, location, permit start date, well cap date, licence number, status, depth and the primary target (rock unit) of the well being drilled.

Ontario Inventory of PCB Storage Sites **1987-Oct 2004** **OPCB**

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of PCB storage sites within the province. Ontario Regulation 11/82 (Waste Management - PCB) and Regulation 347 (Generator Waste Management) under the Ontario EPA requires the registration of inactive PCB storage equipment and/or disposal sites of PCB waste with the Ontario Ministry of Environment. This database contains information on: 1) waste quantities; 2) major and minor sites storing liquid or solid waste; and 3) a waste storage inventory.

Ministry Orders 1995-1996 **ORD**

Control Orders/Documents are enforcement actions issued by the Ministry of the Environment to deal with environmental violations. They clarify and allocate individual/joint liability when issuing clean-up orders for contaminated sites.

Occurrence Reporting Information System 1988-2002 **ORIS**

This database identifies sources, effects/actions and approximate locations of spills and occurrences within Ontario. The locations identified on the locator diagram refer to the facility responsible for the spill. The actual location of the spill can be derived from the descriptions provided in the detailed report.

Pesticide Register 1988-Oct 2006 **PES**

The Ontario Ministry of Environment maintains a database of all manufacturers and vendors of registered pesticides.

Private Fuel Storage Tanks 1989-1996* **PST**

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of all registered private fuel storage tanks. Public records of private fuel storage tanks are only available since the registration became effective in September 1989. This information is now collected by the Technical Standards and Safety Authority.

Ontario Regulation 347 Waste Receivers Summary 1986-2005 **REC**

Part V of the Ontario Environmental Protection Act ("EPA") regulates the disposal of regulated waste through an operating waste management system or a waste disposal site operated or used pursuant to the terms and conditions of a Certificate of Approval or a Provisional Certificate of Approval. Regulation 347 of the Ontario EPA defines a waste receiving site as any site or facility to which waste is transferred by a waste carrier. A receiver of regulated waste is required to register the waste receiving facility. This database represents registered receivers of regulated wastes, identified by registration number, company name and address. This information is a summary of all years from 1986 including the most currently available data.

Record of Site Condition 1997-Sept 2001 **RSC**

The Record of Site Condition (RSC) provides a summary of the final environmental condition of a site, once an environmental site assessment and/or restoration approach has been undertaken. The database provides information on the site restoration approach used (Background, Generic, Site Specific Risk Assessment), location of contaminated site, whether contamination extends past 1.5m from the surface thereby requiring "stratified restoration", soil type, and the date when RSC was submitted/acknowledged/ responded to by the Ministry of the Environment. A site restoration approach involves the use of soil and groundwater quality criteria, which have been developed to provide protection against adverse effects to human/ecological health and the natural environment. These criteria may be applied to agricultural, residential/parkland, industrial/commercial land uses; as well as potable (source of drinking water) and nonpotable groundwater use.

Wastewater Discharger Registration Database 1990-1998 **SRDS**

Information under this heading is combination of the following 2 programs. The Municipal/Industrial Strategy for Abatement (MISA) division of the Ontario Ministry of Environment maintained a database of all direct dischargers of toxic pollutants within nine sectors including: Electric Power Generation; Mining; Petroleum Refining; Organic Chemicals; Inorganic Chemicals; Pulp & Paper; Metal Casting; Iron & Steel; and Quarries. All sampling information is now collected and stored within the Sample Result Data Store (SRDS).

Waste Disposal Sites - MOE CA Inventory 1970-Sept 2002 **WDS**

The Ontario Ministry of Environment, Waste Management Branch, maintains an inventory of known open (active or inactive) and closed disposal sites in the Province of Ontario. Active sites maintain a Certificate of Approval, are approved to receive and are receiving waste. Inactive sites maintain Certificate(s) of Approval but are not receiving waste. Closed sites are not receiving waste. The data contained within this database was compiled from the MOE's Certificate of Approval database. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number.

Waste Disposal Sites - MOE 1991 Historical Approval Inventory **Up to Oct 1990*** **WDSH**

In June 1991, the Ontario Ministry of Environment, Waste Management Branch, published the "June 1991 Waste Disposal Site Inventory", of all known active and closed waste disposal sites as of October 30st, 1990. For each "active" site as of October 31st 1990, information is provided on site location, site/CA number, waste type, site status and site classification. For each "closed" site as of October 31st 1990, information is provided on site location, site/CA number, closure date and site classification. Locations of these sites may be cross-referenced to the Anderson database described under ERIS's Private Source Database section, by the CA number.

Water Well Information System **1955-2006** **WWIS**

This database describes locations and characteristics of water wells found within Ontario in accordance with Regulation 903. Geographic coordinates are reliable according to the given percentage. Wells that are identified with lot and concession only are available upon request and would be provided as a separate report.

Private Source Databases:

Anderson's Waste Disposal Sites **1930-2004** **ANDR**

The information provided in this database was collected by examining various historical documents which aimed to characterize the likely position of former waste disposal sites from 1860 to present. The research initiative behind the creation of this database was to identify those sites that are missing from the *Ontario MOE Waste Disposal Site Inventory*, as well as to provide revisions and corrections to the positions and descriptions of sites currently listed in the MOE inventory. In addition to historic waste disposal facilities, the database also identifies certain auto wreckers and scrap yards that have been extrapolated from documentary sources. *Please note that the data is not warranted to be complete, exhaustive or authoritive. The information was collected for research purposes only.*

Automobile Wrecking & Supplies **2001-Feb 2007** **AUWR**

This database provides an inventory of all known locations that are involved in the scrap metal, automobile wrecking/recycling, and automobile parts & supplies industry. Information is provided on the company name, location and business type.

Commercial Fuel Oil Tanks **1948-Sept 2006** **CFOT**

Since May 2002, Ontario developed a new act where it became mandatory for fuel oil tanks to be registered with TSSA. This data would include all commercial underground fuel oil tanks in Ontario with fields such as location, registration number, tank material, age of tank and tank size.

Chemical Register **1992, 1999-Feb 2007** **CHEM**

This database includes information from both a one time study conducted in 1992 and private source and is a listing of facilities that manufacture or distribute chemicals. The production of these chemical substances may involve one or more chemical reactions and/or chemical separation processes (i.e. fractionation, solvent extraction, crystallization, etc.).

ERIS Historical Searches **1999-2006** **EHS**

EcoLog ERIS has compiled a database of all environmental risk reports completed since March 1999. Available fields for this database include: site location, date of report, type of report, and search radius. As per all other databases, the ERIS database can be referenced on both the map and "Statistical Profile" page.

Canadian Mine Locations **1998-2005** **MINE**

This information is collected from the Canadian & American Mines Handbook. The Mines database is a national database that provides over 290 listings on mines (listed as public companies) dealing primarily with precious metals and hard rocks. Listed are mines that are currently in operation, closed, suspended, or are still being developed (advanced projects). Their locations are provided as geographic coordinates (x, y and/or longitude, latitude). As of 2002, data pertaining to Canadian smelters and refineries has been appended to this database.

Oil and Gas Wells **Oct 2001-2006** **OGW**

The Nickle's Energy Group (publisher of the Daily Oil Bulletin) collects information on drilling activity including operator and well statistics. The well information database includes name, location, class, status and depth. The main Nickles' database is updated on a daily basis, however, this database is updated on a monthly basis. More information is available at www.nickles.com.

Canadian Pulp and Paper **1999, 2002, 2004, 2005** **PAP**

This information is part of the Pulp and Paper Canada Directory. The Directory provides a comprehensive listing of the locations of pulp and paper mills and the products that they produce.

Retail Fuel Storage Tanks **1989-Feb 2007** **RST**

The Fuels Safety Branch of the Ontario Ministry of Consumer and Commercial Relations maintained a database of licensed retail fuel outlets. The MCCR no longer collects this information. Current information is now collected from private sources. This database includes an inventory of retail fuel outlet locations that have on their property gasoline, oil, waste oil, natural gas and / or propane storage tanks.

Scott's Manufacturing Directory **1992-Jan 2007** **SCT**

Scott's Directories is a data bank containing information on over 70,000 manufacturers in Ontario. Even though Scott's listings are voluntary, it is the most comprehensive database of Ontario manufacturers available. Information concerning a company's address, plant size, and main products are included in this database. This database begins with 1992 information and is updated annually.

Anderson's Storage Tanks **1915-1953*** **TANK**

The information provided in this database was collected by examining various historical documents, which identified the location of former storage tanks, containing substances such as fuel, water, gas, oil, and other various types of miscellaneous products. Information is available in regard to business operating at tank site, tank location, permit year, permit & installation type, no. of tanks installed & configuration and tank capacity. *Data contained within this database pertains only to the city of Toronto and is not warranted to be complete, exhaustive or authoritative. The information was collected for research purposes only.*

CEAA ENVIRONMENTAL CEAA ENVIRONMENTAL
ENVIRONMENTAL IMPACT ASSESSMENT

AMBASSADOR BRIDGE ENHANCEMENT PROJECT

Replacement Span

APPENDIX F

VEGETATION SURVEY

L Campbell & Associates

Ambassador Bridge Enhancement Project
Vegetation Community Assessment

Windsor, Ontario

Prepared for:

Avalon Consulting Professionals of Ontario

Prepared by:

L Campbell & Associates
104-155 Main Street East
Suite 234
Grimsby, Ontario
L3M 1P2
campbell-associates@sympatico.ca

May 2007

L Campbell & Associates

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L Campbell & Associates

1.0 INTRODUCTION

The Ambassador Bridge Enhancement Project addresses the proposed bridge enhancement crossing the Detroit River from the United States to Windsor, Ontario, Canada. L. Campbell & Associates, a sub-consultant to Avalon Consulting Professionals of Ontario, was retained to complete a Vegetation and Vegetation Communities Assessment to address the potential impact of the existing vegetation community. The Ambassador Bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new bridge will connect directly into the existing plazas in both Windsor and Detroit. The new structure will be approximately 31. metres wide and 1890 metres long, with approximately 670 metres traversing the Detroit River. No supporting structures (piers and towers) will be placed in the Detroit River. Once the new structure is completed, the existing Ambassador Bridge will be taken out of service in order to evaluate and make any repairs necessary.

The study area for the vegetation survey includes the area from Wyandotte Street northwards to the Detroit River with Indian Road at the westerly limit in the Sandwich community. The easterly limit is the existing Ambassador Bridge. This area is highly urbanized and the vegetation is limited to open space areas, local parks and street trees. Surrounding land uses include residential development, industrial uses and the University of Windsor campus. The existing Windsor Customs Plaza is also located south of the study area.

2.0 EXISTING STUDY AREA CONDITIONS

2.1 Existing Natural Environment

The existing natural environment was assessed and documented by staff of L. Campbell & Associates on May 8, 2007. The following discussion outlines the existing environmental conditions within the study area, including significant and/or sensitive areas and species, based on the field data collected at that time. The existing vegetation and associated wildlife habitat was limited to street trees on Indian Road and associated side roads.

2.2 Terrestrial Ecosystems

2.2.1 Vegetated Areas and Vegetation Communities

Field investigations and air photo interpretation determined the geographical extent, composition, structure and function of vegetation communities on and adjacent to the subject lands. A vegetation community survey was undertaken in the study area on May 8, 2007. Air photos were also used to interpret and determine the limits and characteristics of vegetation communities on adjacent lands in the general vicinity. Land use in the study area is primarily urban residential and institutional. Very few patches of natural or semi-natural (cultural) vegetation are present within the study area, most of which are landscaped (i.e. mowed) with ornamental plantings.

McKee Park, along the Detroit River represented the only open, non-impacted area. This park is one of a series reclaimed park along the Detroit River. Currently, the existing Ambassador Bridge crosses over this park area.

The purpose of this investigation was to determine the limits of communities, collect information on community composition, structure and function and to identify potential habitat and Species at Risk in the area. The inventory included Indian Road and adjacent lands visible from the major crossings. An inventory of roadside trees was also completed within the right-of-way to record the type and condition of natural and ornamental trees and shrubs. The basal area was recorded for larger trees that were accessible. Trees within rear yards were also recorded to determine the density of native species and for consideration of habitat potential.

The Ecological Land Classification for Southern Ontario is the standard protocol applied to describe vegetation communities across the province. The ELC framework was designed to categorize vegetation communities within the context of a Site Region within Ontario. Typically, the Ecosite and Vegetation Type are described for a given Site Region. The City of Windsor falls within the 7E Site Region. In order to apply the classification system at a more detailed level, the ELC protocol defines areas based on geology, soils and vegetation. However, the refined level of classification is based on "a mappable, landscape unit that integrates a consistent set of environmental factors and vegetation characteristics" (Lee et al. 1998).

Vegetation communities and individual trees identified within the study area could not be classified according to the *Ecological Land Classification for Southern Ontario: First Approximation and Its Application* (Lee et al. 1998) as the existing vegetation communities did not meet the criteria in terms of polygon size, vegetation definition or soil formation (i.e. level of disturbance) for application of the classification protocol. As such, the vegetation inventoried was described based on the location. The habitat available given the vegetation was also noted in the field.

A geographic query was completed to determine reports on sensitive species according to the Natural Heritage Information Centre for the local area. As well, plant species recorded in the area were reviewed for provincial and national status.

2.2.2 Boulevard Trees and McKee Park

The roadside vegetation along Indian Road, adjacent streets and rear yards was inventoried extending from Mill Street to the Detroit River. The vegetation within McKee Park was also inventoried as part of the study area. The trees along the road and within the park represented a combination of native and non-native species that have been planted either as streetscaping, parkland or for residential privacy. As indicated within the City of Windsor – Environmental Master Plan, all trees located within 33 feet of the centre of the roadway are owned by the City of Windsor. As well, the vegetation identified within McKee Park is also owned and managed by the City of Windsor. Of the trees identified within the boulevard and park, only two species were considered Carolinian trees according to the Tree Guide provided on the City of Windsor website. These trees included the Tulip Tree (*Liriodendron tulipifera*) and Red Oak (*Quercus*

alba). While native Honeylocust is considered Carolinian, the species identified within the study area were cultivars. There were far more ornamental and invasive species identified which is common in established urban areas as native plantings were not historically encouraged as street trees.

McKee Park is located immediately adjacent to the Detroit River. While the upland area consists of mowed grass and several mature trees, the bank vegetation was somewhat more natural and consisted of a shrub and herbaceous layer, however, most were invasive species. There were no defined wetland areas identified within the study area and there were no species of vegetation identified as threatened or endangered. A list of the vegetation within the study area is presented in Appendix A.

2.3 Wildlife and Wildlife Habitat

The majority of the study area is urban with few natural heritage features or available habitat for local wildlife. Wildlife habitat throughout the study area is typical of an urban setting with species that are tolerant of human disturbance. The most significant habitat consists of the lands adjacent to the Detroit River. The existing shrubbery provides both shade to the watercourse and connectivity with adjacent lands.

Within McKee Park, the lands are primarily mowed grass with sporadic mature trees and bank vegetation consisting primarily of shrubs and herbaceous species. The proximity to the river provides some connectivity for local wildlife to move from McKee Park and the adjacent parks along the river. Wildlife typically found in these areas includes mice, squirrels, rabbits and a variety of birds. The park and river's edge may also serve as a stopover area for migratory species that are traveling along the river. Specialized habitats are limited in this area and there are no forests or naturalized open spaces within the study area. Amphibian habitat is restricted to the lands adjacent to the Detroit River. The waterfront is considered to be the only environmentally sensitive area within the defined study area.

3.0 DEVELOPMENT PROPOSAL

The Ambassador Bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new bridge will connect directly into the existing plazas in both Windsor and Detroit. The new structure will be approximately 31 metres wide and 1890 metres long, with approximately 670 metres traversing the Detroit River. No supporting structures (piers and towers) will be placed in the Detroit River. Once the new structure is completed, the existing Ambassador Bridge will be taken out of service in order to evaluate and make any repairs necessary.

4.0 IMPACT ASSESSMENT AND RECOMMENDED MITIGATION

The assessment of potential impacts is restricted to consideration of the study area vegetation and associated habitat function. Only a single alternative was considered for this assessment.

4.1 Terrestrial Ecosystems and Wildlife Habitat

The proposed construction of the new Ambassador Bridge crossing will primarily impact the roadside vegetation which includes roadside trees, ornamental tree clusters and landscape plantings. Most of the ornamental trees serve an aesthetic function only and don't contribute to the natural vegetation communities in this area. Loss of some of the "street trees" can be compensated through an effective planting program that maximizes use of native species. Wherever possible, mature native trees should be identified and flagged for preservation. Trees with McKee Park should be preserved wherever possible to maintain the existing aesthetics and ecological function. As well, the vegetation on the banks of the Detroit River should not be disturbed to minimize disturbance to fish habitat.

Loss of trees and shrubs along the boulevard will have minimal impacts on the local wildlife and wildlife habitat with the exception of the vegetated valleylands associated with the Detroit River. The river bank vegetation provides connectivity to the waterway and the adjacent park and open space areas along the river. As well, the riparian vegetation offers shade and organic input into the water.

4.2 Potential Construction near the Detroit River

Any works along the Detroit River to accommodate the new bridge may potentially impact the localized fish habitat and associated riparian function. The following mitigation measures will assist in reducing a potential for negative impact to fish habitat:

- ✓ All work areas should be delineated with construction fencing to restrict the equipment and construction from potentially sensitive areas;
- ✓ All in-water construction activities should be implemented in the permitted time period to ensure that spawning fish and spawning habitat, eggs and fry are protected through the critical period.
- ✓ Heavy equipment should be limited to stable areas and away from potentially soft banks;
- ✓ Best management practices related to materials storage, machinery operation and the movement of earth should be implemented during construction.

Increased erosion due to the exposure of soil is common through the construction phase. Suspended and deposited sediment can have negative impacts on fish, fish habitat, and spawning areas. For these reasons it is important that erosion and sediment control practices are clearly established and practiced throughout the construction phases to minimize the construction-related impacts on fish habitat and water quality.

Temporary erosion and sedimentation control measures may include, but are not limited to the following:

- ✓ Soils exposure time should be kept to a minimum;
- ✓ Silt fencing should be installed along the river in areas of soil disturbance to minimize disturbance of these areas and restricted the dumping of waste/fill materials in a potential erosion zone;
- ✓ Use of an erosion control blanket in areas of soil disturbance should be used to provide slope protection and stabilization; seeding, sodding, and mulching material can also be effective if applied appropriately;
- ✓ In sensitive areas associated with the riparian buffers, the placement of the vegetation mats of native materials is effective at reducing erosion while quickly establishing stability to the bank;

All temporary measures should remain in place until the natural vegetation is established on any exposed soils. As well, measures aimed at establishing bank vegetation and improved riparian function should be incorporated into the design specifics for any portions of the watercourses that may require realignment. Provided that the erosion and sedimentation control strategies are established before construction begins, maintained throughout the construction phase and removed once the system is stable, there should only be minor effects on the surface water quality and associated fish habitat.

4.3 Summary

Given the existing vegetation and available habitat within the study area, it is not anticipated that there will be net residual negative impacts on the local flora and fauna as a result of the proposed development. Impacts to the fish habitat and riparian function associated with the Detroit River can be minimized through implementation of the strategies detailed above.

We trust that the information provided in this report addresses the existing natural heritage features and functions within the study area. Should you require any additional information, please contact our office.

Sincerely,

Lisa Campbell, M.Sc., C.C.E.P.
Director

5.0 LITERATURE REVIEWED

Chapman, L.J. and D.F. Putman. 1984. The Physiography of Southern Ontario – Third edition. Ministry of Natural Resources.

Department of Fisheries and Oceans. 1998. Decision Framework for the Determination and Authorization of Harmful Alteration, Disruption or Destruction of Fish Habitat.

Lee, H.T., W.D. Bakowsky, J. Riley, J. Bowles, M. Puddister, P. Uhlig, and S. McMurray. 1998. Ecological Land Classification for southern Ontario: first approximation and its application. Ontario Ministry of Natural Resources, Southcentral Science Section, Science Department and Transfer Branch. SCSS Field Guide FG-02.

Oldham, M.J. and W.F. Weller,. 2000. Ontario Herpetofaunal Atlas. Natural Heritage Information Centre, Ontario Ministry of natural Resources.

Ontario Institute of Pedology. 1985. Field manual for describing soils, Third edition. Ontario Institute of Pedology, Guelph, Ontario

Ontario Ministry of Natural Resources. 1999. Natural Heritage Reference Manual for Policy 2.3 of the Provincial Policy Statement. OMNR, Peterborough, Ontario

7.0 AUTHOR'S QUALIFICATION

Ms. Campbell is an Aquatic Ecologist and Principal Partner of L Campbell & Associates specializing in the monitoring and interpretation of aquatic and terrestrial environments, particularly those impacted by anthropogenic activity. Ms. Campbell has a Master of Science degree in Aquatic Ecology and an Honours Bachelor of Science degree in Ecology and Chemistry. She is also full-time faculty at The Centre for Environmental Training at Niagara College where she provides instruction to undergraduate and post-graduate students in areas of Environmental Sampling and Analysis, Hydrology, Environmental Monitoring and Watershed Management. She has acquired substantial experience in the assessment of benthic communities and the evaluation of water systems impacted by development. Ms. Campbell is a registered certified Wetland Evaluator following completion of the MNR Wetland Evaluation course in spring of 2003. As well, Ms. Campbell is a registered Certified Canadian Environmental Practitioner in the areas of water quality, land quality, fish and wildlife conservation and environmental education. Associates of the firm include a qualified botanist, a naturalist, a hydrologist and a geomatics specialist.

L Campbell & Associates

APPENDIX A

Vegetation Community Inventory

Ambassador Bridge Winsdor - Vegetetation Inventory (May 2007)

COMMON NAME	*SCIENTIFIC NAME*	*ONTARIO STATUS*	*GLOBAL STATUS*	*COS*	Indian Road & McKee Park (street trees & landscaping)
TREES					
Manitoba maple	*Acer negundo*	S5	G5		X
Norway Maple	*Acer plantanoides*	SE5	G?		X
Silver Maple	*Acer saccharinum*	S5	G5		X
Horse-chestnut	*Aesculus hippocastanum*	SE2	G?		X
Tree of Heaven	*Ailanthus altissima*	SE5	G?		X
Grey Birch	*Betula populifolia*	S5	G5		X
Northern Catalpa	*Catalpa speciosa*	SE1	G3G4		X
American Beech (cultivar)	*Fagus grandifolia x*	S5	G5		X
Honey Locust (cultivar)	*Gleditsia triacanthos x*	NA	NA		X
Eastern Red Cedar	*Juniperus virginiana*	S5	G5		X
Tulip-tree	*Liriodendron tulipifera*	S4	G5		X
Apple	*Malus pumula*	SE5	G?		X
White Mulberry	*Morus alba*	SE5	G?		X
Norway Spruce	*Picea abies*	SE3	G?		X
Muhgo Pine	*Pinus mugo*	SE1	G?		X
Austrian Pine	*Pinus nigra*	SE2	G?		X
Scots Pine	*Pinus sylvestris*	SE5	G?		X
Eastern Cottonwood	*Populus deltoides*	SU	G5T5		X
Sweet Cherry	*Prunus avium*	SE4	G?		X
Sour Cherry	*Prunus cerasus*	SE1	G?		X
Choke Cherry	*Prunus virginiana*	S5	G5		X
White Oak	*Quercus alba*	S5	G5		X
Northern Red Oak	*Quercus rubra*	S5	G5		X
Black Locust	*Robina peudoacacia*	SE5	G5		X
White Willow	*Salix alba var. vitellina*	SU	G5T?		X
Common Lilac	*Syringa sp.*	SE5	G?		X
White Cedar	*Thuya occidentalis*	S5	G5		X
Little Leaf Linden	*Tilia cordata*	SE1	G?		X
American Elm	*Ulmus americana*	S5	G5?		X
English Elm	*Ulmus procera*	SE1	G?		X
Siberian Elm	*Ulmus pumila*	SE3	G?		X
SHRUBS					
Buckthorn	*Rhamnus cathartica*	SE5	G?		X
Weeping Willow	*Salix alba var. vitellina*	SU	G5T?		X
Yew	*Taxus sp.*	NA	NA		X
Riverbank Grape	*Vitis riparia*	S5	G5		X
HERBS					
Yellow Rocket	*Barbarea vulgaris*	SE5	G?		X
Shephard's purse	*Capsella bursa-pastoris*	SE5	G?		X
Ground Ivy	*Glechoma hederacea*	SE5	G?		X
English Plantain	*Plantago lanceolata*	SE5	G5		X
Chickweed	*Stellaria media*	SE5	G?		X
Dandelion	*Taraxacum officinale*	SE5	G5		X
Poison Ivy	*Rhus radicans*	S5	G5		X
White Clover	*Trifolium repens*	SE5	G?		X
Barren Strawberry	*Waldsteinia fragarioides*	SE5	G5		X

Species Status Glossary

Wild Species 2005: The General Status of Species in Canada, released in October 2006, is the second report of the series, and it presents the results of general status assessments for over 7500 of Canada's species. (www.ec.gc.ca)

How it works

General status assessments integrate the best available information on population size, distribution, threats and trends to generate an evaluation of the status of each species and assign status ranks for as many species as possible. A general status rank is given for species in each region (provinces, territories and ocean regions), and species are also given an overall Canada general status rank (Canada rank).

The *Wild Species* series classifies species using 10 general status ranks: Extinct, Extirpated, At Risk, May Be At Risk, Sensitive, Secure, Undetermined, Not Assessed, Exotic or Accidental. These ranks allow species to be prioritized in terms of the effort and attention needed to prevent their further decline or loss.

Ranks are reviewed and updated every five years, eventually allowing Canadians to track patterns of improvement or decline through time. Such patterns could point the way to improved conservation practices.

National Status

GRANK	Definition
G1	**Extremely rare;** usually 5 or fewer occurrences in the overall range or very few remaining individuals; or because of some factor(s) making it especially vulnerable to extinction.
G2	**Very rare;** usually between 5 and 20 occurrences in the overall range or with many individuals in fewer occurrences; or because of some factor(s) making it vulnerable to extinction.
G3	**Rare to uncommon**; usually between 20 and 100 occurrences; may have fewer occurrences, but with a large number of individuals in some populations; may be susceptible to large-scale disturbances.
G4	**Common**; usually more than 100 occurrences; usually not susceptible to immediate threats.
G5	**Very common**; demonstrably secure under present conditions.
GH	Historic, no records in the past 20 years.
GU	Status **uncertain**, often because of low search effort or cryptic nature of the species; more data needed.
GX	Globally extinct. No recent records despite specific searches.
?	Denotes inexact numeric rank (i.e. G4?).
G	A "G" (or "T") followed by a blank space means that the NHIC has not yet obtained the Global Rank from The Nature Conservancy.
G?	**Unranked**, or, if following a ranking, rank tentatively assigned (e.g. G3?).

Q	Denotes that the taxonomic status of the species, subspecies, or variety is **questionable**.
T	Denotes that the rank applies to a subspecies or variety.

Provincial Status

SRANK	**Definition**
SX	**Presumed Extirpated**—Species or community is believed to be extirpated from the nation or state/province. Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered.
SH	**Possibly Extirpated (Historical)**—Species or community occurred historically in the nation or state/province, and there is some possibility that it may be rediscovered. Its presence may not have been verified in the past 20-40 years. A species or community could become NH or SH without such a 20-40 year delay if the only known occurrences in a nation or state/province were destroyed or if it had been extensively and unsuccessfully looked for. The NH or SH rank is reserved for species or communities for which some effort has been made to relocate occurrences, rather than simply using this status for all elements not known from verified extant occurrences.
S1	**Critically Imperiled**—Critically imperiled in the nation or state/province because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state/province.
S2	**Imperiled**—Imperiled in the nation or state/province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.
S3	**Vulnerable**—Vulnerable in the nation or state/province due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.
S4	**Apparently Secure**—Uncommon but not rare; some cause for long-term concern due to declines or other factors.
S5	**Secure**—Common, widespread, and abundant in the nation or state/province.
SNR	**Unranked**—Nation or state/province conservation status not yet assessed.
SU	**Unrankable**—Currently unrankable due to lack of information or due to substantially conflicting information about status or trends.
SNA	**Not Applicable** —A conservation status rank is not applicable because the species is not a suitable target for conservation activities.
S#S#	**Range Rank** —A numeric range rank (e.g., S2S3) is used to indicate any range of uncertainty about the status of the species or community. Ranges cannot skip more than one rank (e.g., SU is used rather than S1S4).

Additional older Sranks being replaced in 2006

SRANK	**Definition**
C	**Captive/Cultivated;** existing in the province only in a cultivated state; introduced population not yet fully established and self-sustaining.
S?	**Not Ranked Yet;** or if following a ranking, Rank Uncertain (e.g. S3?). S? species have not had a rank assigned.
SA	**Accidental;** of accidental or casual occurrence in the province; far outside its normal range; some species may occasionally breed in the province.
SAB	**Breeding accidental.**
SAN	**Non-breeding accidental.**
SE	**Exotic;** not believed to be a native component of Ontario's flora.

SR	**Reported for Ontario,** but without persuasive documentation which would provide a basis for either accepting or rejecting the report.
SRF	**Reported falsely from Ontario.**
SX	**Apparently extirpated from Ontario,** with little likelihood of rediscovery. Typically not seen in the province for many decades, despite searches at known historic sites.
SZ	**Not of practical conservation concern** inasmuch as there are no clearly definable occurrences; applies to long distance migrants, winter vagrants, and eruptive species, which are too transitory and/or dispersed in their occurrence(s) to be reliably mapped; most such species are non-breeders, however, some may occasionally breed.
SZB	**Breeding migrants/vagrants.**
SZN	**Non-breeding migrants/vagrants.**

L Campbell & Associates

APPENDIX B

Site Photo Records

Photo 1: Street trees along Indian Road.

Photo 2: Trees along western limit of study area adjacent to parking area.

Photo 3: University Parkette just beyond study area.

Photo 4: McKee Park vegetated buffer along Detroit River

CANADIAN TRANSIT COMPANY
Ambassador Bridge Enhancement Project

CEAA ENVIRONMENTAL CEAA ENVIRONMENTAL
ENVIRONMENTAL IMPACT ASSESSMENT

AMBASSADOR BRIDGE ENHANCEMENT PROJECT

Replacement Span

APPENDIX G

Jack Miner Bird Band Recovery Data

During the year ending JANUARY 31, 2007 Jack Miner duck bands were recovered in:

YR. OF BAND	RECOVERED	LOCATION RECOVERY	BY
ALABAMA			
97	1-15-05	Flint River, Huntsville	Buford Hovis
00	12-22-06	Crow Creek Reserve, Stevenson	J.D. Ottley, Sr.
02	12-28-06	Woodville, *Madison	Ben Matthews
05	12-26-06	Lake Guntersville, *Arab	Dusty Larkin
06	11-24-06	Elk River, Limestone County	Adam Reece
06	12-09-06	Mud Creek, Scottsboro	Kevin Atkinson
06	12-25-06	Decatur, Tennessee River	TJ Akin
ALBERTA			
05(T)	6-14-06	30 Miles South of Edmonton	Steve Charkiw (FD)
ARKANSAS			
98	1-18-07	Hazen, Crowley's Pond	Josh Simmons
03	12-21-05	Tuckerman, SW of Jonesboro	Scott Hayes
04	1-21-06	Walnut Ridge, NW of Jonesboro	Nick Cottrell
04	1-19-07	Oneida, near Helena	Len Rohrscheib, Jr.
05	12-17-05	Walnut Ridge, NW of Jonesboro	Brad Jackson
CALIFORNIA			
04	1-22-07	North of Sacramento, Gridley	Erik Hicks
DELAWARE			
03	11-20-06	Bear, Southwest of Wilmington	Jeff Pruitt

FLORIDA			
06(T)	12-16-06	Merritt Island NWR, Cape Canaveral	Kevin Cooksey
06(T)	1-07-07	Broadmoor Marsh, Vero Beach	Kelby Brueggman
GEORGIA			
05	1-21-07	Lake Blackshear, NE Albany	Kris Bowden
06	12-30-06	Hartwell, South Carolina Line	Jeff Mullis
06(W)	1-07-07	South Georgia, N. of Tallahassee	Peter Coors
06	1-20-06	Ocmulgee N. Monument, Macon	Bradon Oren
ILLINOIS			
05	12-02-06	Kankakee River, Aroma Park	Jason Fowler, (FD)
06	11-10-06	Mazonia FWA, S. Wilmington	Bill Gill
06	1-06-07	Wabash/Ohio Rivers, New Haven	Keelan Holloway
06	1-06-06	Cache River, Cypress	Steph Wells
INDIANA			
01	1-01-07	White River, Decker	Tom Hess
02	1-07-07	Franklin County, Brookville	Dustin Fain (Age 10)
02	1-09-06	Hovey Lake, Mt. Vernon	Frank Davis
03	12-29-06	South of Jasper, Huntingburg	Nick Giesler
04	12-26-06	Noblesville	Slopsema/Lortz
04	1-09-07	Oatsville, *Evansville	Bud Hall
05	12-16-06	Linton, *Spencer	Billy LeCocq
IOWA			
99	11-29-05	Marion County, Lake Red Rock	Chad Rinehart

KENTUCKY			
02	12-16-06	Clear Creek, Providence	Brian Rothe
03	1-24-07	Springfield, *Elkhorn	Nathan Rhodes
04	1-20-07	Ohio River, Cloverport	Rob DeHaven
04	1-26-07	Green River, Campbellsville	Trevor Wilson
04	12-20-06	Minor Lake, Ballard County	Brad Inman
05	1-02-07	Off Ohio River, Geneva	Rafe Tanaka
05	1-10-07	Taylorsville Lake, Spencer County	Charles Dick
06	1-01-07	West of Franklin, Schochoh	Chris Higgins
06	1-01-07	Henderson, West Kentucky	Don Ferguson
06	1-28-07	West Central Kentucky, *Bremen	Ed Gray
LOUISIANA			
03	12-15-05	Red River, Shreveport	Mike Hancock
06(T)	1-20-07	Northeast of Lake Charles, Kinder	Reagan Kent
06(W)	1-21-07	Maringouin, west of Baton Rouge	Robin Liles
MANITOBA			
02	10-02-06	Saskram Lake, The Pas	Bryce Osborn
05	10-03-06	Minnedosa, North of Brandon	Justin Wray
MICHIGAN			
94	12-31-06	SE Michigan/Ohio Border	Montana Overwegner
96	12-03-06	Celeron Island, Detroit River	Brian Salliotte
97	11-01-06	Harsens Island, Algonac	Tom Durik
98	11-23-06	Harsens Island, Algonac	Eric Sosnowski
01	11-04-06	Pte. Mouillee SGA, Monroe	Doug Gradin
02	9-30-06	Little Bay de Noc, SW Escanaba(UP)	Erik Johnson
03	12-31-06	Swan Creek, Monroe County	Steven Evanoff
03	12-03-06	Pinckney, *Brighton	Chris Bumpus
03	12-01-06	Holland, western Michigan	Allan Zych, Jr.
04	10-21-06	Mt. Pleasant, Central Michigan	Bernard Zeneberg
05	10-07-06	Pte. Mouillee SGA, Monroe	Wayne Pitock
05	11-23-05	Harrison Twsp., Lake St. Clair	Jim Pappas

05	10-17-06	Harsens Island, Algonac	Rob Stubbs
05	10-22-06	Shiawassee SGA, St. Charles	Scott Schoch
05	10-31-06	Maple River, north of St. Johns	Gary Watson
05	11-05-06	Lake Erie, near town of Erie	Rick Hymore
05	11-05-06	Fish Point SGA, Saginaw Bay	David Middaugh
05	11-18-06	Harsens Island, Algonac	Jeff Hunter
05	11-28-06	Shiawassee SGA, St. Charles	John Bakos
06	10-11-06	North channel Anchor Bay, *Algonac	Mike VanVelle
06	10-12-06	Harsens Island, Algonac	Ed Kuss
06	10-14-06	Celeron Island, Detroit River	Ray Salliotte
06	10-12-06	Erie Marsh, Monroe County	Mike Majewski
06	10-24-06	Harsens Island, Algonac	Don Moats
06	10-29-06	Pte. Mouillee SGA, Monroe	George Horger
06	10-07-06	Pte. Mouillee SGA, Monroe	Eric Esper
06	10-25-06	Harsens Island, Algonac	Eric Esper
06	10-22-06	Ottawa Lake, Ohio Line	Scott Domschot
06(P)	10-16-06	Harsens Island, Algonac	Jerry Stanton
06	11-03-06	Gibralter, mouth of the Detroit River	Tom Lindsay
06(P)	10-06-06	Pte. Mouillee SGA, Monroe	Traci Korte
06	12-02-06	Harsens Island, Algonac	Len Sandbank
MINNESOTA			
04	11-12-06	Maple Grove, north of Minneapolis	Justin Pomerleau
05	10-28-06	Vermilion Dam, south of Buyck	Jim Weber
MISSISSIPPI			
02	1-28-07	North of Jackson, Greenwood	Sam Bates

02	11-25-06	Tombigbee River, near Aberdeen	Jeremy Hester
04	12-27-05	Pelahatchie, East of Jackson	Freddie Rowell
05	12-11-06	Walls, 3 miles south of Memphis	Jerry Robertson
05(W)	1-06-07	Pascagoula River Management Area	Tim Mason
05	1-21-07	Quitman County, Vance	Charles Adams, Jr.
MISSOURI			
06	12-02-06	Ten Mile CA, *East Prairie, SE Missouri	Eddie Sanders
NEW YORK			
00	10-27-06	Canandaigua, SE of Rochester	Tom Finnick
04	12-24-06	Water Mill, Eastern Long Island	Marc Zaluski
NORTH CAROLINA			
05	12-30-06	West of Engelhard, Lake Mattamuskeet	Mickel Gibbs
06	1-13-07	Statesville, *Troutman	Rich Sykes
NORTH DAKOTA			
03	10-27-06	West of Grand Forks	Todd Mattson
OHIO			
98	12-18-06	Funk, *Shreve	Todd Kelly
00	1-27-07	Croton, *Johnstown	Jason Moore
01	11-11-05	Otsego, *New Concord	Mike Legats
01	12-19-06	Scioto River, Columbus	Don Halfhill
01	12-30-06	Muddy Creek Bay, Lake Erie	John Limbocker, Jr.
02	1-21-07	Rocky Fork Lake, Hillsboro	Leon Cole
02	11-08-06	Oak Harbor, Lake Erie	Gary Luman
02	1-07-07	Scioto River, Portsmouth	Ben Hamilton
03	1-23-07	Northwest of Springfield	Eric Hicks
03	12-30-06	Southest of Wooster, Kidron	Bart Biggs
03	11-26-06	St. Marys, Southwest of Lima	Rob Muter
04	11-25-06	Port Clinton	Scott Nemecek
04	12-02-06	Lake Erie, near Cleveland	Scott Ruic
04	12-16-06	Darby Creek, Plain City	Ed Schemine
05	12-01-05	Lima, Mahoning County	Gerhard Steinlechner
05	12-28-05	Sandusky	Bob Hochevar

05	10-22-06	Marion, *Caledonia	Jessie Brady
05	10-21-06	Ottawa County	Bill Tracey
05	11-12-06	Sandusky Bay	Gary Grueshaber
05	12-10-06	Put-IN-Bay, S. Bass Island, Lake Erie	Jay Jones
05	12-23-06	Port Clinton	Michael Mayle
05	12-31-06	Indian Lake, Logan County	Brian Todd
06	1-25-07	Alum Creek Reservoir, NE of Columbus	Perry Swain
06	1-16-07	Northeast of Cincinnati, Warren County	Tim Calardo
06	10-21-06	Northwest Middlefield, east of Cleveland	Joe Gdovichin
06	11-12-06	East of Akron, Brimfield Township	Duane King
06	11-17-06	Marblehead, tip of Sandusky Bay, L. Erie	Jason Ray
06	10-21-06	North Bass Island, Lake Erie, *Pt. Clinton	Dale Allen
06	12-09-06	Lake Erie, Port Clinton	Matt Rhode
06	12-10-06	Catawba, Lake Erie near Port Clinton	Dave Demeter
06	11-09-06	Ottawa Club, Sandusky Bay	Ryan Schultz
06	12-06-06	Big Island, New Bloomington	Tom Reynolds
06	12-18-06	Great Miami River, Seven Mile	Dave Studenka
06	12-30-06	Scioto River, South of Columbus	Dan Bare
06	12-31-06	Bellevue, South of Sandusky	Don McRitchie
ONTARIO			
93	12-09-06	Mitchell's Bay, Lake St. Clair	Ryan Stadnick
94	11-15-06	Long Point WMU, Eastern Lake Erie	Jim Broadbridge
96	9-23-06	Mitchell's Bay, Lake St. Clair	Ryan Stadnick
00	11-08-06	Lake Erie, Kingsville	Brandon Wood
00	11-18-06	Joyceville, *Seeleys Bay	Mark DesRoches
03	9-03-06	West of Sudbury	Luc St-Amant
03	12-14-06	North of Leamington	Joe Palmer
04	11-28-05	Essex County, Kingsville	Rob Croom

04	9-22-06	Mitchell's Bay, Lake St. Clair	Dan Bourassa
04	10-26-06	Mitchell's Bay, Lake St. Clair	Scott Foster
05	11-27-06	Mitchell's Bay, Lake St. Clair	Lorne Janjatovic
05	11-26-05	North of Leamington	Joe Palmer
05(P)	11-15-05	Essex County, Kingsville	Dale Nelson, Jr.
05	12-17-05	Grand River, South of Hamilton	Jim Yachetti
05	10-18-06	Holiday Beach CA, Amherstburg	Jim Smithson (FD)
05	12-02-06	Holiday Beach CA, Amherstburg	Barry Wood
05(P)	10-07-06	Lake Erie, near Kingsville	Dean Ware
05	12-14-06	North of Leamington	Joe Palmer
06	12-09-06	South of Harrow	Mike Pillon
06	11-25-06	Holiday Beach CA, Amherstburg	Paul Micallef
06	12-02-06	Lake St. Clair, near Tilbury	Chris Mailloux
06	11-17-06	Holiday Beach CA, Amherstburg	Stephen Benson
06	9-27-06	Holiday Beach CA, Amherstburg	Mark Montague
06	9-23-06	North of Leamington	Ed Fischer
06(T)	10-03-06	South of Harrow	Mike Pillon
06(T)	10-03-06	Big Creek, Amherstburg	John Farmer
06	10-03-06	Lake St. Clair, Chatham	Bernie Mullins
06(T)	9-26-06	Big Creek, Amherstburg	Brian Sprague
06	10-10-06	Essex County, near Kingsville	Nick Cottrell
06	10-12-06	Lake St. Clair, Chatham	Ron Chevalier
06	10-16-06	Holiday Beach CA, Amherstburg	Rusty Heron
06	10-10-06	Lake St. Clair	Tom Hutchins
06	10-18-06	Holiday Beach CA, Amherstburg	Rusty Heron

06	9-28-06	North of Leamington	Joe Palmer
06(T)	10-13-06	North of Leamington	Joe Palmer
06	10-26-06	Lake St. Clair, Mitchell's Bay	Scott Foster
06	9-23-06	North of 20, Big Creek, Amherstburg	Charles O'Hara
06	10-25-06	Hillman Marsh, Leamington	Don Robert
06	10-30-06	Hillman Marsh, Leamington	Dean Ware
06	10-20-06	Mitchell's Bay, Lake St. Clair	Rob Ranka
06	10-25-06	West of Kingsville	Chris Snip
06	11-09-06	Mitchell's Bay, Lake St. Clair	Ryan Zawacki
06	11-24-06	St. Annes Club, Walpole Island IR	Jim Cooper
06	11-08-06	St. Luke's Bay, Lake St. Clair	Ean Duplessis
06(W)	11-18-06	Lake St. Clair, *Wallaceburg	Ashton Snary
06	11-04-06	Amherstburg	John Dallas
06	12-16-06	Lighthouse Cove, Lake St. Clair	Josh Dawson
06	10-28-06	North of Leamington	Kyle Palmer
06	12-04-06	North of Leamington	Kyle Palmer
PENNSYLVANIA			
04	12-15-06	Northwest of Philadelphia, Montgomery Co.	Wilmer Kline
05	10-15-06	Armstrong County, Worthington	Jim Cowan
06	10-14-06	Ohio River, Monaca	Chad Douglas

06	1-06-07	South Central PA, near Chambersburg	Jason Krebs
		SASKATCHEWAN	
03	10-04-06	Foam Lake, Yorkton	Jack Bainbridge
		SOUTH CAROLINA	
06(W)	1-06-07	Cooper River, Moncks Corner	Peter Dodds
06	1-04-07	Fairfield County, Lake Monticello	Dave Segars
		TENNESSEE	
01	1-21-07	"Lockbottoms", Decatur	Chris McKenzie
03	1-14-06	Crockett County, Alamo	Justin Connally
04	1-10-07	Greenback, *Maryville	Bill Smith
05	12-23-05	Davy Crockett Club, Northwest Sharon	Jim Williams
05	11-25-06	Big Sandy River. Springville	Andy Troutt
06	12-05-06	Cherokee Lake, Jefferson City	Tim Wilder
06	1-20-07	Winchester, Franklin County	Jim Scott
		VIRGINIA	
97	11-28-06	Chesterfield County, near Richmond	Jason Namola
01	1-22-07	Smith Mountain Lake, SE Roanoke	Wetzel Wooten
01	1-22-07	Washington Birthplace, Colonial Beach	Greg Headley
02	1-22-07	Parksley, East shore of Virginia	Matt Young
03	12-15-06	Carrsville, northeast of Franklin	Jesse Williams
04	1-27-06	Lake Gaston, North Carolina Border	Chad Coley
04	1-28-06	Roanoke River Swamp	Charlie Smith
04	1-27-07	Mt. Landing Creek, Essex County	Bill Walker, III
		WISCONSIN	
02	10-05-06	Sheboygan County	Alfred Kleppek
02	11-05-06	Horicon Marsh, Mayville	Mark Napreilla
04	10-28-06	Tenderfoot Lake, West Land O'Lakes	Chad Westfall

During the year ending JANUARY 31, 2007 Jack Miner geese bands were recovered in:

YR. OF BAND	RECOVERED	LOCATION RECOVERY	BY
		ILLINOIS	
94	12-24-05	Plainfield, Naperville	John Wimmer
04	11-24-06	Wadsworth (North of Chicago)	Glen Eppers
		INDIANA	
91	10-15-06	Plymouth, Northwest Indiana	Randall Fritz, Jr.
93	1-14-07	Southwest Indianapolis, Plainfield	Leon Champine
96	10-22-06	White River, Anderson	Don Marstall
04	11-05-06	Mishawaka, East of South Bend	Mark Moreland
04	9-01-05	Beaver Dam Lake, *Claypool	Ken Jones
		KENTUCKY	
04	12-06-06	Southwest of Paducah, Milburn	Chris Wheeler
		MICHIGAN	
89	9-30-06	Houghton Lake	Ken Confer
90	12-06-06	Kelloggs' Battle Creek	Gene da la Foret
91	10-22-06	Fish Point SGA, Saginaw Bay	Gary Sovey
92	12-02-06	Romeo	August Seggie
92	10-14-06	South of Alpena, Harrisville	Jim Blust
96	12-31-06	South of Lansing, Mason	Steven Pascoe
98	12-01-06	Saginaw	Jeff Madison
01	10-11-05	Macomb Township	Ben Rizzo, Jr.
01	9-08-06	Fish Point SGA, Saginaw Bay	DuWayne Fox
04	9-07-06	Port Austin, Huron County	Jim Stephens
04	9-09-06	Elk Rapids	Jim Misico
04	12-31-06	Lake Erie, near Monroe	Scott Bettinger
06	1-06-07	North of Howell	Victor Boscher
		OHIO	
91	10-21-06	Hartford Township, Trumbull County	Chuck Matthews Jr.

97	1-25-07	West of Columbus, Piqua	Greg Smith
98	12-17-06	Huntsburg	Russ Schwendeman, II
00	10-24-06	Southwest of Cleveland, Grafton	Chris Vettel
02	12-20-06	South of Sandusky	Jim Lewis
04	11-05-06	Winfield, near Dover	Jim Peoples
04	11-05-06	Sherrodsville	Bob Thompson
06	10-30-06	McGee Marsh, Oak Harbor	Don Meek
		ONTARIO	
79	10-02-06	Courtright, *Sarnia	Dave Miller (FD)
94	12-07-06	Essex County, Kingsville	Joe Gainfort
04	9-11-06	Bright, Southwest of Kitchener	Derek Snyder
04	11-07-06	Paisley, Southeast of Port Elgin	Aaron Musial
05	9-25-06	Hillman Marsh, Leamington	Jason Robson
05	10-26-06	St. Lawrence River, Iroquois	Dan Dauksch
05	10-05-06	Essex County, Kingsville	Sean Drummond
06	10-03-06	Essex County, Kingsville	Rusty Heron
06	10-05-06	Essex County, Kingsville	Sean Drummond
06	12-12-06	Amherstburg	Brian Sutts
06	12-17-06	Harrow	Brent Clark
		PENNSYLVANIA	
89	11-08-06	Pymatuning GMA, Linesville	Tim Glass
		TENNESSEE	
89	7-23-06	Hillsboro	Rod Ballard (FD)
		VIRGINIA	
04	1-02-07	Madison, Southwest of Culpepper	Ron Lambrich
		WISCONSIN	
93	11-10-06	North of Beaver Dam	Gary Braun
94	10-03-06	Germantown, northwest of Milwaukee	Jim Woerishofer

During the year ending JANUARY 31, 2006 Jack Miner duck bands were recovered in:

YR. OF BAND	RECOVERED	LOCATION RECOVERY	BY
ALABAMA			
00	12-05-05	Warrior River/Oak Grove	Chris Gaither
01	1-10-06	Swamp - Steele, *Southside	Chris Bellamy
02	12-27-05	Tennessee River, Trinity	Jason Nelms
03	1-15-06	Swan Creek WMA, Decatur	Jim Garner
04	1-28-06	Huntsville	Wes Bridges
05	12-24-05	Swan Creek WMA, Decatur	Dave Hulsey
05	1-02-06	Wheeler Lake, Athens	Marty Hirsch
05	12-18-05	Swan Creek WMA, Decatur	Tim Pridmore
ARKANSAS			
01	11-27-05	Heth, near Earle	Henri Wedell
02	12-17-05	Mud Lake Club, Hughes	Bill Deupree
02	12-24-05	Felsenthal NWR, El Dorado	Joe Kendrick (FD)
03	1-16-06	NW Stuttgart, Brummitt	Dennis Adkins
03	1-05-06	Gillett, south of Stuttgart	Collin Holzhauer
04	11-23-05	McCrory, west of Wynne	Kevin Fisk
DELAWARE			
04	12-13-05	Odessa, *New Castle	Todd Breisch
FLORIDA			
05(T)	12-28-05	Lake Seminole, *Marianna	Louy Harris
GEORGIA			
97	1-15-05	Lake Hartwell	Tom Kell
ILLINOIS			
98	12-14-05	IL RIVER, Chillicothe	John Anderson
00	10-30-05	IL RIVER, Spring Bay	Kirk Malec

02	11-19-05	IL RIVER, Hennepin	Bill Lehman
03	12-01-05	IL RIVER/Goose Lake, Hennepin	Brett Brown
04	11-09-05	Deer Lake, Antiock	Rob Norten (FD)
04	11-29-05	IL RIVER, Chillicothe	Don Willock
04	11-28-05	Shelbyville WA, Allenville	Dave Hettinger
04	1-19-06	Carlyle Lake, Vandalia	John Zimmer
04	12-23-05	Spring Lake Bottoms	Mark Stevens
05	1-17-06	Carlyle Lake, Vandalia	Rick Miller
INDIANA			
95	12-28-05	Bloomington	Steve Lill
97	1-07-06	Big Blue River, Spiceland	Alan Smith
01	12-08-04	St. John, southwest Gary	Jason Raduenz
01	12-03-05	Dugger, Sullivan County	Jason Bobbitt
02	11-06-05	Wakarusa, *Goshen	Rich Hostetler
03	1-04-06	Wabash River, Lafayette	Tim Powell
04	1-04-06	Losantville, *Mooreland	Pat Shaffmaster
04	1-20-06	Patoka River, Oakland City	Brian Ferguson
IOWA			
02	12-23-04	"Coralville Resevoir", Swisher	Travis Mueller (FD)
KENTUCKY			
95	1-03-06	Ohio River, Louisville	Jason Dattilo
96	1-06-06	Lake Cumberland, Jabez	Gene Collins
96	1-02-06	Smith Mills	Rich Haskett
02	12-31-04	Winchester, SE Lexington	John Walsh
02	12-13-05	Lebanon Jct., South of Louisville	John Akers
04	11-24-05	Lake Barkley	Mark Mayes
04	1-22-05	Trimble County, *Louisville	Jim Fackler, III
04	12-18-04	Hopkinsville	Jeff McLean
04	1-28-05	Cyprus Creek, Greenville	Jeff Young
05	12-10-05	McCracken County, Paducah	Chance Futrell

05	12-18-05	Ohio River, Brandenburg	John Zsido
05	12-24-05	Ballard County, Paducah	Tyler Moore
		LOUISIANA	
02	1-13-06	Wambrake, N. Russell Sage NWR	Oliver Underwood
05	11-27-05	North of Columbia, *Calhoun	Dave Lowrey
		MANITOBA	
03	9-09-05	Northwest of Brookdale, *Brandon	Tim Bill
03	9-08-05	North of Rivers, *Brandon	Travis Cairns
04	9-10-05	Little Saskatchewan River	Luke Richard
		MICHIGAN	
94	11-11-05	Ottawa Marsh, Allegan	Scott Bender
97	11-14-04	Harsens Island SGA, Algonac	Frank Hilvers
99	12-11-05	Celeron Island, Gibraltar	Rich Novak
00	11-24-05	Newport	Carl Beaubien
01	11-16-05	Anchor Bay, Lake St. Clair	Mike Conigliaro
02	10-16-05	Harsens Island SGA, Algonac	George Tache
03	10-26-05	Saginaw Bay, Essexville	Josh Brodeur
03	11-06-05	Swan Creek, Burr Oak	Larry Howard
03	11-20-05	Harsens Island SGA, Algonac	Cody Gordon
04	6-28-05	Detroit Metro Airport, Romulus	Clay McSparn (FD)
04	10-25-04	Pointe Mouillee SGA, Monroe	Chris McKinney
04	11-13-05	Harsens Island SGA, Algonac	Mike Karalis
04	11-02-05	St. Clair Flats, Algonac	Rob Younkins
04	11-24-05	Lake Erie, Gibraltar	Ray Crooks
05	10-19-05	Pointe Mouillee SGA, Monroe	Paul Prucka
05	10-16-05	Pointe Mouillee SGA, Monroe	Mike Craine
05	11-02-05	Pointe Mouillee SGA, Monroe	John Saduery
05(W)	11-02-05	Harsens Island SGA, Algonac	Luigi Pandori
05	11-23-05	Lake St. Clair	Mike Donovan

05	12-11-05	Lake Erie, Brownstown Twsp.	Tony Hall
MINNESOTA			
01	10-16-05	North of Brandon	Adam Wirtjes
03	10-23-05	Clear Lake, New Ulm	Joshua Kamrath
04	10-22-05	Mud Lake, Randall	Brent Carry
04	10-15-05	Artichoke Lake, Ortonville	Brian McNamara
MISSISSIPPI			
01	12-11-05	Dundee, *Batesvile	Greg Garrett
03	1-27-06	Oxford, Enid Lake	Omar Ahmed
03	12-04-05	Clay County, West Point	Butch White
05	12-10-05	Alcorn County, Corinth	Hank Butler
MISSOURI			
04	11-24-05	Fredrictown, *Park Hills	Randy Glen
NEW YORK			
04	11-29-05	South Dayton, *Fredonia	Doug Zeller
04	12-10-05	Point Peninsula, Lake Ontario	Jim McRae
NORTH CAROLINA			
02	12-17-05	Kerr Lake, Henderson	Chris Fisher
04	11-25-05	Lake Tillery, Norwood	Rob Cohen
04	1-05-06	Four Oaks, Johnston County	Brandon Batten
04	1-24-06	Currituck County, *Maple	Chandler Sawyer
04	11-28-05	Swanquarter	Stacy Duncan
05	12-22-05	Lake Norman, Charlotte	Craig Bullis
05	1-11-06	Taylorsville, *Hickory	Todd Lail
05	1-25-06	Efland, *Timberlake	Chris Cates
05	1-15-06	Pamlico Point	Stacy Duncan
NORTH DAKOTA			
92	10-28-05	Churchs Fairy, Irvin Lake	Rudy Czechan
97	10-05-05	Starkweather, Ramsey County	John Baker
03	10-01-05	Rugby, Norwest of Devils Lake	John Riley
03	10-02-04	North of Devils Lake	Louis Williams

OHIO			
95	11-13-05	Lake Erie, Vermillion	Mark Riddle
95	1-01-05	Hocking River, Lancaster	Doug Hintz
96	10-22-05	Ottawa County, Port Clinton	Mike Kristof
98	10-27-05	Ottawa NWR, outside Toledo	Joe Montie
00	12-03-05	Long Lake, *Brunswick	Dan Thomas
03	12-20-04	Ashtabula Harbor	Wayne Lomas
03	1-29-05	Scioto River, south of Columbus	Orion Carey
03	10-23-05	Medina, *Ashland	Tim Dilgard
03	11-02-05	Magee Marsh, Lake Erie	Mike Patton
03	12-20-04	Madison County, London	Rob Estheimer
03	11-16-05	Muddy Creek, Port Clinton	Bill Englefield, Jr.
03	11-26-05	Lake Erie, Ashtabula	Doug Milo
03	1-07-06	South of Canton, Minerva	Jim Gajewski
04	10-24-04	St. Clairsville (near W. Virginia)	Rob Rauschenberg
04	1-30-05	Seneca Lake, *Zanesville	Sam Beskis
04	10-16-05	Medina	Robert Holl
04	11-16-05	Port Clinton	Doug Krzywicki
04(P)	11-29-05	Sandusky	Marty Smith
04	1-13-06	Pickaway County, *Circleville	Joe Schneider
04	12-28-05	Mt. Orab, Brown County	Tim Russell
04	11-15-05	Port Clinton	Kevin Gottron
04	10-20-05	Lake Erie Zone, Jerusalem Twsp.	Brad Soncrant
05	10-09-05	Pickel Creek WA, Sandusky	Nathan Rose
05	11-11-05	Winous Point, Port Clinton	Fred Floyd
05	11-22-05	North Bay Gun Club, Port Clinton	Jason Whitt
05	12-02-05	Sandusky Bay	Robert Demby
05	12-17-05	Ohio River, Portsmouth	William Nichols
05	12-26-05	Great Miami River, Hamilton	Rob Koth
05	12-29-05	Port Clinton	Doug Krzywicki

05	12-25-05	Mahoning River, Levittsburg	Christian Mrosko
05	12-18-05	Milford, *Reading	Terry Garman
05	10-30-05	Oregon, outside Toledo	Scott Russell
ONTARIO			
01	9-30-05	Eastern Lake Erie, Wainfleet	Todd Acaster
02	11-26-04	Kingsville, Essex County	Harold Braggs
03	10-18-04	Northwest of Sudbury, Chelmsford	Scott Poirier
03	12-15-05	Leamington	Andrew Crozier
04	11-03-04	Walpole Island Indian Reservation	Ron Gorski
04	11-21-05	Hillman Marsh, Leamington	Wayne Bauer
04	11-20-04	Kingsville, Essex County	Harold Braggs
04	12-16-04	Mitchell's Bay, Lake St. Clair	Brian Vankerkhoven
04	9-30-05	Hullett Marsh, Clinton	Bosco Cenic
04	10-01-05	Walpole Island, Wallaceburg	Chip Whitney
04	10-07-05	Cedar Creek, Kingsville	Sean Drummond
04	11-07-05	Walpole Island, Wallaceburg	Bill Brown, III
04	10-29-05	Walpole Island, Wallaceburg	Graham Hoogterp
04	11-11-05	Walpole Island, Wallaceburg	Rob Reisig
05	9-27-05	Colchester South, Harrow	Kevin Quinlan
05	9-28-05	Rondeau Provincial Park	Sean Drummond
05	10-05-05	Petersburg, *Baden	Derek Snyder
05	11-04-05	Cedar Creek, Kingsville	Jeff Goetz
05	11-11-05	Branch Pit, Kingsville	Sean Drummond
05	11-09-05	Leamington	Joe Palmer
05	11-15-05	North of Leamington	Joe Palmer
05	11-19-05	outside of Leamington	Pat Sylvestre
PENNSYLVANIA			
03	12-26-05	Edinboro Lake, Edinboro	Mark Spence
SASKATCHEWAN			
96	8-19-05	West of Yorkton	Rob Colvis (A)

03(T)	8-12-05	Last Mountain Lake WMA, Simpson	Phil Thorpe (A)
N/G	10-05-05	Turtle Lake & Live Long	Bill McNabb (FD)
SOUTH CAROLINA			
04 (W)	1-14-06	Lake Marion, Summerton	Phil Lowe
TENNESSEE			
94	12-24-04	Old Hickory Lake, Gallatin	Kenny Hale
95	1-14-05	Lauderdale County, north of Halls	Doug Cherry
96	1-12-05	Dyer County, Eaton	Chris Hearn
96	1-15-05	Old Hickory Lake, Gallatin	Kenny Hale
98	12-24-05	Percy Priest Lake, Nashville	Randall Haley
99	12-12-05	Kentucky Lake, *Camden	Lance Patton
99	12-31-05	West of Jackson	Jonathan Roland
00	1-28-05	Mississippi River, Ripley	Mark Hargett
01	12-21-05	Old Hickory Lake, Mt. Juliet	Allen Blankenship
01	1-12-06	Jefferson County	Richard Webb
02	1-05-06	Nolichuckey River, Greenville	Alan Shipley
02	1-14-06	Manchester	Jerry Watkins
02	12-03-05	Blount County	David Jones
03	1-17-04	Big Sandy/Brittonford	Mike Ross
03	1-03-05	Obion County	Curtis Johnson
03	1-30-05	Old Hickory Lake, *Nashville	Roger Carpenter
03	12-10-05	Old Hickory Lake, Gallatin	Mason Pitt
03	12-28-05	Camden Bottoms, Kentucky Lake	Brad Mills
03	1-15-06	McKenzie, *Trezevant	Rocky Brockman
03	1-21-06	Obion River, Rives	Josh Leo
04	2-05-05	Camden Bottoms, Camden	Jacob Warren (JH)
04	1-13-06	Old Hickory Lake, Lebanon	Marvin Peach
04	12-27-04	Old Hickory Lake, Nashville	Jeremy Hale

04	12-03-05	Benton County, Camden WMA	Jake Anderson
04	12-08-05	Old Hickory Lake, Hendersonville	Larry Conley, Jr.
04	12-10-05	Camden Bottoms	Jason Stokes
04	12-18-05	Bakerville, Waverly	George Shwab
04	12-21-05	Holston River, Kingsport	Brad Steele
04	1-02-06	Marion County, Chattanooga	Jim Willingham
(2)04	1-14-06	Cedar Grove, *Huron	Joel Gateley
04	1-12-06	Maryville, *Walland	Dave Christopher
05	11-27-05	Fuller Hill, New Johnsonville	Scott Buchanan
05	12-14-05	South Fork Obion River, Carroll Co.	Phil Fry
05	1-07-06	Reelfoot Lake, Samburg	Jim Murdaugh
05	12-26-05	Tuscumbia River, Chewalla	Ryan Monteomery
05	1-14-06	Rutledge	Doug Dalton
VIRGINIA			
97	1-20-05	Surry County, James River	Lewis McMurran, III
00	1-28-05	Pamunkey River, New Kent	Mundy Gibbs
02	1-10-06	Lake Gaston, North Carolina border	Heath Pulley
03	1-26-06	Blackstong, *Chesterfield	Kent Callahan
05	11-26-05	Mattaponi River, West Point	Bill Moreland
05	12-15-05	Shenandoah River, Lynnwood	John Painter
WISCONSIN			
04	10-02-05	Rush Lake, Winnebago	Wes Wild
04	11-29-05	Chippewa Falls	Jim Allen

During the year ending JANUARY 31, 2006 Jack Miner geese bands were recovered in:

YR. OF BAND	RECOVERED	LOCATION RECOVERY	BY
ILLINOIS			
85	1-10-04	Marion	Rick Forbes
93	11-10-05	Dekalb, near Fox River	Rob Erickson
04	1-23-06	Marion	Cody Redman
04	12-26-05	Plainfield	Dale Bakken
05	1-09-06	Marion	Cody Redman
INDIANA			
97	12-13-05	Southeast Hamilton County, *Fishers	Dave Cruser
00	1-08-06	Gaston	Matt Hedges
04	9-11-05	Tippy River, Warsaw	Ross Armey (8 years old)
KENTUCKY			
94	12-26-05	Lexington	Wade Calvert
MARYLAND			
98	1-22-05	Kent County, Golts	Mike Coleman
MICHIGAN			
83	1-18-06	Lake Erie, Monroe	Paul Larner
91	10-10-05	Oregon Twsp., Lapeer County	Leon Nichols
93	11-28-05	Northfield Township	Steve Cheston
94	9-26-05	Delta County, Escanaba (Upr. Pen)	Brad Cochran
94	10-10-05	Macomb County, Ray Twsp.	Doug Kaltz

94	11-29-05	Linwood, north of Bay City	Rob Lothian
96	10-02-05	Skandia, southeast of Marquette	Marty Kovarik
97	11-24-05	Stoney Creek Metro, Fair Haven	Dave Mercure
99	10-01-05	Cadillac	"Buzz" Smith
99	1-18-06	Pte. Mouillee SGA, Monroe	Jason Reaume
99	1-18-06	Pte. Mouillee SGA, Monroe	Rob Cardinal, Jr.
00	11-29-05	Macomb County	Lewis Smith
03	10-09-05	Goodrich, southest of Flint	Nick Weil
03	11-24-05	Oakland County, Milford	Dave Baker
04	12-05-04	South Lyon	PJ Geiger
04	10-10-04	Milan, south of Ann Arbor	Blake Wasilkowski
		OHIO	
93	9-06-05	Sandusky County	Jim Gardner
94	1-21-06	Mt. Gilead, *Cardington	Kipp Criswell
96	10-30-05	Grafton, southwest of Cleveland	George Barsa
97	9-14-05	Canal Winchester	Chris Lee
98	12-18-05	Oak Harbor, off McGee Marsh	Jordan Schwind
98	12-30-05	Oak Harbor, outside Port Clinton	Tom Patterson
99	9-15-05	Indian Creek WMA, Fayetteville	Tim Bielawski
01	1-28-06	Nashport, *Newark	Ron Houdeshell
03	1-16-06	Fort Laramie State Park	Terry Mead
04	12-20-05	Milan, *Monroeville	Todd Matthias
04	10-09-05	Lake Erie, Lucas County	Brandon Rogier

04	10-22-05	Sandusky	John Rathbun
04	10-22-05	South of New Philadelphia	Bryant Lieux
04	10-28-05	Grand Rapids, southwest of Toledo	John Beebe
04	10-29-05	Off Lake Erie, Marblehead	Jason Howland
04	12-26-05	Huron	Dave Kishman
04	12-16-05	Huron	David Boos
04	1-10-06	Mansfield	John Tennis
04	12-11-05	Off Lake Erie, Oregon	Mitch Punches
04	1-02-06	Crawford County, Galion	Troy Freyman
05	12-24-05	Mt. Gilead, Morrow County	Troy Freyman
ONTARIO			
82**	12-28-05	Kingsville	Sean Drummond
89	1-05-06	Kingsville	Brandon Wood
91	9-15-05	Lake St. Clair, Mitchell's Bay	Aaron Vanroboys
91	9-28-05	Walkerton	Aaron Musial
94	1-04-06	"Hoggers Pond", Kingsville	Derrick Halliwell
98	4-20-05	James Bay, Moose Factory	Jim Iserhoff
04	12-05-04	Kingsville	Chris Schmedin
04	12-11-04	Kingsville	Jim Slotterbeck
04	12-02-04	Kingsville	Harold Braggs
04	12-28-04	Lake Erie, Amherstburg	Foster Bartholow, IV
04	12-28-04	Kingsville	Rob Archambault

04(2)	4-16-05	Southern James Bay	Norm Wesley
04(2)	4-16-05	Fort Albany, James Bay	Doug Jeffries
05	11-26-05	Wheatley, east of Leamington	Justin Imeson
05	11-02-05	Gesto, outside Essex	Marty Pollinger
05	12-28-05	Kingsville	Sean Drummond
PENNSYLVANIA			
04	1-14-06	Hershey	Tim Clevenger (12 years old)
VIRGINIA			
04	1-09-06	South Holston Lake, Bristol	Ralph Tilghman

During the year ending JANUARY, 2005 Jack Miner duck bands were recovered in:

YR. OF BAND	RECOVERED	LOCATION RECOVERY	BY
ALABAMA			
94	12-18-04	Wheeler Lane, Courtland	Dan Howell
96	1-30-04	Swann Creek WMA,Decatur	Mike Murphree
98	12-04-04	Tenessee River, Decatur	Chad Holbrooks
99	1-25-05	Wilsonville, SE Birmingham	Art Smith, IV
02	12-31-04	Tensaw River Delta, Mobile	Steve Lyda
02	01-07-05	Jackson County (NE Alabama)	Bill Tapp
04	01-27-05	Swann Creek WMA, Decatur	Eric McHan
ARKANSAS			
00	1-20-04	Lake Chicot, Chicot County	Chris Stoddard
02	1-23-05	White River NWR, Marvell	Troy Gillespie
03	1-16-04	Bald Knob	Jim Overstreet
03	11-20-04	Dublin *Conway	Andrew Naegle
03	11-26-04	Cut-Off Creek WMA	Jarrett Barnhill
03	1-12-05	Augusta, NE of Little Rock	Perry Galloway
03	01-15-05	Dave Donaldson/Black River WMA	Curt Alphin
04	01-30-05	St.Francis River, Greene Co	Greg Adams
04	01-25-04	Weiner, SW Jonesboro	Richard Murphy
04	12-18-04	St.Francis River, Lee Co	Kendall Stultz
GEORGIA			
02	01-14-04	Outside Lake Hartwell	Crosby Harrell
03	11-23-04	Flint River, W of Macon	Jer McCranie
04	01-23-05	Savannah River, Hartwell Dam	John Wood Jr.
ILLINOIS			
92	01-09-05	Crab Orchard NWR, Marion	Scott Stillwell
97	12-23-04	Sangamon River, Decatur	Ryan Markwell
00	12-17-04	Rend Lake, Bonnnie	Brad Allen

00	01-17-04	Little Wabash Basin, Fairfield	Ray McCrory
00	12-19-04	Braidwood Lake	Doug Fishburn
01	10-31-04	West of Lockport	Chris Haas
02	01-16-04	Little Wabash Basin, ClayCity	Ray McCrory
02	01-09-05	Crab Orchard NWR, Marion	Scott Stillwell
03	12-11-03	Mattoon Lake (E.Central IL)	Jerry Brosam
03	11-04-04	MS River, Andalusia	Dan Crafton
03	11-24-04	Reno Lake, Southern IL	Dan Sizemore
03	11-30-04	Reno Lake, Southern IL	Ron Brachear
04	12-11-04	Mill Shoals *Dahlgren	Matt Lueke
04	12-31-04	Palestine, IN Border	Jeff Nelson
		INDIANA	
02	12-12-04	Beaver Dam Lake,Akron	Roger Brower
03	10-31-04	Warsaw	Jeremie Slone
03	12-05-04	Ohio River, Evansville	Justin Elder
03	12-12-04	Terre Haute	Tim Graham
03	2-07-04	Ripley County(SE Indiana)	Ken Hauer
03	01-16-05	Muscatatuck River,Brownstown	Steve Schoenung
04	12-19-04	Prairie Creek, NE Washington	Lee Tuggle
04	12-18-04	Muscatatuck River,Austin	Ed Benner, Sr
04	12-16-04	Clear Lake,Fremont	Jeff Burns
04	12-18-04	Sandborn	Kevin Baesel
04	01-06-05	Ohio River, Rising Sun	Zack Shell
04	01-09-05	Wabash River,Crawlyville	Dave Slinker
04	01-21-05	Lynnville, *Elberfield	Adrian Hilborn
		KENTUCKY	
93	12-28-04	South of Paris	Jason Sandefur
96	12-19-04	Stanford, S.Danville	Ronnie Yocum
97	01-15-05	Georgetown	Chris Kenley
99	01-22-05	Barlow, *Paducah	Ben Crenshaw,Jr

00	12-24-04	East of Harrodsburg	Sam Filson
02	01-25-05	Muhlenberg Co., Greenville	Gary Pointer
02	01-10-04	Stamping Ground,*Lexington	Terry Darnell
02	11-28-04	Shelbyville *Campbellsburg	Shawn Keeton
02	01-02-05	Ohio River, Petersburg	Don Epling
02	01-10-05	Marshall county,Benton	Ryan Crump
02	01-22-05	Drakesboro,*Central City	Tim Knight
02	01-22-05	Larue County,Hodgenville	Robin Baird
03	01-30-05	Nicholasville,Lexington	Troy Caneer
03	12-29-03	Madisonville	Mark Brashear
03	01-15-04	Ohio River, Warsaw	Greg Davis
03	01-15-05	Tradewater River,Sturgis	Jeff Johnson
04	01-09-05	Hopkins Co.,Madisonville	Stehen Sellers
04	12-11-04	Oldham county,Buckner	John Hartlage
04	12-21-04	Georgetown,*Lexington	John McDaniel,Jr
04	12-22-04	Clemetsville,*Russell Springs	Lee Holt
04	12-22-04	Minor Lake, Ballard County	Brad Inman
04	04-02-05	Ohio River, Petersburg	Don Epling
04	12-23-04	Barkley Lake, Linton	Brad McKinney
04	01-06-05	Boyle County, Danville	Jon Clark
04	01-09-05	Georgetown	Ryan Brady
04	01-11-05	Cynthiana	Moore/Cheek
04	01-15-05	Frankfort	Tim Herald
		MANITOBA	
02	10-12-04	Shoal Lake	Steve Tubbs
03	10-13-04	Boissevain	Mark Ramsdell
		MARYLAND	
98	12-30-99	Chestertown	David Myers
		MICHIGAN	
98	10-10-04	PTE Mouillee SGA,Monroe	Joe Martini
99	11-10-04	St.Clair Flats,Algonac	Tom Sparger
02	12-01-04	Fennville,Allegan Co.	Harold Drenten

02	11-11-04	Isabella County,Winn	Brent Maxon
03	09-25-04	Lake Iavasser(Marquette UP)	Jim Rose
03	11-01-03	Gibraltar(L.Erie Shore)	Robert Jones
03	10-09-04	Amble *Grand Rapids	Robert King
03	11-19-04	Rockwood, Lake Erie	Ern Zasadny
03	01-01-05	Shavehead Lake, Union	Todd Bajdek
04	10-12-04	Pte. Mouillee SGA,Monroe	Corey Koncz
04	10-23-04	Harsens Island,Algonac	Dick Maison
04	10-23-04	Grosse Ile, Detroit River	Brian Fern
04	10-09-04	Brownstown	Cody Jones
04	10-23-04	Erie Marsh, Erie	Steve Manders
04	10-31-04	Pte Mouillee SGA, Monroe	Mike Barthlow
04	11-09-04	Harsens Island,Algonac	Ralph Vohs
04	11-171-04	Gibraltar Bay,Detroit River	Brian Meszaros
04	11-13-04	Harsens Island,Algonac	Tom McMillan
04	11-20-04	Pte Mouillee SGA,Monroe	Jim Craig
04	11-25-04	Harsens Island,Algonac	Jim Schruba
04	10-26-04	Harsens Island,Algonac	Mike Charlebois
04	10-28-04	Harsens Island, Algonac	Mike Charlebois
04	12-03-04	Harsens Island, Algonac	Rod Frazho
04	11-17-04	Harsens Island,Algonac	Roy Wroblewski
04	11-20-04	Harsens Island,Algonac	Clint Villwock
04	11-10-04	PTE Mouillee SGA,Monroe	Shea Hegegus
MINNESOTA			
97	09-25-04	Nicollet Co.,Minnesota River	Tim Stevensen
00	09-25-04	Ortonville (Big Stone Co.)	Daren Geyen
01	09-25-04	Thief Lake WMA,Middle River	Doug Sletten
01	10-01-04	Tamarac NWR, Frazee	Chris Wacker
02	11-13-03	Itasca Co., Big White Oak Lake	Rob Warner
03	09-26-04	SE of Little Falls, *St.Cloud	John Monahan

MISSISSIPPI			
00	01-15-05	Moorhead, Indianola	Kenny Beard
03	12-23-04	Matthew Brake NWR,Greenwood	Joe Ross
04	01-14-05	Big Black River, Yazoo	David Spiars
MISSOURI			
04	01-15-05	"Eagle's Nest", New Madrid	Jason Daniels
NEW YORK			
01	10-23-04	Canadaigua Lake, Naples	Jim Smith
02	01-07-05	Wyoming County, Warsaw	Jeff Jondle
NORTH CAROLINA			
96	01-08-05	Oak City * Greenville	Ben Faulkner
00	12-27-04	Roanoke River, Lewiston	Herb Gozham, III
01	01-04-05	Newton Grove *Dunn	Nate Honeycutt
02	01-29-05	Fayetteville	Larry Hubbard
02	12-31-04	Whiteville (SE N.Carolina)	Roy Gore
03	01-17-05	Lake Hickory,Hickory	Eric Ried
03	12-31-03	Bath *Greenville	Bob Wendling
03	01-06-05	Gold Hill, NE Charlotte	Roy Huffman
04	12-20-04	Yadkin River, Wilkesboro	Phil Couch
04	01-03-05	High Rock Lake, Southmont	John Harris
04	12-17-04	High Rock Lake, *Salisbury	Tom Yarborough
04	01-06-05	Ahoskie, (Swamp)	Brian Osborn
NORTH DAKOTA			
03	10-03-04	McHenry	David Healy
OHIO			
92	12-12-03	Sandusky Bay Duck Club	Matt Bush
96	12-19-04	Sandusky Bay	John Joseph
97	04-15-04	Louisvill *Akron	Don Weyrick (FD)
01	10-30-04	Johnstown (Swamp)	Jim Satory
01	01-14-05	Marysville, NW Columbus	Chris Smith
02	12-17-03	Crane Creek WA, Ottawa Co.	Rob O'Shea

03	11-30-03	Grand Lake, St.Marys, Celina	Brad Miller
03	11-25-03	Hunters Pt.Hunt Club, Port Clinton	Brian Smith
03	10-18-03	Magee Marsh/Crane Creek WA	Missy Soncrant
03	11-24-04	Ottawa NWR, Oak Harbor	Casey Sprinkle
03	11-27-04	Sandusky Bay, Port Clinton	Keith Spitler
03	10-23-04	Castalia, Sandusky	Brett Walton
03	11-14-04	Canfield, *Youngstown	Tim Nelson
03	01-02-05	Okeana * Fairfield	Jeff Helton
03	01-11-05	Granville, E.Columbus	Ben Barton
03	01-04-05	Montgomery County, Germantown	Brian Burnett
03	01-29-05	Scioto River, S.Columbus	Orion Carey
04	10-17-04	Sandusky River	Peter Bergsten
04	10-10-04	Port Clinton, Sandusky Bay	Zach Nehls
04	10-18-04	Sandusky Bay	Eric Johnson
04	10-30-04	Sandusky Bay, Port Clinton	Nick Rhode
04	11-07-04	Port Clinton	Rich Borer
04	11-11-04	Edgewater Park, Cleveland	Devin Brickman(10)
04	11-11-04	Muddy Creek Sandusky Bay	Troy Pate, III
04	11-10-04	Magee Marsh/Crane Creek WA	Kevin Soncrant
04	11-13-04	Port Clinton	Scott Nemecek
04	11-28-04	Crane Creek WA, Ottawa County	Kyle O'Shea(9)
04	12-19-04	Tuscarawas River, *Coshocton	Travis Inerney
04	11-25-04	Winous Point, *Hilliard	Gary Rohrer
04	12-18-04	Oak Harbor, Lake Erie	Bill Windnagel
04	01-01-05	Buckeye Lake, E. Columbus	Don Spurlock
04	11-23-04	Muddy Creek, Port Clinton	Chuck Slovich
04	12-28-04	Madison County, *Springfield	Doug Erwin

04	01-14-05	Delaware N. Columbus	Kevin Kasnyik
04	12-27-04	Pickaway County, S.Bloomfield	Dan Schneider
04	01-25-05	Delaware, N. Columbus	Barry Dickson
04	01-27-05	Kokosing River, Mt.Vernon	Trent Kaufman
04	12-26-04	Eaton, W. Of Dayton	Brad Ashworth
ONTARIO			
00	12-10-04	Lake St.Clair	Roger Baillargeon
00	11-04-04	Lake St. Clair	Mike Frak
02	10-19-04	Nith River, Wellesley	Tom Foster
02	09-25-04	Summit Lake (NE Nipigon)	Dave Bastedo
02	12-01-04	Walpole Isl. Lake St. Clair	Rick Yost
03	11-02-04	Leamington	Joe Palmer
03	12-13-04	Holiday Beach, Harrow	Joe Palmer
03	10-31-03	Big Creek, Amherstburg	Beau Cyr
03	10-11-04	St.Anne's Marsh, Sombra	Keith Cole
03	10-23-04	Roseneath, S.Peterborough	Rick Wood
03	11-24-04	Walpole Isl. Lake St.Clair	Bob Rolfs
04	10-22-04	Leamington	Joe Palmer
04	11-04-04	Leamington	Joe Palmer
04	09-25-04	Leamington	Kyle Palmer
04	11-06-04	Leamington	Kyle Palmer
04	12-20-04	Walpole Isl. Lake St.Clair	Jim Biewer
04	11-05-04	Kingsville	Bill Boyd
04	10-21-04	Kingsville, Lake Erie	Pat Sylvestre
04	10-26-04	Amherstburg	Paul Pratt Jr.
04	10-29-04	Hillman Marsh, Leamington	Greg Burke
04	11-16-04	Hillman Marsh, Leamington	Grey Burke
04	11-06-04	Tilbury	Greg Whitson
04	09-25-04	Lake Erie, Kingsville	Barry Bennis
04	11-04-04	Long Point, E.Lake Erie	Tod Wright
04	11-03-04	Walpole Isl., Lake St.Clair	Hugo Groff
04	11-16-04	St.Anne's Marsh	Steve Simpson

04	11-24-04	Mitchell's Bay, Lake St.Clair	Dale Henning
04	11-25-04	Tilbury	Gilles Lanoue
04	12-01-04	Outside Point Pelee	Clint Lafeber
04	12-03-04	Mitchell's Bay, Lake St.Clair	Jason Howland
04	12-11-04	Canard Gun Club, Amherstburg	Luke Meloche
04	11-26-04	Holiday Beach, Harrow	Ken Branson
04	11-27-04	Balmoral Marsh, Paincourt	Howard Flint, II
04	10-21-04	Lee Brown Marsh, Port Rowan	Kim Brown
04	10-01-04	Lake St.Clair	Mike Frak
04	10-19-04	Lake St.Clair	Mike Frak
04	1-21-04	Kingsville, "Branch Pit"	Jim Branch
04	11-21-04	Kingsville, "Branch Pit"	Jim Branch
		PENNSYLVANIA	
00	12-27-04	Susquehanna River, *Columbia	Rob Wissler
03	12-27-04	Lake Ontelaunee, *Robesonia	Troy Hummel
03	01-14-05	Middle Creek, Cornwall	Phil Hunt
		QUEBEC	
95	10-24-04	Ste-Agnes – DeDundee	Asselin/Hebert
		SASKATCHEWAN	
93	10-29-04	Rose Valley	Kirk Bernhagen
96	09-28-04	Canora	Paul Nemeth
		SOUTH CAROLINA	
00	01-18-05	Newberry County, Broad River	Ricky Coward
04	01-05-05	Cunningham WMA, Greer	Neal O'Sheilds
		TENNESSEE	
95	12-24-03	Old Hickory Lane, Lebanon	Gil Jackson
96	01-12-04	Cumberland River, Clarksville	John Cardinal
97	12-20-03	Nick-A-Jack lake,	Rich Porter

		*Chattanooga	
97	12-21-04	Old Hickory WMA, *Nashville	Scott Powers
99	12-05-04	Watts Bar lake, Rockwood	Jeremy Ratcliff
01	12-20-04	Henderson County, Lexington	Blake Warren
01	12-26-04	Tenessee River, Clifton	Paul Peebles
01	01-16-05	Dover Bottoms WMA, Dover	Carter Welker
02	01-09003	SE Bradley Co., *Old Fort	Jeremy Reagan
02	01-28-04	Camden BTMS, Humphreys Co	Joe Waggoner
02	12-21-04	Tennessee River, Savannah	Brandon Selvog
02	12-23-04	Shelbyville	Joe Hunt, Jr
02	01-23-05	Watts Bar Lake,Spring City	Murphy/Miles
03	02-01-04	Dyer Farm, Halls	Matt Dyer
03	12-24-04	S. Fork Obion, Greenfield	Charles Wilson
03	01-06-05	Hillsboro, *Tullahoma	Donnie Fulks
03	01-26-05	Sparta, S.Cookeville	John Jones
03	01-21-05	Blood River, Buchanan	Rob Crockett
03	01-05-05	Obion River, Greenfield	Ronnie Cook
04	12-04-04	S.Fork Deer River, Jackson	Gary Moyers
04	12-22-04	Cheatham Lake WMA, Ashland City	Jim Zariger
04	01-01-05	Holston River, Kingsport	Jim Wingfield
04	01-16-05	Cheatham WMA, Ashland City	Steven Martin
04	01-23-05	Ft.Loudon Lake *Knoxville	Lee Congleton, III
04	01-21-05	W.Sandy WMA, Springville	Duane Shelton
04	01-21-05	W.Sandy WMA, Springville	Mike Shelton
04	01-23-05	Yellow Creek WMA, Rhea Co	Harry Mills
04	01-30-05	White Oak Creek, Kentucky Lake	Leo Knowles
04	01-30-05	Talbott, Jefferson County	Larry Cook
VIRGINIA			

97	12-31-04	Mattaponi Indian Reserve	"Mac" Custalow
03	01-17-04	Mattaponi River	Mike Vest Sr
(2)03	11-20-04	Lake Gaston(NC Border)	Chad Coley
03	12-20-03	Rappahannock River , Loretto	Bob Baylor
04	01-23-04	James River, Surry County	Dave Woodward
04	01-22-05	Roanoke River, Dryburg	John Browne
WEST VIRGINIA			
03	01-04-04	Ravenswood, Ohio River	Stan Hickman
WISCONSIN			
96	10-17-04	Grand River Marsh, Dalton	Scott Kuharske
99	08-03-04	Townsend TWP, Oconto County	Mike Stahl(FD)
01	10-02-04	Berlin, Rush Lake (Horicon)	Mike Kurczek
02	10-17-04	Door County, Little Sturgeon	Henry Anderson
02	11-07-04	Grand River Marsh, Kingston	Richard McCoy

During the year ending JANUARY, 2005 Jack Miner geese bands were recovered in:

YR. OF BAND	RECOVERED	LOCATION RECOVERY	BY
INDIANA			
03	11-25-04	Fort Wayne	Greg Parsenow
03	12-11-04	Liberty (SE Indiana)	Steven Soper
KENTUCKY			
91	12-29-04	Barkley Lake, Lyon Co.	Scott Betz
94	01-06-05	Earlington	Ron Oglesby
95	01-03-05	Bourbon County	Casey Wiley
00	01-02-05	Shelbyville	Mark Riley
03	01-24-04	Winchester	John Johnson
04	01-01-05	Lexington	Darain Day

98	1-07-01	Reelfoot Lake, *Hornbeak	Jamil Homra
99	1-12-00	Cumberland River, Clarksville	Tom Dozier, Jr.
99	12-02-00	Winchester	Tony Acklen
99	12-21-00	Old Hickory Lake, Nashville	Chris Hillenmeyer
99	12-30-00	Old Hickory Lake, South of Gallatin	Dean Clark
99	1-01-01	Andersonville, *Knoxville	Jeff Hammer
99	1-18-01	West Sandy, Springville	Alan Jay
00	12-17-00	Holston River, Rogersville	John Simpson
00	12-17-00	Cleveland, Near Chattanooga	Tim James
00	12-22-00	Johnson City	Sam Huddleston
00	1-05-01	J. Percy Priest Lake, Nashville	Larry Conley, Jr.
00	12-31-00	Cherokee Lake, Jefferson County	Chuck Hoskins
00	1-01-01	Watts Bar Dam, Decatur	Mickey Moses
00	12-30-00	Murfreesboro	Brent James
00	1-08-01	Forked Deer River	Andy Knolton

		Bottoms, W, Tennessee	
00	1-17-01	Watts Bar Lake, Meigs County	Toby Steele
00	1-17-01	Isom Lake, Ridgely	Mitch Higdon
00	1-13-01	Gallatin, Sumner County	Rex Hinkle
00	1-27-01	Tennessee River, Decatur	Todd Korn
00	1-13-01	Holston River, Morristown	Joe Googe
VIRGINIA			
95	1-14-00	Gloucester, *Richmond	John Firth, Jr.
96	12-31-00	Gloucester, York River	Todd Douglas
97	1-15-01	Chincoteague Island	Mark Ross
99	11-24-00	King George County	Lewis Graves
99	12-16-00	Pamunkey River, Algoma	Burke Stele, III
99	1-01-01	Pamunkey River, Sweet Hall Marsh	Steve Adamson, Jr.
WISCONSIN			
97	10-07-00	Mississippi River, Ferryville	Tom Scholl
98	11-25-99	Portage, Wisconsin	Brent Stang

		River Backwaters	
99	10-02-00	Annapee River, Algoma	Dirk Bengston
99	11-04-00	Minocqua, Northwest Oneida County	Dave Marston

During the year ending JANUARY 31, 2001 Jack Miner goose bands were recovered in:

YR. OF BAND	RECOVERED	LOCATION RECOVERY	BY
ILLINOIS			
88	11-13-00	Island Lake, Lak County	Tom Geltmaker
89	12-24-00	Fox River, Oswego	Ed Cech
93	1-18-01	Horseshoe Lake	Cal Maginel
INDIANA			
90	12-30-00	Vincennes, Knox County	Dan Carnahan
91	12-18-00	Valparaiso	Bob Dailey
99	9-02-00	Syracuse	Ron Pollock
99	9-12-00	Goshen	Anthony Miller

KENTUCKY			
89	12-28-00	Ohio River, Augusta	Matt Auckerman
00	1-21-00	Frankfort	Kathy Stethanski
00	12-23-00	Green River Lake, Campbellsville	Bob Strange
MICHIGAN			
87	11-20-00	Shiawassee NWR , Saginaw	Howard Slaght
88	9-29-00	Saline	John Wuffer
89	10-20-00	Saginaw County	Scott Chamberlain
91	10-22-00	Shiawassee NWR, Saginaw	Amber Hoppe
96	5-23-00	Rose Lake, Clinton County	Kurt Mykut (A)
97	9-01-00	Cooks, Upper Peninsula	Jessica Mistak
97	9-01-00	Cooks, Upper Peninsula	Dean Burdett
97	10-11-00	Shiawassee NWR, Saginaw	Dan Jablonski
97	1-06-01	Howell	Joe Robison
98	9-03-00	Marion, *Cadillac	Dave Bartman
99	9-30-00	Canton Township	Bill Schroeder

MISSOURI			
91	12-24-00	Squaw Creek NWR, Mound City	Mike Johnson
NEW YORK			
93	9-24-00	Cuba, *Wellsville	Len Osgood
OHIO			
93	12-12-00	Deleware	Barry Dickson
93	1-04-01	Portage County, Akron	Jeff Kozlowski
94	12-23-00	Milan	Rick Wyczalek
96	9-06-00	Springfield	Anthony Fugate
96	12-29-00	Graytown, *Strongsville	Ken Hanson
98	11-12-00	Wooster	Ed Dupont
98	12-30-00	Port Clinton	Wes Eckhardt
99	12-09-00	Mansfield	Steve Olexa
99	1-04-01	Wadsworth	Russ Dishmon
99	1-31-00	Rome	Tim Cadle
00	12-30-00	East Stark County	Matt Oberholtzer
00	1-02-01	Scioto River, Rathbone	Greg Blevins
ONTARIO			

87	11-10-00	Mitchell's Bay, Lake St. Clair	Paul Zombary
89	9-09-00	St. Thomas	Jim Applefort
89	10-01-00	Manitoulin Island	David Sillars
92	9-10-00	Attawapiskat	Jim Jones
94	9-15-00	Mitchell's Bay, Lake St. Clair	Russ Brazier
96	9-21-00	Smooth Rock Falls	Chris Ouellette
97	11-05-00	Lake Huron, Huron County	Barb Foell (FD)
99	10-18-00	Stouffville	Bryan Harvard
PENNSYLVANIA			
97	12-16-00	Pymatuning	Jeff Beimel
97	12-19-00	Cambridge Springs	Neil Braswell
TENNESSEE			
91	1-07-01	Old Hickory Lake, Nashville	Mike Nicholson
91	1-06-01	Ten Mile	Ross Irwin
VIRGINIA			
90	12-30-00	James River, Chesterfield County	Tom Boyd
97	1-13-01	Albemarle County	Greg Jenkins

During the year ending JANUARY, 2000 Jack Miner duck bands were recovered in:

YR. OF BAND	RECOVERED	LOCATION RECOVERY	BY
ALABAMA			
96	12-25-99	Petrey, Pike County	Dave Gentry
99	12-31-99	Lacy Springs, *Huntsville	Kerry Hayes
ARKANSAS			
92	1-07-99	Desha County	Mike Pambianchi
93	1-19-00	Grubbs	Josh Loftin
95	1-01-99	Bald Knob	Barry Cameron
96	1-08-99	Jacob's Lake, Gillett	Ewing Jackson, Jr.
96	1-22-00	Eudora	Jody Tichenor
96	1-18-00	Mill Bayou, Almyra	Johnny Mommsen
97	1-07-00	Wynn	David Amond
97	12-27-99	Dog Island Hunt Clul), Stuttgart	George Pugh
98	1-08-00	Howell, Woodruff County	David Carrington
98	1-20-00	Horseshoe Lake, *Memphis	George Zanone, III

97	1-16-00	Boonesboro	Jasper Smith
98	1-03-00	Greensburg, Green County	Corey Goff
98	1-21-00	LaGrange, Henry County	Ron Brady
98	1-21-00	Cave Run Lake, Farmers	Greg Brown
99	12-24-99	Winchester	Steven Adams
99	1-16-00	Paducah	John McCutchen
99	1-20-00	Ohio River, Foster	Greg Barnes
99	1-22-00	Guist Creek Lake, Shelbyville	Gary Daniel
LOUISIANA			
92	12-21-99	Garyville, west of New Orleans	Ursin Abbate
93	1-16-99	New Iberia	Chuck Romero
95	12-21-99	Sicily Island	Scott Lindsey
95	1-03-00	Irvine Lake, Bastrop	Scotty Sadler
96	1-15-00	Morgan City	Ben Downing
96	1-01-00	Welsh, Lake Charles	James Monovoisin
MARYLAND			
97	1-15-99	Hog Island Gun Club, Easton	Jim Earnest

MICHIGAN			
89	10-21-99	Manchester	Alicia McCarroll
91	10-23-99	Harsens Island, Algonac	Rob Czanstke
95	10-09-99	Coldwater, Branch County	Dennis Cole
96	11-16-99	Harsens Island, Algonac	Mike Morris
96	12-02-99	Three Mile Lake, Vanburen County	Tom Pillars
96	11-11-99	Harsens Island, Algonac	Paul McGreachy
97	10-28-99	Pte. Mouillee SGA, Monroe	Rich Ciacelli, Sr
97	11-20-99	Harsens Island, Algonac	Gary Engel
97	10-25-99	Harsens Island, Algonac	Kevin Somppi
98	10-24-99	Battle Creek	Rod Rizor
98	11-03-99	Harsens Island, Algonac	Russ Schweikart
98	12-03-99	Pte. Mouillee SGA, Monroe	Chris Tomei
99	10-25-99	Caseville, Huron County	William Ganders
99	10-22-99	Harsens Island,	Bob Cole

		Algonac	
99	11-14-99	Harsens Island, Algonac	Bill Heine
99	11-10-99	Harsens Island, Algonac	Mickey Badalamenti
MINNESOTA			
93	10-15-99	Isle, Mille Lacs NWR	Kim Smith
97	11-05-99	La Crescent, SE Minnesota on MS River	Jim Veglahn
MISSISSIPPI			
92	12-30-99	Hollandale	Jimmy Carman
93	1-10-00	Houston, Chickasaw County	Jay Gore
96	12-05-98	Greenwood, Calhoun County	Chris Pridgen
96	1-24-99	Charleston, Tallahatchie County	John Kennedy
96	1-28-00	Carthage, Neshoba County	D. P. Adams
98	1-28-00	Saltillo, *Tupelo	Buck Yarbrough
99	12-27-99	West Point	Bobby Cole
99	1-09-00	Tunica	Earl Kreider
MISSOURI			

90	11-02-99	O'Fallon, west of St. Louis	Ed Tichacek, IV
NEW YORK			
96	11-25-99	Canton	Chris Abplanalp
97	11-15-99	Seneca Lake, Geneva	Richard Marr
97	11-19-99	Islip, Long Island	Gil Herzy
98	12-19-99	Chenengo River, Windsor	Rick Oliver
NORTH CAROLINA			
96	1-04-00	Ahoskie, *Aulander	Donnie Conner
97	1-16-99	John's River, Morganton	Michael Pruitt
97	12-21-99	Cabarrus County, *Concord	Mark Stewart
98	1-08-99	Reidsville	Roger Cobb
98	1-13-99	Pee Dee River, Anson County	John Allen
98	1-04-00	Lake Mattamuskeet	Clark Smith
99	10-07-99	Lake Tillery, Norwood	Michael Lee Tucker
99	1-08-00	Ahoskie, *Aulander	Greg Joyner
99	1-15-00	Heyesville	V. Novov

NORTH DAKOTA			
93	9-24-99	Kraft Slough WMA, Oakes	USFW (FD)
96	10-02-99	Tolley	Ben-Kratzke
OHIO			
90	10-27-99	Moxley Marsh, Sandusky	Ed Moxley
90	12-07-98	Sandusky River	Mike Hrynciw, III
94	11-29-98	Sandusky Bay	F.W. Englefield, IV
94	12-21-99	Cleveland Breakwall	George Urban
96	12-20-99	Sandusky Bay	Jerry Wiechman
96	12-11-99	East Fork Lake, Batavia	Terry Nickell
97	12-16-99	Huron County	Mark McQuate
97	1-02-00	Little Miami River, *Cincinnati	Mike Housinger
97	12-21-99	Southeast of Vickery	Mike Hrynciw, III
97	1-21-00	Ohio River south of Gallipolis	Bill Clark
98	12-20-99	Rootstown, *Canton	Otto Grant
98	10-19-99	Sandusky Bay	Allen Zeman
98	11-21-99	Akron	Keith Apffel

98	12-20-99	Castalia	George Sas
99	11-26-99	Maumee Bay	Keith Carr
99	12-06-99	Mosquito WA, *Sandusky	Fred Peters
99	12-11-99	Bayview/Sandusky	Mike Eaton
99	12-15-99	North Bay Gun Club, Port Clinton	Joe Zam
99	12-15-99	Scioto River, Portsmouth	Hank Harcha
		ONTARIO	
93	12-20-99	Big Creek, Amherstburg	Beau Cyr
93	9-25-99	North of Kingston	Burt Haines
94	10-30-99	Summerstown, east of Cornwall	Luc Lafontaine
95	11-21-99	Lake St. Clair	Dr. Harold Hall
96	11-15-98	Port Dover	Warren Hird
96	10-04-99	Chesley, *Walkerton	Steve Todtz
96	9-30-99	Walpole Island Indian Reservation	Jack Smith
96	11-15-99	Mitchell's Bay, Lake St. Clair	Jeff Wolfe
97	9-27-99	Clifford, *Walkerton	Steve Todtz

97	11-21-99	Lake St. Clair	Dr. Harold Hall
97	10-12-99	Walpole Island Indian Reservation	Jack Smith
97	10-24-99	Huntsville	Owen Ware (A)
97	10-26-99	Lake St. Clair	Michael Moore
97	11-15-99	Pelee Island	Jay Nageleisen
97	12-19-98	Lake St. Clair	Chris Mailloux
97	11-22-99	Walpole Island Indian Reservation	William Soney
98	10-12-99	Walpole Island Indian Reservation	Ted McGraw
98	11-05-99	Port Rowan	Dr. John Miller
98	11-17-99	Walpole Island Indian Reservation	Ken Norwick
99	12-04-99	Lake St. Clair	Chris Mailloux
PENNSYLVANIA			
90	1-07-00	Adams County, *York	Dick Smith
SOUTH CAROLINA			
93	12-25-99	Santee	Bennett Newsome
95	12-04-99	Santee/Cooper, Clarendon County	Harold Furse
96	1-11-00	Laurens County	Jim Stroup
97	11-27-99	Georgetown	Henry Price

97	12-20-99	Wateree River, Eastover	John Ball III
97	12-28-99	Gaffney, Cherokee County	James Shaw
97	1-08-00	Lake Marion, rton	Tom Rhodes
98	12-27-99	Calhoun Falls, south of Anderson	Bill Allen
SOUTH DAKOTA			
96	11-04-99	Rush Lake,Day County	Ron Meester
SASKATCHEWAN			
92	10-05-99	Madge Lake, Duck Mountain Provincial Park	Roger Eagles
TENNESSEE			
89	1-09-99	Trezevant Bottoms	Brad Davis
93	1-05-00	Greenback, *Knoxville	C. Dylan Prince
94	12-30-99	Sharon, *Dresden	Drew Vernon
95	1-05-00	Obion River, Trezevant	Brad Allen
95	12-22-99	Reelfoot Lake	Neil Stover
95	1-13-00	Camden	Joey Woodard
96	1-07-99	Cumberland City	Jim Burchett
96	1-24-99	White Oak Bottoms, Hardin	Larry Powers

		County	
96	1-05-00	Hatchie River Bottoms, Bolivar	Rickey Hazlegrove
98	1-08-99	Athens	Tracy Wade
98	1-09-99	Paris	Randall Minor
98	1-15-99	Alamo	Richard Riddle
98	12-29-98	Old Hickory Lake	Erik Knight
98	1-31-00	Cumberland City	Matt Baggett
99	12-28-99	Kentucky Lake, Big Sandy	Ron Ballinger
99	1-30-00	Maryville, south of Knoxville	Jeff Kelley
99	1-23-00	Cheatham WMA, Ashland City	Ron Carrier
99	12-22-99	Obion Bottoms, McKenzie	Rick Churchwell
VIRGINIA			
95	1-02-99	King William County	James McInteer
96	12-27-99	Charles City off the James River	Allen Maxwell
97	12-01-99	Smithfield, *Newport News	Neil Brennan
WISCONSIN			
93	10-18-99	Wisconsin River,	Rich Grandell

		Mosinee	
96	10-23-99	Lake Poygan	Dan Brown
98	10-03-99	Grantsburg	John Sauerberg

During the year ending JANUARY, 1999 Jack Miner duck bands were recovered in:

ALABAMA		
Yr. of Band	Recovered	Location
93	01-11-99	Courtland, Decatur
94	01-13-99	Decatur
95	01-30-99	Flint River, Huntsville
96	12-30-98	*Cherokee, Tuscumbia
96	01-25-99	Demopolis
96	01-12-99	Athens
98	01-01-99	Stevenson, Racoon MgmtA.
98	01-11-99	TN River, Bridgeport
ARKANSAS		
91	12-10-98	Ethel, SE of Stuttgart
93	12-06-98	*Marked Tree, Trumann
93	11-20-98	W. of Stuttgart
94	11-27-98	Bayou De View, Woodruff Co.
96	01-01-99	Turrell
96	12-02-98	Des Arc, Prairie Co.
96	01-09-99	Stuttgart
96	12-18-98	*St. Francis River, Marion

97	11-30-98	Shirley Bay/Rainy Brake WMA
98	12-22-98	Black River
GEORGIA		
97	12-26-98	Oconee River, S. of Athens
ILLINOIS		
92	11-20-98	Lacon, Marshall Co.
94	12-26-98	*Elkville, Carbondale
95	11-03-98	Treadway Lake, Browning
97	11-13-98	Galena (MS River NW ILL.)
97	12-16-98	*Carlyle Lake, Palatine
97	11-15-98	Plainsfield
97	11-22-98	Carlyle Lake
INDIANA		
93	12-31-98	*Linton, Columbus
95	12-31-98	Hardy Lake, Scott Co.
96	11-14-98	Plymouth
96	01-11-99	*Wabash/ Ohio Rivers, Mt. Vernon
97	11-28-98	Crooked Lake (NE of IND)
97	01-10-99	White River, Martinsville
98	12-20-98	Columbus

98	01-14-98	Ohio River, Rising Sun
98	01-09-99	Ohio River, Aurora
IOWA		
97	10-10-98	Ingham Lake, Emmet Co.
KENTUCKY		
92	01-13-99	Dawson Springs
93	01-17-99	Hardin, Clark River
95	01-17-99	*Winchester, Lexington
96	11-25-98	Versailles (W. of Lexington)
97	01-10-98	Clear Creek, Hopkins Co.
97	01-06-99	Tolu, Ohio River (W. KY)
97	01-14-99	*Maysville, Alexandria
98	01-06-99	Licking River, Farmers
LOUISIANA		
96	12-14-98	*Chenyville, La Fayette
96	12-31-98	Lake Arthur
97	12-20-97	Russell Sage WMA, Monroe
MARYLAND		
96	12-18-98	Wye East River, Easton

MICHIGAN		
94	11-04-98	Harsens island, Algonac
94	11-25-98	Harsens island, Algonac
94	12-03-98	Harsens island, Algonac
95	11-27-97	*Shiawassee River SGA, St. Charles
95	10-12-98	Fish Pt. SGA, St. Charles
95	10-19-98	Wigwam Bay, Standish
95	12-03-98	Allegan
96	12-08-97	Harsens island, Algonac
96	05-26-98	Temperance
96	10-03-98	St. Martin's Bay, Mackinac Sts.
96	10-14-98	East Lake, N. of St. Ignace
96	10-28-98	Alpena
96	11-19-98	*Grande Mere, St. Joseph
97	10-05-97	Monroe
97	11-28-97	Harsens island, Algonac
97	12-01-98	Monroe (Fermi Plant)
98	10-14-98	Harsens island, Algonac
98	11-14-98	Harsens island, Algonac
98	11-25-98	Pt. Mouillee, Monroe

MINNESOTA		
92	10-03-98	Ortonville, SD Border
93	09-26-98	Thief Lake WMA, Gatzke
95	10-05-98	Nicollet Co., S Central MN
97	10-25-98	Indian Lake, Winthrop
MISSISSIPPI		
92	01-17-99	Carmack
94	01-15-98	Ruleville
95	12-21-97	Jefferson Davis Co., Prentiss
96	12-27-97	*Greenwood, Cleveland
96	01-15-99	Hatchie River, Alcorn Co.
98	01-02-99	Marks (NW Miss.)
98	01-03-99	Tuscumbia BTM, Corinth
MISSOURI		
93	11-26-98	Joplin
NEW YORK		
95	11-15-98	Douglas Isl., St. Lawrence River
96	10-10-98	*Kendall, Rochester
NORTH CAROLINA		
94	01-02-99	Wadesboro

94	01-05-98	Hickory
94	01-05-99	Lake Tillery, Norwood
96	12-14-98	Lake Waccamaw
96	01-14-99	N. of Murfreesboro
96	01-09-99	NE. of Greensboro
97	01-16-99	John's River, Morganton
97	01-05-99	Dunn, Cumberland Co.
97	01-20-99	Garner, S. of Raleigh
NORTH DAKOTA		
96	10-04-98	*Alsen, Fargo
OHIO		
92	11-07-97	Seneca Lake, Guernsey Co.
92	12-20-97	Port Clinton, Muddy Creek Bay
93	01-04-99	*Highland Co., Hillsboro
94	11-07-98	Ottawa County
94	01-15-99	*Scioto River Portsmouth
96	10-22-98	Clear Fork Res., Lexington
96	12-21-98	Buckeye Lake, E. of Columbus
96	12-22-98	Wooster
97	12-14-97	Sandusky Bay

97	12-23-97	Gallipolis Locks, Ohio River
97	12-30-98	East Fork Lake, Williamsburg
97	01-09-99	Scioto River, Columbus
97	12-20-97	Port Clinton, Muddy Creek Bay
98	11-03-98	Port Clinton
98	11-23-98	Huron
98	12-19-98	Port Clinton
98	01-10-99	*East Fork Lake, Cincinnati
98	01-11-99	Ohio River, Manchester
98	12-26-98	Rocky Fork S.P., Hillsboro
98	N/G	Pipe Creek, Sandusky
98	01-10-99	Circleville, S. Columbus
ONTARIO		
93	11-12-98	Chatham
94	11-15-97	Hamilton, St. Williams
94	10-01-98	Walpole Island
95	11-01-97	Hamilton, Flamborough
96	12-06-97	Cambridge
96	04-28-98	Havelock, Peterborough Co.
96	11-06-97	London, Varna

96	10-18-98	Douglas
96	10-16-98	Walpole Island
96	10-21-98	Cedar Creek, Kingsville
96	09-28-98	Harvey Twsp., Peterborough Co.
96	11-24-98	Walpole Island, Big Shooters Club
97	11-22-97	Ridgetown
97	10-31-97	Kingsville
97	08-29-98	Tiny Marsh WA, Elmvale
97	09-21-98	Denison Twsp., Sudbury
97	10-19-98	Mitchell's Bay, L. St. Clair
97	10-15-98	Cedar Creek, Kingsville
97	10-27-98	Long Point
97	10-08-98	St. Luke's Bay, L. St. Clair
97	12-12-98	Waterford, N. of Simcoe
97	10-13-98	Walpole Island, Big Shooters Club
98	10-24-98	Mitchell's Bay, L. St. Clair
98	10-22-98	Cedar Creek, Kingsville
98	10-31-98	Amherstburg, Detroit River
98	11-17-98	Lighthouse Cove, L. St. Clair

MARYLAND			
92	12-31-04	Sleepy Hollow Farm, Chaptico	Jim Herriman
MICHIGAN			
88	03-25-04	Thread Lake, Flint	Ed Davison (OA)
88	09-26-04	Saginaw	Samantha Reinig
88	09-26-04	West Branch	Jim Gutchak
94	10-16-04	Shiawassee NWR, Saginaw	Tom Stoicevich
97	12-12-04	Petoskey	Jim Ehrnst
98	12-04-04	Alpena	Rod Szymanski
99	10-03-03	South Lyon, Livington Co.	Ed Hamlin
99	10-23-03	Shiawassee NWR, St.Clarles	Mitch Holmes
99	12-05-04	Columbiaville *Davison	Corey Ducharme
03	11-10-04	Crooked Lake, Fennville	Jim Carwile
OHIO			
03	01-07-05	Shelby County, (NE Sidney)	Chuck Helmer
04	01-01-05	Westerville, (NE Columbus)	Al Faber, Jr
ONTARIO			
90	01-03-05	Kingsville	Mike Pillon
90	12-15-04	Kingsville, "Branch Pit"	Greg Drummond
94	10-11-04	Gueph Lake, Guelph	Shawn Schembri
94	10-12-04	West Montrose	John Peters
96	04-16-04	Kapuskasing	Karl Chmilewski
97	11-16-04	Leamington	Joe Palmer
99	11-27-04	Kingsville, "Branch Pit"	Jim Branch
00	04-16-04	Kapuskasing	Karl Chmilewski
00	04-20-04	James Bay, Moose Factory	Frank Turner
00	09-10-04	Glen Allan, *Rockwood	Lauren Laughlin
03	12-11-03	Leamington	Tyler Flaming

Data for the year ending January 31, 2004 were not available at the time of the publication of this document.

During the year ending JANUARY, 2003 Jack Miner duck bands were recovered in:

YR. OF BAND	RECOVERED	LOCATION RECOVERY	BY
ALABAMA			
93	12-13-02	Swan Creek WMA, Decatur	Phil Lehman
98	12-19-02	Weiss Lake, Cherokee Co.	Brad Young
99	12-26-02	Lake Mitchell, Verbena	Pete Daugherty
99	12-25-02	Fort Payne	Joey Shankles
99	12-28-02	Stevenson	Jeff Morgan
99	12-20-02	Lake Wheeler, Elgin	Daniel Howell
02	12-19-02	Tennessee River, Scottsboro	Lon Ostrzycki, Jr.
02	12-13-02	Tennessee River, Stevenson	Jim Nygaard
ARKANSAS			
98	1-22-03	Hurricane Lake WMA, Bald Knob	Marcus Vess
98	1-05-02	Marietta	Guy Mattingly
GEORGIA			
98	12-22-02	Lake Hartwell	Duane Manning
99	12-29-02	Calhoun	Nick Gravitt
ILLINOIS			
93	11-23-02	Illinois River, Lacon	Dan Foster
94	11-21-02	Grass Lake, Chain O'Lakes SP	Stan Leslie
96	1-15-02	Wabash River, Newhaven	Jim Merritt
96	12-01-02	LaSalle Lake, LaSalle Co.	John Forneris
00	11-01-02	Calhoun Point, WMA	Chris Jennings
00	11-07-02	Illinois River, Hillview	Darrell Clanton

00	12-05-02	Braidwood Cooling Lake	Dave Jackman
01	12-03-02	Kankakee River, Wilmington	Jerry Olsen
02	12-22-02	Ullin, Southern Illinois	Fred White
		INDIANA	
93	10-31-02	Illinois River, Merom	Bill Burrowes
95	11-02-02	South Bend	Matthew Willoughby
95	12-07-02	Cambridge City	Gary Bertsch
96	Not Given	Roanoke *Fort Wayne	Derek Dewey
96	12-01-02	Ohio River, Rising Sun	Marlyn Guss Jr.
99	11-05-02	Etna Green, Warsaw	Rick Oliphant
00	11-29-02	Kankakee Wa, N. Judson	Barry Frazier
00	1-11-03	Patoka River WA, Oakland City	Dave Nevitt
01	12-24-02	Austin	Jason Shake
01	12-01-02	Hovey Lake WA, Mr. Vernon	Deig/Veeck
		IOWA	
97	11-07-02	Dunbar Slough, Scranton	Brody Linder
		KANSAS	
97	1-10-03	Elk City Lake, W. Independence	Sean Lynott
		KENTUCKY	
89	1-19-03	Panther Creek, Rochester	David Hartis
92	12-25-01	SE of Kevil	Ed McDermott
95	1-15-99	Morman, Muhlenberg, Co.	Chris Ward
97	12-08-02	Lexington	Larry Stewart
97	1-08-03	Dix River, Lincoln, Co.	Tim Herald
98	12-15-01	Upr. Hickman Bottoms	Ken Barnes
98	1-08-03	Owensboro	Kyle Retzlaff
99	1-05-03	Shelby County, *Bardstown	Charles Hagen

00	1-05-03	Dalton, *Dawson Springs	Daniel Martin, Jr.
00	1-08-03	Providence, *Madisonville	Frank Bacon
00	12-27-02	Barren River, S. Bowling Green	Jim Cardwell
01	1-09-03	Clear Creek, Providence	Aaron Farmer
01	12-18-02	Spencer County, *Louisville	Chuck Greiner
01	12-28-02	Earlington, *Madisonville	Jim Curtis
01	1-02-03	Bardstown	Mike Willett
01	1-01-03	Union	Lance Keen
02	1-15-03	Licking River, Maysville	Ron Shiveley
02	12-15-02	Kentucky River, Woodford Co.	Luke Fallon
02	12-09-02	Barren River Lake	Steven Byrd (FD)
02	12-10-02	Kentucky Bottoms, Uniontown	Eddie Snyder
02	1-09-03	Ohio River, Lewisport	Kevin Simpson
02	1-04-03	Tradewater River, Providence	Gary Brown
MANITOBA			
99	10-04-02	Reader Lake, The Pas	Steve Leason
MARYLAND			
00	12-28-02	Off Choptank River, Preston	Gary Ruff
MICHIGAN			
93	10-21-02	Harsens Island, Lake St. Clair	Tom McKernan
96	1-05-03	Galien River, New Buffalo	Jim Ramsey
96	5-16-02	Arnold, *Skandia (UP)	Kevin Labumbard (FD)
96	11-02-02	Fish Point, Saginaw Bay	Jason Boensch
96	11-06-02	Harsens Island, Lake St. Clair	Chris Hiltunen
97	11-04-02	Craig Lake, Coldwater	Mike Boyd
99	10-12-02	Larks Lake, Petoskey	Lee Cole

99	10-11-02	"Fletchers Floodwaters", Alpena	Don Fowler
99	11-13-02	Rose Lake, Branch Co.	Rodger Saylor
00	10-07-01	St. Clair Flats, Harsens Isl.	Matt Miller
00	11-02-01	Croton, *Newaygo	Mike Schuitema
01	10-13-02	Fish Point, Saginaw Bay	Jim Seidel
01	10-16-02	Sebewaing, Saginaw Bay	Rob Cummings
01	10-29-02	Harsens Island, Lake St. Clair	Ron Laszczak
01	12-06-02	Harsens Island, Lake St. Clair	Kevin Beindit
01	11-25-02	Luna Pier	Keith Lajiness
01	1-04-03	Detroit River, *Trenton	Steven Thomas
02	11-18-02	Pte. Mouillee SGA, Monroe	Mike Peters
MINNESOTA			
97	4-19-02	Sandstone (S. of Duluth)	Jerry Pletcher (FD)
00	10-15-02	Mille Lacs County	Earl Olmstead
01	9-21-02	Thief Lake	Tammy Johnson (A)
01	10-12-02	Herman	William Werk
01	9-14-02	Deland	Kyle Kienholz
MISSISSIPPI			
96	12-20-01	Tallahatchie Co., *Jackson	Harden Phillips
00	12-24-02	Big Black River Btm., W. Hinds Co.	Ben Turbeville
01	11-29-02	West Point	Carsie Young
01	12-05-02	Yalobusha River, Calhoun Co.	Kim Cowart
MISSOURI			
99	12-27-02	"Goose Lady Lake", Kingsville	Blake Davenport
NEW JERSEY			
93	10-18-99	Mullica Hill	Frank Roberts

99	9-06-02	Piscataway	Ted Nichols (A)
00	1-10-03	Mannington Meadow, Salem Co.	Keith Schellinger
NEW YORK			
96	1-07-03	Seneca Lake, Dresden	Bob Kase
99	11-04-02	Carlton, Rochester	Jay Giese
NORTH CAROLINA			
96	1-20-03	Johnston County, Smithfield	Skip Valentine
97	1-13-03	Soul City, *Middleburg	Wm. Lee Wiggins, Jr.
98	1-11-03	Bunn, *Louisburg	Austin Murray
00	1-22-03	Monroe	Greg Little
00	1-18-03	Jordan Lake, *Chapel Hill	Greg Travlos
01	12-14-02	Falls Lake, Durham	Ed Kavanagh
01	12-25-02	Falls Lake, Raleigh	Greg Bonner
02	1-13-03	Lake Reidsville, N. Greensboro	Danny Hall
02	11-29-02	Belhaven	Justin Sullivan
02	12-14-02	Hurdle Mills	Chris Cates
02	1-18-03	Hillsborough	Scott Ward
NORTH DAKOTA			
97	9-21-02	Lakota, *Grand Forks	Brook Herridge
97	10-18-02	Annamoose	Chris Fink
OHIO			
96	11-21-01	Springhills, Champaign Co.	Frank Frantz
96	12-20-02	Sandusky Bay, Bayview	Doug Larsen
96	1-08-03	Muskingum River, Beverly	Jeff Hedges
97	12-28-02	E. Fork Sp, Wm. Harsha Lake	Charles Gould, Jr.
97	12-28-02	Ohio River, Manchester	Jack Burg
98	12-17-02	Cleveland Breakwall	Dan Williams
99	11-24-02	Cran Creek WA, Oak Harbor	Gerald Doust

98	12-13-02	Walpole Island, Lake St. Clair	Steve Gurnsey
99	11-04-02	Kingsville, Lake Erie	Glen Cottrell
00	11-28-02	Lake St. Clair	Chris Quimby
01	12-15-01	Hillman Marsh, Leamington	Lance Tofflemire
2(01)	11-21-01	Kingsville, Lake Erie	Rich Salas
01	10-02-02	Walpole Island, Lake St. Clair	Tom Ambrogio
01	10-11-02	Pelee Island, Lake Erie	Dean Ware
01	10-05-02	Walpole Island, Lake St. Clair	Jim Printz II
01	10-14-02	Bay of Quinte, Lake Ontario	Dan Balestra
01	10-16-02	Trenton, Lake Ontario	Mike Stoddard
01	11-02-02	Rondeau Bay, Erieau	Des McQuade
01	11-12-02	Walpole Island, Lake St. Clair	Sam Bentimiglia
01	12-04-02	Leamington, Lake Erie	Rodger Saylor
02	12-20-02	Kingsville, Lake Erie	Charles Harb
02	12-13-02	Kingsville, Lake Erie	Josh Harb
02	11-25-02	Lake St. Clair	Suzanne Carroll
02	12-06-02	Leamington	Jerry Martin
2(02)	9-28-02	Cedar Creek, Kingsville	Dave Quick
2(02)	9-28-02	Cedar Creek, Kingsville	Marty Pollinger
02	10-12-02	Rondeau, Erieau	Jamie Stewart
02	10-30-02	"Branch Pit", Kingsville	Campbell Graffeo
02	11-02-02	Hillman Marsh, Leamington	Dean Ware
02	10-22-02	Walpole Island, Lake St. Clair	Tom Horsman
02	11-09-02	Wheatley	Josh Tousignant
02	10-23-02	Long Point, Lake Erie	Jim Malcolm
02	11-18-02	Long Point, Lake Erie	Howard Anderson
02	11-23-02	Lake St. Clair	Charles Myers
02	11-25-02	Lake St. Clair, St. Lukes	Rick Nissen

02	11-19-02	Kingsville	Tim Nelner
02	11-25-02	Canard Gun Club, Amherstburg	Mike Meloche
02	11-16-02	Amherstburg	Kevin Sprague
02	11-30-02	Leamington, Sturgeon Creek	Mike Maydan
02	11-27-02	Lake St. Clair	Carl Hasson
2(02)	11-28-02	Lake St. Clair	Mike Frak
02	9-30-02	Detroit River, LaSalle	Marcel Bezaire
2(02)	9-28-02	Lake Erie, Kingsville	Tim Dobson
PENNSYLVANIA			
98	12-27-02	Middle Creek, W. Selinsgrove	Larry Stahl
00	12-23-02	Susquehanna River, Herndon	Tom Sayles
01	10-05-02	Howard Eaton Res. Lake Erie	Rob Arnold
02	12-07-02	Butler Count, N. Pittsburgh	Harris Price
02	12-21-02	Mechanicsburg	Rob Bowersox
QUEBEC			
00	9-21-02	La Sarre	Andre Gervais
SOUTH CAROLINA			
99	12-17-02	Newberry	George Bannister
02	1-17-03	Lake Thurmond, McCormick	Stan Cooper
02	1-19-03	Florence	Don Hancock, Sr.
02	12-14-02	Lake Hartwell, Anderson	Elliot Botzis
02	12-15-02	Wateree River, Camden	Chris Cutler
SOUTH DAKOTA			
96	8-08-02	Berdorf Wa, Long Lake	Paul Mammenga (A)
00	10-14-02	Hecla, *Abedeen	Jamie Imbery
TENNESSEE			
90	12-17-02	Paris	Justin Wadkins
94	1-21-03	Forked Deer River, Dyersburg	Mike Sipes

97	12-21-02	Birchwood, Chattanooga *	Phil Ganthrop
98	12-11-02	Cumberland River @ KY Border	Rich Marshall
98	12-09-02	Watt's Bar Lake, Kingston	Jerry Weaver
99	12-02-02	West Sandy WA, Paris	Edward Smith
99	12-23-02	Obion River Btms., Union City	Stacy Burwick
00	12-04-02	TWRA (Women's Hunt) Halls	Kris Baker
00	12-14-02	S. Fork Obion River, W. Tn	Josh Moon
00	1-26-03	McMinnville	Glen Davis
00	1-27-02	Jarrell – Switch Btms., McKenzie	Joel Pate
00	1-23-02	Birchwood, Cleveland	Doug Stone
00	1-08-03	Decherd, Winchester	Mike Hill
01	1-20-03	Tennessee River, Dayton	David Barry
01	1-19-03	Old Hickory Lake, Hendersonville	Larry Conley, Jr.
01	1-24-03	Elk River, Tims Ford Lake	Frank Hughes
01	1-15-03	White County, *Sparta	Frank Teeple
02	12-01-02	Dandridge	John Cox
02	12-31-02	Fork Creek E. , Ft. Loudon	J.P. Congleton
02	1-01-03	Cumberland River, Dixon Springs	Steve Slagle
02	1-07-03	Hoston River, Church Hill	Kyle Hurd
02	12-23-02	Obion River, Trezevant	Walker Huey
02	1-01-03	Lauderdale County, *Halls	Ben Goodwin
02	1-04-03	Cumberland River, Hartsville	Kevin Carson

02	1-15-03	Obion County, *Troy	Tracy Leggett
02	1-16-03	Tullahoma	Win Phipps
02	1-18-03	Greenshadow Lake, Cleveland	Ryan Wood
02	1-10-03	Athens	Mitch Moore
		VIRGINIA	
96	12-28-02	Smith Mountain Lake, Moneta	Brandon Tuck
97	1-11-03	Rappahanock River, Tappahannock	Rob Thompson
97	1-22-03	Surry County, Avery Mill Pond	Tom Melton
2(01)	12-05-02	Pope's Creek, NW Montross	Bill Allensworth
02	11-16-02	Pamunkey River, Algoma	Brent Hatton
02	1-25-03	Southampton County, Ivor	Bryan Edwards
		WEST VIRGINIA	
97	1-08-03	Kanawha River, Mineral Wells	Ronnie Drake
		WISCONSIN	
96	4-25-02	Oconto County, Lena	Mike Stahl (FD)
97	10-06-02	Lynxville	Ramon Cram
01	10-06-02	Green Bay, Pt. Sable	Troy Roz
01	11-09-02	Mississippi River, Ferryville	Sylvan Weber

During the year ending JANUARY, 2003 Jack Miner geese bands were recovered in:

YR. OF BAND	RECOVERED	LOCATION RECOVERY	BY
		ILLINOIS	
89	10-24-02	Oquawka (Pool 18, Ms. River)	Bob May
89	12-05-02	LaSalle Lake, Seneca	Greg Hoffman
89	1-20-03	Gardner	Mitch Sistek

94	10-24-02	Oquawka (Pool 18, Ms. River)	Bob May
99	12-31-02	Tinley Park, *Mokena	John Stephens
INDIANA			
96	9-02-02	Centerville	Steve Goodson
KENTUCKY			
94	1-31-01	Future City, *Kevil	Ed McDermott
MICHIGAN			
82	9-19-02	Tawas Bay, Lake Huron	Curtis Dewey
89	9-10-02	LaPeer County	Jeff Loree
90	10-24-00	Fish Point, Saginaw Bay	Joe Sadony
90	10-31-02	Fish Point, Saginaw Bay	Ron McAuley
90	12-19-02	Midland	San Sasse
93	10-05-02	Saginaw Bay	Steve Hanses
93	10-10-02	South of Caseville	Bruce Langley
94	9-15-02	Sister Lakes	Scott Lovell
94	10-12-02	Sebewaing, Saginaw Bay	Scott Wissner
98	9-28-02	Byron Center	Rob Jordan
98	1-06-03	Salem Township	Steve Cheston
98	10-06-02	Marcellus	Jason Copenhaver
99	1-11-02	S. Otter Creek, Monroe Co.	Darryl Ansel
99	1-07-03	Grosse Isle	Mark Besnahan
00	9-27-02	Rudyard, South of the Soo	Mike Brown
00	9-07-02	Big Manistique Lake (UP)	John Rahn
00	9-25-02	Saline	Glenn Guenther
00	12-21-02	Willis	Mike Kozlowicz
00	12-15-02	East of Caseville	Bruce Langley
OHIO			
86	12-15-02	Fremont	Richard Greiner

89	10-24-02	Rocky Ridge	Dave Rife
90	1-28-02	Clayton, *Union	Rodger Hansel
91	10-26-02	Greenfield, E. Cincinnati	Matt Roberts
91	1-01-03	Ottawa County	Chuck Rains
93	12-25-02	Marion, *Galena	Dan Curtis
99	10-28-01	New London	Craig Conrad
99	11-22-01	Medina	Bryan Buzzi
00	11-23-02	Ashland, *Wooster	Tony DalPra
ONTARIO			
83	11-06-02	Kingsville, Lake Erie	Tim Nelner
86	12-11-02	Leamington	Matt Martin
89	1-18-03	Cambridge	Simon Lee
90	10-15-02	Oxley, Essex County	Paul Anderson (FD)
96	10-18-02	New Liskeard	Lindsay Wellar
96	12-06-02	Leamington	Jerry Martin
97	11-02-01	Hillman Marsh, Wheatley	Jeff Wenzler
97	10-28-02	Sauble River, Bruce Co.	Russ Horning
99	11-05-02	Detroit River, Amherstburg	Ray Dubois
00	10-12-02	Parkhill	Fred Maxfield
00	10-17-02	Thedford	Rick Owens
01	12-03-02	Leamington	Matt Martin
01	10-18-02	Orillia	Jay Mantle
RHODE ISLAND			
96	11-24-01	Richmond	Luis Ferreira

During the year ending JANUARY, 2002 Jack Miner duck bands were recovered in:

YR. OF BAND	RECOVERED	LOCATION RECOVERY	BY
ALABAMA			
92	11-24-01	Decatur	Chad Graydon
95	12-16-01	Swan Creek WMA, Decatur	Jeremy Banks
96	1-27-02	Bridgeport	Justin Thomas
98	2-4-01	Swan Creek WMA, Athens	Ryan Griffin
99	1-29-01	Tennessee River, Decatur	Scott Tucker
99	1-10-01	Athens, *Swan Creek WMA	Steve Robinson
99	11-24-01	Bridgeport	Brent Phillips
99	12-15-01	Elk River, Athens	Andy Whitt
00	1-21-02	Lay Lake, Shelby Co.	Jerry Keef
ARKANSAS			
85	1-03-02	Parkin Memphis, TN	Steve Turpin
93	11-28-01	Casscoe, "Wildlife Farms"	Chris Hamilton
96	12-02-01	White Co., Beebe	Cayne Orman
96	1-13-02	Felsenthal, NWR	Rob Childs
97	1-08-99	Black River, Pocahontas	Jimmy Dunn
00	1-03-02	Stuttgart	Todd Feltman
00	1-03-02	Parkin Memphis, TN	Steve Turpin
00	12-06-01	Piggott	Tony Shea
DELAWARE			
99	1-07-02	Bombay Hook NWR, Smyrna	Bill Ditlow
GEORGIA			
00	12-23-00	Jersey, *Monroe	Jason Fitzpatrick
ILLINOIS			
93	10-27-01	MS. River, Andalusia	Tedra McCannon
94	10-25-01	Snake Den Hollow, Victoria	Bill McDonald
96	10-26-01	Peoria	Shawn Stevens

96	11-24-01	Hardin	Pat Varble
96	12-17-01	Putnam	Scott Konieczki
96	12-23-01	Rice Lake State FWA, Banner	Doug Gall
97	11-28-01	Plainfield (south of Chicago)	Ron Ospalik
98	11-20-00	Mermet Lake, *Marion	Byron Farthing
99	11-11-01	Pekin Lake, Pekin	Dean Schneider
99	12-18-01	Payne Marsh, Patoka	Mack Payne
00	10-25-01	Victoria, *Galesburg	Norm Emerick
		INDIANA	
93	1-11-02	Brooksville Lake	Jack Burg
94	12-22-01	Vermillion Co, Cayuga	Deland Szczepanski
97	12-08-01	Chandler	Jeff Reed
99	11-30-01	LaPorte, Gary	Van Vater
00	10-21-01	Henry Co, *New Castle	Tony Wright
00	11-20-01	Hamilton (NE)	Cole Chipman
00	11-24-01	Vincennes	Dennis Burns
00	12-15-01	Oakland City, *Evansville	Kevin Schwindel
00	1-01-02	Gaston	Ron Thomas
01	12-21-01	Little York, *French lick	Barney Hughes
		IOWA	
98	10-26-01	Lake Odessa	Rick Hutchinson
		KENTUCKY	
87	1-05-02	Bremen, West KY	Tom Young
90	1-10-01	MS River, Wickliffe	Ed McDermott
92	1-12-02	Little Sandy River, Greenup	Todd Eastham
93	1-8-00	Uniontown, Ohio River	Todd Robinson
96	12-31-01	Kentucky Lake, Calloway Co.	Phil Sharp
98	12-26-01	Greasey Creek, *Earlington	Ron Oglesby
98	1-12-02	Mud River, Muhlenberg Co.	Wade Shoemaker
01	12-09-01	Ohio River, Westport	Steve Hartmann
01	1-13-02	Guthrie (TN Border)	Steve Nelson

MICHIGAN			
94	10-16-01	Fish Point, Saginaw Bay	Gary Sovey
96	9-30-01	Hiawatha National Forest (UP)	Dennis Ondersma
96	10-20-01	Pte. Mouillee SGA, Monroe	Dave Smith
98	10-26-01	Fish Point, Saginaw Bay	Richard Plyer
98	10-28-01	Vandalia, Three Rivers	Brian Claire
99	12-01-01	Saginaw	Fred Wasco
99	11-28-01	Swan Creek/ Lake Erie, Newport	Jim Ebel
00	1-02-02	Erie	Howard Holcomb
01	1-05-02	Edwardsburg	Vince Sheperd
01	12-02-01	Harsens Island	Tom Piatek
MINNESOTA			
92	11-18-01	Ivanhoe	Nick Terson
95	11-02-01	Karlstad, Kittson Co.	Dave Hedlund
99	10-24-01	Wabasha Co.	Larry Johnson
00	10-13-01	Deland	Matt Johnson
MISSISSIPPI			
97	1-13-01	Philadelphia, *Jackson	Brandon Watkins
MISSOURI			
00	12-18-01	Annada, Pike Co. (Near MS River)	John Schultz
00	12-23-01	FNA Club (north of St Louis)	Ken Stricker
NEW JERSEY			
99	12-01-00	Mad Horse Creek WMA, L. Alloways creek	Dave Woodland
NEW YORK			
97	12-17-01	Delaware River, Hobart	Maynard Vance
00	9-06-01	Montezuma NWR(Finger Lakes)	Tracy Gingrich(A)
NORTH CAROLINA			
92	1-03-01	Lake Tillery, Norwood	Bill Hightower, 111
95	12-22-01	Lake Hickory, *Taylorsville	Dale Millsaps

96	1-07-02	Roanoke Rapids Lake	Russ Thomasson
96	12-22-01	Yadkin County	Charles Moozefield
96	12-24-01	Franklington	Stuart Freeman
97	12-20-00	Lake Mattamuskeet	Ricky Clayton
97	1-04-99	Anoskie, Bertie Co.	Mike Evans
97	10-03-99	Ranokee River, Plymouth	Eric Gurkin
97	1-10-02	Scotland Neck	Joe Powell
97	1-14-02	Holy Shelter Lands, *Wilmington	Jim Bushardt
00	1-08-02	Roxboro, *Moncure	Josh Harrington
01	1-19-02	Statesville, *Salisbury	Tim Ciscel
NORTH DAKOTA			
94	10-18-01	Rock Lake,/ Cando	Robert Shields
97	11-10-01	Rolette County	Jason Stoege
00	10-18-01	Cleveland, Jamestown	Lonnie Olson
OHIO			
90	1-15-01	Scioto River, *Columbus	Rick Rockwell
92	1-06-02	Hebron, Licking Co.	Doug Natoce
94	11-03-01	Port Clinton (Lake Erie)	Jack Hilbert
96	12-15-00	Whitehouse, *Toledo	Greg Wagner
97	1-13-02	Ohio River, Wellsville	Bill Mayer
97	1-01-02	Apple Grove, Racine	Ken McFann
98	11-11-01	Graytown, Ottawa Co.	Jim Boldvan
98	11-19-01	Port Clinton (Lake Erie)	Art Hernandez
99	11-02-01	Kenton, *Columbus	Mike Brasher
00	12-15-00	Buckeye Lake, *Pataskala	Todd Sackett
00	10-29-01	Rockford	Stan Bader
00	10-29-01	Sandusky County	Dan Bender
00	12-20-01	Rice Twsp, Sandusky Co.	Roger Culbert
00	12-20-01	Crane Creek, Ottawa Co.	Mike Frase
00	12-22-01	Sandusky Bay	Mike Kolinko
01	11-12-01	Magee Marsh, Ottawa Co.	Jim Twiggs
01	11-09-01	Sandusky Bay	Lance Geldien
01	12-01-01	Magee Marsh, Ottawa Co.	Charley Patrick

ONTARIO			
85	3-17-01	Kingsville	Ken Clifford (FD)
95	11-03-01	Lake St. Clair	Kate Ireland
95	12-04-01	Walpole Island, IR	Sam Ventimiglia
96	11-18-00	Lake St Clair	Frank Brouillette
97	10-27-01	Mitchell's Bay (Lake St. Clair)	Paul Zombory
97	11-22-00	St Lukes, (Lake St. Clair)	Mike Frak
99	5-30-01	Black Creek, Espanola	Not Given (FD)
99	10-18-01	Lake Nosbonsing	S. Bates
99	11-02-01	Kingsville, "Branch Farm"	Glen Cottregl
99	12-01-01	Long Point (Lake Erie)	Matt Brock
00	11-05-00	Wallaceburg	Dave Meinika
00	11-27-00	Walpole Island (IR)	Ron Blackbird
00	10-02-01	Coldwater	Tom Langthorne
00	10-24-01	Walpole Island (IR)	John McCormick
00	11-28-01	Grassy Island, Lasalle	Monty Ionson
00	10-15-01	Dover Marsh, Lake St. Clair	Darren Brooks
00	11-01-00	St Lukes, Lake St. Clair	Mike Frak
00	11-28-01	Long Point (Lake Erie)	Matt Brock
00	10-16-01	Mitchell's Bay, Lake St. Clair	Jeff Teeter
01	11-25-01	Leamington	Jason Robson
01	11-28-01	Walpole Island, (IR)	Paul Kowalski
01	12-04-01	River Canard Gun Club	Mike Meloche
01	12-01-01	Lake St. Clair	Russ Brazier
01	12-07-01	Walpole Island, (IR)	Jim Cooper
01	11-20-01	St Lukes, Lake St. Clair	Mike Frak
01	11-23-01	St. Lukes, Lake St.Clair	Mike Frak
01	12-12-01	St. Lukes, Lake St.Clair	Mike Frak
01	12-13-01	Lake St. Clair	Alex Cattrysse
PENNSYLVANIA			
98	1-15-01	Chester Co., Coatesville	Damon Magozzi
QUEBEC			
97	10-10-01	Rouyn Noranda	Edith Prescott

00	9-25-01	St. Lawrence River	Alain Desmarais
SOUTH DAKOTA			
96	8-03-01	Webster, Redeteke GPA	Paul Mammenga (A)
00	10-01-01	Sioux Falls	D. Vandenburg
SASKATCHEWAN			
99	9-24-01	Big River	Henry Johnson 111
TENNESSEE			
93	1-25-02	Kentucky Lake, Camden	Rick McLin
94	1-01-00	Camden Bottoms WMA	Carter Kaeser
98	1-14-01	Middle Fork River, Sharon *Jackson	Jerry Mitchell
98	1-08-01	Old Hickory Lake, Nashvilee	Gene Bellar
98	12-17-01	TN River, Benton County	Brad Crawford
99	12-29-01	Old Hickory WMA, Sumner Co.	Lewis Jewell
99	1-08-02	Forked Deer River, Brazil BTM	Jeff Dodd
99	1-29-02	TN River, Decaturville	Steve Clenney
99	1-17-02	Camden Bottoms, Camden	Greg Hopper
00	1-15-01	Lexington, *Memphis	Larry Ward
00	1-07-01	Knoxville	James McMillan
00	1-28-01	Obion River, West TN	Rob Cloar
00	1-06-02	Cumberland City	Jim Burchett
00	1-03-02	Woods Reservoir, Franklin Co.	Tim Segroves
00	1-26-01	Camden Bottoms, TN River	Chris Liebergesell
00	1-30-02	TN River, Crappie Hollow	Charlie Halters
01	1-15-02	Elkhorn Refuge, TN River	Chris Cook
VIRGINIA			
97	1-11-02	Spotsylvania (North of Richmond)	Rob Bennett
98	1-15-02	Newsoms, Southhampton Co.	Jack Bunn

WISCONSIN			
95	9-30-01	Brown Co, Henrysville	Jim Fuller
96	10-08-01	Berlin	Jon Hoffman
97	10-06-01	Racine	Rob Warren
97	10-04-01	Big Green Lake, Central WI	David Nortin

During the year ending JANUARY, 2002 Jack Miner geese bands were recovered in:

YR. OF BAND	RECOVERED	LOCATION RECOVERY	BY
ILLINOIS			
96	12-30-00	Carterville	Tyson Moore
KANSAS			
89	12-03-01	Hutchinson	Curt Schrader
KENTUCKY			
96	1-28-02	"The Big Dam", Shelby Co.	Corey Eisenback
99	1-12-02	Frankfort	Steve Hartley
MARYLAND			
00	1-16-02	Chestertown	Gene Schnell
MICHIGAN			
85	12-20-01	Northfield Twsp	Steve Cheston
88	1-29-02	Saline	Rob Griggs
89	10-14-00	Fish Pt, Sebewaing	Bill Dick
92	9-21-01	Forestville, Sanilac	Rob Schweitzer
93	10-10-01	Fish Point, Sebewaing	John Doolaard
93	12-16-01	Shiawasee River, Corunna	Bill Thompson
96	1-10-01	Detroit	Vince Sheperd
96	9-30-01	Chebogan	Al Becker
97	9-26-01	Cedar Lake, Greenbush	Randy Soboleski
98	1-05-02	Pinckney	Steve Cheston
98	10-06-01	Attica, Imlay City	Nathan Vannuck

99	1-26-01	Edwardsburg	Sean Haminock
99	9-01-01	Kensington	Pat McLean
00	9-01-01	Sault Ste Marie	Rich Ciacelli. Sr.
00	9-15-01	Kellogg, Hickory Corners	Doug Landis
00	1-05-02	Ann Arbor	Jimmy Flynn
NEW JERSEY			
96	12-30-00	Pilesgrove	Dave Woodland
OHIO			
85	12-19-00	Sandusky Bay	Rob Lorenson
92	1-15-01	Ostander	Tom Smith
94	1-28-02	Austinburg	Ronny Stouder
99	1-26-02	Wilmington,*Dayton	Dave Taulbee
99	12-31-01	Ashtabula Co., Rome	Tim Cadle
ONTARIO			
91	11-05-01	Kingsville, "Branch's"	Glen Cottrell
93	9-24-01	Walkerton	Steve Todtz
94	9-22-01	Pembroke	Hal Blackmore
94	10-08-01	New Liskeard	Bob Fuller
94	10-25-01	Sarnia	Manny Camamo
95	10-18-01	Parkhill	Larry McGee
96	10-20-01	Lake Huron, Bruce Co.	Andy McLean
97	10-29-01	Walkerton	Steve Todtz
98	10-22-01	Walkerton	Chad Adams
99	10-15-01	Rondeau Bay	Rob Seal
99	10-15-01	Fergus	Jim Jones
00	10-06-01	Caledon	Peter Pezzente
00	10-24-01	Ridgetown	Craig Anderson
WISCONSIN			
94	10-30-01	Mequon	Peter Baye
00	10-29-01	Neilsville	Bill Schultz

During the year ending JANUARY, 2001 Jack Miner duck bands were recovered in:

YR. OF BAND	RECOVERED	LOCATION RECOVERY	BY
ALABAMA			
93	1-14-01	Athens	Matthew Nash
96	12-26-98	Millport, Lamar County	Trey Williams
97	1-27-01	Boligee	Leland Brown
97	1-31-01	Stevenson	Tommy Bean
97	1-26-00	Racoon Creek WMA, Stevenson	Jeremy Edwards
97	12-19-00	Lacey's Spring, outside Wheeler NWR	Jeff Smalley
97	1-03-01	Long Pond, Huntsville	Vic Dailey
97	1-09-01	Swan Creek WMA, Decatur	Allen Patterson
97	1-19-01	Elgin	Jason Mewbourn
98	1-02-01	Moulton	Mitch Rollins
99	1-15-01	Stevenson	Dan Fisher
99	1-21-01	Swan Creek WMA, Decatur	Brad Lowber
99	1-07-01	Guntersville Lake	Nick McMullen
99	1-03-01	Aliceville, Western	Chad Lynch

		Alabama	
00	1-13-01	Lacey's Spring	Rudy Hayes
00	1-08-01	Stevenson, Jackson County	Randy Wilson
ARKANSAS			
95	1-07-00	Cash, *Leachville	Dal Luther
95	1-15-01	Walnut Ridge, *Jonesboro	Brett Cox
96	1-22-01	Dagmar WMA, Brinkley	Ed Ciganek
96	1-19-01	Stuttgart	Mike Walker
97	1-01-00	Pintail Peninsula, Stuttgart	Shawn Ward
97	11-19-00	Big Lake WMA, Manila	John Boyd
97	11-22-00	Eastern Arkansas, *Memphis	Charles Hardee II
97	1-08-01	Stuttgart	Stephen Smith
99	12-30-00	Arkasas River, Mayflower	Jason Lieblong
99	12-30-99	Big Lake WMA, Manila	John Lomax
00	12-19-00	Lee county	Rick Spicer
DELAWARE			
96	1-11-01	Houston, *Milford	Joel Blessing

GEORGIA			
95	1-18-01	Oconee River, Jefferson	Jim Nygaard
ILLINOIS			
91	10-29-00	Mississippi River (#18) Oquawka	Mike Shockency
93	11-23-99	Illinois River, near Hardin	Jeff Hutcherson
96	11-15-99	Illinois River, Putman, *Henry	Lloyd Jeppson
96	12-15-00	Carlyle Lake, Keyesport	Ron Rensing
98	11-05-00	Putnam	Dan Vaughn
99	1-20-99	Rend Lake, Bonnie	Mike McFeron
INDIANA			
95	12-23-00	Hobart	Dan Turpin
96	12-17-00	Patoka River, Warrick County	Ed Bonham
96	1-15-01	Brookville Reservoir	Brian Wilkey
IOWA			
96	9-25-00	Mississippi River, Guttenburg	Dan Liedtke
KENTUCKY			
92	12-13-00	Shelby County	Ed Slattery
94	1-02-99	Ballard County	Dave Black

95	12-05-99	Dawson Springs, *Princeton	Wes Davis
96	12-15-00	Lexington	Tim Herald
96	1-01-01	Somerset, Pitman Creek	Walt Creedmore
97	1-10-00	Bremen, Western Kentucky	Mike Robinson
97	1-21-01	Ohio River, Carrollton	Jim Adams
99	1-23-00	Ohio River, Augusta	Tony Graham
99	12-15-00	Kentucky River, Irving	Tim Hall
99	12-20-00	Barkley Lake	Toby Cox
00	11-29-00	Bowling Green	Shane Van Mater
00	1-01-01	Irvine, Kentucky River	Tim Hall
00	12-24-00	Ohio River, North of Louisville	Garrett Bowers
LOUISIANA			
92	1-06-99	Mamou	Scott Fontenot
93	12-30-00	Hodges Lake, Delta	Jeremy Cagle
99	12-30-00	Mer Rouge, Morehouse Parish	Chris Lowry
MICHIGAN			
92	11-15-00	Pte. Mouillee SGA, Monroe	George Horger
93	10-22-00	Shaiwassee Flats, St.	Dave Lewis

		Charles	
94	11-20-00	Harsens Island, NE Lake St. Clair	Joe Justin
95	11-15-00	Saginaw Bay	Mark Kunik
95	11-05-00	Muskegon	Dave Beebe
96	11-07-99	Muskegon	Rick VanHeest
96	11-15-00	Harsens Island, NE Lake St. Clair	Tom Dueweke
97	10-15-00	Maple Rapids, Clinton County	Dale Young
97	10-15-00	Wigwam Bay, Standish	Todd Phillips
97	12-06-99	Pte. Mouillee SGA, Monroe	Ken Massingill
97	11-03-00	Lake Erie, Luna Pier	Keith Laginess
97	11-25-99	Algonac	Brad Pilarowski
97	11-13-00	Lake Erie, Luna Pier	Keith Laginess
97	11-22-00	Pte. Mouillee SGA, Monroe	Phil Goeppner
97	11-28-00	Big Rapids	Rod Young
98	10-04-00	Longlake	Craig McCollister
98	11-22-00	Harsens Island, NE Lake St.Clair	C.B. Percy, IV

99	1-06-01	River Raisin, Monroe	Andy Becker
99	1-06-01	HuronRiver, Pinckney	Lynn Conway
99	11-15-99	Harsens Island, NE Lake St.Clair	Rob Young
99	11-25-00	Pte. Mouillee SGA, Monroe	Nick Snow
00	10-18-00	Pte. Mouillee SGA, Monroe	Paul Zombary
00	10-29-00	Pte. Mouillee SGA, Monroe	Jason Mach
00	10-07-00	Lake Erie Metro Park	Harry Marx
00	10-28-00	Harsens Island, NE Lake St. Clair	Michael Mac
00	11-13-00	Harsens Island, NE Lake St. Clair	Matt Rowloss
00	11-05-00	Saginaw Bay	Gord Skinner
00	11-18-00	Washtenaw County	John Kronick
00	11-14-00	Pte. Mouillee SGA, Monroe	Nick Snow
00	11-13-00	Harsens Island, NE Lake St. Clair	James Schruba
00	11-28-00	Southeast of Ann Arbor	Ron Eddington
00	11-08-00	Pte. Mouillee SGA, Monroe	Joe Robison

00	12-02-00	Pte. Mouillee SGA, Monroe	Joe Robison
00	11-20-00	Harsens Island, NE Lake St. Clair	John Nagy
MINNESOTA			
96	11-19-00	Mississippi River, southeast of St. Paul	Joe Caturia
97	10-29-00	Mississippi River, Inver Grove Heights	Mike McGinn
98	9-30-00	Grant County, south of Fergus Falls	Joe Shaw
99	10-15-00	Buffalo Lake, *Mankato	Fred Pongratz
99	10-07-00	Marquette County	Rob Kunert
MISSISSIPPI			
93	1-23-00	Columbus	Bill Delk
96	1-15-98	South of Natches	Fred Parnell
96	12-14-00	Craigside, Leflore County	Brett Person
97	12-27-00	Issaquena County, *Jackson	Chase Mahalitc
00	12-22-00	Crowder	John Everett
MISSOURI			
93	11-11-00	Elsberry	Travis Overkamp
96	10-29-00	Malta Bend	Pat Bryant

98	12-20-00	East Prairie, Southeast Missouri	Clint Wolford
NEW YORK			
94	12-23-00	Seneca Lake, Dresden	John Hillman
00	12-31-00	Owasco Lake, Auburn	Brett Seising
NORTH CAROLINA			
93	10-10-00	Lake Gaston, *Littleton	Cec. Firth (FD)
96	12-15-00	Hyco River, Virginia Border	Jeff Killian
97	12-30-00	Cleveland County, Grover	Mitch Cobb
97	1-06-01	Badin Lake, Albemarle	Josh Talbert
97	1-02-01	Cape Hatteras	Ron Whitaker
98	1-19-01	Robeson County, Lumberton	John McLean
00	1-20-01	Lexington	Tim Shaw
00	1-27-01	Denver, *High Point	Dillon Horn
NORTH DAKOTA			
92	10-01-00	Hanna	Buz LaFond
98	10-19-00	East Lawton	Scott Todd
99	10-01-00	North of Devils Lake	Kenny Barr
99	10-03-00	Brockett	Greg Hurlbutt

OHIO			
92	1-20-01	Lancaster, southeast of Columbus	Andy Wolfinger
95	12-09-00	Fremont	L.J. Hendrix Jr.
95	1-19-00	Buckeye Lake, Pleasantville	Ben Kose
95	12-25-00	Gallipolis	Tom Moss
96	11-19-00	Toledo	Matt Morley
96	1-03-01	West of Columbus	David Sorrenti
97	1-04-00	Marietta	John Sammons
97	12-16-00	South of Huntsville, *Lima	Charles Houser
97	11-24-00	Sandusky Bay	Dave Szubra
97	11-25-00	Sandusky	Shawn Randles
98	12-31-99	Knox County, *Fredericktown	W.H. Swaim
98	11-13-00	Port Clinton	Fred Freer
98	12-13-00	Lima	Craig Myers
98	1-08-00	Sandusky Bay	Mike Mowry
98	12-28-00	Rocky Fork Creek, *Mansfield	Brent Owens
99	11-12-99	Pickerel Creek WA, Vickery	Dave Sherman

99	1-19-00	Buckeye Lake, Pleasantville	Ben Kose
99	11-11-00	Sandusky County	Mike Brumley
99	12-28-99	Lancaster	Robert Guinan
99	11-15-00	Ottawa County	Lawrence Porter
99	1-06-01	Great Miami River, Butler County	J.B. Connaughton
00	10-28-00	Lake Erie, near Toledo	Don Kornowa
00	11-22-00	Pickerel Creek WA, Sandusky	Joe Pdhorsky
00	11-11-00	Amherst, *Cleveland	Mike Gargasz
00	12-16-00	West of Columbus	Loren LeValley
00	12-13-00	Ashtabula Harbor	Sam LaCavera
00	12-24-00	Port Clinton	Pete Sokoloski
00	12-13-00	Bucyrus	Pat Collene
00	12-23-00	Ohio River, Portsmouth	Brad Nichols
00	12-13-00	Brown County, Fayetteville	David Finkbeiner
00	1-01-01	Scioto River, Chillicothe	Tim Wamer
00	11-10-00	Port Clinton	Rich Fletcher
ONTARIO			

90	11-15-00	Kingsville	Jim Branch
93	11-01-00	Canard Gun Club, Amherstburg	Mike Meloche
94(2)	11-16-00	Kingsville	Jim Branch
95	12-02-99	Ayr	Barry Sullivan
96	9-25-00	Walpole Island India Res, St. Clair	Paul Brisco
96	12-16-00	Lion's Head, Bruce Peninsula	Frank Sweet
97	9-10-00	Sudbury	Derek Knoll
97	10-28-00	Canar Gun Club Amherstburg	Mike Meloche
97	10-14-00	Lake Simcoe	Rod Smith
98	11-13-99	Leamington	G.D. Horvath
98	11-29-00	Tilbury	Gilles Lanoue
98	11-04-00	Long Point	Kim Brown
98	11-14-00	Kingsville	Jim Branch
99	11-10-99	Port Rowan	Dennis Reimer
99	12-04-99	Leamington	G.D. Horvath
99	11-17-99	Rondeau Prov. Park	Al Pellerin
99	11-20-99	Walpole Island Indian Res., St. Clair	Jim Cooper

99	11-20-00	Cambridge	Don Shreves
99	11-14-00	Kingsville	Jim Branch
00	9-25-00	Colchester, *Amherstburg	Don Chadwick
00	9-27-00	Turkey Island, Detroit River	Jim Stiers
00(2)	10-05-00	Big Creek, Amhestburg	Beau Cyr
00	10-04-00	Turkey Point, Simcoe	Ray Ferris
00(2)	9-26-00	Cedar Creek, Kingsille	Kelly Hickmont
00	10-28-00	Canard Gun Club, Amherstburg	Mike Meloche
00	11-10-00	Snye River, Wallaceburg	Joe DeRoeven
00	11-08-00	Cedar Creek, Kingsville	Marty Pollinger
00	11-18-00	Amherstburg	John Dallas
00	10-31-00	Amherstburg	Rick Reid
00	9-25-0	Cedar Creek, Kingsville	James Kratz
QUEBEC			
99	11-06-00	Plaisance, *Gatineau	Jacques Robinson
SOUTH CAROLINA			
93	12-22-00	Lake Murray	Bob Taylor

		Columbia	
96	12-24-99	York, *Charlotte (NC)	David Mitchell
96	1-13-01	Lake Marion, Santee	Billy Hall
SOUTH DAKOTA			
99	10-27-00	Claire City	Dan Bonham
TENNESSEE			
93	1-27-00	Nolichucky River, Greeneville	Rick Waddell
93	1-21-01	Hale's Point, Ripley	Perry Layne
94	1-08-01	Watts Bar Lake, Meigs County	Tim Brummett
96	12-13-99	Reelfoot Lake, *Jackson	Clint Scott
96	1-29-00	Sweetwater, *Knoxville	Jerry Fields
97	12-18-00	Tennessee River, Knoxville	T.S. Miller
97	1-14-01	Chickamauga Lake, Decatur	Monty Rowland
97	1-21-01	Watts Bar Lake, Meigs County	Mike Casteel
98	12-31-99	Cherokee Lake, *Rutledge	Kris Dalton
98	1-06-01	Cherokee Lake, Jefferson County	Randy Shepherd

CEAA ENVIRONMENTAL CEAA ENVIRONMENTAL
ENVIRONMENTAL IMPACT ASSESSMENT

AMBASSADOR BRIDGE ENHANCEMENT PROJECT

Replacement Span

APPENDIX H

HGC ENGINEERING
noise · vibration · acoustics

HOWE GASTMEIER CHAPNIK LIMITED
2000 Argentia Road
Plaza 1, Suite 203
Mississauga, ON
L5N 1P7 Canada

Tel: (905) 826-4044
Fax: (905) 826-4940

ENVIRONMENTAL NOISE AND VIBRATION ASSESSMENT AMBASSADOR BRIDGE ENHANCEMENT PROJECT WINDSOR, ONTARIO

For

Canadian Transit Company
780 Huron Church Road, Suite 202
Windsor, Ontario
N9C 2K2

Prepared by

Ian Bonsma, BASc, EIT

Reviewed by

Bill Gastmeier, MASc, PEng

REGISTERED PROFESSIONAL ENGINEER
W. J. GASTMEIER
PROVINCE OF ONTARIO

November 27, 2007

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1 Introduction and Summary

The Enhancement Project is proposed to be constructed to the west of the existing Ambassador Bridge, with a distance of approximately 30 m between their centerlines. The replacement span will replace the existing Ambassador Bridge and is proposed to link directly into the existing plazas on both sides of the border. The Enhancement Project is proposed to have six traffic lanes, three in each direction and will have similar elevations to the existing bridge. The structure will be a modern cable stayed suspension bridge construction.

Figure 1 shows the approximate extents of the road upgrading and the surrounding land uses.

The purpose of the assessment is to consider noise from the construction and ongoing operations of the replacement span as set out in the environmental assessment guidelines provided by Transport Canada, dated August 2007, in consultation with the Federal EA Review Team. The assessment also considers the possibility of simultaneous traffic operations on both structures (Ambassador Bridge and Enhancement Project) as well the comments received from Health Canada relating to the assessment of noise impacts and cumulative effects.

All noise sensitive receptors in the neighbourhood around the Enhancement Project were identified. Heritage Buildings were considered as sensitive points of reception. Existing and future sound levels were determined at representative receptor locations under several different operating scenarios. Future sound levels are expected to decrease at many receptor locations with the construction of the new bridge (build vs. no build scenarios) due to bridge design features, such as exterior safety lanes and roadside Jersey Barriers. Additional mitigation in the form of a roadside noise barrier is proposed for a limited number of receptors at which sound levels are expected to increase and where the ambient sound levels are currently elevated.

Vibration measurements indicate that vibration induced by heavy vehicles on the existing bridge is perceptible on the ground at locations near the bridge piers and may be perceptible to some residents. The replacement span is proposed to be supported on piles driven to bedrock and as a result the vibration levels are anticipated to decrease.

Noise and vibration impacts during construction will be controlled through compliance with the City of Windsor's By-Laws and Ontario Ministry of the Environment (MOE) sound level limits for construction equipment. In addition, pile driving can generate significant levels of ground-borne vibration, and vibration levels will be monitored when piles are being driven in proximity to sensitive structures.

2 Criteria for Acceptable Levels of Sound and Vibration

The Ambassador Bridge is an international bridge that for the purposes of noise and vibration assessment is considered as a roadway. The terms of reference for this noise and vibration assessment were prepared by Transport Canada in consultation with the Federal EA Review Team (last revised August 2007).

2.1 Sound Level Criteria

For capital construction or alterations to provincial roads and highways, the Ministry of Transportation of the Province of Ontario (MTO) provides the relevant guidelines in its *Environmental Office Manual, Technical Areas – Noise* dated May 15, 1992. The following is an excerpt from the manual, page 33, chapter 8:

> *"b) Where a new or expanding highway adjacent to a noise sensitive land use will result in a noise level increase of greater than 5 dBA, 10 years after completion, the Ministry shall investigate noise control measures within the highway right-of-way."*
>
> *"c) Noise control measures, where applied will be designed to achieve levels as close to, or lower than, the objective level of 55 dBA or pre-construction ambient noise levels as is technically or economically feasible."*

The guidelines recommend that sound levels be determined through measurement and/or prediction at ground level in the outdoor living areas (OLA's) of all noise sensitive receptors. Typical noise sensitive receptors include: private residences, townhouses, multiple unit buildings with outdoor living areas (OLA's), and hospitals, and nursing homes where there are OLA's. The following are not considered as noise sensitive receptors with respect to the MTO guidelines: apartment balconies, churches, cemeteries, daycare centers, all commercial and industrial, and educational facilities.

Since there have been some concerns expressed by the local school boards concerning sound levels on school property, and by local residents concerning sound outside bedroom windows and at Heritage Sites, these areas have also been treated as noise sensitive points of reception as well as the back yard OLA's specified in the guideline documents.

Typically, for road widening projects, noise control measures would only be considered if the increase in sound level at a point of reception between the build and no-build scenarios is greater than 5 dBA ten years after completion. In the case of the proposed replacement span, Health Canada has recommended that mitigation be considered if there is any significant increase in sound level at locations where ambient levels are already elevated. To respect the Federal EA review team and Health Canada's additional requirements, mitigation is considered for all noise sensitive receptors at which sound levels may increase by more than 1 decibel between the build and no-build scenarios.

2.2 Ground-bourne Vibration Criteria

Vibration criteria are provided in ISO 2631/2 "Evaluation of human exposure to whole-body vibration Part 2". The criteria are presented in terms of vibration acceleration values, that is, vibration occurring at different frequencies is compared against criteria for that frequency. This means that measured vibration data is filtered to establish vibration amplitude in specific

frequency bands, in this case, bands 1/3 of an octave band wide, from 3.2 to 80 Hz. The criteria of the standard are presented in terms of RMS (average) vibration amplitudes over time.

Various spectral criteria are presented by the standard for different applications. Relevant to this discussion are the base curves intended for evaluation of vibration to human response. The base curves provide vibration levels where magnitudes below the base curve would rarely result in levels perceptibility significant enough to elicit adverse comment from a resident, including interference with sleeping during nighttime hours, the most stringent case. Levels above this base curve may result in perceptibility sufficient enough to elicit adverse comment from residents depending on the surrounding circumstances.

The groundborne vibration levels were measured in terms of RMS velocity, over a similar frequency range as stated for the criteria. Vibration levels are considered to be in the perceptible range if they exceed a level of 0.14 mm per second. These criteria are superimposed on the measurement results presented in Appendix A.

The potential for damage to a building from groundborne vibration can be assessed in terms of the peak vibration velocity, and not surprisingly the acceptable levels are very much a function of building type. A poured concrete or concrete block structure is less susceptible to damage from vibration than a structure with plaster or drywall details. The maximum recommended levels are based on the peak velocity which is the maximum velocity from a time signal. A German Standard (DIN 4150) and a Swiss Standard (SN640 312) give more specific and stringent guidelines to avoid cosmetic damage to buildings. Cosmetic damage generally refers to cracking of the plaster or paint, or the aggravation of existing crack damage.

Table I: Vibration Criteria for Cosmetic Damage

Type of Structure	DIN 4150		SN 640 312	
	Velocity	frequency	velocity	frequency
Concrete Industrial Building	20 mm/s	10 – 50 Hz	12 mm/s	10 – 30 Hz
Masonry/Framed residence	5 mm/s	10 – 50 Hz	5 mm/s	10 – 30 Hz
Sensitive Older Buildings	3 mm/s	10 – 50 Hz	3 mm/s	10 – 30 Hz

For frequent, fairly continuous vibration such as is caused by trucks on the proposed replacement span, it is recommended that vibration velocity levels at the nearest occupied residential buildings be limited to a maximum of 0.14 mm/s to avoid annoyance by occupants and to a maximum instantaneous peak velocity of 3 mm/s to avoid any potential of cosmetic damage to the structure.

During pile driving and other construction activities, that would occur during daytime hours only, the recommended annoyance limit would be somewhat higher (0.3 mm/s) and the damage criteria would not change (3 mm/s).

3 Site Description

The Ambassador Bridge is elevated above the Detroit River by 46 meters and is elevated above most of the residential areas on the Canadian side to a distance of approximately 900 meters from the shoreline.

North of the bridge are residential dwellings, the University of Windsor and Assumption Church. South of the bridge are residential dwellings, with several multi-storey residential dwellings located west of Riverside Drive.

Representative receptors have been selected at various locations around the bridge to assess the noise and vibration impact of the bridge enhancement. The receptor locations are shown in Figure 2.

There are several significant roadways in the surrounding area around the Ambassador Bridge that contribute to the existing background (ambient) sound levels: Riverside Drive, Huron Church Road, University Avenue and Wyandotte Road.

4 Site Measurements

HGC Engineering conducted site visits on May 24 and 25, 2007 to investigate the existing sound and vibration levels near the Ambassador Bridge. Sound level measurements were conducted using a Bruel & Kjaer type 4188 microphone connected to a Hewlett Packard 3569A real time frequency analyser and a Bruel & Kjaer type 2236 integrating sound level meter. Vibration level measurements were conducted using the same analyser equipped with a Wilcoxon Research type 793V velometer.

4.1 Noise

4.1.1 Attended Monitoring

The sound level measurements collected during HGC Engineering's site visit are summarized in Table II. The measurements are in terms of the Energy Equivalent (average) Sound Level (Leq) measured over 20 minute time periods as required by the Ontario Ministry of the Environment (MOE) Guidelines for road traffic noise assessment. Momentary maximum sound levels recorded during specific observed activities are provided in brackets in the comments column. As is typically the case in any urban environment near a busy roadway, the existing sound levels due to road traffic are presently above the Provincial Objective of 55 dBA at all measurement locations.

Table II: Sound Level Measurement Summary

ID	Description	Time	Leq	Comments
R1	Cartier hall	May 24, 13:30	69	TT on Huron Church (75 dBA)
		May 24, 21:00	68	Accelerating TT (65 - 74 dBA)
		May 25, 10:00	69	
		May 25, 14:20	68	
		Nov 13, 01:00	66	Accelerating TT (70 - 75 dBA)
		Nov 13, 03:35	64	Accelerating TT (71, 79 dBA)
R2	556 Indian Road	May 24, 14:50	60	Jake brakes (61 - 68 dBA)
		May 24, 23:00	59	Accelerating TT (59 - 65 dBA)
		May 25, 13:30	58	
		May 25, 16:30	61	
		Nov 13, 03:15	57	Accelerating TT (58 - 61 dBA)
		Nov 13, 05:15	60	
R3	North of Sir John A. MacDonald Hall	May 24, 15:30	66	Accelerating TT (68 - 77 dBA)
		May 24, 21:20	65	City Bus on Huron Church (72 dBA)
		May 25, 11:25	66	
		May 25, 14:50	66	
		Nov 13, 01:25	63	Accelerating TT (66 - 72 dBA)
		Nov 13, 03:55	64	
R4	445 Indian Road	May 24, 15:55	60	Bridge Traffic (55 - 60 dBA)
		May 24, 22:20	66	Jake Brakes (68, 69 dBA)
		May 25, 13:40	57	
		May 25, 17:00	58	
		Nov 13, 02:50	58	
		Nov 13, 05:00	55	
R5	Assumption Church	May 24, 16:20	66	Huron Church Road dominant
		May 24, 21:40	63	Accelerating TT (60 - 70 dBA)
		May 25, 12:00	64	
		May 25, 15:20	65	
		Nov 13, 01:45	61	Accelerating TT (67 - 68 dBA)
		Nov 13, 04:20	62	
R6	347 Indian Road	May 24, 16:50	62	Jake Brakes (62 - 67 dBA)
		May 24, 22:00	61	Truck decelerating (66 - 72 dBA)
		May 25, 13:05	62	
		May 25, 16:05	62	
		Nov 13, 02:30	58	Truck decelerating (70 dBA)
		Nov 13, 04:55	59	Truck decelerating (75 dBA)

R7	Chateau Park 2990B Riverside Drive W.	May 24, 17:10	55	Bridge occasionally audible
		May 24, 22:40	55	Jake Brakes (55, 56 dBA)
		May 25, 10:40	59	Local HVAC units
		May 25, 17:25	55	
		Nov 13, 02:10	55	
		Nov 13, 04:35	56	

Sound levels at the representative receptors to the south of the bridge were generally dominated by truck traffic on the Ambassador Bridge. Traffic on Huron Church Road was also a significant contributor to the sound levels at representative receptors to the east of the bridge on University of Windsor lands. Decelerating trucks, including engine brakes (commonly known as jake brakes) were the most noticeable or significant momentary noise source at receptors to the west of the bridge. Accelerating trucks were the most noticeable or significant noise source at receptors east of the bridge. Car traffic was not typically a significant contributor, with the occasional exception of non-stock or modified vehicles and motorcycles. There were also occasional banging sounds audible at some locations due to trucks traveling over imperfections in the road surface such as expansion joints.

4.1.2 Unattended (Automated) Monitoring

Automated sound level monitoring was conducted at two locations west of the Ambassador Bridge over approximately one week to gain an understanding of how the sound levels change with the daily traffic patterns.

The first monitor was located near the rear fence line of 556 Indian Road approximately 35 m from the road centerline, near the beginning of the Canadian portion of the bridge where its elevation is relatively low. This is one of the residential dwellings on the east side of Indian Road which will be removed to provide a green corridor area as part of a separate project being undertaken by the proponent. This data is shown in Figure 3.

An inspection of Figure 3 clearly shows the daily variation and indicates that hourly sound levels typically range from 58 to 68 dBA over the course of the week. Data collected during inclement weather (rain) or during unusual local activity (lawn mowing) has been omitted from the analysis. The daily averages were fairly consistent ranging from 63 to 66 dBA for an overall average weekly sound level of 65 dBA. Average results, while appropriate for use for assessment purposes tend not to represent individual events such as engine braking. These are evident in the same data shown, recorded over 1 minute periods in Figure 4. The individual sounds of engine brakes, as verified during the attended measurements are represented by the thin peaks in this figure. Engine braking is dealt with further in the following section.

The second monitor was located on the rooftop of a student residence (Villa Maria) located at 2856 Riverside Drive approximately 120 m from the bridge centerline. The bridge at this location is elevated approximately 44 m above grade. This data is shown in Figure 5. An inspection of Figure 5 also reflects the daily variation and indicates that hourly sound levels typically ranged from 54 to 62 dBA over the course of the week. The daily averages at this location were significantly less due to the further distance from the roadway and were also fairly consistent ranging from 57 to 60 dBA for an overall weekly sound level of 59 dBA. Figure 6 shows the same data recorded over 1 minute periods, with individual engine brake events more evident.

4.1.3 Compression Release Engine Brakes

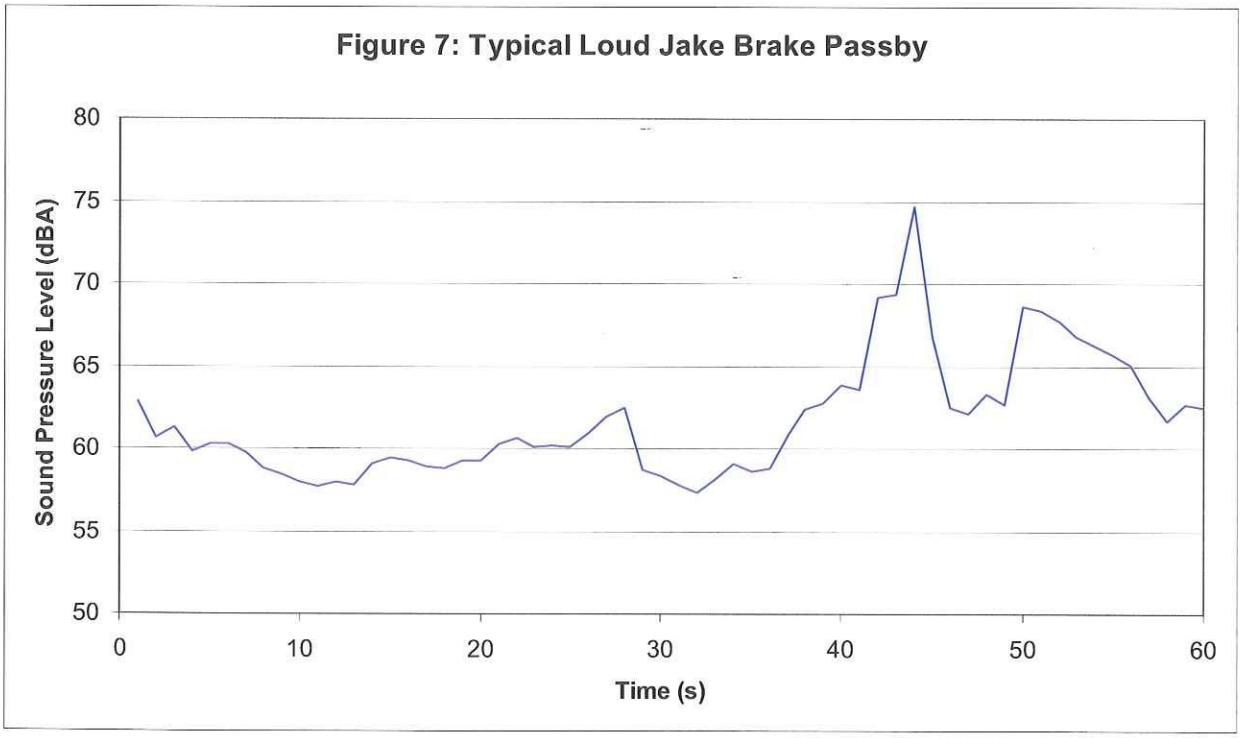
The compression release engine brake (engine brake or jake brake) is an integral engine system which utilizes the air compression which occurs in the engine cylinders to function as a brake for diesel engines. Tractor trailers can carry heavy loads and stopping them or slowing them down results in wear on the wheel brakes, which have to be replaced frequently. The engine brake reduces wear and tear and can help slow the truck before the wheel brakes need to be applied. Its primary use is on long downhill grades where the wheel brakes would otherwise have to be frequently pumped to keep the truck from gaining speed.

The engine brake opens a special exhaust valve just as the air reaches maximum compression in the cylinder during deceleration, dumping the air (and the energy it took for the piston to compress it) in an almost instantaneous and potentially noisy release. The result is a slowing of the vehicle as mechanical energy is converted to heat and then dumped.

An investigation into the use of engine brakes was conducted during the site visits to gain a better understanding of their frequency, sound level and spectral content. The instantaneous sound levels (slow weighting) were measured during a number of specific engine brake events. Sample results are shown in the following figures.

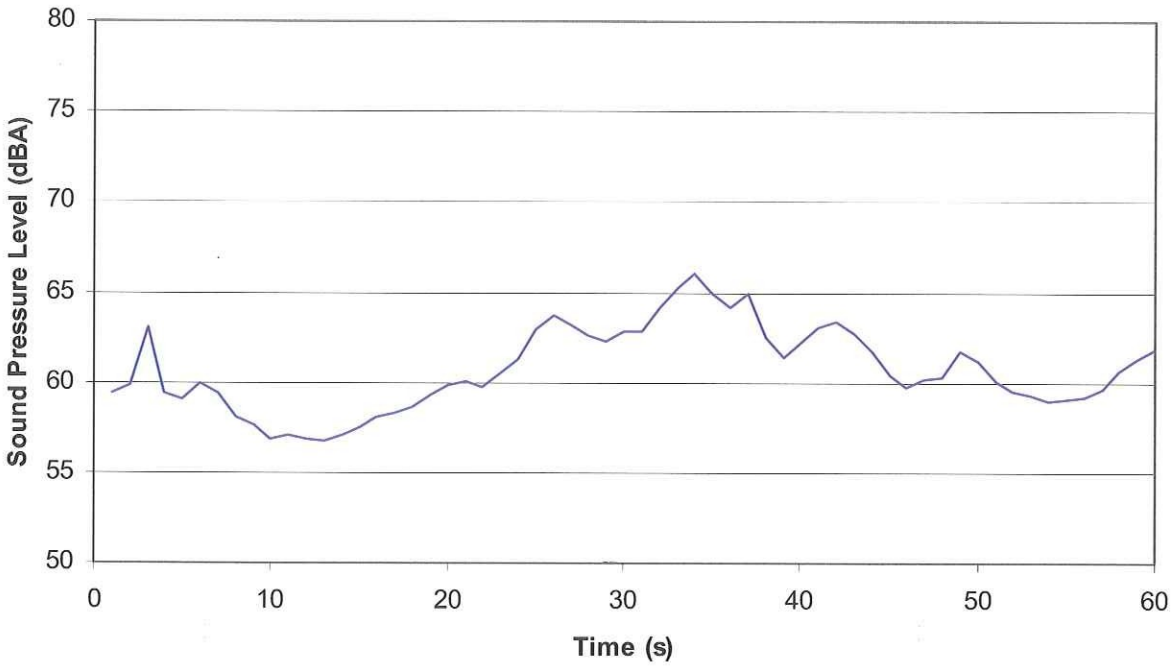
Figure 7 shows a short duration event recorded at R2 caused by a truck decelerating on approach to the plaza. The momentary sound level reached 75 dBA and the spectrum shows significant low frequency content.

Figure 7: Typical Loud Jake Brake Passby



A longer duration and quieter event recorded at R4 is shown in the following figure, more typical of a truck decelerating during the long descent. The momentary sound level reached 66 dBA.

Figure 8: Typical Long Jake Brake Passby



These two figures are representative of the extremes of the range of engine braking activity. Generally engine brakes were observed to be used fairly frequently. The actual sound levels emitted by this activity were found to vary quite substantially, the quieter being almost indistinguishable from other traffic noise and the louder being clearly audible above it. Measurements indicate that louder engine brakes are 10 to 15 dBA higher than the twenty minute average sound level $L_{EQ(20min)}$, indicating that they significantly exceed the background sound level. The unattended sound level monitors also captured sound levels of dynamic engine brakes. These are shown as the small peaks on figures 4 and 6.

Information obtained from an engine braking system manufacturer (Jacobs Vehicle Systems), see Appendix B indicates that new road tractors are tested to comply with a sound level limit of 85 dBA at 15 m during both acceleration and deceleration. Trucks are provided with an effective exhaust muffler which works to quiet the engine brake noise as well as the engine exhaust noise. This would be representative of the quieter engine brakes measured at the site. Sound levels can be much louder (on the order of 100 dBA at 15 m) without an effective muffler. These levels are typical of the louder engine brakes measured on the site. It is not always possible for local authorities to enforce the use of effective mufflers, but noise from heavy trucks as a whole including acceleration and deceleration noise can be mitigated to some extent by restricting trucks to the centre lanes of the bridge where the outer lanes and roadside barriers can provide shielding. Outer lanes should be used by quieter traffic such as private automobiles, as much as possible.

The analysis completed in the following sections takes engine brake noise into account in the average results by using the measured baseline sound levels to verify the acoustical modeling. Recommendations with regard to engine brakes are also provided.

4.2 Vibration

Trucks traveling over the Ambassador Bridge can cause vibration in the bridge structure, particularly if they pass over imperfections in the road surface. The structural vibrations in the span are converted to vertical forces in the columns which are mounted on the support piers. The piers are large blocks of concrete poured on footings which rest on and spread the load of the bridge to the surrounding soil. Because the piers, while large and massive, are supported on the soil which is compressible, dynamic vertical movement of the piers sends vibration propagating outwards as both a wave in the bulk medium (soil) and as a surface wave traveling away from the piers. Measurements were conducted to investigate the levels of ground borne vibration currently present near the bridge piers. Appendix A shows representative vibration

measurements at different locations along the upgrading. Part A of each figure shows a time history of each vibration measurement which was conducted while trucks were passing by on the bridge structure along with the 0.14 mm/second velocity perception limit. Part B of each figure shows a comparison between the peak spectral acceleration level (dB re 1g) for selected truck pass-bys versus the ISO acceleration perceptibility limit. Levels above the perceptibility limits can be perceptible to someone standing at that location.

Table III below identifies all the locations where vibration measurements were conducted, the maximum velocity [mm/s] for each location, the acceleration frequency (Hz) and its associated value [dB re 1g], and the ISO perceptibility level for that specific frequency [dB re 1g].

Table III: Vibration Level Measurement Summary

Prediction Location	Estimated Distance from Bridge [m]	Peak Velocity [mm/s]	Peak Acceleration Frequency [Hz]	Peak Acceleration [dB re 1g]	ISO limit [dB re 1g]
R1	**5**	0.13	16	-57.8	-59.8
R1	**20**	0.11	10	-63.2	-63.8
R1	**5**	0.31	16	-49.9	-59.8
R1	**20**	0.11	10	-62.7	-63.8
R3	**5**	0.15	12.5	-58.1	-62.0
R3	**20**	0.06	5	-73.9	-65.8
R3	**40**	0.05	12.5	-67.2	-62.0
R3	**5**	0.20	12.5	-56.0	-62.0
R3	**20**	0.11	16	-59.1	-59.8
R3	**40**	0.06	12.5	-66.2	-62.0
R5	**5**	0.13	12.5	-59.3	-62.0
R5	**20**	0.09	12.5	-62.9	-62.0
R5	**40**	0.14	10	-61.1	-63.8
R5	**80**	0.03	5	-80.1	-65.8
R5	**5**	0.45	12.5	-48.9	-62.0
R5	**20**	0.15	12.5	-58.7	-61.0
R5	**40**	0.14	10	-61.1	-63.8
R5	**80**	0.06	12.5	-66.0	-61.0

The measurements indicate that groundbourne vibration levels can be perceptible at distances up to approximately 40m from the bridge. The ground borne vibration was generally observed to be caused by the pass-bys of transport trucks passing over imperfections in the road surface (expansion joints). The measurements also indicate that the current vibration levels are below the range at which cosmetic damage would be anticipated in neighbouring structures, although vibration may be perceptible in the neighbouring dwellings depending on the degree of amplification in the structure.

5 Noise Modeling

5.1 Methodology and Results

Sound emissions from the Ambassador Bridge were modeled over the entire extent to be upgraded in the existing and three future configurations, using the computer program STAMSON (version 5.04). A draft plan was prepared by the proponent to outline roadway alignments, elevations of receptor locations and distance between the proposed project and various receptors. Northbound and southbound lanes were modeled utilizing hourly traffic count information provided separately for north and southbound traffic. 24 hour average traffic was utilized in the modeling as per MTO Guidelines for road widenings in Ontario. In addition, daytime (07:00 to 23:00) and nighttime (23:00 to 07:00) sound levels were investigated.

Three future scenarios were investigated in detail. These included the no-build scenario (increased traffic on the existing bridge), the proposed build scenario where all the traffic will utilize the new bridge (existing bridge maintained for emergency or construction situations), and a third scenario where only truck traffic will utilize the new bridge and only car traffic will utilize the existing maintained bridge. Consideration was also given to the possibility that there could be a mix of car and truck traffic on both bridges.

Site visits were performed on May 24th and 25th, 2007 by HGC Engineering to gain an understanding of the local topography and identify noise sensitive receptors. Photographs of the site are included in Appendix C.

Twenty three representative receptor locations were chosen along the proposed Enhancement Project (see Figure 2). At each receptor location, predictions were completed to assess the impact of the replacement span. Each of these locations is considered representative of one or more residences and Heritage Sites along the proposed Enhancement Project and the results can be applied to approximately 100 residential and institutional (school and church) receptors and Heritage Buildings. In this manner, practically every receptor in the vicinity of the replacement span was considered. Receptor locations were chosen to be in the noise sensitive area for a dwelling, 1.5 m above the ground or at upstairs windows.

MTO procedures dictate that the traffic volumes used in the noise assessment be representative of a date ten years following the expected completion of the undertaking. To consider a worst case, this study has used 2021 traffic projections based on growth rates provided in the Detroit River International Crossing Study Travel Demand Forecasts by IBI Group dated September 2005 and shown in Table IV below.

Table IV: Vehicular Traffic Growth Rates

Period	Passenger Vehicles (Cars)	Commercial Vehicles (Trucks)
2004 to 2015	2.60%	3.60%
2015 to 2021	0.80%	2.50%

The growth rates were applied to year 2004 traffic volumes taken from the DRIC report. The existing traffic volumes, provided as hourly traffic data over the last few years by Canadian Transit Company, were utilized to calculate an average 24-hour traffic volume for 2007.

The future traffic data shown in tables V and VI were used to predict the sound levels of road traffic with and without the road widening. The traffic noise was assessed on a 24-hour basis ($L_{EQ\ 24hour}$) according to MTO guidelines. A commercial vehicle percentage of approximately 40% (20% medium, 80% heavy) was used as provided in the DRIC report. The current speed limit between the two towers is 60 km/h while the approaches it is 50 km/h. The speed limits are assumed to remain unchanged after the upgrading.

In addition to the traffic volumes on the Ambassador Bridge, traffic volumes on the major surrounding roadways (University Avenue West, Riverside Drive West, Wyandotte Street West, and Huron Church Road), have also been included in the analysis. Traffic data in the form of hourly count information were acquired from the City of Windsor and are appended to this report in Appendix D. This traffic data was grown at 2.5% per year. Commercial percentages were based on turning movement counts or where unavailable were assumed to be 5% with an appropriate medium/heavy split. The traffic data used for sound level predictions are summarized in tables V and VI.

Table V: Existing Daily Traffic Volumes (2007)

Roadway	Cars	Medium Trucks	Heavy Trucks	Total
Ambassador Bridge NB	7886	1001	4005	12892
Ambassador Bridge SB	7886	1001	4005	12892
Huron Church Rd.	9155	225	360	9740
University Ave. W.	4796	97	155	5048
Riverside Dr. W.	9598	194	311	10103
Wyandotte St. W.	5843	118	189	6150

Table VI: Future Daily Traffic Volumes (2021)

Roadway	Cars	Medium Trucks	Heavy Trucks	Total
Ambassador Bridge NB	14526	1969	7878	24373
Ambassador Bridge SB	14946	2026	8105	25077
Huron Church Rd.	13136	322	516	13974
University Ave. W.	6777	137	219	7133
Riverside Dr. W.	13562	275	439	14276
Wyandotte St. W.	8256	167	267	8690

The average daily (24 hour) noise levels ($L_{eq\ 24hour}$) were calculated at the receptor locations based on this information. The results are summarized in Table VII.

Table VII: Predicted 2021 Traffic Sound Levels [Leq 24 hour, dBA]

Receptor ID	Description	Existing (2004)	No Build (2021)	Build (2021)	Difference between Build and Existing	Difference between Build and No-Build
R1	Cartier Hall (Student Residence)	70	73	69	-1	-4
R2	Indian Road, south	60	62	68	9	6
R3	Assumption University (HS 3)	68	71	66	-3	-6
R4	Indian Road, Middle	63	66	65	2	-1
R5	Assumption Church (HS 1)	67	70	65	-3	-6
R6	Indian Road, North	67	70	62	-5	-8
R7	Harbour View Condo	65	68	67	2	-1
R8	Nursing Home	64	67	62	-2	-5
R9	South Rosedale	57	60	62	4	2
R10	Middle Rosedale	59	62	64	5	2
R11	North Rosedale	63	66	65	2	-1
R12	School	51	54	55	4	1
R13	West Middle Rosedale	59	62	62	3	1
R14	West North Rosedale	62	65	65	3	0
R15	Riverside Apartment bldg	66	69	70	4	1
R16	Vista Place	66	69	66	0	-3
R17	Indian Rd and Peter St	64	67	64	0	-3
R18	Service Station (HS 59)	67	70	67	0	-3
R19	Captain Pierre Marentette House (HS 6)	62	64	63	2	-1
R20	Leroy Rodd House (HS 40)	58	61	61	3	0
R21	Masson-Deck House (HS 33)	57	60	60	3	0
R22	Assumption Park (HS8)	67	70	65	-2	-5
R23	Dillon Hall (HS2)	54	57	56	2	-1

*HS – Heritage Site

In addition, nighttime (23:00 to 07:00) sound levels were calculated based on the hourly traffic volume data. Since the truck traffic is relatively continuous over the course of the day, the difference between the twenty four hour sound levels given in the above table and the nighttime sound levels is small, on the order of two decibels. Nighttime sound levels were calculated at upstairs bedroom windows to represent the worst case location.

5.2 Discussion and Analysis

5.2.1 Noise

Sound levels measured during HGC Engineering's site visit at various locations along the portion of the existing bridge on Canadian lands correlate well with the predicted existing sound levels, including engine brakes.

The sound level predictions indicate that daily sound levels presently exceed the Provincial objective of 55 dBA at most receptor locations near the Ambassador Bridge due to existing road traffic, as is the case of any typical urban area located near a busy roadway.

The design of the proposed Enhancement Project incorporates several noise mitigation features. Firstly, there will be a 2.4m wide safety lane located on both sides of the bridge, and secondly there will be a 0.8 m high Jersey (concrete) barrier located along the outside edge of the safety lanes. The effect of these features is to provide significant noise mitigation through road edge and low barrier shielding where the bridge is located at a high elevation.

The noise impact of the proposed Enhancement Project for the majority of the residences is predicted to be within the MTO criteria, that is, sound levels will either decrease due to the beneficial features of the replacement span and increased distance for the receptors to the east, or increase by less than 5 dBA from the future no build to the future build scenario. For the first row of residences located south of Peter Street and west of Indian Road, sound level predictions indicate an increase of 5 dBA or more. At further residences along Rosedale Avenue, sound levels will increase by a minor amount (between 1 and 5 decibels). At all other receptors sound levels will increase by less than 1 decibel, an insignificant amount. Generally increases in sound level of less than three decibels are not perceptible to most individuals.

Mitigation was considered for all noise sensitive receptors at which sound levels may increase by more than 1 decibel. Mitigation measures are investigated in Section 7 below.

Additional modeling indicates that there is no practical difference between the impact of noise from the two future build scenarios that is, all traffic on the new structure or trucks only on the new structure and cars on the old. That is because the majority of the noise emissions from the bridge, to a large degree (more than 10 decibels) are due to truck traffic.

If both structures carried a mix of car and truck traffic, the future build sound levels would decrease by a lesser amount at locations to the east. Similarly the future build sound levels would increase by a lesser amount at residences to the west.

The mitigation recommendations provided in Section 7 below are based on the worst case scenario of all the trucks traveling on the new structure and the most potentially impacted point of reception during daytime and nighttime hours.

5.2.2 Cumulative Effects

The Federal EA review team has also asked that the following cumulative effects scenarios be considered:

1. Replacement bridge (6 Lanes) and DRIC operational
2. Replacement bridge (6 lanes) with the Ambassador Bridge (4 Lanes) and DRIC all operational
3. Replacement bridge (6 Lanes) with the Ambassador Bridge (4 Lanes) without the DRIC project.

Two factors influence the future sound levels at the various receptors when considering Scenarios 1 and 2. Firstly, calculations indicate that since the DRIC project would be located more than 1.5 km to the south, the sound levels it would produce at receptors in the

Enhancement Project study area are expected to be insignificant with respect to current levels of road traffic noise. That is, there would be no significant overlap, and no significant cumulative effect. Secondly, if the DRIC project proceeds, it is anticipated that traffic volumes on the proposed replacement bridge and/or the Ambassador Bridge will decrease, resulting in decreases in the sound levels in the area for both the Build and No Build Scenarios.

Scenario 3 was investigated extensively in Section 5.2.1 above.

5.2.3 Vibration

The measured vibration levels at several receptor locations indicate that groundborne vibration caused by the passage of heavy trucks over imperfections in the road surface such as expansion joints is perceptible in the vicinity of the bridge piers and may be perceptible in nearby residential buildings on occasion. These results correlate relatively well with neighbourhood comments. To minimize the future possibility of increased vibration levels the road upgrading should ensure a smooth road surface with few imperfections.

The conditions and makeup of the soil and the spread footing design are contributing factors to the propagation of ground borne vibration. The new span will be constructed on piles driven to bedrock. This can be a better design from a vibration standpoint because the bridge piers will not be floating but will instead be supported directly on bedrock. Recommendations are provided in a following section.

5.3 Noise Barriers

The effect of placing a noise barrier along the west side of the roadway, as a mitigation measure, was investigated. It was found that a noise barrier 3.5 meters (11.5 ft.) in height would provide sufficient mitigation such that there would be no significant increase in sound level between the build and no build scenarios at any receptor. Sound levels would decrease at many receptors.

The barrier should extend northwards from the south boundary of the project to Peter Street, a distance of approximately 350 meters. The barrier could taper down to the 0.8 meter (2.6 ft.) high jersey barrier at this point.

A comparison of the sound levels at the representative receptors with and without construction of the noise barrier is provided in the following table.

Table VIII: Predicted 2021 Sound Levels with 3.5m Noise Barrier

Receptor ID	Description	No-Build (2021)	Build (2021)	Build (2021) with 3.5m wall	Difference between Build and No-Build
R1	Cartier Hall (Student Residence)	73	69	-	-4
R2	Indian Road, south	62	68	62	0
R3	Assumption University (HS 3)	71	66	-	-5
R4	Indian Road, Middle	66	65	61	-4
R5	Assumption Church (HS 1)	70	65	-	-5
R6	Indian Road, North	70	62	62	-8
R7	Harbour View Condo	68	67	-	-1
R8	Nursing Home	67	62	-	-5
R9	South Rosedale	60	62	59	-1
R10	Middle Rosedale	62	64	62	0
R11	North Rosedale	66	65	64	-2
R12	School	54	55	55	0
R13	West Middle Rosedale	62	62	61	-1
R14	West North Rosedale	65	65	65	0
R15	Riverside Apartment bldg	69	70	69	0
R16	Vista Place	69	66	-	-3
R17	Indian Rd and Peter St	67	64	63	-4
R18	Service Station (HS 59)	70	67	-	-3
R19	Captain Pierre Marentette House (HS 6)	64	63	-	-1
R20	Leroy Rodd House (HS 40)	61	61	-	0
R21	Masson-Deck House (HS 33)	60	60	-	0
R22	Assumption Park (HS 38)	70	65	-	-5
R23	Dillon Hall (HS 2)	57	56	-	-1

*HS – Heritage Site

6 Construction Noise and Vibration

It is anticipated that construction is to extend over a period of approximately 2 years. The aspects of construction which are expected to produce significant sound levels in the surrounding neighbourhoods are primarily related to construction of the support piers which will involve excavation, pile driving, concrete pouring and steel erection. At any particular residence therefore, the highest sound levels will occur when the nearest piers are being built. Pier construction, with its related pile driving is expected to occur within a three month period to limit adverse effects as much as possible.

Typical equipment to be used in these activities are auger drilling machine, backhoes, forklifts, dump trucks, flatbed trucks, pile drivers, concrete trucks, cranes, bobcats, concrete pumps, barges, concrete vibrators, grinders, jackhammers, pickup trucks and hand tools and equipment.

Of this equipment, pile driving has the potential to produce the highest levels of impulse noise and groundbourne vibration. Past experience from other similar projects indicates that during pile driving activities, sound levels can exceed 80 dBAI at distances of up to approximately 100m. At that distance, groundborne vibration levels can be perceptible, but are not generally sufficient to cause cosmetic or structural damage to buildings. Sound and vibration monitoring will be undertaken when pile driving is taking place within 100 m of a sensitive receptor, including heritage buildings. If excesses are found, reduced pile driving force and the construction of temporary noise barriers will be implemented.

Construction activities are regulated in two ways in the Province of Ontario. Firstly, time restrictions are contained in Municipal noise Bylaws. Secondly, the Ministry of the Environment provides sound level limits for construction equipment in their Noise Pollution Control Guideline NPC 115 "Construction Equipment". It is incumbent on the contractors to comply with these guidelines and ordinances.

7 Proposed Mitigation

The following mitigation measures will be undertaken:

1. A noise barrier 3.5 meters in height will be constructed on the jersey barrier at the west edge of the roadway. The barrier shall extend northwards from the south boundary of the project to Peter Street. The barrier can taper down to the 0.8 meter (~ 3 feet) height of the jersey barrier north of Peter Street. The barrier will be constructed from materials and methods contained in CAN/CSA Z107.9 – Standard for Certification of Noise Barriers.

2. A dynamic vibration study of the bridge support structure will be undertaken when sufficient detail is available to ensure that the piers and associated support structure will not radiate significant levels of groundbourne vibration into the surrounding environment.

3. Sound and vibration levels will be monitored during pile driving within 100 m of sensitive receptors. If exceedances are noted, reduced driving force and/or temporary noise barriers will be investigated.

4. Time restrictions set out in the City of Windsor's Noise Bylaw 6716 will be complied with.

5. The contractor will be required to ensure that factory recommended mufflers are maintained on all construction equipment

6. Sound emissions from all construction equipment will comply with MOE Guideline NPC-116 "Sound Levels from Construction Equipment"

7. Haul routes will be designed to avoid residential neighbourhoods.

Existing Bridge
Proposed Enhancement
Riverside Dr
University Ave
Huron Church
Wyandote St

Figure 2: Representative Noise Sensitive Receptors (NSAs)
Ambassador Bridge Enhancement Project

Figure 3: Automated Sound Level Monitoring
556 Indian Road, Windsor
Canadian Transit Company, Ambassador Bridge Enhancement Project

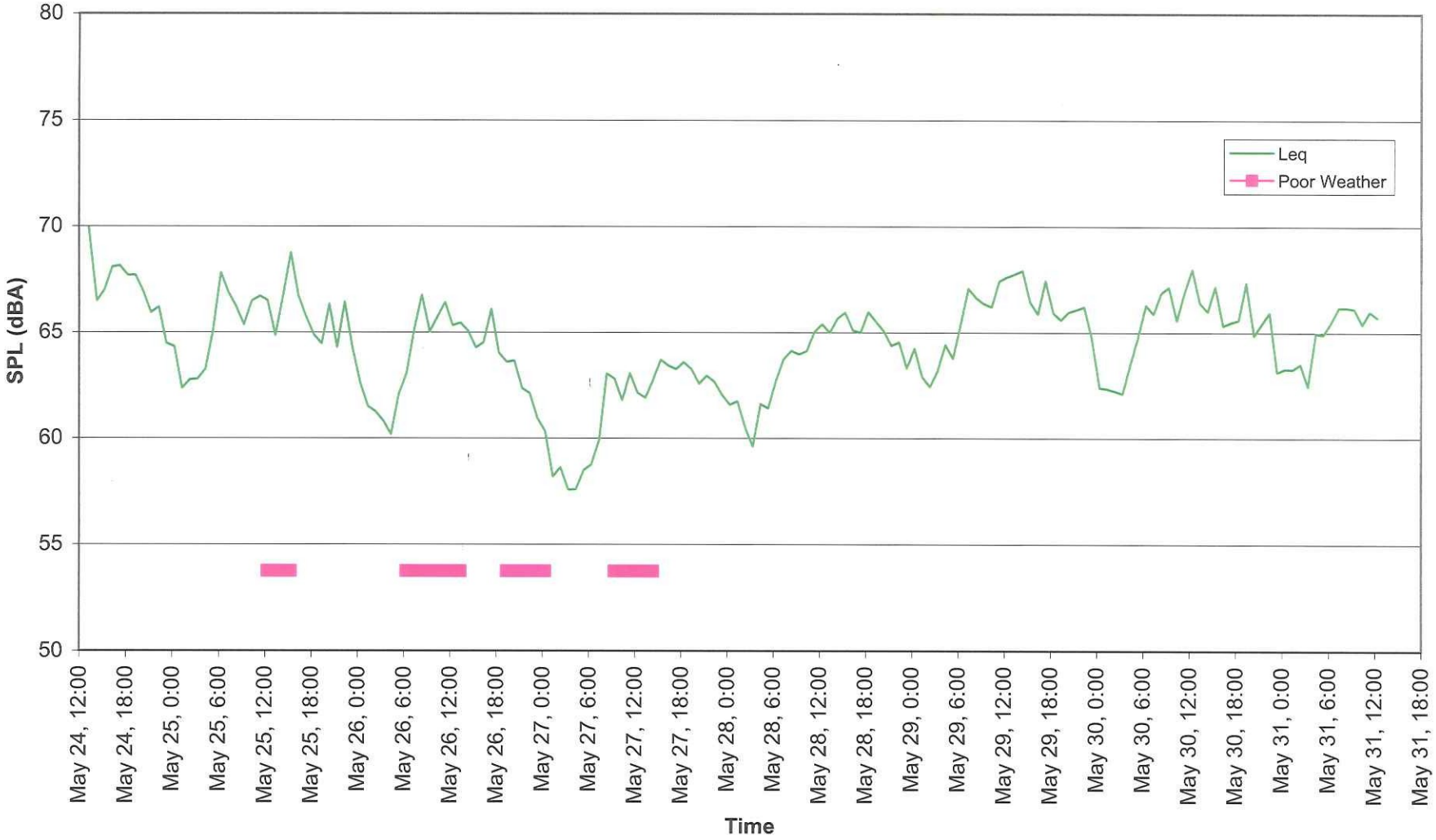


Figure 4: Automated Sound Level Monitoring
556 Indian Road, Windsor
Canadian Transit Company, Ambassador Bridge Enhancement Project

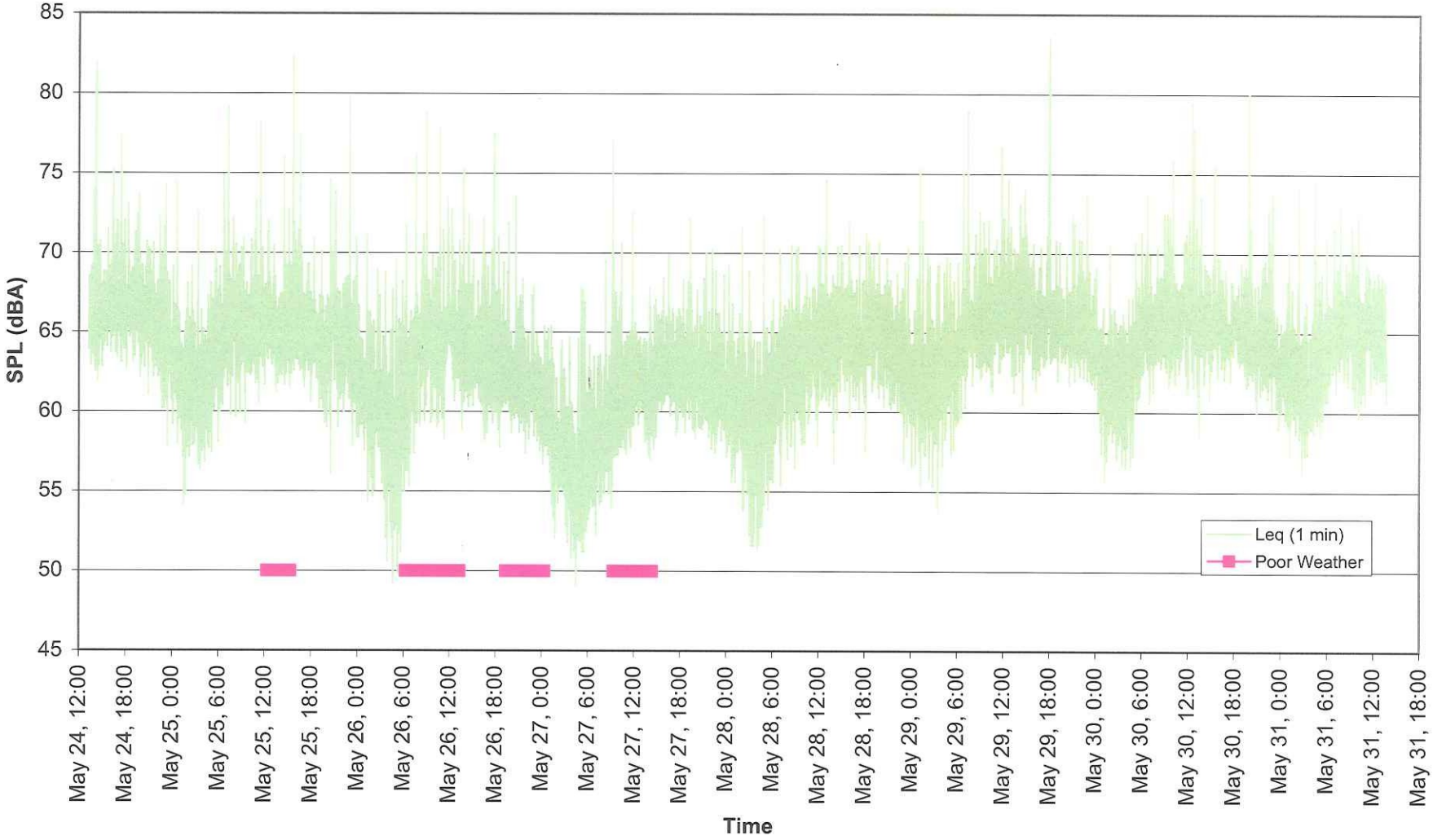


Figure 5: Automated Sound Level Monitoring
2856 Riverside Drive, Windsor
Canadian Transit Company, Ambassador Bridge Enhancement Project

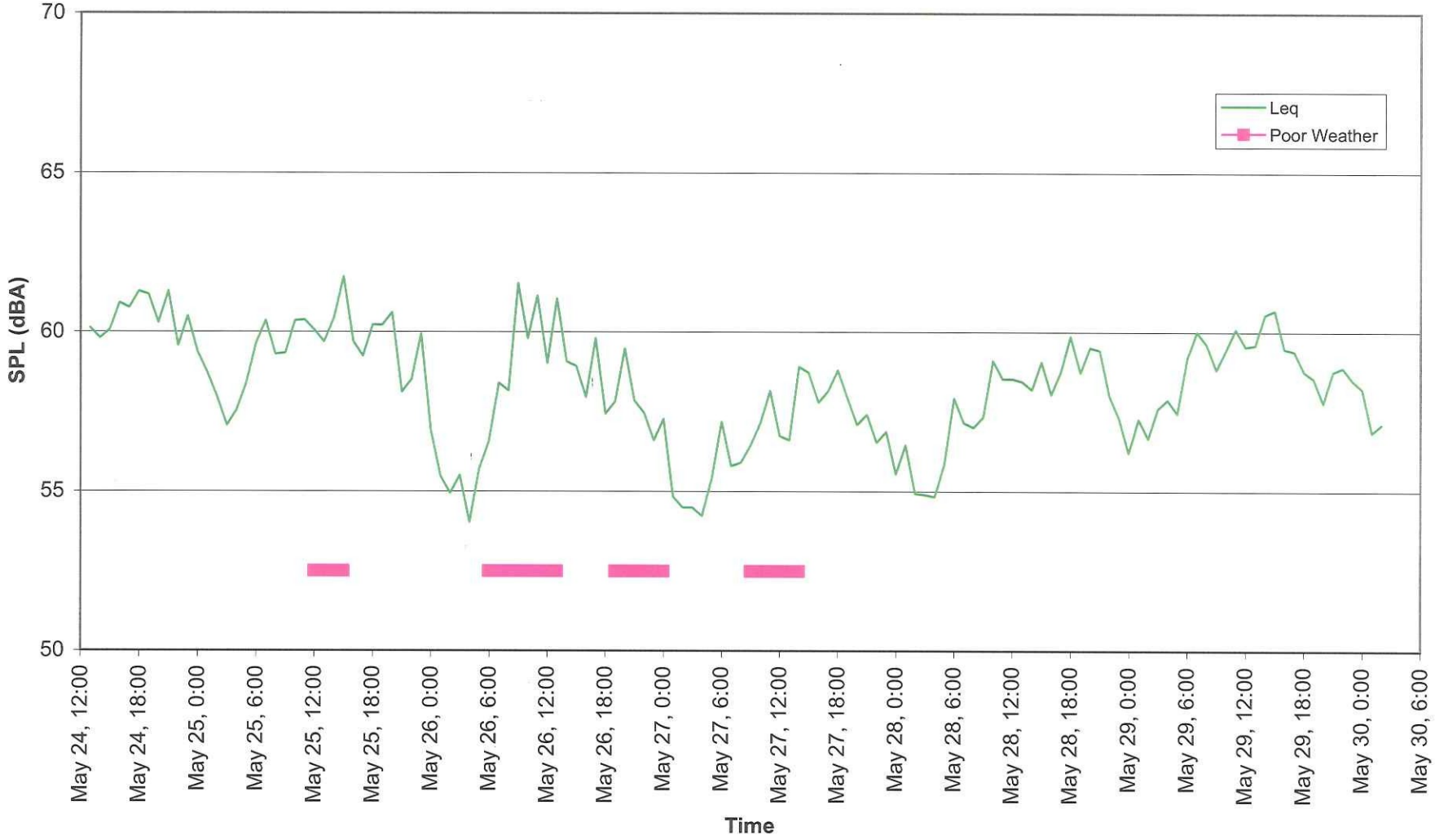
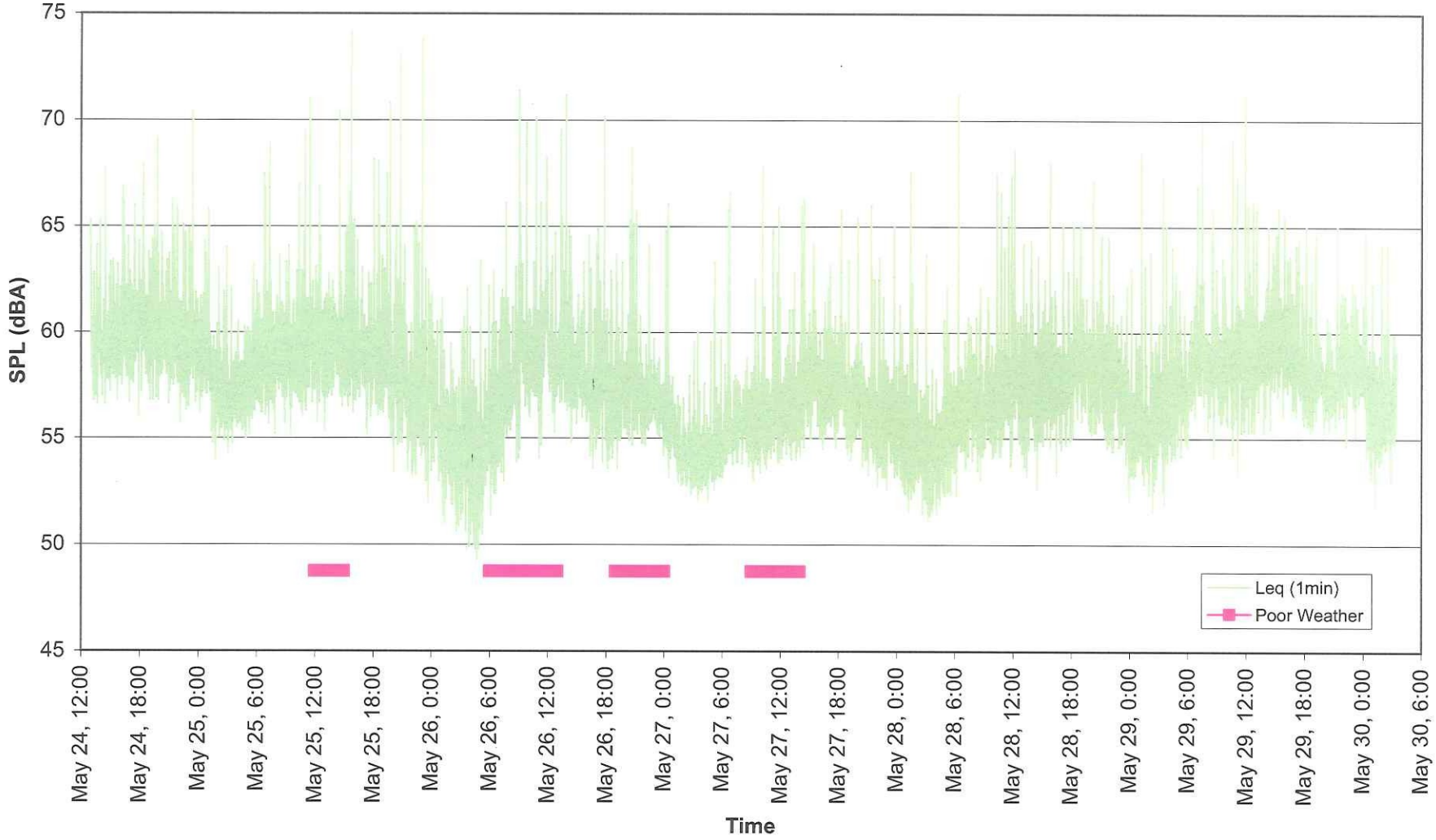


Figure 6: Automated Sound Level Monitoring
2856 Riverside Drive, Windsor
Canadian Transit Company, Ambassador Bridge Enhancement Project



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noise · vibration · acoustics

Appendix A -
Onsite Vibration Level Measurements

Figure A1a: Receptor R3, 5m from Bridge, May 25, 2007 @ 11:35
Measured Vibratory Velocity Level

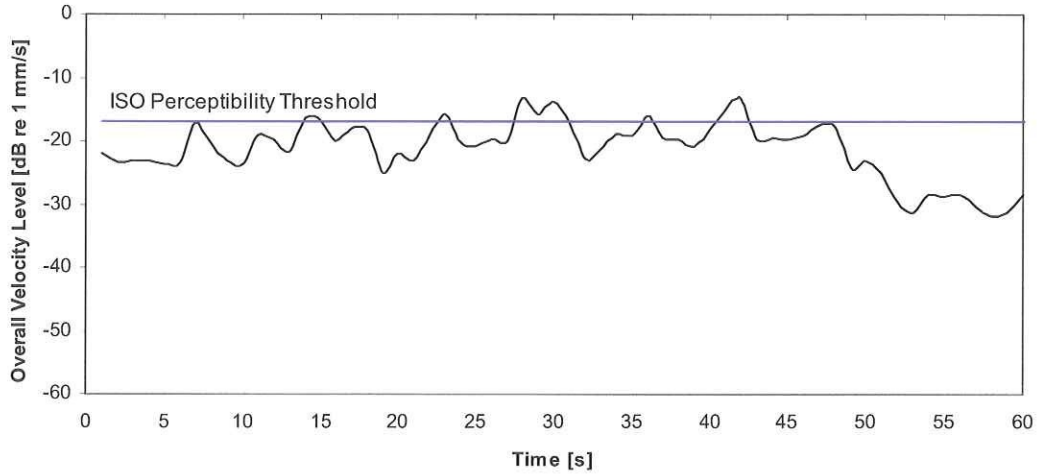


Figure A1b: Receptor R3, 5m from Bridge Pier
Acceleration Spectrum @ Peak Level

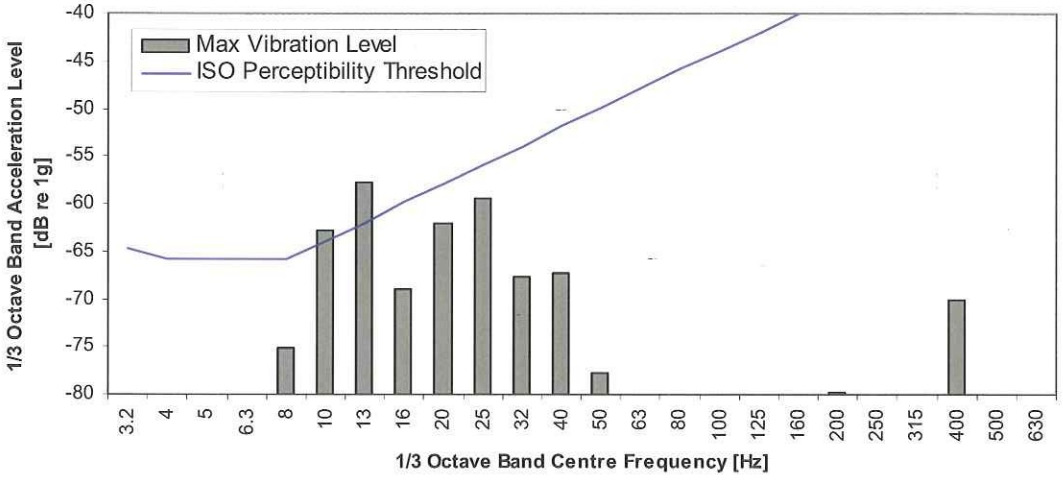


Figure A2a: Receptor R3, 20m from Bridge Pier, May 25, 2007 @ 11:40
Measured Vibratory Velocity Level

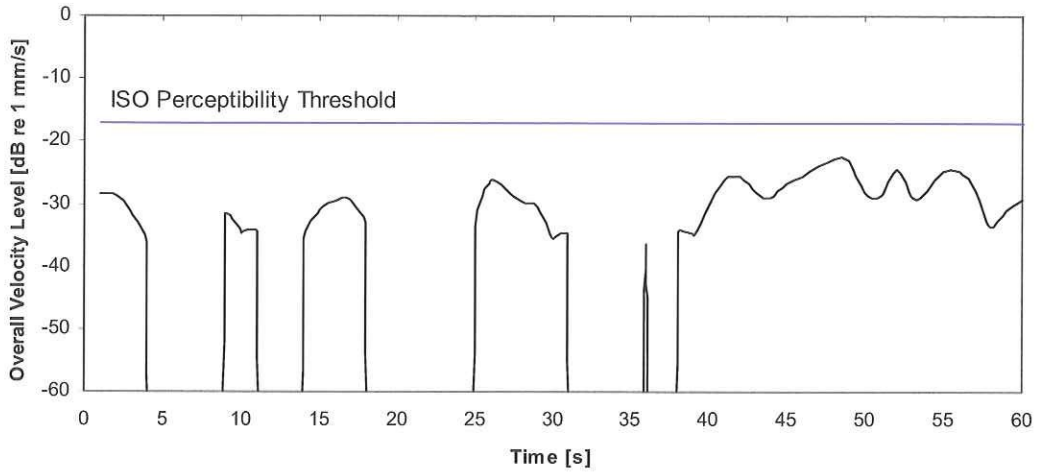


Figure A2b: Receptor R3, 20m from Bridge Pier
Acceleration Spectrum @ Peak Level

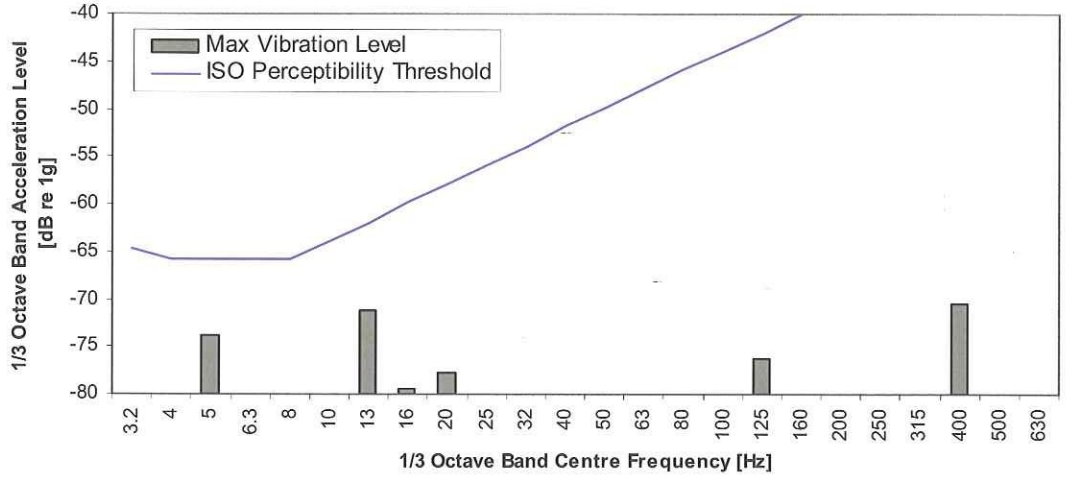


Figure A3a: Receptor R5, 40m from Bridge Pier, May 25, 2007 @ 12:10
Measured Vibratory Velocity Level

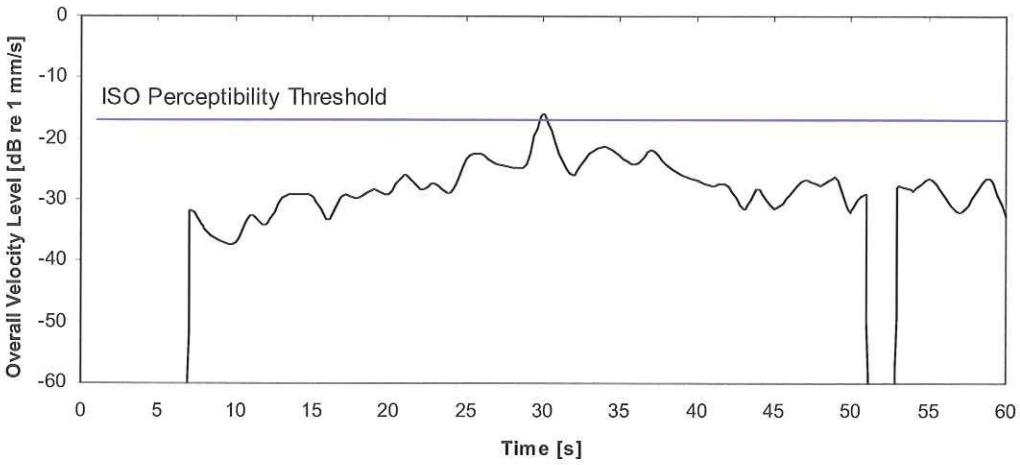


Figure A3b: Receptor R5, 40m from Bridge Pier
Acceleration Spectrum @ Peak Level

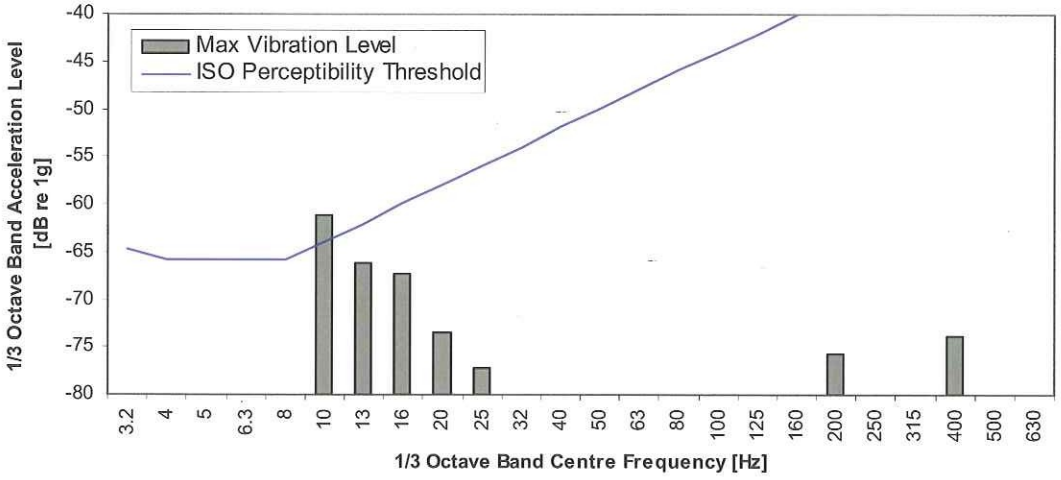


Figure A4a: Receptor R5, 20m from Bridge Pier, May 25, 2007 @ 15:35
Measured Vibratory Velocity Level

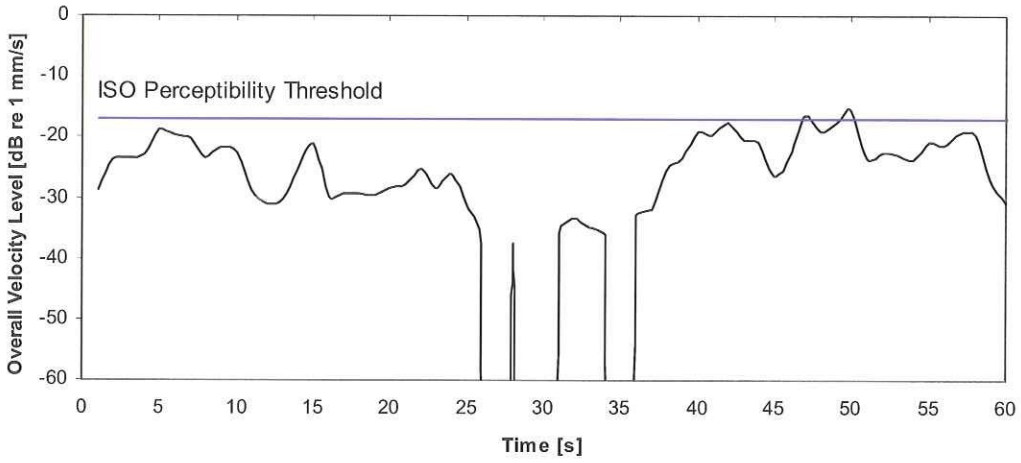
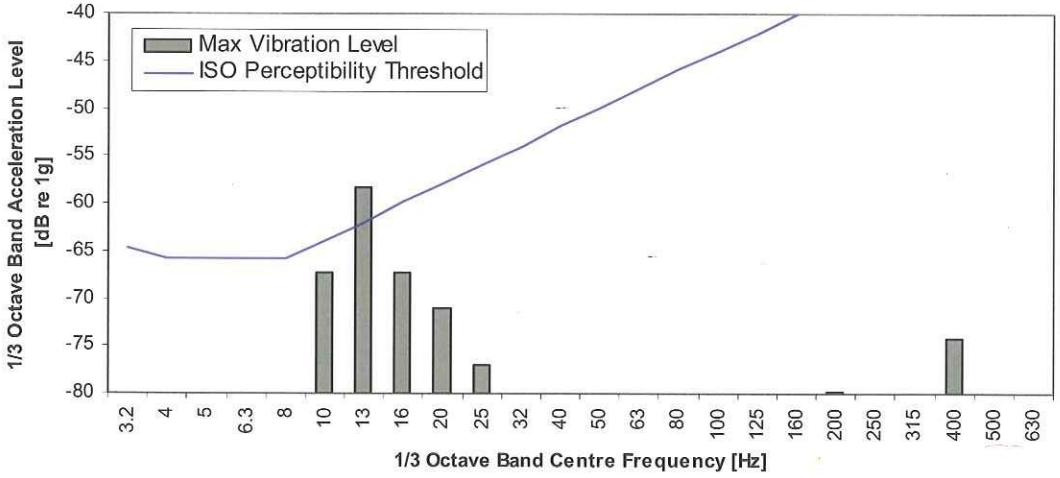


Figure A4b: Receptor R5, 20m from Bridge Pier
Acceleration Spectrum @ Peak Level



Appendix B -

Jacob Engineering Systems

Compression Release Engine Brakes

Jacobs Vehicle Systems™

Vehicle Noise Levels and Compression Release Engine Braking

INTRODUCTION

This document is intended to provide the reader with information about commercial vehicle noise and its relationship with compression release engine brakes. This relationship is a subject of community concern and often results in the posting of "No Engine Brake" signs along roads and highways. Data is presented illustrating the relationship between vehicle noise and the condition of the vehicle's exhaust system. This data identifies improperly muffled vehicles as the principal cause of the vehicle noise that concerns communities. This document examines existing regulations that govern vehicle noise levels and presents suggestions for effectively addressing noise concerns at the community level. References are provided for further reading on the subjects of engine braking and vehicle noise.

COMPRESSION RELEASE ENGINE BRAKES

Compression release engine brakes (referred to hereafter as engine brakes) are the most popular type of supplemental vehicle retarder used in North America. Their function is to turn a power producing diesel engine into a power absorbing air compressor. It does this by quickly opening the exhaust valve near top dead center of the compression stroke. This causes a sudden release of compressed air from an engine cylinder into the exhaust system. This is what causes the characteristic staccato sound of an engine brake in operation. The engine brake is activated only when the driver's foot is off of the accelerator pedal and no fuel is being injected into the cylinder.

It is well known that the stopping power available from a vehicle's service (or wheel) brakes decreases significantly as the brake lining temperature increases. One of the uses of engine brakes on commercial vehicles is to help control vehicle speed on long downgrades. Minimizing the use of the vehicle's service brakes virtually eliminates the likelihood of overheating the brakes and thus helps to avoid dangerous brake fade. Reduced usage of the service brakes on engine brake equipped vehicles also leads to lower maintenance costs through reduced brake lining wear. Vehicles equipped with engine brakes are more efficient and productive to operate. Enhanced driver control and a reduced risk of brake fade also means safer interaction between all of the vehicles operating on public roadways. The overall result of engine brake usage is of significant value to the trucking industry and to the general public as well.

The need for equipping commercial vehicles with engine brakes is greater today than ever before. Vehicle weight and speed limits have been increasing. At the same time the vehicle's natural retarding power has decreased due to reductions in aerodynamic drag and rolling resistance. These improvements are beneficial in terms of vehicle fuel consumption and operating cost. However, they require that more work be done by the service brakes to maintain speeds on long down grades or slow the vehicle. The increased load being placed on vehicle service brakes led to the issuance of an industry practice recommending the use of supplemental retarders [7]. In addition to supplementing the vehicle's service brakes, engine brakes are also being integrated into other vehicle functions such as cruise control, automatically shifted manual transmissions, and the newly introduced collision avoidance systems. These factors are why the majority of heavy-duty vehicles produced in North America today are equipped with engine brakes when delivered from the vehicle manufacturer.

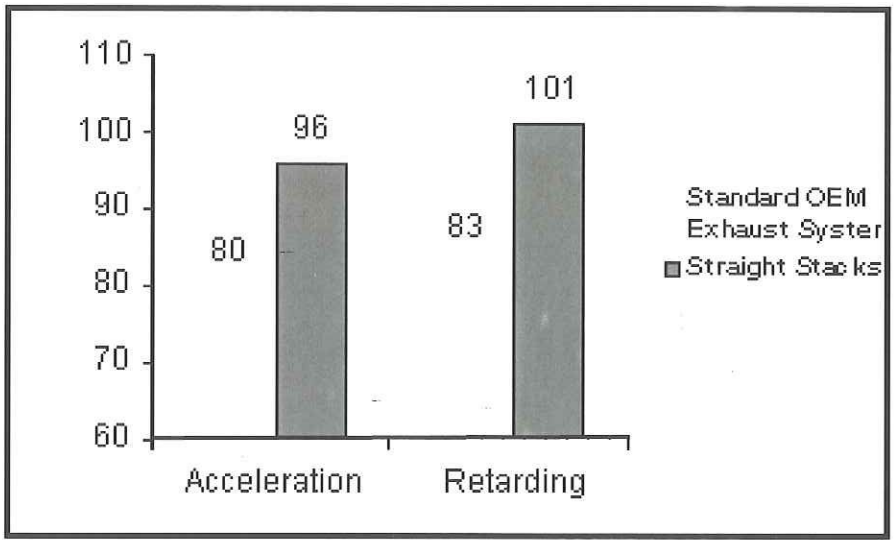
ABOUT NOISE

Residents near steep downgrades, highway exits and curves in some communities in North America have expressed concerns about commercial vehicle noise. These concerns frequently identify engine brakes, due to their characteristic sound, as the cause of the objectionable noise. Signs prohibiting engine brake usage have been posted in some communities. The trucking industry is sensitive to these concerns and has studied the issue with regard to both new and in use trucks.

Truck, engine and equipment manufacturer studies have consistently found that improperly muffled vehicles are the root cause of this noise issue. Vehicle operating sound levels have been shown repeatedly to be much higher for vehicles with improper, defective or deteriorated mufflers. The problem is most pronounced on vehicles equipped with "straight stack" exhaust systems (i.e., no muffler). Studies have found that the sound level from "straight stacks" is 16 to 22 dB(A) higher than from original equipment mufflers [1]. Studies have also shown that the operation of an engine brake produces sound levels that are similar to those produced during acceleration on properly muffled vehicles [2].

Figure 1 shows total vehicle sound level data for a typical heavy-duty diesel powered vehicle. Sound levels are measured in 'A' weighted decibels or dB(A). This is a logarithmic scale weighted to the sensitivity of human hearing. Each doubling of a sound source will increase the sound level by 3 dB(A). An 18 dB(A) increase corresponds to a 64 fold increase in the sound source. Additional information on other vehicle/engine combinations is presented in Society of Automotive Engineers (SAE) papers [1] and [2].

Figure1. Typical Heavy-Duty Vehicle Results



Improper, defective or deteriorated mufflers will increase vehicle sound levels over those of properly maintained exhaust systems. The magnitude of the increase though is not as large as that for "straight stacks". A question that can be asked is how prevalent are improperly muffled exhaust systems on commercial vehicles? One survey observed a moderate traffic volume consisting of about 300 trucks per hour traveling on a stretch of Indiana highway. It found 5.3 percent of the trucks did not have a functioning muffler; in fact, 2.4 percent of the vehicles inspected were operating with "straight stacks" installed [1].

From this data one can conclude that residents living near that stretch of highway were on average exposed to 16 vehicles per hour with improperly muffled exhaust systems. These vehicles would be operating beyond acceptable noise levels during acceleration as well as retarding. Overall, this information supports the position that the root cause of objectionable vehicle noise is improperly muffled vehicles.

ABOUT THE LAW

All new vehicles must comply with EPA noise regulations. The maximum permitted noise level was set to 83 dB(A) in 1979 and later reduced to 80 dB(A) in 1988. The overall design and manufacture of heavy-duty trucks, including their exhaust systems, results in all new vehicles meeting the applicable regulations when they leave their manufacturer's factory.

The EPA regulations prohibit "The removal or rendering inoperative by any person, other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use". The EPA regulations also prohibit the use of a vehicle that has had the noise control system rendered inoperative. This is stated clearly on a label required on all vehicles sold in the U.S. and is fully explained in the operator's manual for every new truck [3]. The improperly muffled vehicles, especially those with straight stacks, are not operating in compliance with current federal regulations.

Most states have adopted motor vehicle regulations that address the configuration and condition of vehicles operated on their roads and highways. These regulations typically require that a vehicle be equipped with a proper exhaust system and a muffler. "Straight stacks" are not in compliance with either the federal or the state regulations.

WHAT CAN BE DONE

The current federal and state regulations addressing exhaust system configuration and maintenance are not always aggressively enforced. This has led communities to adopt ordinances of their own and post signs prohibiting engine brake usage. Prohibiting engine brake use attempts to solve the problem without addressing the real cause. Any action taken should address the small percentage of vehicles with improperly muffled exhaust systems that are at the root of the problem.

The most direct solution is to visually inspect vehicles for the presence of a muffler. This type of inspection is relatively simple to implement once some basic definitions of what constitutes a muffler are established. The inspection could be done as part of current roadside inspections with minimal additional training and effort. This action would address the root cause of the community problem and would eliminate the most severe noise offenders. This type of inspection would be the simplest way to start addressing the noise problem.

The drawback to a simple inspection is that it may not catch all offenders. Improper, defective or deteriorated mufflers that appear intact from the outside may be missed. Detecting these cases requires a roadside noise test. The EPA sets forth procedures in its regulations based on the SAE J366 Recommended Practice [4]. The International Standards Organization (ISO) also has procedures for driveby testing, described in ISO 362 [5]. A stationary test could be used to detect vehicles that are noise offenders [6]. However, active noise tests for inspection purposes are complicated by various vehicle and muffler configurations, and require calibrated noise-testing equipment and trained operators. Therefore visual inspection for the presence of mufflers is the simplest and most immediate way to address commercial vehicle noise.

If a community determines that a sign is still required, wording similar to the following examples is suggested. Signs under Oregon State Vehicle Code Section 811.492 read: Unmuffled Engine Brake Use Prohibited Except In Emergencies. Signs under Minnesota Traffic Regulations Section 169.69 read: Vehicle Noise Laws Enforced. Both address the root cause of the problem, do not adversely effect properly maintained vehicles and acknowledge the positive impact of engine brakes on operating safety.

CONCLUSIONS

Enforcement of current muffler regulations is the most direct way to address the noise issue. It will have benefits to the trucking industry as well as to the public. Installing the mufflers required by federal and most state motor vehicle regulations on vehicles that are operated without a muffler will reduce noise levels by 16 to 22 dB(A). This does not necessitate anything more than proper maintenance using original equipment mufflers or replacement systems that are equivalent to those provided by the vehicle manufacturer. Signs prohibiting engine brake usage should be eliminated. This is especially true since most heavy-duty vehicles are properly muffled and do not cause offensive noise when operating their engine brakes.

The benefits to the public are two-fold. First, proper mufflers effectively control objectionable noise during all modes of vehicle operation, not just retarding. This means that objectionable noise is controlled in congested city streets, stop and go traffic, climbing hills, as well as in retarding situations. The second public benefit comes indirectly in the goods we all use that are moved by truck. The improved effectiveness of trucks in terms of operating economy, reduced trip times and improved operating safety will be reflected in the cost of the goods they transport. Truckers will be free to utilize their engine brakes and realize the economic and operating benefits they were purchased to provide. The result will be more efficient transportation, safer vehicles and safer highways.

The benefits to properly muffling trucks and allowing engine brake usage to the trucking industry are also compelling. Drivers will benefit by being exposed to less on-the-job noise. Vehicle operating safety and productivity will be improved. Controlling the noise level of vehicles by installing proper mufflers will also serve to improve the overall image of the trucking industry.

REFERENCES:

1. Reinhart, Thomas E., "U.S. Vehicle Noise Regulations and the Effects of Vehicle Condition", SAE Paper 912709, Society of Automotive Engineers, Inc., 1991.

2. Reinhart, Thomas E. and Wahl, Thomas J., "Reducing Compression Brake Noise", SAE Paper 971870, Society of Automotive Engineers, Inc., 1997.

3. Environmental Protection Agency, "Noise Emission Standards for Transportation Equipment", Title 40, Code of Federal Regulations, Chapter 1, Part 205, Subpart B - Medium and Heavy Trucks.

4. Society of Automotive Engineers Recommended Practice J366, Sound Level for Heavy Trucks and Buses.

5. ISO 362 – Acoustics – Measurement of Noise Emitted by Accelerating Road Vehicles – Engineering Method.

6. Wahl, Thomas J. and Reinhart, Thomas E., "Developing a Test Procedure for Compression Brake Noise", SAE Paper 972038, Society of Automotive Engineers, Inc., 1997.

7. " RP 636 - Specifying Auxiliary Retarders ", 1998-1999 Recommended Engineering Practices Manual, The Maintenance Council - American Trucking Associations, Inc., 1998.

Jacobs Vehicle Systems
22 East Dudley Town Road
Bloomfield, CT 06002

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Rev. 1/00

Appendix C –

Site Photos

24.05.2007 10:52

24 05 2007 09:58

24.05.2007 11:00

24 05 2007 09 59

STOP
24 05 2007 10 00

24 05 2007 10 01

24.05.2007 10:04

Chateau Park
LONG TERM CARE CENTRE
24 05 2007 10 06

24 05 2007 10 08

24 05 2007 10:35

Assumption Church
24.05.2007 10:38

24.05.2007 10:38

Appendix D -
Traffic Data

Canadian Transit Company
May 2007

DATE	00:00 - 01:00			01:00 - 02:00			02:00 - 03:00			03:00 - 04:00			04:00 - 05:00			05:00 - 06:00			06:00 - 07:00		
	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS
01-May-07	109	224	0	109	221	0	55	132	0	49	143	1	81	171	2	222	177	1	826	323	0
02-May-07	72	193	0	41	240	0	52	175	1	58	153	0	97	208	3	235	241	0	835	283	3
03-May-07	71	185	0	57	178	0	44	150	0	57	179	1	102	164	1	213	222	0	815	304	0
04-May-07	124	182	0	45	164	0	63	115	1	67	153	0	94	152	2	244	206	0	792	267	4
05-May-07	144	72	0	89	104	0	101	73	0	130	73	1	82	70	0	111	87	1	219	72	1
06-May-07	155	48	0	150	30	3	166	28	2	111	25	0	84	17	1	104	37	0	200	47	0
07-May-07	90	136	0	109	120	0	59	137	1	63	126	0	121	143	1	243	199	2	906	319	0
08-May-07	63	169	0	50	189	0	31	178	1	59	173	0	89	191	0	196	195	0	844	300	0
09-May-07	52	196	0	42	184	0	47	179	1	57	182	0	75	172	1	194	222	0	749	296	0
10-May-07	69	205	0	45	190	0	38	145	0	48	147	0	79	190	1	223	231	0	835	295	1
11-May-07	94	144	0	62	150	0	54	142	2	83	140	0	66	169	1	200	194	0	881	311	2
12-May-07	141	93	0	100	89	1	132	67	0	100	68	1	86	70	1	117	78	1	261	77	0
13-May-07	211	49	0	152	41	0	149	41	2	99	23	0	82	27	1	89	29	0	192	42	1
14-May-07	107	116	0	86	125	0	66	146	1	102	145	1	106	172	2	215	176	2	677	316	0
15-May-07	72	215	1	35	187	0	34	160	1	58	162	0	80	186	1	229	213	0	837	316	1
16-May-07	57	190	0	35	183	0	52	189	0	68	149	1	63	192	3	231	214	0	772	311	0
17-May-07	66	210	0	58	183	0	46	182	1	64	143	0	106	164	0	191	207	1	799	313	1
18-May-07	92	157	0	66	127	0	59	107	1	73	102	0	113	115	0	241	124	0	598	274	1
19-May-07	162	97	0	127	73	1	112	50	0	131	33	2	66	40	1	146	63	0	241	60	0
20-May-07	188	39	0	166	25	0	137	19	0	136	18	2	62	26	0	104	36	1	242	39	1
21-May-07	118	102	0	63	64	0	60	80	1	101	79	0	100	117	1	203	104	0	805	188	4
22-May-07	75	106	0	36	112	0	28	87	0	58	118	1	98	137	1	193	183	0	902	209	3
23-May-07	63	222	0	48	226	1	40	167	0	76	162	1	68	199	2	250	228	0	780	261	1
24-May-07	66	146	1	50	165	0	52	171	1	59	174	0	83	169	2	251	183	0	713	303	1
25-May-07	79	139	0	65	155	0	81	140	1	64	149	1	80	158	1	218	184	1	725	239	1
26-May-07	172	77	0	119	71	0	107	72	1	137	48	2	71	55	3	112	54	0	255	57	0
27-May-07	160	28	1	117	33	1	112	17	0	137	12	2	93	23	2	98	16	1	185	20	0
28-May-07	148	97	2	90	76	0	112	74	0	101	54	1	95	58	1	87	105	2	216	110	0
29-May-07	95	174	1	82	202	0	47	182	0	62	168	0	77	167	1	180	191	0	861	310	4
30-May-07	61	163	0	51	171	0	41	147	1	65	194	0	98	155	0	233	212	0	780	294	0
31-May-07	67	225	0	40	215	0	45	144	0	67	153	0	77	193	2	204	175	0	794	296	1
TOTAL	3,243	4,399	6	2,385	4,293	7	2,222	3,696	20	2,540	3,648	18	2,674	4,070	38	5,777	4,786	13	19,537	6,852	31
AVERAGE	**105**	**142**	**0**	**77**	**138**	**0**	**72**	**119**	**1**	**82**	**118**	**1**	**86**	**131**	**1**	**186**	**154**	**0**	**630**	**221**	**1**

Canadian Transit Company
May 2007

DATE	07:00 - 08:00			08:00 - 09:00			09:00 - 10:00			10:00 - 11:00			11:00 - 12:00			12:00 - 13:00			13:00 - 14:00		
	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS
01-May-07	1072	310	1	861	326	1	474	296	0	305	278	1	274	310	0	274	338	2	274	346	0
02-May-07	1058	285	0	781	310	0	517	349	4	384	341	2	326	326	2	344	333	2	234	330	0
03-May-07	1102	301	0	809	312	0	493	335	1	356	307	0	352	316	0	355	303	0	271	322	1
04-May-07	1002	292	0	827	299	0	550	265	3	446	265	7	356	207	3	415	271	0	393	297	2
05-May-07	294	90	1	365	105	0	410	139	0	515	128	1	588	129	3	538	133	1	638	112	2
06-May-07	180	53	1	203	76	0	375	103	0	578	125	1	497	114	0	505	100	0	618	148	1
07-May-07	1053	308	0	969	306	1	491	319	0	357	334	2	318	271	2	327	301	0	306	321	2
08-May-07	1071	324	3	895	310	0	464	312	1	287	311	1	325	301	0	230	324	2	269	367	0
09-May-07	892	347	2	1027	339	0	467	332	0	378	341	0	293	334	0	310	355	1	216	283	0
10-May-07	1056	307	1	759	321	0	473	310	2	401	350	3	340	304	0	375	330	1	280	320	0
11-May-07	919	283	0	888	315	0	551	293	1	418	314	3	418	252	1	427	268	0	309	240	1
12-May-07	284	74	1	352	99	2	464	105	0	468	150	1	499	135	0	507	113	1	385	120	0
13-May-07	143	59	0	197	71	1	294	67	0	409	122	0	539	106	6	505	151	2	478	130	0
14-May-07	1013	270	1	1059	371	0	585	300	0	347	325	1	302	297	0	357	321	2	315	304	0
15-May-07	1103	332	6	832	337	0	443	338	3	333	264	3	315	318	2	287	306	0	241	293	2
16-May-07	1098	332	1	769	325	0	490	354	0	301	304	0	419	362	2	273	290	0	296	284	1
17-May-07	999	278	2	841	297	0	586	274	2	411	328	2	349	295	1	346	293	2	335	296	0
18-May-07	1094	271	1	1006	233	2	475	222	1	428	213	1	541	261	3	499	251	2	333	184	3
19-May-07	271	53	0	448	70	0	475	86	0	500	86	0	582	96	1	673	99	0	582	106	4
20-May-07	135	58	1	312	78	3	380	81	0	474	93	1	611	117	3	625	123	0	595	94	4
21-May-07	963	191	8	697	190	4	833	208	0	663	193	3	676	182	0	765	197	1	559	211	1
22-May-07	1022	227	4	749	263	0	496	287	1	332	258	3	316	285	2	316	275	1	291	312	0
23-May-07	876	286	0	976	276	3	495	320	0	344	329	0	330	350	1	304	333	1	296	318	0
24-May-07	1015	274	1	926	283	1	466	273	0	347	281	4	430	300	1	360	305	1	289	296	0
25-May-07	914	288	0	754	243	0	531	280	0	432	328	3	347	272	0	313	245	2	373	194	4
26-May-07	231	57	1	292	73	1	308	66	0	430	84	3	493	54	2	456	71	1	401	73	3
27-May-07	164	30	0	248	48	0	340	45	1	335	77	1	463	62	0	585	65	4	467	75	0
28-May-07	129	120	1	172	133	0	280	159	1	292	147	1	398	196	1	393	171	2	432	190	0
29-May-07	1047	297	2	767	342	0	543	321	1	434	332	5	389	363	1	357	325	1	341	341	0
30-May-07	1076	272	3	822	325	0	468	284	0	327	293	2	323	321	0	260	257	1	242	255	1
31-May-07	1117	271	0	760	285	0	525	342	0	312	272	1	413	299	0	308	328	1	309	277	0
TOTAL	24,393	6,940	42	21,363	7,361	19	14,742	7,465	22	12,344	7,573	56	12,822	7,535	37	12,589	7,575	34	11,368	7,439	32
AVERAGE	**787**	**224**	**1**	**689**	**237**	**1**	**476**	**241**	**1**	**398**	**244**	**2**	**414**	**243**	**1**	**406**	**244**	**1**	**367**	**240**	**1**

Canadian Transit Company
May 2007

DATE	14:00 - 15:00			15:00-16:00			16:00-17:00			17:00 - 18:00			18:00 - 19:00			19:00 - 20:00			20:00 - 21:00		
	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS
01-May-07	288	358	1	335	330	0	261	353	1	281	329	0	266	340	1	179	337	2	144	301	0
02-May-07	360	326	1	230	308	0	265	284	3	286	347	0	323	322	0	188	293	1	141	305	0
03-May-07	370	375	1	313	328	3	350	313	3	299	306	1	312	248	1	197	288	2	185	284	0
04-May-07	408	228	1	492	166	2	460	221	3	427	233	2	538	187	1	336	195	1	240	163	1
05-May-07	475	88	2	403	95	3	404	150	0	390	128	2	431	122	0	366	115	2	270	103	0
06-May-07	566	232	2	457	190	1	471	194	1	430	207	5	492	218	1	407	203	1	342	205	0
07-May-07	295	290	2	273	258	2	280	307	4	315	341	2	340	383	0	242	321	1	175	317	1
08-May-07	364	353	2	268	331	2	297	342	1	234	344	0	318	341	2	239	358	3	142	340	0
09-May-07	279	355	2	306	387	1	280	345	1	255	330	1	258	341	1	246	386	2	145	320	2
10-May-07	373	316	2	312	314	0	315	316	2	333	334	1	306	295	1	214	309	0	177	288	1
11-May-07	378	229	0	502	218	0	503	191	3	401	197	1	513	203	1	333	229	2	235	136	0
12-May-07	474	117	1	467	129	3	464	115	3	399	122	0	463	105	1	360	106	1	309	102	0
13-May-07	576	193	1	496	216	1	467	177	3	467	170	0	510	191	1	526	217	1	527	195	1
14-May-07	360	341	1	326	349	2	348	367	1	323	362	4	286	336	1	250	308	1	230	300	1
15-May-07	265	329	0	263	339	2	310	319	0	286	368	1	269	383	1	150	349	1	146	299	0
16-May-07	330	357	2	287	355	3	361	352	2	295	320	3	274	347	1	156	313	2	205	290	0
17-May-07	378	273	1	364	324	2	302	292	0	393	264	1	366	318	3	253	256	0	222	210	1
18-May-07	553	213	0	668	143	2	462	165	1	563	196	0	497	185	0	387	164	7	331	129	0
19-May-07	594	97	2	466	124	4	453	94	1	495	100	0	539	126	2	449	93	2	302	91	2
20-May-07	693	170	0	663	174	0	603	183	3	538	205	1	448	162	0	376	185	1	307	184	0
21-May-07	406	214	1	303	198	2	312	241	2	321	180	1	292	172	0	239	157	1	164	162	2
22-May-07	261	308	2	352	293	7	289	302	0	283	298	1	312	283	1	216	338	1	177	297	1
23-May-07	310	394	0	340	337	2	283	336	1	276	337	3	340	292	2	211	311	0	149	311	0
24-May-07	385	335	1	312	259	0	303	343	1	316	298	3	305	312	0	223	282	2	165	239	0
25-May-07	365	198	2	412	182	2	433	271	2	452	241	3	433	201	1	279	170	1	221	132	0
26-May-07	436	94	0	486	66	4	429	75	0	376	64	1	379	57	4	323	60	1	325	63	3
27-May-07	467	75	0	450	109	0	381	109	1	460	121	0	489	119	0	369	96	1	341	103	0
28-May-07	502	194	0	503	271	2	500	240	1	509	252	0	578	284	0	511	264	1	482	288	1
29-May-07	293	371	1	318	352	1	329	312	2	322	311	1	281	280	3	186	293	0	180	278	0
30-May-07	320	301	0	263	320	3	300	285	1	254	351	1	258	380	0	210	313	1	186	291	0
31-May-07	260	328	1	290	291	1	333	313	1	291	269	0	286	296	1	208	294	0	175	265	1
TOTAL	12,384	8,052	32	11,920	7,756	57	11,548	7,907	48	11,270	7,925	39	11,702	7,829	31	8,829	7,603	42	7,340	6,991	18
AVERAGE	**399**	**260**	**1**	**385**	**250**	**2**	**373**	**255**	**2**	**364**	**256**	**1**	**377**	**253**	**1**	**285**	**245**	**1**	**237**	**226**	**1**

Canadian Transit Company
May 2007

DATE	21:00 - 22:00			22:00 - 23:00			23:00 - 24:00			TOTAL		TOTAL	TOTAL	TOTAL
	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS			CARS	TRUCKS	BUSES
01-May-07	135	333	0	103	230	1	116	234	0	13,848		7,093	6,740	15
02-May-07	157	309	0	138	326	1	110	280	0	14,122		7,232	6,867	23
03-May-07	171	262	1	140	200	1	158	199	1	13,991		7,592	6,381	18
04-May-07	234	154	0	197	112	1	155	88	1	13,822		8,905	4,882	35
05-May-07	235	79	0	228	80	2	225	68	0	10,088		7,651	2,415	22
06-May-07	339	191	1	211	184	1	190	144	2	10,774		7,831	2,919	24
07-May-07	167	322	0	109	238	0	86	229	0	14,063		7,694	6,346	23
08-May-07	135	277	1	137	256	1	114	208	0	13,935		7,121	6,794	20
09-May-07	150	303	0	131	244	1	100	211	2	13,951		6,949	6,984	18
10-May-07	176	253	0	183	202	0	107	229	2	14,036		7,517	6,501	18
11-May-07	192	150	0	197	136	1	155	140	2	13,844		8,779	5,044	21
12-May-07	306	77	0	265	92	3	226	87	1	10,041		7,629	2,390	22
13-May-07	302	211	0	302	182	1	174	174	0	10,792		7,886	2,884	22
14-May-07	154	274	0	109	235	1	98	220	0	14,319		7,821	6,476	22
15-May-07	129	278	0	104	231	1	82	241	0	13,692		6,903	6,763	26
16-May-07	195	252	0	144	197	0	114	213	0	13,981		7,285	6,675	21
17-May-07	214	243	0	139	187	1	135	168	0	13,982		7,963	5,998	21
18-May-07	288	121	2	252	97	1	211	68	1	13,981		9,830	4,122	29
19-May-07	262	82	0	318	67	0	198	60	1	10,561		8,592	1,946	23
20-May-07	280	145	1	210	136	0	146	115	0	10,958		8,431	2,505	22
21-May-07	152	149	1	132	126	1	103	125	0	12,894		9,030	3,830	34
22-May-07	131	272	0	138	274	1	104	228	0	12,957		7,175	5,752	30
23-May-07	161	286	0	168	216	0	105	230	0	14,034		7,289	6,727	18
24-May-07	173	242	1	174	182	2	129	183	0	13,613		7,592	5,998	23
25-May-07	195	114	0	239	111	1	128	102	0	12,895		8,133	4,736	26
26-May-07	258	57	1	271	50	4	207	50	1	8,658		7,074	1,548	36
27-May-07	345	110	0	274	86	2	231	84	0	8,891		7,311	1,563	17
28-May-07	340	229	0	253	184	1	153	180	0	11,370		7,276	4,076	18
29-May-07	170	233	0	138	224	1	78	205	0	14,176		7,577	6,574	25
30-May-07	168	205	0	131	189	2	85	213	0	13,229		7,022	6,191	16
31-May-07	192	217	1	158	149	1	61	187	0	13,388		7,292	6,084	12
TOTAL	6,506	6,430	10	5,693	5,423	34	4,284	5,163	14	394,886		239,475	154,711	700
AVERAGE	**210**	**207**	**0**	**184**	**175**	**1**	**138**	**167**	**0**	**12,738**		**7,725**	**4,991**	**23**

Detroit International Bridge
May 2007

DATE	00:00 - 01:00			01:00 - 02:00			02:00 - 03:00			03:00 - 04:00			04:00 - 05:00			05:00 - 06:00			06:00 - 07:00		
	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS
01-May-07	88	175	2	43	159	0	37	142	0	17	122	0	30	129	0	37	123	1	110	179	0
02-May-07	84	197	1	46	151	0	22	143	0	22	136	0	20	129	1	47	127	1	116	197	0
03-May-07	81	203	1	59	165	0	40	150	1	21	138	0	33	162	0	51	126	0	132	185	0
04-May-07	92	223	1	60	160	0	32	153	0	29	140	0	33	139	0	70	159	0	132	188	0
05-May-07	207	184	1	115	164	2	69	130	0	43	87	0	31	91	1	57	88	0	118	122	1
06-May-07	177	45	0	129	38	0	83	34	0	52	31	0	30	25	1	49	27	1	77	28	0
07-May-07	88	36	1	57	65	1	32	68	0	23	97	0	23	68	2	65	87	0	136	125	1
08-May-07	101	181	1	49	159	0	23	147	0	16	119	0	17	118	1	63	147	0	158	173	0
09-May-07	90	182	1	36	167	0	32	146	1	13	127	0	14	129	0	39	148	1	102	207	0
10-May-07	97	181	2	56	159	0	28	129	0	17	130	0	23	161	0	46	156	0	138	183	0
11-May-07	123	208	1	57	150	1	34	177	0	13	146	0	34	121	0	72	153	1	137	205	0
12-May-07	154	177	1	92	140	1	70	111	0	33	116	0	30	89	0	42	92	2	113	129	0
13-May-07	155	43	1	102	44	1	72	24	0	43	24	1	30	22	0	33	23	0	78	27	0
14-May-07	79	58	2	78	63	1	19	65	0	14	76	1	22	71	0	63	86	2	148	107	0
15-May-07	80	177	2	44	159	0	25	149	1	17	140	0	15	108	0	43	154	0	121	171	0
16-May-07	93	184	1	43	154	0	34	140	0	18	132	0	29	113	0	51	143	0	108	180	2
17-May-07	90	176	0	46	162	0	47	158	0	19	128	0	28	116	0	54	156	0	166	168	0
18-May-07	119	194	1	64	138	0	36	125	2	25	139	0	38	114	0	69	150	1	130	178	0
19-May-07	178	172	1	95	121	0	77	106	0	39	88	0	44	58	2	59	76	0	131	88	1
20-May-07	232	33	1	123	29	0	75	21	0	41	22	0	42	29	1	52	22	0	103	36	0
21-May-07	142	28	3	56	29	0	39	39	0	34	31	0	26	34	0	46	34	0	113	71	1
22-May-07	132	124	1	62	115	0	33	100	0	18	118	0	27	81	0	70	123	0	192	145	0
23-May-07	76	170	1	49	142	0	31	131	0	23	99	0	21	114	0	60	108	0	159	178	0
24-May-07	92	190	1	61	185	1	38	123	0	17	133	0	23	132	0	55	131	3	159	176	0
25-May-07	143	186	1	58	147	0	39	132	0	30	122	0	36	117	1	57	134	1	152	186	1
26-May-07	221	215	2	120	132	0	87	125	1	67	95	1	60	70	1	99	101	2	142	104	2
27-May-07	157	38	3	106	33	1	72	38	0	39	21	1	27	19	0	53	21	1	95	29	0
28-May-07	157	46	2	98	46	1	56	59	0	20	54	0	35	45	0	77	54	1	113	79	0
29-May-07	68	64	1	41	68	0	19	66	0	18	61	0	31	67	0	47	72	0	155	116	0
30-May-07	86	178	1	46	141	0	23	141	0	15	120	0	26	99	0	52	143	0	129	180	0
31-May-07	82	177	2	43	166	0	32	123	0	20	119	0	23	111	0	53	109	0	151	179	2
TOTAL	3,764	4,445	40	2,134	3,751	10	1,356	3,395	6	816	3,111	4	901	2,881	11	1,731	3,273	18	4,014	4,319	11
AVERAGE	**121**	**143**	**1**	**69**	**121**	**0**	**44**	**110**	**0**	**26**	**100**	**0**	**29**	**93**	**0**	**56**	**106**	**1**	**129**	**139**	**0**

Detroit International Bridge
May 2007

DATE	07:00 - 08:00			08:00 - 09:00			09:00 - 10:00			10:00 - 11:00			11:00 - 12:00			12:00 - 13:00			13:00 - 14:00		
	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS
01-May-07	249	222	0	246	236	0	265	342	2	247	350	1	294	346	2	295	357	0	334	336	1
02-May-07	229	235	0	225	281	0	233	319	2	241	371	1	280	363	0	281	350	1	336	360	1
03-May-07	198	245	0	237	278	0	225	339	1	279	376	2	288	389	1	331	346	0	384	360	1
04-May-07	224	219	1	258	306	1	264	365	1	272	341	1	331	356	0	379	356	1	510	346	1
05-May-07	155	150	0	170	182	0	252	181	2	352	213	0	452	199	0	489	174	0	506	177	3
06-May-07	138	30	0	185	44	0	272	54	0	356	58	0	445	84	0	510	85	0	565	63	1
07-May-07	191	142	0	254	200	1	266	243	4	267	225	0	299	275	1	267	303	0	343	290	2
08-May-07	213	190	0	253	271	0	221	321	1	246	342	1	249	363	1	280	317	5	354	342	3
09-May-07	189	226	0	212	287	0	221	335	2	245	347	0	238	334	0	275	384	0	331	367	1
10-May-07	197	210	0	239	319	3	227	345	2	240	376	0	280	370	3	350	375	0	379	328	1
11-May-07	198	271	1	243	306	0	275	300	1	301	389	2	381	346	1	472	381	2	498	301	3
12-May-07	180	167	1	244	190	0	306	198	2	314	171	1	358	207	0	472	200	1	440	167	1
13-May-07	117	42	1	174	52	0	217	77	0	322	72	0	433	67	0	460	64	2	516	72	1
14-May-07	206	173	0	245	197	0	240	234	2	271	248	0	319	295	4	326	288	0	349	309	1
15-May-07	191	196	0	205	255	2	230	326	1	242	351	0	267	362	2	316	295	0	338	345	1
16-May-07	175	186	1	236	297	0	243	330	2	262	307	3	274	374	1	299	363	0	348	333	2
17-May-07	193	232	1	221	278	0	238	300	1	277	325	1	297	325	1	323	361	0	374	357	1
18-May-07	202	202	1	227	262	2	267	298	1	287	292	0	324	306	1	409	304	1	497	323	1
19-May-07	218	131	1	231	134	1	267	148	1	340	163	1	451	148	0	454	158	0	576	157	4
20-May-07	186	30	0	194	46	1	289	58	0	335	59	0	412	57	2	434	53	2	523	63	1
21-May-07	125	95	1	173	115	1	205	125	3	293	168	0	354	158	1	480	171	0	715	165	1
22-May-07	217	173	1	256	234	0	259	269	3	224	348	0	285	275	1	342	325	1	352	294	1
23-May-07	206	205	0	225	246	1	270	288	0	315	318	1	293	290	2	319	340	2	385	351	2
24-May-07	213	219	2	255	244	0	233	296	0	287	314	0	277	330	2	331	337	1	348	342	3
25-May-07	211	228	0	260	223	2	263	285	1	349	285	0	408	329	2	489	373	0	579	352	1
26-May-07	238	118	2	260	175	1	303	179	4	357	184	0	442	167	1	517	143	2	558	184	1
27-May-07	139	43	0	154	54	0	269	63	1	321	55	0	414	90	3	507	70	0	615	68	2
28-May-07	196	97	0	186	100	0	217	118	2	293	131	0	363	130	1	343	141	1	364	104	2
29-May-07	200	129	0	200	168	1	195	208	2	214	242	0	229	246	1	291	280	1	339	301	1
30-May-07	199	202	0	241	265	0	263	313	2	281	346	0	247	317	0	270	321	0	305	334	0
31-May-07	202	198	4	217	263	0	241	306	1	237	354	2	261	371	1	315	359	0	370	328	2
TOTAL	5,995	5,206	18	6,926	6,508	17	7,736	7,563	47	8,867	8,121	17	10,245	8,269	35	11,626	8,374	23	13,431	8,219	47
AVERAGE	**193**	**168**	**1**	**223**	**210**	**1**	**250**	**244**	**2**	**286**	**262**	**1**	**330**	**267**	**1**	**375**	**270**	**1**	**433**	**265**	**2**

Detroit International Bridge
May 2007

DATE	14:00 - 15:00			15:00-16:00			16:00-17:00			17:00 - 18:00			18:00 - 19:00			19:00 - 20:00			20:00 - 21:00		
	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS
01-May-07	378	299	0	612	413	3	859	383	0	996	375	2	753	341	0	483	331	0	358	346	0
02-May-07	441	328	0	641	348	1	900	422	3	1046	369	3	740	346	0	532	341	0	368	334	1
03-May-07	475	349	0	681	399	2	916	407	0	1024	338	1	729	376	1	552	310	0	384	332	3
04-May-07	582	418	2	905	362	3	1051	328	1	1135	351	2	812	372	3	666	301	1	528	313	1
05-May-07	623	147	0	598	141	2	706	151	2	763	118	6	600	119	2	597	123	2	422	87	3
06-May-07	563	66	0	662	74	4	652	71	0	707	81	4	640	67	1	561	73	3	434	70	1
07-May-07	368	308	2	706	322	2	905	340	1	1096	306	3	742	288	1	532	324	0	397	317	1
08-May-07	395	393	0	661	340	2	935	464	0	957	339	4	673	363	0	464	325	0	336	321	1
09-May-07	398	368	2	616	337	2	857	422	3	916	352	1	787	402	0	582	373	0	372	358	2
10-May-07	417	356	0	666	412	3	984	398	1	1017	382	1	790	349	2	558	342	0	375	351	0
11-May-07	593	413	0	788	389	1	1125	353	1	1110	334	2	811	323	2	656	332	0	499	304	1
12-May-07	505	158	3	549	144	0	542	150	0	602	155	2	509	138	1	506	104	1	486	121	1
13-May-07	492	71	3	544	66	1	537	78	1	485	55	3	486	73	0	476	63	1	416	53	1
14-May-07	386	323	0	674	348	2	870	349	0	1067	319	2	764	355	1	559	280	0	380	299	0
15-May-07	412	342	4	591	337	4	716	384	1	1036	378	0	736	370	1	464	303	0	304	343	5
16-May-07	444	326	0	619	404	1	930	416	1	1023	365	0	696	353	1	479	347	0	330	344	1
17-May-07	440	298	2	669	419	2	882	391	0	1039	357	1	764	339	1	545	330	1	407	295	1
18-May-07	584	339	1	845	317	3	1116	325	1	1061	269	2	918	294	1	734	291	2	543	273	2
19-May-07	600	142	1	657	121	2	613	106	0	617	129	4	590	108	0	599	96	0	502	107	1
20-May-07	562	49	2	732	50	4	743	51	2	707	43	5	720	46	1	619	39	0	448	36	2
21-May-07	799	222	3	1028	196	2	1383	223	1	1447	223	5	1167	217	2	826	212	3	638	212	2
22-May-07	412	312	4	589	347	1	871	346	0	986	339	3	627	316	0	470	322	1	315	286	4
23-May-07	469	362	2	648	382	1	916	364	1	1052	347	1	719	356	2	490	337	0	350	275	1
24-May-07	432	375	0	669	361	2	928	357	1	1091	376	2	780	358	2	537	304	0	419	345	0
25-May-07	711	363	1	965	347	1	1130	330	1	1124	360	0	825	346	1	664	300	1	461	291	1
26-May-07	578	159	2	641	135	2	626	129	1	625	134	2	677	114	2	625	87	0	407	90	2
27-May-07	582	79	0	612	85	3	601	87	1	605	70	0	577	76	3	544	74	0	412	52	1
28-May-07	392	130	1	356	122	0	351	102	0	262	66	4	306	76	0	317	95	1	292	126	0
29-May-07	475	328	1	679	363	4	913	356	0	1106	329	2	648	329	1	459	314	0	346	305	2
30-May-07	418	326	2	576	250	1	907	432	0	1011	363	1	643	359	2	488	331	1	339	313	1
31-May-07	447	358	1	635	370	1	917	388	0	947	318	1	629	392	0	490	333	1	406	340	1
TOTAL	15,373	8,507	39	20,814	8,701	62	26,382	9,103	24	28,660	8,340	69	21,858	8,361	34	17,074	7,737	19	12,674	7,639	43
AVERAGE	**496**	**274**	**1**	**671**	**281**	**2**	**851**	**294**	**1**	**925**	**269**	**2**	**705**	**270**	**1**	**551**	**250**	**1**	**409**	**246**	**1**

Detroit International Bridge
May 2007

DATE	21:00 - 22:00			22:00 - 23:00			23:00 - 24:00			TOTAL		TOTAL	TOTAL	TOTAL
	CAR	TRK	BUS	CAR	TRK	BUS	CAR	TRK	BUS			CARS	TRUCKS	BUSES
01-May-07	266	296	0	255	314	0	146	247	0	13,975		7,398	6,563	14
02-May-07	293	272	1	252	297	1	182	258	0	14,269		7,577	6,674	18
03-May-07	359	274	0	265	283	1	201	284	0	14,774		7,945	6,814	15
04-May-07	491	274	1	403	277	0	357	224	0	16,308		9,616	6,671	21
05-May-07	453	104	2	386	92	1	286	66	0	11,770		8,450	3,290	30
06-May-07	320	82	2	213	82	0	167	67	1	9,385		7,987	1,379	19
07-May-07	353	267	0	233	244	0	197	236	0	13,039		7,840	5,176	23
08-May-07	331	304	0	238	272	1	168	228	0	13,961		7,401	6,539	21
09-May-07	288	291	2	241	296	0	183	226	1	14,107		7,277	6,811	19
10-May-07	331	276	2	269	263	0	192	246	0	14,733		7,916	6,797	20
11-May-07	473	297	1	499	252	0	319	223	2	16,408		9,711	6,674	23
12-May-07	385	75	1	367	78	0	269	67	0	10,931		7,568	3,344	19
13-May-07	281	78	0	229	66	1	297	69	1	8,339		6,995	1,325	19
14-May-07	336	272	1	254	267	0	168	215	0	13,153		7,837	5,297	19
15-May-07	251	297	2	206	266	2	175	208	0	13,469		7,025	6,416	28
16-May-07	296	284	1	223	269	0	143	214	0	13,971		7,396	6,558	17
17-May-07	292	322	2	263	267	0	186	229	0	14,364		7,860	6,489	15
18-May-07	465	242	1	481	215	0	305	177	0	15,537		9,746	5,767	24
19-May-07	480	66	4	469	65	1	420	61	0	11,481		8,707	2,749	25
20-May-07	316	41	0	287	35	0	234	40	2	9,423		8,409	988	26
21-May-07	586	197	7	397	177	5	277	168	0	14,700		11,349	3,310	41
22-May-07	329	246	2	274	212	0	173	200	1	13,189		7,515	5,650	24
23-May-07	307	248	0	310	231	0	149	191	0	13,932		7,842	6,073	17
24-May-07	318	256	0	260	240	3	198	234	0	14,402		8,021	6,358	23
25-May-07	483	280	2	429	242	0	308	224	0	16,374		10,174	6,182	18
26-May-07	421	64	1	329	54	0	276	58	0	11,724		8,676	3,016	32
27-May-07	382	61	0	261	62	0	291	47	0	9,190		7,835	1,335	20
28-May-07	245	98	0	201	88	1	133	76	0	7,573		5,373	2,183	17
29-May-07	276	257	2	204	254	1	137	206	0	12,439		7,290	5,129	20
30-May-07	301	273	2	197	272	0	184	237	0	13,516		7,247	6,256	13
31-May-07	336	282	0	238	263	0	153	235	0	13,906		7,445	6,442	19
TOTAL	11,044	6,676	39	9,133	6,295	18	6,874	5,461	8	404,342		249,428	154,255	659
AVERAGE	**356**	**215**	**1**	**295**	**203**	**1**	**222**	**176**	**0**	**13,043**		**8,046**	**4,976**	**21**

	A	B	C	D	E	F	G	H	I	J	K	L
1				Station Name:Huron Church S of University								
2				Site ID:000000HUR020								
3				Station Num:000000000005								
4				Description:								
5				City:Windsor								
6				County:								
7				Start Date/Time:09/25/05 00:00								
8				End Date/Time:10/01/05 23:59								
9												
10		25- Sun	26- Mon	27- Tue	28- Wed	29- Thu	30- Fri	1- Sat	Total	Wkday- Avg.		
11	00:00 Lane 1 (North)	185	97	104	118		128	176	808	112		
12	Lane 2 (South)	98	51	63	62		73	129	476	62		
13	All Lanes	283	148	167	180		201	305	1284	174		214
14	01:00 Lane 1 (North)	146	62	76	53		95	139	571	72		
15	Lane 2 (South)	73	48	43	31		52	73	320	44		
16	All Lanes	219	110	119	84		147	212	891	115		149
17	02:00 Lane 1 (North)	138	48	37	54		73	139	489	53		
18	Lane 2 (South)	48	24	29	28		42	63	234	31		
19	All Lanes	186	72	66	82		115	202	723	84		121
20	03:00 Lane 1 (North)	98	26	20	31		46	82	303	31		
21	Lane 2 (South)	43	10	20	19		31	46	169	20		
22	All Lanes	141	36	40	50		77	128	472	51		79
23	04:00 Lane 1 (North)	63	17	20	18		24	43	185	20		
24	Lane 2 (South)	25	14	14	9		16	24	102	13		
25	All Lanes	88	31	34	27		40	67	287	33		48
26	05:00 Lane 1 (North)	35	28	27	34		47	36	207	34		
27	Lane 2 (South)	15	28	46	41		39	14	183	39		
28	All Lanes	50	56	73	75		86	50	390	73		65
29	06:00 Lane 1 (North)	45	102	102	87		96	53	485	97		
30	Lane 2 (South)	23	45	49	52		46	26	241	48		
31	All Lanes	68	147	151	139		142	79	726	145		121
32	07:00 Lane 1 (North)	40	187	172	203		177	90	869	185		
33	Lane 2 (South)	64	106	123	125		95	67	580	112		
34	All Lanes	104	293	295	328		272	157	1449	297		242
35	08:00 Lane 1 (North)	91	271	264	298		251	134	1309	271		
36	Lane 2 (South)	49	277	300	326		262	71	1285	291		
37	All Lanes	140	548	564	624		513	205	2594	562		432
38	09:00 Lane 1 (North)	125	255	269	295		223	166	1333	261		
39	Lane 2 (South)	70	238	281	269		204	87	1149	248		
40	All Lanes	195	493	550	564		427	253	2482	509		414
41	10:00 Lane 1 (North)	185	235	273	257		244	184	1378	252		
42	Lane 2 (South)	157	188	212	188		188	108	1041	194		
43	All Lanes	342	423	485	445		432	292	2419	446		403
44	11:00 Lane 1 (North)	293	330	373	384		366	226	1972	363		
45	Lane 2 (South)	156	235	274	239		274	161	1339	256		
46	All Lanes	449	565	647	623		640	387	3311	619		552
47	12:00 Lane 1 (North)	291	314	361	368		343	270	1947	347		
48	Lane 2 (South)	177	255	266	265		225	175	1363	253		
49	All Lanes	468	569	627	633		568	445	3310	599		552
50	13:00 Lane 1 (North)	252	325	281	345		400	277	1880	338		
51	Lane 2 (South)	196	247	215	244		258	149	1309	241		
52	All Lanes	448	572	496	589		658	426	3189	579		532
53	14:00 Lane 1 (North)	319	408	403	436		461	285	2312	427		
54	Lane 2 (South)	192	298	296	281		287	185	1539	291		
55	All Lanes	511	706	699	717		748	470	3851	718		642
56	15:00 Lane 1 (North)	262	368	468	417		438	268	2221	423		
57	Lane 2 (South)	198	270	330	302		314	202	1616	304		
58	All Lanes	460	638	798	719		752	470	3837	727		640
59	16:00 Lane 1 (North)	291	440	441	467		457	278	2374	451		
60	Lane 2 (South)	277	299	293	291		305	254	1719	297		
61	All Lanes	568	739	734	758		762	532	4093	748		682
62	17:00 Lane 1 (North)	254	435	418	460		357	285	2209	418		
63	Lane 2 (South)	239	292	268	297		282	249	1627	285		
64	All Lanes	493	727	686	757		639	534	3836	702		639
65	18:00 Lane 1 (North)	311	359	323	379		295	248	1915	339		
66	Lane 2 (South)	270	354	326	395		326	305	1976	350		
67	All Lanes	581	713	649	774		621	553	3891	689		649
68	19:00 Lane 1 (North)	294	278	294	278		239	280	1663	272		
69	Lane 2 (South)	272	245	257	258		280	259	1571	260		
70	All Lanes	566	523	551	536		519	539	3234	532		539
71	20:00 Lane 1 (North)	328	278	238	262		241	210	1557	255		
72	Lane 2 (South)	208	221	197	235		220	239	1320	218		
73	All Lanes	536	499	435	497		461	449	2877	473		480
74	21:00 Lane 1 (North)	192	254	291	287		198	228	1450	258		
75	Lane 2 (South)	169	194	183	180		204	199	1129	190		
76	All Lanes	361	448	474	467		402	427	2579	448		430
77	22:00 Lane 1 (North)	159	204	198	229		241	237	1268	218		
78	Lane 2 (South)	99	154	124	140		172	182	871	148		
79	All Lanes	258	358	322	369		413	419	2139	366		357
80	23:00 Lane 1 (North)	154	132	165	196		201	192	1040	174		
81	Lane 2 (South)	84	83	102	117		175	154	715	119		
82	All Lanes	238	215	267	313		376	346	1755	293		293
83												
84	Total	7753	9629	9929	10350		10011	7947	55619	9980		9270

	A	B	C	D	E	F	G	H	I	J	K
1				Station Name:Huron Church S of University							
2				Site ID:000000HUR020							
3				Station Num:000000000005							
4				Description:							
5				City:Windsor							
6				County:							
7				Start Date/Time:10/02/05 00:00							
8				End Date/Time:10/08/05 23:59							
9											
10		2- Sun	3- Mon	4- Tue	5- Wed	6- Thu	7- Fri	8- Sat	Total	Wkday- Avg.	
11	00:00 Lane 1 (North)	185	97	104	118				504	106	
12	Lane 2 (South)	98	51	63	62				274	59	
13	All Lanes	283	148	167	180				778	165	
14	01:00 Lane 1 (North)	146	62	76	53				337	64	
15	Lane 2 (South)	73	48	43	31				195	41	
16	All Lanes	219	110	119	84				532	104	
17	02:00 Lane 1 (North)	138	48	37	54				277	46	
18	Lane 2 (South)	48	24	29	28				129	27	
19	All Lanes	186	72	66	82				406	73	
20	03:00 Lane 1 (North)	98	26	20	31				175	26	
21	Lane 2 (South)	43	10	20	19				92	16	
22	All Lanes	141	36	40	50				267	42	
23	04:00 Lane 1 (North)	63	17	20	18				118	18	
24	Lane 2 (South)	25	14	14	9				62	12	
25	All Lanes	88	31	34	27				180	31	
26	05:00 Lane 1 (North)	35	28	27	34				124	30	
27	Lane 2 (South)	15	28	46	41				130	38	
28	All Lanes	50	56	73	75				254	68	
29	06:00 Lane 1 (North)	45	102	102	87				336	97	
30	Lane 2 (South)	23	45	49	52				169	49	
31	All Lanes	68	147	151	139				505	146	
32	07:00 Lane 1 (North)	40	187	172	203				602	187	
33	Lane 2 (South)	64	106	123	125				418	118	
34	All Lanes	104	293	295	328				1020	305	
35	08:00 Lane 1 (North)	91	271	264	298				924	278	
36	Lane 2 (South)	49	277	300	326				952	301	
37	All Lanes	140	548	564	624				1876	579	
38	09:00 Lane 1 (North)	125	255	269	295				944	273	
39	Lane 2 (South)	70	238	281	269				858	263	
40	All Lanes	195	493	550	564				1802	536	
41	10:00 Lane 1 (North)	185	235	273	257				950	255	
42	Lane 2 (South)	157	188	212	188				745	196	
43	All Lanes	342	423	485	445				1695	451	
44	11:00 Lane 1 (North)	293	330	373	384				1380	362	
45	Lane 2 (South)	156	235	274	239				904	249	
46	All Lanes	449	565	647	623				2284	612	
47	12:00 Lane 1 (North)	291	314	361	368				1334	348	
48	Lane 2 (South)	177	255	266	265				963	262	
49	All Lanes	468	569	627	633				2297	610	
50	13:00 Lane 1 (North)	252	325	281	345				1203	317	
51	Lane 2 (South)	196	247	215	244				902	235	
52	All Lanes	448	572	496	589				2105	552	
53	14:00 Lane 1 (North)	319	408	403	436				1566	416	
54	Lane 2 (South)	192	298	296	281				1067	292	
55	All Lanes	511	706	699	717				2633	707	
56	15:00 Lane 1 (North)	262	368	468	417				1515	418	
57	Lane 2 (South)	198	270	330	302		-		1100	301	
58	All Lanes	460	638	798	719				2615	718	
59	16:00 Lane 1 (North)	291	440	441	467				1639	449	
60	Lane 2 (South)	277	299	293	291				1160	294	
61	All Lanes	568	739	734	758				2799	744	
62	17:00 Lane 1 (North)	254	435	418	460				1567	438	
63	Lane 2 (South)	239	292	268	297				1096	286	
64	All Lanes	493	727	686	757				2663	723	
65	18:00 Lane 1 (North)	311	359	323	379				1372	354	
66	Lane 2 (South)	270	354	326	395				1345	358	
67	All Lanes	581	713	649	774				2717	712	
68	19:00 Lane 1 (North)	294	278	294	278				1144	283	
69	Lane 2 (South)	272	245	257	258				1032	253	
70	All Lanes	566	523	551	536				2176	537	
71	20:00 Lane 1 (North)	328	278	238	262				1106	259	
72	Lane 2 (South)	208	221	197	235				861	218	
73	All Lanes	536	499	435	497				1967	477	
74	21:00 Lane 1 (North)	192	254	291	287				1024	277	
75	Lane 2 (South)	169	194	183	180				726	186	
76	All Lanes	361	448	474	467				1750	463	
77	22:00 Lane 1 (North)	159	204	198	229				790	210	
78	Lane 2 (South)	99	154	124	140				517	139	
79	All Lanes	258	358	322	369				1307	350	
80	23:00 Lane 1 (North)	154	132	165	196				647	164	
81	Lane 2 (South)	84	83	102	117				386	101	
82	All Lanes	238	215	267	313				1033	265	
83											
84	Total	7753	9629	9929	10350				37661	9969	

	A	B	C	D	E	F	G	H	I	J	K
1				Station Name:Riverside W of Huron Church							
2				Site ID:000000RIS010							
3				Station Num:000000000011							
4				Description:							
5				City:Windsor							
6				County:							
7				Start Date/Time:11/28/04 00:00							
8				End Date/Time:12/04/04 23:59							
9											
10		28- Sun	29- Mon	30- Tue	1- Wed	2- Thu	3- Fri	4- Sat	Total	Wkday- Avg.	
11	00:00 Lane 1 (East)					82	71	103	256	77	
12	Lane 2 (West)					102	112	187	401	107	
13	All Lanes					184	183	290	657	184	
14	01:00 Lane 1 (East)					56	47	90	193	52	
15	Lane 2 (West)					46	71	98	215	59	
16	All Lanes					102	118	188	408	110	
17	02:00 Lane 1 (East)					39	38	79	156	39	
18	Lane 2 (West)					48	57	92	197	53	
19	All Lanes					87	95	171	353	91	
20	03:00 Lane 1 (East)					37	36	41	114	37	
21	Lane 2 (West)					34	43	55	132	39	
22	All Lanes					71	79	96	246	75	
23	04:00 Lane 1 (East)					28	23	30	81	26	
24	Lane 2 (West)					29	32	37	98	31	
25	All Lanes					57	55	67	179	56	
26	05:00 Lane 1 (East)					64	79	46	189	72	
27	Lane 2 (West)					66	75	48	189	71	
28	All Lanes					130	154	94	378	142	
29	06:00 Lane 1 (East)					268	253	128	649	261	
30	Lane 2 (West)					182	171	95	448	177	
31	All Lanes					450	424	223	1097	437	
32	07:00 Lane 1 (East)					363	369	114	846	366	
33	Lane 2 (West)					232	228	109	569	230	
34	All Lanes					595	597	223	1415	596	
35	08:00 Lane 1 (East)					449	388	129	966	419	
36	Lane 2 (West)					237	232	132	601	235	
37	All Lanes					686	620	261	1567	653	
38	09:00 Lane 1 (East)					239	219	145	603	229	
39	Lane 2 (West)					241	210	152	603	226	
40	All Lanes					480	429	297	1206	455	
41	10:00 Lane 1 (East)					209	209	143	561	209	
42	Lane 2 (West)					182	232	169	583	207	
43	All Lanes					391	441	312	1144	416	
44	11:00 Lane 1 (East)					216	230	187	633	223	
45	Lane 2 (West)					246	259	212	717	253	
46	All Lanes					462	489	399	1350	476	
47	12:00 Lane 1 (East)					226	228	218	672	227	
48	Lane 2 (West)					262	297	248	807	280	
49	All Lanes					488	525	466	1479	507	
50	13:00 Lane 1 (East)					251	255	201	707	253	
51	Lane 2 (West)					300	320	263	883	310	
52	All Lanes					551	575	464	1590	563	
53	14:00 Lane 1 (East)					291	294	257	842	293	
54	Lane 2 (West)					367	375	264	1006	371	
55	All Lanes					658	669	521	1848	664	
56	15:00 Lane 1 (East)					347	317	238	902	332	
57	Lane 2 (West)					490	509	313	1312	500	
58	All Lanes					837	826	551	2214	832	
59	16:00 Lane 1 (East)					311	295	213	819	303	
60	Lane 2 (West)					595	537	295	1427	566	
61	All Lanes					906	832	508	2246	869	
62	17:00 Lane 1 (East)					277	264	289	830	271	
63	Lane 2 (West)					467	443	204	1114	455	
64	All Lanes					744	707	493	1944	726	
65	18:00 Lane 1 (East)					241	252	199	692	247	
66	Lane 2 (West)					257	302	249	808	280	
67	All Lanes					498	554	448	1500	526	
68	19:00 Lane 1 (East)					206	205	181	592	206	
69	Lane 2 (West)					221	224	256	701	223	
70	All Lanes					427	429	437	1293	428	
71	20:00 Lane 1 (East)					163	160	159	482	162	
72	Lane 2 (West)					196	195	226	617	196	
73	All Lanes					359	355	385	1099	357	
74	21:00 Lane 1 (East)					205	197	177	579	201	
75	Lane 2 (West)					222	201	198	621	212	
76	All Lanes					427	398	375	1200	413	
77	22:00 Lane 1 (East)					205	216	215	636	211	
78	Lane 2 (West)					285	250	258	793	268	
79	All Lanes					490	466	473	1429	478	
80	23:00 Lane 1 (East)					171	178	208	557	175	
81	Lane 2 (West)					198	213	203	614	206	
82	All Lanes					369	391	411	1171	380	
83											
84	Total					10449	10411	8153	29013	10430	

	A	B	C	D	E	F	G	H	I	J	K	L
1				Station Name:Riverside W of Huron Church								
2				Site ID:000000RIS010								
3				Station Num:000000000011								
4				Description:								
5				City:Windsor								
6				County:								
7				Start Date/Time:12/05/04 00:00								
8				End Date/Time:12/11/04 23:59								
9												
10		5- Sun	6- Mon	7- Tue	8- Wed	9- Thu	10- Fri	11- Sat	Total	Wkday- Avg.		
11	00:00 Lane 1 (East)	115	67	75		82	71	103	513	74		
12	Lane 2 (West)	216	82	98		102	112	187	797	99		
13	All Lanes	331	149	173		184	183	290	1310	172		218
14	01:00 Lane 1 (East)	99	28	39		56	47	90	359	43		
15	Lane 2 (West)	132	46	49		46	71	98	442	53		
16	All Lanes	231	74	88		102	118	188	801	96		134
17	02:00 Lane 1 (East)	86	33	29		39	38	79	304	35		
18	Lane 2 (West)	113	42	32		48	57	92	384	45		
19	All Lanes	199	75	61		87	95	171	688	80		115
20	03:00 Lane 1 (East)	55	22	35		37	36	41	226	33		
21	Lane 2 (West)	71	27	33		34	43	55	263	34		
22	All Lanes	126	49	68		71	79	96	489	67		82
23	04:00 Lane 1 (East)	28	28	21		28	23	30	158	25		
24	Lane 2 (West)	38	27	26		29	32	37	189	29		
25	All Lanes	66	55	47		57	55	67	347	54		58
26	05:00 Lane 1 (East)	30	78	63		64	79	46	360	71		
27	Lane 2 (West)	29	75	72		66	75	48	365	72		
28	All Lanes	59	153	135		130	154	94	725	143		121
29	06:00 Lane 1 (East)	82	253	272		268	253	128	1256	262		
30	Lane 2 (West)	72	200	174		182	171	95	894	182		
31	All Lanes	154	453	446		450	424	223	2150	443		358
32	07:00 Lane 1 (East)	90	380	376		363	369	114	1692	372		
33	Lane 2 (West)	75	216	245		232	228	109	1105	230		
34	All Lanes	165	596	621		595	597	223	2797	602		466
35	08:00 Lane 1 (East)	80	427	477		449	388	129	1950	435		
36	Lane 2 (West)	100	228	232		237	232	132	1161	232		
37	All Lanes	180	655	709		686	620	261	3111	668		519
38	09:00 Lane 1 (East)	129	248	234		239	219	145	1214	235		
39	Lane 2 (West)	117	184	207		241	210	152	1111	211		
40	All Lanes	246	432	441		480	429	297	2325	446		388
41	10:00 Lane 1 (East)	167	193	181		209	209	143	1102	198		
42	Lane 2 (West)	160	211	177		182	232	169	1131	201		
43	All Lanes	327	404	358		391	441	312	2233	399		372
44	11:00 Lane 1 (East)	198	195	196		216	230	187	1222	209		
45	Lane 2 (West)	233	255	228		246	259	212	1433	247		
46	All Lanes	431	450	424		462	489	399	2655	456		443
47	12:00 Lane 1 (East)	190	227	244		226	228	218	1333	231		
48	Lane 2 (West)	241	291	279		262	297	248	1618	282		
49	All Lanes	431	518	523		488	525	466	2951	514		492
50	13:00 Lane 1 (East)	277	241	243		251	255	201	1468	248		
51	Lane 2 (West)	264	309	274		300	320	263	1730	301		
52	All Lanes	541	550	517		551	575	464	3198	548		533
53	14:00 Lane 1 (East)	217	283	310		291	294	257	1652	295		
54	Lane 2 (West)	274	377	380		367	375	264	2037	375		
55	All Lanes	491	660	690		658	669	521	3689	669		615
56	15:00 Lane 1 (East)	245	357	394		347	317	238	1898	354		
57	Lane 2 (West)	261	503	560		490	509	313	2636	516		
58	All Lanes	506	860	954		837	826	551	4534	869		756
59	16:00 Lane 1 (East)	227	335	293		311	295	213	1674	309		
60	Lane 2 (West)	361	549	591		595	537	295	2928	568		
61	All Lanes	588	884	884		906	832	508	4602	877		767
62	17:00 Lane 1 (East)	198	219	256		277	264	289	1503	254		
63	Lane 2 (West)	259	459	490		467	443	204	2322	465		
64	All Lanes	457	678	746		744	707	493	3825	719		638
65	18:00 Lane 1 (East)	195	202	231		241	252	199	1320	232		
66	Lane 2 (West)	233	282	263		257	302	249	1586	276		
67	All Lanes	428	484	494		498	554	448	2906	508		484
68	19:00 Lane 1 (East)	193	171	137		206	205	181	1093	180		
69	Lane 2 (West)	177	209	215		221	224	256	1302	217		
70	All Lanes	370	380	352		427	429	437	2395	397		399
71	20:00 Lane 1 (East)	138	147	140		163	160	159	907	153		
72	Lane 2 (West)	170	190	182		196	195	226	1159	191		
73	All Lanes	308	337	322		359	355	385	2066	343		344
74	21:00 Lane 1 (East)	139	123	131		205	197	177	972	164		
75	Lane 2 (West)	143	188	178		222	201	198	1130	197		
76	All Lanes	282	311	309		427	398	375	2102	361		350
77	22:00 Lane 1 (East)	178	158	147		205	216	215	1119	182		
78	Lane 2 (West)	142	147	180		285	250	258	1262	216		
79	All Lanes	320	305	327		490	466	473	2381	397		397
80	23:00 Lane 1 (East)	147	129	144		171	178	208	977	156		
81	Lane 2 (West)	114	148	154		198	213	203	1030	178		
82	All Lanes	261	277	298		369	391	411	2007	334		335
83												
84	Total	7498	9789	9987		10449	10411	8153	56287	10159		9381

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1				Station Name:University W of Huron Church										
2				Site ID:000000UNI010										
3				Station Num:000000000010										
4				Description:										
5				City:Windsor										
6				County:										
7				Start Date/Time:10/01/06 00:00										
8				End Date/Time:10/07/06 23:59										
9														
10		1- Sun	2- Mon	3- Tue	4- Wed	5- Thu	6- Fri	7- Sat	Total	Daily- Avg	Wkday- Av	Wkend- Avg.		
11	00:00 Lane 1 (East)	99	53	47	61	78	68	98	504	72	61	99		
12	Lane 2 (West)	68	51	45	49	62	63	75	413	59	54	72		
13	All Lanes	167	104	92	110	140	131	173	917	131	115	170		131
14	01:00 Lane 1 (East)	72	29	39	44	60	55	57	356	51	45	65		
15	Lane 2 (West)	50	15	28	29	38	44	44	248	35	31	47		
16	All Lanes	122	44	67	73	98	99	101	604	86	76	112		86
17	02:00 Lane 1 (East)	63	32	35	35	50	34	56	305	44	37	60		
18	Lane 2 (West)	66	23	24	26	34	32	47	252	36	28	57		
19	All Lanes	129	55	59	61	84	66	103	557	80	65	116		80
20	03:00 Lane 1 (East)	56	20	13	17	17	23	31	177	25	18	44		
21	Lane 2 (West)	42	11	17	12	24	17	35	158	23	16	39		
22	All Lanes	98	31	30	29	41	40	66	335	48	34	82		48
23	04:00 Lane 1 (East)	34	14	11	18	13	14	29	133	19	14	32		
24	Lane 2 (West)	31	12	9	9	8	21	22	112	16	12	27		
25	All Lanes	65	26	20	27	21	35	51	245	35	26	58		35
26	05:00 Lane 1 (East)	16	39	35	39	43	37	16	225	32	39	16		
27	Lane 2 (West)	17	15	11	17	17	19	20	116	17	16	19		
28	All Lanes	33	54	46	56	60	56	36	341	49	54	35		49
29	06:00 Lane 1 (East)	20	63	79	74	94	74	53	457	65	77	37		
30	Lane 2 (West)	10	38	34	38	35	46	27	228	33	38	19		
31	All Lanes	30	101	113	112	129	120	80	685	98	115	55		98
32	07:00 Lane 1 (East)	47	179	179	215	172	184	53	1029	147	186	50		
33	Lane 2 (West)	20	46	48	58	47	60	31	310	44	52	26		
34	All Lanes	67	225	227	273	219	244	84	1339	191	238	76		191
35	08:00 Lane 1 (East)	57	305	386	381	365	322	80	1896	271	352	69		
36	Lane 2 (West)	34	80	69	82	66	71	43	445	64	74	39		
37	All Lanes	91	385	455	463	431	393	123	2341	334	425	107		334
38	09:00 Lane 1 (East)	86	247	212	224	221	207	108	1305	186	222	97		
39	Lane 2 (West)	69	80	69	78	73	61	41	471	67	72	55		
40	All Lanes	155	327	281	302	294	268	149	1776	254	294	152		254
41	10:00 Lane 1 (East)	126	174	153	167	177	157	129	1083	155	166	128		
42	Lane 2 (West)	90	67	65	75	75	87	68	527	75	74	79		
43	All Lanes	216	241	218	242	252	244	197	1610	230	239	207		230
44	11:00 Lane 1 (East)	149	186	196	196	200	205	138	1270	181	197	144		
45	Lane 2 (West)	61	125	89	98	105	100	62	640	91	103	62		
46	All Lanes	210	311	285	294	305	305	200	1910	273	300	205		273
47	12:00 Lane 1 (East)	146	182	215	173	203	207	139	1265	181	196	143		
48	Lane 2 (West)	80	104	104	119	104	122	82	715	102	111	81		
49	All Lanes	226	286	319	292	307	329	221	1980	283	307	224		283
50	13:00 Lane 1 (East)	144	183	171	193	189	179	161	1220	174	183	153		
51	Lane 2 (West)	88	97	100	92	111	108	104	700	100	102	96		
52	All Lanes	232	280	271	285	300	287	265	1920	274	285	249		274
53	14:00 Lane 1 (East)	136	174	237	177	212	208	139	1283	183	202	138		
54	Lane 2 (West)	98	128	120	136	146	134	97	859	123	133	98		
55	All Lanes	234	302	357	313	358	342	236	2142	306	334	235		306
56	15:00 Lane 1 (East)	153	227	224	214	251	172	142	1383	198	218	148		
57	Lane 2 (West)	84	120	127	139	152	121	99	842	120	132	92		
58	All Lanes	237	347	351	353	403	293	241	2225	318	349	239		318
59	16:00 Lane 1 (East)	138	169	188	195	191	191	190	1262	180	187	164		
60	Lane 2 (West)	82	145	150	164	198	148	90	977	140	161	86		
61	All Lanes	220	314	338	359	389	339	280	2239	320	348	250		320
62	17:00 Lane 1 (East)	115	196	183	182	196	164	118	1154	165	184	117		
63	Lane 2 (West)	82	148	169	160	158	145	78	940	134	156	80		
64	All Lanes	197	344	352	342	354	309	196	2094	299	340	197		299
65	18:00 Lane 1 (East)	147	178	231	198	221	154	141	1270	181	196	144		
66	Lane 2 (West)	94	132	121	145	152	107	77	828	118	131	86		
67	All Lanes	241	310	352	343	373	261	218	2098	300	328	230		300
68	19:00 Lane 1 (East)	124	136	162	160	148	144	118	992	142	150	121		
69	Lane 2 (West)	98	95	126	110	92	89	75	685	98	102	87		
70	All Lanes	222	231	288	270	240	233	193	1677	240	252	208		240
71	20:00 Lane 1 (East)	111	112	142	133	135	110	116	859	123	126	114		
72	Lane 2 (West)	102	98	112	104	106	75	75	672	96	99	89		
73	All Lanes	213	210	254	237	241	185	191	1531	219	225	202		219
74	21:00 Lane 1 (East)	110	107	118	142	114	106	116	813	116	117	113		
75	Lane 2 (West)	89	103	90	111	107	79	66	645	92	98	78		
76	All Lanes	199	210	208	253	221	185	182	1458	208	215	191		208
77	22:00 Lane 1 (East)	101	86	130	123	93	106	94	733	105	108	98		
78	Lane 2 (West)	66	93	96	102	97	63	63	580	83	90	65		
79	All Lanes	167	179	226	225	190	169	157	1313	188	198	162		188
80	23:00 Lane 1 (East)	71	90	107	106	105	116	84	679	97	105	78		
81	Lane 2 (West)	55	61	81	75	70	64	57	463	66	70	56		
82	All Lanes	126	151	188	181	175	180	141	1142	163	175	134		163
83														
84	Total	3897	5068	5397	5495	5625	5113	3884	34479	4926	5340	3891		

	A	B	C	D	E	F	G	H	I	J	K	L
1				Station Name:Wyandotte W of Huron Church								
2				Site ID:000000WYA020								
3				Station Num:000000000008								
4				Description:								
5				City:Windsor								
6				County:								
7				Start Date/Time:09/25/05 00:00								
8				End Date/Time:10/01/05 23:59								
9												
10		25- Sun	26- Mon	27- Tue	28- Wed	29- Thu	30- Fri	1- Sat	Total	Wkday- Avg.		
11	00:00 Lane 1 (West)	109	75	73	53	81	77	125	593	72		
12	Lane 2 (East)	88	57	54	59	78	70	91	497	64		
13	All Lanes	197	132	127	112	159	147	216	1090	135		156
14	01:00 Lane 1 (West)	97	45	59	35	67	56	120	479	52		
15	Lane 2 (East)	54	37	38	34	32	40	79	314	36		
16	All Lanes	151	82	97	69	99	96	199	793	89		113
17	02:00 Lane 1 (West)	92	25	42	43	63	59	107	431	46		
18	Lane 2 (East)	74	23	22	26	39	43	74	301	31		
19	All Lanes	166	48	64	69	102	102	181	732	77		105
20	03:00 Lane 1 (West)	63	23	14	24	38	39	63	264	28		
21	Lane 2 (East)	43	15	13	13	32	21	54	191	19		
22	All Lanes	106	38	27	37	70	60	117	455	46		65
23	04:00 Lane 1 (West)	72	22	20	21	21	41	43	240	25		
24	Lane 2 (East)	33	23	14	17	20	30	25	162	21		
25	All Lanes	105	45	34	38	41	71	68	402	46		57
26	05:00 Lane 1 (West)	37	19	26	34	21	38	20	195	28		
27	Lane 2 (East)	25	45	35	46	51	44	29	275	44		
28	All Lanes	62	64	61	80	72	82	49	470	72		67
29	06:00 Lane 1 (West)	23	63	63	56	61	62	40	368	61		
30	Lane 2 (East)	37	108	106	124	142	134	54	705	123		
31	All Lanes	60	171	169	180	203	196	94	1073	184		153
32	07:00 Lane 1 (West)	51	82	75	73	72	89	50	492	78		
33	Lane 2 (East)	43	161	157	162	167	146	67	903	159		
34	All Lanes	94	243	232	235	239	235	117	1395	237		199
35	08:00 Lane 1 (West)	45	128	126	120	123	130	59	731	125		
36	Lane 2 (East)	47	208	206	195	201	196	88	1141	201		
37	All Lanes	92	336	332	315	324	326	147	1872	327		267
38	09:00 Lane 1 (West)	61	100	116	100	109	96	88	670	104		
39	Lane 2 (East)	87	140	135	151	133	142	102	890	140		
40	All Lanes	148	240	251	251	242	238	190	1560	244		223
41	10:00 Lane 1 (West)	85	112	110	129	130	130	104	800	122		
42	Lane 2 (East)	101	110	125	123	117	130	150	856	121		
43	All Lanes	186	222	235	252	247	260	254	1656	243		237
44	11:00 Lane 1 (West)	116	128	143	148	141	139	138	953	140		
45	Lane 2 (East)	120	148	137	145	147	161	132	990	148		
46	All Lanes	236	276	280	293	288	300	270	1943	287		278
47	12:00 Lane 1 (West)	131	140	165	172	176	163	145	1092	163		
48	Lane 2 (East)	158	144	152	148	167	180	161	1110	158		
49	All Lanes	289	284	317	320	343	343	306	2202	321		315
50	13:00 Lane 1 (West)	156	152	160	127	172	175	177	1119	157		
51	Lane 2 (East)	152	142	139	146	177	177	160	1093	156		
52	All Lanes	308	294	299	273	349	352	337	2212	313		316
53	14:00 Lane 1 (West)	146	176	165	176	211	214	174	1262	188		
54	Lane 2 (East)	140	172	185	166	184	184	179	1210	178		
55	All Lanes	286	348	350	342	395	398	353	2472	367		353
56	15:00 Lane 1 (West)	166	175	203	198	204	227	156	1329	201		
57	Lane 2 (East)	141	173	208	201	200	196	171	1290	196		
58	All Lanes	307	348	411	399	404	423	327	2619	397		374
59	16:00 Lane 1 (West)	164	228	220	234	230	252	197	1525	233		
60	Lane 2 (East)	132	179	180	172	191	177	170	1201	180		
61	All Lanes	296	407	400	406	421	429	367	2726	413		389
62	17:00 Lane 1 (West)	203	243	257	237	236	244	167	1587	243		
63	Lane 2 (East)	133	173	145	181	193	194	169	1188	177		
64	All Lanes	336	416	402	418	429	438	336	2775	421		396
65	18:00 Lane 1 (West)	180	183	205	238	214	201	201	1422	208		
66	Lane 2 (East)	149	170	204	215	194	197	145	1274	196		
67	All Lanes	329	353	409	453	408	398	346	2696	404		385
68	19:00 Lane 1 (West)	160	172	195	197	180	184	196	1284	186		
69	Lane 2 (East)	152	139	171	151	150	182	164	1109	159		
70	All Lanes	312	311	366	348	330	366	360	2393	344		342
71	20:00 Lane 1 (West)	162	165	154	181	164	194	155	1175	172		
72	Lane 2 (East)	136	131	125	130	127	154	127	930	133		
73	All Lanes	298	296	279	311	291	348	282	2105	305		301
74	21:00 Lane 1 (West)	125	166	187	161	145	176	147	1107	167		
75	Lane 2 (East)	94	105	135	138	122	146	126	866	129		
76	All Lanes	219	271	322	299	267	322	273	1973	296		282
77	22:00 Lane 1 (West)	103	142	149	156	146	178	161	1035	154		
78	Lane 2 (East)	87	116	88	111	112	156	137	807	117		
79	All Lanes	190	258	237	267	258	334	298	1842	271		263
80	23:00 Lane 1 (West)	119	95	112	114	109	148	161	858	116		
81	Lane 2 (East)	85	80	73	109	98	109	110	664	94		
82	All Lanes	204	175	185	223	207	257	271	1522	209		217
83												
84	Total	4977	5658	5886	5990	6188	6521	5758	40978	6049		

Appendix E -

Environmental Effects Interaction Matrix

Table E1 Residual Environmental Summary Matrix for Noise and Vibration

Residual Environmental Effects Summary Matrix **Valued Environmental Component: NOISE AND VIBRATION**				
Phase	**Residual Environmental Effects Rating, Including Cumulative Environments Effects***	**Level of Confidence**	**Likelihood**	
			Probability of Occurrence	**Scientific Certainty**
Construction	NS	3	2	3
Operation	NS	3	1	3
Maintenance	NS	3	1	3
Accidents, Malfunctions and Unplanned Events	NS	3	1	3
Project Overall	NS	3	1	3

Key

Residual Environmental Effect Rating

S Significant Adverse Environmental Effect

NS Not-significant Adverse Environmental Effect

P Positive Environmental Effect

Level of Confidence

1. Low Level of Confidence
2. Medium Level of Confidence
3. High Level of Confidence

Probability of Occurrence: based on professional judgement

1. Low Probability of Occurrence
2. Medium Probability of Occurrence
3. High Probability of Occurrence

Scientific Certainty: based on scientific information and statistical analysis or professional judgement

1. Low Level of Confidence
2. Medium Level of Confidence
3. High Level of Confidence

N / A Not Applicable

* As determined in consideration of established residual environmental effects rating criteria

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APPENDIX I

Windsor Official Plan Summary

Vision

Windsor's stated vision in the Official Plan is of the City as an international gateway, a diverse community of safe, caring neighbourhoods, a vibrant economy and a healthy, sustainable environment. The City's commitment to the vision is reflected in an action strategy centred on four interrelated themes that include support of positive physical change in neighbourhoods which respects and improves the existing historical, physical, social, economic and environmental character of these areas.

Land Use Designations – Site Study Area

Greenway System – Recreationway (Figure 1)

"Recreationways" are a planned network of multi-use pedestrian and cycling trails designed to serve recreational movements within the Greenway. They are to be provided for by ensuring that new development proposals and infrastructure undertakings include extensions and improvements to the "Recreationway" as a part of the upfront stages of construction.

Greenway System – Linkage (Figure 1)

The Official Plan intends to establish "Linkages", potential natural and/or recreational corridors between lands designated as Community and Regional Parks, Natural Heritage, Waterfront Recreation and/or Waterway Corridors.

Development Constraints – Shoreline and Floodprone Areas (Figure 2)

Development is provided for in "Shoreline and Floodprone Areas" provided that: the effects of the proposal on wave and current patterns, water flows and levels, and water quality are considered to be acceptable; adequate floodproofing measures are incorporated in the development; and the development be set back an appropriate distance from the shoreline based on consideration of: the type of shoreline; bank stability; angle of bank slope; degree of erosion protection, and; other relevant aspects.

FIGURE 1: OFFICIAL PLAN GREENWAY SYSTEM

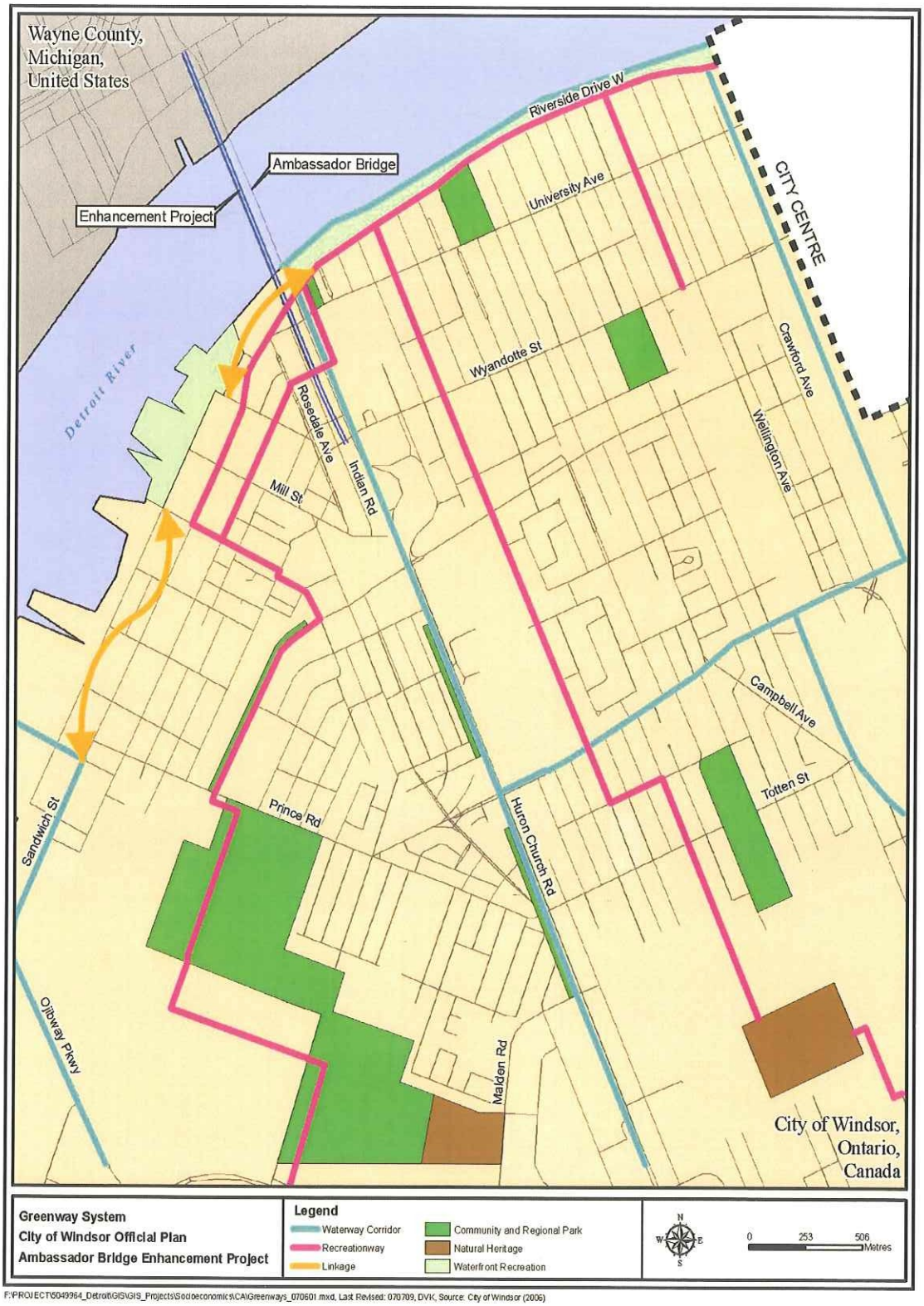

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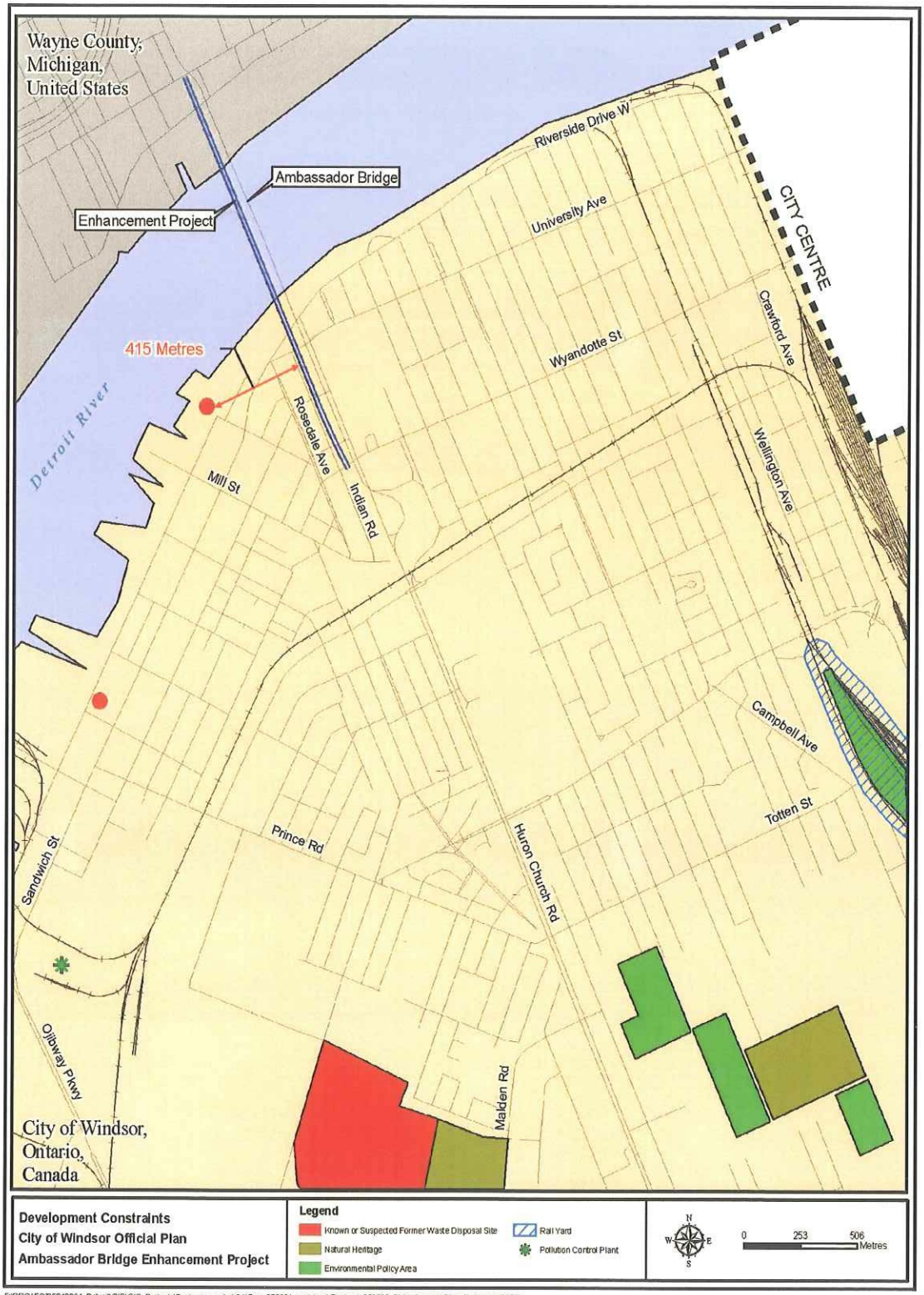
FIGURE 2: OFFICIAL PLAN DEVELOPMENT CONSTRAINTS



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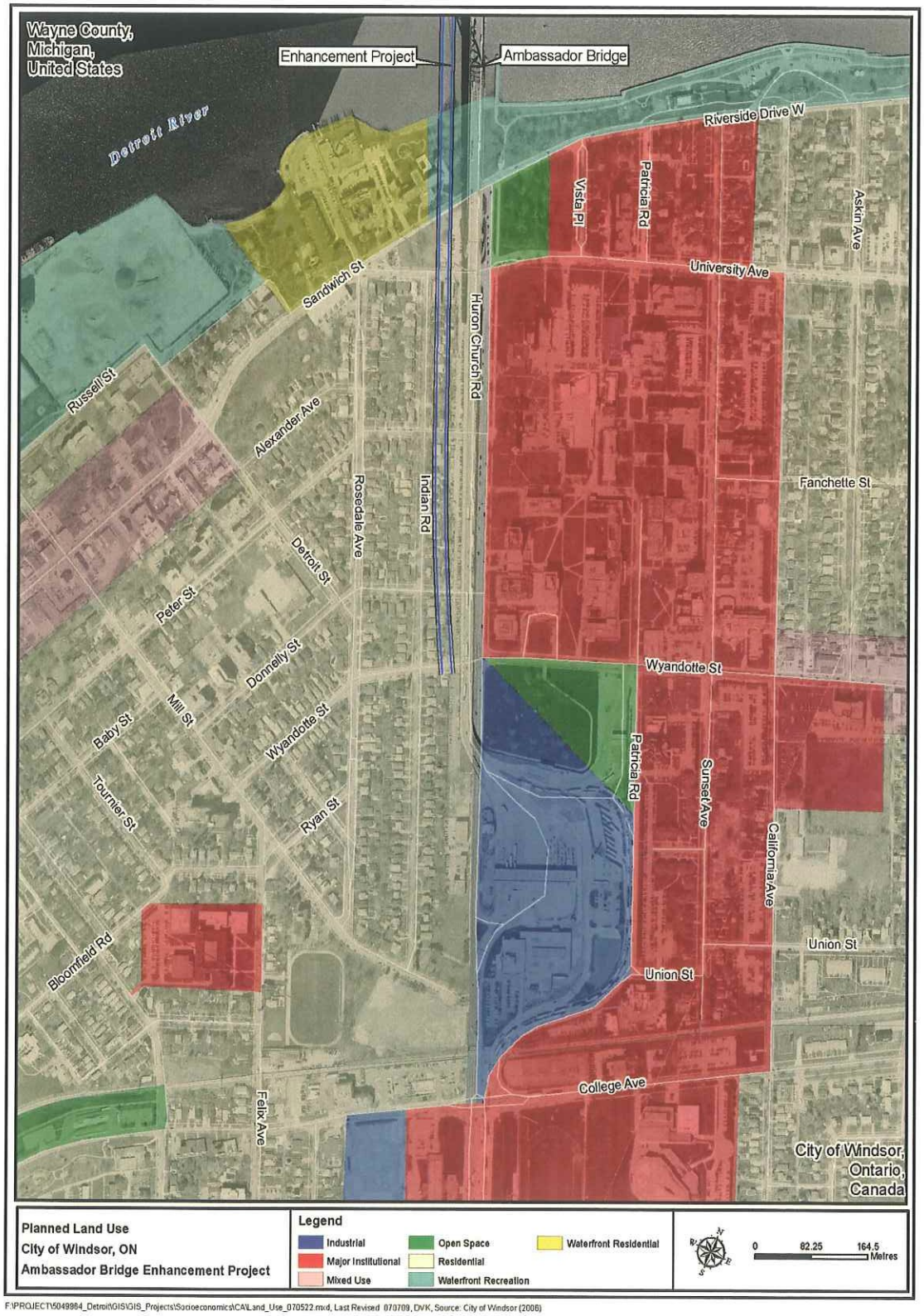
Land Use – Residential (Figure 3)

The land in the Project in the Site Study Area and much of the land in the other Study Areas is designated as "Residential" in the Official Plan and meant to provide for a broad range of housing types and complementary services and amenities.

Land Use - Waterfront Recreation (Figure 3)

Land in the Site Study Area is designated "Waterfront Recreation" and is intended to provide for uses benefiting from a location adjacent to the Detroit River, to recognize recreation as an important contributor to the identity and experience of the entire City and the main locations for recreation and leisure activities and facilities along the waterfront.

FIGURE 3: OFFICIAL PLAN LAND USE



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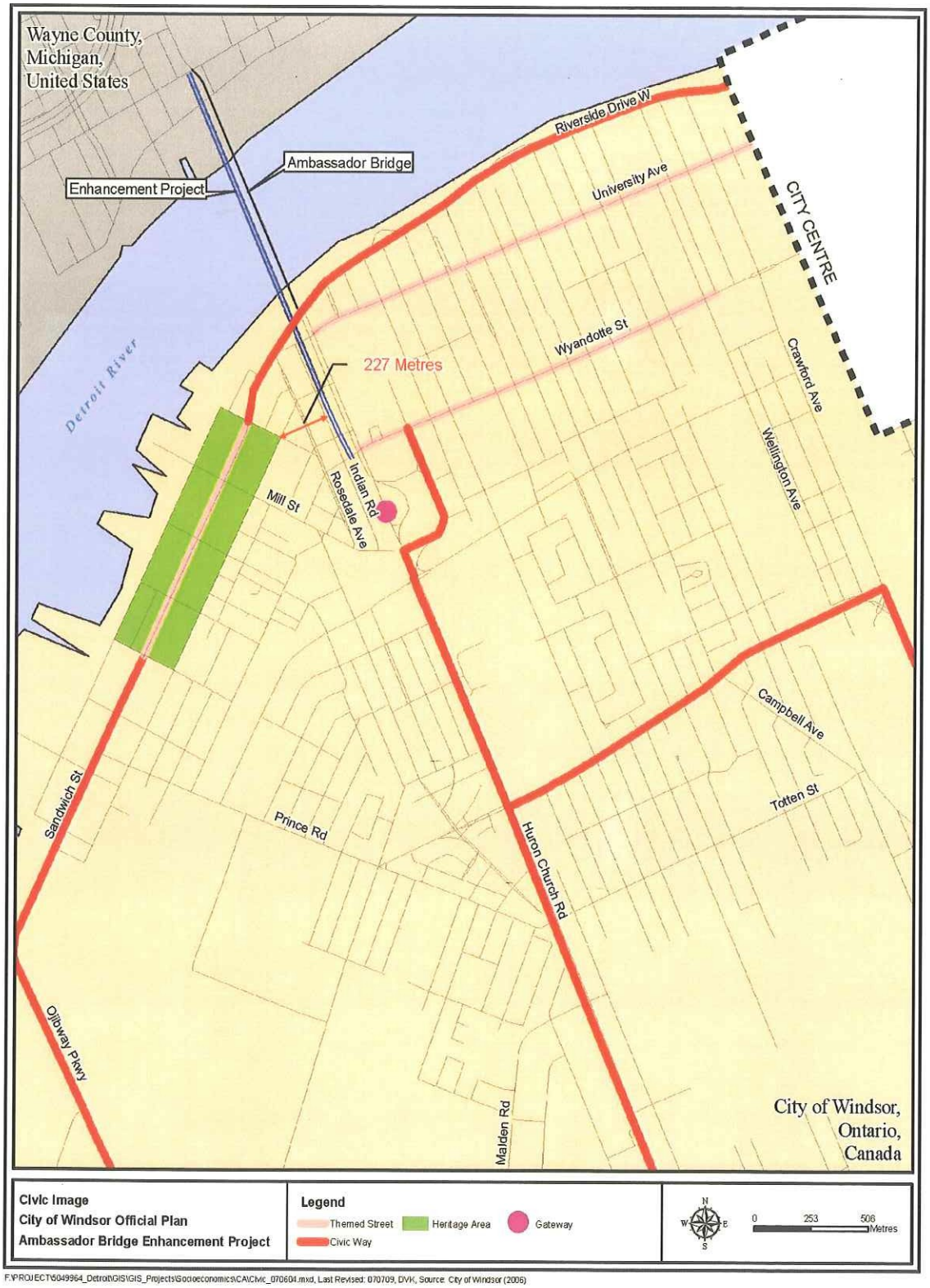
Civic Image – Civic Way (Figure 4)

The Official Plan promotes the development of "Civic Ways" to promote and present an attractive and unifying image, maintain a sense of welcome and arrival for travelers, create a memorable impression and complement and enhance the City's investment in major infrastructure. To do this the Official Plan proposes to enhance the public rights-of-way along major entry points and protect and enhance significant views and vistas from public space and heritage resources along the Civic Way.

The Official Plan specifically speaks to the protection of views and vistas of the Ambassador Bridge by ensuring they are not obstructed, dominated or marred by a proposed infrastructure undertaking.

The Official Plan encourages the partial screening of surface parking lots, by among other things, the use of low fences, walls, berms and other landscape elements.

FIGURE 4: OFFICIAL PLAN CIVIC IMAGE



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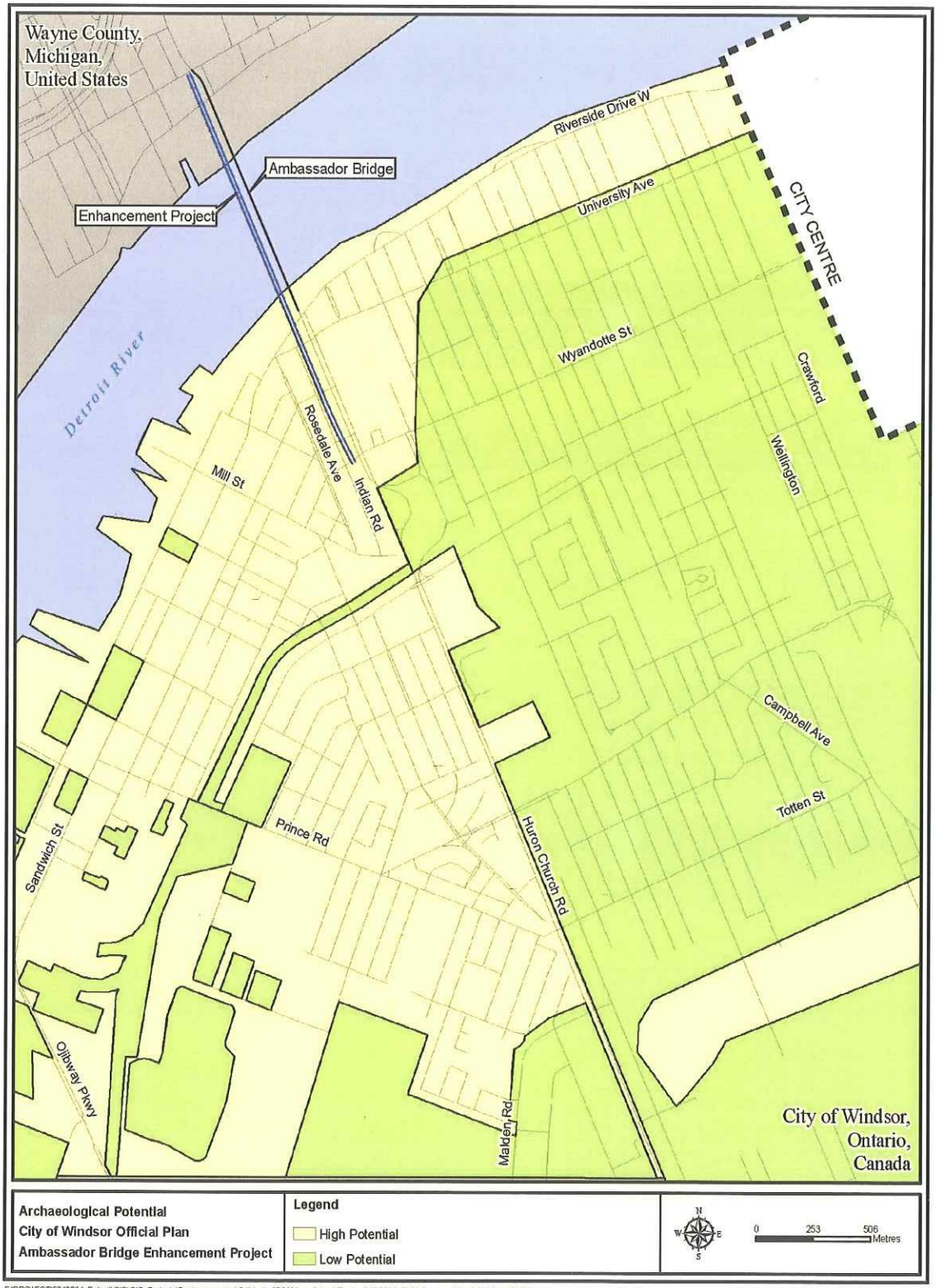
Heritage Conservation (Figure 5)

The Site Study Area is designated an area of "High Archaeological Potential" as is much of the Local Study Area. The Official Plan aims to protect heritage resources or conserve significant archaeological resources by: requiring infrastructure undertakings on lands containing potential archaeological resources avoid the destruction or alteration of these resources; through documentation and removal or mitigation in advance of land disturbances; submission of plans for approval that demonstrate the proposal will not adversely impact the heritage significance of the property and/or its Heritage Conservation District, and preparation of an archaeological assessment when known archaeological resources or areas of archaeological potential are affected.

FIGURE 5: OFFICIAL PLAN HERITAGE CONSERVATION



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Other Land Use Designations – Local Study Area

Greenway System - Waterway Corridor (Figure 6)

The Official Plan creates a Greenway System and designates "Waterway Corridors", consisting of the Detroit River, Lake St. Clair, Turkey Creek (Grand Marais Drain) and their tributaries, to establish a linked and continuous network of natural environment and recreational elements. The System includes, among others, land designated "Waterfront Recreation", Recreationways and Linkages which are potential natural and / or recreational corridors.

Greenway System – Community and Regional Parks and Open Space (Figure 2)

Land immediately east of the Project and throughout the Local Study Area is designated "Open Space" and "Community and Regional Parks", intended to provide the main locations for recreation and leisure activities and facilities. This Public Open Space is designated as a "Community and Regional Park" designed for the recreation and leisure activities of all Windsor residents and / or a broader regional population. The Official Plan encourages the connection of lands designated Waterfront Recreation to the Greenway System.

Development Constraints – Known or Suspected Former Waste Disposal Sites (Figure 3)

The Official Plan requires that development within 500 metres of a "Known or Suspected Waste Disposal Site" will be supported by a report in accordance with provincial legislation, policy and appropriate guidelines to demonstrate the site is suitable for development.

Development Constraints – Natural Heritage (Figure 2)

The Official Plan identifies land as "Natural Heritage" to provide for the protection and conservation of environmentally significant and sensitive natural areas, including provincially designated areas of natural and scientific interest (ANSI) and wetlands.

Development Constraints – Floodplain Areas (Figure 2)

The Official Plan prohibits buildings or structures in "Floodplain Areas" except in flood fringe areas and provided sufficient information accompanies the application to show the proposed development will be protected from the effects of a Regulatory Flood, potential upstream and downstream impacts will not significantly affect hydrology or hydraulics of the floodplain, and adequate floodproofing measures are incorporated.

Land Use - Major Institutional

Land east of the Project is designated as "Major Institutional" intended to provide the main locations for large scale institutional uses, in this case the University of Windsor.

Land Use - Mixed Use (Figure 3)

In several locations in the Local Study Area, including Sandwich Street, University Avenue and Wyandotte Street, there are "Mixed Use" designations which are meant to provide for compact clusters of commercial, office, institutional, open space and residential uses intended to serve as the focal point for the surrounding neighbourhoods, community or region. They are intended to be designed with a pedestrian orientation and foster a distinctive and attractive area identity.

Land Use - Waterfront Residential (Figure 2)

Just west of the Site Study Area is a "Waterfront Residential" designation meant to provide for residential development with policies providing for the control of development in these areas to ensure the lower profile character is maintained and to minimize any potential hazards due to flooding or erosion.

Land Use - Waterfront Port (Figure 2)

This land use designation is intended to provide the main locations for port related employment activities along the waterfront with policies providing for the control of development in these areas to minimize any potential hazards due to flooding or erosion, ensure compatibility with adjacent uses and to ensure that employment access to the waterfront is maintained. Uses provided for include industrial and business uses which require direct water access, multi-modal transportation facilities, docking facilities or dry docks.

Land Use – Industrial (Figure 2)

Land to the east of the Project is designated "Industrial", a type of employment land meant to provide the main locations for industrial activities including a broad range of appropriately clustered industrial uses separated from sensitive land uses. In certain older industrial areas such a separation may not have been achieved.

Civic Image – Theme Streets (Figure 3)

The Official Plan recognizes the significance of several roads in the Local Study Area designated as "Theme Streets" and intends to enhance the public rights-of-way consistent with the established character of the neighbourhood, using streetscaping elements such as special lighting, landscaping, paving stones, street furniture, public art and other complementary features and fixtures and protecting and enhancing significant views and vistas.

Civic Image – Heritage Area (Figure 3)

The Official Plan designates the "Sandwich Heritage Area" which is considered to be a collection of important heritage resources to ensure a proposed infrastructure undertaking maintains, reinforces and enhances the character of a Heritage Areas.

Civic Image – Gateway (Figure 3)

The Official Plan intends to ensure a proposed infrastructure undertaking maintains, reinforces and enhances the image of Windsor as an international gateway as expressed by the dominance of, by among other things, the Ambassador Bridge, by

promoting gateways at the major entry points. Such gateways will be designed to: provide a sense of welcome and arrival; assist in orientation; create a memorable image; and contribute to the social, cultural, historic or thematic character of the area being defined.

Procedures – Implementation

The objectives and policies contained in the Official Plan are intended to assist in the achievement of the Plan's Strategic Directions. The interpretation of the Official Plan's policies allow for a limited degree of flexibility and therefore, the boundaries between the various land use designations are approximate, except where they relate to some well defined physical feature such as a Controlled Access Highway, Arterial Road, railway line or watercourse. Minor adjustments to these boundaries do not require an Official Plan amendment provided that the intent of the Plan is maintained. Public infrastructure and municipal facilities and services may be permitted in all areas without requiring an amendment to this Plan.

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APPENDIX J

Windsor Zoning By-law

The "CD4.4 Zone" permits a motor vehicle bridge, customs and immigration inspection offices and facilities, any one or more of the following uses in combination with the foregoing uses: warehouse, business office, financial office, retail store, a public parking area and any use accessory to the foregoing uses.

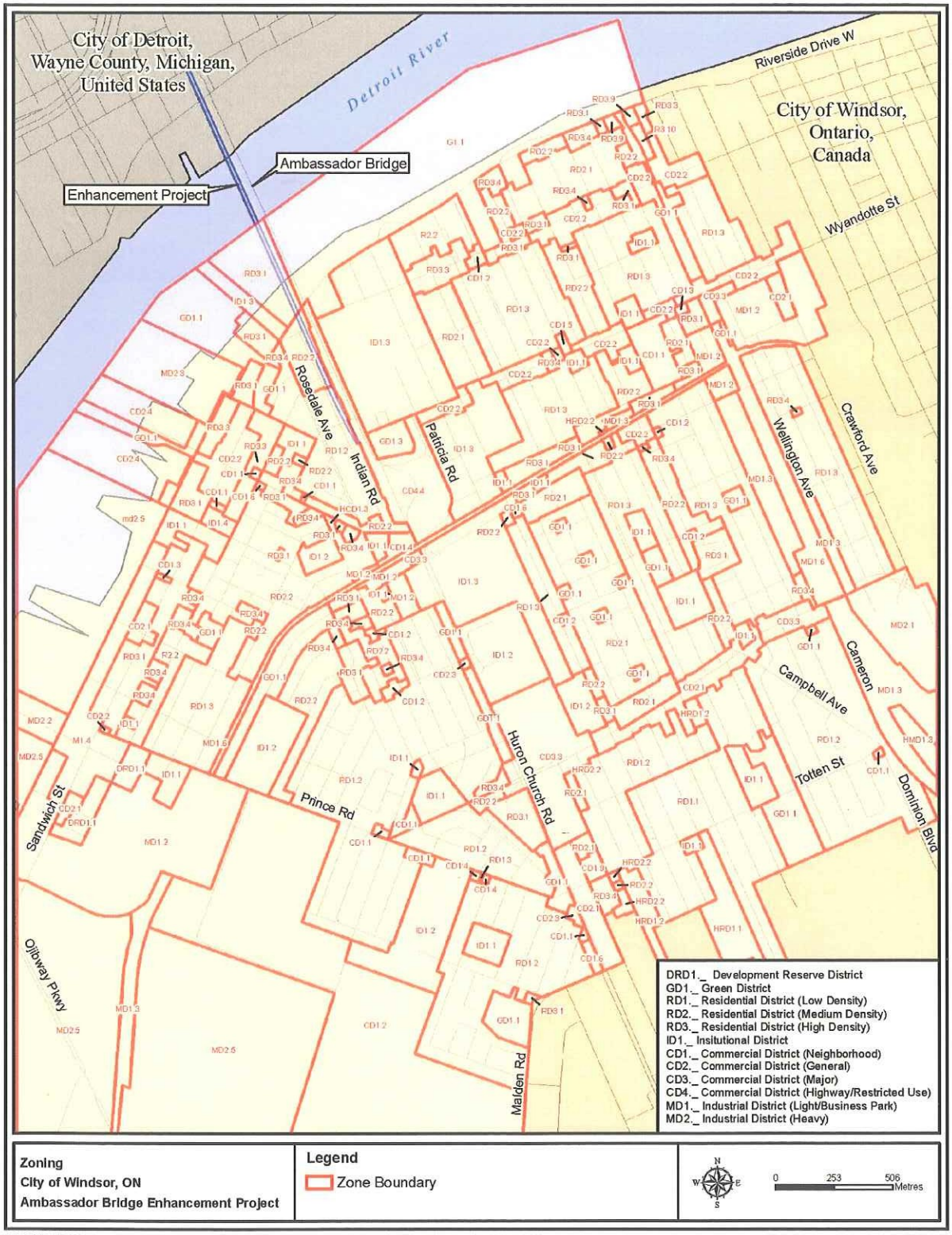
The "G1.1 Zone" permits a public park, day nursery and any use accessory to the foregoing use.

The "RD1.2 Zone" permits one single-unit dwelling, an existing duplex dwelling or an existing semi-detached dwelling and any use accessory to the foregoing use.

The "RD2.2 Zone" permits one single-unit dwelling, one duplex dwelling, one semi-detached dwelling, one double duplex dwelling or one multiple dwelling containing a maximum of four dwelling units, a townhome dwelling and any use accessory to the foregoing use.

The "RD3.1 Zone" permits a duplex dwelling, multiple dwelling, residential care facility, lodging home, convent, monastery, a townhome dwelling, semi-detached dwelling, duplex dwelling, an existing single unit dwelling and any use accessory to the foregoing use.

FIGURE 1: ZONING



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APPENDIX K

London Museum of Archaeology

An Affiliate of The University of Western Ontario

STAGE 1 AND STAGE 2 ARCHAEOLOGICAL ASSESSMENT OF LANDS TO BE POTENTIALLY IMPACTED BY THE AMBASSADOR BRIDGE ENHANCEMENT PROJECT, CITY OF WINDSOR, ESSEX COUNTY

Prepared for:
The Canadian Transit Company
780 Huron Church Road, Suite 202, Windsor Ontario Canada N9C 2K2
Attention: Mr. Craig Stamper
and
Detroit International Bridge Company
2000 Howard Street, Detroit Michigan USA 48216
Attention: Mr. Dan Stamper
Telephone: 586-939-7000 X2971; Fax: 586-755-4899

Prepared by:
Robert J. Pearce, Ph.D., Executive Director
The University of Western Ontario
Institute for Research in Ontario Archaeology at the
Museum of Ontario Archaeology
1600 Attawandaron Road, London Ontario N6G 3M6
Telephone: 519-473-1360; FAX: 519-473-1363

June 2007 (Revised September 18 and November 28, 2007)

To Be Submitted to:
Programs & Services Branch, Cultural Programs Unit, Ontario Ministry of Culture

Archaeological Consulting Licence PO14
Museum Project **PO14-056** (2007)

INTRODUCTION

This report describes the nature and results of a Stage 1 archaeological background study and Stage 2 archaeological assessment completed by the Museum for the Ambassador Bridge Enhancement Project, City of Windsor, Essex County, Ontario.

All archaeological projects undertaken in Ontario must conform to the guidelines and procedures for archaeological assessments as mandated by the Ontario Ministry of Culture (1993, 2004). The Ministry's 1993 *Archaeological Assessment Technical Guidelines* defines the four different stages of archaeological assessment as follows:

Stage 1: Refers to the background or pre-survey phase of an assessment.

Stage 2: Refers to the actual field examination, and involves either surface survey or test pitting.

Stage 3: Refers to those field activities conducted when archaeological remains are encountered during a Stage 2 survey. The purpose of Stage 3 work is to gather information which will be used to delineate and evaluate the significance of the site in question, in order to determine appropriate mitigation measures.

Stage 4: Refers to mitigating the development impacts to archaeological sites, through site excavation or avoidance. This occurs once the field assessment has been completed, and the assessment report has been reviewed by the Ministry of Culture.

PURPOSE OF THE PROJECT

The Stage 1 archaeological background study (Part 1 of the present report) and Stage 2 archaeological assessment (Part 2 of the present report) were undertaken at the request of and on behalf of the client, as part of studies being undertaken as part of the Canadian Environmental Assessment Act for the Ambassador Bridge Enhancement Project in the City of Windsor, Ontario (Figures 1 and 2). That project anticipates construction of a new 6-lane wide cable stayed bridge to replace the existing Ambassador Bridge, to be built within the corridor of the existing bridge. The new bridge would be constructed approximately 30.5 metres (100 feet) to the west of the existing bridge (from centre line to centre line). The Enhancement Project bridge would connect directly to the existing plaza on the Ontario side, just south of Wyandotte Street. According to preliminary design specifications, on the Ontario side of the Detroit River the new bridge would entail construction of one new pier support (Pier 6) on the parcel of land between the river and Riverside Drive, three piers (#7-9) in the space between University Avenue and Peter Street, five piers (#10-14) in the space between Peter Street and Donnelly Street, two piers

(#15-16) in the space between Donnelly Street and Wyandotte Street, and three piers (17-19) south of Wyandotte Street (in the existing bridge corridor) connecting to the existing plaza.

NATURE AND LOCATION OF THE SUBJECT PROPERTY

The Study Area includes the lands located along the west side of Huron Church Road from the existing western limit of the road allowance west to Indian Road, from Wyandotte Street north to the Detroit River (Figures 1 and 2). The project anticipates the demolition of all existing houses along the east side of Indian Road from Wyandotte Street to University Avenue to create a green buffer area. Virtually all of those houses are currently owned by the client.

The 1939 Soils Map of Essex County shows an obvious un-natural break in soil types occurring exactly at Huron Church Road and the existing Ambassador Bridge: soils on the lands immediately east/north of Huron Church Road are classified as Brookston Clay, while soils on the lands immediately west/south of Huron Church Road (within the Study Area) are classified as Burford Loam. A small pocket of a third soil type, Berrien Sand, is situated just beyond the south end of the Study Area (south of Mill Street). The report within which the 1939 Soils Map was contained (Richards, Caldwell and Morwick 1949) depicted a typical soil profile of the Burford Loam series in Essex County which indicates an Ac horizon up to 6 inches (15 cm) thick overlying an A2 horizon from 12 to 18 inches (30.5 to 47.7 cm) thick overlying a B horizon up to 18 inches (47.7 cm thick); thus the combined A and B horizons can be up to 42 inches (106 cm) thick.

The terrain in the Study Area is relatively flat, varying in elevation from just under 590 feet above sea level at the Detroit River to just over 600 feet above sea level at the point where Mill Street intersects Huron Church Road, just south of the Study Area (based on 1960 1:25000 topographic map).

According to recent topographic maps, today there are no secondary or tertiary watercourses within or near the Study Area. However, some 18th century maps and sketches of the Windsor area (discussed in the Stage 1 background study, below) do in fact depict certain watercourses, one of which was identified as "Rivière de la Vieille Reine" on a 1749 sketch map by Joseph-Gaspard, Chaussegros de Léry, and later as "Rivière à Gervais" on "Plan Topographique du Detroit" circa 1754 by de Léry (Lajeunesee 1960:liv and lviii) (Figures 4 and 5 herein; also see Figure 8 herein). The 1749 sketch by de Léry identifies another watercourse as "Ruisseau de la Parise" (Paris Creek?); it was located midway between the Huron village at La Pointe de Montreal and Rivière de la Vieille Reine (to be discussed in the Archival Research section, below). Since these two watercourses do not appear on modern topographic maps, they must have been either filled in or buried (channelized) by urban development in the 19th and 20th centuries, or they could simply have dried up to a lower groundwater table. The Soil Map of Essex County (1939) shows a "Marsh" area located along the Detroit River, between Prospect Avenue (at the south) and the western terminus of Hill Avenue (at the north), with a protrusion of the marsh extending inland through the lands of the current West Windsor Pollution Control Plant (i.e. just south of John B Avenue and the southern terminus of Peter Street) to the ETR rail line. This marsh area (with Muck soils) was the former mouth of the "Rivière de la Vieille

Reine" / "Rivière à Gervais". Lajeunesse (1960:liii) concluded that the mouth of this river was "near the southern limit of the present city of Windsor" (which on the 1939 soils map and 1960 topographic map was just south of the area occupied by the Water Pollution Control Plant, at McKee Street and the Ontario Hydro generating station. The "Rivière à Gervais", also known as "Rivière au Jarvais" and Knaggs Creek, and extensive marshlands around it, were mentioned in some of the archival documents summarized by Lajeunesse (1960:171, 179, 187), and it was depicted on a sketch map contained as part of the "Sale of the Huron Church Reserve" lands in 1800 (Lajeunesse 1960:206). The 1960 topographic map (1:25,000 scale) depicts the area of the marsh as lands below the 580 foot contour line (whereas all lands surrounding it are above the 590 foot contour line). The centre of the marsh/mouth of the watercourse is approximately one mile (1.6 km) south of the current Ambassador Bridge. According to the 18th century maps, the course of the "Rivière à Gervais" was U-shaped, with the left arm of the U being the mouth; from its mouth, the watercourse went south then curved to the east and then north (the bottom of the U) to go in a northerly direction towards the Detroit River, then at the top of the right arm of the U it veered east. It appears that the "upper" course of the "Rivière à Gervais" may have been in close proximity to the Study Area (see Figures 5 and 8). The existence of former watercourses such as this can create zones of archaeological potential around them. However, there are no known archaeological sites located adjacent to where those watercourses were once located.

PART 1:

STAGE 1 ARCHAEOLOGICAL BACKGROUND STUDY

Consultation with the Archaeological Data Co-ordinator, Ontario Ministry of Culture, and examination of other documentation including the City of Windsor Archaeological Master Plan Study (2005), led to the conclusion that there are no registered archaeological sites within the Study Area. There are some registered sites in close proximity to the Study Area. According to some of the archival documents reviewed for this study, a Jesuit Mission, a Huron village and the Assumption Church and Cemetery were located just east of Huron Church Road and just east of the Study Area, and there is archival documentation of the discovery of some human skeletal remains in proximity to the Study Area.

All sites registered in the provincial database have a "Borden Number", which consists of the Borden Block and a sequential number. A Borden Block refers to a rectangular block of land measuring 10 minutes latitude by 10 minutes longitude, identified by a unique set of four letters, two upper case and two lower case, in the form CcCc. The Study Area is situated within Borden Block AbHs.

Registered Sites Within the Study Area

According to the provincial database and the City of Windsor Archaeological Master Plan, there are no registered archaeological sites within the Study Area.

Registered Sites in Proximity to Study Area

According to the provincial database (information from Ministry of Culture June 2007) there are six known (registered) sites in the vicinity of the Study Area (AbHs-1, 7, 10, 12, 16, 24). Data concerning these sites are summarized below. Data concerning these sites (as well as several others in Windsor) are also available in the City of Windsor Archaeological Master Plan (2005:Table 3.1 and pages 3-9 to 3-20) (which is available online at www.citywindsor.ca/000244.asp).

AbHs-1, Lucier Site
AbHs-7, E.C. Row Site

These two sites are located in close proximity to each other, but 4.5 to 5.0 kilometres away from the Study Area, along the north edge of and north of the E.C. Row Expressway and east/north of Huron Church Road. The Lucier site was first formally documented in 1935 by archaeologist William J. Wintemberg, and is now described as a Late Woodland period, Western Basin Tradition, Springwells Phase village and mortuary site dating from the 14th through 16th centuries. Several human burials were present at this location. Subsequent investigations by

various people between 1967 and 1978 determined this site is now destroyed. The E.C. Row site was situated 150 metres southwest of Lucier and investigations there by Ministry of Transportation archaeologists were directed by Paul Lennox in advance of construction of the E.C. Row Expressway. The site yielded evidence for more human burials, and settlement pattern data in the form of four longhouses, and it is assigned to the Springwells and Younge phases of the Western Basin Tradition (1200-1550 A.D.). The Ambassador Bridge Enhancement Project will not impact these sites.

AbHs-24 Sandwich Burial

This Borden Number is assigned to two Native burials discovered in 1964, but a precise location is not known; the burials are said to have been found "at Riverside Drive and on University Avenue at Indian Road" and there was a suggestion that "many burials probably still exist under Sandwich Street near the Ambassador Bridge" (City of Windsor Archaeological Master Plan 2005:3-14).

AbHs-10 Duff-Baby House

This site refers to the residence built in 1798 at 221 Mill Street (at corner of Mill and Russell Streets) (Bator 1997:60-61), now designated as a provincially significant site. Archaeological investigations around the exterior of the house have taken place periodically since 1987. This site is located well outside of the present Study Area.

AbHs-12 Mackenzie Hall

This site designation refers not only to the structure still standing at the corner of Sandwich Street and Brock Street (the former Essex County Courthouse built in 1855 and located at 3277 Sandwich Street) but also to archaeological evidence for earlier structures on the property dating back to 1797. This site is located well outside of the present Study Area.

AbHs-16 Heritage Park Windmill Reconstruction

This site at the northwest corner of Mill and Russell Streets (kitty-corner to the Duff-Baby House) refers to the discovery of various layers of 19th century domestic artifacts discovered within Mill Street Park by archaeologists in 1991, prior to reconstruction of the windmill in that park. This site is located well outside of the present Study Area.

[Lajeunesse (1960:lxxii-lxxiii) noted that in the late 18th century there were a number of windmills placed a strategic locations along the Detroit River, and he included a sketch map by Patrick McNiff dated 1791 (see Figure 6 herein), showing the general locations of these. These mills "were tower-shaped buildings about thirty feet in height and about twenty feet in diameter.

The roof was conical and to it were attached long arms or wings fixed to an axle fitted with small sails". They were used to grind grain. One such mill identified on McNiff's sketch was Maisonville's Mill, said by Lajeunesse to be "a well-known landmark at Windmill Point at the foot of the present Lincoln Road in the City of Windsor". Another mill shown on McNiff's sketch was to the south of this, closer to the Huron village at La Pointe de Montréal [discussed below]. A third mill was located to the south of the Huron village, half way between the village and the "Stream of the Old Queen" (later known as "La Rivière à Gervais", discussed below). The "Heritage Park Windmill Reconstruction" probably related to the latter mill. This mill was also shown on another, more detailed map dated 1797, reprinted in Lajeunesse (1960:cxix, his Figure 15) (reproduced as our Figure 9a herein.]

Unregistered Sites/Reports of Burials

Over the years a some human burials have been accidently discovered in the Windsor area. Available data (often quite imprecise) on these discoveries were summarized in the City of Windsor Archaeological Master Plan (2005, Sections 3.3 and 3.4). A majority of these data were derived from two primary sources. The first was an informal and unsystematic "survey" completed by Father John (Jack) R. Lee in the 1960s (unpublished manuscript on file, Canadian Museum of Civilization). The second was research completed by Alan Douglas for the University of Windsor Museum in 1964 (unpublished manuscript on file, University of Windsor Museum).

The Master Plan (2005:3-22) lists a total of four entries regarding human burials which were discovered somewhere in the general vicinity of the Study Area, although the precise locations have not been registered as specific archaeological sites. These are identified in a summary chart in the Master Plan as: a) "Burial, Old Town of Sandwich"; b) "Burial, Old Town of Sandwich"; c) "Burial, in Town of Sandwich south of Riverside Drive (Main Street) at Ambassador Bridge"; and d) "Burial, near Ambassador Bridge". Following are the data concerning these discoveries as summarized in the Master Plan:

a) Old Town of Sandwich: 30 skeletons in a large circle with feet inwards, with grave goods, on Lot D east (Peter Street) 300 yards from the County buildings, found circa 1880 during railway construction... behind the present Episcopal Church Cemetery.

B) Old Town of Sandwich: a number of graves with similar items as above on Lot 3 south of Donnelly Street.

c) In Town of Sandwich south of Riverside Drive (Main Street) at Ambassador Bridge: 9 skeletons in a row found in 1908-1909 on Paul Taylor property on part of Indian Reserve on Lot 2&4 or 3&4 West Main Street; grave goods included stone war clubs, a pipe and a copper kettle, indicating post-contact Native.

d) Near Ambassador Bridge: 2 skeletons, one skull stained with red ochre and copper that were at the University of Windsor in 1969. Alan Douglas (1964) report identifies location at Riverside Drive & University Avenue at Indian Road opposite Villa Maria nursing home. The remains

were found under the road during sewer repair work, removed by workmen, and monitored by Alan Douglas of the University of Windsor, who noted that this finding shows that many intact remains may lie in apparently disturbed areas.
It would appear that reference d) in this summary is the same as the site now registered AbHs-24, Sandwich Burial, even though a precise location of that site is not known.

These references to human burials in the general vicinity of the Study Area create the possibility of the future discovery of additional burials. Specifically, the Master Plan (2005:3-23 to 3-24) states in reference to previous reports of the discovery of human burials elsewhere in Windsor (outside of the Study Area) :

> "Although their specific locations remain approximate, the concentration of burials found in Sandwich and the Great Western Park areas are indicative of large cemeteries. In such cases, even the previous removal of many burials does not suggest that all of the graves have been found to date. These areas should be considered extremely sensitive as there exists high potential for the discovery of further burials and remains of associated villages.

The descriptions of the "grave goods" which accompanied Burials a and b listed above are imprecise or non-existent, the description for Burial c specifically states "a copper kettle, indicating post-contact Native"; thus, it almost certainly refers to burials dating to the post-contact period (i.e. 17th century or later). In contrast, the description of Burial d states that there was "one skull stained with red ochre and copper". This description could potentially apply to a burial or burials dating to the Western Basin Tradition between 500 - 1550 A.D., since in other parts of southwestern Ontario and in Michigan some Western Basin burials (including some in large cemeteries) were accompanied by red ochre and artifacts made from native copper (which originates along the north shore of Lake Superior) (Murphy and Ferris 1990:264-265).

General Discussion of the Aboriginal (First Nation) Occupation of the Region

Ernest Lajeunesse's (1960) book *The Windsor Border Region*, published by the Champlain Society, contained a considerable amount of information about the early history of that region. The earliest known written documentation by European-born persons visiting or viewing the land that is now the City of Windsor comes from the journal of French explorer René François Bréhant de Galinée and his party, who in August 1670 observed along the Detroit River "a place that is very remarkable and held in great veneration by all the Indians of these countries", being "a stone idol that nature has formed" and "which had no other resemblance to a figure of a man than what the imagination was pleased to give it"; the French party immediately perceived it as profane and ordered its destruction by chopping it into pieces with their axes and throwing it into the river (Galinée 1669-1670, in Lajeunesse 1960:7-8). Galinée had specified that after sailing westward along the north shore of Lake Erie and observing places now known as Long Point and Point Pelee, they came to the mouth of what is now the Detroit River, which he said was one-half league (approximately 1.5 miles) wide. From there they went up the river about 6 leagues (about 18 miles), where they saw and destroyed the stone idol. From there they continued 4 more

leagues (about 12 miles) to reach what is now known as Lake St. Clair, which he said was about 10 leagues (about 30 miles) long. All of these measurements are roughly accurate and situate the stone idol on the Detroit River somewhere in the vicinity of present day Windsor and Detroit. Although it is impossible to pinpoint the exact location of this idol, what is significant about Galinée's record is that he alluded to the fact that there were numerous First Nation individuals living in or visiting that exact location at that time (1670), for they propitiated the stone idol "by sacrifices of skins, provisions, etc., when they wish to embark" on sailing trips down into Lake Erie. He added "the place was full of camps of those who come to pay homage to this stone". It is worth noting that when Robert Cavelier de La Salle and Louis Hennepin sailed in the *Griffon* up the Detroit to Lake St Clair and beyond in 1679, they made absolutely "no mention of the presence of any inhabitants, red or white" (Lajeunesse 1960:xxxv).

The "Huron village and burial grounds" referred to above in the summary of the Sandwich Burial site AbHs-24 are documented in the City of Windsor Archaeological Master Plan. The village and burial grounds were located beside Assumption Church, now on the grounds of the University of Windsor on the east side of Huron Church Road and outside of the Study Area. The recorded history of the Huron [Iroquoian] settlement in the Windsor/Detroit area began in 1701 and had a complex history through to 1797, involving multiple physical re-locations of the actual settlement. The Master Plan concluded that the Huron, who formerly lived on the Windsor side of the Detroit River (opposite the French Fort Pontchartrain in what is now downtown Detroit on the American side of the river) in 1738, left the area for a brief time (including a settlement on Bois Blanc Island and on the shore in what is now Amherstburg) but returned to what is now Windsor in 1752 when "they were re-settled upriver at La Pointe de Montréal on the south shore (now at the base of Huron Church Road) where a new mission church was built within sight of the French fort" (Master Plan 2005:2-16). [In fact, Lajeunesse (1960:xliii) specifies the point of land known as 'La Pointe de Montréal' was so named by the French based at Fort Portchartrain because "the boats coming from Montreal could first be seen" from the fort at that location, since a slight bend in the river to the south of that spot obscures boats sailing northward until they reach that "point".]

Lajeunesse (1960:xiviii-xiix) made reference to the writings of Jesuit Father Potier who was in charge of the Assumption Mission, and included extracts from some of those writings (Lajeunesse 1960:B12, B13, B14). Potier indicated that while the Huron were resident on Bois Blanc Island (circa 1742-1747) they numbered "534 persons plus a number of children living in 33 cabins", and they were under the leadership of their chief, named Nicolas. Thus, this was a sizable population and no doubt when the Huron re-located over the next couple of years northward to what became known as the "Huron Reserve" at La Pointe de Montréal their numbers were about that. Another of Potier's manuscripts noted that when the Huron re-located to Bois Blanc Island (now popularly known as Boblo or Bob-Lo Island), the Jesuit mission followed there (on October 13, 1742), and when the Huron re-located north again, the Jesuit mission likewise followed them there (Lajeunesse 1960:B13, page 37).

The mid-18th century Jesuit Mission at La Pointe de Montréal was also referenced in the City of Windsor Archaeological Master Plan (2005:2-16), that it was "north of Riverside Drive near the foot of Huron Church Road next to the Ambassador Bridge. The existing Assumption Church is

thought to be at least the third sanctuary to be built for the Parish. The associated French cemetery has also been moved several times". Lajeunesse (1955:122) noted that "the village of the Huron Indians was located just below the Mission near the road we know as Huron Line". The Olde Sandwich Towne Community Planning Study (2006:1) states "By 1728, at the request of the Huron Aboriginals, the Jesuit Fathers built the first Assumption Church in the community". As noted above, Assumption Church and the Huron village were located east of Huron Church Road and east of the Study Area.

Lajeunesse's (1960) book contained five important sketch maps, all five of which are reproduced in the present report as our Figures 3, 4, 5, 6 and 7.

Our Figure 3 is a reproduction of "The Location of Indian and Pre-Indian Vestiges Found in Essex County and Vicinity" (from Lajeunesse 1960:xxxviii, his Figure 3). The sketch map was compiled from a variety of sources by George F. Macdonald and John Lee, for Lajeunesse's book. Three features of note on the sketch map are: "Trail A" (the Talbot Road); the approximate location of the "Huron village" at "Huron Church Line"; and the approximate location of a "burial mound, Huron Church Line and Third Concession, Sandwich West Township (excavated by W. J. Wintemberg for National Museum of Canada, 1936)". The latter refers to the Lucier archaeological site, now registered as AbHs-1, and the adjacent E.C. Row site registered as AbHs-7. [These two sites are 4.5 to 5.0 km from the Study Area.]

Lajeunesse's book (1960:lviii, his Figure 7) contained a reproduction of a 1754 map by Joseph-Gaspard, Chaussegros de Léry, entitled "Plan topographie du Detroit", reproduced herewith as our Figure 4. It showed the location of "Village et Culture des Hurons".

Another map by Léry, dated 1749 and titled "Carte de la Rivière du Detroit" is also contained in Lajeunesse's book (1960:liv, his Figure 6), shown herein as our Figure 5. It showed five features clustered in the area of 'La Pointe de Montréal' (that is, now the terminus of Huron Church Road at the Ontario foot of the Ambassador Bridge). These are noted (in French) on his sketch as follows:

A) "village huron" (Huron Village)

B) "Ruisseau de la Parise" (Paris Creek?)

C) "Emplacement des R.P. Jesuites missionnaire ou est une Eglise" (site of Jesuit Mission, where there is a Church)

D) "Terre de 12 arpans de front sur 40 de profondeur que Mr. Le Chevalier de Longueuil a demandée" (Land 12 acres wide by 40 acres deep, which Mr. Chevalier de Longueuil has requested)
[Note: the French term "arpans" is misspelled, it should be "arpents". The term "arpent" refers to an archaic French measurement, it being equivalent to about 191.8 English feet in length. A square arpent, or French acre, equated to about 0.85 of an English acre (Lajeunesse 1960:xli, Footnote 1).]

E) "Emplacement du forgeron des Hurons" (site of Huron blacksmith) (see Lajeunesse's 1960B11, page 33 for further details)

There are other important data on Léry's 1749 and 1754 maps, including his depiction of a watercourse (which is not shown on modern topographic maps), labeled as "Rivière de la Vieille Reine" (River of the Old Queen) on the 1749 map and as "Rivière à Gervais" on the 1754 map. The fourth sketch in Lajeunesse (1960:lxxiii, his Figure 9) (herein as our Figure 6) was Patrick McNiff's 1791 sketch "Showing Location of Windmills along the Detroit River". It indicated a variety of features along the Ontario side of the Detroit River including "Huron Church" and mills to the east/north and west/south of the Huron Church.

The fifth sketch in Lajeunesse (1960:lxii, his Figure 8) (herein as our Figure 7) was "Plan of Detroit with Its Environs", by John Montresor, 1763. It clearly shows the location of "Huron Village", at the spot known as La Pointe de Montréal.

Among other things, this sequence of five sketches provides documentary evidence for the existence of a Huron village and/or Jesuit Mission (Church) on the Ontario side of the Detroit River at La Pointe de Montréal, in 1749, 1754, 1763, 1791 and 1797. The church and Huron village were just east of Huron Church Road and just outside of the present Study Area.

According to the City of Windsor Archaeological Master Plan (2005:2-16, 2-18) and the Sandwich Heritage Conservation District Study (Draft, 2007:2.2) the British set aside a tract of land over 1000 acres in size as the "Huron Reserve" or "Huron Church Reserve", which boundaries are today Huron Church Road on the north, the river on the west, a line along John B Avenue and Chappell Avenue on the south, and Malden Road on the east. That study also specified that as late as 1790 "at least part of the land was occupied by a small settlement of Hurons near the Assumption Church". The land was to be set aside as a Native reserve, but the rapid influx of British settlers and merchants caused a change of plans and the former "Huron Reserve" lands became the town site for the developing town of Sandwich. The document just cited, and other documents consulted for the present study, do not provide any clear statement about how long after 1797 any of the former occupants of the Huron settlement may have remained on this land. The Heritage Conservation District Study (Draft, 2007:2.3) does say that after 1797 "a small section [of the original Huron Reserve] bounded by Huron Church Road and Detroit Street was reserved for the natives. The three river front lots were included in the survey. Today the outline of these lots is marked by the streets that run parallel with Huron Church Road from University Avenue to Manchester Road" [i.e. Indian Road /Dot Avenue, and Rosedale Avenue/Harrison Avenue]. A provincial historic plaque located in McKee Park (near at the intersection of Sandwich Street and Rosedale Avenue) informs the general public about the "Huron Church Reserve", which was a tract of 1000 acres set aside by the British Crown that was "subsequently purchased in 1797-1800 for use as the town plot of Sandwich" (Perkins 1989:49).

The area "reserved for the natives" as noted in the above quote was 61 acres in size, fronting the Detroit River from Huron Church Road south to Detroit Street (Lajeunesse 1960: Figure 15,

reprinted herein as our Figure 9a). This "Indian Reserve" is also depicted on a sketch map (our Figure 9b) contained in Lajeunesse (1960:206) as part of the document entitled "Sale of the Huron Church Reserve" in which the "principal Chiefs, Warriors and people of the Ottawa, Chippewa, Powtawatamie and Wyandot nations of Indians" formally relinquished (sold) the Huron Reserve lands of 1078 acres to the British Crown, in September 1800. This "Indian Reserve" encompassed some of the lands within the present Study Area, although there are no archaeological data to support a conclusion that the Huron ever actually lived on lands within the Study Area in the late 18th or early 19th centuries. Rather, the archival documents consulted for the present report indicate that the Huron continued to occupy the village that was beside or adjacent to the Jesuit Mission (later Assumption Church), which was on the east side of Huron Church Road and just outside of the Study Area. It is significant to note that it was not just the Iroquoian-speaking Huron/Wyandotte who may have lived in the "Huron village" and on the lands of the Huron Reserve, since, as noted above, the sale of the Huron Reserve lands involved the Ottawa, Chippewa, Powtawatamie and Wyandot nations.

Aside from all of the above noted documentation of potential for the discovery of Aboriginal (First Nation) cultural material, it must also be noted that there exists archaeological potential for the discovery of artifacts and data relating to occupations and uses of the Windsor area long before the 16th, 17th and 18th centuries. For example, the City of Windsor Archaeological Master Plan (2005) contained an outline of the pre-contact Aboriginal period encompassing the Paleo, Archaic, Early, Middle and Late Woodland periods (i.e. 10,000 B.C. through to 15th century A.D.), and noted (2005:3-23) certain "unregistered sites and findspots" such as discoveries made by collector John Bonham of a projectile point and two ground stone axes, and of another discovery of a projectile point at the Ford Test Track (which is located more than 10 km from the present Study Area). The entire Windsor area also has archaeological potential for the future discovery of sites belonging to the Western Basin Tradition (500-1500 A.D.), since a number of Western Basin sites are known to exist (i.e. Lucier and E.C. Rowe sites in Windsor, as well as others just south of Windsor).

Potential for Discovery of Early Historic Materials (18th and 19th Centuries)

A good deal of the early history of the Windsor area, especially during the 18th century, relates to the early French occupation and use of the region.

Some of the 18th century maps referred to above depict the locations of farmsteads occupied by French settlers, and attached certain names to some of those settlers. The Master Plan (2005:2-16) noted that "European settlement on the south shore of the Detroit River began in 1749 when the governor at Quebec sponsored the movement of farming families to the area in order to promote Detroit as a granary for more distant outposts". This occurred 48 years after the French had established Fort Ponchartrain on the north side of the river, in present day downtown Detroit. According to the archival documents summarized in Lajeunesse's book (1960:liii), de Léry's journal for the period July 25 to August 26, 1749 indicated that 22 parcels of land each 3 arpents by 40 arpents in size were surveyed and allocated for settlement by the French settlers, and that these lots were situated "from Le Ruisseau de la Vieille Reine to La Riviere aux Dindes" [Turkey Creek], a stretch of land 2.5 miles (4.0 km) along the river. One of these settlers was

Louis Gervais, a former captain of the militia, and Lajeunesse (1960:lv) specified not only that Le Ruisseau de la Vieille Reine was renamed La Rivière à Gervais in his honour but also that his house "was at the southwestern limits of the present city of Windsor, just south of McKee Road on land now occupied by the Hydro Generating Station" [well outside of the present Study Area]. This is a vital piece of information since it allows one to situate the precise locations of the other French settlers of the 1749-1751 period. The Master Plan noted that when McNiff conducted his survey in the area in the 1780s he recorded 13 French farm lots in the area of present-day downtown Windsor, and that his 1790 map depicted "irregular clusters of three to six buildings on each lot near the trail which ran along the shoreline for the length of the settlement" (2005:2-17). The Master Plan added that such areas held archaeological potential and even though much of the area has been impacted by modern urbanization and development, "the possibility of finds in denser urban areas cannot be ruled out" (2005:2-17).

An article by Lajeunesse (1955) published in *Ontario History* contained a "Sketch Map of the Detroit Area, 1749-1753" (our Figure 10 herein) which pinpointed the location of the Huron village at La Pointe de Montréal, the "Stream of the Old Queen" (later known as La Rivière à Gervais), and lots set aside for French settlers both to the east/north of the Huron village and to the west/south of the stream. [This sketch map was not included in Lajeunesse's 1960 book, but the sketch was apparently a generalized schematic of information from other maps contained in the 1960 book such as de Léry's 1749 and 1754 maps.] In his text, Lajeunesse (1955:127-128) explained that all of the lots were long and narrow, being three arpents wide along the river and 40 arpents deep, that the settlement was known as *Petite Côte* and that one of the first settlers there was Chevalier de Longueuil, former commandant of the French fort at Detroit. In some archival documents, the Huron village at La Pointe de Montréal was referred to as "*la Côte des Hurons*" (Lajeunesse 1960:336).

The future discovery of French artifacts or archaeological data relating to such farmsteads and/or the Jesuit Mission is not beyond the realm of possibility.

In regard to Assumption Church and La Pointe de Montréal, Lajeunesse (1960:lxxiv) also wrote:

> "It appears that in 1776 the name of the locality known, up to that time, as La Pointe de Montréal was changed to L'Assomption. Until August of that year Father Potier signed himself as "pastor of the Church of the Assumption at La Pointe de Montréal du Detroit". After that date La Pointe de Montréal was omitted in his official title. Civil records as well as letters of the period indicate that in the last quarter of the eighteenth century the whole territory from the Huron Church to Lake St. Clair was generally known by the name of the Settlement of L'Assomption or simply L'Assomption - the title of the old Mission of the Hurons founded at Detroit by Father de La Richardie in 1728".

Assumption University, federated with the present-day University of Windsor, maintains its own Internet Web site. The institution was first formally known as Assumption College (1857-1956), then became known as Assumption University in 1956. The following summary of its history is available on their Web site:

"In 1784 the Jesuits expanded the mission they had founded in Detroit in 1728 to include the south shore of the Detroit River. The Hurons gave the Jesuits the land for the new mission at La Pointe de Montréal, near the present Ambassador Bridge. In 1767 the mission, which served both the French settlers and the native people, was granted a new status, and the first parish in Canada west of Montreal, Assumption Parish, was erected. Nineteen years later in 1786 two schools, one for girls and one for boys, were begun at Assumption Parish.

By the spring of 1855 the parish had enough funds to begin construction of a college. On February 10, 1857, primarily through the work of Rev. Pierre Point S.J., Assumption College opened its doors to twenty-six boarders and sixty day students. M. Theodule Girardot was the first instructor.

Within the year, the Jesuits left Assumption and relinquished control of the College to the diocese. Father Joseph Malbos C.S.B., the first Basilian president of the new College, succeeded the Jesuits but stayed for only one year. The year of Father Malbos's presidency was most significant for the College since he had the foresight to have the College incorporated by an Act of the Parliament of Upper Canada, which received Royal Assent, August 16, 1858. The Act of Incorporation provided an anchor of stability for the fledgling College as Benedictines, Jesuits and diocesan clergy, successively, assumed direction of the College over the next twelve years" [www.assumptionu.ca/history.htm].

Other visible reminders of the mid- to late-18th century French settlement of the area include Assumption Street, Assumption Park and street names which reflect the French settlement, such as St. Antoine, LaForet and Tournier.

A map dated July 12, 1797, drawn by A. Iredell, was reprinted in Lajeunesse (1960:cxix) (reproduced herein as our Figure 9a). It indicates how the lands of the former "Huron Reserve", 1078 acres in size, were subdivided for settlement, with the layout of roads such as Detroit, Mill, Huron (now Brock), Chippawa and South running east-west and Russell, Bedford (now Sandwich) and Peter running north-south. Of significance on this map are the fact that the eastern/northern boundary was the road that is now known as Huron Church Road, and the fact that the long, narrow lot abutting it to the west was owned and occupied (in 1797) by Thomas Pajot, whose house was situated along the east/north side of what is now Sandwich Street. The present Indian Road could very well be on the line marking the limit of Pajot's lot, meaning that the majority of the land within the present Study Area of the Ambassador Bridge Enhancement Project was in fact the lot owned in 1797 by Thomas Pajot; as will be shown below, Mr. Pajot acquired this lot in 1782. Further, it is not beyond the realm of possibility that some archaeological evidence of Mr. Pajot's house might be found within the triangular block of land bordered on its three sides by Huron Church Road, University Avenue and Riverside Drive West/Sandwich Street.

In his book, Lajeunesse (1960) made several references to Mr. Pajot, whose full name was Jean Thomas Pajot (also spelled Pageot, Pageau). In 1782 the Assumption Parish decided that it needed to sell some of its lands within the former Huron Reserve to help defray the costs of their

buildings, and "the western half of lands granted by the Hurons in 1782 was sold to Thomas Pajot to pay the debt on the buildings. The might pillars of the Ambassador Bridge now rest on the eastern edge of that property" (Lajeunesse 1960:xcvii and F30, page 153). In another document dated September 1787, the tract of land owned by Mr. Pajot was expressly described as "the Pajot farm on the western side of Huron Line" (Lajeunesse 1960:331). Mr Pijot was married to Marie Louise Villers, on May 11, 1767. His parents were Thomas Pajot and Marie M. Gervais, while Marie's parents were Louis Villers and Marie Jos. Morin (Lajeunesse 1960:345). Marie Louise Villers was the first white child to be baptized at the Huron Mission of the Assumption at La Pointe de Montréal (on October 4, 1751) and she died on January 9, 1814 at age 62 (i.e. born in or circa 1752) (Lajeunesse 1960:lxvi). A Mr. Pajeau was enumerated in a census taken in Detroit in January 1768, but it is unclear if this is the same man (Lajeunesse 1960:63). A census of the residents of "the south shore" taken on July 16, 1782 lists "Thomas Pagotte", married with three boys and five girls, living on 50 acres and owning a variety of livestock (8 horses, 4 oxen, 4 cows, 2 steers, and 10 hogs) (Lajeunesse 1960:69). Ten years later, in a census of April 22, 1792, "Thomas Pageau" was listed as having one boy age 15 or over, 2 boys under age 15, and 4 girls, living on a lot that measured 3 arpents wide by 40 arpents deep (Lajeunesse 1960:76). One of Pajot's daughters was Marie Joesph Pajot, who on July 22, 1793 married Joesph Langlois at "La Côte des Hurons" (Lajeunesse 1960:336). Beginning in July 1781, Mr. Pajot served as one of the "marguilliers" [wardens] of Assumption Parish (Lajeunesse 1960:124, 356).

Some further data about the land owned by Mr. Pajot were contained in document known as the Monforton Register, which contains an entry for September 8, 1787 describing the sale of land from Louis Payet to Assumption Church, to which Lajeunesse appended the following explanation:

> "3 X 40 arpents - part of a concession of 6 arpents made in 1782 by the Hurons to F. X. Hubert and Sisters of the Congregation. On May 4, 1797, at Montreal, the Sisters ceded land to F. X. Hubert, Coadjutor Bishop of Quebec, who gave authority to Louis Payet who now gives the land to the Church of Our Lady of the Assumption. [Louis Payet came from Quebec to Detroit in 1787 to become pastor at St. Anne's Church. The bishop used this occasion to effect the transfer of property from the Sisters to the church. The land later became the Pajot farm on the western side of Huron Line]" [Lajeunesse 1960:331].

After the switch to British control of Upper and Lower Canada in the 1760s, settlers from the United Kingdom and the United States (i.e. United Empire Loyalists) began to settle in and develop the Windsor area, a reflection of which is indicated by McNiff's 1791 map of windmills (mills) along the river. Another reflection of this is a plan drawn in 1798 by T. Smith (in Lajeunesse 1960:lxxv) showing the subdivision of farm lots along the river with the names of English settlers such as John Askin and William Park. Other highly visible indications of the British presence in Sandwich/Windsor in the 18th and 19th centuries include Mackenzie Hall (the former Essex County Courthouse; the existing structure of Mackenzie Hall was built in 1855, but an earlier courthouse building had stood at that same location since 1797) (Perkins 1989:48).

It is also to be noted that persons of French and British ancestry were not the only ones to settle in what is now the Windsor area. For example Lajeunesse (1960:lxxiv) stated that after the American Revolutionary War (1776), British Loyalists who formerly had lived in America, as well as "slaves and prisoners", were "offered the prospect of two settlements of narrow farms" on the east (south) bank of the Detroit River - Petite Côte and L'Assomption" (also see Windsor Archaeological Master Plan 2005:2-17, 2-18, 2-21).

CONCLUSIONS

According to The City of Windsor Archaeological Master Plan (2005:Figure 4.0), the entire Study Area of the Ambassador Bridge Enhancement Project falls within a zone of high archaeological potential.

Furthermore, and independent of the City of Windsor Archaeological Master Plan, the entire Study Area (exclusive of where built structures are situated) can be assessed as having high archaeological potential because, according to the "Checklist for Determining Archaeological Potential" contained in the Ontario Ministry of Culture's "Standards and Guidelines for Consultant Archaeologists" (2004:11), several conditions exist which create such archaeological potential. Those specific existing conditions include (but are not limited to): proximity to (within 250 metres) known archaeological sites (i.e. 17th century Huron village, known but not registered in the provincial database, located just east of Huron Church Road but within 250 metres of portions of the Study Area; human interments, known but not registered in the provincial database, located somewhere in the vicinity of "Villa Maria" which lies directly adjacent to the west edge of the Study Area); proximity (within 300 metres) of a watercourse (portion of Study Area is within 300 metres of the Detroit River); undetermined but possible proximity to a former watercourse (Rivière à Gervais); elevated topography (true); pockets of sandy soil in a clay or rocky area (true); proximity to a Non-Aboriginal settlement or feature (portions of Study Area lie in proximity to the site of the Jesuit mission and Assumption Church dating to the 18th century, situated just east of Huron Church Road and just east of the Study Area); and proximity to a documented historic feature (the Thomas Pajot farmstead [house/outbuildings/features], relating to the occupation of a specific lot within the Study Area which Mr. Pajot acquired in 1782).

RECOMMENDATIONS

Any construction activities within the Study Area must be preceded by a thorough Stage 2 archaeological assessment.

Locations where there is currently bare ground surface, such as lawns and grassed areas, need to be test pitted to determine if there is evidence for cultural remains. Such test pits need to be manually excavated with hand shovel, with the topsoil removed from each test pit being sifted through screens with 6 mm mesh. All test pits must be excavated to sterile subsoil.

In locations where the ground is currently covered with asphalt or cement (i.e. parking lots), it will be necessary for the proponent of the undertaking to retain a licenced archaeologist to monitor construction as the existing asphalt or cement is removed, to ascertain if there is an undisturbed soil horizon under the asphalt or cement which might potentially contain buried cultural material. If such a buried, undisturbed soil horizon were to be encountered, a licenced archaeologist must be allocated sufficient time and expenses to thoroughly test pit or otherwise examine the soil horizon to determine if cultural material is present.

The Stage 2 archaeological fieldwork should involve First Nations consultation. In the event that human skeletal remains were to be discovered during Stage 2 archaeological fieldwork (or any subsequent Stage 3 investigation/Stage 4 mitigation), it will be necessary to follow the procedures and protocols which have been established by the Ontario Ministry of Culture (see, for example, the City of Windsor Archaeological Master Plan, 2005: Appendix A - The Discovery of Human Remains, Best Practices protocol).

PART 2:

STAGE 2 ARCHAEOLOGICAL ASSESSMENT

NATURE OF FIELDWORK

The Stage 2 archaeological fieldwork for this project was undertaken by Museum personnel in May- June 2007, under contract with the Detroit International Bridge Company and Canadian Transit Company. Only lands owned by the client were accessed and assessed.

The fieldwork took place over 18 days between May 14 and June 7, and was completed under the overall project supervision of Dr. Robert J. Pearce. The Field Director was Dr. Tom Arnold, and the three Field Assistants were James Brad Bandow, Barb Johnson and Bethany Findley. This report was prepared by Pearce, based on the field data, notes and sketches provided by Arnold. The site maps and soil profile drawings (Figures 11 to 20) were prepared by Arnold, and the artifacts were identified and catalogued by Pearce and Arnold.

The weather during the 18 days of fieldwork was generally very favourable and only a couple of hours of time were "lost" due to inclement weather (the crew finished up early one afternoon due to an impeding thunderstorm).

The fieldwork consisted entirely of the manual excavation of screened test pits in areas presently covered by grass sod. Each test pit was approximately 30 cm in diameter, although in many instances the pits had to be enlarged to about 50 cm in diameter due to their depth - layers of overburden or fill were present in some areas and some of the test pits were excavated to depths in excess of 100 cm, meaning that it was necessary to make them 50 cm in diameter at the top to permit excavation down to sterile subsoil.

Each test pit was excavated by a team of two, one person shoveling and one person screening. The covering layer of sod was carefully cut out and removed. The topsoil and/or overburden/fill was then removed by hand shovel and sifted through hand-operated rocker screens with 6 mm (¼") mesh. A tarpaulin was placed next to the test pit and all of the soil was sifted through the screen onto the tarpaulin. Once sterile subsoil was reached, each test pit was backfilled and the sod was restored.

Investigation of the area between Huron Church Road and Indian Road from Wyandotte Street north to University Avenue involved test pitting in the rear and/or front yards of all but two houses along the east side of Indian Road (excluding two properties currently under negotiation), as well as two houses on Donnelly Street and two houses on Peter Street. Test pits were placed, as best as possible, in systematic transects at five metre intervals, although the presence of structures (i.e. sheds, decks), swimming pools, laneways, fences, and obstructions such as

horseshoe pits meant that not all test pits were exactly five metres from each other nor necessarily in systematic transects. The fieldwork conformed to the standards and guidelines for Stage 2 archaeological fieldwork as outlined by the Ontario Ministry of Culture. Intensification test pits were excavated at 2.5 metre intervals around some of the initial positive test pits (i.e. test pits which yielded artifacts) at sites DIBC1 to DIBC4, in an attempt to ascertain the extent of each of those sites. No intensification test pits were excavated at sites DIBC5, DIBC6 and DIBC7 since the initial test pits at 5 metre intervals were positive across the entire area of each of the properties where those sites were located.

Field notes were maintained daily, and as per the client's request all discoveries were reported to the client on a daily basis. Sketch maps were included as part of the field notes, and a GPS reading was taken at the location of all positive test pits. Representative photographs of the fieldwork in progress were taken.

First Nations consultation for this project firstly involved an on-site meeting with Dr. Dean Jacobs of Walpole Island First Nation (on May 15) and subsequent phone conversation between Dr. Pearce and Dr. Jacobs (on May 17), and secondly involved an archaeological monitor in the person of Ms. Rosemarie Denunzio, retained by and reporting to Dr. Jacobs and Walpole Island First Nation.

PROPERTIES EXAMINED

In this section we provide two separate lists for all of the properties that were examined. The first list is chronological, being a daily register of the fieldwork as it was completed; some properties were started on one day and finished on a subsequent day. The second list is in "geographical" order by property number from the south edge of the study area (Indian Road at Wyandotte Street) north to the Detroit River. For reference, from Wyandotte Street northward, Indian Road runs parallel to Huron Church Road, and is crossed first by Donnelly Street and then by Peter Street, before intersecting with University Avenue. The house numbers along Indian Road run in reverse or decreasing order from south to north, starting with number 590 at Wyandotte Street, decreasing to 508 at Donnelly Street. After crossing Donnelly Street the house numbers run from 490 to 420, at Peter Street. After crossing Peter Street, the house numbers run from 394 to 322 at University Avenue. There were also two houses on the north side of Donnelly Street between Huron Church Road and Indian Road, numbers 2876 and 2856, as well as two houses on Peter Street between Huron Church Road and Indian Road, numbers 2876 and 2874, plus a vacant lot east of 2874 Peter Street.

All but two of the houses/properties along the east side of Indian Road are currently owned by the client and were examined. Two properties, at 408 and 446 Indian Road, are currently under negotiations with the client and were excluded from the fieldwork.

In the northern portion of the Study Area, Indian Road intersects University Avenue. Two properties (small apartment buildings) with municipal addresses 2879 and 2891 University

Avenue were included in the Study Area; they are located east of Indian Road, west of Huron Church Road, and south of University Avenue. To the north of University Avenue there is a vacant, triangular parcel of land (bordered on three sides by University Avenue, Huron Church Road and Riverside Drive), the eastern portion of which (closest to Huron Church Road) was test pitted. To the north of this, the eastern portion of the property adjacent to the University of Windsor residence (formerly Villa Maria nursing home) at municipal address 2856 Riverside Drive was test pitted, from Riverside Drive north to the berm along the south bank of the Detroit River.

Table 1: Chronological List of Properties Examined

May	14	reconnaissance and set-up only, no fieldwork
	15	Indian Road: 556; 540; 520; 474; 460; 458; 440 Donnelly St.: 2856
	16	Indian Road: vacant lot between 440-428; 428; 420; 394; 388; 372 (start)
	17	Indian Road: 372 (finish); rained out in PM
	18	Indian Road: 590; 570; 508; 490 Donnelly St.: 2874 (start)
	21	Victoria Day Holiday, no fieldwork
	22	Indian Road: 452; 364 (start) Donnelly St.: 2874 (finish)
	23	Indian Road: 364 (finish); 358; 352; 346 Peter St.: 2876; 2874; vacant lot east of 2874
	24	Indian Road: 340; 336; 332; vacant lot between 332-322 (start)
	25	Indian Road: vacant lot between 332-322 (finish); 322 University Ave.: 2891 (start)
	28	University Ave.: 2891 (continued)
	29	University Ave.: 2891 (finish); 2879 plus triangular area between University Ave. and Riverside Dr. (start)
	30	triangular area between University Ave. and Riverside Dr. (finish) Riverside Dr.: 2856 (start)
	31	Riverside Dr.: 2856 (continued)
June	01	Riverside Dr.: 2856 (continued)
	04	Riverside Dr.: 2856 (continued)
	05	Riverside Dr.: 2856 (continued)
	06	Riverside Dr.: 2856 (finish) plus intensification test pits around positive test pits at Sites 1 to 4
	07	intensification test pits around positive test pits at Sites 1 to 4

Table 2: "Geographical" List of Properties Examined

Indian Road (from south end at Wyandotte Street north to University Ave.):

590	May 18
570	May 18
556	May 15
540	May 15
520	May 15
508	May 18
Meets Donnelly Street.	
490	May 18
474	May 15
460	May 15
458	May 15
452	May 22
(446, excluded)	
440	May 15
vacant lot	May 16
428	May 16
420	May 16
(408, excluded)	
Meets Peter Street	
394	May 16
388	May 16
372	May 16 & 17
364	May 22 & 23
358	May 23
352	May 23
346	May 23
340	May 24
336	May 24
332	May 24
vacant lot	May 24 & 25
322	May 25
Meets University Ave.	

Donnelly Street:

2856	May 15
2874	May 18 & 22

Peter Street:

2876	May 23

2874 May 23
vacant lot east of 2874 May 23

University Avene:

2891 May 25, 28 & 29
2879 May 29

Triangular lot between University Ave. and Riverside Drive: May 29 & 30

Riverside Drive:

2856 May 30, 31, June 1, 4, 5 & 6

RESULTS

Cultural materials (artifacts) were encountered at seven different locations (labeled in the field by the Museum as DIBC1 to DIBC7), to be registered in the provincial archaeological sites database as sites AbHs-28 to 34 inclusive. Each of these is described below. On some of the sites, both Aboriginal (First Nation) and historic Euro-Canadian materials were discovered, sometimes within the same test pit.

In the following discussion of each site, the Museum has employed standard terms to describe the artifacts, as used by archaeologists in Ontario and as found in standard archaeological reports. The Aboriginal materials include: ceramic sherds (from grit-tempered ceramic vessels); chipped stone tools such as projectile points (arrowheads and spearheads), knives, scrapers, etc.; pieces of chipping detritus (chert flakes produced as a by-product of making chipped stone tools); and ground stone tools (such as hammerstones and netsinkers). The chipping detritus and chipped stone tools are sometimes further described with reference to the specific type of stone from which they were made, such as Onondaga chert, Kettle Point chert, Bayport chert or Flint Ridge chalcedony (each of which was derived from a very specific geographical location because they were formed in specific geological contexts). The historic Euro-Canadian materials include ceramic sherds (pieces of broken china cups, plates and saucers), stoneware crockery sherds, bottle glass, window glass, and various categories of metal artifacts. The historic Euro-Canadian ceramic sherds are further described using conventional terminology and classes employed by Ontario archaeologists and outlined in a reference document prepared by the Ontario Ministry of Culture, such as Edged wares, Transfer Printed wares (including Flow Blue), and Painted wares. Some of the animal bones that were recovered can clearly be assigned to the historic period because they showed evidence of having been cut with a metal saw, but other bones, and perhaps some of the fire-cracked rocks, cannot be positively classified as either Aboriginal or historic and may date to either or both periods.

Discussions of and conclusions regarding each of the seven sites are largely contained in the Conclusions section of the report and not within the individual site descriptions below.

Figure 11 depicts the locations of each of the seven sites on an overall base map provided by the client. Figures 12 through 18 are individual site plans for each of the seven sites, showing all of the positive test pits relative to each other and in relation to buildings, structures or other features on the properties. Figures 19 and 20 are representative profiles of selected test pits.

DIBC1 (AbHs-28) (Figure 12)

The first discovery was made on the third day of fieldwork on the property at 372 Indian Road. Subsequent fieldwork on the adjacent property to the immediate north (364 Indian Road), led to the discovery of additional artifacts. The finds on the two adjoining properties are regarded herein as a single archaeological site, since the artifacts were within 10 metres of each other on the two properties. All of the artifacts were discovered in test pits in the rear yards of the two properties. Initial Test Pits #1, 2 and 3 excavated at 5 metre intervals were all positive (i.e. yielded artifacts), and all additional test pits on the properties were intensification ones excavated at 2.5 metre intervals surrounding the first three positive test pits. A diagnostic projectile point (described below) from Test Pit #1 was found directly beside a shrub located behind the house at 372 Indian Road, 5 metres east of the sidewalk and cement patio at the back of the house. Intensification Test Pits #4, 5 and 6 surrounding it yielded historic artifacts.

A relatively complete Genesee type projectile point (spear head) was found in Test Pit #1 at 372 Indian Road. It is made from high quality Onondaga chert. The very tip end is broken off, and there is slight damage to one edge of the basal stem. The point is 67.74 mm long, with a maximum width at the shoulder of 25.16 mm and a maximum thickness of 9.29 mm. The basal stem, diagnostic of such "Broad" points, is 21.20 mm long and 21.23 mm wide, tapering down to a slightly rounded off base which has been basally thinned. The lateral edges of the body of the point are excurvate (convex curvature from tip to base) and bifacially thinned/sharpened. The point is somewhat atypical in that there was an attempt to form two small notches on the stem, each measuring 2 mm high by 1 mm deep. Genesee points such as this one are found throughout all of northeastern North America and date to the Late Archaic period circa 2500 - 2000 B.C.

Also found within Test Pit #1 were some pieces of animal bone and a piece of historic glass, a fragment of an aqua-coloured bottle.

One other Aboriginal artifact was discovered elsewhere on this site, in Test Pit #10. It was a secondary reduction flake of Onondaga chert. Also found in the same test pit were two Euro-Canadian historic items: a small animal bone fragment and a sherd of red Transfer-Printed ware ceramic.

All of the other items discovered at this site were historic Euro-Canadian (pioneer) artifacts. Including the items mentioned above, the total inventory of historic items from this site is as follows: four ceramic rim fragments (i.e. lips or edges from plates, cups or saucers), 20 ceramic sherds (17 of which are decorated), two stoneware crockery sherds, five pieces of glass bottles, one piece of glass from a lamp chimney, five pieces of slag, one iron nail, one whetstone, and 14 pieces of animal bone. The ceramic sherds include Plain White Granite, Flow Blue, and pieces of Transfer-Printed ware (red, light blue and dark blue, plus one sherd with a yellow glaze on the

exterior surface). One of the glass sherds is from a medicine bottle with embossed words on the side, the letters being "...S TUR..."

The soil profiles/stratigraphy in the ten positive test pits at this site were quite complex. In Test Pit #1, there was a 25 cm thick layer of disturbed topsoil/fill, overlying a distinct thick layer of yellow clay subsoil fill (from 25 cm to 65 cm below surface) overlying the original topsoil and "A" horizon layer, which was up to 40 cm thick (i.e. from 65 cm to 100 cm below surface) overlying sterile, undisturbed subsoil (grey sandy clay) (see Figure 19). The projectile point and the two historic artifacts from this test pit came from the buried original topsoil and "A" horizon, at depths below surface of 65 to 80 cm. In Test Pit #2 there was a 49 cm thick layer of disturbed topsoil and subsoil overlying the buried original topsoil and "A" horizon, which was from 49 cm to 77 cm below present surface, overlying sterile, undisturbed subsoil. A similar situation occurred in Test Pit #3. The historic artifacts from the latter two test pits were discovered in the buried topsoil layer, at depths below surface of 50 to 75 cm. The soil profiles in the remaining positive test pits were not as clearly demarcated as in Test Pits #1, 2 and 3, and there was no obvious undisturbed buried topsoil layer in any of the pits. Since the field crew excavated down into the subsoil to ensure there were no buried soil horizons, the maximum depths excavated to in the positive test pits was variable, from 60 cm in Test Pit #10 to 100 cm in Test Pit #1.

DIBC2 (AbHs-29) (Figure 13)

This site was discovered on the property at 490 Indian Road, in the side yard facing Donnelly Street and the house at 2874 Donnelly Street. In other words, the artifacts were found in the lawn (enclosed by a hedge) between the south side of the house at 490 Indian Road and the sidewalk running along the north side of Donnelly Street.

There were three positive test pits at this location. Test Pit #1 yielded two historic Euro-Canadian items, a piece of window glass and a white clay pipe stem. Test Pit # 2, 5 metres north of Test Pit #1, yielded a glass bottle fragment, a Plain White Granite ceramic sherd, an iron nail, a piece of slag and a fragment of a graphite stylus. Test Pit #6, located in the hedge and 5 metres east of Test Pit #2, yielded two Aboriginal items, a chert flake (piece of chipping detritus, white Bayport chert) and a hammerstone, and two historic Euro-Canadian items (pieces of slag). Intensification test pits excavated around these discoveries were negative (yielded no artifacts).

In all test pits, there was a more or less uniform layer, 30 to 35 cm thick, of disturbed fill overlying the original topsoil and "A" horizon, which varied from 25 to 35 cm thick, overlying blue-grey clay subsoil. The excavated test pits ranged from 60 to 80 cm in overall depth, and all of the artifacts from this location were found in the buried topsoil layer (i.e. from 35 to 70 cm below present surface).

DIBC3 (AbHs-30) (Figure 14)

This site consists of positive test pits in both the front and rear yards of the property at 340 Indian Road, plus one positive test pit in the front yard of the property at 346 Indian Road.

There were two positive test pits in the front yard of 340 Indian Road. Test Pit #1 yielded a well-made end scraper on Flint Ridge chalcedony, a type of raw material which originates in Ohio. Artifacts made from this material have been found on a number of Aboriginal archaeological sites in Ontario. Test Pit # 2 yielded four chert flakes (pieces of chipping detritus), one of which is Kettle Point chert from the east shore of Lake Huron at Kettle Point.

The single positive test pit in the front yard of 346 Indian Road yielded a single Onondaga chert flake.

All of the remaining positive test pits were in the rear yard of 340 Indian Road. Test Pit #4 yielded five Aboriginal artifacts (two Kettle Point chert flakes, a flake of quartzite, a flake of meta-sedimentary rock and a small ground stone hammerstone) plus one historic Euro-Canadian item (a ceramic sherd of blue Banded ware). Test Pit #10 yielded an Onondaga chert flake and an historic stoneware crockery sherd. Test Pit #11 yielded two local till chert flakes and a fire-cracked rock.

On this property, positive Test Pits #1, 4 and 5 were ones initially excavated as the properties were being systematically tested at 5 metre intervals, while positive Test Pits #2, 3, 10 and 11 were intensifications ones excavated at 2.5 metre intervals around the initial finds.

The soil profiles in all but one of these test pits exhibited no disturbance. There was sandy to gravelly sandy topsoil and an "A" horizon overlying yellow sand subsoil, although the thickness of the top layer ranged from 65 to 100 cm. The exception to this occurred in Test Pit #10 where there was a 40 cm thick layer of disturbed fill overlying a buried topsoil layer/ "A" horizon which was present at a depth of 40 to 65 cm below present surface; it was in this buried original topsoil layer that the artifacts were found, including a chert flake intermixed with an historic ceramic sherd. As shown on the sketch map of this site, Test Pit #10 (with a buried topsoil layer) was located directly adjacent to a wooden deck built at the back of the house. In contrast, the Flint Ridge chalcedony scraper from Test Pit #1 came from the top 5 cm of topsoil.

DIBC4 (AbHs-31) (Figure 15)

This site was discovered in the vacant lot between 332 and 322 Indian Road, although the footprint of a former house, now demolished, remains visible on this lot. The positive pits were near the fence along the back of that property. Four of the test pits in this spot yielded artifacts, encompassing an area measuring 10 metres east-west by 5 metres north-south. All of the artifacts are Aboriginal: a utilized chert flake (Kettle Point chert) from Test Pit #1, three chert flakes (one Kettle Point, one local chert, one white chert) from Test Pit #2, and single chert flakes in each of Test Pit #4 and Test Pit #5. Test Pits #1, 2 and 4 were ones initially excavated at 5 metre intervals and Test Pit #5 was an intensification one at 2.5 metre intervals around Test Pit #2.

In all test pits, there was a 30 to 40 cm thick layer of disturbed fill overlying the original undisturbed topsoil and "A" horizon, which was uniformly 30 cm thick, overlying sterile, undisturbed subsoil. The test pits were all 80 to 83 cm deep, including excavation down into the subsoil of at least 10 cm. All of the artifacts came from the buried topsoil layer, at depths of 40-80 cm below present surface.

DIBC5 (AbHs-32) (Figure 16)

At the southeast corner of the intersection of Indian Road and University Avenue there are two apartment buildings, fronting onto University Avenue with street addresses of 2891 University Avenue (closest to Indian Road) and 2879 University Avenue. Of 16 test pits excavated surrounding these two buildings, nine were positive, yielding both Aboriginal and historic Euro-Canadian artifacts. The positive test pits included ones in the yard located between Indian Road and the west side of the building at 2891 University Avenue, ones in the yard between the two buildings, and ones in the front yards of both buildings (i.e. between University Avenue and the fronts of both buildings). The area to the east and south of the building at 2879 University Avenue could not be test pitted because it was a gravel parking lot. Also, a sewer grate in the rear parking lot here indicates subsurface disturbance. The productive test pits encompassed an area measuring 25 metres east-west by 15 metres north-south.

Positive Test Pits #1 and #2 were in the side yard of 2891 University Avenue. Pit #1 yielded four chert flakes (three Onondaga chert, one Kettle Point chert) plus a range of historic material: three decorated ceramic sherds (one Banded ware, two blue Stamped ware), three undecorated sherds (plain White Granite), the base of a stoneware crockery vessel (ginger beer bottle), a white clay pipe stem fragment, a sherd of clear bottle glass (burnt) and one iron nail. Pit #2 yielded a single Kettle Point chert flake.

Positive Test Pit #3 was in the northwest corner of the lot, in the grass lawn right at the intersection of Indian Road and University Avenue. It yielded two chert flakes (one Kettle Point, one Onondaga) plus three historic items: two ceramic sherds (one plain White Granite, one yellow glazed "Rockingham" ware), and a white clay pipe stem fragment.

The remaining positive test pits, in the front yards of the two buildings and between the two buildings, yielded primarily Aboriginal material. Test Pit #10 was right in front of the front steps leading into the apartment at 2879 University Avenue. The finds were as follows:

Test Pit #5	one Onondaga chert flake
Test Pit #6	three Onondaga chert flakes
Test Pit #7	one bifacially flaked scraper on white chert
	two Onondaga chert flakes
Test Pit #8	one Onondaga chert flake

Test Pit #9 one Kettle Point chert flake
one historic ceramic sherd (blue Transfer Printed ware)
Test Pit #10 two chert flakes (one Onondaga chert, one Bayport chert)

In a majority of the excavated test pits, there was clearly a 25 to 35 cm thick layer of disturbed fill overlying a buried original layer of topsoil and "A" horizon, which had variable thickness (up to 60 cm thick) over the yellow clay subsoil. A majority of the artifacts were recovered from the buried topsoil layer. The test pits ranged in overall depth from 66 cm to 115 cm.

DIBC6 (AbHs-33) (Figure 17)

Within the triangular block of land situated between University Avenue and Riverside Drive there is an L-shaped parking lot, with the long arm of the L running along and parallel to the west side of Huron Church Road, and the short arm or base of the L running along the north side of University Avenue. To the north of the short arm or base of the L (and west of the long arm of the L) there are two old fences running parallel to each other and parallel to Huron Church Road. Positive test pits were encountered in the area between the two fences, and also in the area to the west of the westernmost fence. A portion of the area between the two fences, closest to Riverside Drive, was disturbed by a ditch and pile of dirt.

The test pits here encountered variable soil conditions. Test Pits #1 through 10 were all similar, with a 25 cm thick layer of disturbed fill overlying an original topsoil layer which was on average 40 cm thick. Artifacts were present in both layers. Test Pit #11 had a 30 cm thick layer of disturbed gravelly soil overlying a 10 cm thick layer of buried disturbed topsoil overlying a 5 cm thick layer of burnt, disturbed soil overlying a 25 cm thick layer of original topsoil, overlying sterile undisturbed subsoil. Similar conditions were present in Test Pits #13, 15 and 16. Artifacts were present at all levels. Test Pit #18, 19 and 20 had no distinguishable disturbance, all having a 46 to 50 cm thick top layer of topsoil, overlying reddish sandy subsoil. The test pits ranged in depth from 60 to 85 cm, in some cases including excavation down into the subsoil by as much as 35 cm.

Seventeen of the 21 test pits here yielding artifacts including both Aboriginal and historic material, as outlined below.

TP#1 three Onondaga chert flakes
seven animal bones (one of which is burnt)
one clam shell fragment
one nail
one white glass button
one white clay pipe stem/elbow fragment
four undecorated historic ceramic sherds (three whiteware, one creamware)
one decorated ceramic sherd (blue Painted ware)

Subtotal: 19 items

TP#2 one quartzite flake
one iron nail
one metal hook
two graphite stylus fragments
one undecorated historic ceramic sherd (White Granite)
one decorated historic ceramic sherd (red Transfer Printed ware)

Subtotal: 7 items

TP#3 five chert flakes (one Kettle Point chert, two Onondaga chert, two misc. chert)
six iron nails
11 animal and fish bone fragments
five glass bottle fragments (one brown, one clear, three aqua)
one undecorated historic ceramic sherd (White Granite, burnt)
one decorated historic ceramic sherd (black Transfer Printed ware)
four stoneware crockery sherds
one misc. metal fragment

Subtotal: 34 items

TP#4 two Onondaga chert flakes
one animal bone fragment
two iron nails
one undecorated historic ceramic sherd (White Granite)
one decorated historic ceramic sherd (blue Transfer Printed ware)
one misc. metal fragment

Subtotal: 8 items

TP#5 three chert flakes (one Onondaga chert, one Kettle Point chert, one burnt chert)
five iron nails
two stoneware crockery sherds
one historic button (rubber, stamped "Goodyear")

Subtotal: 11 items

TP#6 two Onondaga chert flakes
one ground stone netsinker
one piece of coal
seven undecorated historic ceramic sherds (White Granite)
four decorated historic ceramic sherds (one blue Transfer Printed ware, two blue Painted ware, one red Painted ware)

one decorated historic ceramic rim sherd (blue Banded ware)
one white glass button
five iron nails
three glass bottle fragments (two clear, one brown)
three graphite stylus fragments
three pieces misc. metal
Subtotal: 31 items

TP#8 one decorated historic ceramic rim sherd (Blue Edged ware, scalloped)
one decorated historic ceramic sherd (polychrome Painted ware)
one undecorated historic ceramic sherd (White Granite)
one white clay pipe stem fragment

Subtotal: 4 items

TP#11 three animal bone fragments
one decorated historic ceramic rim sherd (Green Edged ware, scalloped)
four decorated historic ceramic sherds (all from a single Mocha plate or cup or saucer with a "Cat's eye" motif)
one metal ring or hoop

Subtotal: 9 items

TP#12 one iron nail
one decorated historic ceramic sherd (green Transfer Printed ware)

Subtotal: 2 items

TP#13 two animal bone fragments
one iron nail
one metal screw, threaded
three sherds of window glass (thin)
two decorated historic ceramic rim sherds (one blue Banded ware, one yellow glazed Rockingham ware)
one undecorated historic ceramic sherd (White Granite)
one stoneware crockery sherd (brown)

Subtotal: 11 items

TP#14 one Aboriginal ceramic body sherd (scarified exterior surface)
six chert flakes (four Onondaga chert, one white chert secondary retouch flake, one white chert biface thinning flake with ground/polished edge)
two decorated historic ceramic sherds (one blue Banded ware, one black Transfer Printed ware)
one undecorated historic ceramic sherd (White Granite)

one piece lamp chimney glass

Subtotal: 11 items

TP#15 one glass bottle fragment (clear glass neck/lip fragment)
one undecorated historic ceramic sherd (white porcelain)

Subtotal: 2 items

TP#16 19 decorated historic ceramic sherds including rims (all pieces from single, broken Transfer Printed ware Blue Willow pattern plate)
one glass bottle fragment (clear glass neck/lip fragment)

Subtotal: 20 items

TP#18 two Aboriginal ceramic body sherds (plain surfaces)
eight chert flakes (one white chert, two Onondaga chert shatter flakes, four Onondaga chert biface thinning flakes, one Kettle Point chert biface thinning flake)
nine animal and fish bones (including one fish otolith and one burnt/calcined piece)
seven iron nails
one metal eye screw
one decorated historic ceramic rim sherd (black Transfer Printed ware)
four decorated historic ceramic sherds (three blue Transfer Printed ware, one glazed Rockingham ware)
one undecorated historic ceramic sherd (White Granite)

Subtotal: 33 items

TP#19 six decorated historic ceramic rim sherds (all pieces from a single Flow Blue pattern plate)
one decorated historic ceramic rim sherd (Wheat pattern White Granite)
two undecorated historic ceramic sherds (white porcelain)

Subtotal: 9 items

TP#20 five animal bones (one of which is cut/sawn, one burnt/calcined)
one iron nail
one decorated historic ceramic sherd (blue Transfer Printed ware)
two brown glazed stoneware crockery sherds
two white clay pipe stem fragments (two different stems)

Subtotal: 11 items

Total inventory: 222 items

The Aboriginal material from this site includes three ceramic sherds, 29 chert flakes, one quartzite flake and a netsinker. The chert flakes include secondary retouch flakes, tertiary retouch flakes and biface thinning flakes, indicating that stone tools were made and maintained (i.e. re-sharpened). Some of the animal bones from this site may relate to the Aboriginal use of this location (i.e. one fish otolith - bone from the inner ear of a freshwater drum fish), while others clearly date to the historic period (i.e. cut/saw pieces). Some of the animal bone is burnt/calcined, meaning that it had been subjected to heat in a hearth or fireplace.

A total of 149 artifacts can be positively assigned to the historic period. The diagnostic Euro-Canadian historic ceramic sherds have a considerable time range, from the late 18th century, early to late 19th century and in to the 20th century. The "earliest" of these historic sherds are one creamware sherd (plain) which dates to the period 1760-1830 A.D. and the Green Edged ware and Blue Edged ware sherds, both of which are scalloped and date to the period 1780-1850 (Ministry of Culture reference document "The ACO Guide to 19th Century Sites"). While there were several pieces of plain White Granite (which dates after 1850 A.D.) (including one with an embossed "Wheat" pattern), there were also some decorated sherds including Painted ware (red, blue, polychrome), Transfer Printed ware (red, black, blue, green and Flow Blue), Banded ware (blue), and four sherds from a single Mocha ware plate. The total number of historic sherds is skewed somewhat by the discovery in Test Pit #16 of 19 pieces from a single Blue Willow pattern Transfer Printed ware plate. A couple of sherds of Rockingham ware (yellow glazed) were also found, as were some pieces of 20th century porcelain.

The historic assemblage also included 30 iron nails and a variety of metal artifacts including a hook, a hoop, two screws and five miscellaneous bits of metal. There were three pieces of window glass, a fragment from a glass lamp chimney, and 10 glass bottle fragments. There were four fragments of white clay pipes (three stem fragments and one elbow fragment), none of which were marked or embossed with a maker's name. There were nine earthenware crockery fragments, and three buttons (one of which is rubber, embossed "Goodyear").

DIBC7 (AbHs-34) (Figure 18)

This site was discovered in the grass lawn bordered on the east by the fence along the west side of the Ambassador Bridge, on the south by Riverside Drive, on the west by the large structure (University residence) at 2856 Riverside Drive (formerly Villa Maria nursing home), and on the north by the berm/break-in-slope along the south edge of the Detroit River. Of the 71 test pits excavated on this parcel, 55 yielded artifacts including both Aboriginal and historic material. The productive test pits encompassed an area measuring 85 metres north-south by 25 metres east-west., extending across the entire area of this property as examined, from just north of Riverside Drive northward to (and in) the artificial earth berm along the Detroit River.

Some of the soil from two of the positive test pits at this location was retained for water-screening through fine-mesh screens at the Museum; approximately 10 litres of soil from each of

Test Pit #46 and Test Pit #69 was so processed. This resulted in the recovery of some small chert flakes, pieces of Aboriginal ceramics, and pieces of animal bone.

The material recovered from this site is summarized below. With reference to the enclosed sketch of this site, it can be noted that the test pits were aligned in six parallel transects, with Test Pits #1 through #18 in the easternmost transect (closest to Huron Church Road and the Ambassador Bridge), and Test Pits #67 through #71 in the westernmost transect.

The test pits had variable depth from 35 cm to 103 cm. Generally speaking, there was a very thick layer of topsoil (up to 95 cm deep) overlying the subsoil with no real evidence of fill, disturbance or buried stratigraphic layers except in three pits, although the presence of some historic artifacts in the thick layer of topsoil does mean that some disturbance had taken place in specific, isolated areas. The exception occurred in Test Pit #56, 57 and 58 where there was clear evidence of disturbance: there was a layer of disturbed fill (varying in the three pits from 20 cm to 36 cm thick) containing construction debris (i.e. brick fragments), overlying a buried topsoil layer that was 15 cm to 40 cm thick, overlying undisturbed subsoil (see Figure 20).

Following is an inventory of all of the material recovered from the positive test pits. When a test pit number is skipped, it means that test pit was negative (i.e. nothing was found in Test Pit #2, #3, etc.)

TP#1 three Aboriginal ceramic body sherds (plain)
seven chert flakes (five Onondaga chert, two white chert)
one schist flake
one clam shell fragment

Subtotal: 12 items

TP#4 one Aboriginal ceramic body sherd (fabric-impressed exterior)
one piece of daub
seven chert flakes (four Onondaga chert, one Bayport chert, one white chert, one misc.)
one animal bone (calcined)
two fire-cracked rocks

Subtotal: 12 items

TP#5 one Aboriginal ceramic - fragmentary rim sherd (decorated with linear stamped opposed obliques)
two Aboriginal ceramic body sherds (plain)
three pieces of daub
four chert flakes (three Onondaga chert, one white chert)
two fire-cracked rocks
one historic ceramic sherd (plain White Granite)

Subtotal: 13 items

TP#6 four chert flakes (three Onondaga chert, one local till chert)
three fire-cracked rocks

Subtotal: 7 items

TP#7 one Aboriginal ceramic body sherd (scarified or corded exterior surface)
five chert flakes (two Onondaga chert, one Kettle Point chert, two misc. chert)
four animal bones (one calcined)
one fire-cracked rock (with one ground/smooth edge)

Subtotal: 11 items

TP#8 two chert flakes (one Onondaga chert, one Kettle Point chert)
one animal bone (molar from a *Canid* sp. - dog or wolf)
two decorated historic ceramic sherds (blue Transfer Printed ware)

Subtotal: 5 items

TP#9 two chert flakes (one Onondaga chert, one white chert)
one animal bone
one historic animal bone (cut/sawn edge)

Subtotal: 4 items

TP#10 two chert flakes (one Onondaga chert, one Kettle Point chert)
67 animal bones (mostly fish, possibly all from a single fish)

Subtotal: 69 items

TP#11 one Aboriginal ceramic body sherd (plain surface)
three pieces of daub
two chert flakes (one Onondaga chert, one white chert)
one animal bone

Subtotal: 7 items

TP#12 one piece of daub
one chert flake (Onondaga chert)
two animal bones (one of which is deer)

Subtotal: 4 items

TP#13 two Aboriginal ceramic body sherds (one fabric impressed, one cord-roughened)
16 pieces of daub
seven animal bones (one of which is calcined)

five chert flakes (four Onondaga chert, one misc. chert)
two fire-cracked rocks

Subtotal: 32 items

TP#14 one piece of daub
13 chert flakes (mixture of types including Onondaga, Kettle Point, white and other)
four animal bones (one of which is calcined)

Subtotal: 18 items

TP#17 two chert flakes (one Onondaga chert, one Kettle Point chert)

Subtotal: 2 items

TP#19 one animal bone (deer)
two historic Euro-Canadian ceramic sherds (Blue Willow pattern Transfer Printed ware)

Subtotal: 3 items

TP#20 one chert scraper (Onondaga chert)
four chert flakes (one each of Onondaga, Kettle Point, white and Bayport)
six Aboriginal ceramic body sherds (all plain)
two Aboriginal decorated ceramic body sherds (scarified)
one animal bone (calcined)
one iron nail
one piece of slag
one historic Euro-Canadian decorated ceramic sherd (Banded ware, blue)

Subtotal: 17 items

TP#21 three Aboriginal ceramic body sherds (plain)
two Aboriginal decorated ceramic body sherds (scarified)
14 chert flakes (mixture of types including Onondaga, Kettle Point, local and other)
one schist flake
one bone awl fragment (worked animal bone, sharpened to a point, broken tip)
two animal bones (one fish otolith)
one fire-cracked rock
one piece of plaster or stucco (painted exterior surface)

Subtotal: 25 items

TP#22 two Aboriginal ceramic body sherds (plain)
one piece of daub
one chert biface (fragment)
five chert flakes (mixture of types including Onondaga and Kettle Point)

Subtotal: 9 items

TP#24 one chert biface (thick, chunky biface, complete but unfinished, made of local till chert)
three chert flakes (two Onondaga chert, one white chert)

Subtotal: 4 items

TP#26 one Aboriginal ceramic body sherd (plain)
eight chert flakes (mixture of types)

Subtotal: 9 items

TP#27 two pieces of daub
three chert flakes (one Onondaga chert, one white chert, one local till chert)
one quartzite flake
one hammerstone
two animal bone fragments
one fire-cracked rock
one piece of historic window glass
one historic Euro-Canadian ceramic sherd, decorated (black Transfer Printed ware)

Subtotal: 12 items

TP#28 two Aboriginal ceramic body sherds (plain surfaces)
one piece of daub
13 chert flakes (mixture of types)
one fire-cracked rock

Subtotal: 17 items

TP#29 one Aboriginal ceramic body sherd (plain surface)
one projectile point (arrowhead), triangular in shape (Onondaga chert)
11 chert flakes (mixture of types including Onondaga, Kettle Point, Bayport)
one historic piece of metal (metal tag)

Subtotal: 14 items

TP#30 one chert flake
one quartzite flake

Subtotal: 2 items

TP#32 four chert flakes (mixture of types)
one hammerstone

two pieces of reddish, powdery rock (possibly red ochre)
one historic white clay pipe bowl fragment
Subtotal: 8 items

TP#33 two chert flakes (both Onondaga chert)
one animal bone fragment

Subtotal: 3 items

TP#35 two Aboriginal ceramic body sherds (fabric-impressed exterior surfaces)
one piece of daub
one chert scraper (made from Bayport chert)
eight chert flakes (mixture of types)

Subtotal: 12 items

TP#36 two Aboriginal ceramic body sherds (plain exterior surfaces)
one chert flake (Kettle Point chert)

Subtotal: 3 items

TP#37 one Aboriginal ceramic body sherd (plain exterior surface)
one chert flake (local till chert)

Subtotal: 2 items

TP#38 one Aboriginal ceramic body sherd
three pieces of daub
one chert drill fragment (Onondaga chert, fragment of a T-shaped drill)
one chert flake (local till chert)

Subtotal: 6 items

TP#39 three chert flakes (one heat-altered Onondaga chert)
one fire-cracked rock

Subtotal: 4 items

TP#41 nine chert flakes (mixture of types)
one fire-cracked rock
one historic Euro-Canadian ceramic rim sherd (piece of a Flow Blue Transfer Printed ware
plate)

Subtotal: 11 items

TP#44 two chert flakes (white chert)
Subtotal: 2 items

TP#45 five chert flakes (mixture of types including Onondaga and exotic chert from U.S.A.)
one fire-cracked rock

Subtotal: 6 items

TP#46 From excavation of test pit:
one Aboriginal ceramic rim sherd (dentate stamp and cord-wrapped stick obliques)
eight Aboriginal ceramic body sherds
two pieces of daub
one chert biface fragment (made from local till chert)
six chert flakes (mixture of types)
one ground stone fragment (fragment broken off of a tool)
seven animal bone fragments (some of which are calcined)

Subtotal: 26 items

From 10 litre flotation sample:
one Aboriginal ceramic body sherd
two chert flakes
20 animal bone fragments (some of which are calcined)
four fire-cracked rocks

Subtotal: 28 items

Total from TP#46: 54 items

TP#47 five Aboriginal ceramic body sherds (all with fabric-impressed exterior surfaces)
seven pieces of daub
one chert biface fragment (made from a pink-coloured chert, tip fragment only)
21 chert flakes (mixture of types)
13 animal bones (some of which are calcined)
one clam shell fragment
two fire-cracked rocks
one historic white clay pipe bowl fragment
one piece of historic window glass
one historic red brick fragment

Subtotal: 53 items

TP#50 two Aboriginal ceramic body sherds (plain exterior surfaces)
seven chert flakes (mixture of types)

two animal bones (calcined)
one historic button

Subtotal: 12 items

TP#51 two Aboriginal ceramic sherds (fragmentary rim with punctates and cord-wrapped stick motif)
four Aboriginal ceramic body sherds (plain)
one Aboriginal decorated ceramic body sherd (scarified exterior surface)
four chert flakes
three schist flakes
one hammerstone
four animal bones (one turtle shell, one fish otolith, one calcined piece)
one fire-cracked rock
one historic metal artifact

Subtotal: 21 items

TP#52 two pieces of daub
14 chert flakes (mixture of types)
nine animal bones (fish, bird, mammal, some calcined)
four fire-cracked rocks
one historic piece of coal

Subtotal: 30 items

TP#53 one piece of daub
five chert flakes
two fire-cracked rocks

Subtotal: 8 items

TP#54 two chert flakes
one animal bone (calcined)

Subtotal: 3 items

TP#55 one Aboriginal ceramic body sherd
two chert flakes
two historic Euro-Canadian ceramic sherds (one White Granite, one red glazed china)
one historic white glass button (four holes)

Subtotal: 6 items

TP#56 two pieces of daub

three chert flakes
two schist flakes
one animal bone
one fire-cracked rock

9 items

TP#57 two Aboriginal ceramic body sherds
seven chert flakes (mixture of types)
one fire-cracked rock
one historic piece of metal

Subtotal: 11 items

TP#58 one chert flake (Onondaga chert)

Subtotal: 1 item

TP#60 five chert flakes (three Onondaga chert, one white chert, one local till chert)

Subtotal: 5 items

TP#61 one piece of daub
two chert flakes
one fire-cracked rock (ground and polished, possibly part of a hammerstone)

Subtotal: 4 items

TP#62 one chert flake (Onondaga chert)
one animal bone fragment
one fire-cracked rock

Subtotal: 3 items

TP#63 11 pieces of daub
five chert flakes (mixture of types)
one quartzite flake
four animal bones (three of which are calcined)

Subtotal: 21 items

TP#64 one chert flake (Onondaga chert)
one gneiss stone flake (with worked edge)
one historic window glass sherd
one historic Euro-Canadian ceramic sherd (plain White Granite)

one historic Euro-Canadian decorated ceramic sherd (brown Transfer Printed ware)

Subtotal: 5 items

TP#65 one piece of daub
six chert flakes (mixture of types)
two animal bones (one of which is calcined)

Subtotal: 9 items

TP#66 one chert flake
one historic Euro-Canadian ceramic sherd (handle from a plain White Granite tea cup)
one historic Euro-Canadian ceramic sherd, decorated (Banded ware, blue)

Subtotal: 3 items

TP#68 two Aboriginal ceramic neck sherds (with incised and scarified decoration)
five Aboriginal ceramic body sherds (scarified and/or fabric impressed exterior surfaces)
two pieces of daub
one chert flake (exotic chert type from U.S.A.)

Subtotal: 10 items

TP#69 From excavation of test pit:
two Aboriginal decorated ceramic body sherds (with punctate motif)
21 pieces of daub
13 chert flakes (mixture of types)
12 animal bones (some of which are calcined)
two fire-cracked rocks
one historic shotgun shell casing
one historic Euro-Canadian ceramic sherd (plain White Granite)

Subtotal: 52 items (2 historic)

From 10 litre flotation sample:
one piece of daub
five chert flakes
seven animal bones (some of which are calcined)
one historic window glass sherd
one historic Euro-Canadian ceramic sherd (plain White Granite)
one historic red brick fragment

Subtotal: 16 items (3 historic)
Total from TP#69: 68 items (5 historic)

TP#70 eight chert flakes (mixture of types, all biface retouch sharpening flakes)
one animal bone
one fire-cracked rock
one historic piece of metal

Subtotal: 11 items (1 historic)

TP#71 one chert flake (Flint Ridge chalcedony)
one fire-cracked rock

Subtotal: 2 items

Total from Site: 714 items

A majority of the 714 artifacts are Aboriginal including 72 sherds from ceramic vessels, and 84 pieces of daub (tempered ceramic).

A single diagnostic ceramic rim sherd was recovered, and there were also three fragmentary rim sherds and two decorated neck sherds (from the upper portions of ceramic vessels). Most of the 58 ceramic body sherds were plain, but there were some that had exterior surface treatment including ones that were fabric impressed and cord roughened.

The rim sherd, found in Test Pit #46, is from a collarless vessel with an everted lip. The exterior is cord roughened and decorated with a right to left oblique executed with a dentate stamp tool. The lip is decorated with cord-wrapped stick impression perpendicular to the exterior/interior, giving the lip a notched appearance. The interior surface is decorated with vertical cord-wrapped stick impressions. There is no coil break evident on the bottom of the sherd, thus the vessel was made with the paddle-and-anvil technique.

Two of the three fragmentary rim sherds came from the same test pit (#51) and were from the same vessel, which was collarless. Although the lip edge has broken off of both sherds, the profile of the sherds indicate that the vessel obviously had an everted lip. The exterior surface was decorated with multiple horizontal lines of shallow punctate impressions, and the interior was decorated with cord-wrapped stick obliques. The third fragmentary rim sherd, from Test Pit #5, is a sherd with a straight profile and a plain interior surface; the exterior is decorated with linear stamped obliques running in two directions (i.e. opposed motif).

The two neck sherds, found in Test Pit #68, are from the same vessel. It was a thin-walled vessel since the sherds are only 5.3 mm thick. The sherds were decorated with incised oblique lines and blank spaces, indicating a zoned type of decoration.

Due to differences in paste, temper, thickness and decoration, it can be concluded the rim sherd, fragmentary rim sherds and neck sherds were derived from four separate vessels.

The rim sherd, fragmentary rim sherds, neck sherds and body sherds with exterior treatments such as cord roughening and fabric impression, are all consistent with types of vessels and modes of decoration characteristic of both the Younge and Springwells Phases of the Western Basin Tradition (Murphy and Ferris 1990:195-218).

The Aboriginal ceramic sherds, and the pieces of daub, were distributed across all areas of the site and were not concentrated in any one place. Ceramic vessel sherds were found in Test Pits #1, 4, 5, 7, 11, 13, 20, 21, 22, 26, 28, 29, 35, 36, 37, 38 46, 47, 50, 51, 55, 57, 68 and 69. Pieces of daub came from Test Pit #11, 12, 13, 14, 22, 27, 28, 35, 38, 46, 47, 52, 53, 56, 61, 63, 65, 68, 69.

The assemblage from this site included one diagnostic projectile point (arrowhead), four bifaces or biface fragments, two scrapers and one drill fragment, all of which were chipped from chert. The projectile point (arrowhead) is a tiny, triangular specimen measuring 19.67 mm long, 10.69 mm wide and 3.76 mm thick, made from Onondaga chert. One of the bifaces (Test Pit #24) is a complete specimen, shaped like an isosceles triangle, 46.98 mm long, 39.53 mm wide and 13.27 mm thick, made from local till chert. One of the bifaces (Test Pit #22) is a tip fragment made from Upper Mercer chert (Ohio). The third biface is a mid-section fragment (Test Pit #46, the same test pit where the diagnostic rim sherd was found), 33.73 mm long, 21.21 mm wide and 7.07 mm thick, made from local till chert. The fourth biface (Test Pit #47) is another tip fragment, made from an unidentified type of chert (pinkish colour with white mottles). The two scrapers were made by modifying (flaking) secondary reduction flakes of two different types of chert, an Onondaga one (24.88 mm long, 21.41 mm wide, 4.92 mm thick) from Test Pit #20 and a Bayport one (23.96 mm long, 20.56 mm wide, 6.18 mm thick) from Test Pit #35. The drill fragment (Test Pit #38) is the mid-section of a "T"-shaped tool, made from Onondaga chert.

A total of 277 pieces of chipping detritus (chert flakes) were recovered. The flakes are predominantly tertiary reduction and biface thinning or sharpening ones, indicating that chipped stone tools were made and maintained (i.e. re-sharpened) on the site. The flakes encompass a broad range of chert types including Onondaga chert, Kettle Point chert, Bayport chert (from Michigan), and Flint Ridge chalcedony (from Ohio). There were several pieces of an unidentified white chert, which is possibly a local till chert, and a couple of exotic pieces (i.e. type or types of chert not commonly found in Ontario and not naturally occurring in Ontario).

A single bone tool was recovered, it being a fragment from the mid-section of an awl (purposefully sharpened animal long bone splinter).

The assemblage of 181 animal bones included several fish bones (including 67 pieces from Test Pit #10, derived from a single fish), as well as mammal and bird bones, one turtle shell fragment, and two clam shells. Several pieces of bone are calcined (burnt) indicating exposure in a hearth or fireplace, meaning that at least one hearth must be present on the site. This conclusion is also reinforced by the recovery of some chert flakes that were heat-altered. Some fire-cracked rocks were also present, although it is to be noted that fire-cracking of rocks is not necessarily an indication of Aboriginal activity since historic or modern fires can also crack rocks. Some of the animal bones may date to the historic period.

Historic Euro-Canadian material from the positive test pits totaled 36 pieces, including some ceramic sherds from china plates, cups and saucers, such as plain White Granite, Transfer Printed ware, and Banded ware. There were also some sherds of window glass, some bits of metal, an iron nail, a piece of slag, a piece of painted plaster or stucco, a piece of coal, a shotgun shell casing, two pieces of brick, and two buttons. Some obvious domestic animal bone (i.e. cut/sawn pieces) were also present.

DISCUSSION / CONCLUSIONS

The Stage 2 archaeological assessment completed for the client by the Museum of Ontario Archaeology in May-June 2007 led to the discovery of artifacts at seven locations (DIBC1 to DIBC7), to be registered as archaeological sites AbHs-28 to 34 inclusive.

The seven sites collectively yielded a diverse assemblage of artifacts, spanning a time period from at least the Late Archaic circa 2500 to 2000 B.C. through to the historic Euro-Canadian period of the 18th and 19th centuries.

The Genesee type projectile point (spear head) from DIBC1 (AbHs-28) was made from high quality Onondaga chert and it is virtually identical to similar types of points made from the same material that have been found in Fort Erie, Ontario, which is one of the very few places where such high quality Onondaga chert outcrops on the surface. It has long been noted that during the Late Archaic period (2500 - 2000 B.C.), groups of nomadic hunters and gatherers followed a seasonal migratory round in which they covered vast distances, and diagnostic Late Archaic period spear heads such as Genesee points, made from high quality Onondaga chert outcropping in the Fort Erie area, have been found across northeastern North America (Ellis, Kenyon and Spence 1990:100).

Aboriginal artifacts were discovered at all seven sites, but the only artifacts which can be assigned to specific time periods came from DIBC1 (AbHs-28, the Genesee point described above) and from DIBC6 and DIBC7 (AbHs-33 and 34, Western Basin Tradition items, discussed below). At the remaining four sites (DIBC2, 3, 4 and 5, AbHs-29, 30, 31 and 32) none of the Aboriginal artifacts is diagnostic of a particular time period. Those items from those four sites included chert flakes (from all four sites), chert scrapers (from DIBC3 and 5), a utilized chert flake (from DIBC4), hammerstones (from DIBC2 and 3) and a quartzite flake (from DIBC3).

Historic Euro-Canadian artifacts were found at six of the seven sites; the exception was DIBC4 (AbHs-31) where only Aboriginal artifacts were found. Except at DIBC6 and 7 (AbHs-33 and 34), discussed below, too few historic artifacts were recovered from the Stage 2 test pits to permit any substantive conclusions or interpretations about the possible significance or insignificance of the historic artifacts.

The proximity of DIBC6 (AbHs-33) and DIBC7 (AbHs-34) to each other (on either side of Riverside Drive) and the general similarity in materials between the two locations (including

both the Aboriginal artifacts and the historic Euro-Canadian artifacts) leads to the conclusion that they are perhaps two parts of one large overlapping multicomponent site bisected by Riverside Drive, with the historic Euro-Canadian component lying primarily south of Riverside Drive (DIBC6, AbHs-33) but also extending to the north of Riverside Drive, and the Aboriginal (Western Basin Tradition) component lying primarily north of Riverside Drive (DIBC7, AbHs-34) but also extending to the south of Riverside Drive.

The Aboriginal ceramic sherds, small triangular projectile point and other lithic material (i.e. multiple types of chert) from DIBC6 (AbHs-33) and DIBC7 (AbHs-34) are all consistent with material from the Younge and Springwells Phases of the Western Basin Tradition.

The Western Basin Tradition is subdivided into four distinct phases: Riviere au Vase (500 - 800 A.D.), Younge (800 - 1200 A.D.), Springwells (1200 - 1400 A.D.) and Wolf (1400 - 1550 A.D.). The Lucier and E.C. Row site complex is placed in the Springwells and/or Springwells/Wolf Phases (Murphy and Ferris 1990:192, 227). Other Western Basin Tradition sites in the Windsor area include the Turkey Creek Ossuary, assigned to the Springwells Phase, and the Lasalle-Lucier site assigned to the Younge and/or Springwells Phases. The Henderson site near Amherstburg dates to the Younge Phase, while three Western Basin sites on the American side of the Detroit River in present-day Detroit fall into the earliest three phases, Riviere au Vase, Younge and Springwells (Murphy and Ferris 1990:192, 227). In terms of archaeological sites which were known previous to this study, it can be noted that the two newly discovered sites DIBC6 and 7 (AbHs-33 and 34) are located about 4.5 to 5.0 km away from the Lucier and E.C. Row sites (AbHs- 1 and AbHs-7), which contained evidence of a substantial Western Basin Tradition village with associated burials.

There were numerous pieces of daub from DIBC7 (AbHs-34). Daub is tempered clay that was extensively used in the construction of Western Basin Tradition houses. The daub is easily distinguished from fragmentary sherds of ceramic vessels. Pieces of daub have irregular edges and surfaces, the edges are often rounded, and the surfaces frequently contain wood and fibre impressions (Murphy and Ferris 1990:217). In contrast, sherds from ceramic vessels have smooth surfaces (which may be fabric impressed or corded) and straight, regular edges. The presence of so much daub at the site means there must have been structures there.

Some of the animal bone from DIBC6 (AbHs-33) and DIBC7 (AbHs-34) was burnt/calcined, and some of the chert flakes had evidence from being heated - either deliberately from purposeful heat alteration of the chert as it was being worked, or accidently from being discarded in a fire. In either case, these heated pieces mean that one or more hearths or fireplaces must exist on the site/sites. Several fire-cracked rocks were also present, although as noted above such rocks are not conclusive evidence of Aboriginal occupation of the sites since historic or modern fires can also crack rocks.

The late 18th to early 19th century artifacts found at DIBC6 (AbHs-33), including the Creamware sherd, Blue Edged (scalloped) sherd and Green Edged (scalloped) sherd, could potentially relate to occupation of the lot acquired in 1782 to Thomas Pajot, as documented in the Stage 1 background study. Several other sherds from both DIBC6 (AbHs-33) and DIBC7 (AbHs-34) fall

in to the time range of the first half of the 19th century (i.e. 1800-1850) and may also relate to occupation of the lot assigned to Thomas Pajot (either to Pajot and his family, or to the successors on that lot). Those sherds include some of the Painted wares (blue, polychrome) and some of the Transfer Printed wares (dark blue, light blue, black, brown, red, green). Some of the animal bones from this site may date to the historic period.

It is very important to emphasize that some of the artifacts were discovered in disturbed contexts, in some instances at considerable depths below the present ground surface (i.e up to 90 cm deep) and below or intermixed with fill or disturbed soils. It is possible that some of the artifacts therefore originated in other locations and were "dumped" in their present locations as part of fill obtained elsewhere. In some of the test pits there was clear evidence for an undisturbed buried layer of original topsoil and "A" horizon, capped by disturbed fill of varying depth, and some of the artifacts (both Aboriginal and historic Euro-Canadian ones) were found in the buried undisturbed topsoil layers at the various sites. It will only be possible to sort out the true context of the artifacts at some of the sites by larger-scale Stage 3 investigations, which would expose larger areas of the sites and permit conclusions about how many artifacts are present in undisturbed contexts (i.e. within the buried topsoil layer) versus how many artifacts are present in disturbed fill overlying undisturbed topsoil.

According to the provincial archaeological guidelines (Ministry of Culture 2004:28-29) all seven of the archaeological sites discovered by the Museum within the Ambassador Bridge Enhancement Project Study Area are significant. The guidelines specify that an archaeological site is significant and requires Stage 3 site-specific assessment (excavation of one-metre squares within an established grid) if, during a Stage 2 assessment, any of the following conditions exist: at least one diagnostic artifact or fire-cracked rock in addition to two or more undiagnostic artifacts in a 10 metre by10 metre area; three or more undiagnostic artifacts in a 10 metre by 10 metre area; one test pit unit yielding two or more artifacts; two or more positive test pits in a 10 metre by 10 metre area; Aboriginal ceramics present; exotic or period-specific cherts present; human remains present; Post-Contact [historic Euro-Canadian] artifacts pre-dating 1900 present and containing ten or more datable artifacts in a 10 metre by 10 metre area. One or more of these conditions exist at each of the seven sites documented in the present report, therefore each site requires Stage 3 investigation if the area of the site as defined by the Stage 2 assessment is to be impacted in any way by the proposed Ambassador Bridge Enhancement Project.

RECOMMENDATIONS

All seven of the sites discovered during the Stage 2 fieldwork in May-June 2007 are significant archaeological resources which require Stage 3 investigations if the areas of those sites are to be impacted in way from any construction activity associated with the Ambassador Bridge Enhancement Project. At the larger sites (DIBC5, 6 and 7, AbHs-32, 33 and 34), future Stage 3 investigations could be confined to the specific, isolated areas which might potentially be impacted by future construction, such as, for example, the footprint of a support pier for a bridge, plus a precisely-defined buffer area around such a pier, and the construction access route in to the pier.

Two specific properties within the Study Area were not subjected to a Stage 2 archaeological assessment in May-June 2007 because the client did not own those properties nor have access to them (in May-June 2007). These are the properties located at 408 and 446 Indian Road. Stage 2 assessment of those properties is still required, if any of the land at those two properties is to be impacted in any way by the proposed Ambassador Bridge Enhancement Project.

Any and all construction activities within the Study Area must be monitored by a licenced archaeologist. In locations where the ground is currently covered with asphalt or cement (i.e. parking lots), it will be necessary for the proponent of the undertaking to retain a licenced archaeologist to monitor construction activities as the existing asphalt or cement is removed, to ascertain if there is an undisturbed soil horizon under the asphalt or cement which might potentially contain buried cultural material. If such a buried, undisturbed soil horizon were to be encountered, a licenced archaeologist must be allocated sufficient time and expenses to thoroughly test pit or otherwise examine the soil horizon to determine if cultural material is present. Archaeological monitoring must also include the proposed demolition by the client of the existing houses along the east side of Indian Road, the houses on Donnelly Street and Peter Street between Indian Road and Huron Church Road, and the two apartment buildings fronting on to University Avenue within the Study Area between Indian Road and Huron Church Road, since undisturbed buried topsoil horizons may be exposed in the soil profiles when the basements of those structures are removed. Also, if any construction activities were to affect the lands south of Wyandotte Street between Indian Road and Huron Church Road, those construction activities must likewise be monitored by a licenced archaeologist.

DEEPLY BURIED ARCHAEOLOGICAL DEPOSITS / HUMAN SKELETAL REMAINS

Pursuant to the guidelines for archaeological assessments (Stages 1 through 4) prepared by the Ontario Ministry of Culture (2004) and adopted by the archaeological consulting community in Ontario, the following two statements are mandatory in all archaeological reports:

1. Should deeply buried archaeological deposits be found during construction activities, the Programs & Services Branch of the Cultural Programs Unit of the Ontario Ministry of Culture should be notified immediately.

2. In the event that human skeletal remains are encountered during construction, the proponent should immediately contact the Ontario Ministry of Culture, the Registrar or Deputy Registrar of the Cemeteries Regulation Unit of the Ministry of Consumer and Business Services, and the geographically nearest First Nation.

DISPOSITION OF ARTIFACTS AND DATA

The artifacts and data arising from this project are curated in perpetuity for the people and province of Ontario at the Museum of Ontario Archaeology, 1600 Attawandaron Road, London, Ontario.

ARTIFACT CATALOGUES

See Appendix 1, containing for each of the seven sites an "Artifact Summary Listing" (subtotals of each artifact category) and a "Listing by Catalogue Number". In the latter, each specific test pit is identified by its own unique number (i.e. "Square 1-1" means Test Pit #1 at Site DIBC1, AbHs-28 and "Square 7-32" means Test Pit #32 at site DIBC7, AbHs-34). The catalogue list also gives the total depth to subsoil in each test pit (i.e. Level 0to65 means 0 [surface] to 65 cm). The artifact categories in the catalogue summary and catalogue list are ones that the Museum of Ontario Archaeology has employed on all projects since 1975.

REFERENCES CITED

Bator, Paul
1997 *Ontario's Heritage: A Celebration of Conservation.* Ontario Heritage Foundation, Toronto.

Ellis, Chris, Ian Kenyon and Michael Spence
1990 The Archaic. In: The Archaeology of Southern Ontario to A.D. 1650, edited by Chris Ellis and Neal Ferris. *Occasional Publication of the London Chapter, Ontario Archaeological Society* Number 5:65-124. London.

Lajeunesse, Ernest J.
1955 The First Four Years of the Settlement on the Canadian Side of the Detroit River [1749-1753]. *Ontario History* 47(1):122-131.

1960 *The Windsor Border Region, Canada's Southernmost Frontier: A Collection of Documents.* The Champlain Society for the Government of Ontario. University of Toronto Press.

Murphy, Carl and Neal Ferris
1990 The Late Woodland Western Basin Tradition of Southwestern Ontario. In: The Archaeology of Southern Ontario to A.D. 1650, edited by Chris Ellis and Neal Ferris. *Occasional Publication of the London Chapter, Ontario Archaeological Society* Number 5:189-278. London.

Perkins, Mary Ellen
1989 *Discover Your Heritage: A Guide to Provincial Plaques in Ontario.* Natural Heritage /Natural History Inc., Toronto for the Ontario Heritage Foundation and Ontario Ministry of Culture and Communications.

Richards, N.R., A.G. Caldwell and F.F. Morwick
1949 *Soil Survey of Essex County.* Ontario Soil Survey Report No. 11, Dominion Department of Agriculture and the Ontario Agricultural College, Guelph.

OTHER SOURCES OF INFORMATION

Illustrated Historical Atlas of the Counties of Essex and Kent, 1880-1881. H. Belden and Company, Toronto. [Reprinted, 1973, Phelps Publishing, Sarnia.]

Archaeological Sites Database, Ontario Ministry of Culture (data provided to the Museum June 2007).
Archaeological Master Plan Study Report for the City of Windsor, 2005, completed by Culture Resource Management Group Limited (Mr. W. Bruce Stewart), Fisher Archaeological Consulting, Historic Horizon Inc. and Dillon Consulting Limited. Report in the public domain, available online at www.citywindsor.ca/000244.asp .

Olde Sandwich Towne Community Planning Study Report, October 2006, by Planning Department, The City of Windsor in Co-operation with the Olde Sandwich Towne Community Task Force. Report in the public domain, available online at www.citywindsor.ca/002223.asp .

Sandwich Heritage Conservation District Study (Draft, March 2007), by Stantec Consulting Limited. Note: although this is a draft report, it contains valuable data and it is in the public domain, available online at www.citywindsor.ca/000497.asp .

Ontario Ministry of Culture (undated) "*The ACO Guide to 19th Century Sites*". Reference document circulated to Ontario archaeologists and archaeological conservation officers (ACO's).

Ontario Ministry of Culture, 1993, *Archaeological Assessment Technical Guidelines.*

Ontario Ministry of Culture, 2004, *Archaeology in Ontario: Standards and Guidelines for Consultant Archaeologists.*

Maps Consulted:

County of Essex. Ministry of Transportation and Communications, 1973. Scale 1" = 1 mile.

Soil Map of Essex County. From Ontario Soil Survey Report No. 11, 1939. Scale 1" = 1 mile.

National Topographic Survey (NTS), 1:25000 Scale, 40J/6a Windsor, Edition 2, 1960.

City of Windsor maps in MapArt Publishing Corp. Book "Western Ontario" (2007 edition).

Google© Maps and satellite imagery, www.maps.google.com

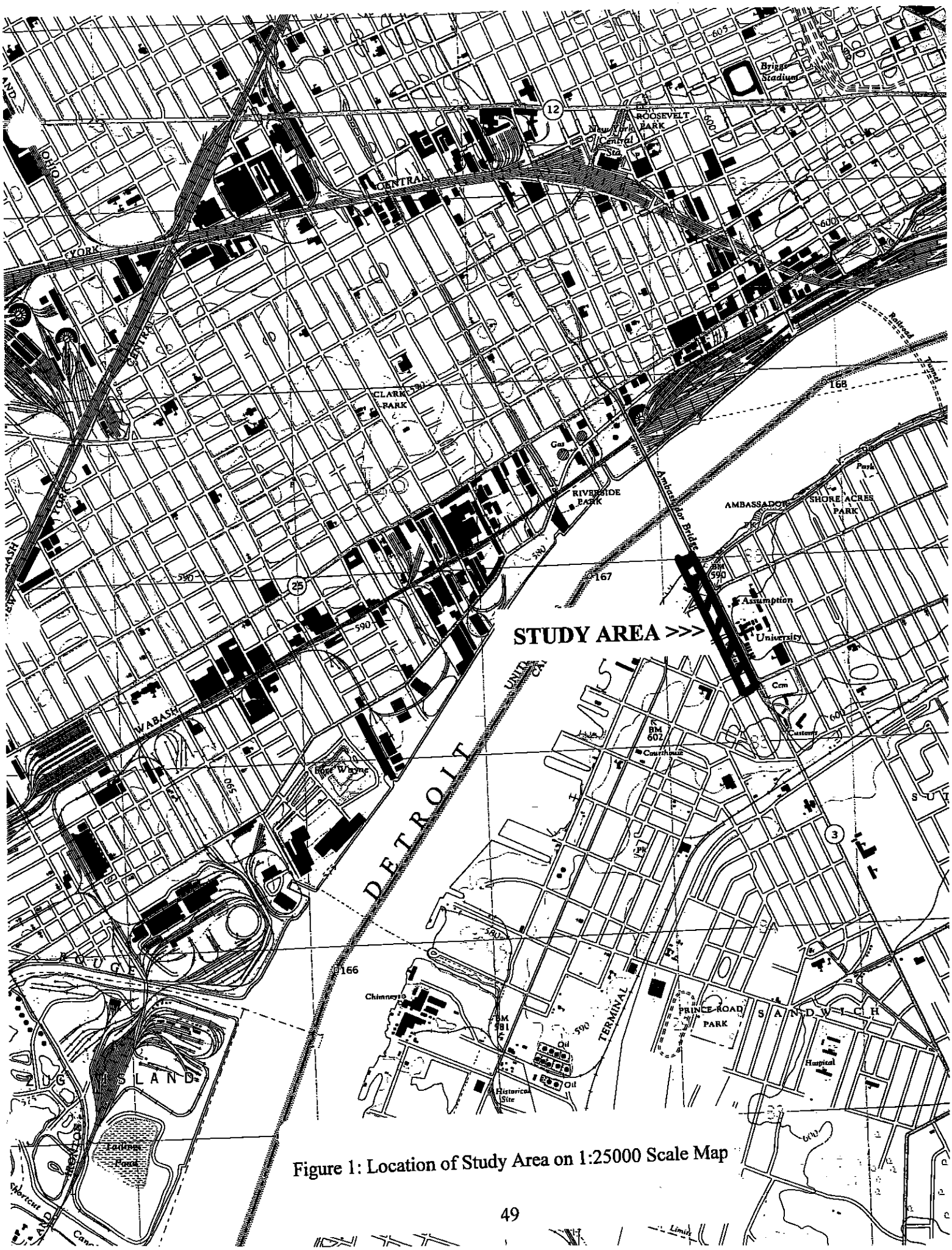


Figure 1: Location of Study Area on 1:25000 Scale Map

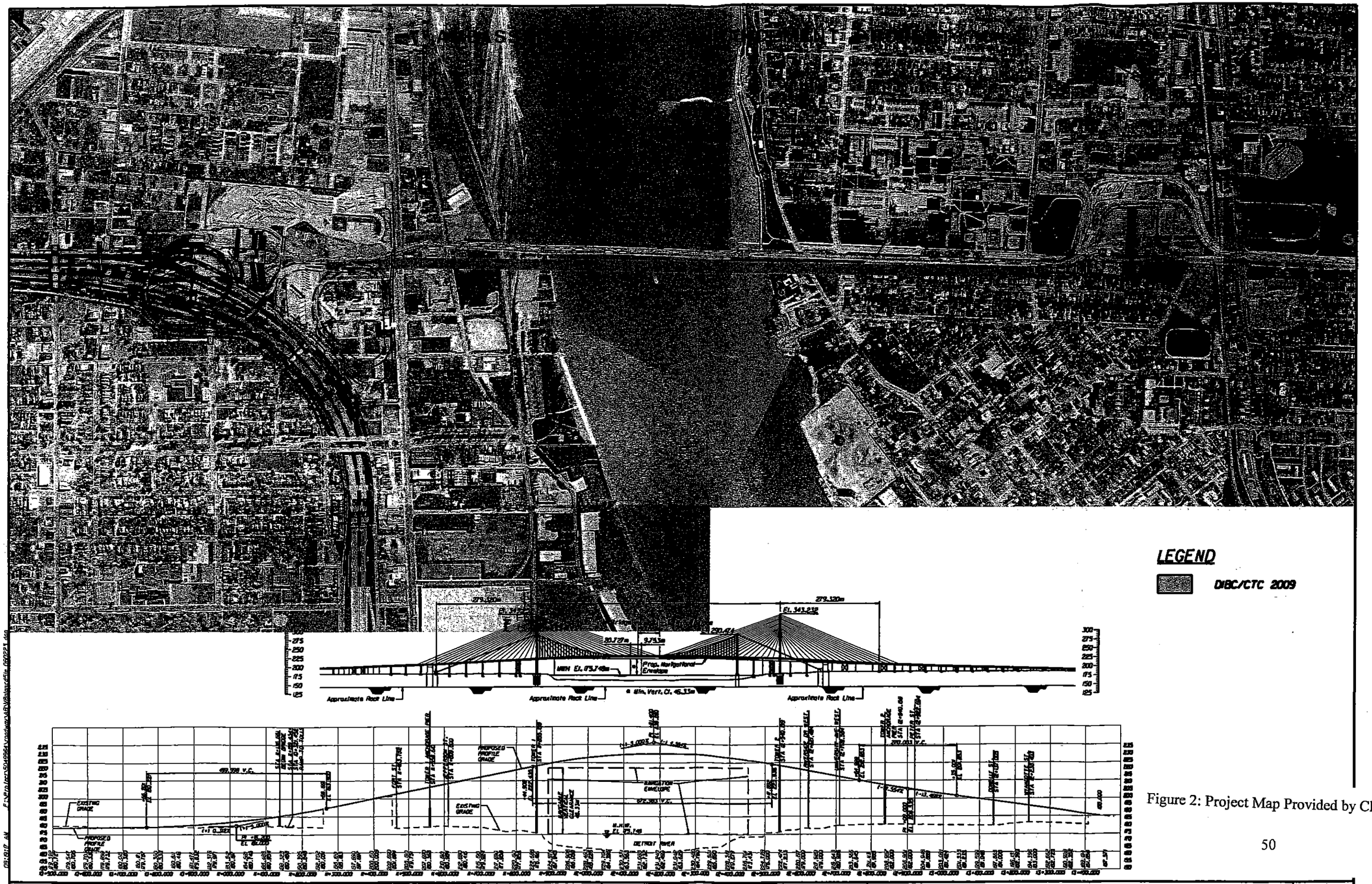


Figure 2: Project Map Provided by Client

American Consulting Professionals of Michigan, PLLC	AMBASSADOR BRIDGE	AMBASSADOR BRIDGE ENHANCEMENT PROJECT	SHEET NO. 2

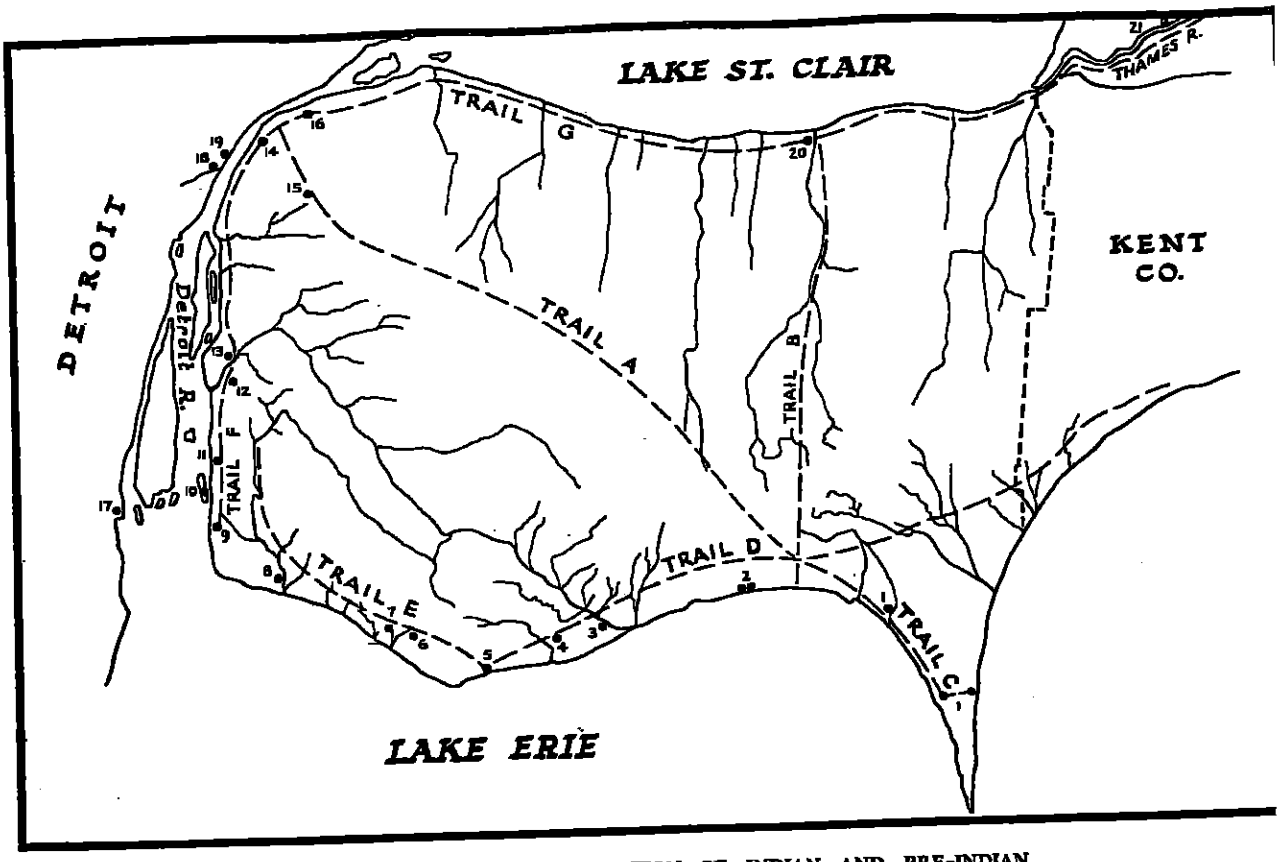


FIG. 3. MAP SHOWING THE LOCATION OF INDIAN AND PRE-INDIAN VESTIGES FOUND IN ESSEX COUNTY AND VICINITY. [Prepared by George F. Macdonald and John Lee.]

KEY TO INDIAN AND PRE-INDIAN VESTIGES FOUND IN ESSEX COUNTY AND VICINITY: (1) village, cornfields, and portage, Point Pelee (plan by A. Iredell, 1799); (2) two Indian entrenchments, Gosfield Township (plan by McNiff, 1794); (3) village on Cedar Creek, entrenched, Gosfield Township; (4) village, Colchester South Township; (5) Indian encampment, Colchester Township (McNiff, 1794); (6) village and mound, Daniel Wright farm, Colchester Township; (7) several mounds, Colchester Township; (8) village, Big Creek (plan by Iredell, 1796); (9) former village of the Hurons abandoned in 1748 (map by Chaussegros de Léry, *fils*, 1749); (10) camping site used by all tribes, Bois Blanc Island; (11) village above Fort Malden (McNiff's map of 1790); (12) Huron village, Anderdon Township (McNiff, 1790); (13) cornfields, Anderdon Township (McNiff, 1790); (14) Huron village, Huron Church Line; (15) burial mound, Huron Church Line and Third Concession, Sandwich West Township (excavated by W. J. Wintemberg for National Museum of Canada, 1936); (16) Ottawa village and cemetery, Louis Avenue, Windsor (Léry map, 1754); (17) Huron village, Brownstowe, Wayne County, Michigan; (18) the great mound at the mouth of the Rouge River, Wayne County, Michigan; (19) circular mound and several smaller mounds at old Fort Wayne; (20) Indian village, Ruscom River, Rochester Township (plan by Col. Burwell, 1823); (21) Chippewa town reported by Major E. B. Littlehales in 1793.

KEY TO INDIAN TRAILS AND PATHS: (A) Talbot Road, through the county from beyond Wheatley to Sandwich (shown on McNiff's map of 1791); (B) from Lake Erie to Lake St. Clair, following the Ruscom River (Burwell's map, 1823); (C) from Point Pelee to Talbot Road; (D)Lake Erie trail connecting shoreline settlements; (E) from Lake Erie shoreline to Amherstburg area; (F) river shore path, now Highway 18; (G) river and lake shoreline to the Thames River and eastward, followed by Governor Simcoe in 1793.

Figure 3: Reproduction of Fig. 3 from Lajeunesse 1960. Interpretive Map by Macdonald and Lee.

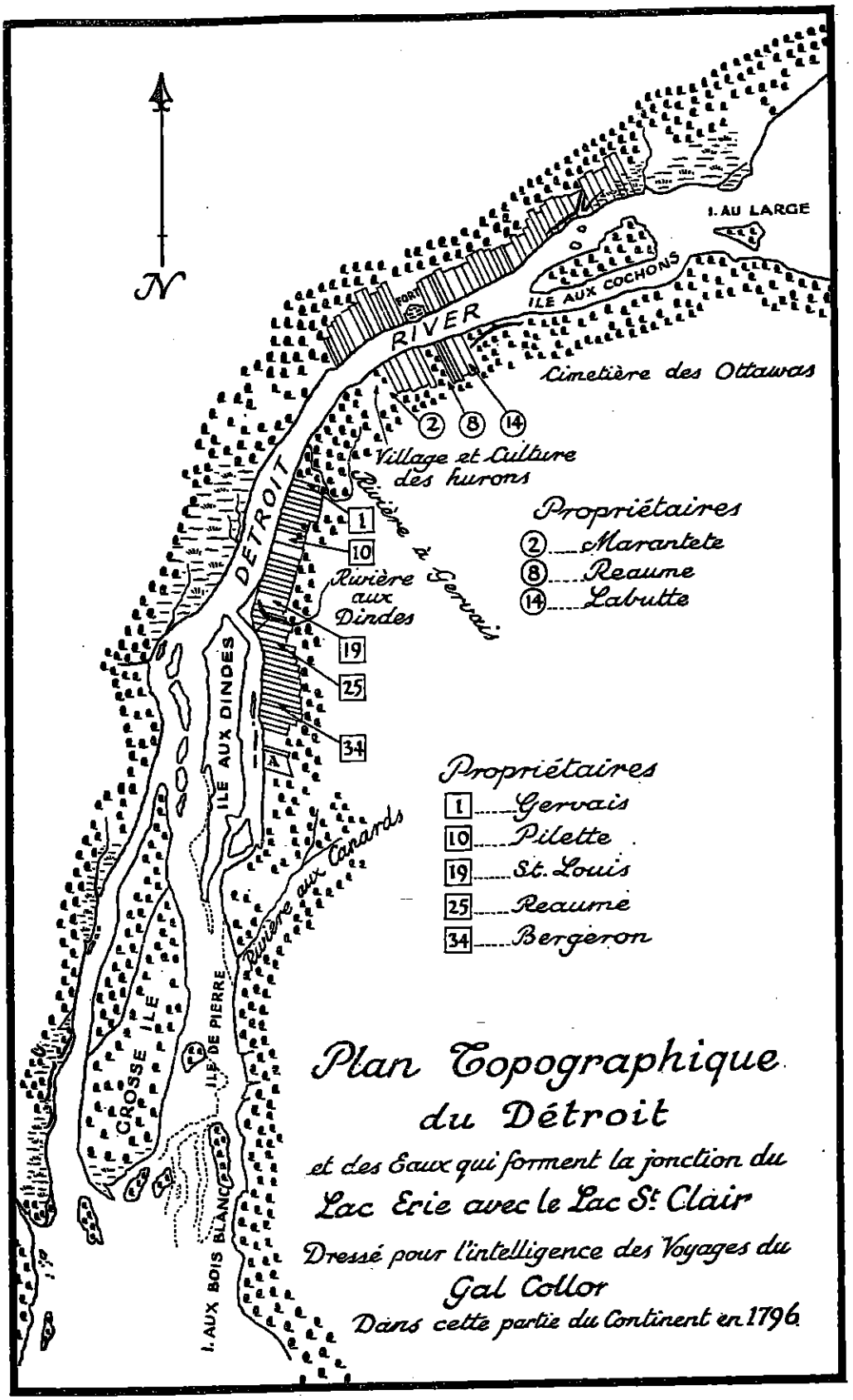


FIG. 7. TOPOGRAPHICAL MAP OF DETROIT BY CHAUSSEGROS DE LÉRY, *fils*, *c.* 1754. [Copy in Burton Historical Collection, Main Library, Detroit.]

Figure 4: Reproduction of Fig. 7 from Lajeunesse 1960.
De Lérv's 1754 Sketch Map.

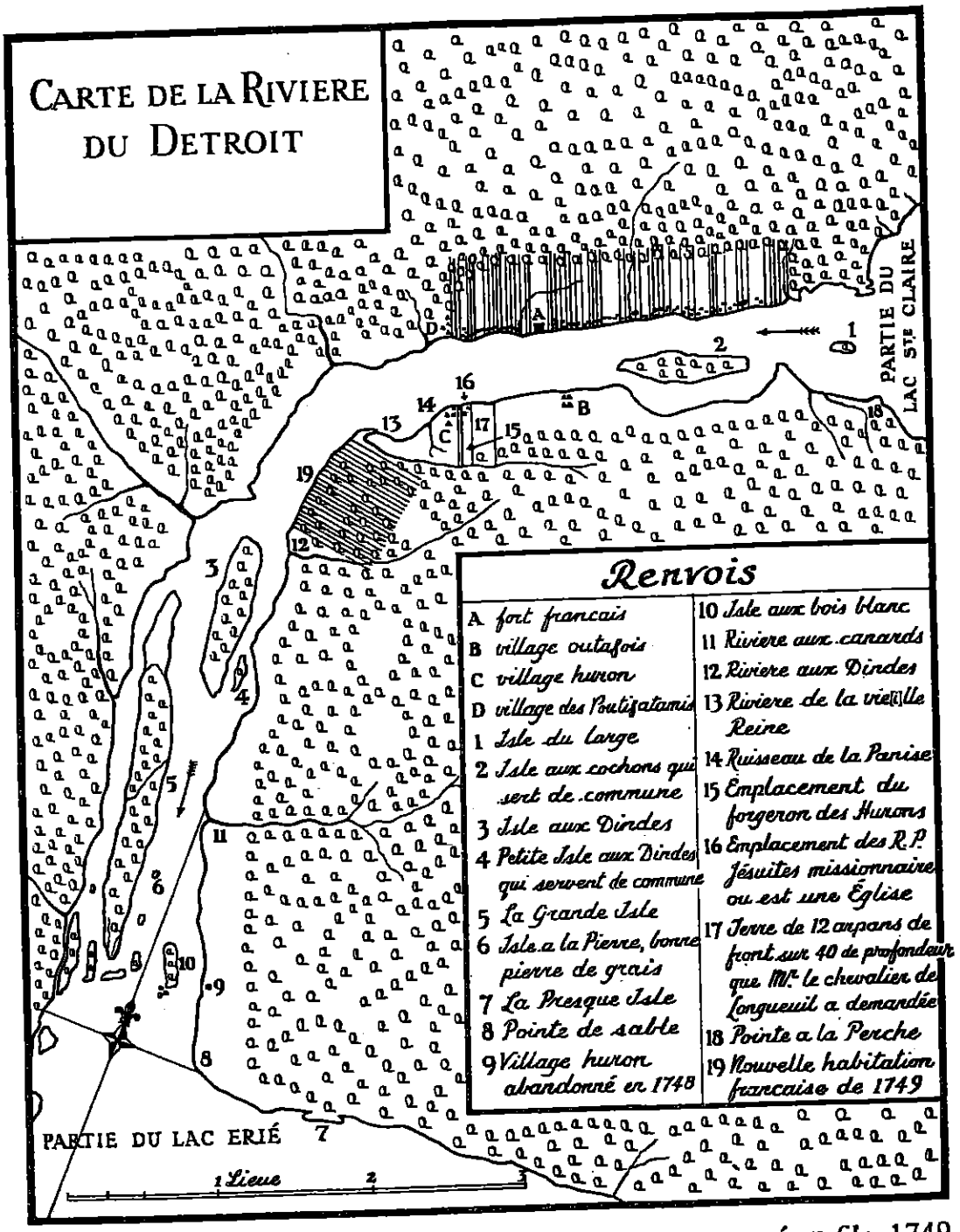


FIG. 6. MAP OF THE DETROIT RIVER BY CHAUSSEGROS DE LÉRY *fils*, 1749.
[Archives du Ministère des Colonies, Paris.]

Figure 5: Reproduction of Fig. 6 from Lajeunesse 1960.
De Léry's 1749 Sketch Map.

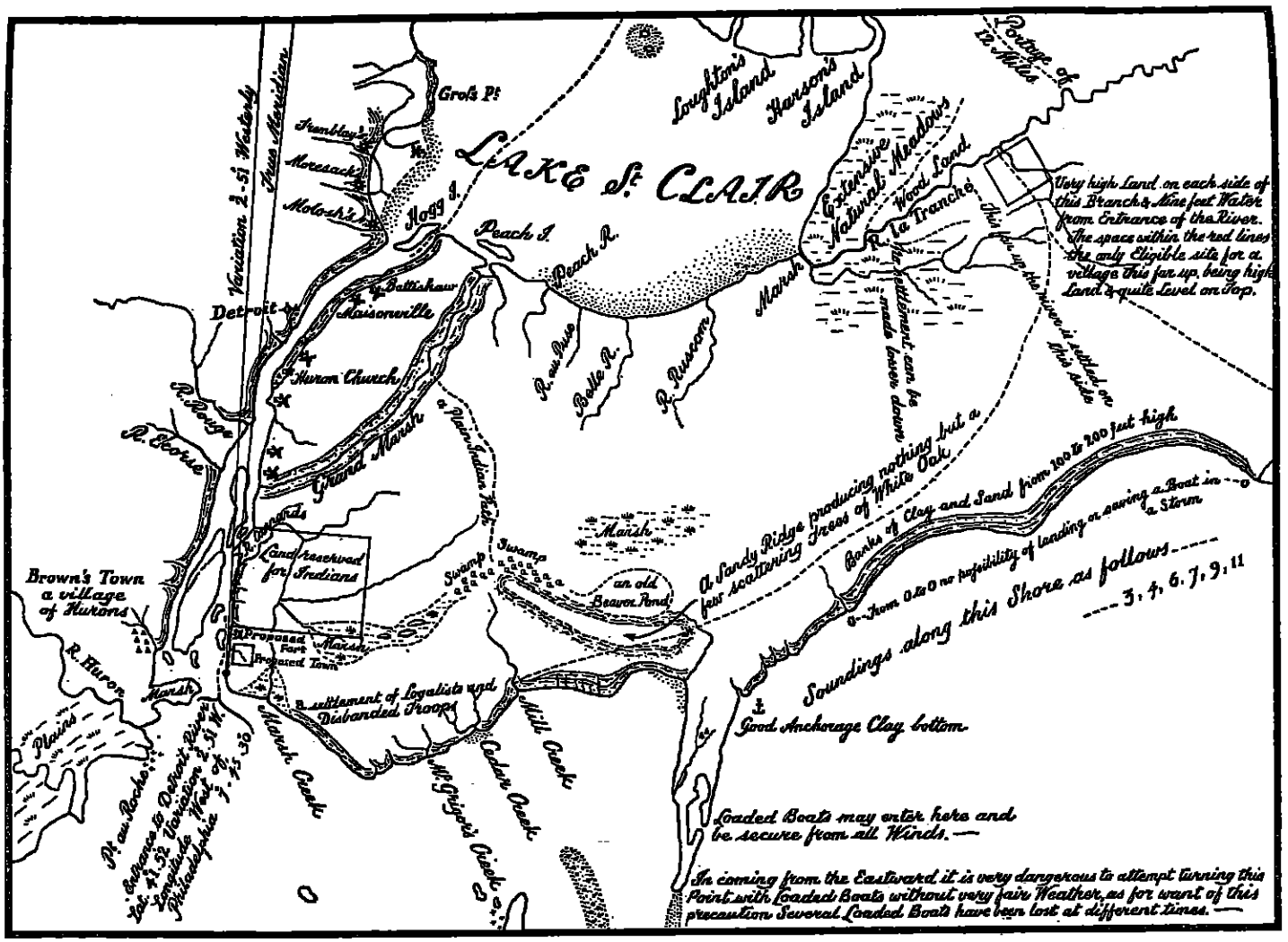


FIG. 9. SECTION OF MCNIFF'S SURVEY OF 1791 SHOWING LOCATION OF WINDMILLS ALONG THE DETROIT RIVER. [Public Archives of Canada.]

Figure 6: Reproduction of Fig. 9 from Lajeunesse 1960.
McNiff's 1791 Sketch Map of Mill Locations.

FIG. 8. PLAN OF DETROIT WITH ITS ENVIRONS BY JOHN MONTRESOR, 1763. [By permission William L. Clements Library, Ann Arbor, Michigan.]

Figure 7: Reproduction of Fig. 8 from Lajeunesse 1960. Montresor's 1763 Sketch Map. Note location of Huron Village.

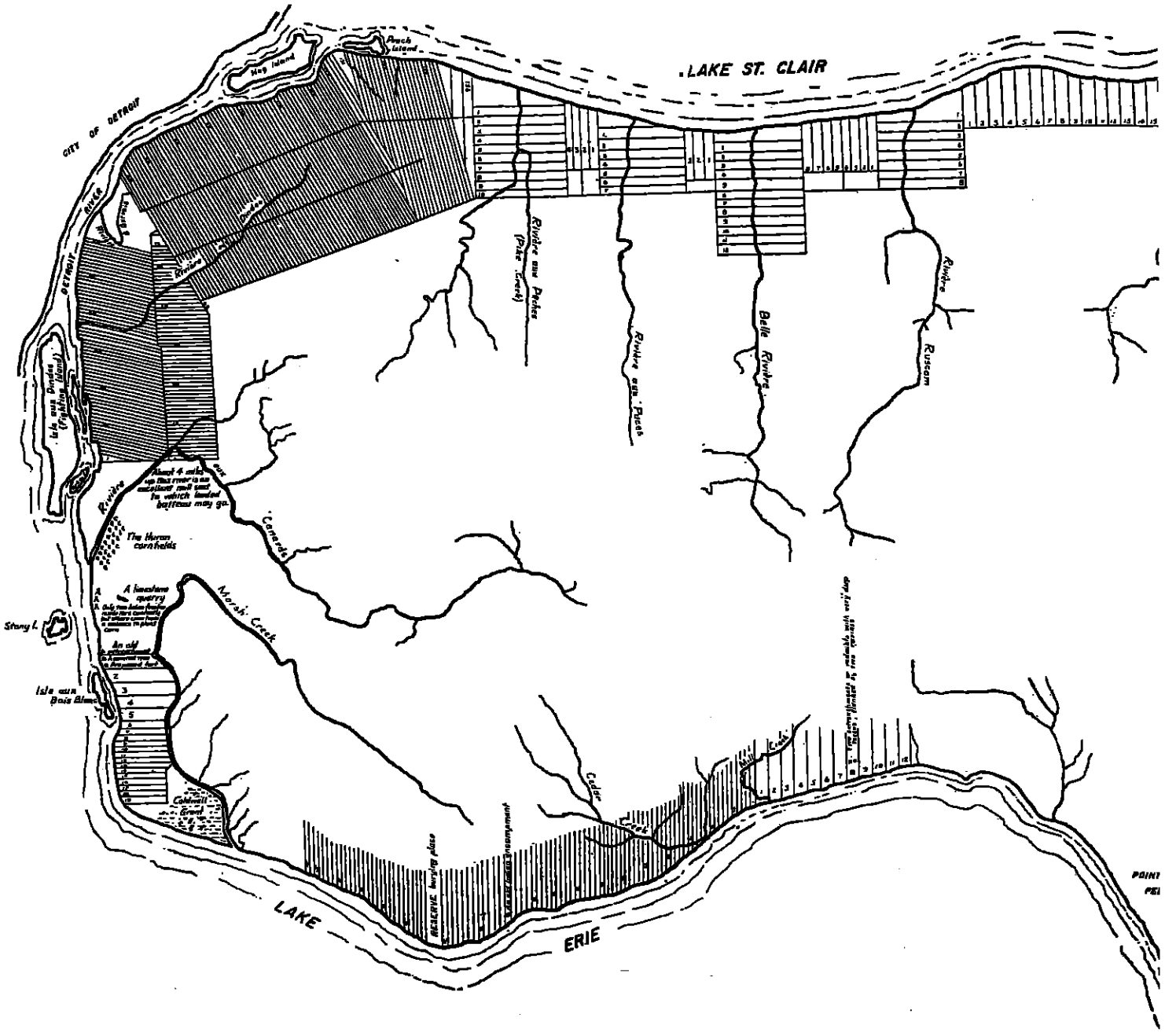
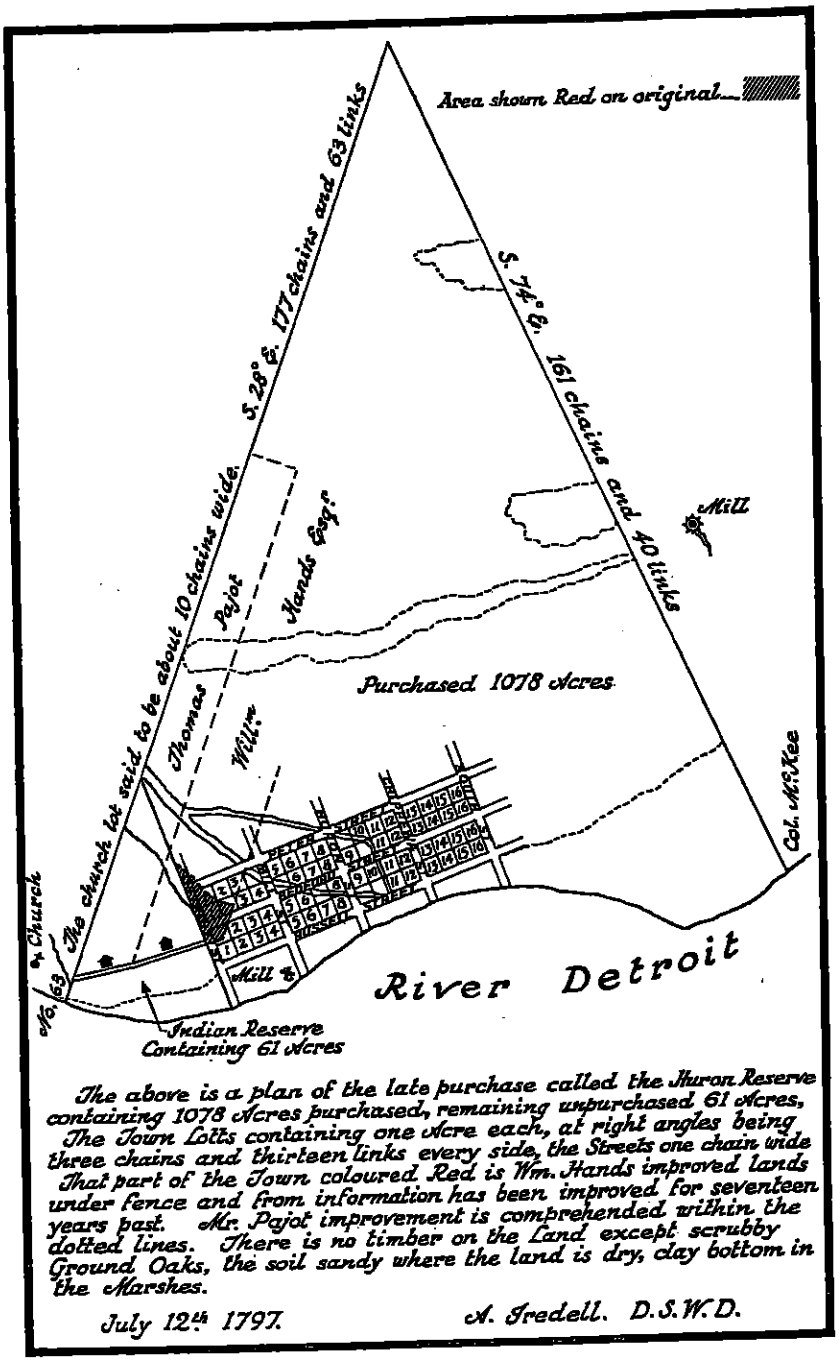


FIG. 14. MAP OF ESSEX COUNTY SHOWING THE WATER-FRONTAGE SURVEYS OF THE 1790's.

Figure 8: Reproduction of Fig. 14 from Lajeunesse 1960. Sketch Map from 1790's showing Rivière à Gervais.

a



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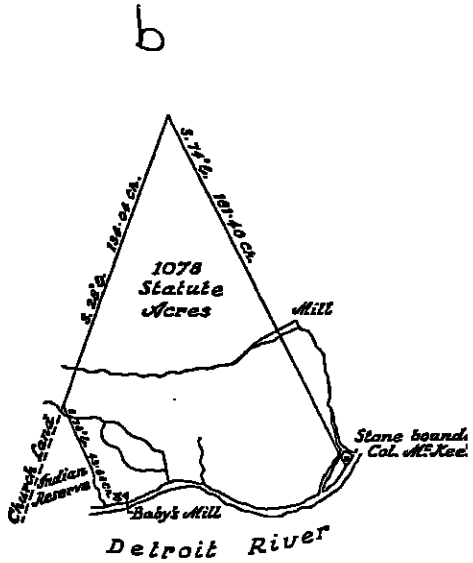
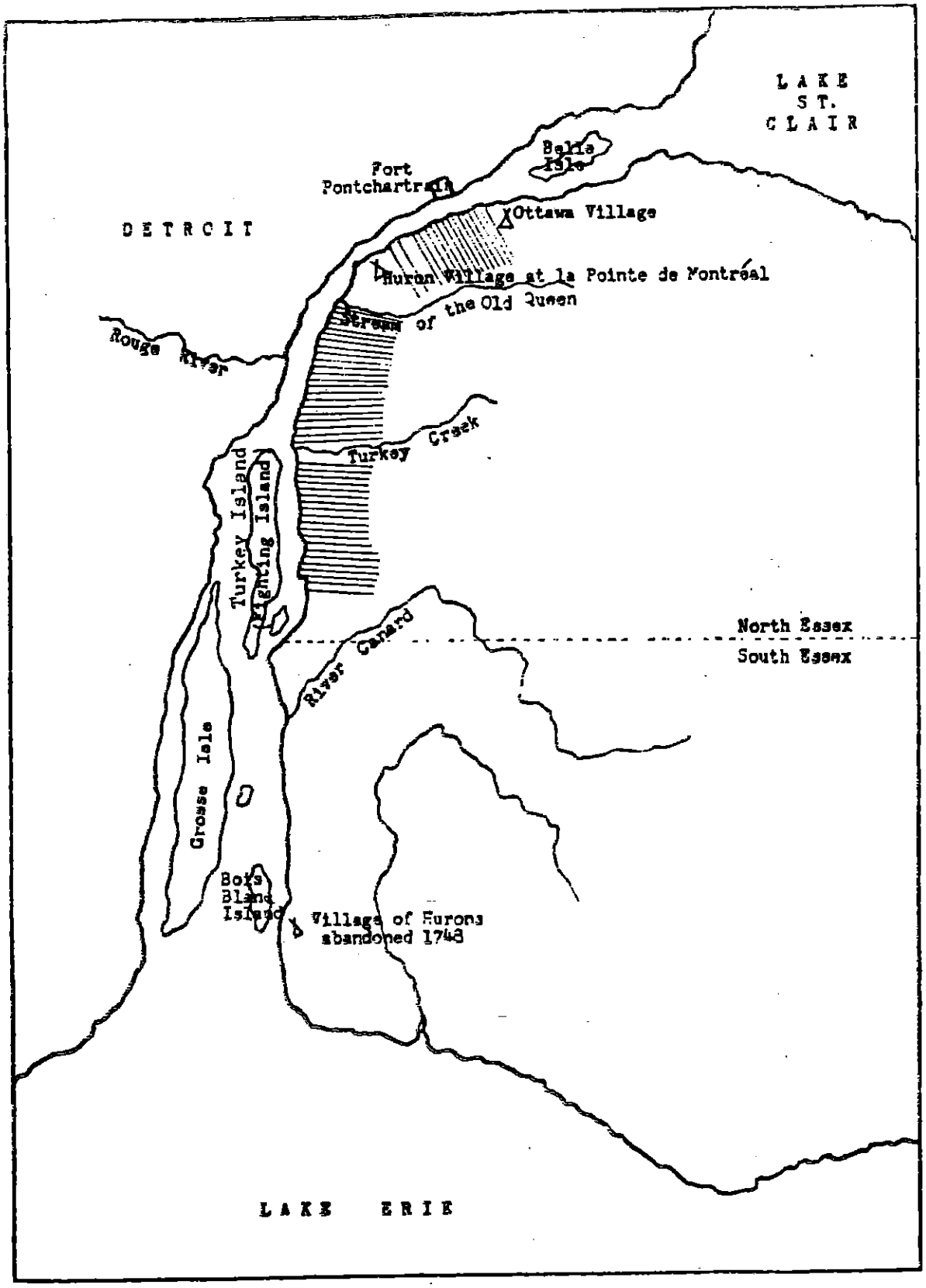


FIG. 15. PLAN OF THE PURCHASE OF THE HURON RESERVE FOR THE TOWN OF SANDWICH BY A. IREDELL, JULY 12, 1797. [Public Archives of Canada.]

Figure 9: Two sketches of the "Huron Reserve" Lands.

a) Reproduction of Figure 15 from Lajeunesse 1960:cxix, showing location and size of Thomas Pajot's lot, and location of his house.

b) Reproduction of sketch from Lajeunesse 1960:206, which accompanied document outlining the sale of the Huron Reserve lands in 1800, showing area of 61 acres designated as "Indian Reserve" and course of a watercourse (which is identified in text as Knaggs' Creek or Riviére à Gervais)



SKETCH MAP OF THE DETROIT AREA, 1749-53

Figure 10: Reproduction of Figure from Lajeunesse 1955:124. Note locations of Huron Village and "Stream of the Old Queen".

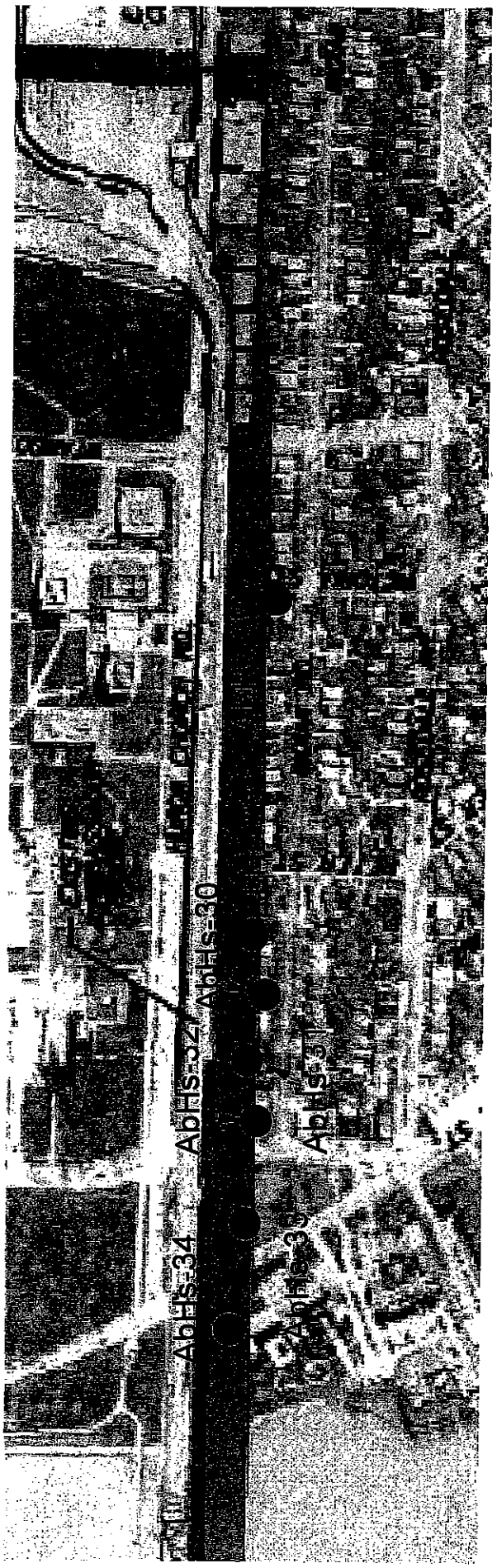


Figure 11: Site Locations

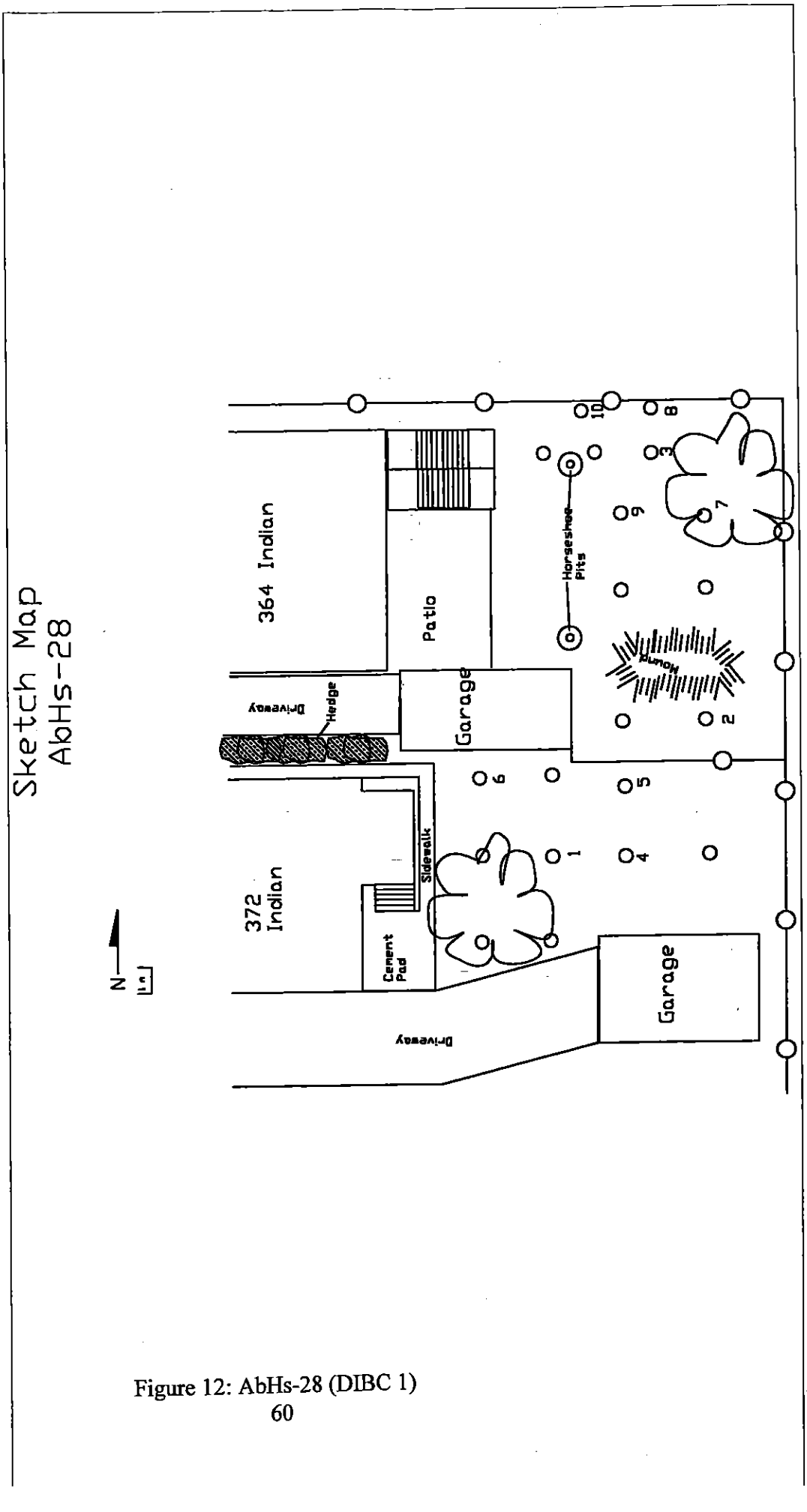


Figure 12: AbHs-28 (DIBC 1)

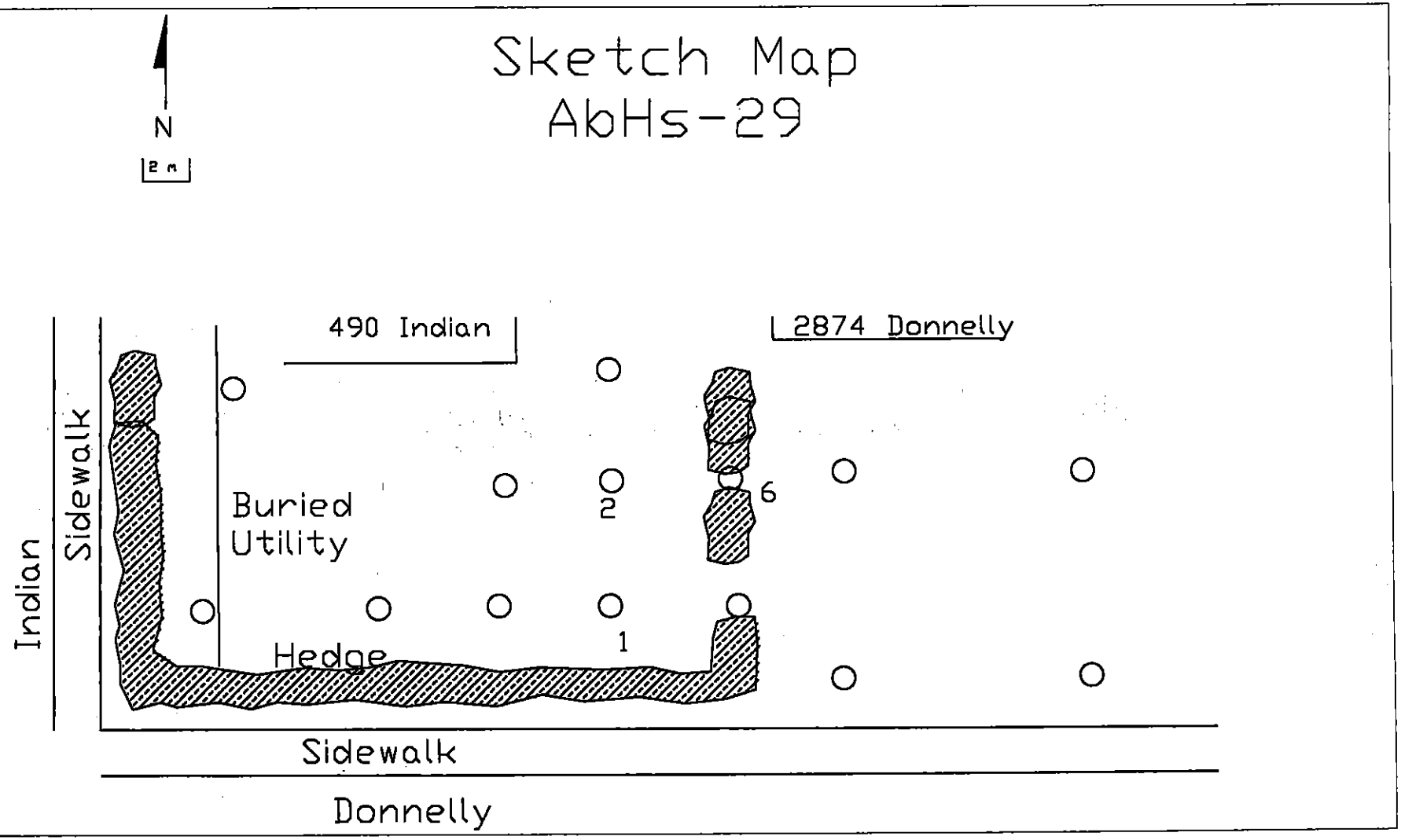


Figure 13: AbHs-29 (DIBC 2)

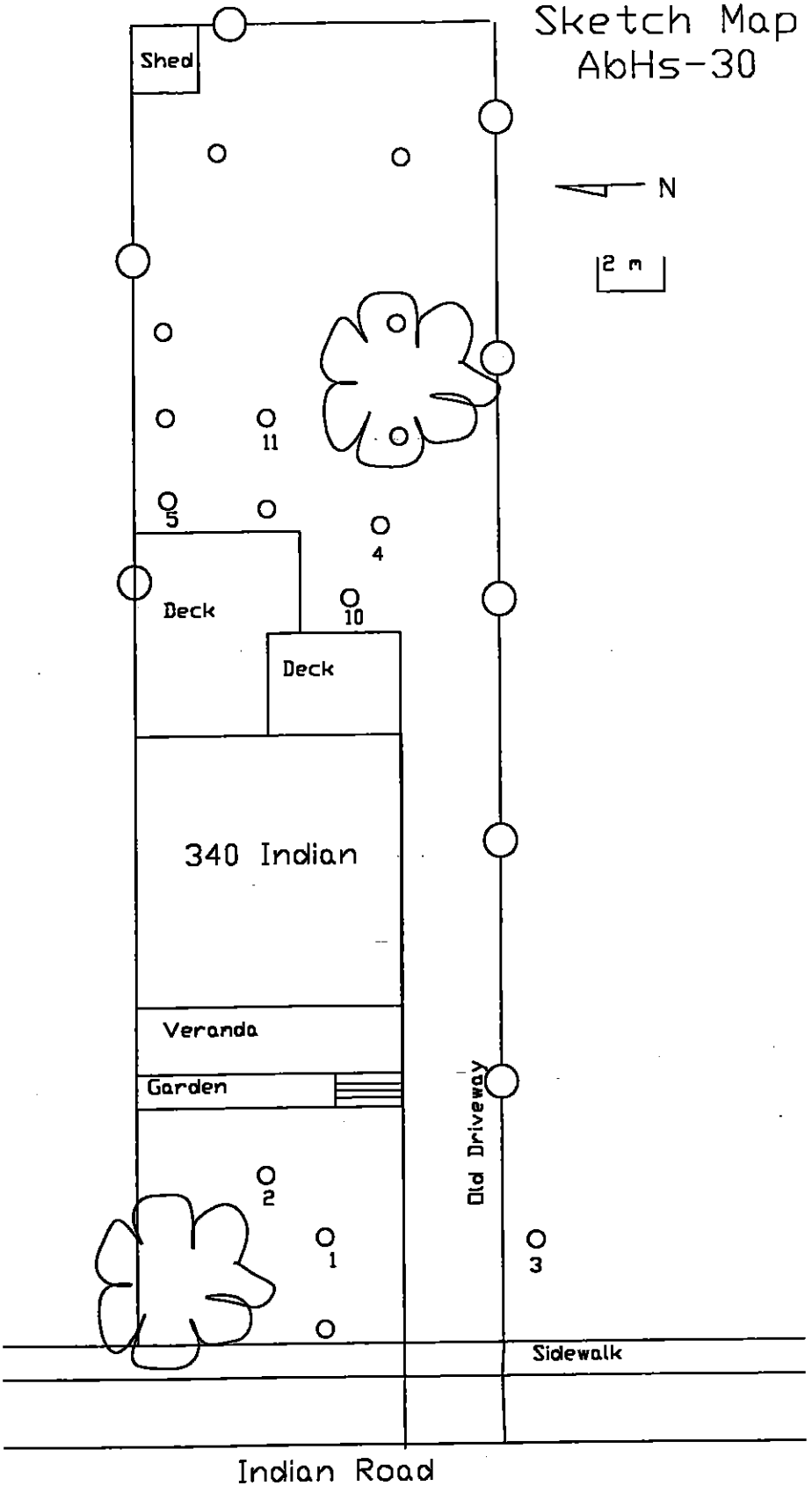


Figure 14: AbHs-30 (DIBC 3)

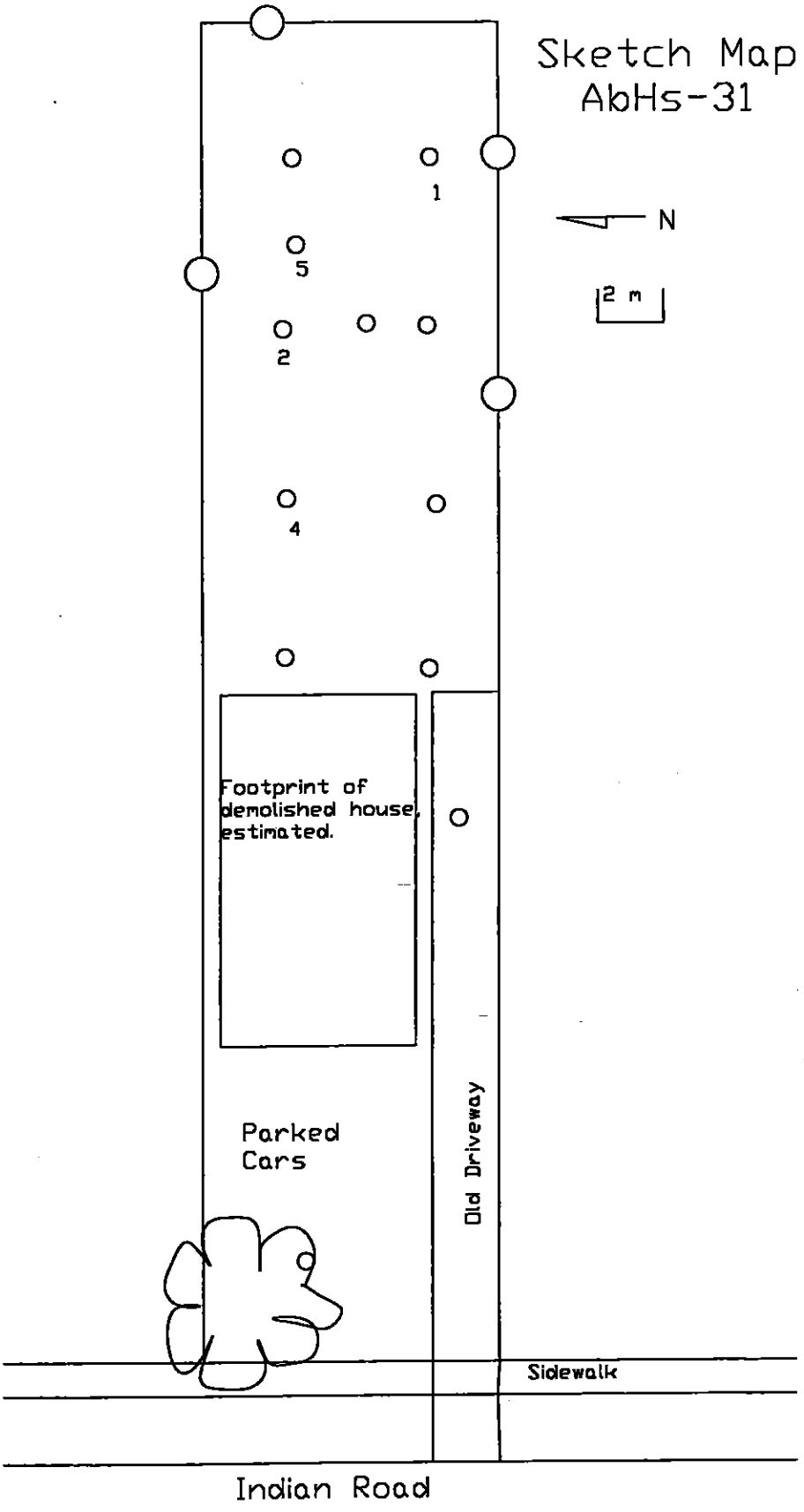


Figure 15: AbHs-31 (DIBC 4)

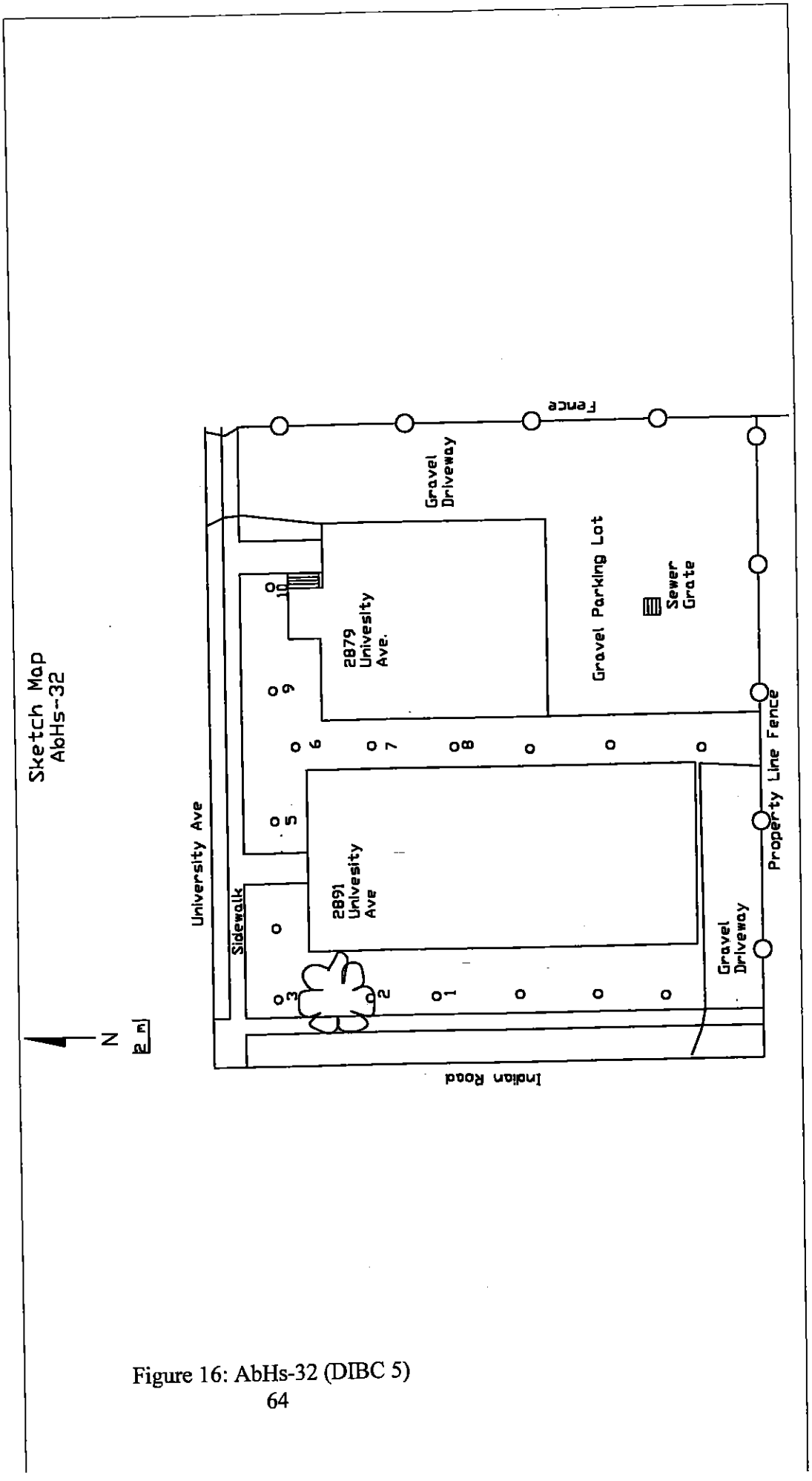


Figure 16: AbHs-32 (DIBC 5)

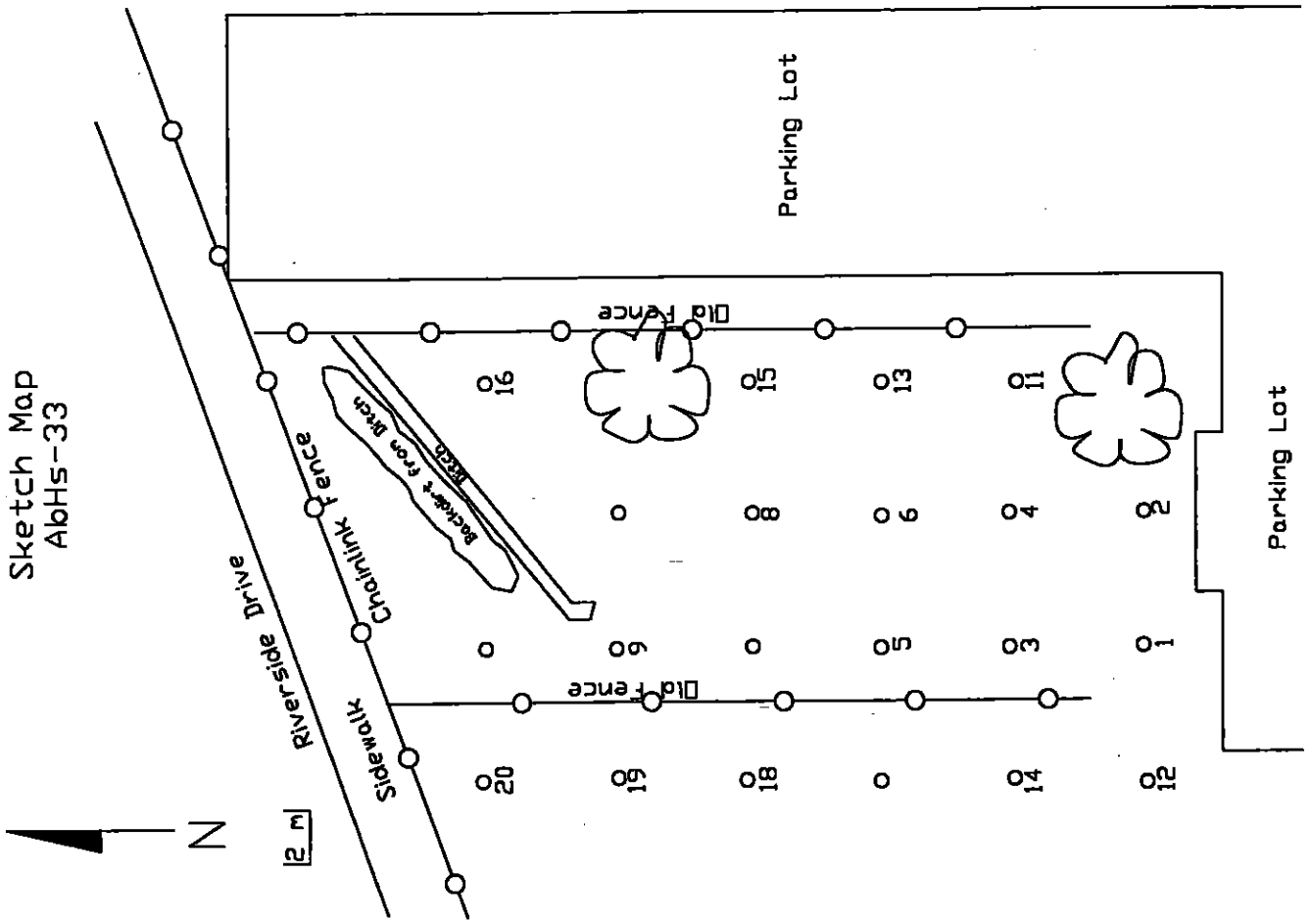


Figure 17: AbHs-33 (DIBC 6)

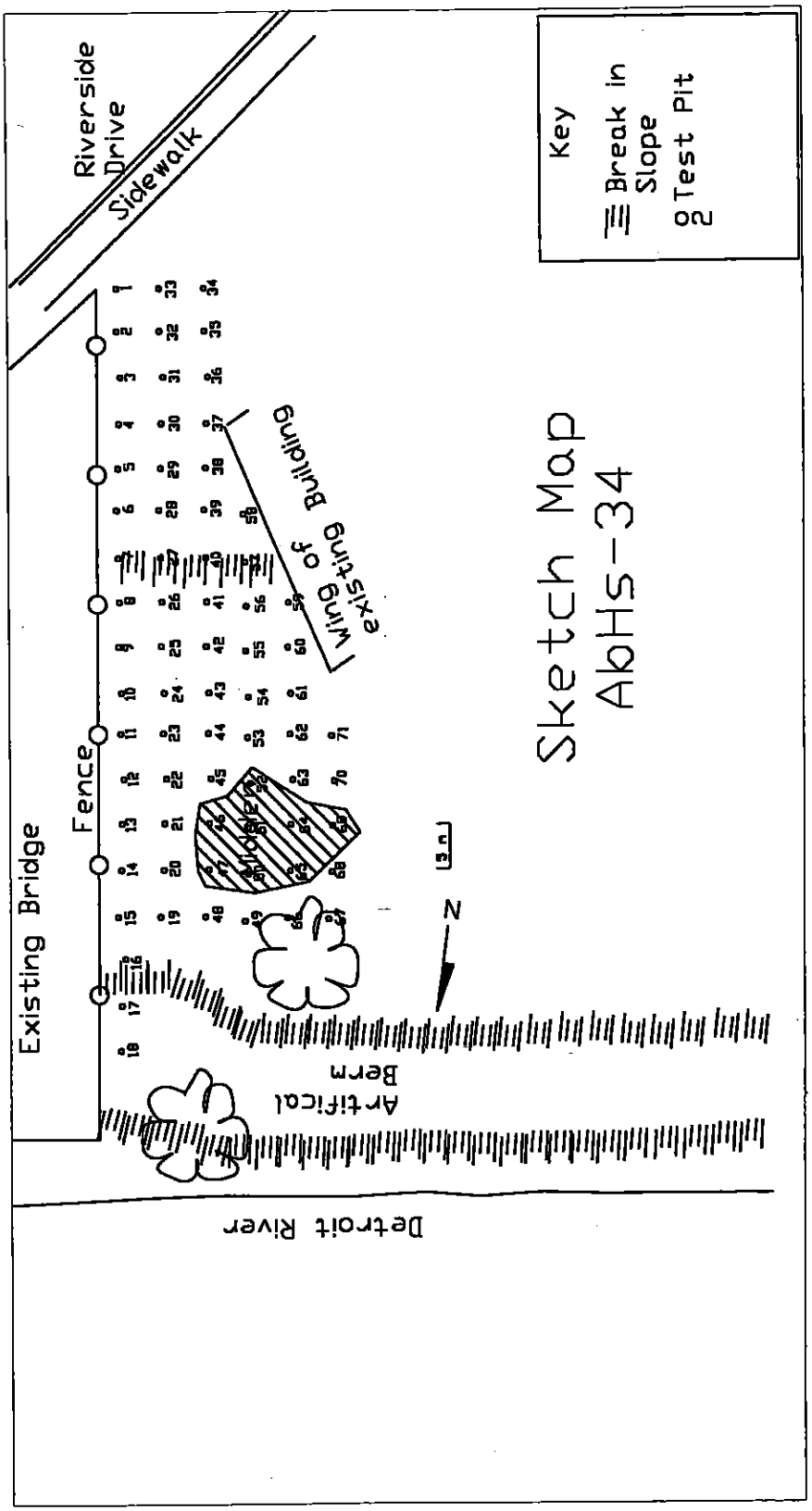


Figure 18: AbHs-34 (DIBC 7)

AbHs-28
Test Pit 1 Soil Profile

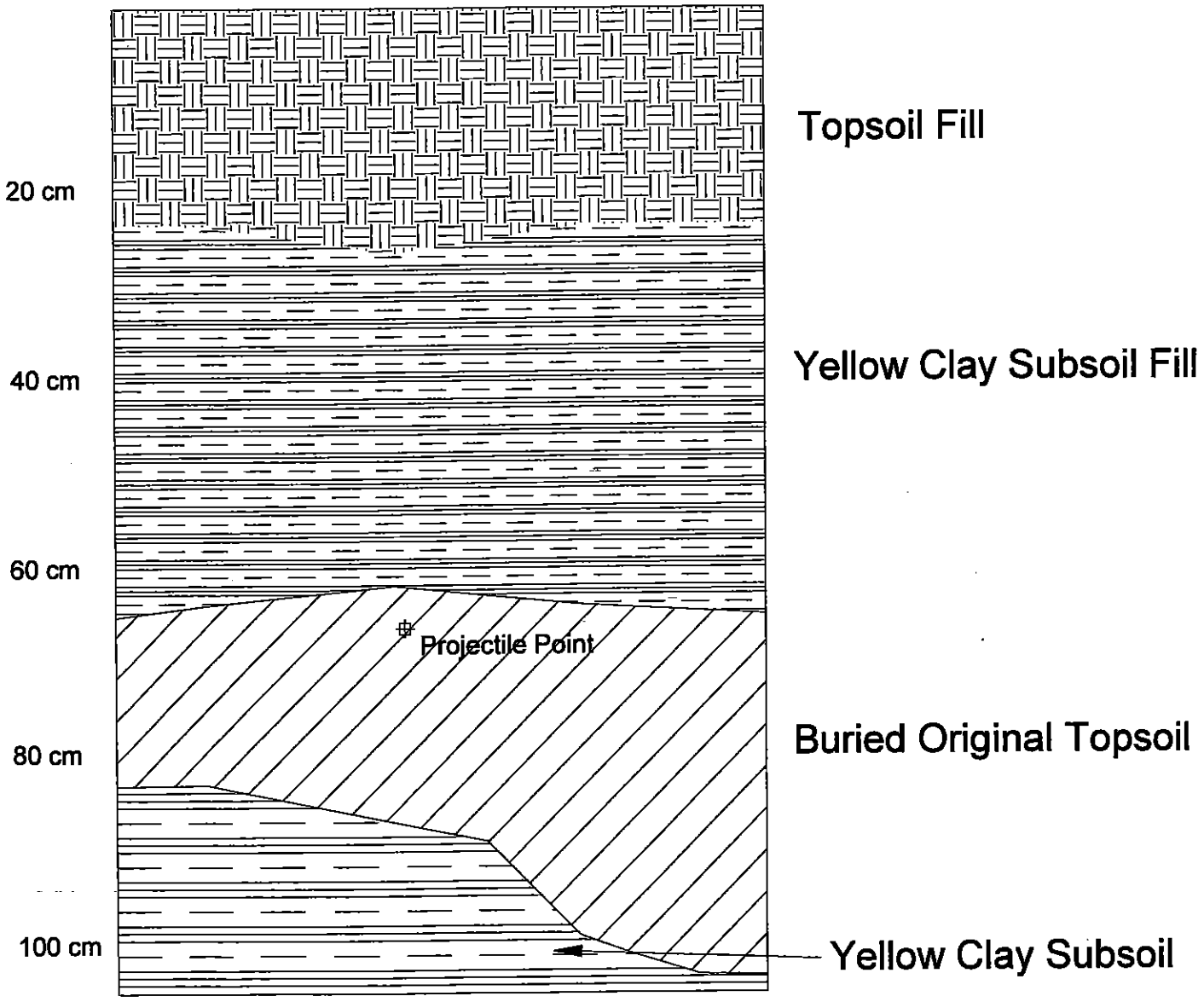


Figure 19: Soil Profile at AbHs-28

AbHs-34
Composite Soil Profile

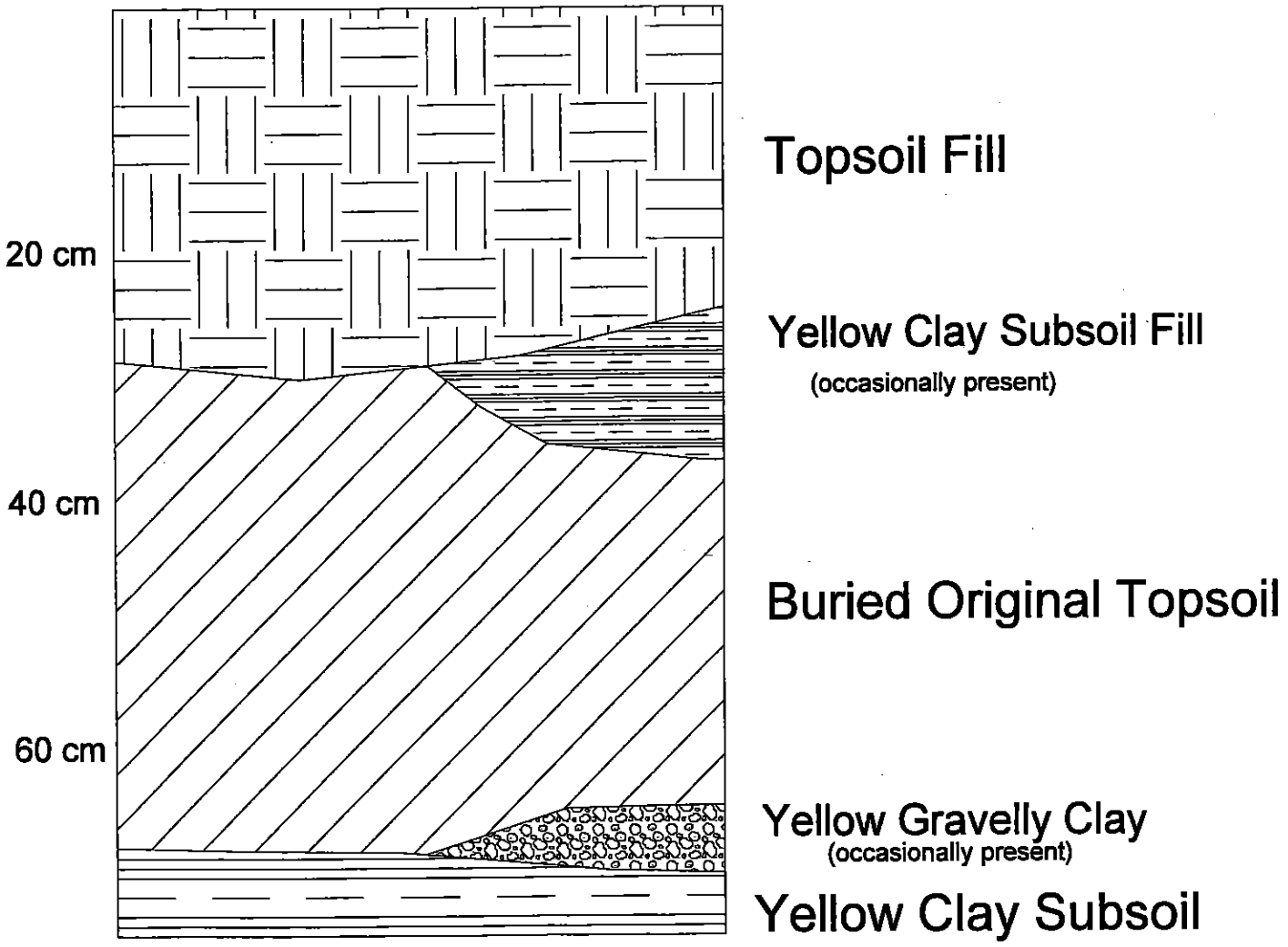


Figure 20: Soil Profile at AbHs-34

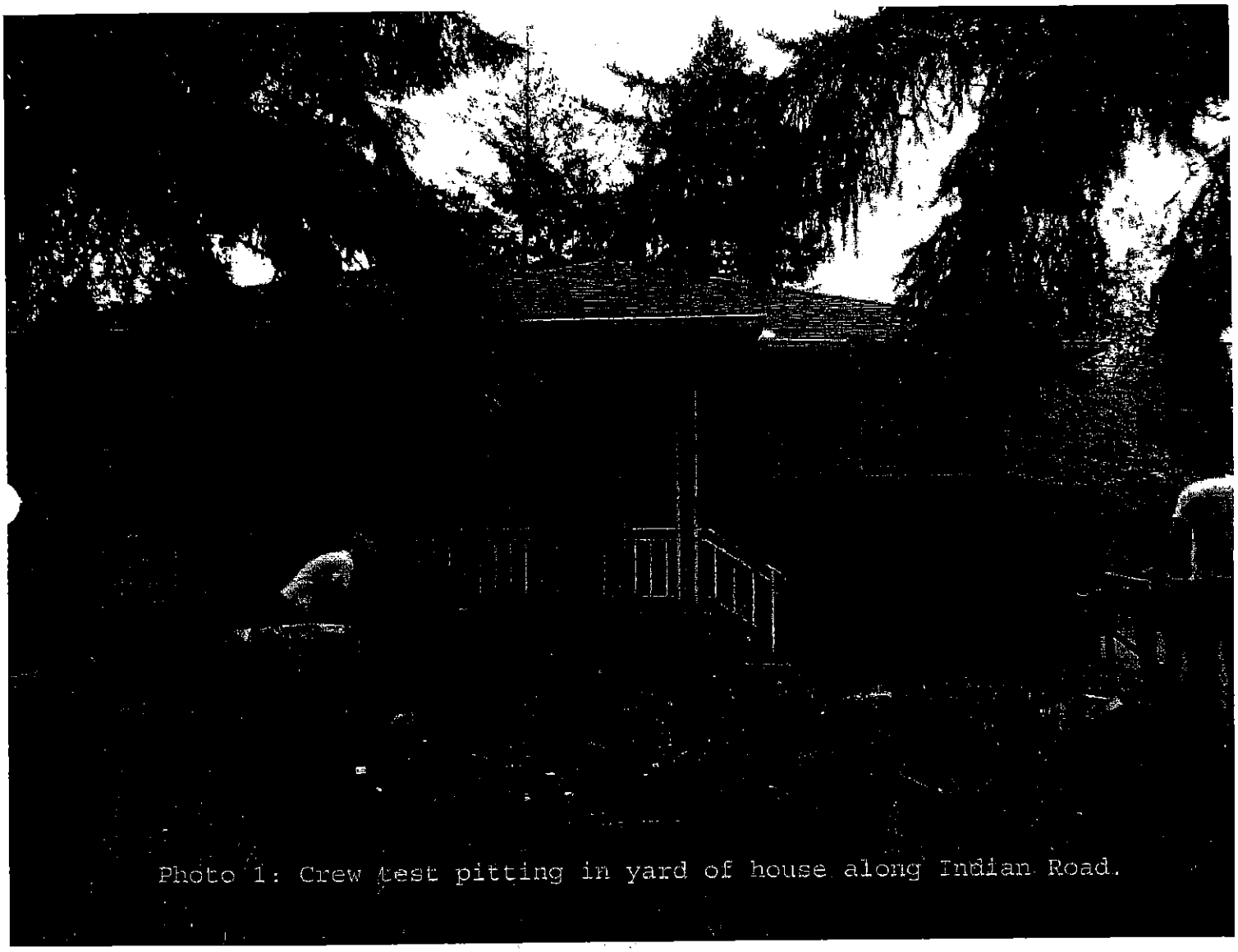


Photo 1: Crew test pitting in yard of house along Indian Road.

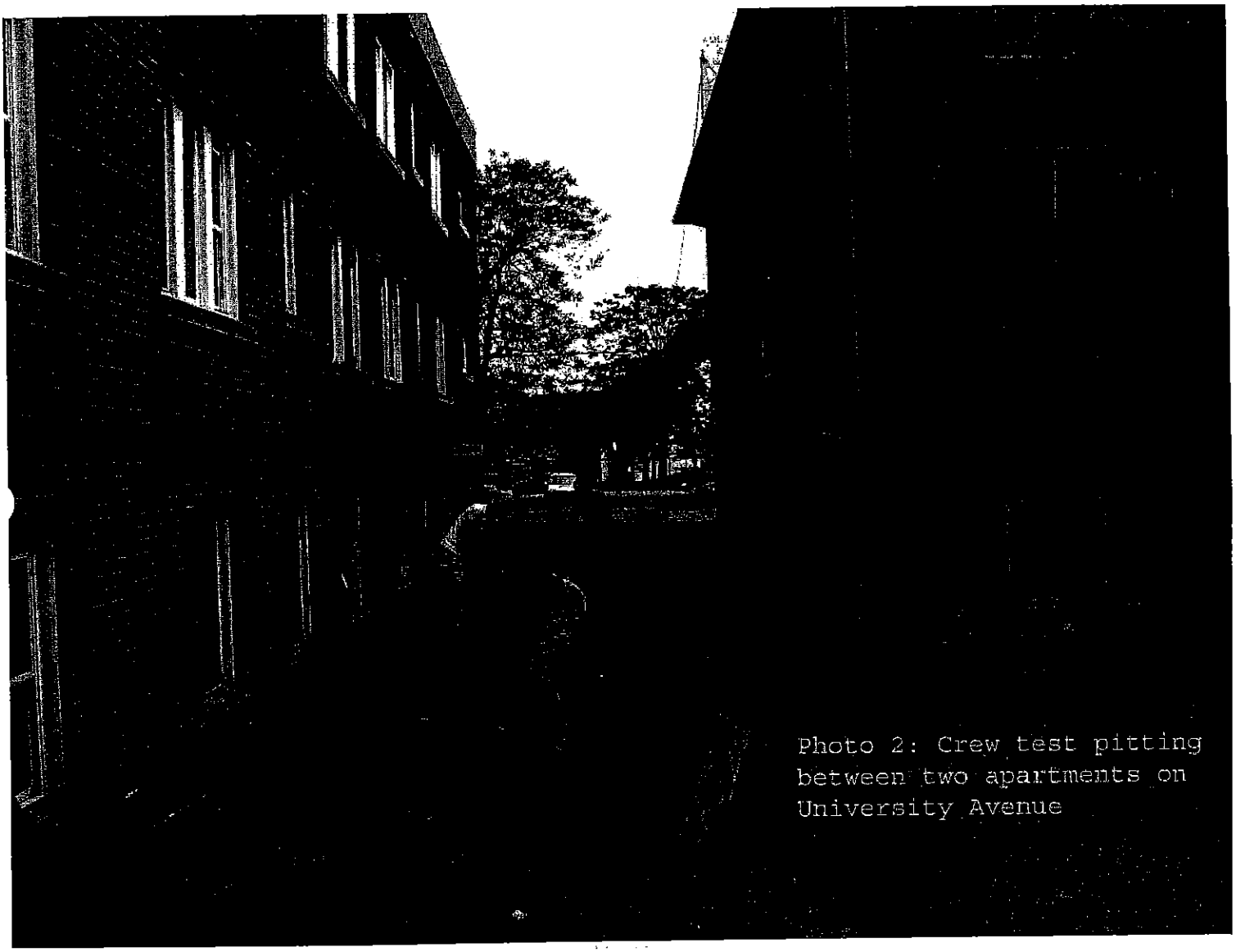


Photo 2: Crew test pitting between two apartments on University Avenue

Key to Photo 3:

a. Late Archaic Genesee Projectile Point
DIBC1, AbHs-28:1
Test Pit #1-1

b. Triangular Projectile Point
DIBC7, AbHs-34:85
Test Pit #7-29

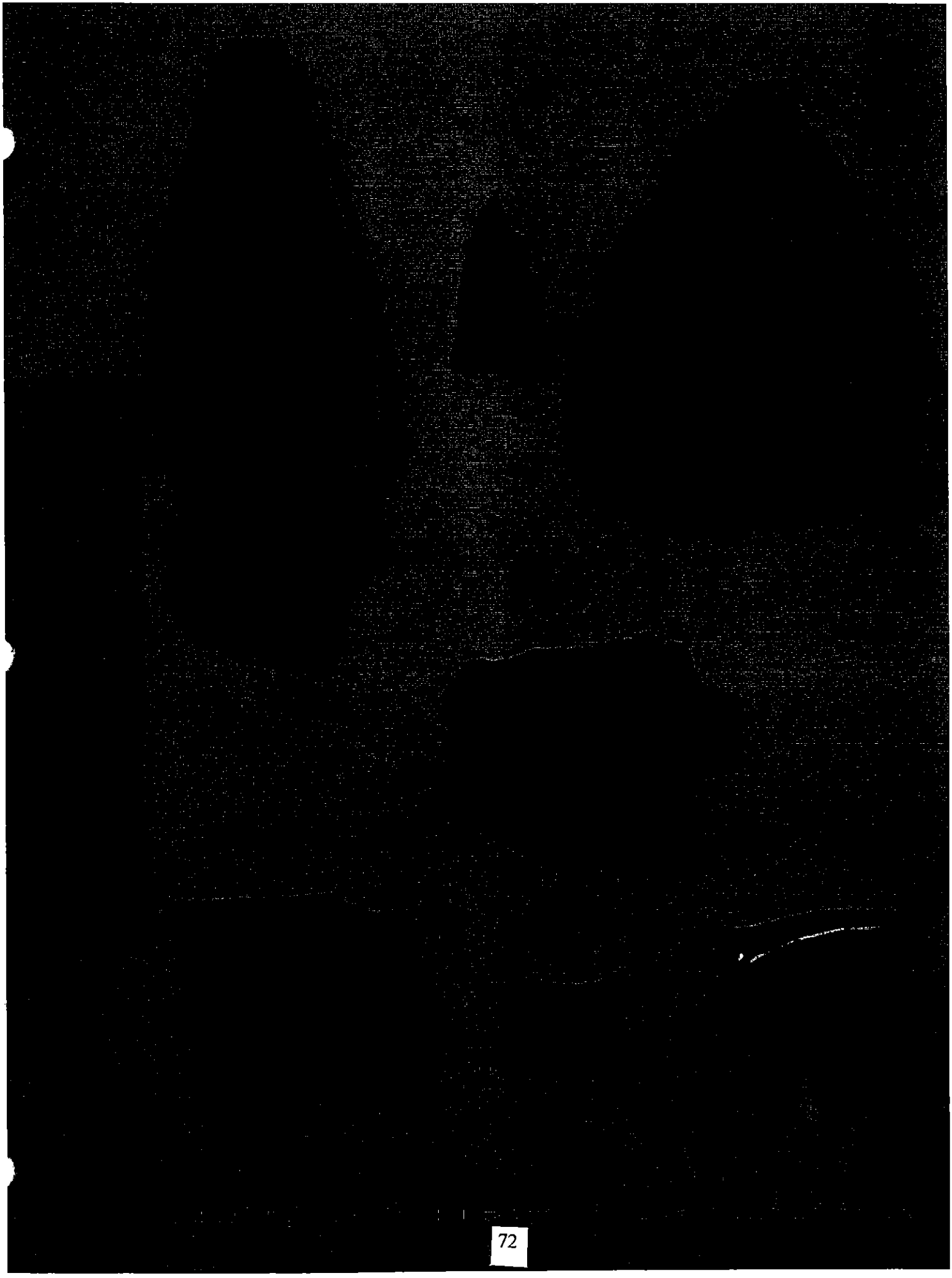
c. Biface
DIBC7, AbHs-34:68
Test Pit #7-24

d. Aboriginal Ceramic Vessel Rim Sherd
Western Basin Tradition, Springwells or Younge Phase
DIBC7, AbHs-34:116
Test Pit #7-46

e. Historic Euro-Canadian Creamware sherd
DIBC6, AbHs-33:7
Test Pit #6-1

f. Historic Euro-Canadian Green Edged Ware sherd, scalloped
DIBC6, AbHs-33:51
Test Pit #6-11

g. Historic Euro-Canadian Blue Edged Ware sherd, scalloped
DIBC6, AbHs-33:46
Test Pit #6-8



APPENDIX 1:

ARTIFACT CATALOGUES
SITES AbHs-28 to 34
Windsor Ambassador Bridge Enhancement Project

DIBC 1 AbHs-28

ARTIFACT SUMMARY LISTING

DESCRIPTION	NUMBER of PIECES
Projectile Point	1
Chipping Detritus	1
Whetstone	1
Historic: Slag	5
Historic: Nail	1
Historic: Glass Bottle Frag.	5
Historic: Lamp Chimney Glass	1
Historic: Domestic Animal Bone	14
Historic: China Rim Sherd	4
Historic: China, Undecorated	15
Historic: China, Decorated	7
Historic: Crockery Fragment	2
*** Total ***	57

DIBC 1 AbHs-28

Listing by Catalogue Number

CAT-#	ARTIFACT DESCRIPTION	NO. OF PCS.	SQUARE	Level
1	Projectile Point	1	1-1	0to90
2	Glass Bottle Fragment	1	1-1	0to90
3	Historic: Domestic Animal Bone	7	1-1	0to90
4	Historic: Crockery Fragment	2	1-2	0to77
5	Whetstone	1	1-3	0to79
6	Glass Bottle Fragment	1	1-3	0to79
7	Historic: China Rim Sherd	1	1-3	0to79
8	Historic: China Rim Sherd	1	1-3	0to79
9	Historic: China, Undecorated	2	1-3	0to79
10	Historic: China, Decorated	1	1-3	0to79
11	Historic: Slag	1	1-4	0to75
12	Historic: Slag	1	1-5	0to73
13	Glass Bottle Fragment	1	1-5	0to73
14	Historic: Slag	2	1-6	0to85
15	Historic: Slag	1	1-7	0to55
16	Glass Bottle Fragment	1	1-7	0to55
17	Historic: Domestic Animal Bone	1	1-7	0to55
18	Historic: China Rim Sherd	2	1-7	0to55
19	Historic: China, Decorated	1	1-7	0to55
20	Historic: Nail	1	1-8	0to67
21	Chimney Lamp Glass Fragment	1	1-8	0to67
22	Historic: China, Undecorated	12	1-8	0to67
23	Historic: China, Decorated	2	1-8	0to67
24	Glass Bottle Fragment	1	1-9	0to65
25	Historic: China, Undecorated	1	1-9	0to65
26	Historic: China, Decorated	2	1-9	0to65
27	Historic: Domestic Animal Bone	5	1-9	0to65
28	Chipping Detritus	1	1-10	0to55
29	Historic: Domestic Animal Bone	1	1-10	0to55
30	Historic: China, Decorated	1	1-10	0to55
*** Total ***		57		

DIBC 2 AbHs-29

ARTIFACT SUMMARY LISTING

DESCRIPTION	NUMBER of PIECES
Chipping Detritus	1
Ground Stone Fragment	1
Historic: Slag	3
Historic: Nail	1
Historic: Stylus	1
Historic: Window Glass	1
Historic: Glass Bottle Frag.	1
Historic: China, Undecorated	1
Historic: White Clay Pipe Stem	1
*** Total ***	11

DIBC 2 AbHs-29

Listing by Catalogue Number

CAT-#	ARTIFACT DESCRIPTION	NO. OF PCS.	SQUARE	Level
1	Historic: Window Glass	1	2-1	0to70
2	Historic: White Clay Pipe Stem	1	2-1	0to70
3	Historic: Slag	1	2-2	0to55
4	Historic: Nail	1	2-2	0to55
5	Historic: Stylus	1	2-2	0to55
6	Historic: Glass Bottle Frag.	1	2-2	0to55
7	Historic: China, Undecorated	1	2-2	0to55
8	Chipping Detritus	1	2-6	0to65
9	Ground Stone Fragment	1	2-6	0to65
10	Historic: Slag	2	2-6	0to65
*** Total ***		11		

DIBC 3 AbHs-30

ARTIFACT SUMMARY LISTING

DESCRIPTION	NUMBER of PIECES
Scraper	1
Chipping Detritus	11
Hammerstone	1
Non Chert Detritus	2
Fire Cracked Rock	1
Historic: China, Decorated	1
Historic: Crockery Fragment	1
*** Total ***	18

DIBC 3 AbHs-30

Listing by Catalogue Number

CAT-#	ARTIFACT DESCRIPTION	NO. OF PCS.	SQUARE	Level
1	Scraper	1	3-1	0to79
2	Chipping Detritus	4	3-2	0to105
3	Chipping Detritus	1	3-3	0to70
4	Chipping Detritus	1	3-4	0to95
5	Chipping Detritus	2	3-5	0to65
6	Non Chert Detritus	1	3-5	0to65
7	Non Chert Detritus	1	3-5	0to65
8	Hammerstone	1	3-5	0to65
9	Historic: China, Decorated	1	3-5	0to65
10	Chipping Detritus	1	3-10	0to65
11	Historic: Crockery Fragment	1	3-10	0to65
12	Chipping Detritus	2	3-11	0to75
13	Fire Cracked Rock	1	3-11	0to75
*** Total ***		18		

DIBC 4 AbHs-31

ARTIFACT SUMMARY LISTING

DESCRIPTION	NUMBER of PIECES
Utilized Flake	1
Chipping Detritus	5
*** Total ***	6

DIBC 4 AbHs-31

Listing by Catalogue Number

CAT-#	ARTIFACT DESCRIPTION	NO. OF PCS.	SQUARE	Level
1	Utilized Flake	1	4-1	0to70
2	Chipping Detritus	3	4-2	0to73
3	Chipping Detritus	1	4-4	0to70
4	Chipping Detritus	1	4-5	0to70
*** Total ***		6		

DIBC 5 AbHs-32

ARTIFACT SUMMARY LISTING

DESCRIPTION	NUMBER of PIECES
Scraper	1
Chipping Detritus	17
Historic: Nail	1
Historic: Glass Bottle Frag.	1
Historic: China, Undecorated	5
Historic: China, Decorated	4
Historic: White Clay Pipe Stem	2
Historic: Crockery Vessel	1
*** Total ***	32

DIBC 5 AbHs-32

Listing by Catalogue Number

CAT-#	ARTIFACT DESCRIPTION	NO. OF PCS.	SQUARE	Level
1	Chipping Detritus	4	5-1	0to98
2	Historic: China, Undecorated	3	5-1	0to98
3	Historic: China, Decorated	3	5-1	0to98
4	Historic: Crockery Vessel	1	5-1	0to98
5	Historic: Glass Bottle Frag.	1	5-1	0to98
6	Historic: White Clay Pipe Stem	1	5-1	0to98
7	Historic: Nail	1	5-1	0to98
8	Chipping Detritus	1	5-2	0to100
9	Chipping Detritus	2	5-3	0to60
10	Historic: China, Undecorated	2	5-3	0to60
11	Historic: White Clay Pipe Stem	1	5-3	0to60
12	Chipping Detritus	1	5-5	0to100
13	Chipping Detritus	3	5-6	0to99
14	Scraper	1	5-7	0to105
15	Chipping Detritus	2	5-7	0to105
16	Chipping Detritus	1	5-8	0to110
17	Chipping Detritus	1	5-9	0to90
18	Historic: China, Decorated	1	5-9	0to90
19	Chipping Detritus	2	5-10	0to95
*** Total ***		32		

DIBC 6 AbHs-33

ARTIFACT SUMMARY LISTING

DESCRIPTION	NUMBER of PIECES
Body Sherd	3
Chipping Detritus	29
Netsinker	1
Non Chert Detritus	1
Shell Fragment (unmodified)	1
Bone/Antler Fragments	38
Historic: Nail	30
Historic: Misc. Metal Artifact	5
Historic: Hook	1
Historic: Metal Hoop	1
Historic: Stylus	5
Historic: Window Glass	3
Historic: Glass Bottle Frag.	10
Historic: Lamp Chimney Glass	1
Historic: Coal	1
Historic: Screw	2
Historic: China Rim Sherd	32
Historic: China, Undecorated	21
Historic: China, Decorated	21
Historic: White ClayPipe Elbow	1
Historic: White Clay Pipe Stem	3
Historic: Crockery Fragment	9
Historic: Button	3
*** Total ***	222

DIBC 6 AbHs-33

Listing by Catalogue Number

CAT-#	ARTIFACT DESCRIPTION	NO. OF PCS.	SQUA RE	Level
1	Chipping Detritus	3	6-1	0to65
2	Bone/Antler Fragments	7	6-1	0to65
3	Shell Fragment (unmodified)	1	6-1	0to65
4	Historic: Nail	1	6-1	0to65
5	Historic: Button	1	6-1	0to65
6	Historic: White ClayPipe Elbow	1	6-1	0to65
7	Historic: China, Undecorated	4	6-1	0to65
8	Historic: China, Decorated	1	6-1	0to65
9	Non Chert Detritus	1	6-2	0to69
10	Historic: Nail	1	6-2	0to69
11	Historic: Hook	1	6-2	0to69
12	Historic: Stylus	2	6-2	0to69
13	Historic: China, Undecorated	1	6-2	0to69
14	Historic: China, Decorated	1	6-2	0to69
15	Chipping Detritus	5	6-3	0to75
16	Bone/Antler Fragments	11	6-3	0to75
17	Historic: Nail	6	6-3	0to75
18	Historic: Glass Bottle Frag.	5	6-3	0to75
19	Historic: China, Undecorated	1	6-3	0to75
20	Historic: China, Decorated	1	6-3	0to75
21	Historic: Crockery Fragment	4	6-3	0to75
22	Historic: Misc. Metal Artifact	1	6-3	0to75
23	Chipping Detritus	2	6-4	0to60
24	Bone/Antler Fragments	1	6-4	0to60
25	Historic: Nail	2	6-4	0to60
26	Historic: China, Undecorated	1	6-4	0to60
27	Historic: China, Decorated	1	6-4	0to60
28	Historic: Misc. Metal Artifact	1	6-4	0to60
29	Chipping Detritus	3	6-5	0to80
30	Historic: Nail	5	6-5	0to80
31	Historic: Crockery Fragment	2	6-5	0to80
32	Historic: Button	1	6-5	0to80
33	Chipping Detritus	2	6-6	0to49
34	Netsinker	1	6-6	0to49
35	Historic: Coal	1	6-6	0to49
36	Historic: China, Undecorated	7	6-6	0to49
37	Historic: China, Decorated	4	6-6	0to49
38	Historic: China Rim Sherd	1	6-6	0to49
39	Historic: Button	1	6-6	0to49
40	Historic: Nail	5	6-6	0to49
41	Historic: Glass Bottle Frag.	3	6-6	0to49
42	Historic: Stylus	3	6-6	0to49
43	Historic: Misc. Metal Artifact	1	6-6	0to49
44	Historic: Misc. Metal Artifact	1	6-6	0to49
45	Historic: Misc. Metal Artifact	1	6-6	0to49
46	Historic: China Rim Sherd	1	6-8	0to75

DIBC 6 AbHs-33

Listing by Catalogue Number

CAT-#	ARTIFACT DESCRIPTION	NO. OF PCS.	SQUARE	Level
47	Historic: China, Undecorated	1	6-8	0to75
48	Historic: China, Decorated	1	6-8	0to75
49	Historic: White Clay Pipe Stem	1	6-8	0to75
50	Bone/Antler Fragments	3	6-11	0to65
51	Historic: China Rim Sherd	1	6-11	0to65
52	Historic: China, Decorated	4	6-11	0to65
53	Historic: Metal Hoop	1	6-11	0to65
54	Historic: Nail	1	6-12	0to60
55	Historic: China, Decorated	1	6-12	0to60
56	Bone/Antler Fragments	2	6-13	0to50
57	Historic: Nail	1	6-13	0to50
58	Historic: Screw	1	6-13	0to50
59	Historic: Window Glass	3	6-13	0to50
60	Historic: China Rim Sherd	1	6-13	0to50
61	Historic: China Rim Sherd	1	6-13	0to50
62	Historic: China, Undecorated	1	6-13	0to50
63	Historic: Crockery Fragment	1	6-13	0to50
64	Body Sherd	1	6-14	0to55
65	Chipping Detritus	6	6-14	0to55
66	Historic: China, Undecorated	1	6-14	0to55
67	Historic: China, Decorated	2	6-14	0to55
68	Historic: Lamp Chimney Glass	1	6-14	0to55
69	Historic: Glass Bottle Frag.	1	6-15	0to73
70	Historic: China, Undecorated	1	6-15	0to73
71	Historic: China Rim Sherd	19	6-16	0to55
72	Historic: Glass Bottle Frag.	1	6-16	0to55
73	Body Sherd	2	6-18	0to50
74	Chipping Detritus	8	6-18	0to50
75	Bone/Antler Fragments	9	6-18	0to50
76	Historic: Nail	7	6-18	0to50
77	Historic: Screw	1	6-18	0to50
78	Historic: China Rim Sherd	1	6-18	0to50
79	Historic: China, Undecorated	1	6-18	0to50
80	Historic: China, Decorated	4	6-18	0to50
81	Historic: China Rim Sherd	6	6-19	0to50
82	Historic: China Rim Sherd	1	6-19	0to50
83	Historic: China, Undecorated	2	6-19	0to50
84	Bone/Antler Fragments	5	6-20	0to50
85	Historic: Nail	1	6-20	0to50
86	Historic: China, Decorated	1	6-20	0to50
87	Historic: Crockery Fragment	2	6-20	0to50
88	Historic: White Clay Pipe Stem	2	6-20	0to50
** Total ***		222		

DIBC 7 AbHs-34

ARTIFACT SUMMARY LISTING

DESCRIPTION	NUMBER of PIECES
Rim Sherd	1
Fragmentary Rim Sherd	3
Neck/Shoulder Sherd	2
Body Sherd	58
Fragmentary Sherd	1
Decorated Body Sherd	7
Daub	84
Projectile Point	1
Biface	4
Drill	1
Scraper	2
Chipping Detritus	277
Hammerstone	4
Non Chert Detritus	11
Ground Stone Fragment	1
Red Ochre Fragment	2
Bone Awl	1
Shell Fragment (unmodified)	2
Turtle Shell Frag.(unmodified)	1
Bone/Antler Fragments	178
Fire Cracked Rock	37
Historic: Slag	1
Historic: Nail	1
Historic: Misc. Metal Artifact	4
Historic: Window Glass	4
Historic: Coal	1
Historic: Plaster	1
Historic: Domestic Animal Bone	1
Historic: Shotgun Shell Casin	1
Historic: China, Cup Handle	1
Historic: China Rim Sherd	1
Historic: China, Undecorated	6
Historic: China, Decorated	8
Historic: White Clay Pipe Bowl	2
Historic: Brick Fragment	2
Historic: Button	2
*** Total ***	714

DIBC 7 AbHs-34

Listing by Catalogue Number

CAT-#	ARTIFACT DESCRIPTION	NO. OF PCS.	SQUARE	Level
1	Body Sherd	3	7-1	0to52
2	Chipping Detritus	7	7-1	0to52
3	Non Chert Detritus	1	7-1	0to52
4	Shell Fragment (unmodified)	1	7-1	0to52
5	Body Sherd	1	7-4	0to40
6	Daub	1	7-4	0to40
7	Chipping Detritus	7	7-4	0to40
8	Bone/Antler Fragments	1	7-4	0to40
9	Fire Cracked Rock	2	7-4	0to40
10	Fragmentary Rim Sherd	1	7-5	0to50
11	Body Sherd	2	7-5	0to50
12	Daub	3	7-5	0to50
13	Chipping Detritus	4	7-5	0to50
14	Fire Cracked Rock	2	7-5	0to50
15	Historic: China, Undecorated	1	7-5	0to50
16	Chipping Detritus	4	7-6	0to60
17	Fire Cracked Rock	3	7-6	0to60
18	Body Sherd	1	7-7	0to51
19	Chipping Detritus	5	7-7	0to51
20	Bone/Antler Fragments	4	7-7	0to51
21	Fire Cracked Rock	1	7-7	0to51
22	Chipping Detritus	2	7-8	0to60
23	Bone/Antler Fragments	1	7-8	0to60
24	Historic: China, Decorated	2	7-8	0to60
25	Chipping Detritus	2	7-9	0to60
26	Bone/Antler Fragments	1	7-9	0to60
27	Historic: Domestic Animal Bone	1	7-9	0to60
28	Chipping Detritus	2	7-10	0to45
29	Bone/Antler Fragments	67	7-10	0to45
30	Body Sherd	1	7-11	0to100
31	Daub	3	7-11	0to100
32	Chipping Detritus	2	7-11	0to100
33	Bone/Antler Fragments	1	7-11	0to100
34	Daub	1	7-12	0to79
35	Chipping Detritus	1	7-12	0to79
36	Bone/Antler Fragments	2	7-12	0to79
37	Body Sherd	2	7-13	0to70
38	Daub	16	7-13	0to70
39	Bone/Antler Fragments	7	7-13	0to70
40	Chipping Detritus	5	7-13	0to70
41	Fire Cracked Rock	2	7-13	0to70
42	Daub	1	7-14	0to65
43	Chipping Detritus	13	7-14	0to65
44	Bone/Antler Fragments	4	7-14	0to65
45	Chipping Detritus	2	7-17	0to65
46	Bone/Antler Fragments	1	7-19	0to82

DIBC 7 AbHs-34

Listing by Catalogue Number

CAT-#	ARTIFACT DESCRIPTION	NO. OF PCS.	SQUARE	Level
47	Historic: China, Decorated	2	7-19	0to82
48	Scraper	1	7-20	0to50
49	Chipping Detritus	4	7-20	0to50
50	Body Sherd	6	7-20	0to50
51	Decorated Body Sherd	2	7-20	0to50
52	Bone/Antler Fragments	1	7-20	0to50
53	Historic: Nail	1	7-20	0to50
54	Historic: Slag	1	7-20	0to50
55	Historic: China, Decorated	1	7-20	0to50
56	Body Sherd	3	7-21	0to50
57	Decorated Body Sherd	2	7-21	0to50
58	Chipping Detritus	14	7-21	0to50
59	Non Chert Detritus	1	7-21	0to50
60	Bone Awl	1	7-21	0to50
61	Bone/Antler Fragments	2	7-21	0to50
62	Fire Cracked Rock	1	7-21	0to50
63	Historic: Plaster	1	7-21	0to50
64	Body Sherd	2	7-22	0to42
65	Daub	1	7-22	0to42
66	Biface	1	7-22	0to42
67	Chipping Detritus	5	7-22	0to42
68	Biface	1	7-24	0to30
69	Chipping Detritus	3	7-24	0to30
70	Daub	2	7-27	0to60
71	Chipping Detritus	3	7-27	0to60
72	Non Chert Detritus	1	7-27	0to60
73	Hammerstone	1	7-27	0to60
74	Bone/Antler Fragments	2	7-27	0to60
75	Fire Cracked Rock	1	7-27	0to60
76	Historic: Window Glass	1	7-27	0to60
77	Historic: China, Decorated	1	7-27	0to60
78	Body Sherd	1	7-26	0to60
79	Chipping Detritus	8	7-26	0to60
80	Body Sherd	2	7-28	0to55
81	Daub	1	7-28	0to55
82	Chipping Detritus	13	7-28	0to55
83	Fire Cracked Rock	1	7-28	0to55
84	Body Sherd	1	7-29	0to47
85	Projectile Point	1	7-29	0to47
86	Chipping Detritus	11	7-29	0to47
87	Historic: Misc. Metal Artifact	1	7-29	0to47
88	Chipping Detritus	1	7-30	0to55
89	Non Chert Detritus	1	7-30	0to55
90	Chipping Detritus	4	7-32	0to35
91	Hammerstone	1	7-32	0to35
92	Red Ochre Fragment	2	7-32	0to35

DIBC 7 AbHs-34

Listing by Catalogue Number

CAT-#	ARTIFACT DESCRIPTION	NO. OF PCS.	SQUARE	Level
93	Historic: White Clay Pipe Bowl	1	7-32	0to35
94	Chipping Detritus	2	7-33	0to40
95	Bone/Antler Fragments	1	7-33	0to40
96	Body Sherd	2	7-35	0to47
97	Daub	1	7-35	0to47
98	Scraper	1	7-35	0to47
99	Chipping Detritus	8	7-35	0to47
100	Body Sherd	2	7-36	0to50
101	Chipping Detritus	1	7-36	0to50
102	Body Sherd	1	7-37	0to50
103	Chipping Detritus	1	7-36	0to50
104	Drill	1	7-38	0to65
105	Chipping Detritus	1	7-38	0to65
106	Body Sherd	1	7-38	0to65
107	Daub	3	7-38	0to65
108	Chipping Detritus	3	7-39	0to55
109	Fire Cracked Rock	1	7-39	0to55
110	Chipping Detritus	9	7-41	0to45
111	Fire Cracked Rock	1	7-41	0to45
112	Historic: China Rim Sherd	1	7-41	0to45
113	Chipping Detritus	2	7-44	0to37
114	Chipping Detritus	5	7-45	0to41
115	Fire Cracked Rock	1	7-45	0to41
116	Rim Sherd	1	7-46	0to43
117	Body Sherd	8	7-46	0to43
118	Daub	2	7-46	0to43
119	Biface	1	7-46	0to43
120	Chipping Detritus	6	7-46	0to43
121	Ground Stone Fragment	1	7-46	0to43
122	Bone/Antler Fragments	7	7-46	0to43
123	Body Sherd	5	7-47	0to55
124	Daub	7	7-47	0to55
125	Biface	1	7-47	0to55
126	Chipping Detritus	21	7-47	0to55
127	Bone/Antler Fragments	13	7-47	0to55
128	Shell Fragment (unmodified)	1	7-47	0to55
129	Historic: White Clay Pipe Bowl	1	7-47	0to55
130	Historic: Window Glass	1	7-47	0to55
131	Historic: Brick Fragment	1	7-47	0to55
132	Fire Cracked Rock	2	7-47	0to55
133	Body Sherd	2	7-50	0to55
134	Chipping Detritus	7	7-50	0to55
135	Bone/Antler Fragments	2	7-50	0to55
136	Historic: Button	1	7-50	0to55
137	Fragmentary Rim Sherd	2	7-51	0to60
138	Body Sherd	4	7-51	0to60

DIBC 7 AbHs-34

Listing by Catalogue Number

CAT-#	ARTIFACT DESCRIPTION	NO. OF PCS.	SQUARE	Level
139	Decorated Body Sherd	1	7-51	0to60
140	Chipping Detritus	4	7-51	0to60
141	Non Chert Detritus	3	7-51	0to60
142	Hammerstone	1	7-51	0to60
143	Bone/Antler Fragments	3	7-51	0to60
144	Turtle Shell Frag.(unmodified)	1	7-51	0to60
145	Historic: Misc. Metal Artifact	1	7-51	0to60
146	Fire Cracked Rock	1	7-51	0to60
147	Daub	2	7-52	0to45
148	Chipping Detritus	14	7-52	0to45
149	Bone/Antler Fragments	9	7-52	0to45
150	Historic: Coal	1	7-52	0to45
151	Fire Cracked Rock	4	7-52	0to45
152	Daub	1	7-53	0to52
153	Chipping Detritus	5	7-53	0to52
154	Fire Cracked Rock	2	7-53	0to52
155	Chipping Detritus	2	7-54	0to55
156	Bone/Antler Fragments	1	7-54	0to55
157	Body Sherd	1	7-55	0to50
158	Chipping Detritus	2	7-55	0to50
159	Historic: China, Undecorated	2	7-55	0to50
160	Historic: Button	1	7-55	0to50
161	Daub	2	7-56	0to55
162	Chipping Detritus	3	7-56	0to55
163	Non Chert Detritus	2	7-56	0to55
164	Bone/Antler Fragments	1	7-56	0to55
165	Fire Cracked Rock	1	7-56	0to55
166	Body Sherd	2	7-57	0to60
167	Chipping Detritus	7	7-57	0to60
168	Fire Cracked Rock	1	7-57	0to60
169	Historic: Misc. Metal Artifact	1	7-57	0to60
170	Chipping Detritus	1	7-58	0to70
171	Chipping Detritus	5	7-60	0to46
172	Daub	1	7-61	0to53
173	Chipping Detritus	2	7-61	0to53
174	Fire Cracked Rock	1	7-61	0to53
175	Chipping Detritus	1	7-62	0to45
176	Bone/Antler Fragments	1	7-62	0to45
177	Fire Cracked Rock	1	7-62	0to45
178	Daub	11	7-63	0to65
179	Chipping Detritus	5	7-63	0to65
180	Non Chert Detritus	1	7-63	0to65
181	Bone/Antler Fragments	4	7-63	0to65
182	Chipping Detritus	1	7-64	0to55
183	Non Chert Detritus	1	7-64	0to55
184	Historic: Window Glass	1	7-64	0to55

DIBC 7 AbHs-34

Listing by Catalogue Number

CAT-#	ARTIFACT DESCRIPTION	NO. OF PCS.	SQUA RE	Level
185	Historic: China, Undecorated	1	7-64	0to55
186	Historic: China, Decorated	1	7-64	0to55
187	Daub	1	7-65	0to75
188	Chipping Detritus	6	7-65	0to75
189	Bone/Antler Fragments	2	7-65	0to75
190	Chipping Detritus	1	7-66	0to75
191	Historic: China, Cup Handle	1	7-66	0to75
192	Historic: China, Decorated	1	7-66	0to75
193	Neck/Shoulder Sherd	2	7-68	0to80
194	Body Sherd	5	7-68	0to80
195	Daub	2	7-68	0to80
196	Chipping Detritus	1	7-68	0to80
197	Decorated Body Sherd	2	7-69	0to83
198	Daub	21	7-69	0to83
199	Chipping Detritus	13	7-69	0to83
200	Bone/Antler Fragments	12	7-69	0to83
201	Fire Cracked Rock	2	7-69	0to83
202	Historic: China, Undecorated	1	7-69	0to83
203	Historic: Shotgun Shell Casin	1	7-69	0to83
204	Chipping Detritus	8	7-70	0to80
205	Bone/Antler Fragments	1	7-70	0to80
206	Fire Cracked Rock	1	7-70	0to80
207	Historic: Misc. Metal Artifact	1	7-70	0to80
208	Chipping Detritus	1	7-71	0to100
209	Fire Cracked Rock	1	7-71	0to100
210	Fragmentary Sherd	1	7-46	0to43
211	Chipping Detritus	2	7-46	0to43
212	Bone/Antler Fragments	20	7-46	0to43
213	Hammerstone	1	7-46	0to43
214	Fire Cracked Rock	4	7-46	0to43
215	Chipping Detritus	5	7-69	0to83
216	Daub	1	7-69	0to83
217	Bone/Antler Fragments	7	7-69	0to83
218	Historic: Window Glass	1	7-69	0to83
219	Historic: China, Undecorated	1	7-69	0to83
220	Historic: Brick Fragment	1	7-69	0to83
*** Total ***		714		

London Museum of Archaeology
Lawson-Jury Building
1600 Attawandaron Road
London, Ontario, Canada
N6G 3M6
Phone: 519-473-1360

CEAA ENVIRONMENTAL CEAA ENVIRONMENTAL

ENVIRONMENTAL IMPACT ASSESSMENT

AMBASSADOR BRIDGE ENHANCEMENT PROJECT

Replacement Span

APPENDIX L

BECKER N.K. BECKER INCORPORATED A Member Company of
THE BECKER ENGINEERING GROUP INCORPORATED

6 June 2007
#HC0607

The Canadian Transit Company
780 Huron Church Road
Suite 202
Windsor, Ontario
N9C 2K2

Attention: Mr. Dan Stamper, President

686, 718, 738, 750, 778 and 784 Indian Road
Heritage Designation Assessment

Dear Mr. Stamper:

Further to your request, I have carried out a detailed inspection of the subject dwellings to assess their age, condition and heritage value within the City of Windsor's proposed Sandwich Heritage Conservation District. The results of my analysis are presented herein.

1. BACKGROUND INFORMATION:

On 29 January 2007, Windsor City Council passed Demolition Control By-Law 20-2007 to ensure that buildings are not demolished within the Olde Sandwich Towne Community Planning Study Area that could have the effect of destabilizing the features, the community, and the function and characteristics of existing buildings within this area, pending the results of a Heritage Conservation District Study being completed for the City of Windsor.

The Study Area for this Heritage Conservation District is a large, pie-shaped area bounded by the Detroit River, Huron Church Road and Prince Road, which includes approximately 2600 properties. As such it extends well beyond the boundaries of the historic Huron Indian Reserve as well as the original town site of Sandwich which was occupied by French, British, African and other immigrants who first settled the shores of the Detroit River in the 1700's and subsequently cleared the woodlands and built homes, farms and other buildings further inland.

The Final Draft of the Sandwich Heritage Conservation District Study was recently completed and has been posted on the City of Windsor website. It recommends a proposed Heritage Conservation District Boundary that encompasses two distinct areas; namely a historic commercial-institutional

DR. N. K. BECKER, P.ENG. DIRECT (519) 256-9389 OFFICE (519) 737-7234
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core along Sandwich Street from Detroit Street to just south of Brock Street, and the majority of the circa 1820's Subdivision in the Rosedale/Alexander area that includes a collection of "*generally well-maintained, finely-detailed residential dwellings.*"

I understand that your clients, the Detroit International Bridge Company, purchased all of the houses on the east side of Indian Road from Wyandotte Street to Mill Street some time ago. Four of these houses (i.e., 678, 734, 638, and 630 Indian Road) were demolished pursuant to Demolition Permits issued by the City of Windsor Building and Development Department. Your clients have recently applied for the requisite Permits to demolish the remaining six houses, in order to create a landscaped buffer zone and security perimeter for the Customs Booths that are currently being built along the rear of these houses to expedite the processing of international truck traffic crossing the bridge.

Concern has been expressed by the City of Windsor Administration that the demolition of these houses could have a detrimental effect on the City's ability to implement the recommendations of the Sandwich Heritage Conservation District Study. Administration staff has also concluded that "*houses on Indian Road play an important role in providing accommodations for University students*" and that "*the demolition of the (subject) houses would have a negative impact on the neighbourhood.*"

N.K. Becker Incorporated was retained to investigate the following:

1. The age, condition and heritage value of these six houses.

2. The extent of the repairs and/or upcodings required to these houses to accommodate student tenants.

3. The impact that these existing houses have on the neighbourhood.

2. RESULTS:

2.1 House Inspections:

As part of this investigation, I personally inspected both the interior and the exterior of each of the subject houses on 25 May 2007. I was assisted by two of my staff who re-attended at these houses on 29 May 2007 at my request, to document the condition of their structural, mechanical and electrical systems. They also attended at the City of Windsor Building and Development Department to review the computerized building permit records for each of these houses.

Photographs and notes taken during the course of our investigation of each of these six houses are appended to this report for your reference. A summary of our most significant findings is provided below:

1. All these houses are unoccupied. From the debris left inside (e.g., textbooks, notes, calendars, food, empty bottles, furniture and furnishings) it appears that these houses were last occupied by University students, before these houses were vacated.

2. None of these houses are in fit condition for re-occupancy. Although all the doors were equipped with locks and "*No Trespassing*" signs have been posted on each house, they have been forcibly entered, vandalized and pilfered. Much of the accessible copper piping and the electrical wiring (including some of the electrical panels) have been stolen. Water, frost and vandals have damaged the plaster, drywall, hardwood flooring and other finishes. And animals have entered these houses through broken windows and doors and nested within the debris. The rank odour of urine and fecal matter in several of the basements is overpowering.

3. None of these houses merit a historical or a heritage designation based on established Provincial, National, or International guidelines. The oldest (i.e., 784 Indian Road) was built in or about 1925. The youngest (778 Indian Road) was built in or about 1970. All of these houses are of an age, type and style common to the City of Windsor and other areas of North America.

4. The original brick veneer, wood siding, porches, dormers and roofing of the pre-1950s houses have deteriorated badly and/or been retrofitted with asbestos-cement, insulbrick, aluminum or vinyl siding; aluminum fascias, soffits, awnings and windows; etc. to the extent that their original features have been materially altered, removed or destroyed. The cracks, displacement and other distress we observed in the original brick veneer on the two oldest houses indicate that the concealed brick ties are failing and the brick veneer itself is potentially unstable. Vibrations or impact loads could cause sections of this brick veneer to fall off these houses.

5. Construction of the new Customs Booths on the west side of the Ambassador Bridge near Mill Street is progressing towards the rear yards of these six houses. The proximity of the construction activities to these houses poses increasing challenges and safety risks to the construction workers as well as damage risks to these houses (e.g., the stability of the brick veneer, the masonry foundation walls and the unreinforced block masonry chimneys).

As evidenced by the photographs and capsule descriptions provided for each of these six houses in the Appendix to this report, these vacant houses are destabilizing rather than stabilizing features within their neighbourhood. They also do not enhance the City's proposed designation of others part of Olde Sandwich Town as a possible Heritage Conservation District.

2.1 Student Housing:

As an alumnus of the University of Windsor who attended the University from 1963 to 1970 and lived on campus from 1967 to 1970, I am well aware of the vital need for appropriate student housing to accommodate the University's ever-increasing enrollment. Moreover, as a Professional Engineer who has lived and worked in Windsor for over 40 years, I am also well aware of the proliferation of Codes, Regulations, Standards and Retrofit Provisions that apply to student housing.

The conclusion expressed by the City Administration in its 27 March 2007 report to City Council regarding the demolition of these six houses that "*given their proximity to the University of Windsor Campus and status as rental housing*" these houses on Indian Road "*play an important role in providing accommodation for University students*" fails to recognize the following realities:

1. None of these houses was originally designed or built as a rooming, boarding or lodging house to accommodate students, but as modest single-family dwellings. Although most have been modified over the past 20 years to accommodate multiple tenants (e.g., basement finishes, partitions, extra bathrooms, etc.) they are not compliant with the renovation and retrofit requirements of either the Ontario Building Code or the Ontario fire Code imposed on such multiple tenant occupancies (i.e., duplex dwellings, or rooming, boarding or lodging houses) as defined by these Codes.

2. The City of Windsor Fire and Rescue Department and the City of Windsor Building and Development Department have become ever more vigilant in policing and enforcing the renovation and retrofit provisions of these Codes on landlords who offer rental accommodations to students in single-family dwellings on or near the University of Windsor Campus. This is confirmed by the Administrative Report that the City Administration submitted to Windsor Council on 10 April 2006 entitled "*Fire Safety Enforcement Tenant Properties.*" (Copy Enclosed).

3. To the best of my knowledge and belief, the City Administration has no authority under any existing By-Law or Legislation to compel a landlord to convert a single-family dwelling to a rental property suitable for use and available for students. To suggest that these six vacant houses which do not comply with the standards imposed on multiple family, or boarding, rooming and lodging houses should be retrofitted to provide appropriate code-compliant rental accommodations for students therefore seems both unreasonable and unrealistic.

4. In my professional opinion, the construction costs required to convert these existing single-family dwellings to legal, code-compliant duplex rental units, or multiple-tenant rooming, boarding or lodging houses would be far too prohibitive to be economically viable. Experience has shown that students will simply move further off campus, if necessary to find cheaper accommodations, rather than pay a premium to rent more costly, code-compliant accommodations on campus. This is demonstrated by the vacancy rate of the rooms and apartments on and near the University Campus.

5. The proximity of these six vacant houses to the noise and exhaust fumes generated by the high volumes of daily truck traffic that is the international link for much of the NAFTA trade between Canada and the United States is an obvious detriment to their being rented to any tenants. To suggest that the Detroit International Bridge Company which purchased these houses to provide a buffer for the neighbouring occupied houses should repair, upcode and rent these houses to

students contradicts the most fundamental principles of good urban planning. It also invites liability for possible detrimental health effects from any such student tenants.

2.3 Neighbourhood Impact:

In its report to City Council regarding the subject matter, the Administration expresses concern that the demolition of these six vacant houses could destabilize the neighbourhood and/or the City's plan to establish a Heritage Conservation District within Olde Sandwich Towne.

As a Professional Engineer who has donated considerable time and effort to support Heritage Conservation in Windsor and Essex County, I wholeheartedly support the City's initiative to conserve, preserve and restore historic buildings, neighbourhoods and districts within Olde Sandwich Towne, for the benefit of future generations. However, in my opinion any attempt to apply such an important designation to buildings, neighbourhoods or districts that so obviously do not merit such designation, only serves to diminish the value of those that do.

The results of my investigations and inspections demonstrate the following:

1. Neither these six vacant houses, nor the neighbouring houses merit any heritage designation based on the well-established Provincial, National or International Guidelines or Accords that apply to such a designation.

2. Both the proximity of these houses to the increasing noise and exhaust from the international truck traffic that crosses the Ambassador Bridge, and the noise, litter and other inconsiderate acts committed by the less responsible student tenants who have occupied the houses in this neighbourhood, have had a debilitating effect on this neighbourhood.

3. In my professional opinion, this neighhbourhood is in an irreversible decline. Any notion that the demolition of these six vacant houses will destabilize or hasten the decline of the neighbouring houses defies common sense and established principles of good urban planning. The environment in which these houses exist will not likely improve with time. However, demolishing these six vacant houses and constructing a landscaped area in their place, would not only remove a neighbourhood liability but provide an opportunity to mitigate the detrimented impact of truck traffic crossing the Ambassador Bridge through the creation of an attractive, landscaped buffer for the remaining houses in this neighbourhood.

3. SAFETY ISSUES:

As a Professional Engineer who is licensed to practice in Ontario, my duty to the public is paramount. I therefore must advise you that in my professional opinion that in their present condition, these six vacant, deteriorated houses pose a foreseeable risk to any person who ignores or is unable to read the "*No Trespassing*" sign posted on each of these houses. These houses have obviously been broken into, trespassed and plundered. They have also served

as nests for rodents and other animals whose urine and fecal matter poses a potential health risk to anyone who might enter these premises, either legally or illegally.

In my opinion, these houses should be demolished as soon as possible. However, if their demolition is delayed for any reason, I recommend that all windows, doors and other openings be boarded-up completely and securely, all debris within their yards be removed; and these properties be protected from unauthorized access by the installation of chain-link security fencing; subject to the City Building and Development Department issuing a Fencing Permit for such fencing.

I trust that this is the information you require at this time and will await your further instructions in this matter.

Yours truly,

N.K. BECKER INCORPORATED

Dr. N.K. Becker, P.Eng.

NKB/pep
Encl.

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1 October 2007
#HC0607

Paroian, Skipper, Hewitt
Barristers & Solicitors
2510 Ouellette Avenue
Windsor, Ontario
N8X 1L4

Attention: Mr. Leon Paroian, Q.C.

Indian Road, Residential Properties
University Avenue West to Mill Street
Heritage Designation Assessment

Dear Mr. Paroian:

In my earlier report to you of 6 June 2007, I provided you with the results and conclusions of our heritage value analysis of the single-family residential dwellings at 686, 718, 738, 750, 778, and 784 Indian Road, in the Sandwich Town area of the City of Windsor. We have now completed a similar heritage value analysis of all of the remaining residential properties on the east side of Indian Road from University Avenue West to Mill Street. The overall results of this assessment are presented herein.

1. BACKGROUND INFORMATION:

On 5 September 2006, City Council passed a Resolution authorizing a team of Consultants to carry out a Sandwich Heritage Conservation District Study pursuant to a Terms of Reference that was prepared by the City of Windsor Planning Department. The Study Area for this Heritage Conservation District is a large, pie-shaped area bounded by the Detroit River, Huron Church Road and Prince Road, which encompasses some 2,600 residential, commercial, institutional, recreational and industrial properties. Phase 1 of this study was endorsed by the Steering Committee on 12 April 2007 and by the Windsor Heritage Committee on 8 May 2007 before being approved by City of Windsor Council at its regular meeting on 16 July 2007.

Phase 1 of this study concluded that two distinct areas within this large pie-shaped area of Sandwich Town merit consideration by City Council for possible Heritage Conservation Designation under Part IV of the Ontario Heritage Act. These districts encompass the historic commercial/ institutional core along Sandwich Street and the circa 1920 residential subdivision in the Rosedale/Alexander neighbourhood. Other districts within the Sandwich Study Area were not

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recommended for Heritage Conservation District designation (or areas that require further consideration) by the Consultants because "*they lack the necessary architectural integrity, consistency, and distinctiveness that is necessary for designation.*" However, the Consultants reported that "*additional portions of the study area in immediate proximity to the recommended Heritage Conservation District boundary have been identified as areas for further study and refinement, in order to undertake more detailed evaluation and obtain further input from the Steering Committee and public.*" Their reasons for carrying these fringe areas into their Phase 2 Study are cited below:

- *They include areas with some similar streetscape presence due to their landscaping and mature street trees;*
- *To help define or allow for more detectable or logical entrances to the district, at points where there is a relatively distinct shift in streetscape and architectural character, particularly along Sandwich Street;*
- *These areas may be at higher risk of future change/redevelopment given their proximity to the Detroit River, University of Windsor and Ambassador Bridge;*
- *To obtain more detail on the architectural conditions in those sections of Peter and Russell Street that are zoned RD3.3, where regulations permit heights up to 8-10 storeys. Redevelopment has occurred in much of the RD3.3 zone already, however, there are still some original buildings or vacant lots where further change could occur due to the existing zoning and further undermine the visual character of the community;*
- *To review in greater detail whether there are buildings in the 'further study' area that would be considered as 'landmarks' or that have associations with significant people or historical events;*
- *To provide an opportunity for identifying landscape and interpretive elements that could/should be considered for the north/east side of the Indian Road corridor if the new Ambassador Bridge span is approved and requires the removal of buildings on the east side of Indian Road, as a way to acknowledge and build awareness of the cultural history of Sandwich.*

These "A*reas for Further Study and Refinement*" are shown in the Consultants' Figure 13: Recommended Boundary of the Phase 1 Sandwich Heritage Conservation District Study, a copy of which is appended to our report. This area includes the residential properties on the east side of Indian Road from University Avenue West to Wyandotte Street West, most of which are currently owned by the Detroit International Bridge Company.

2. PURPOSE AND SCOPE:

The primary purpose of our study was to inspect all of the existing residential properties on the east side of Indian Road from University Avenue West to Mill Street so we could assess their age, condition and heritage value. Its secondary purpose was to assess whether these properties enhance or diminish the Heritage Conservation objectives of the Phase 1 Sandwich Heritage Conservation District Study. The scope of our study included the following:

1. Obtaining background information from you regarding the ownership and occupancy of these residential properties.

2. Exterior and interior inspections of the 30 additional residential dwellings on the east side of Indian Road between University Avenue West and Mill Street (beyond the 6 that we inspected as part of our earlier study).

3. Exterior inspections only of the 16 additional residential dwellings on the east side of Indian Road that are either owned by your clients but currently still occupied by tenants, or not owned by your clients.

4. Documenting the results of our inspections by means of photographs and notes, copies of which are appended to this report in digital format on the enclosed CDs.

5. An analysis of the age, condition, and heritage value of these existing residential properties on the east side of Indian Road from University Avenue West to Mill Street, based on established criteria for Heritage Conservation District designation under the provisions of Part IV of the Ontario Heritage Act.

6. A thorough review of the Draft Sandwich Heritage Conservation District Study and the Phase 1 Overview Study that the Consultant team presented to City of Windsor Council on 16 July 2007.

7. Attendance at the City of Windsor Council meeting on 16 July 2007, during which the Consultants, the Administration, several Delegations, and City Council debated this Phase 1 Study prior to its being approved by Windsor City Council.

8. The preparation of this written report to document the findings and conclusions of our engineering investigation.

3. RESULTS OF INVESTIGATION:

3.1 Building Inspection Results:

As set out in Section 2 of this report, the scope of our engineering investigation included an inspection of all of the existing single-family dwellings on the east side of Indian Road from University Avenue West to Mill Street. We inspected the outside and the inside of 36 of these houses between 25 May and 16 July 2007. The results of these inspections are documented in the enclosed CDs.

Our assessment of the heritage value of the residential properties on the east side of the Indian Road in the context of the Phase 1 Sandwich Heritage Conservation District Study is provided below.

1. We concur with the Phase I findings of the City's consultants that the east side of Indian Road does not merit a Heritage Designation based on the established criteria for such historic designations.

2. As evidenced by the enclosed photographs, these residential dwellings are typical of those that were commonly designed and built in Southwestern

Ontario during periods of economic prosperity from the 1930's to the 1950's.

3. Over the past 40 years, most of these single-family dwellings have been converted to high-density rental accommodations (e.g., rooming, boarding or lodging houses for students). Consequently, the condition of the houses, their landscaping and their neighbourhood has deteriorated.

4. None of these houses is fully compliant with the current minimum requirements of the Ontario Building Code. Many are also not compliant with the applicable requirements of the Ontario Fire Code.

5. The poor condition of these properties has lowered the quality and the value of the neighbouring houses that are still being occupied by their owners who have a vested interest in preserving and maintaining their properties.

6. Our inspection results indicate that many of these houses have deteriorated beyond the point where they can be upcoded and restored economically. Their structural, electrical and mechanical systems are seriously deficient. Consequently, they pose a significant safety risk for occupants as well as a potential risk to the public.

3.2 Neighbourhood Inspection Results:

The impact of the increased density and transient nature of the student population that is being housed within the former single-family houses has had a debilitating effect on the character and quality of the neighbourhood. These effects include the following:

a) Parked cars are choking the curb sides and the driveways. A number of the driveways have been widened to accommodate additional cars and thereby reduce the quality and quantity of the available landscaping. The sight line restrictions posed by the parked cars to pedestrians and motorists creates traffic hazards; particularly for young children because they cannot see over the cars. The shortage of available parking has also created friction between the students and the families who still live in the neighbourhood. The parking permits that the City has issued to the residents to discourage on-street parking by non-residents have mitigated but not solved this problem.

b) Because of the crowded condition that has resulted from this proliferation of student housing within these neighbourhoods, the tenants use their porches and yards for recreational purposes. A party at one student house can quickly spread to a block party that infringes upon the quiet enjoyment of the families who still live within single-family houses in the adjacent neighbourhoods.

c) Because many of the landlords who operate these student houses do not live on the property, it is difficult for them to police the activities of their student tenants and/or to maintain these properties well. Therefore, wear and tear takes its toll both on the houses and the landscaping.

d) Upcodings imposed on many of these single-family dwellings that provide rental accommodations for students have required the construction of additional exit doors and stairways. These retrofits are for the most part unsightly. They diminish the architectural value of both the individual houses and the neighbourhood.

e) There appears to be a glut of student housing being offered for rent within these neighbourhoods. For Rent and For Sale signs are proliferating within these neigbourhoods and fueling the impression that these neighbourhoods are in decline.

f) The large population of students within these neighborhoods generate considerable quantities of rubbish both inside and outside these student houses. Furniture, clothing, paper and other debris piles up at the curbs and in the alleyways.

g) Most of the alleys have fallen into disuse and disrepair. They have become overgrown with weeds, are littered with debris and become a haven for skunks, raccoons, and other pests. These alleys also pose a fire and a safety risks to the neighbourhood.

4.0 DISCUSSION OF RESULTS:

As set out in our earlier report to you of 6 June 2007, our firm has spearheaded, designed and managed a number of historic building conservation and restoration projects in Windsor-Essex County on a Pro Bono basis. We therefore wholeheartedly support the City of Windsor's objective to conserve, preserve and restore historic buildings, neighbourhoods and districts within Old Sandwich Town for the benefit of future generations. However, such historic designations must be appropriately applied based on accepted criteria and established guidelines in accordance with the purpose and intent of the Ontario Heritage Act. To apply such heritage designations to undeserving properties diminishes the value and respect for the powers granted to municipalities by the Ontario Heritage Act.

Of the two distinct districts that the City of Windsor's Phase 1 Sandwich Heritage Conservation District Study has identified as being appropriate for HCD designation, those within the core area along Sandwich Street are clearly the more meritorious because of their age, historical importance and their unique design and construction attributes. The single-family dwellings within the 1920 subdivision in the Rosedale/Alexander neighbourhood do include a number of generally well-maintained, finely detailed residential dwellings. However, they are no older, no more unique, and of no more historic importance than many other residential neighbourhoods in Windsor (e.g., Riverside Drive, Walkerville, Ford City, or the older neighbourhoods in the core area of the City of Windsor itself).

Imposing an HCD designation on the residential subdivision in the Rosedale/ Alexander neighbourhood could meet with resistance from some of these property owners. If the City of Windsor should decide to impose such an HCD designation on this residential subdivision, it could set an unintended precedent with unexpected consequences for similar neighbourhoods across the entire City. Not all property owners are likely to welcome such a Historic designation. Those who do not may deem it expedient to demolish their buildings rather than risk having

their future uses of their property encumbered by such a possible Historic designation.

In presenting its recommendations to City of Windsor Council for the adoption of Phase 1 of its study, the Consultants indicated that they had not yet consulted directly with the owners of property that falls within their proposed HCD boundaries. Until such consultations are held, it is difficult to gauge the support or the opposition that City Council can expect if it should proceed to impose such a designation on these properties pursuant to the authority granted to municipalities under Part IV of the Ontario Heritage Act.

I understand that your clients have offered to meet with the City of Windsor's Steering Committee and its Consultants with regards to the houses they own on the east side of Indian Road. The results of our inspections and assessment of the historic values of these residential properties on the east side of Indian Road should facilitate such discussions between your clients and the Committees and Consultants involved with Phase 2 of the Sandwich Heritage Conservation District Study.

5.0 CONCLUSIONS:

Based on the results of our engineering investigation, the following conclusions would appear to be warranted.

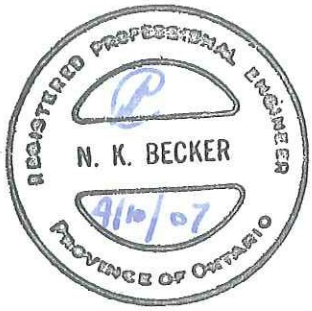
1. The results of our inspections and analysis concur with the findings of the Phase I Sandwich Heritage Conservation District Study that were endorsed by the Windsor Heritage Committee on 12 April 2007 and approved by Windsor city Council on 16 July 2007. We agree with their assessment that the properties on the east side of Indian Road from University Avenue West to Mill Street do not merit a Historic Designation, or inclusion within a distinct Heritage District.

2. The impact of the student housing conversion of many of these single-family dwellings has had a slow and debilitating effect on the character and quality of the adjacent neighbourhoods.

3. None of these residential dwellings complies fully with the current minimum requirements of the Ontario Building Code or the applicable requirements of the Ontario Fire Code. Consequently, they pose a significant risk to occupants and a potential safety risk to the public.

4. In our professional opinion, most of the structural, electrical and mechanical systems in these residential dwellings cannot be repaired economically to bring them into compliance with the current requirements of the Ontario Building Code and the applicable requirements of the Ontario Fire Code. They have reached the end of their useful, economic life.

I trust that this is the information you require at this time. Please call me if we can be of any further assistance in this matter during your anticipated discussions with the City of Windsor Committees, administrative staff and Consultants during Phase 2 of their Sandwich Heritage Conservation District Study.



Yours truly,

N.K. BECKER INCORPORATED

Dr. N.K. Becker, P.Eng.

NKB/pep

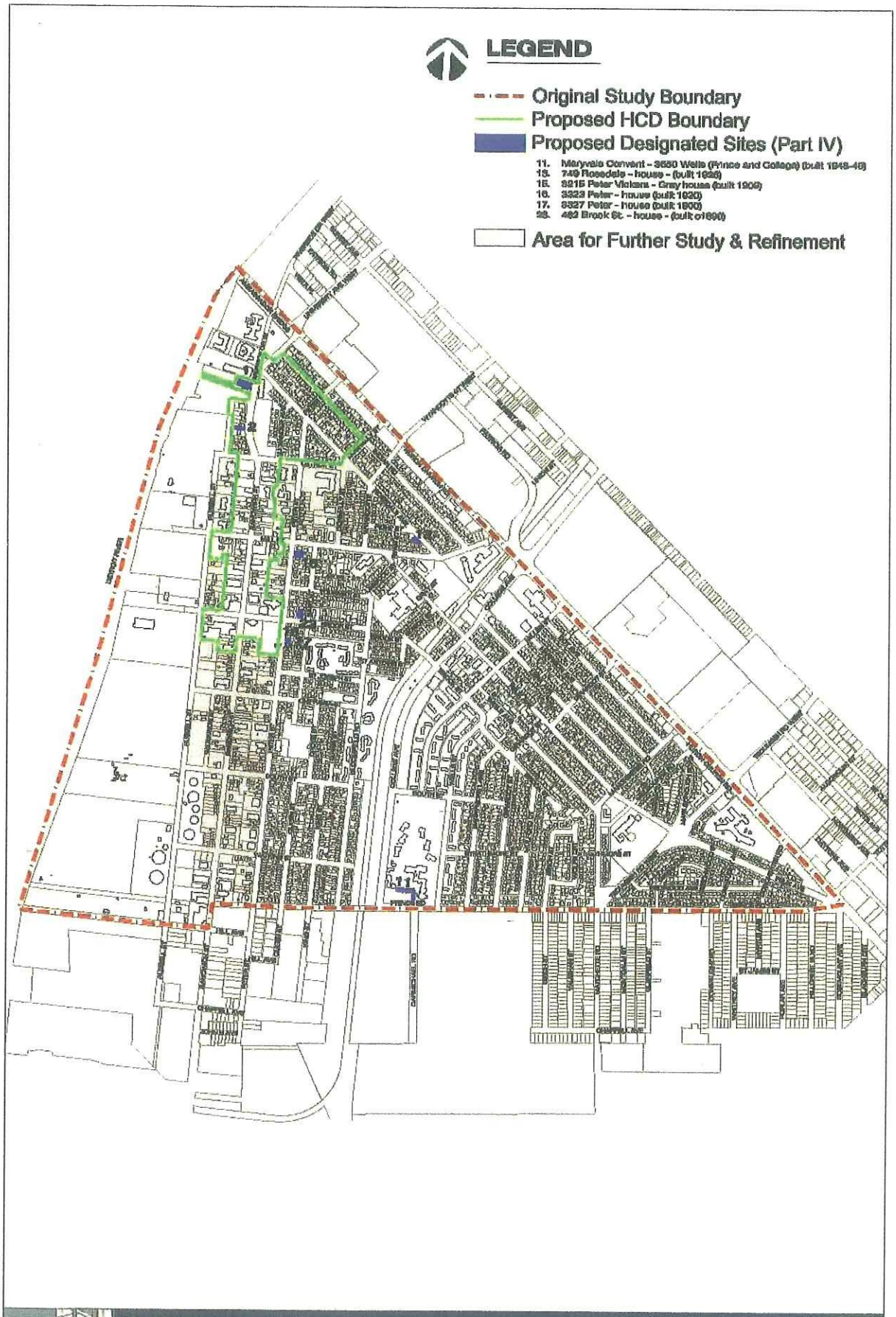


Figure 13: Recommended Boundary

Sandwich Heritage Conservation District Study

CEAA ENVIRONMENTAL CEAA ENVIRONMENTAL

ENVIRONMENTAL IMPACT ASSESSMENT

AMBASSADOR BRIDGE ENHANCEMENT PROJECT

Replacement Span

APPENDIX M

CANADIAN TRANSIT COMPANY
Ambassador Bridge Enhancement Project

CEAA ENVIRONMENTAL CEAA ENVIRONMENTAL

ENVIRONMENTAL IMPACT ASSESSMENT

AMBASSADOR BRIDGE ENHANCEMENT PROJECT

Replacement Span

PUBLIC CONSULTATION

Avalon Consulting Professionals of Ontario LLP
November 2007

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1.	Chart Identifying Agencies / Groups Consulted
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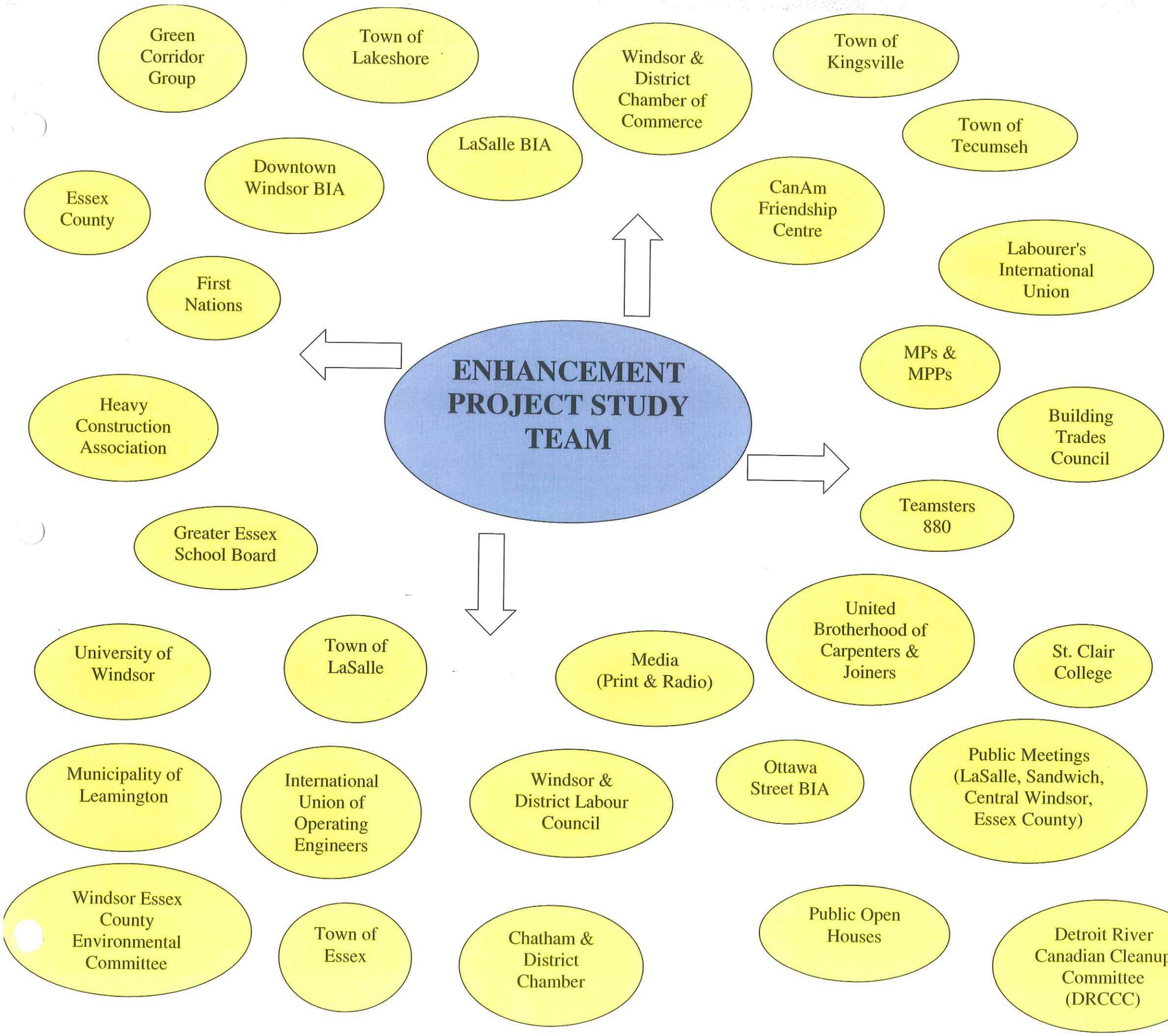
3.	Copies of Correspondence with: - Members of Parliament - Members of Provincial Parliament - Area Municipalities - Municipal Councillors - School Boards
4.	Copies of Correspondence with: - Business Improvement Areas - Area Chambers of Commerce - Local Community Groups
5.	Copies of Correspondence with the First Nations
5.(a)	Aamjiwnaang First Nation
5.(b)	CanAm Indian Friendship Centre of Windsor
5.(c)	Caldwell First Nation
5.(d)	Indian and Northern Affairs Canada
5.(e)	Walpole Island First Nation
5.(f)	Wyandotte / Wyandot First Nations
6.	Copies of Correspondence with the General Public
7.	Public Notification
8.	Response to Public Comments



The Ambassador Bridge recognizes that Public and Stakeholder Consultation is a key component of the Enhancement Project. The Ambassador Bridge has engaged in an extensive public consultation process and recognizes that understanding and responding to public concerns, strengthens the quality and credibility of the Enhancement Project.

DRAFT PUBLIC CONSULTATION PLAN

Draft Public Consultation Plan
Ambassador Bridge Enhancement Project

1.0 Background

Canada and the United States have the largest bilateral trading partnership in the world. The Detroit River area has become one of the key corridors for trade that occurs between Canada and United States. Currently, the international border crossings in the Detroit River area include; the Ambassador Bridge ("Bridge"), the Detroit-Windsor Tunnel ("Tunnel"), two railroad tunnels and a ferry service. The ferry mainly carries trucks hauling certain hazardous materials that are not permitted to use the Bridge or Tunnel.

It is estimated that almost one quarter of all surface trade between Canada and the United States occurs in the Windsor – Detroit corridor. The continuing trade relationship between Canada and United States creates numerous benefits to both the local and regional economies in the Windsor – Detroit Area. However, delays and congestion at the Bridge and Tunnel can have negative impacts on this trade relationship. A new border crossing will be required to meet projected long – term demands and to ensure efficient transportation.

The construction of the existing Bridge was completed in 1929 and is the busiest international border crossing in North America. The Canadian Transit Company ("CTC") and the Detroit International Bridge Company ("DIBC") (to which we will refer jointly as the "Ambassador Bridge") own and operate, respectively, the Canadian and American halves of the Bridge. The Bridge consists of four lanes of traffic; two eastbound lanes and two westbound lanes. The existing Bridge links Canada's Highway 401 (via a several mile long segment of Huron Church Road) and Interstate 75 and Interstate 96 in the U.S.

In an effort to accommodate the increasing demand for an efficient and reliable border crossing in the Windsor – Detroit corridor, the Ambassador Bridge proposes to add a second span adjacent to the existing Bridge.

The proposed second span identified as the "Ambassador Bridge Enhancement Project" includes a new six lane cable stayed bridge situated in the same corridor as the existing Bridge. The Ambassador Bridge Enhancement Project ("Enhancement Project") would provide six lanes of traffic; three eastbound lanes and three westbound lanes. The outside lanes are proposed to be primarily dedicated for low risk truck and car traffic that is able to take advantage of special Customs clearance/inspection programs (FAST and NEXUS) designed to speed such traffic in the United States and Canada. The interior lanes would handle other traffic.

Once the Enhancement Project is completed and operational, the existing Bridge will be taken out of service so that all necessary maintenance and repairs can be completed. The existing Bridge will be maintained so that it can be placed back in service at some unspecified future date as traffic growth warrants.

2.0 Objectives and Scope

The objective of this public consultation plan is to identify the groups necessary to ensure a public consultation process that includes all those with an interest in the Enhancement Project. The goal of the public consultation plan is to heighten public awareness of the Enhancement Project, gather input from interested parties, while providing the Ambassador Bridge the opportunity to respond and resolve the issues raised in a timely manner in an effort to avoid unnecessary delays in the process. The Ambassador Bridge proposes to develop and implement

a public consultation process that will result in thorough, informed consultation with those who may be affected by the development of the Enhancement Project.

A detailed timeline for the public consultation process and the location of each of the workshops, open houses, and one-on-one consultations with the participants identified below will be established when the Draft Federal EA Guidelines are finalized.

Several parties have been identified as stakeholders in the public consultation process including; City of Windsor, County of Essex, Town of Lasalle, local Chambers of Commerce, First Nations, Community Task Forces, property owners in the area, local business owners' associations, development corporations, along with environmental and community groups that have a particular interest in the Enhancement Project.

Ambassador Bridge recognizes that public and stakeholder consultation is a key component of the success of the Enhancement Project. The Ambassador Bridge is committed to providing ample opportunities for public input and comment on the Enhancement Project and welcomes input from Transport Canada and the Canadian Environmental Assessment Agency on this draft public consultation plan.

The Ambassador Bridge proposes to utilize a variety of commonly used consultation methods to engage the public and the various other identified stakeholders. The Ambassador Bridge is committed to providing an extensive public consultation process and recognizes that understanding public concerns can strengthen the quality and credibility of the Enhancement Project.

3.0 Key Participants in Consultation

The Ambassador Bridge public consultation process will be targeted at six key audiences:

Area Municipalities

Consultation with representatives from area municipalities will be important in developing an understanding of any concerns about the impacts of the Enhancement Project on each municipality. The Ambassador Bridge proposes several workshops and one-on-one meetings with the City of Windsor as the municipality primarily impacted by the Enhancement Project.

The Ambassador Bridge will also consult with the County of Essex and the Town of LaSalle. Input from any other interested municipalities will be encouraged and welcomed by the Ambassador Bridge.

Regulatory Bodies

Regulatory bodies involved in the Enhancement Project will be consulted by the Ambassador Bridge on a regular basis during the preparation of the screening report. In addition, Ambassador Bridge will submit draft components of the screening report to the agency whose mandate the issue falls within for early review and comment.

Draft Public Consultation Plan
Ambassador Bridge Enhancement Project

The regulatory bodies identified as having an interest in the Enhancement Project but no regulatory jurisdiction over the project include; Environment Canada, Department of Fisheries and Oceans, Transport Canada, Ontario Ministry of Transportation and Ontario Ministry of the Environment.

Area Business

All businesses located within the area or dependent upon the Enhancement Project will be encouraged to provide input and participate fully in the consultation process. Larger scaled businesses in the area have indicated the need to facilitate the movement of goods between Canada and the United States. Those businesses interested in efficient movement across the border include the Canadian branches of the automotive sector that are vital to Windsor's local economy. Consultation with these larger businesses is important to ensure that any issues with the Enhancement Project are identified and dealt with in a timely manner.

Any concerns of area businesses relating to the disruption, displacement and impacts on existing businesses can be alleviated and dealt with through the consultation process.

Representatives from major businesses along with local business owners will be encouraged to participate in the consultation process.

First Nations

The Ambassador Bridge recognizes the importance of aboriginal consultation. Ambassador Bridge proposes to contact the First Nations' Chief and Council in the project area along with any other interested aboriginal persons that may be affected by the Enhancement Project. The goal of the consultation process will be address and, if necessary, mitigate any concerns raised relating to health, environment, social effects or safety.

The First Nations will be a valuable resource and assist in identifying any impacts of the Enhancement Project on local and community resources.

General Public

Residents in the area have a direct interest in the Enhancement Project. There are two key components that make up the general public: Those members of the public already engaged in, and knowledgeable of, the issues, either through direct involvement or other means; and those members of the public who have limited knowledge and information of the Enhancement Project.

Ambassador Bridge recognizes the importance of encouraging those members of the public interested in the Enhancement Project to participate in the consultation opportunities provided during the preparation of the screening report. Members of the public that may have an interest in the Enhancement Project often include neighbours and individuals, environmental groups or clubs, organizations for the local communities along with ratepayer's associations.

Draft Public Consultation Plan
Ambassador Bridge Enhancement Project

4.0 General Elements of Consultation

The consultation process will consist of the following elements.

Enhancement Project Website: The website will be used to outline the consultation process and schedule, post consultation documents for comment and receive comments from industry, area businesses, local municipalities, community groups and the general public.

Database of Identified Stakeholders: An inventory of identified stakeholders will be created in database format. This database will then form the core of the public consultation activities.

Notice to Identified Stakeholders: A notice outlining the consultation process and schedule will be broadly distributed to identified stakeholders.

Record of Comments and Proceedings: A summary report, or log ("Record"), of consultative meetings and workshops will be prepared and published on the Enhancement Project's website shortly after each proceeding. The Record will summarize all comments received by subject matter and include responses to each of the subject areas raised. A copy of the Record will be included with the draft screening report submitted for review and comment to the Responsible Authority.

Final Workshop to Present Draft Preliminary Screening Report: Once all the workshops have been completed for the various stakeholder groups, the Enhancement Project will publish its draft preliminary screening report including any mitigation measures on its website. Within 30 days of publication of the draft preliminary screening report, a final workshop will be held to provide an opportunity for the Ambassador Bridge to review the Enhancement Project with stakeholders and for those stakeholders and members of the public to provide any additional comments. Comments may also be submitted in writing within 10 days after the final workshop.

Submission of Draft Screening Report: The DIBC will consider all comments received from stakeholders and will amend its draft preliminary screening report to include mitigative measures where appropriate. The draft preliminary screening report will include responses to significant comments received during the consultation process.

5.0 Consultation with Area Municipalities

Municipal government structures in Ontario consist of a mix of single tier and two-tier incorporated municipalities. On the Canadian side, the Enhancement Project is situated within the City of Windsor. The City of Windsor is a single tier municipality. However, the municipalities adjacent to the City of Windsor, are part of a two-tier municipal system and are situated within the County of Essex.

The County of Essex is responsible for providing services that are common to all municipalities in the County. The services provided by the County of Essex include transportation, libraries, planning services, emergency management coordination, community services and general government administration. The County of Essex encompasses seven lower tier municipalities including: LaSalle, Tecumseh, Lakeshore, Amherstburg, Essex, Kingsville and Leamington.

Draft Public Consultation Plan
Ambassador Bridge Enhancement Project

The Ambassador Bridge will arrange a series of workshops in Windsor and, as appropriate, one on one meetings with representatives from the City of Windsor to discuss the Enhancement Project. This will allow the Ambassador Bridge to understand and respond to, and mitigate if possible, the concerns expressed by the City of Windsor. The consultation process with the City of Windsor will begin immediately in an effort to identify the City of Windsor's key issues and concerns early in the process, and will allow Ambassador Bridge to respond to the City of Windsor's concerns in a timely manner.

A series of workshops will be held for the County of Essex and provide opportunities for the lower tier municipalities, specifically the Town of LaSalle, as a neighbouring municipality to the City of Windsor to participate in the consultation process.

Notices to Area Municipalities: All municipalities within the County of Essex along with the City of Windsor will be notified directly that materials are available on the website.

Workshops: Workshops will be held to provide municipal representatives with opportunities for questions and comments. Locations will be selected to minimize travel requirements.

Workshops:

- Proposed location of the Enhancement Project;
- Reasons for, and economic implications of, the Enhancement Project;
- Review of environmental and community impacts; and
- Q & A on all topics.

The results of the meetings and workshops with the City of Windsor and the area municipalities will be posted on the website. The public consultation Record will be updated to reflect the input of this stakeholder group.

6.0 Regulatory Bodies

Early consultation and involvement in the preparation of the screening report will ensure that the Ambassador Bridge has an opportunity to identify and address the concerns and issues raised by the various regulatory bodies involved in the Enhancement Project. Individual meetings will be suggested where appropriate to deal with issues raised by the various regulatory bodies. The results of these meetings will be posted on the website and the screening report will reflect the input of all regulatory bodies involved in the Enhancement Project.

7.0 Area Businesses

In addition to the general elements outlined above, the consultation process with area businesses will contain the following elements.

Workshops and Open Houses: Workshops and open houses will be held for representatives from the major businesses along with local business owners. Ambassador Bridge anticipates holding the workshops separately (one for representatives from major businesses and one for local business owners). If necessary, the Ambassador Bridge will also have a workshop that includes both representatives from major businesses and local business owners.

The proceedings of the workshops will be posted on the website and the public consultation Report will reflect the input of this group. In the event that the workshop provides inadequate time to deal with sectoral issues arising from the affected businesses, additional working groups will be formed to address specific issues that cannot be covered through direct submissions.

8.0 First Nations

Aboriginal consultation will provide the Ambassador Bridge an opportunity to identify and address the concerns and issues of Aboriginal peoples and to provide the aboriginal community with an opportunity to receive information about, and have meaningful input, into the Enhancement Project.

The Ambassador Bridge will discuss opportunities, if necessary, to prevent or mitigate any adverse effects the Enhancement Project may have on aboriginal interests. By engaging in early consultation the Ambassador Bridge will be able to identify aboriginal interests potentially affected, determine the most appropriate means of consultation, report on the concerns identified and outline how the Ambassador Bridge proposes to address and/or accommodate, if necessary, any potential adverse effects.

Open Houses: Ambassador Bridge proposes a series of open houses to provide Aboriginal peoples an opportunity to review and comment on the Enhancement Project. If an alternative means of consultation is recommended, the Ambassador Bridge will amend its consultation method.

The outcome of the consultation with the First Nations will be posted on the website and the public consultation Report will reflect the input of this group. If necessary, additional working groups and one-on-one meetings will be held to address any specific issues that are unable to be effectively dealt with through direct submissions.

9.0 Consultation with the General Public

Community knowledge from a variety of groups can prove to be an invaluable source of information on the geographical area of the Enhancement Project. In addition to the public consultation outlined above, the consultation process with the general public will include the following elements:

Draft Public Consultation Plan
Ambassador Bridge Enhancement Project

Preparation of Background Information Paper: Members of the public will likely require background information in preparation of informed participation in the consultation process. This paper will contain information on the proposed Enhancement Project, a description of the consultation process and all contact information where a member of the public can submit comments to, or obtain additional information from, the Ambassador Bridge. This information will be available in both print and electronic format. Print copies will be provided by the Ambassador Bridge upon request. An electronic copy will be posted on the website.

Website: The availability of the background information package and details regarding the development of the public participation plan will be posted on the Ambassador Bridge website.

Press Release: A press release will be issued to notify the public of the availability of the background information package on the website.

Guest Columns: Draft guest columns will be provided to area community newspapers in order to provide the general public with information on the proposed Enhancement Project and opportunities to participate in the consultation process.

Public Workshops: Workshops will be held for members of the general public. An opportunity will be provided for all interested members of the public to participate in each workshop. The workshops will either consist of a half day or evening session. The following topics will be covered in each workshop:

Workshops:

- Proposed location of the Enhancement Project;
- Reasons for, and economic implications of, the Enhancement Project;
- Review of environmental and community impacts; and
- Q & A on all topics.

Notices to Identified Community Interest Groups: Identified interest groups will be notified directly that materials are available on the website.

Community Interest Group Workshop: In addition to the public workshops described above, a workshop will be held in Windsor for representatives of community interest groups. An opportunity will be provided to community interest groups to participate in the workshop.

The results of the workshops with the general public and community interest group will be posted on the Enhancement Project's website. The record of comments will incorporate the input of this stakeholder group.

MEMBERS OF PARLIAMENT
MEMBERS OF PROVINCIAL PARLIAMENT
AREA MUNICIPALITIES
MUNICIPAL COUNCILLORS
SCHOOL BOARDS

THE CITY OF WINDSOR

OFFICE OF THE CHIEF ADMINISTRATIVE OFFICER

JOHN SKOROBOHACZ
CAO

November 7, 2007

Via Facsimile: 519-977-1262

The Canadian Transit Company
780 Huron Church Rd.
Suite 202
Windsor, ON N9C 2K2

Attn: Mr. Dan Stamper, President

Dear Mr. Stamper:

RE: Ambassador Bridge Enhancement Project
Meeting November. 5, 2007

As I'm sure you are aware, my office has been in contact with Ms. Susan Whelan to coordinate a time for our senior staff and select consultants to meet with representatives of the Canadian Transit Company. This letter shall serve to confirm the meeting time of 10:00 AM on Thursday, November 15, 2007. The meeting will take place in the Walkerville Room, 3rd Floor, Windsor City Hall.

As I understand, your consultants would like to use a portion of the meeting time for a PowerPoint presentation. I will ensure arrangements are made to accommodate that request; however, I would like to point out that due to the time allotted for this meeting, we request the presentation be limited to one hour in duration to allow for a question and answer session during the second hour of the meeting, scheduled to end by 12:00 noon.

I also wish to confirm, as guaranteed in your letter of October 29, 2007, that following the meeting November 15th, City staff will receive a copy of the full studies and not just the PowerPoint presentation.

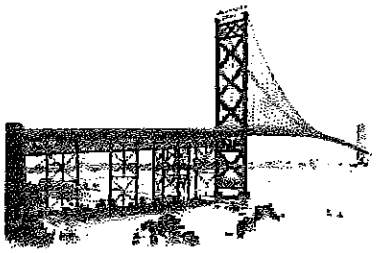
I understand you will have consultants available at next week's meeting to answer questions with regard to social impact, traffic and economic issues. I request that the names of those consultants be provided to me in advance of the meeting date, and that confirmation be provided at your earliest convenience regarding whether or not an archaeology consultant will also attend on your behalf.

Sincerely,

John Skorobohacz,
Chief Administrative Officer

/dr

cc. S. Whelan
Mayor Francis and Members of City Council
D. Estrin
D.Tyagi, M. Sonego, T. Hunt & M. Galvin



AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C 2K2

October 29, 2007

John Skorobohacz
Chief Administrative Officer, City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Dear Mr. Skorobohacz,

Re: Ambassador Bridge Enhancement Project

We are in receipt of your letter dated October 26, 2007. Your response is both inaccurate and unwarranted for the following reasons:

- We have, and continue to be, prepared to meet and present our draft documents to the City;
- We agreed that once we had presented our documents that we would leave the confidential draft documents with the City for further review and comment;
- We further advised that we would be available to meet with the City to address any future concerns or questions that may arise; and,
- We are available to meet the week of November 5, 2007.

Sincerely,

THE CANADIAN TRANSIT COMPANY
Dan Stamper
President

cc: Mayor and Council
GM Public Works
Mr. David Estrin

TRANSACTION REPORT

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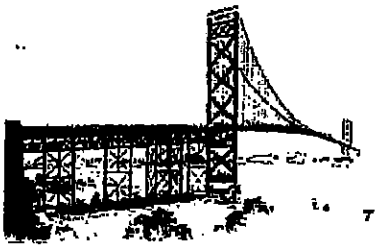

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

October 29, 2007

John Skorobohacz
Chief Administrative Officer, City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

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- We are available to meet the week of November 5, 2007.

Sincerely,

THE CANADIAN TRANSIT COMPANY
Dan Stamper
President

cc: Mayor and Council
GM Public Works
Mr. David Estrin

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
l: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
Website: www.ambassadorbridge.com

AMBASSADOR BRIDGE

The Canadian Transit Company
780 Huron Church Road
Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: Mayor and Council

Fax: (519) 255-7796

Subject: Ambassador Bridge Enhancement Project

Date: Thursday, November 01, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

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Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
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Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: General Manager, Public Works – Dev Tyagi

Fax: (519) 973-5476

Subject: Ambassador Bridge Enhancement Project

Date: Thursday, November 01, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

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Detroit International Bridge Company
P.O. Box 32666
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Pages: 2, including the cover page.

COMMENTS:

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Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: David Estrin

Fax: (416) 863-3401

Subject: Ambassador Bridge Enhancement Project

Date: Thursday, November 01, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

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FAX(TX)

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Detroit International Bridge Company
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FACSIMILE

To: David Estrin

Fax: (416) 863-3401

Subject: Ambassador Bridge Enhancement Project

Date: Thursday, November 01, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

THE CITY OF WINDSOR

OFFICE OF THE CHIEF ADMINISTRATIVE OFFICER

JOHN SKOROBOHACZ
CAO

October 26, 2007

Via Facsimile: 519-977-0700

The Canadian Transit Company
780 Huron Church Rd.
Suite 202
Windsor, ON N9C 2K2

Attn: Mr. Dan Stamper, President

Dear Mr. Stamper:

RE: Ambassador Bridge Enhancement Project
Your correspondence dated October 23, 2007

Thank you for your letter dated October 23rd, 2007.

It is rather unfortunate that you are not willing to provide the environmental assessment reports supporting your proposed enhancement project to the City in advance of any meeting. Your position is akin to holding the City of Windsor "hostage". If we want to review your documents that support your enhancement project, we are left with no alternatives but one. Your position is clear, we can either meet with you and your consultants in order to receive the documents or we will not be granted access to those documents in order to evaluate the project and address any concerns that may impact this community.

Given that you are not prepared to cooperate with the City and provide us with the documentation, I would request from you a series of dates, times and locations wherein the City and its team may be given the opportunity to receive the documents in question. I would respectfully request that you allow the City the opportunity to review and provide comments prior to filing your submission.

I look forward to receipt of your letter providing various options for such a meeting.

Thank you.

Sincerely,

John Skorobohacz,
Chief Administrative Officer

cc. Mayor Francis and Members of City Council
David Estrin, Legal Counsel
Dev Tyagi, General Manager of Public Works

THE CORPORATION OF THE CITY OF WINDSOR
Chief Administrative Office

FAX COVER

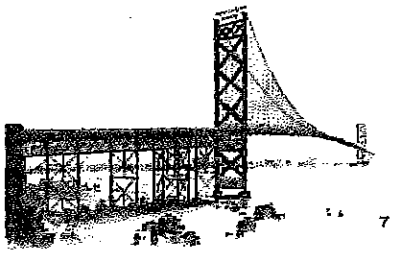
TO:	Dan Stamper	FAX #:	(519) 977-1262
FROM:	John Skorobohacz	PHONE #:	(519) 977-0700
DATE:	October 26, 2007	# of pages incl. cover page:	2
SUBJECT:	Response to your letter of October 23, 2007		

Please find attached a letter in response to your correspondence of October 23, 2007.

Original to follow by mail.

This message is intended only for the use of the individual or entity to which it is addressed. The message may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify the Chief Administrator's Office at the City of Windsor immediately by email at caodept@city.windsor.on.ca or by phone at (519) 255-6100 ext. 6311.

City of Windsor • 350 City Hall Square West, Suite 201 • Windsor, ON • N9A 6S1
Phone: 519-255-6100, Ext. 6311, Fax: 519-255-1861
caodept@city.windsor.on.ca • www.citywindsor.ca



AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

October 23, 2007

John Skorobohacz
Chief Administrative Officer
City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Dear Mr. Skorobohacz,

Re: Ambassador Bridge Enhancement Project

We are in receipt of your letter dated October 11th, 2007, and although we accept your explanation of the letter from Mr. Estrin to Ms. Lombardi, we still believe that it was outside of the process we had previously agreed upon. Particularly if you also read Mr. Estrin's follow up email to Ms. Lombardi.

Our position is very clear. We have on numerous occasions, and continue to, offer to meet with the City, its officials and its experts to present the results of our environmental studies. We believe that we are being more than reasonable in requesting an adequate amount of time to explain the studies, the methodology, analysis and the results for a project that is so vitally important to the economies of both Windsor and Detroit. What is unreasonable is for the City of Windsor to only provide us with ten minutes to outline the details of what amounts to a billion dollar project.

It is absurd for the City to suggest that it would be a spectator at a meeting when at considerable expense to the taxpayers of Windsor the City has hired its own experts, conducted its own studies and filed the results of these studies in the United States. To be extremely clear, we have, and continue to agree to leave the draft studies for the City's further review once our experts have been provided an opportunity to explain the studies. We also agreed to attend any follow up meetings necessary to address any other questions or concerns the City may have. The above is a sincere position in an effort to take steps towards allowing for an open and honest exchange of information unless the City has a different motive.

Once again, your letter is misleading. We will clarify and again clearly state our position to the City. We have not refused to provide the City with the environmental studies prepared for our project. To be clear, we have offered to present them to the City with our technical experts and have invited the City to all

of our open houses. In fact we offered to meet over six months ago to have the City's input into the process while the studies were being undertaken.

We are now in the middle of October and are still willing and eager to arrange this meeting prior to filing our studies with Transport Canada and the Canadian Environmental Assessment Agency at the end of October.

Should you the City reconsider its refusal to meet with us and allow us adequate time to explain and present the environmental studies relating to our project, we would be happy to coordinate a meeting.

Sincerely,

THE CANADIAN TRANSIT COMPANY
Dan Stamper
President

cc: Mayor and Council
GM Public Works
Mr. David Estrin

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
Website: www.ambassadorbridge.com

AMBASSADOR BRIDGE

The Canadian Transit Company
780 Huron Church Road
Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: John Skorobohacz

Fax: (519) 255-1861

Subject: Ambassador Bridge Enhancement Project

Date: Tuesday, October 23, 2007

Pages: 3, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

OCT/23/2007/TUE 02:44 PM

FAX(TX)

#	DATE	START T.	RECEIVER	COM.TIME	PAGE	TYPE/NOTE	FILE
001	OCT/23	02:43PM	15192551861	0:00:51	3	OK ECM	4410

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
Website: www.ambassadorbridge.com

AMBASSADOR BRIDGE

The Canadian Transit Company
780 Huron Church Road
Suite 202
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Tel: (519) 977-0700
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FACSIMILE

To: John Skorobohacz

Fax: (519) 255-1861

Subject: Ambassador Bridge Enhancement Project

Date: Tuesday, October 23, 2007

Pages: 3, including the cover page.

COMMENTS:

Please see attached.

THE CORPORATION OF THE

City of Windsor

Chief Administrator's Office

October 11, 2007

Mr. Daniel Stamper, President
The Canadian Transit Company
780 Huron Church Rd. Suite 202
Windsor, ON N9C 2K2

RE: Canadian Transit Company Letter of October 9, 2007

Dear Mr. Stamper:

Thank you for your letter dated October 9, 2007.

Thank you for allowing me to clarify my understanding as it pertains to Mr. Estrin's letter dated Oct. 2, 2007. I believe that the letter was prompted by a discussion between Mr. Estrin and Ms. Lombardi in Windsor on October 1st. Furthermore I understand that as lawyers, Mr. Estrin and Ms. Lombardi were attempting to bring about a meeting between the CTC and the City. It is my view that the Oct. 2nd letter should be viewed in that context.

However, I must admit that your position not to release any of your environmental studies in advance of a meeting with the City is rather perplexing. Without the opportunity to have an advance review of the materials the City will be left in the role of spectator rather than have the opportunity to engage in meaningful dialogue as a party impacted by the CTC proposed project. Respectfully, I don't believe that such a role is appropriate for the purpose of representing the best interests of this community.

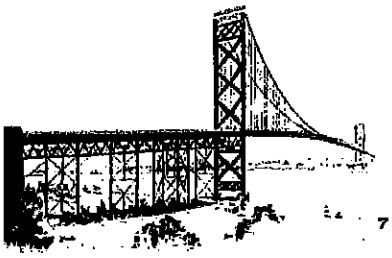
Should you have a change of heart and reconsider your refusal to provide the City with the environmental studies supporting the proposed project, I would be pleased to receive the documentation and coordinate a meeting to allow for meaningful exchange of views.

Respectfully,

John Skorobohacz
Chief Administrative Officer

JS:kk

cc: Mayor Eddie Francis
Windsor City Council
G.M. of Public Works
Mr. David Estrin



AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

VIA FACSIMILE: (519) 255-1861

October 9th, 2007

John Skorobohacz
Chief Administrative Officer
City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Dear Mr. Skorobohacz,

Re: Ambassador Bridge Enhancement Project

We are in receipt of your letter dated October 1st, 2007, and also a letter dated October 2nd, 2007, from Mr. David Estrin to Ms. Paula Lombardi. In your letter dated May 16, 2007 and received by our office on May 17, 2007 you reiterated your request that all correspondence and inquiries to the City of Windsor be addressed to your attention. We have, and continue to, comply with your request. Mr. Estrin's letter has again added confusion to the issue and we are unclear as to who we should be dealing with on these issues. We would ask that you clarify this issue for us. We also would like to take this opportunity to remind you of our letter dated June 29, 2007 advising the City that all letters and requests should be sent directly to my attention as President of the Canadian Transit Company (CTC).

Perhaps it would be appropriate to provide Mr. Estrin with copies of our correspondence, as his letter seems to imply that we did not respond to Mr. Wilkki's letter of June 18th, 2007. As you will recall, we replied to this letter in a letter sent directly to your attention, as you had previously requested.

On October 1st, 2007, Mr. Estrin chose not to attend the briefing for the City of Windsor and the Essex County municipalities; instead he attended the press briefing on Monday, October 1st, 2007 at Mackenzie Hall. We invited him to stay and he was more than welcome to ask any questions to either myself at the briefing or the experts that were present that day (for nine hours). There is some confusion in Mr. Estrin's letter as the documents he refers to were provided to the members of the press as they arrived. These same documents were available at the registration desk to all of the members of the public who attended either open

house meetings on Monday or Tuesday between 3:00 and 9:00 pm. We estimate that approximately 50 per cent of those in attendance chose to pick up a copy of the documents.

Mr. Estrin's letter has created confusion, and we feel that we need to once again clarify our position. To be clear, we would be pleased to participate in a properly organized meeting with the City, its officials and various consultants provided we are scheduled for a sufficient amount of time that will allow our consultants to fully present the environmental studies and that meeting would be held with reciprocal respect between the parties.

It was made clear to Mr. Estrin by both Ms. Paula Lombardi and Ms. Susan Whelan, that it was unlikely that the studies would be provided in advance of this meeting due to the continued refusal of the City of Windsor to meet with our representatives and the fact that Mr. Estrin has on behalf of the City done his own studies without input or knowledge of CTC. These studies that clearly misunderstand and misrepresent the project have been presented to US Federal Agencies without the courtesy of discussion with CTC. Both Ms. Lombardi and Ms. Whelan clearly advised Mr. Estrin that the various studies could be presented to the City and draft copies provided at the time of the meeting for any follow up review and questions.

Mr. Estrin did correctly indicate that it is our intention to file our Environmental Impact Statement with the Canadian Federal Government before the end of October, at which time all of the studies will be publicly accessible. It is clear that the City has, and continues to refuse to work with us and has taken the position that it is unwilling to work with us in developing and discussing our studies. At this time, perhaps it is best if all of the residents and taxpayers of the City of Windsor are provided the opportunity to review our studies at the same time, and make their own judgments of the work we have undertaken.

In closing, the position of the City of Windsor has again been confused by correspondence from your office and discussion with you that all communication between the City and the Ambassador Bridge be done through your office. Now we receive emails from Mr. Estrin that all communication be done through his office. Could you please clarify how the City wants to communicate and also I reiterate my request to have all correspondence from the City directed to my attention.

Sincerely,

THE CANADIAN TRANSIT COMPANY
Dan Stamper
President

cc: Mayor and Council
Mr. David Estrin

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
Website: www.ambassadorbridge.com

AMBASSADOR BRIDGE

The Canadian Transit Company
780 Huron Church Road
Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: John Skorobohacz

Fax: (519) 255-1861

Subject: Ambassador Bridge Enhancement Project

Date: Tuesday, October 09, 2007

Pages: 3, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

OCT/09/2007/TUE 04:18 PM

FAX(TX)

#	DATE	START T.	RECEIVER	COM.TIME	PAGE	TYPE/NOTE	FILE
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Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
Website: www.ambassadorbridge.com

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The Canadian Transit Company
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Suite 202
Windsor, Ontario N9C 2K2
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FACSIMILE

To: John Skorobohacz

Fax: (519) 255-1861

Subject: Ambassador Bridge Enhancement Project

Date: Tuesday, October 09, 2007

Pages: 3, including the cover page.

COMMENTS:

Please see attached.

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Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
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Email: skip@canadiantransit.com

FACSIMILE

To: Mayor and Council

Fax: (519) 255-7796

Subject: Ambassador Bridge Enhancement Project

Date: Tuesday, October 09, 2007

Pages: 3, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

Laura

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

OCT/09/2007/TUE 04:19 PM

FAX(TX)

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Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
Website: www.ambassadorbridge.com

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FACSIMILE

To: Mayor and Council

Fax: (519) 255-7796

Subject: Ambassador Bridge Enhancement Project

Date: Tuesday, October 09, 2007

Pages: 3, including the cover page.

COMMENTS:

Please see attached.

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780 Huron Church Road
Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: David Estrin

Fax: (416) 863-3401

Subject: Ambassador Bridge Enhancement Project

Date: Tuesday, October 09, 2007

Pages: 3, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

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TRANSACTION REPORT

OCT/09/2007/TUE 04:21 PM

FAX(TX)

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Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
Website: www.ambassadorbridge.com

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Suite 202
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Email: skip@canadiantransit.com

FACSIMILE

To: David Estrin

Fax: (416) 863-3401

Subject: Ambassador Bridge Enhancement Project

Date: Tuesday, October 09, 2007

Pages: 3, including the cover page.

COMMENTS:

Please see attached.

THE CITY OF WINDSOR

OFFICE OF THE CHIEF ADMINISTRATIVE OFFICER

JOHN SKOROBOHACZ
CAO

Sent by fax to (519) 977-1262

October 1, 2007

Dan Stamper
President, Ambassador Bridge
The Canadian Transit Company
780 Huron Church Rd. Suite 202
Windsor, ON N9C 2K2

Dear Mr. Stamper:

Re: Follow-up Request for Information

I am writing in response to your letters of September 19 and September 21, 2007 requesting a meeting with the Mayor and Members of City Council through an invitation to attend a luncheon hosted by the Canadian Transit Company. Your letter indicates that technical studies are now complete and your consultants will be available to answer questions.

As you aware, we have previously requested the opportunity to review these studies prior to meeting with your consultants.

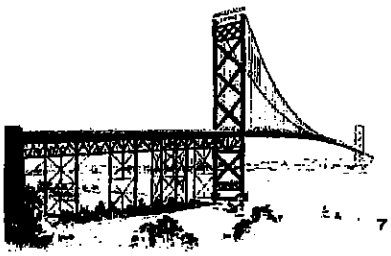
I would ask that you forward this information to my immediate attention for prompt consideration.

Sincerely,

John Skorobohacz,
Chief Administrative Officer

/dr

cc. Mayor Francis
City Solicitor
City Clerk
General Manager, Public Works



AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

September 19th, 2007

Mr. John Skorobohacz
Chief Administrative Officer
City of Windsor
350 City Hall Square
Windsor, ON

Via Facsimile: 519 255 1861

Dear Mr. Skorobohacz,

Re: The Ambassador Bridge Enhancement Project

Our letter of July 10th, 2007, offered once again to arrange a meeting with our consultants and the officials and experts at the City of Windsor, to review the reports being prepared and to receive any comments from the City relating to the above noted project. As of today's date, we have not received a reply to our letter.

We are writing again to offer to arrange a meeting between the appropriate officials from the City and our experts to present and discuss the results of the various studies that will form part of the environmental assessment document we will be submitting. **We will require adequate time to both present the results and answer any questions and** we would like to arrange this meeting within the next two weeks, prior to presenting our results to the public. We understand that you have also hired your own experts at taxpayers' expense to conduct similar studies and would be happy to meet to discuss their studies as well.

To be extremely clear on our position, we are more than willing and prepared to meet with the City to discuss our project and the related studies. We look forward to hearing from you to arrange this meeting.

Sincerely,

Dan Stamper, President
Canadian Transit Company

cc: Mayor and Council
Mr. George Wilkki, City Solicitor
Clerk, City Council Communications

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

700 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

September 19th, 2007

Mr. John Skorobohacz
Chief Administrative Officer
City of Windsor
350 City Hall Square
Windsor, ON

Via Facsimile: 519 255 1861

Dear Mr. Skorobohacz,

Re: The Ambassador Bridge Enhancement Project

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To be extremely clear on our position, we are more than willing and prepared to meet with the City to discuss our project and the related studies. We look forward to hearing from you to arrange this meeting.

Sincerely,

Dan Stamper, President
Canadian Transit Company

cc: Mayor and Council
Mr. George Wilkki, City Solicitor
Clerk, City Council Communications

FAX(TX)

TRANSACTION REPORT

SEP/19/2007/WED 03:57 PM

P.01/01

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Detroit International Bridge Company
P O. Box 32666
troit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
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AMBASSADOR BRIDGE

The Canadian Transit Company
780 Huron Church Road
Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: Clerk, City Council Communications

Fax: **(519) 255-6868**

Subject: Ambassador Bridge Enhancement Project

Date: Thursday, September 20, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

SEP/20/2007/THU 08:50 AM

FAX(TX)

#	DATE	START T.	RECEIVER	COM.TIME	PAGE	TYPE/NOTE	FILE
1	SEP/20	08:49AM	15192556868	0:00:43	2	OK ECM	4036

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
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FACSIMILE

To: Clerk, City Council Communications

Fax: **(519) 255-6868**

Subject: Ambassador Bridge Enhancement Project

Date: Thursday, September 20, 2007

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COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

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FACSIMILE

To: Mayor and City Council

Fax: **(519) 255-7796**

Subject: Ambassador Bridge Enhancement Project

Date: Thursday, September 20, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

SEP/20/2007/THU 08:48 AM

FAX(TX)

#	DATE	START T.	RECEIVER	COM.TIME	PAGE	TYPE/NOTE	FILE
01	SEP/20	08:47AM	15192557796	0:00:31	2	OK SG3	4035

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
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FACSIMILE

To: Mayor and City Council

Fax: **(519) 255-7796**

Subject: Ambassador Bridge Enhancement Project

Date: Thursday, September 20, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

Detroit International Bridge Company
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Suite 202
Windsor, Ontario N9C 2K2
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Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: George Wilkki, City Solicitor

Fax: **(519) 255-6933**

Subject: Ambassador Bridge Enhancement Project

Date: Thursday, September 20, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

SEP/20/2007/THU 08:58 AM

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#	DATE	START T.	RECEIVER	COM.TIME	PAGE	TYPE/NOTE	FILE
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Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
Website: www.ambassadorbridge.com

The Canadian Transit Company
780 Huron Church Road
Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: George Wildd, City Solicitor

Fax: (519) 255-6933

Subject: Ambassador Bridge Enhancement Project

Date: Thursday, September 20, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

THE CITY OF WINDSOR

OFFICE OF THE CHIEF ADMINISTRATIVE OFFICER

JOHN SKOROBOHACZ
CAO

FAXED 9/14/07

September 13, 2007

Canadian Transit Company
780 Huron Church Road
Windsor, Ontario
N9C 2K2

Attention: Mr. Dan Stamper

Dear Sir:

Re: Ambassador Bridge Plaza; City of Windsor Site Plan Control Agreement

This letter is in response to recent correspondence from Mr. Ken Carter of the Canadian Transit Company and from Mr. Richard Spencer of HGS Limited Consulting Engineers.

Both of these gentlemen contacted my office to follow up on my letter to you dated September 10, 2007. One of the requests in my letter was for an application and survey to be submitted to the City of Windsor to address the construction of a retaining wall and subsequent encroachment into the public right-of-way.

As a result of further investigation into this matter, City staff have advised me that the application and corresponding survey are on file with us and will be processed accordingly.

Thank you for bringing this to my attention. Please contact me again should you have any concerns regarding this application.

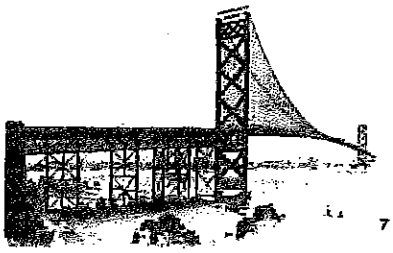
Sincerely,

John Skorobohacz,
Chief Administrative Officer

/dr

cc: Ken Carter, Superintendent, Canadian Transit Company
Richard Spencer, HGS Limited Consulting Engineers
City of Windsor staff:
- Jim Venus, Manager of Right-of-Way
- Dev Tyagi, General Manager of Public Works
- Mario Sonego, City Engineer
- Lee Anne Doyle, Acting Executive Director of Building and Development
- George Wilkki, City Solicitor

SEP 18 2007



AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

August 9, 2007

SENT BY FACSIMILE 519-255-1861

Mr. John Skorobohacz
Chief Administrative Officer
350 City Hall Square West
Windsor, Ontario N9Z 6S1

Dear Mr. Skorobohacz:

Re: City of Windsor Council Agenda, Monday, August 13, 2007
Item 3 - Mandate and Membership Olde Sandwich Towne Citizen's Advisory Group (CAG), and Community Improvement Plan (CIP) Steering Committee

We have had the opportunity to review the Council Agenda scheduled for Monday, August 13, 2007, specifically, Item 3 *Mandate and Membership Olde Sandwich Towne Citizen's Advisory Group (CAG) and Community Improvement Plan (CIP) Steering Committee.*

We are extremely concerned that our comments relating to the Community Improvement Plan have not been seriously considered or taken into account. At this time we are requesting delegation status to speak to this Item at the Council meeting scheduled for August 13, 2007.

Ms. Susan Whelan will be speaking to the Canadian Transit Company's continued requests that, as a major landowner in the area, it be consulted by the Community Improvement Plan Steering Committee and included in the focus groups and meetings. Representatives of the Canadian Transit Company appeared before Council on June 11, 2007 to express its concerns about not being contacted to be involved or, participate in, any focus groups relating to the development of the Community Improvement Planning Area.

The Canadian Transit Company is a major landowner and business operator in the community and should properly be included in discussions relating to the Community Improvement Plan.

Yours very truly,

Dan Stamper
President
cc: Mr. Steve Vlachodimos, Acting City Clerk (via facsimile 519-255-6868)

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
Website: www.ambassadorbridge.com

AMBASSADOR BRIDGE

The Canadian Transit Company
780 Huron Church Road
Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: John Skorobohacz

Fax: **(519) 255-1861**

Subject: City of Windsor Council Agenda, Monday, August 13, 2007

Date: Thursday, August 09, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

AUG/09/2007/THU 09:58 AM

FAX(TX)

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Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
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FACSIMILE

To: John Skorobohacz

Fax: **(519) 255-1861**

Subject: City of Windsor Council Agenda, Monday, August 13, 2007

Date: Thursday, August 09, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

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Suite 202
Windsor, Ontario N9C 2K2
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FACSIMILE

To: Steve Vlachodimos

Fax: **(519) 255-6868**

Subject: City of Windsor Council Agenda, Monday, August 13, 2007

Date: Thursday, August 09, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

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FACSIMILE

To: Steve Vlachodimos

Fax: (519) 255-6868

Subject: City of Windsor Council Agenda, Monday, August 13, 2007

Date: Thursday, August 09, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

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TRANSACTION REPORT
AUG/09/2007/THU 10:18 AM

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AMBASSADOR BRIDGE
THE CANADIAN TRANSIT COMPANY
780 HURON CHURCH ROAD Windsor, Ontario N9C2K2

July 10th, 2007

Mr. John Skorobohacz
Chief Administrative Officer
City of Windsor
350 City Hall Square
Windsor, ON

Via Facsimile: 519 255 1861

Dear Mr. Skorobohacz,

Re: The Ambassador Bridge Enhancement Project

I am writing in response to your letter of July 4th, 2007, regarding the above matter.

We have consistently been advised that we are not allowed to communicate with anyone other than yourself on this Project, according to your own correspondence dated March 29, 2007. As a result, in my letter of June 29th, I specifically requested that I be given the same respect and courtesy that we have afforded you, that is, that all correspondence be directed to my attention.

Further, in my June 29th correspondence, I clearly advised that I was responding to Mr. Wilkki's questions raised in his letter to Ms. Lombardi. I am unable to understand how you could suggest that Mr. Wilkki has not received a response.

The contents of your letter of July 4th, 2007, would indicate that you have reviewed neither the transcript from nor the recording of the Council meeting of June 11th, 2007. If you had, you would not have incorrectly stated that I promised to provide certain documents when in fact I did not.

As I indicated in response to Mr. Wilkki's questions to Ms. Lombardi:

1. The Mayor specifically asked about a copy of a response to a letter from Federal Highways. Mayor Francis said: *"Are you aware...you must be. On May 24th, the Michigan Division of the Federal Highway Administration have reviewed the environmental assessment....Will you be responding to them? And in your response to them, would we be uh able to receive your comments to their questions that they have raised?"*

   After a brief discussion about the state agencies we were replying to, the Mayor again asked: *"Can that response that you submit be forwarded to our attention so that we can consider as we reply to your questions?"*

My direct response to Mayor Francis was *"Absolutely."*

As I indicated in our letter of June 29th, we have not yet responded to the Federal Highways letter. Therefore, we are unable to forward this letter to either yourself or the Mayor as it simply does not yet exist; please be assured that when a response is ready and after it has been sent to the proper authorities, you will receive a copy.

2. We clearly indicated that our Environmental Assessment studies were ongoing and they were listed in the document we presented to council on Monday, June 11th, 2007. The preliminary results from our EA supporting studies were presented at two public open houses held Monday, June 25th and Tuesday, June 26th. Both of these meetings were advertised in the *Windsor Star* on two separate occasions. During the Council meeting, Ms. Lombardi was asked by the Mayor, and I quote: *"So the next step in your process is, is what?..."* and Ms. Lombardi clearly responded that *"We are scheduling another round of public meetings,. and would be happy to ...advise the City as to when that is. And that public meeting will present the preliminary results of our studies...the air quality, noise and vibration..it will be more open house and a presentation of what the results are and any mitigation measures."*

   In addition to the public notices in the *Windsor Star* and the article in the *Windsor Star*, and an interview on CKLW, we sent an email to you, on Friday, June 22nd, at 11:00 am advising you of the public meeting open house times and locations.

   It is unfortunate that the City of Windsor chose not to attend any of the public forums held in the months of April and June. We would be happy to meet with the City with our experts and to present the preliminary results of our studies, **provided that we can be given adequate time to both present the results and answer any questions.** Ten minutes in front of City Council is not enough time to discuss all of the studies that have been undertaken.

Your statement that we have chosen not to have our staff or consultants meet with City staff regarding our Project is completely false and there is no basis for such an unfounded conclusion. Since March, our consultants have offered to meet with the City repeatedly. Never once have our consultants been offered a separate meeting nor has this been raised by any individual at the City of Windsor. In fact, we were advised by you again on June 1st, in a face to face conversation, that this was not possible. To suggest in your letter of June 29th, that we are trying not to have meaningful input from the City or public participation is outrageous.

As we indicated in our letter of June 29th, all documents that are public at this time are listed on the US Coast Guard and the CEAA website. When further documentation is submitted to the appropriate authorities and becomes public, it will be posted where required on the US Coast Guard website, the CEAA website and the Ambassador Bridge website.

At the June 11th Council meeting, Mayor Francis requested that we amend a certain slide to correct what he viewed as a false impression that the City had approved the Enhancement Project. While we disagree with that characterization, I can advise that the requested change has been made and all presentations since that time have not included the slide in question.

Given the incorrect accusations made in your July 4th letter, we would ask that you retract the comments made therein as we have honoured our statements made during the Council meeting, to the extent that they can by honoured, and we clearly did not promise to provide any information that we have not yet provided.

In light of the numerous hours that the City has spent behind closed doors discussing the border, and the delay in arranging a meeting with us, it is inconceivable that you would even suggest that we are not engaging in meaningful City or public participation. To be extremely clear on our position, we are more than willing and prepared to meet with the City to discuss our project and the related studies. However, the City has not provided us with this opportunity and has only allowed a total of ten minutes to discuss the project.

Sincerely,

Dan Stamper, President
Canadian Transit Company

cc: Mayor and Council
Mr. George Wilkki, City Solicitor
Clerk, City Council Communications

AMBASSADOR BRIDGE
THE CANADIAN TRANSIT COMPANY
788 HURON CHURCH ROAD Windsor, Ontario N9C2K2

July 10th, 2007

Mr. John Skorobohacz
Chief Administrative Officer
City of Windsor
350 City Hall Square
Windsor, ON

Via Facsimile: 519 255 1861

Dear Mr. Skorobohacz,

Re: The Ambassador Bridge Enhancement Project

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FAX(TX)
TRANSACTION REPORT
JUL/11/2007/WED 09:09 AM
P.01/01

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TRANSACTION REPORT

JUL/11/2007/WED 09:11 AM

FAX(TX)

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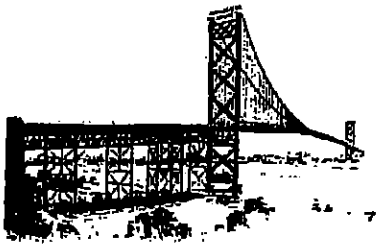

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

July 10th, 2007

Mr. John Skorobohacz
Chief Administrative Officer
City of Windsor
350 City Hall Square
Windsor, ON

Via Facsimile: 519 255 1861

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Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
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Email: skip@canadiantransit.com

FACSIMILE

To: Mayor and City Council

Fax: **(519) 255-7796**

Subject: The Ambassador Bridge Enhancement Project

Date: Wednesday, July 11, 2007

Pages: 4, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

JUL/11/2007/WED 09:31 AM

FAX(TX)

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P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
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The Canadian Transit Company
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FACSIMILE

To: Mayor and City Council

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Pages: 4, including the cover page.

COMMENTS:

Please see attached.

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Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
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FACSIMILE

To: George Wilkki

Fax: **(519) 255-6933**

Subject: The Ambassador Bridge Enhancement Project

Date: Wednesday, July 11, 2007

Pages: 4, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

JUL/11/2007/WED 09:33 AM

FAX(TX)

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Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
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FACSIMILE

To: George Wilkki

Fax: (519) 255-6933

Subject: The Ambassador Bridge Enhancement Project

Date: Wednesday, July 11, 2007

Pages: 4, including the cover page.

COMMENTS:

Please see attached.

THE CORPORATION OF THE CITY OF WINDSOR
Chief Administrative Office

FAX COVER

TO: Mr. Don Stamper, Pres. FAX #: 519-977-1262

FROM: Mr. John Skorobohacz, CAO PHONE #: 519-255-6100 x 6311

DATE: July 5, 2007 # of pages incl. cover page: 3

SUBJECT:

Ambassador Bridge Enhancement Project

This message is intended only for the use of the individual or entity to which it is addressed. The message may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify the Chief Administrator's Office at the City of Windsor immediately by email at caodept@city.windsor.on.ca or by phone at (519) 255-6100 ext. 6311.

City of Windsor • 350 City Hall Square West, 2nd Floor • Windsor, ON • N9A 6S1
Phone: 519-255-6100, Ext. 6311, Fax: 519-255-1861
Email: caodept@city.windsor.on.ca

THE CITY OF WINDSOR

OFFICE OF THE CHIEF ADMINISTRATIVE OFFICER

JOHN SKOROBOHACZ
CAO

July 4, 2007

Via Facsimile: 519-977-1262

Dan Stamper, President
Detroit International Bridge Company
The Canadian Transit Company
780 Huron Church Rd., Suite 202
Windsor, ON N9C 2K2

Re: Ambassador Bridge Enhancement Project

Dear Mr. Stamper:

I am writing in response to your June 29, 2007 letter to me regarding the above matter.

You will recall that at the City Council meeting on June 11, 2007, you and your lawyer at that meeting, Paula Lombardi, provided specific assurances to members of City Council that information generated on behalf of your firm in support of this project would be provided to the City. That promise included various impact studies then being completed for the Canadian side of the project as well as further filings your company had made or was making to the US Coast Guard since the April 23rd EA filing.

On June 18 the City Solicitor, George Wilkki, wrote to Ms. Lombardi to make arrangements for receipt of that information. Mr. Wilkki received no response; however you have indicated your June 29th letter is for that purpose.

Unfortunately, your June 29th letter provides none of the information you and your company promised Council, and you intimate none exists yet.

However the press has reported your company presented preliminary conclusions at recent public meetings that the project would cause essentially no noise and air pollution impacts. If you have such information I am at a loss to understand why you are not prepared to provide the City with the reports containing the analysis and assumptions on which such conclusions are based, or even a written summary for review.

While your letter infers there may be detailed information posted on your own web site or that of the US Coast Guard or that of the CEAA agency, as of the date of this letter, that is not the case: no information related to impacts in Windsor are posted.

You will appreciate I hope that City Council has a vital role to ensure that the interests of the City and its residents are carefully assessed and protected as you seek approvals for this project, whether at the Federal level or from the City. To date your company has chosen not to have its staff or consultants meet with City staff regarding this matter, nor have you consulted with or provided to the City your Windsor impact study work plans (e.g. for air, noise or archaeology), let alone have you provided any results.

Your company's approach is clearly antithetical to one designed to provide meaningful City or public participation in your impact assessment process. Your approach to date has avoided consultation on whether the studies will be of sufficient scope, analysis or depth regarding issues of importance to the public and the City; avoided consultation on the appropriateness of factors, criteria and weightings used in evaluating impacts; avoided consultation on the validity of assumptions used; and in the result fails to provide anyone with a meaningful opportunity to question your conclusions. Essentially your approach raises the concern that your public meetings and consultants' work are designed essentially as a "sales pitch".

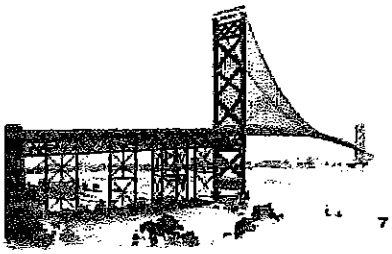
Impact studies conducted in this manner are not consistent with the meaningful process expected and required by the City nor with environmental assessment legislation. I am concerned that your company's approach to date will leave many sceptical as to the conclusions you are producing, and will not provide a basis for any level of government to credibly act on your application.

Please contact me if you would like to propose a means of resolving these important issues, so that I can transmit your proposal to City Council for its consideration.

Sincerely

John Skrobohacz
Chief Administrative Officer

c.c. Mayor and Members of Council



AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

June 29th, 2007

Mr. John Skorobohacz
Chief Administrative Officer
City of Windsor
350 City Hall Square
Windsor, ON

Via Facsimile: 519 255 1861

Dear Mr. Skorobohacz,

Re: The Ambassador Bridge Enhancement Project

We have been clearly instructed to send all written correspondence directly to your office. We are concerned that now David Estrin, the City's outside legal counsel on this matter, and George Wilkki, the City Solicitor, are directly contacting our environmental lawyer, Ms. Paula Lombardi.

In response to Mr. Wilkki's questions to Ms. Lombardi:

1. The Mayor specifically asked about a copy of a response to a letter from Federal Highways. We have not yet responded to this letter.
2. We clearly indicated that our Environmental Assessment studies were ongoing and they are listed in the document we presented to council on Monday, June 11th, 2007. The preliminary results from our EA supporting studies were presented at two public meetings on Monday, June 25th and Tuesday, June 26th. Both of these meetings were advertised in the Windsor Star on two separate occasions.
3. We regret that the City of Windsor chose not to attend any of the public forums held in the months of April and June.

All documents that are public at this time are listed on the US Coast Guard and the CEAA website. When further documentation becomes public it will be posted appropriately on the US Coast Guard website, the CEAA website and the Ambassador Bridge website.

We request that all future correspondence be directed to my attention.

Sincerely,

Dan Stamper, President

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FACSIMILE

To: **John Skorobohacz**

Fax: (519) 255-1861

Subject: **Ambassador Bridge Enhancement Project**

Date: Friday, June 29, 2007

Pages: 2 including the cover page.

COMMENTS: Please see attached.

From the desk of Dan Stamper / Laura Christensen.

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TRANSACTION REPORT

JUN/29/2007/FRI 00:11 PM

FAX(TX)

#	DATE	START T.	RECEIVER	COM.TIME	PAGE	TYPE/NOTE	FILE
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Fax: (519) 255-1861

Subject: **Ambassador Bridge Enhancement Project**

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COMMENTS: Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

THE CITY OF WINDSOR

OFFICE OF THE CHIEF ADMINISTRATIVE OFFICER

JOHN SKOROBOHACZ
CAO

June 15, 2007

Dan Stamper
President
Detroit International Bridge Company
The Canadian Transit Company
780 Huron Church Rd. Suite 202
Windsor, ON N9C 2K2

Dear Mr. Stamper:

Re: City Council Meeting, June 11, 2007

We are in receipt of your letter dated June 13, 2007 and received by fax on June 14th.

The letter serves to provide feedback following your attendance at the June 11th City Council Meeting, and as such, I have taken the liberty of forwarding your comments to the Acting City Clerk as well to Members of City Council and the Mayor for their review and consideration.

Respectfully,

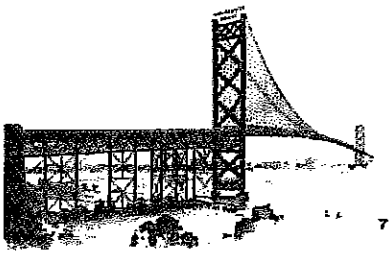
John Skorobohacz,
Chief Administrative Officer

/dr

cc. Mayor & Members of Council
Acting City Clerk
General Manager of Public Works
Chief Building Official

350 City Hall Square West, • P.O. Box 1607, • Windsor, Ontario • N9A 6S1
Phone: (519) 255-6100 ext. 6311 • Fax: (519) 255-1861 • E-mail: caodept@city.windsor.on.ca • Website: www.citywindsor.ca

JUN 25 2007



AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C 2K2

June 13, 2007

Via Facsimile 519 -255-1861

Mr. John Skorobohacz
Chief Administrative Officer
350 City Hall Square West
P.O. Box 1607
Windsor, ON N9Z 6S1

Dear Mr. Skorobohacz;

Re: City Council Meeting, June 11, 2007

We would respectfully like to take this opportunity to clarify the misunderstandings and incorrect allegations relating to the Enhancement Project that occurred at City's Council Meeting on June 11, 2007.

At that meeting, Councilor Jones made several comments alleging that the Canadian Transit Company has neglected to meet with First Nations representatives. There is no basis whatsoever for Councilor Jones' comment. Had Councilor Jones taken the time to investigate this statement he would have discovered that we have, in fact, had several meetings, and will continue to have meetings, with First Nations' representatives on the Enhancement Project. We would ask that Councilor Jones confirm the accuracy of the information he is provided prior to making false and unfounded allegations.

Councilor Jones also Indicated that the Canadian Transit Company was not permitting representatives of the First Nations to access the property owned by the Canadian Transit Company. Again, there is no factual basis or support for this statement and there is no basis or truth to this statement whatsoever.

As indicated at the City's Council meeting, the Canadian Transit Company is in the midst of its archeological study. Throughout the duration of the archeological study, our consultants have permitted representatives on behalf of the First Nations to observe the study and these representatives have had full access to our property at all times when our consultants were on the property. Contrary to the allegations of Councilor Jones, neither our company, nor our consultants, has ever denied these representatives access to our property.

We request that the City's councilors take the time to confirm the accuracy of the information with which they are provided prior to making false statements and accusations in an apparent attempt to discredit our company.

Sincerely,

Dan Stamper, President
Canadian Transit Company
Detroit International Bridge Company

TRANSACTION REPORT

JUN/14/2007/THU 02:47 PM

FAX(TX)

#	DATE	START T.	RECEIVER	COM.TIME	PAGE	TYPE/NOTE	FILE
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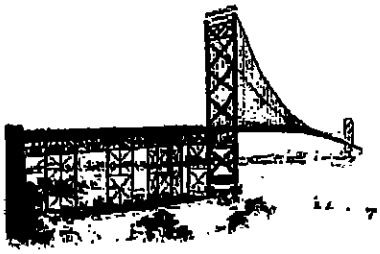

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

June 13, 2007

Via Facsimile 519 -255-1861

Mr. John Skorobohacz
Chief Administrative Officer
350 City Hall Square West
P.O. Box 1607
Windsor, ON N9Z 6S1

Dear Mr. Skorobohacz;

Re: City Council Meeting, June 11, 2007

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At that meeting, Councilor Jones made several comments alleging that the Canadian Transit Company has neglected to meet with First Nations representatives. There is no basis whatsoever for Councilor Jones' comment. Had Councilor Jones taken the time to investigate this statement he would have discovered that we have, in fact, had several meetings, and will continue to have meetings, with First Nations' representatives on the Enhancement Project. We would ask that Councilor Jones confirm the accuracy of the information he is provided prior to making false and unfounded allegations.

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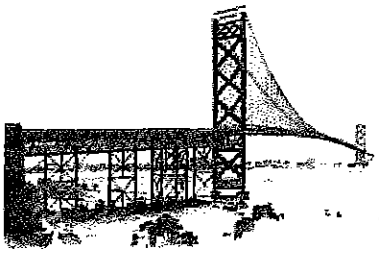
Sincerely,

Dan Stamper, President



AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

June 7, 2007

Via Facsimile 519 255 1861

Mr. John Skorobohacz
Chief Administrative Officer
350 City Hall Square West
P.O. Box 1607
Windsor, ON N9Z 6S1

Dear Mr. Skorobohacz,

Re: Demolition Permits
686, 718, 738, 750, 778 and 784 Indian Road
Item #3, Council Agenda, June 11th, 2007

Please find enclosed the property assessment by Dr. N. K. Becker, of N.K. Becker Incorporated, for the above described properties. We would ask that this also be forwarded to the Mayor and each member of council.

Sincerely,

Dan Stamper, President
Canadian Transit Company
Detroit International Bridge Company

Cc: Mayor and City Council
Steve Vlachodimos, Manager of Council/Committee Services & Deputy Clerk
Mario Sonego, P. Eng., Chief Building Official

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
Website: www.ambassadorbridge.com

AMBASSADOR BRIDGE

The Canadian Transit Company
780 Huron Church Road
Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: John Skorobohacz

Fax: (519) 255-1861

Subject: Demolition Permits

Date: Friday, June 08, 2007

Pages: 16, including the cover page.

COMMENTS:

Please see attached.

* AMENDED BECKER REPORT

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
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FACSIMILE

To: John Skorobohacz

Fax: (519) 255-1861

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Date: Friday, June 08, 2007

Pages: 16, including the cover page.

COMMENTS:

Please see attached.

* AMENDED BECKER REPORT

From the desk of Dan Stamper / Laura Christensen.

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TRANSACTION REPORT
JUN/08/2007/FRI 10:53 AM

P.01/01

#	DATE	START T.	RECEIVER	COM.TIME	PAGE	TYPE/NOTE	FILE
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Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
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The Canadian Transit Company
780 Huron Church Road
Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: Mario Sonego

Fax: (519) 255-7170

Subject: Demolition Permits

Date: Friday, June 08, 2007

Pages: 16, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

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Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: Mario Sonego

Fax: (519) 255-7170

Subject: Demolition Permits

Date: Friday, June 08, 2007

Pages: 16, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

FAX(TX)

TRANSACTION REPORT
JUN/08/2007/FRI 10:58 AM

P.01/01

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Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
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Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: Steve Vlachodimos

Fax: (519) 255-6868

Subject: Demolition Permits

Date: Friday, June 08, 2007

Pages: 16, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

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Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: Steve Vlachodimos

Fax: (519) 255-6868

Subject: Demolition Permits

Date: Friday, June 08, 2007

Pages: 16, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

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FAX(TX)

TRANSACTION REPORT
JUN/08/2007/FRI 11:02 AM

P.01/01

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Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
Website: www.ambassadorbridge.com

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The Canadian Transit Company
780 Huron Church Road
Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: Mayor and City Council

Fax: (519) 255-7796

Subject: Demolition Permits

Date: Friday, June 08, 2007

Pages: 16, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

JUN/08/2007/FRI 11:06 AM

FAX(TX)

#	DATE	START T.	RECEIVER	COM.TIME	PAGE	TYPE/NOTE	FILE
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Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
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FACSIMILE

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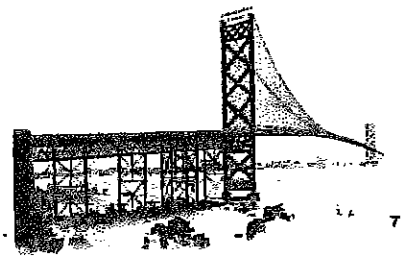
Please see attached.

From the desk of Dan Stamper / Laura Christensen.



AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C 2K2

June 6, 2007

Sent Via Fax 519 660 7851

Mr. John Skorobohacz
Chief Administrative Officer
City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, ON N9A 6S1

Dear Mr. Skorobohacz,

Re: Sandwich Heritage Conservation District Study – Draft Report

We were represented by Leon Paroian and Paula Lombardi at the Windsor Heritage Committee meeting held Wednesday, May 9th, 2007. At that meeting we identified several incorrect or misleading statements and offered to meet with the City's consultants to further clarify the project that the Ambassador Bridge is undertaking.

Further to the meeting a letter was sent by Paula Lombardi dated May 14th, 2007, to Ms. Nancy Morand, with a copy to you. A copy of both our May 9th and May 14th letters are attached. We are writing further to your reply of May 16th, 2007, to advise that, despite our request to clarify the information being presented, we have not heard from the consultants with regards to the Draft Sandwich District Study.

We would welcome the opportunity to meet with the City's consultants to correct any misleading information and to answer any questions that they may have.

Sincerely,

Dan Stamper, President
The Canadian Transit Company
Detroit International Bridge Company

THE CITY OF WINDSOR
OFFICE OF THE CHIEF ADMINISTRATIVE OFFICER

JOHN SKOROBOHACZ
CAO

July 4, 2007

Via Facsimile: 519-977-1262

Dan Stamper, President
Detroit International Bridge Company
The Canadian Transit Company
780 Huron Church Rd., Suite 202
Windsor, ON N9C 2K2

Re: Ambassador Bridge Enhancement Project

Dear Mr. Stamper:

I am writing in response to your June 29, 2007 letter to me regarding the above matter.

You will recall that at the City Council meeting on June 11, 2007, you and your lawyer at that meeting, Paula Lombardi, provided specific assurances to members of City Council that information generated on behalf of your firm in support of this project would be provided to the City. That promise included various impact studies then being completed for the Canadian side of the project as well as further filings your company had made or was making to the US Coast Guard since the April 23rd EA filing.

On June 18 the City Solicitor, George Wilkki, wrote to Ms. Lombardi to make arrangements for receipt of that information. Mr. Wilkki received no response; however you have indicated your June 29th letter is for that purpose.

Unfortunately, your June 29th letter provides none of the information you and your company promised Council, and you intimate none exists yet.

However the press has reported your company presented preliminary conclusions at recent public meetings that the project would cause essentially no noise and air pollution impacts. If you have such information I am at a loss to understand why you are not prepared to provide the City with the reports containing the analysis and assumptions on which such conclusions are based, or even a written summary for review.

While your letter infers there may be detailed information posted on your own web site or that of the US Coast Guard or that of the CEAA agency, as of the date of this letter, that is not the case: no information related to impacts in Windsor are posted.

You will appreciate I hope that City Council has a vital role to ensure that the interests of the City and its residents are carefully assessed and protected as you seek approvals for this project, whether at the Federal level or from the City. To date your company has chosen not to have its staff or consultants meet with City staff regarding this matter, nor have you consulted with or provided to the City your Windsor impact study work plans (e.g. for air, noise or archaeology), let alone have you provided any results.

Your company's approach is clearly antithetical to one designed to provide meaningful City or public participation in your impact assessment process. Your approach to date has avoided consultation on whether the studies will be of sufficient scope, analysis or depth regarding issues of importance to the public and the City; avoided consultation on the appropriateness of factors, criteria and weightings used in evaluating impacts; avoided consultation on the validity of assumptions used; and in the result fails to provide anyone with a meaningful opportunity to question your conclusions. Essentially your approach raises the concern that your public meetings and consultants' work are designed essentially as a "sales pitch".

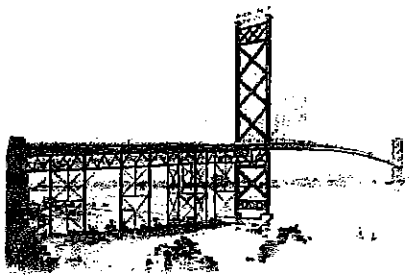
Impact studies conducted in this manner are not consistent with the meaningful process expected and required by the City nor with environmental assessment legislation. I am concerned that your company's approach to date will leave many sceptical as to the conclusions you are producing, and will not provide a basis for any level of government to credibly act on your application.

Please contact me if you would like to propose a means of resolving these important issues, so that I can transmit your proposal to City Council for its consideration.

Sincerely

John Skrobohacz
Chief Administrative Officer

c.c. Mayor and Members of Council



DETROIT INTERNATIONAL BRIDGE COMPANY

P. O. BOX 32666 Detroit, Michigan 48232

AMBASSADOR BRIDGE

April 23, 2007

Mr. John Skorobohacz, CAO
The City of Windsor
350 City Hall Square West
P. O. Box 1607
Windsor, ON N9A 6S1

Re: Applications for Demolition Permits - Indian Road

Dear Mr. Skoroborhacz:

Thank you for your letter of April 2, 2007. We provide the following information to assist Council regarding our application for demolition permits for six houses on Indian Road.

As you are aware, in August of 2005, Windsor City Council approved the building permit and the site plan control agreement for the current expansion of the Ambassador Bridge plaza to allow for the construction of six more customs booths designated solely for trucks. Among other things, that site plan control agreement provides that the Ambassador Bridge will provide landscaping along Huron Church Road, Wyandotte St. and Mill St. as part of the completion of this project. The removal of these houses is necessary for the overall landscaping plan, which will include a buffer zone and a proper security perimeter; as such, there will be no buildings erected on the site of these homes. Further, our contractor has now informed us that several of these houses need to be removed to allow the most expedient completion of this work

We can advise that these six houses are now vacant and in disrepair.

For your information, we have partnered with the Green Corridor at the University of Windsor to assist in our landscaping efforts to ensure that we create an environment that enhances the property that surrounds the Ambassador Bridge and improves the environment for our neighbors in the surrounding community as well as those who enter Windsor as the Gateway to Canada.

We would like to thank you in advance for a positive response to our application for these demolition permits.

Sincerely,

DETROIT INTERNATIONAL BRIDGE COMPANY
THE CANADIAN TRANSIT COMPANY

Dan Stamper
President

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

May 9, 2007

Ms. N. Morand
Windsor Heritage Committee
Meeting Room 204
400 City Hall Square East
Windsor, Ontario

Dear Ms. Morand:

Re: Ambassador Bridge Lands along Indian Road

The Canadian Transit Company, owner of the Ambassador Bridge, has had the opportunity to review the Sandwich Heritage Conservation District Study (Draft) dated March 2007 ("Study"). We would like to take this opportunity to provide you with some additional information and outline our concerns with the Study. First, we believe that the scope of the Study is too broad and includes homes along Indian Road that are of no heritage or architectural significance, and therefore should not be included in the study area. Second, the Canadian Transit Company, as a major landowner in the Study area, was not consulted on the preparation of the Study.

The Canadian Transit Company has conducted an independent review of the properties on Indian Road individually to determine whether they warrant protection as heritage properties or as part of a heritage conservation district. None of the properties reviewed along Indian Road exhibit any unique characteristics that would warrant heritage protection.

The buildings on Indian Road have no common characteristics and do not meet the criteria for heritage districts as established by the Ministry of Culture. There are no heritage buildings, structures, sites or landscapes linked to a historical use along Indian Road; there can, therefore, be no "concentration of heritage buildings, structures, sites or landscapes linked by aesthetic, historical and socio-cultural contexts or use." The buildings situated along Indian Road are of no architectural interest, are not consistent in character, do not add to the streetscape character and are of no historical relevance.

CANADIAN TRANSIT COMPANY AS A LANDOWNER

The Canadian Transit Company is a major landowner within the lands designated in the Sandwich Heritage District Conservation Study Area, which is, in our opinion, uncharacteristically large for a study area. As a landowner in the area, the Canadian Transit

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

Company has undertaken an extensive investigation into all of its properties. It is unfortunate that the Canadian Transit Company was not advised nor included in any of the meetings dealing with this area. However, our client was scheduled to meet with the Heritage Committee on April 11th, 2007, but was asked by the City of Windsor's Chief Administrative Officer not to attend; a representative from the Canadian Transit Company did attend the meeting held on April 28, 2007, at which the Canadian Transit Company offered to meet with the consultants responsible for preparing the Study to discuss the Study area and the Enhancement Project. At the time of the preparation of this report, the Canadian Transit Company still had not been approached to discuss this Study.

The Canadian Transit Company and its consultants have offered to meet with representatives from the City of Windsor on several occasions to provide information about its Enhancement Project. The City has not taken this opportunity and as a result neither the City nor its consultants have a proper and informed understanding of the Enhancement Project, which is evidenced by the inaccurate comments contained within the Study. As we have advised repeatedly in the past, the Canadian Transit Company is more than willing to respond to any questions raised by the City or its consultants and provide information on the Enhancement Project proposal.

To clarify the information set out erroneously in the Study, the "Ambassador Bridge Enhancement Project" is a six lane, cable stayed bridge across the Detroit River to the west of, and adjacent to, the existing Ambassador Bridge. The Enhancement Project shifts the existing traffic onto a new structure; the existing span will be rehabilitated and maintained used for bridge operational vehicles and in cases of an emergency.

SANDWICH HERITAGE DISTRICT CONSERVATION STUDY (DRAFT)

The Sandwich Heritage District Conservation Study ("Study") was undertaken by the City of Windsor to *"review an area on the west side of the City that has well established cultural and architectural history dating back to the 1700s."* The eastern boundary of the Study area is bounded by the Ambassador Bridge. The houses owned by the Canadian Transit Company along Indian Road are inappropriately included within the Study area boundaries.

There is no merit, or justification, provided in the Study for the inclusion of the buildings along Indian Road. The removal of the buildings along Indian Road allows for the creation of a green buffer area and in no way affects the historic nature of the Study area. This buffer area will mitigate noise, vibration and lighting from the Windsor Plaza on the existing residences to the west. The green buffer area will also create an aesthetically pleasing enhancement to the neighbourhood by providing a green buffer area for the community, which will reinforce the unique character of Sandwich Towne.

The Canadian Transit Company has conducted an extensive investigation into all of its properties owned in the area focusing on those houses located along Indian Road. There are no designated heritage properties on lands owned by, or adjacent to lands owned by, the Canadian Transit Company. Most importantly, there is nothing unique in the built form along Indian Road that warrants its inclusion in the Study area. In fact, as stated above, the creation of a green buffer area enhances Sandwich Towne by adding to its uniqueness by developing a natural border that will mitigate the effects of noise, vibration and lighting on the residential area, and by simultaneously protecting the mature tree canopy along Indian Road.

The Canadian Transit Company recognizes the unique character of Sandwich Towne and is providing an opportunity to add to the aesthetic appeal of the community. The Study recognizes that the protection and enrichment of the overhead tree canopy along Indian Road is a vital asset to the Sandwich community that must be preserved and expanded. The development of the green buffer area will extend this tree canopy and transform Indian Road into an attractive green buffer area adding to the character and uniqueness of this area.

AMBASSADOR BRIDGE CROSSING INFRASTRUCTURE

The Study appropriately recognizes the historical importance of the Ambassador Bridge structure. The suspension bridge structure constructed between 1927 and 1929 represented state-of-the-art construction for the 20th Century. The Ambassador Bridge is a landmark for the City of Windsor and is visible from several locations in the Study area.

The Study statement that *"... the DIBC is pursuing twinning of the Bridge to accommodate the high volumes that use it"* is incorrect. This is a misleading statement and the Study does not provide any support whatsoever to warrant such an assumption. In fact, traffic volumes today are considerably lower than their peak in 1999. Since 1999 both the Ambassador Bridge crossing and Windsor Tunnel crossing have experienced a significant decline in the number of vehicles crossing the Canada – United States border.

In 1999, over 12 million vehicles crossed the Ambassador Bridge, while in 2006, less than 9.5 million vehicles used the Ambassador Bridge border crossing. Also, vehicles using the tunnel crossing have declined 43.03% since 1999, while there has been a 24.46% decline in vehicles using the Ambassador Bridge.

The ongoing decline in cross border traffic is not only being experienced in the Windsor-Detroit corridor; the Blue Water Bridge in Sarnia has also experienced a similar drop in traffic volumes In 1997, the second span to the Blue Water Bridge opened and traffic statistics indicate that the number of vehicles crossing the Blue Water Bridge today is less than the number of vehicles that crossed the Blue Water Bridge in 1991.

The improvements to the Ambassador Bridge's Windsor Plaza were approved by the City of Windsor in 2005. The improvements to the Windsor Plaza include the addition of a total of nine customs booths. Three of these booths were completed in January 2006 while the remaining six are anticipated to be completed mid-2007.

The City of Windsor is aware of the fact that Canadian Transit Company and its affiliates own the majority of the houses along Indian Road. They have been open with City representatives about the Enhancement Project and are willing to discuss Ambassador Bridge's proposal with the City.

There are no plans, nor has it ever been stated that, upon completion of the Enhancement Project, the existing Ambassador Bridge would be torn down as is suggested in the Study: *"Potential loss of the bridge or other implications of twinning on the existing Ambassador Bridge, a listed heritage resource itself, are also unknown."* Not only is this statement incorrect, it is misleading and indicates the failure of City Transportation staff and the Study consultants to obtain all the necessary information to make an informed recommendation.

The Ambassador Bridge is a majestic structure - a landmark of the Windsor – Detroit corridor. There have never been any discussions relating to the removal of the Ambassador Bridge from the skyline. Even with the completion of the Enhancement Project, the existing Ambassador Bridge will remain as a landmark, emblematic of the Cities of Windsor and Detroit. The design of the Enhancement Project will be integrated and compatible with the existing Ambassador Bridge structure.

The Ambassador Bridge held a series of four public meetings in the community from April 16th to April 19th, 2007; the meetings were advertised twice in the *Windsor Star*. At each of the public meetings, the Canadian Transit Company encouraged individuals to comment on the design of the Enhancement Project so it may be integrated with the existing Ambassador Bridge and surrounding community – thereby creating another landmark for the City of Windsor.

HERITAGE PROPERTY INVENTORY – INDIAN ROAD

The Canadian Transit Company undertook a heritage property inventory along Indian Road to determine if any of the houses had any unique characteristics that would warrant heritage protection.

As part of the analysis of the buildings, the Canadian Transit Company conducted an inventory of the properties on Indian Road between Wyandotte Street West and University Avenue West. The analysis concluded that, considering the architectural features, location, natural and

built features, none of the structures owned or located along Indian Road exhibit criteria for designation as heritage sites individually or as part of a Heritage Conservation District.

Section 9.3.3.2 of the City of Windsor Official Plan requires that properties exhibit the identified characteristics to warrant heritage designation. None of the residences on Indian Road:

- has been associated with an important person or group,
- played a role in an important event,
- has distinguishing architectural characteristics or style or method of construction,
- is notable or rare surviving examples of work by and early master builder, designer or significant architect,
- is a rare example of a formerly more common architectural type or method of construction,
- is associated with the past living / working environment of a significant element of Windsor's population,
- is associated with an important aspect of the city's political, economic, social or technological development,
- is recognized as a long-standing landmark, or
- is considered to contribute positively to the cityscape due to aesthetic value.

There is no basis for the inclusion of Indian Road in the Heritage Conservation District nor does this area warrant further study.

GREEN BUFFER AREA

Removing traffic from the existing historic Ambassador Bridge will preserve the structure and ensure its longevity as a monument to the state-of-the-art engineering as it existed in the early 20th century. Based on the review of historic documents and the review of site soils and geotechnical analysis, it can be concluded that the area between Indian Road and the existing Ambassador Bridge between Wyandotte Street West and the Detroit River has undergone substantial prior disturbance.

Indian Road may be regarded as peripheral to the original urban fabric of Sandwich Towne. The Enhancement Project, through the creation of the green buffer area, brings an opportunity of neighbourhood renewal and improvement to Sandwich Towne.

Working with the University of Windsor and the Green Corridor Group, the Enhancement Project through the removal of the houses on Indian Road will create a creatively landscaped green buffer area. This innovative approach to the green buffer area is not new to Windsor as is evidenced by than the former "Ford City" on Cadillac Street (renamed Henry Ford Centre Drive) between Trenton and the Essex Terminal Railway tracks that has been transformed into a green buffer area.

CONCLUSIONS

The Windsor Heritage Conservation District Study (Draft) included several errors with regard to the City's and its consultants understanding of the Ambassador Bridge Enhancement Project. Specifically, it failed to comprehend the purpose of the Enhancement Project and the alleged potential loss of the existing Ambassador Bridge. These misunderstandings could have been easily rectified by consultation with the Canadian Transit Company. No such consultation has occurred to date.

A detailed heritage property inventory demonstrates that there is no justification for a heritage conservation district designation, individual property designations or an area for further study and refinement on Indian Road. Such a designation would impede the ability of the Ambassador Bridge to effectively implement the Ambassador Bridge Enhancement Project, which provides many benefits to both the immediate community and the region at large.

The creation of a green buffer area between the Enhancement Project and the community could result in a creatively landscaped green buffer area and a welcoming gateway to Sandwich Towne.

The Sandwich Heritage Conservation District Study (Draft) lacks the comprehensive analysis of all of the planning issues that must be considered when making decisions about the future development of the community.

Yours very truly,

Siskinds LLP

Paula Lombardi

Per: Paula Lombardi
PL/pl

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

May 14, 2007

Ms. N. Morand
Windsor Heritage Committee, Meeting Room 204
400 City Hall Square East
Windsor, Ontario

Dear Ms. Morand:

Re: Comments on Sandwich Heritage Conservation District Study (Draft) dated March 2007 ("Draft Sandwich District Study")

We appreciate the opportunity to discuss the Draft Sandwich District Study at the Windsor Heritage Committee meeting held Wednesday, May 9, 2007.

As we indicated at the May 9, 2007 Windsor Heritage Committee Meeting there are several statements made in the Draft Sandwich District Study pertaining to the existing Ambassador Bridge structure and the properties owned by Canadian Transit Company that are incorrect or misleading. Our letter dated May 9, 2007 clarifies several of these incorrect or misleading statements.

We are concerned as it is evident from our review of the Draft Sandwich District Study, that neither the consultant nor the City attempted to confirm any of the statements made relating to the Ambassador Bridge Enhancement Project. Specifically, Section 7.6 Border Crossing Infrastructure contains several factual errors and entirely misrepresents the Enhancement Project. We would like to correct any of the misinterpretations and errors made in the Draft Sandwich District Study. We are eager to meet with you consultants to respond to any questions they may have; either with respect to lands owned by Canadian Transit Company or factual details relating to the Enhancement Project.

We would also request a draft copy of the report to review prior to it going before the Planning Advisory Committee in June. Also, could you please confirm the date that the revised Draft Sandwich District Study is scheduled to be considered by the Planning Advisory Committee.

Yours very truly,

Siskinds LLP

Per:
Paula Lombardi

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

TRANSACTION REPORT

JUN/06/2007/WED 05:13 PM

FAX(TX)

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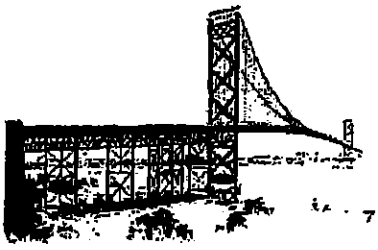


AMBASSADOR BRIDGE
THE CANADIAN TRANSIT COMPANY
750 HURON CHURCH ROAD Windsor, Ontario N9C2K2

June 6, 2007

Sent Via Fax 519 660 7851

Mr. John Skorobohacz
Chief Administrative Officer
City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, ON N9A 6S1

Dear Mr. Skorobohacz,

Re: Sandwich Heritage Conservation District Study – Draft Report

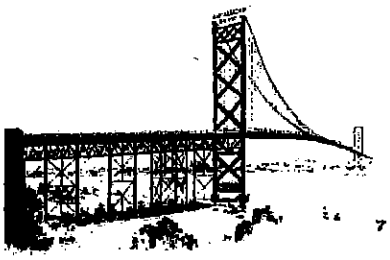
We were represented by Leon Parolan and Paula Lombardi at the Windsor Heritage Committee meeting held Wednesday, May 9th, 2007. At that meeting we identified several incorrect or misleading statements and offered to meet with the City's consultants to further clarify the project that the Ambassador Bridge is undertaking.

Further to the meeting a letter was sent by Paula Lombardi dated May 14th, 2007, to Ms. Nancy Morand, with a copy to you. A copy of both our May 9th and May 14th letters are attached. We are writing further to your reply of May 16th, 2007, to advise that, despite our request to clarify the information being presented, we have not heard from the consultants with regards to the Draft Sandwich District Study.

We would welcome the opportunity to meet with the City's consultants to correct any misleading information and to answer any questions that they may have.

Sincerely,

Dan Stamper, President
The Canadian Transit Company
Detroit International Bridge Company



AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

June 7, 2007 Via Facsimile 519 -255-1861

Mr. John Skorobohacz
Chief Administrative Officer
350 City Hall Square West
P.O. Box 1607
Windsor, ON N9Z 6S1

Dear Mr. Skorobohacz,

Re: City Council Meeting, June 11, 2007

We are writing to clarify the delegations that will be present for Monday's City Council Meeting.

As the proponent of the Ambassador Bridge Enhancement Project, we will be presenting the details of this project in the agreed upon approximate15 minutes on Monday, June 11, 2007. Paula Lombardi and I will make the presentation, and a representative from the Green Corridor will be present to answer questions.

As the landowner of the properties, we have also requested to be added as a delegation for the demolition permit applications, listed as Item #3 on the City's agenda. Speaking to this item will be Norm Becker, Leon Paroian and me.

We also request that we be added as a delegation to Item 7 – Sandwich Community Improvement Plan, as we are a major landowner that will be impacted by the community improvement plan, we should be permitted to outline our views on the proposal. Please list Paula Lombardi and Leon Paroian as our delegation for this Item. I will also be available to answer any questions that may arise.

Thank you in advance for your cooperation in this matter.

Sincerely,

Dan Stamper, President
Canadian Transit Company
Detroit International Bridge Company

Cc: Steve Vlachodimos, Manager of Council/Committee Services & Deputy Clerk

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
Website: www.ambassadorbridge.com

The Canadian Transit Company
780 Huron Church Road
Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: Steve Vlachodimos

Fax: (519) 255-6868

Subject: City Council Meeting, June 11, 2007

Date: Thursday, June 07, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

Laura

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
Website: www.ambassadorbridge.com

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To: Steve Vlachodimos

Fax: (519) 255-6868

Subject: City Council Meeting, June 11, 2007

Date: Thursday, June 07, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

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Laura

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JUN/07/2007/THU 10:15 AM

P.01/01

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71	JUN/07	10:14AM	15192556868	0:00:36	2	OK ECM	3028

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troit, MI 48232
el: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
Website: www.ambassadorbridge.com

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The Canadian Transit Company
780 Huron Church Road
Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: John Skorobohacz

Fax: (519) 255-1861

Subject: City Council Meeting, June 11, 2007

Date: Thursday, June 07, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

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Laura

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JUN/07/2007/THU 10:13 AM

FAX(TX)

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Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
Website: www.ambassadorbridge.com

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FACSIMILE

To: John Skorobohacz

Fax: (519) 255-1861

Subject: City Council Meeting, June 11, 2007

Date: Thursday, June 07, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

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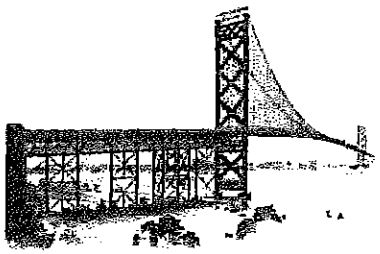

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

700 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

May 25, 2007

Via Facsimile (519) 255-1861

Mr. John Skorobohacz, CAO
The City of Windsor
350 City Hall Square West
P. O. Box 1607
Windsor, ON N9A 6S1

Dear Mr. Skorobohacz:

Re: Demolition Permit Applications

Further to our letter of May 23, 2007, we are requesting a deferral because our experts are not available to speak to the issues in the report of your administration due to out of town commitments. However, if a deferral is not granted in advance, we request the opportunity to speak to council regarding our deferral request, or, in the alternative, to speak to the matter at the council meeting on May 28, 2007, if forced to.

Sincerely,

DETROIT INTERNATIONAL BRIDGE COMPANY
THE CANADIAN TRANSIT COMPANY

Dan Stamper
President

Cc: Steve Vlachodimos, Manager of Council/Committee Services & Deputy Clerk

Detroit International Bridge Company
P.O. Box 32666
etroit, MI 48232
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The Canadian Transit Company
780 Huron Church Road
Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: John Skorobohacz

Fax: (519) 255-1861

Subject: **Ambassador Bridge – Demolition Permits**

Date: Friday, May 25, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

Laura

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MAY/25/2007/FRI 11:35 AM

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Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
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The Canadian Transit Company
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Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
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Email: skip@canadiantransit.com

FACSIMILE

To: John Skorobohacz

Fax: (519) 255-1861

Subject: **Ambassador Bridge – Demolition Permits**

Date: Friday, May 25, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen

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The Canadian Transit Company
780 Huron Church Road
Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
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FACSIMILE

To: Steve Vlachodimos

Fax: (519) 255-6868

Subject: **Ambassador Bridge – Demolition Permits**

Date: Friday, May 25, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

Laura

TRANSACTION REPORT

MAY/25/2007/FRI 11:36 AM

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Detroit International Bridge Company
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Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
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FACSIMILE

To: Steve Vlachodimos

Fax: (519) 255-6868

Subject: **Ambassador Bridge – Demolition Permits**

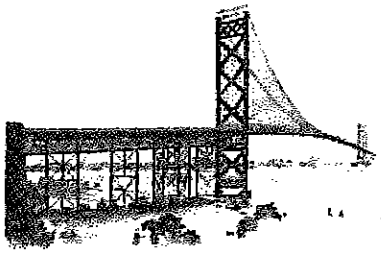
Date: Friday, May 25, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen



AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

May 23, 2007

Via Facsimile 519 -255-1861

Mr. John Skorobohacz
Chief Administrative Officer
350 City Hall Square West
P.O. Box 1607
Windsor, ON N9Z 6S1

Dear Mr. Skorobohacz,

Re: Report by Public Works and Building Department
Recommending Denial of Demolition Permits

We provided all of the information requested in your letter of April 2, 2007. However the report by the administration of the City of Windsor, dated March 27, 2007, indicates that information regarding the landscaping plan and the redevelopment plan along Indian Road is incomplete. As you are aware the community continues to request improvements to the area around the bridge and we are continuing to make every possible effort to meet these requests.

Therefore we would ask that this matter be deferred until the next scheduled meeting of council on June 11th, 2007, so that we can present our overall landscaping plan and concept model for redevelopment prior to our demolition request being considered by council.

Thank you in advance for your cooperation in this matter.

Sincerely,

Dan Stamper, President
Canadian Transit Company
Detroit International Bridge Company

Cc: Mayor and City Council
Steve Vlachodimos, Manager of Council/Committee Services & Deputy Clerk

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
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Website: www.ambassadorbridge.com

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780 Huron Church Road
Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: John Skorobohacz

Fax: (519) 255-1861

Subject: **Report by Public Works and Building Depts. – Ambassador Bridge**

Date: Wednesday, May 23, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

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Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
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FACSIMILE

To: John Skorobohacz

Fax: (519) 255-1861

Subject: **Report by Public Works and Building Depts. – Ambassador Bridge**

Date: Wednesday, May 23, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

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Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: Mayor Francis and City Council Members

Fax: (519) 255-7796

Subject: **Report by Public Works and Building Depts. – Ambassador Bridge**

Date: Wednesday, May 23, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

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Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
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Website: www.ambassadorbridge.com

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Email: skip@canadiantransit.com

FACSIMILE

To: Mayor Francis and City Council Members

Fax: (519) 255-7796

Subject: **Report by Public Works and Building Depts. – Ambassador Bridge**

Date: Wednesday, May 23, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

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Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: Steve Vlachodimos

Fax: (519) 255-6868

Subject: **Report by Public Works and Building Depts. – Ambassador Bridge**

Date: Wednesday, May 23, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

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Detroit, MI 48232
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Date: Wednesday, May 23, 2007

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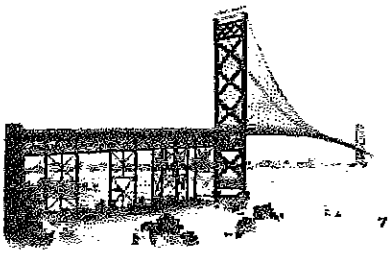
COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.



AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C 2K2

May 18, 2007

Via Facsimile 519 -255-1861

Mr. John Skorobohacz
Chief Administrative Officer
350 City Hall Square West
P.O. Box 1607
Windsor, ON N9Z 6S1

Dear Mr. Skorobohacz:

Re: Demolition Permits - Ambassador Bridge

Further to the letter dated April 26, 2007, that we received from your office, and my phone call with you on Monday, May 7, 2007, in which we discussed that our request for demolition permits would be heard at council on Tuesday, May 22, 2007, we have learned through inquiries with your office that our request is being delayed once again, until May 28, 2007. As we advised in our letter of April 23, 2007, the removal of these houses is necessary for the overall landscaping plan, the green buffer area and proper security perimeter. Further delay will complicate the completion of these items.

As this delay is solely the result of the city's actions in preparing a report to council, we hereby request that you reconsider this action and add this item to the supplementary agenda for the council meeting on Tuesday (due to Monday being a Canadian Holiday), May 22, 2007, as originally agreed upon.

We thank you for your cooperation. Should you have any questions, please do not hesitate to contact the undersigned.

Sincerely,

Dan Stamper, President
The Canadian Transit Company
Detroit International Bridge Company

cc: Mayor and Members of Council
Acting City Planner (Att: Ms. Nancy Morand)
Steve Vlachodimos, Deputy City Clerk

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
Website: www.ambassadorbridge.com

AMBASSADOR BRIDGE

The Canadian Transit Company
780 Huron Church Road
Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: John Skorobohacz

Fax: (519) 255-1861

Subject: **Demolition Permits**

Date: Friday, May 18, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

MAY/18/2007/FRI 11:43 AM

FAX(TX)

#	DATE	START T.	RECEIVER	COM.TIME	PAGE	TYPE/NOTE	FILE
01	MAY/18	11:43AM	15192551861	0:00:40	2	OK ECM	2791

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
Website: www.ambassadorbridge.com

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Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: John Skorobohacz

Fax: (519) 255-1861

Subject: **Demolition Permits**

Date: Friday, May 18, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
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Fax: (586) 755-8924
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Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: Nancy Morand

Fax: (519) 255-6544

Subject: **Demolition Permits – Ambassador Bridge**

Date: Friday, May 18, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

MAY/18/2007/FRI 11:44 AM

FAX(TX)

#	DATE	START T.	RECEIVER	COM.TIME	PAGE	TYPE/NOTE	FILE
01	MAY/18	11:44AM	15192556544	0:00:40	2	OK ECM	2792

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
Website: www.ambassadorbridge.com

AMBASSADOR BRIDGE

The Canadian Transit Company
780 Huron Church Road
Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: Nancy Morand

Fax: (519) 255-6544

Subject: **Demolition Permits – Ambassador Bridge**

Date: Friday, May 18, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

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Detroit, MI 48232
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Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: Mayor Francis and Members of City Council

Fax: (519) 255-7796

Subject: **Demolition Permits – Ambassador Bridge**

Date: Friday, May 18, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

MAY/18/2007/FRI 11:46 AM

FAX(TX)

#	DATE	START T.	RECEIVER	COM.TIME	PAGE	TYPE/NOTE	FILE
001	MAY/18	11:45AM	15192557796	0:00:29	2	OK SG3	2793

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
Website: www.ambassadorbridge.com

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Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: Mayor Francis and Members of City Council

Fax: (519) 255-7796

Subject: **Demolition Permits – Ambassador Bridge**

Date: Friday, May 18, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
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Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: Steve Vlachodimos

Fax: (519) 255-6868

Subject: **Demolition Permits – Ambassador Bridge**

Date: Friday, May 18, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

MAY/18/2007/FRI 11:50 AM

FAX(TX)

#	DATE	START T.	RECEIVER	COM.TIME	PAGE	TYPE/NOTE	FILE
001	MAY/18	11:46AM	15192556868	0:00:39	2	OK ECM	2794

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
Website: www.ambassadorbridge.com

AMBASSADOR BRIDGE

The Canadian Transit Company
780 Huron Church Road
Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: Steve Vlachodimos

Fax: (519) 255-6868

Subject: **Demolition Permits – Ambassador Bridge**

Date: Friday, May 18, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

THE CORPORATION OF THE CITY OF WINDSOR
Chief Administrative Office

FAX COVER

TO:	Mr. Dan Stamper	FAX #:	(519) 977-1262
FROM:	Mr. John Skorobohacz	PHONE #:	(519) 977-0700
DATE:	May 11, 2007	# of pages incl. cover page:	2
SUBJECT:	Ambassador Bridge Enhancement Project		

Original to follow by mail.

If you have received this fax in error, please notify the sender at (519) 255-6100 ext. 6311. Thank you.

City of Windsor • 350 City Hall Square West, 2nd Floor • Windsor, ON • N9A 6S1
Phone: 519-255-6100, Ext. 6311, Fax: 519-255-1861
Email: caodept@city.windsor.on.ca

THE CITY OF WINDSOR

OFFICE OF THE CHIEF ADMINISTRATIVE OFFICER

JOHN SKOROBOHACZ
CAO

May 11, 2007

Via Facsimile: 519-977-1262

The Canadian Transit Company
780 Huron Church Rd.
Suite 202
Windsor, Ontario
N9C 2K2

Attn: Mr. Dan Stamper, President

Dear Mr. Stamper:

RE: Ambassador Bridge Enhancement Project

Your letter of May 11, 2007 indicates that Mr. Robert Pearce, Executive Director and Curator for the Museum of Ontario Archaeology, will be contacting the City of Windsor as part of your ongoing archaeological assessment.

With respect to your inquiry regarding whom Mr. Pearce should contact, I offer the following names and telephone numbers to assist you.

Ms. Nancy Morand, Senior Planner – Heritage
(519) 255-6543 ext. 6179

Mr. Mike Fish, Archivist
(519) 255-6770 ext. 4414

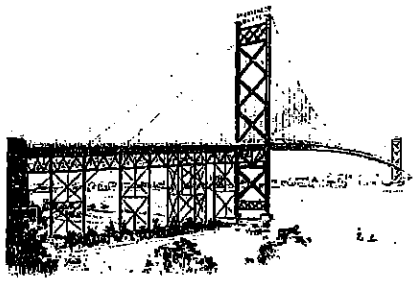
I trust this satisfies your information request.

Sincerely,

John Skorobohacz,
Chief Administrative Officer

/dr

cc: N. Morand, Heritage Planner
M. Fish, Archivist, Windsor Public Library
M. Baruth, Manager of Cultural Affairs



AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD, SUITE 202 *Windsor, Ontario* N9C 2K2

May 11, 2007

John Skorobohacz
Chief Administrative Officer
City Hall
P.O. Box 1607
350 City Hall Square West
Room 201
Windsor, Ontario N9A 6S1

Via Fax

Dear Mr. Skorobohacz,

Re: Ambassador Bridge Enhancement Project
Archaeological Assessment

As instructed, we are writing to advise you that as part of our ongoing archaeological assessment, Mr. Robert Pearce, the Executive Director and Curator for the Museum of Ontario Archaeology, will be contacting the City's Planning Department on Monday to review the archaeological information in the City's archives.

If you could identify the appropriate individual that Mr. Pearce should speak with to review this information it would be greatly appreciated.

Thank you for your attention to this request.

Sincerely,

THE CANADIAN TRANSIT COMPANY

Dan Stamper
President

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
Email: Laura@AmbassadorBridge.com
Website: www.ambassadorbridge.com

The Canadian Transit Company
780 Huron Church Road
Suite 202
Windsor, Ontario N9C 2K2
Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: John Skorobohacz

Fax: (519) 255-1861

Subject: **Ambassador Bridge Enhancement Project Archaeological Assessment**

Date: Friday, May 11, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

MAY/11/2007/FRI 10:55 AM

FAX(TX)

#	DATE	START T.	RECEIVER	COM.TIME	PAGE	TYPE/NOTE	FILE
01	MAY/11	10:54AM	15192551861	0:00:38	2	OK ECM	2736

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
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FACSIMILE

To: John Skorobohacz

Fax: (519) 255-1861

Subject: **Ambassador Bridge Enhancement Project Archaeological Assessment**

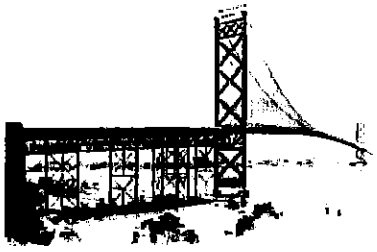
Date: Friday, May 11, 2007

Pages: 2, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen



AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C 2K2

November 13th, 2007

John Skorobohacz
Chief Administrative Officer, City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Dear Mr. Skorobohacz,

Re: Ambassador Bridge Enhancement Project – Meeting November 15th, 2007

Please find enclosed a copy of the list of our meeting attendees that was sent by email to your office yesterday.

Your letter of November 7, 2007, requires clarification. We agreed to meet provided that we would be allowed adequate time to present our confidential draft documents, and that we would be prepared to answer questions. We have not limited the time to meet to two hours, your office did that. We have offered verbally and offer once again to stay as long as is needed.

However, as per your letter, we have instructed our consultants that the presentation should be limited to one hour, to then be followed by questions.

We will be leaving the City with a copy of the confidential draft studies, not the power point presentation.

We look forward to receiving the names of your administration and experts that will be in attendance.

Sincerely,

Dan Stamper, President

cc: Mayor and Council
Mr. David Estrin

Meeting Attendees for Presentation of Draft Confidential Documents
With the City of Windsor Senior Administration and their experts
November 15th, 2007

On behalf of the Canadian Transit Company the following will attend:

Dan Stamper, President

Susan Whelan, Lawyer

Bruce MacLaughlan, Public Relations

Paula Lombardi, Siskind's Law Firm - Environmental Lawyer and Planner

Scott Manser - Ortech Environmental - Air Quality

Bill Gastmeier - HGC Engineering, Howe Gastmeier Chapnik Limited - Noise and Vibration

Leigh Whyte – Avalon Consulting – Socioeconomic, Contaminated Sites and Waste Management, Navigation, Wildlife, Vegetation

Art Marks - Avalon Consulting – Fish and Fish Habitat, Groundwater and Surface Water

Jack Krajewski – Avalon Consulting – Soil and Geotechnical

Kirk Walstedt – Municipal Lawyer and Archaeologist – Archaeology

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
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Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: John Skorobohacz

Fax: (519) 255-1861

Subject: Ambassador Bridge Enhancement Project – November 15th Meeting

Date: Tuesday, November 13, 2007

Pages: 3, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

NOV/13/2007/TUE 04:34 PM

FAX(TX)

#	DATE	START T.	RECEIVER	COM.TIME	PAGE	TYPE/NOTE	FILE
01	NOV/13	04:34PM	15192551861	0:00:47	3	OK ECM	4687

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
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FACSIMILE

To: John Skorobohacz

Fax: (519) 255-1861

Subject: Ambassador Bridge Enhancement Project – November 15th Meeting

Date: Tuesday, November 13, 2007

Pages: 3, including the cover page.

COMMENTS:

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Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: David Estrin

Fax: (416) 863-3401

Subject: Ambassador Bridge Enhancement Project – November 15th Meeting

Date: Tuesday, November 13, 2007

Pages: 3, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

NOV/13/2007/TUE 04:37 PM

FAX(TX)

#	DATE	START T.	RECEIVER	COM.TIME	PAGE	TYPE/NOTE	FILE
701	NOV/13	04:36PM	14168633401	0:01:05	3	OK ECM	4689

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
Fax: (586) 755-8924
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FACSIMILE

To: David Estrin

Fax: (416) 863-3401

Subject: Ambassador Bridge Enhancement Project – November 15th Meeting

Date: Tuesday, November 13, 2007

Pages: 3, including the cover page.

COMMENTS:

Please see attached.

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Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: Mayor and City Council

Fax: (519) 255-7796

Subject: Ambassador Bridge Enhancement Project – November 15th Meeting

Date: Tuesday, November 13, 2007

Pages: 3, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

If you have received this fax in error, please notify the sender at (586) 939-7000 ext. 2496.

TRANSACTION REPORT

NOV/14/2007/WED 03:02 PM

FAX(TX)

#	DATE	START T.	RECEIVER	COM.TIME	PAGE	TYPE/NOTE	FILE
701	NOV/14	03:01PM	15192557796	0:00:38	3	OK SG3	4703

Detroit International Bridge Company
P.O. Box 32666
Detroit, MI 48232
Tel: (586) 939-7000 ext. 2496
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Tel: (519) 977-0700
Fax: (519) 977-1262
Email: skip@canadiantransit.com

FACSIMILE

To: Mayor and City Council

Fax: (519) 255-7796

Subject: Ambassador Bridge Enhancement Project – November 15th Meeting

Date: Tuesday, November 13, 2007

Pages: 3, including the cover page.

COMMENTS:

Please see attached.

From the desk of Dan Stamper / Laura Christensen.

Paula Lombardi

From: Bondy, Cheryl [cbondy@townofessex.on.ca]
Sent: Thursday, September 27, 2007 9:22 AM
To: Paula Lombardi
Subject: Ambassador Bridge Enhancement Project Environmental Assessment Luncheon
Attachments: image001.png

Paula:
Councillor Paul Innes from the Town of Essex will be attending the luncheon on October 1st.
Cheryl

Cheryl A Bondy, Clerk/Deputy-Treasurer
Town of Essex
Telephone: 519-776-7336 ext 32
Cell: 519-791-7060
Fax: 519-776-8811
Email: cbondy@townofessex.on.ca
Web: www.townofessex.on.ca

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immediately and remove it from your system.

Paula Lombardi

From: TDesja1002@aol.com
Sent: Friday, September 28, 2007 12:09 PM
To: Paula Lombardi
Subject: Windsor luncheon

Hi Paula.
Now that I have seen the letter, I do remember it and thought I had replied that I will do my best to be there on Monday October 1 for noon.

Sue Desjarlais,
Town of LaSalle

Paula Lombardi

From: Bailey, Robert [rbailey@amherstburg.ca]
Sent: Sunday, September 30, 2007 8:16 PM
To: Paula Lombardi
Subject: RE: Ambassador Bridge Enhancement Project Luncheon

Good Evening Ms. Lombardi: I apologize for responding late, but due to a change in my schedule I am able to attend you luncheon on October 1st.
I hope this will be ok.

Thank you
Robert Bailey
Deputy Mayor
Town of Amherstburg

From: Paula Lombardi [mailto:paula.lombardi@siskinds.com]
Sent: Thu 27/09/2007 1:57 PM
To: Hurst, Wayne; Bailey, Robert; Rick Fryer; Robert Pillon; John Sutton; Renaud, Paul; White, Rosa
Subject: Ambassador Bridge Enhancement Project Luncheon

Good afternoon,

Attached is a letter dated September 21, 2007 inviting you to a luncheon to discuss the Ambassador Bridge Enhancement Project on Monday, October 1st, between noon and 2 pm. If your are interested in attending could you please reply to this email.

If you have any questions, please do not hesitate to contact me directly.

Thank you,
Paula Lombardi

Paula Lombardi
Siskinds LLP
680 Waterloo Street
London, ON N6A 3V8

Tel: (519) 660-7850
Fax: (519) 660-7851
Mail: paula.lombardi@siskinds.com
Web: www.siskinds.com

This message contains confidential information and is intended only for whurst@amherstburg.ca, rbailey@amherstburg.ca, rfryer@amherstburg.ca, rpillon@amherstburg.ca, jsutton@amherstburg.ca, prenaud@amherstburg.ca, rwhite@amherstburg.ca. If you are not whurst@amherstburg.ca, rbailey@amherstburg.ca, rfryer@amherstburg.ca, rpillon@amherstburg.ca, jsutton@amherstburg.ca, prenaud@amherstburg.ca, rwhite@amherstburg.ca you should not disseminate, distribute, print or copy this e-mail. Please notify paula.lombardi@siskinds.com immediately by e-mail if you have received this e-mail in error and delete this e-mail from your system. E-mail transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. Paula Lombardi therefore does not accept liability for any errors or omissions in the contents of this message, which arise as a result of e-mail transmission. If verification is required please request a hard-copy version.

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Robert Bailey
Deputy Mayor
Town of Amherstburg
271 Sandwich St. South
Amherstburg, ON, N9V 2A5
Tel: 519-978-0974 (HOME)
TTY: 519-736-9860
Fax: 519-736-5403 (Town Hall)
Email: rbailey@amherstburg.ca
http://www.amherstburg.ca

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Paula Lombardi

From: Paula Lombardi
Sent: Sunday, September 30, 2007 11:51 AM
To: 'Timmins, Peter'
Subject: RE: ambassador bridge enhancement project environmental assessment

Thank you for your reply.

From: Timmins, Peter [mailto:ptimmins@townofessex.on.ca]
Sent: Sunday, September 30, 2007 11:45 AM
To: paula.lombardi@siskinds.com.
Subject: ambassador bridge enhancement project environmental assessment

Sorry I did not get back to you earlier but have been away and received your message yesterday. Unfortunately I will not be able to attend the luncheon session on Oct. 1st.

Peter Timmins

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Paula Lombardi

From: Meloche, Richard [rmeloche@townofessex.on.ca]
Sent: Monday, October 01, 2007 6:07 PM
To: Paula Lombardi
Subject: RE: Ambassador Bridge Enhancement Project Open House

Paula,

Sorry about NOT making it to the presentation this afternoon.
Upon arrival at work today, I found out my boss would not
be coming into work today due to illness. However, I still
believed that I would have been able to make the lunch/presentation.
As the time approached to leave for the lunch, the problems of the day
were not getting resolved I realized I would not be able to attend.
I did not try to contact you as at this late hour it would not
have made any difference.
However, I'm at a meeting right now with Councillors Paul Innes
and Ron Rogers who attended this afternoon and have briefed me
on the highlights. Regardless of my attendance, I can assure you
that I am a supporter of the Ambassador Bridge plans for a
NEW SPAN!

Richard Meloche
Deputy-Mayor
Town of Essex

From: Paula Lombardi [mailto:paula.lombardi@siskinds.com]
Sent: Friday, September 21, 2007 5:34 PM
To: acomber@cogeco.ca; alice_d@cogeco.ca; amherstq@netcom.ca; ann@bordergateways.com; ashinos@erca.org; bdnure@sympatico.ca; bedard3@uwindsor.ca; bmcqueen@iuoelocal1793.org; bmorland@liunalocal625.org; bre@sympatico.ca; bszekely@cogeco.ca; callsop@uwindsor.ca; cbagin@yahoo.com; cbanks@porchlight.com; cbrown@dwtunnel.com; ClaraD@TheHenryFord.org; cococoncrete@kelcom.net; construction@wca.on.ca; csiltd@mnsi.net; daversa@triamico.com; David.harrison@scotiabank.com; David.mcgregor@brightonbeachpower.com; Dean.clevett@basf.com; dean.jacobs@wifn.org; denunzio@uwindsor.ca; dsitter@cogeco.ca; eclough@etr.com; Eleanore245@hotmail.com; ellebella@hotmail.com; estrickl@uwindsor.ca; fbiekx@teamsters880.org; fjb14@dcx.com; fnazzani@primerose.ca; fsorrell@stclaircollege.ca; gail@chathamchamber.on.ca; honestced@hotmail.com; ibpatwind@mnsi.net; ike@bulldogdesigninc.com; info@shopottawastreet.com; isiljanoski@windsorchamber.org; jcacciato@ambassadordutyfree.com; Jdrummond23@sympatico.ca; jstasser@stclaircollege.ca; jveresuk@downtownwindsor.ca; kfarbota@weche.com; kmbrody69@sympatico.ca; lawolfe@sympatico.ca; lboyd@uniongas.com; lchaif@cogeco.ca; levan7052@yahoo.ca; lgeorgiu@wgh.on.ca; lmccormack@windsorchamber.org; lynnm@win.com; mariacapucci@hotmail.com; Mdugallu700@kelcom.igs.net; mgagliano.local6@bellnet.ca; mhaas1@cogeco.ca; michael.mastromardi@stantec.com; Mike@morency.info; mikeyhanson78@hotmail.com; mkwasnicki@windsor.igs.net; mmaskery@ambassadordutyfree.com; mwoodison@hotmail.com; nbyczynski@stclairecollege.ca; nharding@sympatico.ca; noria.ashande@sympatico.ca; plefave@borderfreightresources.com; pubene@cogeco.ca; reeve1@cogeco.ca; rlucente@bellnet.ca; Rochelle@downtownwindsor.ca; roulavitsas@sympatico.ca; rparent@teamsters880.org; rpaul@uwindsor.ca; s_rowen@hotmail.com; saveojibway@cogeco.ca; sawgrank@hotmail.com; smaxwell@stclaircollege.ca; Solfurerlu773@on.aibn.com; staggerk@yahoo.ca; tdaehn1@yahoo.ca; teragram35@hotmail.com; townandcountry@on.aibn.com; Vinnyboy3@hotmail.com; vkyrialo@air-am.com; walkervillebia@cogeco.ca; windsoroas@yahoo.ca; winnie132264@yahoo.ca; acrazyguynomialpipes@hotmail.com; adan.khan@gecdsb.on.ca; alexlong4@yahoo.com; angerbm@cogeco.ca; ashinas@ERCA.org; awelling134450@comcast.net; beth.cooper@gecdsb.on.ca; bkane@sandwichchc.org; b-re@sympatico.ca; butlerm@tc.gc.ca; bvarga@town.lasalle.on.ca; bwmiii@hotmail.com; cabriojazz@yahoo.com; cathydziedzic@hotmail.com; cheryl.lovell@gecdsb.on.ca; chouston@uwindsor.ca; clewis@liquiforce.com; councilmembers@leamington.ca; crobar231@aol.com; dave.taves@gecdsb.on.ca; director@gecdsb.on.ca; dwesty01@hotmail.com; elmwood@wincom.net; gmcnamara@tecumseh.ca; goocht@uwindsor.ca; helga.bailey@gecdsb.on.ca; jadams@leamington.ca; jason.chapman@chumtv.com; jguerard@ammexdetroitdutyfree.com; jones@hotmail.com; jonna.reaume@gecdsb.on.ca; julia.burgess@gecdsb.on.ca; kayway@windsor.igs.net; kim.mckinley@gecdsb.on.ca; lchalie@cogeco.ca; leovannu52@yahoo.com; lisa.gretzky@gecdsb.on.ca; lulu@uwindsor.ca; lynnm@wincom.net; maggie@ambassadordutyfree.com; maticka@uwindsor.ca; mayor@town.lasalle.on.ca; mchuild@erca.org; mperez1@comcast.net; mweis@uwindsor.ca; news@cjam.ca; newscentre@am800cklu.com; nsantos@kingsville.ca; nsantos@town.kingsville.on.ca; patrick.ouellette@gecdsb.on.ca; pbuckle@ambassadordutyfree.com; pgordonqueen@msn.com; pneice@communityplanners.com; prayl@cbc.ca; rbailey@amherstburg.ca; reclmag@cogeco.ca; rhartley@sympatico.ca; McDermott, Ron; Meloche, Richard; rpeterson9@cogeco.ca; rschmidt@leamington.ca; rsylvester@lakeshore.ca; simone.hobson@cogeco.ca; stomp@mnsi.net; styndale@cogeco.ca; tbain@lakeshore.ca; tburton@tecumseh.ca; teamsterjeff@hotmail.com; tearod112@sbcglobal.net; tom.kilpatrick@gecdsb.on.ca; toml@local444.caw.ca; toufic@teksavvy.com; wdlc_office@bellnet.ca; wecec@elliotenergy.ca; whurst@amherstburg.ca; wwwkenkid@yahoo.com; zeanaattisha@msn.com; jstrasser@stclaircollege.ca
Subject: Ambassador Bridge Enhancement Project Open House

Attached for your information is the notice that will be published in the Windsor Star advertising the open houses for the Ambassador Bridge Enhancement Project environmental assessment update scheduled for **Monday, October 1, 2007** and **Tuesday, October 2, 2007.**

Thank you for your interest in the replacement span and we encourage you to attend one of the open houses and visit the project website at www.ambassadorbridge.com.

If you have any questions, please do not hesitate to contact me directly.

Sincerely,

Paula Lombardi

Paula Lombardi
Siskinds LLP
680 Waterloo Street
London, ON N6A 3V8

Tel: (519) 660-7850
Fax: (519) 660-7851
Mail: paula.lombardi@siskinds.com
Web: www.siskinds.com

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Please notify paula.lombardi@siskinds.com

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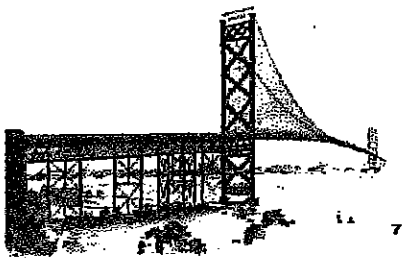

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

September 21, 2007

Mayor and Members of Council
The Town of Amherstburg
271 Sandwich Street
Amherstburg, Ontario N9V 2A5

Via Facsimile: 519-736-5403

Dear Mayor Hurst and Members of Council:

Re: Ambassador Bridge Enhancement Project Environmental Assessment

The Ambassador Bridge, as part of its environmental assessment process, is committed to engaging in extensive public consultation.

We would like to provide you with an opportunity to discuss the Project with our technical experts and **invite you to a luncheon session on Monday, October 1, 2007 at Mackenzie Hall located at 3277 Sandwich Street, Windsor, Ontario between 12:00 pm (noon) and 1:45 pm.** Mr. Dan Stamper, President, of The Canadian Transit Company, along with other Canadian Transit representatives and the technical consultants will be available to respond to any questions. Please note that lunch will be provided.

The Ambassador Bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new span will replace the existing Ambassador Bridge and will link directly into the existing plazas in both Windsor and Detroit. When the replacement span is operational, the existing Ambassador Bridge will be reevaluated and rehabilitated without causing any disruption in traffic flow. After it is rehabilitated, the existing Ambassador Bridge will be maintained and available as a redundant resource for maintenance vehicles, emergencies and approved public events.

The Ambassador Bridge held Public Workshops in April 2007, and Open House Sessions in June 2007, and has met with over sixty different groups and organizations to introduce and discuss the Enhancement Project.

The technical studies are now complete and we would like to provide the representatives of the Town of Amherstburg an opportunity to review these results and ask any questions of our technical consultants prior to our public open houses scheduled for October 1st and October 2nd between the hours of 3:00 pm and 9:00 pm.

If you are available to attend the luncheon on Monday, October 1, 2007 we would ask that you respond directly to Paula Lombardi **no later than Wednesday, September 29, 2007** at 519-251-8200 or paula.lombardi@siskinds.com.

Sincerely,

Laura Christensen

FOR Dan Stamper, President
Canadian Transit Company

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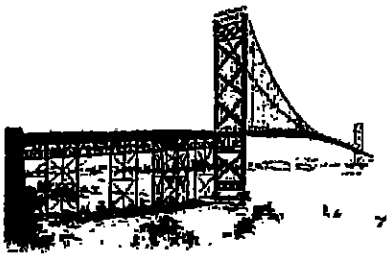

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

DATE September 21, 2007

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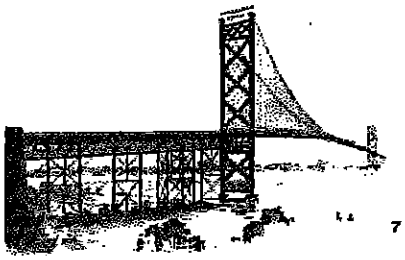

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

September 21, 2007

Mayor and Members of Council
The Town of Lakeshore
419 Notre Dame Street
Belle River, Ontario N0R 1A0

Via Facsimile: 519-728-9530

Dear Mayor Bain and Members of Council:

Re: Ambassador Bridge Enhancement Project Environmental Assessment

The Ambassador Bridge, as part of its environmental assessment process, is committed to engaging in extensive public consultation.

We would like to provide you with an opportunity to discuss the Project with our technical experts and **invite you to a luncheon session on Monday, October 1, 2007 at Mackenzie Hall located at 3277 Sandwich Street, Windsor, Ontario between 12:00 pm (noon) and 1:45 pm.** Mr. Dan Stamper, President, of The Canadian Transit Company, along with other Canadian Transit representatives and the technical consultants will be available to respond to any questions. Please note that lunch will be provided.

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The Ambassador Bridge held Public Workshops in April 2007, and Open House Sessions in June 2007, and has met with over sixty different groups and organizations to introduce and discuss the Enhancement Project.

The technical studies are now complete and we would like to provide the representatives of the Town of Lakeshore an opportunity to review these results and ask any questions of our technical consultants prior to our public open houses scheduled for October 1st and October 2nd between the hours of 3:00 pm and 9:00 pm.

If you are available to attend the luncheon on Monday, October 1, 2007 we would ask that you respond directly to Paula Lombardi **no later than Wednesday, September 29, 2007** at 519-251-8200 or paula.lombardi@siskinds.com.

Sincerely,

Laura Christensen

FOR Dan Stamper, President
Canadian Transit Company

TRANSACTION REPORT

SEP/21/2007/FRI 04:16 PM

FAX(TX)

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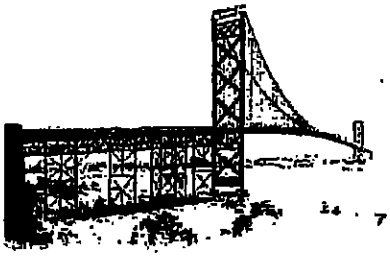

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

DATE September 21, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Mayor and Members of Council The Town of Lakeshore	519-728-9530

WE ARE TRANSMITTING 3 PAGE(S) (including cover page)

BY FAX ONLY [x]

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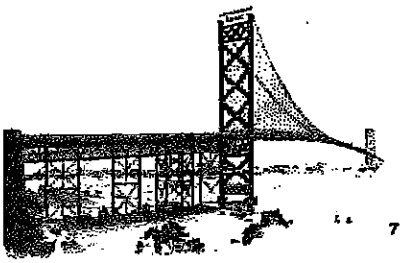

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

September 21, 2007

Mayor and Members of Council
The Town of Kingsville
2021 Division Road North
Kingsville, Ontario N9Y 2Y9

Via Facsimile: 519-733-8108

Dear Mayor Santos and Members of Council:

Re: Ambassador Bridge Enhancement Project Environmental Assessment

The Ambassador Bridge, as part of its environmental assessment process, is committed to engaging in extensive public consultation.

We would like to provide you with an opportunity to discuss the Project with our technical experts and **invite you to a luncheon session on Monday, October 1, 2007 at Mackenzie Hall located at 3277 Sandwich Street, Windsor, Ontario between 12:00 pm (noon) and 1:45 pm.** Mr. Dan Stamper, President, of The Canadian Transit Company, along with other Canadian Transit representatives and the technical consultants will be available to respond to any questions. Please note that lunch will be provided.

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The technical studies are now complete and we would like to provide the representatives of the Town of Kingsville an opportunity to review these results and ask any questions of our technical consultants prior to our public open houses scheduled for October 1st and October 2nd between the hours of 3:00 pm and 9:00 pm.

If you are available to attend the luncheon on Monday, October 1, 2007 we would ask that you respond directly to Paula Lombardi **no later than Wednesday, September 29, 2007** at 519-251-8200 or paula.lombardi@siskinds.com.

Sincerely,

Laura Christensen

FOR Dan Stamper, President
Canadian Transit Company

TRANSACTION REPORT

SEP/21/2007/FRI 04:21 PM

FAX(TX)

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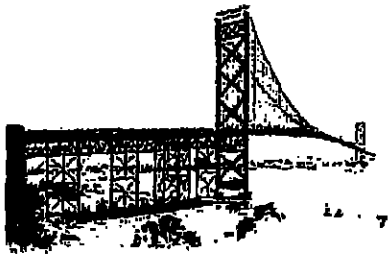

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

DATE September 21, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Mayor and Members of Council The Town of Kingsville	519-733-8108

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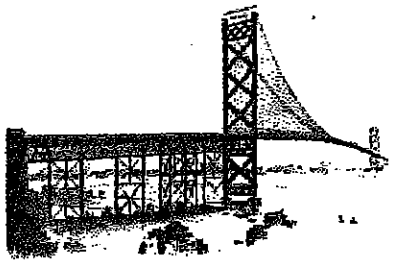

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

September 21, 2007

Mayor and Members of Council
Town of LaSalle
5950 Malden Road
LaSalle, Ontario N9H 1S4

Via Facsimile: 519-969-4469

Dear Mayor Baxter and Members of Council:

Re: Ambassador Bridge Enhancement Project Environmental Assessment

The Ambassador Bridge, as part of its environmental assessment process, is committed to engaging in extensive public consultation.

We would like to provide you with an opportunity to discuss the Project with our technical experts and **invite you to a luncheon session on Monday, October 1, 2007 at Mackenzie Hall located at 3277 Sandwich Street, Windsor, Ontario between 12:00 pm (noon) and 1:45 pm.** Mr. Dan Stamper, President, of The Canadian Transit Company, along with other Canadian Transit representatives and the technical consultants will be available to respond to any questions. Please note that lunch will be provided.

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The Ambassador Bridge held Public Workshops in April 2007, and Open House Sessions in June 2007, and has met with over sixty different groups and organizations to introduce and discuss the Enhancement Project.

The technical studies are now complete and we would like to provide the representatives of the Town of LaSalle an opportunity to review these results and ask any questions of our technical consultants prior to our public open houses scheduled for October 1st and October 2nd between the hours of 3:00 pm and 9:00 pm.

If you are available to attend the luncheon on Monday, October 1, 2007 we would ask that you respond directly to Paula Lombardi **no later than Wednesday, September 29, 2007** at 519-251-8200 or paula.lombardi@siskinds.com.

Sincerely,

Laura Christensen

FOR Dan Stamper, President
Canadian Transit Company

TRANSACTION REPORT

SEP/21/2007/FRI 04:14 PM

FAX(TX)

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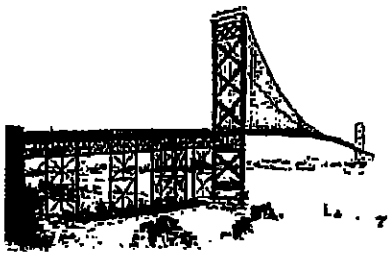

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

La · 780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

DATE September 21, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Mayor and Members of Council Town of LaSalle	519-969-4469

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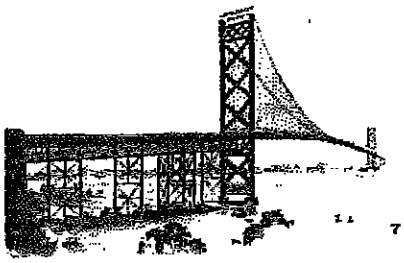

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

700 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

September 21, 2007

Mayor and Members of Council
The Town of Essex
33 Talbot Street
Essex, Ontario N8M 1A8

Via Facsimile: 519-776-8811

Dear Mayor McDermott and Members of Council:

Re: Ambassador Bridge Enhancement Project Environmental Assessment

The Ambassador Bridge, as part of its environmental assessment process, is committed to engaging in extensive public consultation.

We would like to provide you with an opportunity to discuss the Project with our technical experts and **invite you to a luncheon session on Monday, October 1, 2007 at Mackenzie Hall located at 3277 Sandwich Street, Windsor, Ontario between 12:00 pm (noon) and 1:45 pm.** Mr. Dan Stamper, President, of The Canadian Transit Company, along with other Canadian Transit representatives and the technical consultants will be available to respond to any questions. Please note that lunch will be provided.

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The Ambassador Bridge held Public Workshops in April 2007, and Open House Sessions in June 2007, and has met with over sixty different groups and organizations to introduce and discuss the Enhancement Project.

The technical studies are now complete and we would like to provide the representatives of the Town of Essex an opportunity to review these results and ask any questions of our technical consultants prior to our public open houses scheduled for October 1st and October 2nd between the hours of 3:00 pm and 9:00 pm.

If you are available to attend the luncheon on Monday, October 1, 2007 we would ask that you respond directly to Paula Lombardi **no later than Wednesday, September 29, 2007** at 519-251-8200 or paula.lombardi@siskinds.com.

Sincerely,

Laura Christensen

FOR Dan Stamper, President
Canadian Transit Company

TRANSACTION REPORT

SEP/21/2007/FRI 04:19 PM

FAX(TX)

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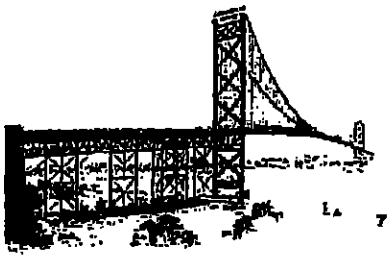

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

DATE September 21, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Mayor and Members of Council The Town of Essex	519-776-8811

WE ARE TRANSMITTING 3 PAGE(S) (Including cover page)

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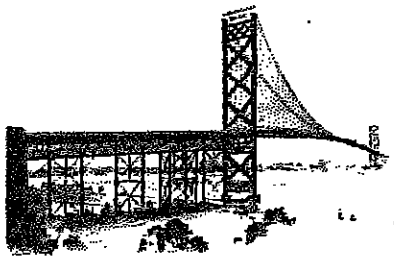

AMBASSADOR BRIDGE
THE CANADIAN TRANSIT COMPANY
780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

September 21, 2007

Mayor and Members of Council
Municipality of Leamington
38 Erie Street North
Leamington, Ontario N8H 2Z3

Via Facsimile: 519-326-2481

Dear Mayor Adams and Members of Council:

Re: Ambassador Bridge Enhancement Project Environmental Assessment

The Ambassador Bridge, as part of its environmental assessment process, is committed to engaging in extensive public consultation.

We would like to provide you with an opportunity to discuss the Project with our technical experts and **invite you to a luncheon session on Monday, October 1, 2007 at Mackenzie Hall located at 3277 Sandwich Street, Windsor, Ontario between 12:00 pm (noon) and 1:45 pm.** Mr. Dan Stamper, President, of The Canadian Transit Company, along with other Canadian Transit representatives and the technical consultants will be available to respond to any questions. Please note that lunch will be provided.

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The Ambassador Bridge held Public Workshops in April 2007, and Open House Sessions in June 2007, and has met with over sixty different groups and organizations to introduce and discuss the Enhancement Project.

The technical studies are now complete and we would like to provide the representatives of the Municipality of Leamington an opportunity to review these results and ask any questions of our technical consultants prior to our public open houses scheduled for October 1st and October 2nd between the hours of 3:00 pm and 9:00 pm.

If you are available to attend the luncheon on Monday, October 1, 2007 we would ask that you respond directly to Paula Lombardi **no later than Wednesday, September 29, 2007** at 519-251-8200 or paula.lombardi@siskinds.com.

Sincerely,

Laura Christensen

FOR Dan Stamper, President
Canadian Transit Company

TRANSACTION REPORT

SEP/21/2007/FRI 04:04 PM

FAX(TX)

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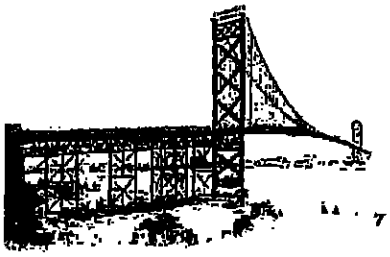

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

DATE September 21, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Mayor and Members of Council Municipality of Leamington	519-326-2481

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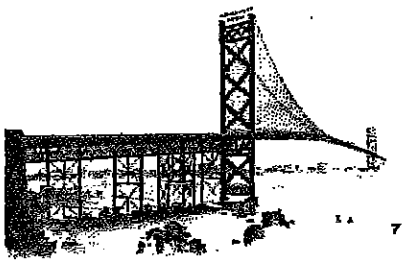

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

September 21, 2007

Warden and Mayors of Essex County Council
County of Essex
360 Fairview Avenue
Essex, Ontario N8M 1Y6

Via Facsimile: 519-776-4455

Dear Warden and Mayors of Essex County Council:

Re: Ambassador Bridge Enhancement Project Environmental Assessment

The Ambassador Bridge, as part of its environmental assessment process, is committed to engaging in extensive public consultation.

We would like to provide you with an opportunity to discuss the Project with our technical experts and **invite you to a luncheon session on Monday, October 1, 2007 at Mackenzie Hall located at 3277 Sandwich Street, Windsor, Ontario between 12:00 pm (noon) and 1:45 pm.** Mr. Dan Stamper, President, of The Canadian Transit Company, along with other Canadian Transit representatives and the technical consultants will be available to respond to any questions. Please note that lunch will be provided.

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If you are available to attend the luncheon on Monday, October 1, 2007 we would ask that you respond directly to Paula Lombardi **no later than Wednesday, September 29, 2007** at 519-251-8200 or paula.lombardi@siskinds.com.

Sincerely,

Laura Christensen

FOR Dan Stamper, President
Canadian Transit Company

TRANSACTION REPORT

SEP/21/2007/FRI 04:06 PM

FAX(TX)

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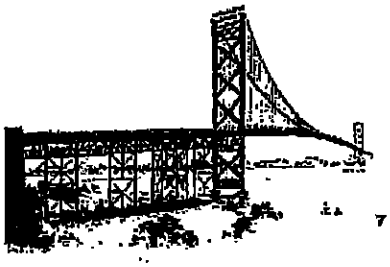

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

750 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

DATE September 21, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Warden and Mayors of Essex County Council	519-776-4455

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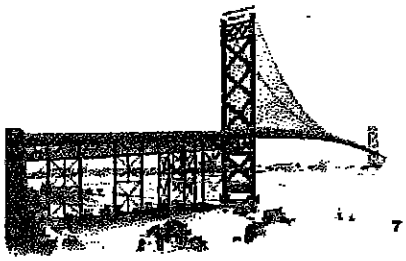
EXPRESS



AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

September 21, 2007

Mayor and Members of Council
The Town of Tecumseh
917 Lesperance Road
Tecumseh, Ontario N8N 1W9

Via Facsimile: 519-735-6712

Dear Mayor McNamara and Members of Council:

Re: Ambassador Bridge Enhancement Project Environmental Assessment

The Ambassador Bridge, as part of its environmental assessment process, is committed to engaging in extensive public consultation.

We would like to provide you with an opportunity to discuss the Project with our technical experts and **invite you to a luncheon session on Monday, October 1, 2007 at Mackenzie Hall located at 3277 Sandwich Street, Windsor, Ontario between 12:00 pm (noon) and 1:45 pm.** Mr. Dan Stamper, President, of The Canadian Transit Company, along with other Canadian Transit representatives and the technical consultants will be available to respond to any questions. Please note that lunch will be provided.

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The technical studies are now complete and we would like to provide the representatives of the Town of Tecumseh an opportunity to review these results and ask any questions of our technical consultants prior to our public open houses scheduled for October 1st and October 2nd between the hours of 3:00 pm and 9:00 pm.

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Sincerely,

Laura Christensen

FOR Dan Stamper, President
Canadian Transit Company

TRANSACTION REPORT

SEP/21/2007/FRI 04:07 PM

FAX(TX)

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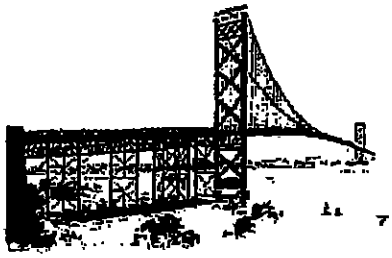

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD Windsor, Ontario N9C2K2

DATE September 21, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Mayor and Members of Council The Town of Tecumseh	519-735-6712

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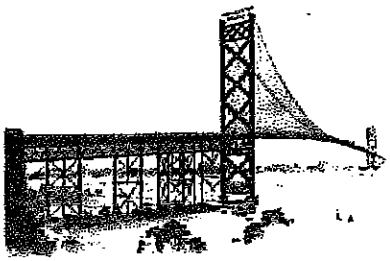

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

700 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

September 21, 2007

Mr. John Skorobohacz
Chief Administrative Officer
City of Windsor
350 City Hall Square
Windsor, ON

Via Facsimile: 519 255 1861

Dear Mr. Skorobohacz,

Re: Ambassador Bridge Enhancement Project Environmental Assessment

The Ambassador Bridge, as part of its environmental assessment process, is committed to engaging in extensive public consultation.

We would like to provide you with an opportunity to discuss the Project with our technical experts and **invite the Mayor and Council to a luncheon session on Monday, October 1, 2007 at Mackenzie Hall located at 3277 Sandwich Street, Windsor, Ontario between 12:00 pm (noon) and 1:45 pm.** Mr. Dan Stamper, President, of The Canadian Transit Company, along with other Canadian Transit representatives and the technical consultants will be available to respond to any questions. Please note that lunch will be provided.

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Sincerely,

Laura Christensen

For Dan Stamper, President
Canadian Transit Company

cc: Mayor and Council
Mr. George Wilkki, City Solicitor
Clerk, City Council Communications

TRANSACTION REPORT

SEP/21/2007/FRI 04:09 PM

FAX(TX)

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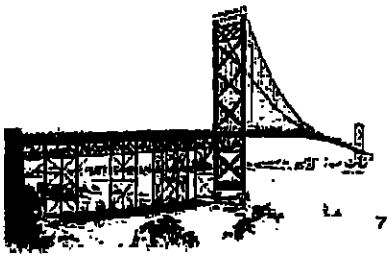

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

DATE September 21, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Mr. John Skorobohacz Chief Administrative Officer City of Windsor	519 255 1861

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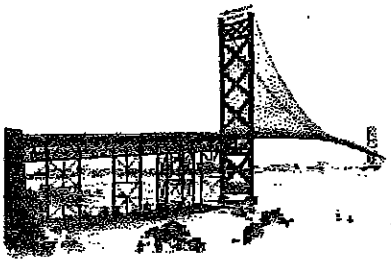
BY FAX ONLY ☒ HARD COPY TO FOLLOW ☐



AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

September 21, 2007

Mayor and Members of Council
Township of Pelee
1045 West Shore Road
Pelee Island Ontario N0R 1M0

Via Facsimile: (519) 724-2470

Dear Mayor Masse and Members of Council:

Re: Ambassador Bridge Enhancement Project Environmental Assessment

The Ambassador Bridge, as part of its environmental assessment process, is committed to engaging in extensive public consultation.

We would like to provide you with an opportunity to discuss the Project with our technical experts and **invite you to a luncheon session on Monday, October 1, 2007 at Mackenzie Hall located at 3277 Sandwich Street, Windsor, Ontario between 12:00 pm (noon) and 1:45 pm.** Mr. Dan Stamper, President, of The Canadian Transit Company, along with other Canadian Transit representatives and the technical consultants will be available to respond to any questions. Please note that lunch will be provided.

The Ambassador Bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new span will replace the existing Ambassador Bridge and will link directly into the existing plazas in both Windsor and Detroit. When the replacement span is operational, the existing Ambassador Bridge will be reevaluated and rehabilitated without causing any disruption in traffic flow. After it is rehabilitated, the existing Ambassador Bridge will be maintained and available as a redundant resource for maintenance vehicles, emergencies and approved public events.

The Ambassador Bridge held Public Workshops in April 2007, and Open House Sessions in June 2007, and has met with over sixty different groups and organizations to introduce and discuss the Enhancement Project.

The technical studies are now complete and we would like to provide the representatives of the Township of Pelee an opportunity to review these results and ask any questions of our technical consultants prior to our public open houses scheduled for October 1st and October 2nd between the hours of 3:00 pm and 9:00 pm.

If you are available to attend the luncheon on Monday, October 1, 2007 we would ask that you respond directly to Paula Lombardi **no later than Wednesday, September 29, 2007** at 519-251-8200 or paula.lombardi@siskinds.com.

Sincerely,

Laura Christensen

FOR Dan Stamper, President
Canadian Transit Company

TRANSACTION REPORT

SEP/21/2007/FRI 04:27 PM

FAX(TX)

#	DATE	START T.	RECEIVER	COM.TIME	PAGE	TYPE/NOTE	FILE
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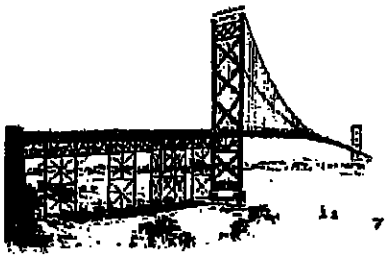

AMBASSADOR BRIDGE

THE CANADIAN TRANSIT COMPANY

780 HURON CHURCH ROAD *Windsor, Ontario* N9C2K2

DATE. September 21, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Mayor and Members of Council Township of Pelee	(519) 724-2470

WE ARE TRANSMITTING 3 PAGE(S) (including cover page)

BY FAX ONLY [x] HARD COPY TO FOLLOW [ ]

This message is intended for the use of the individual to whom it is addressed and may contain information that is confidential. If you have received this communication in error, please destroy and notify us immediately by telephone. Thank you.

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DELIVERED BY COURIER

May 24, 2007

Mr. Joe Comartin
1304 B Lauzon Road
Windsor, Ontario N8S 3N1

Dear Mr. Comartin:

Re: Ambassador Bridge Enhancement Project

We thank you again for taking the time to meet with us to discuss the Ambassador Bridge Enhancement Project. We would however, like to take this opportunity to arrange another meeting to update you on the environmental assessment process and the public consultation that has occurred to date.

As you may be aware, the public consultation process for the Enhancement Project began mid-April, 2007. Over the past several months we met with various, municipalities, the public and other community groups and organizations with an interest in the Enhancement Project. We will be returning to the community in the next couple of weeks to provide an update of the various studies being undertaken in accordance with the requirements of the *Canadian Environmental Assessment Act* for the Enhancement Project.

Please call Paula Lombardi at 519-660-7850 to arrange a mutually agreeable time and location for this meeting. Should you have any questions, please do not hesitate to contact Paula Lombardi at your earliest convenience.

Yours very truly,

Siskinds LLP

COPY

Per:
Paula Lombardi

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DELIVERED BY COURIER

May 24, 2007

The Honourable Sandra Pupatello
Minister of Education, Minister Responsible for Women's Issues
1483 Ouellette Ave
Windsor ON N8X 1K1

Dear Minister Pupatello:

Re: Ambassador Bridge Enhancement Project

In our letter dated March 28, 2007, we requested an opportunity to meet with you to update you on the Enhancement Project.

We understand that you have previously discussed the Enhancement Project with representatives from the Ambassador Bridge. We would however, like to take this opportunity to update you on the environmental assessment process and the public consultation that has occurred to date.

As you may be aware, the public consultation process for the Enhancement Project began mid-April, 2007. Over the past several months we met with various, municipalities, the public and other community groups and organizations with an interest in the Enhancement Project. We will be returning to the community in the next couple weeks to provide an update of the various studies being undertaken in accordance with the requirements of the *Canadian Environmental Assessment Act* for the Enhancement Project.

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Siskinds LLP

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680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DELIVERED BY COURIER

May 24, 2007

The Honourable Bruce Crozier
Deputy Speaker
78 Talbot St N
Essex ON N8M 1A2

Dear Deputy-Speaker Crozier:

Re: Ambassador Bridge Enhancement Project

We thank you again for taking the time to meet with us to discuss the Ambassador Bridge Enhancement Project. We would however, like to take this opportunity to arrange another meeting to update you on the environmental assessment process and the public consultation that has occurred to date.

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SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DELIVERED BY COURIER

May 24, 2007

The Honourable Dwight Duncan
Minister of Energy
2 – 4808 Tecumseh Rd. E
Windsor ON N8T 1B8

Dear Minister Duncan:

Re: Ambassador Bridge Enhancement Project

In our letter dated March 28, 2007, we requested an opportunity to meet with you to update you on the Enhancement Project.

We understand that you have previously discussed the Enhancement Project with representatives from the Ambassador Bridge. We would however, like to take this opportunity to update you on the environmental assessment process and the public consultation that has occurred to date.

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Yours very truly,

Siskinds LLP

Per: COPY
Paula Lombardi

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680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DELIVERED BY COURIER

May 24, 2007

Mr. Brian Masse
336-300 Tecumseth Road East, Plaza 300
Windsor, ON N8X 5E8

Dear Mr. Masse:

Re: Ambassador Bridge Enhancement Project

We thank you again for taking the time to meet with us to discuss the Ambassador Bridge Enhancement Project. We would however, like to take this opportunity to arrange another meeting to update you on the environmental assessment process and the public consultation that has occurred to date.

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Siskinds LLP

Per:
Paula Lombardi

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FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

Whyte, P. Leigh

From: Whyte, P. Leigh
Sent: Thursday, May 03, 2007 4:12 PM
To: Galvin, Mark
Subject: RE: Ambassador Bridge Presentation

I have been in contact with the Ambassador Bridge and they will be providing a response in writing by the end of the day today. They tried to contact John Skorobohacz and were informed that he was out of the office until Monday.

Avalon Consulting Professionals of Ontario
P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
48 Jarvis Street
Fort Erie, ON L2A 2S4
Phone: (905) 991-1681
Fax: (905) 991-1682
Cell: (905) 658-5314

-----Original Message-----
From: Galvin, Mark [mailto:mgalvin@city.windsor.on.ca]
Sent: Thursday, May 03, 2007 3:22 PM
To: Whyte, P. Leigh
Subject: Ambassador Bridge Presentation

Hello Leigh - further to our conversation and our letter of today's date, the City of Windsor will be contacting you, hopefully by mid-month, with options for a meeting date with City Council. We feel that a meeting with full Council is the most appropriate course of action in this case.

If you require anything further, please contact our Chief Administrative Officer, John Skorobohacz.

Thank-you for your cooperation,

Mark

Mark W. Galvin, LL.B., P.Eng, PTOE
Project Administrator
City of Windsor
(519) 255-6100 x1733
mgalvin@city.windsor.on.ca

Whyte, P. Leigh

From: Morand, Nancy [nmorand@city.windsor.on.ca]
ent: Wednesday, May 02, 2007 3:42 PM
o: Whyte, P. Leigh
Cc: Ryan, Diane; Yanchula, Jim; mzunti@sifton.com; mazunti@rogers.com; gheil@heilpartnership.com; Kadour, Karen; Galvin, Mark
Subject: RE: Windsor Heritage Committee Meeting - May 9th

Hello Leigh. You will be part of a busy agenda at the Windsor Heritage Committee meeting on Wednesday, May 9th, 2007 in room 204 of the "400 building" - 400 City Hall Square East - just east of City Hall. The meeting starts at 5:30, but we would like to deal with the designation report on the agenda (delegates will be in attendance) and other business prior to the two presentations scheduled for the evening: Stantec Consulting (Maureen Zunti) with the Sandwich Heritage Conservation District Overview Study (approx 30 minutes) and your presentation about the twinning of the Ambassador Bridge (hopefully 15-20 minutes). I presume you are bringing all of the equipment you need. The walls in the room are off-white and suitable for projection. See you next week.

Nancy Morand, M.A., MCIP, RPP
Heritage Planner
Suite 404-B
400 City Hall Square East
Windsor, Ontario N9A 7K6

PHONE: 519-255-6543 x 6179
FAX: 519-255-6544
EMAIL: nmorand@city.windsor.on.ca
Website: www.citywindsor.ca

-----Original Message-----
From: Whyte, P. Leigh [mailto:lwhyte@acp-on.ca]
Sent: May 2, 2007 12:14 PM
To: Morand, Nancy
Cc: Galvin, Mark; CAO Office; susanwhelan@bell.blackberry.net; Paula Lombardi
Subject: Windsor Heritage Committee Meeting

This email is to confirm our conversation of a few minutes ago whereby you indicated that we would be placed on the agenda for the next meeting of the Windsor Heritage Committee. You indicated that the meeting would be held on May 9th, 2007. Please confirm that we will be on the agenda by replying to this email and provided details pertaining to the location of the meeting.

Thanks for your assistance.

Sincerely;

Leigh Whyte

Avalon Consulting Professionals of Ontario
P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
48 Jarvis Street
rt Erie, ON L2A 2S4
one: (905) 991-1681
ax: (905) 991-1682
Cell: (905) 658-5314

RECEIVED MAY 0 8 2007

THE CITY OF WINDSOR
OFFICE OF THE CHIEF ADMINISTRATIVE OFFICER

JOHN SKOROBOHACZ
CAO

VIA Facsimile & Mail

May 2, 2007

P. Leigh Whyte
Chief Urban Planner
Avalon Consulting Professionals of Ontario LLC
48 Jarvis Street
Fort Erie, Ontario
L2A 2S4

Dear Leigh:

Re: Ambassador Bridge Enhancement Project Public Consultation Process – Heritage Committee Meeting

We confirm that your office has inquired as to making a presentation to the Windsor Heritage Committee at their meeting scheduled for May 9, 2007. We wish to re-iterate our request that all communications regarding this project be directed to the Office of the Chief Administrator. We acknowledge your desire to make presentations to various City officials and Committees; however, for the reasons outlined in our letter of March 29, 2007, we request that said presentation be deferred until the City has met internally and with City Council to discuss information exchange regarding this project.

In the future, it would be beneficial for the City to coordinate information exchange if all communications from your office regarding this project are directed to the Office of the Chief Administrator as was requested in our correspondence of March 29, 2007.

We thank you for your cooperation.

Sincerely,

John Skorobohacz
Chief Administrative Officer

/MG

cc: Mayor and Members of City Council
General Manager of Public Works
Acting City Planner (Att: Ms. Nancy Morand)

RECEIVED APR 2 6 2007

GREATER ESSEX COUNTY DISTRICT SCHOOL BOARD

451 Park Street West, P.O. Box 210, Windsor, Ontario N9A 6K1 Telephone (519) 255-3200 www.GECDSB.on.ca

April 17, 2007

P. Leigh Whyte
Chief Urban Planner
Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street
Fort Erie, Ontario L2A 2S4

Dear Mr. Whyte:

Re: Ambassador Bridge Enhancement Project

This letter is in follow-up to your presentation at the Operations and Finance Committee Meeting of the Greater Essex County District School Board held on April 4, 2007. A number of questions and concerns were raised at the meeting and the Board wishes to reiterate these concerns regarding the proposed bridge enhancement project.

As you presented, the Ambassador Bridge Enhancement Project consists of the construction of a six-lane structure located immediately west of the existing bridge. This project will replace the existing traffic lanes over the Detroit River between Windsor and Detroit and, as proposed, will reduce truck congestion at the border. This, however, does not address the traffic problem along Huron Church, and on other routes that trucks divert to within our City. As a result, traffic flow and the volume of traffic will continue to be a serious issue for our community. The bridge enhancement project **should not** be dealt with in isolation of other governmental initiatives that are underway with respect to improving the international border crossing. In addition, our Board believes that continuing to move all truck traffic the full length of Huron Line exacerbates the problem of our west end schools and communities, isolating them from the rest of our city behind a wall of trucks and the associated noise and air quality problems they create.

Our Board continues to be keenly interested in the developments with regard to improvement to the traffic flow through Windsor to the United States. The status quo is negatively impacting our system in a number of ways. Our transportation costs for busses are increased due to traffic delays. In some schools, we believe student safety is being compromised as a result of traffic risks. The increased traffic also comes with an increased environmental impact, both in terms of noise and air quality issues. These are concerns that we have consistently raised since the fall of 2002 to the Joint Management Committee Windsor Gateway, the Detroit River International Crossing (DRIC) Study, the Premier, our local MPPs and MPs, and the Mayors of our local municipalities.

We appreciate the opportunity to provide this input as part of your public consultation. The environmental impact the twinning of the Ambassador Bridge may have on the community along the Huron Church corridor in general, and seven of our public schools in particular (Oakwood, Bellewood, Marlborough, Benson, Forster, Brock, and Sandwich West) , is a serious concern. We will continue to be an active participant in border crossing solutions to ensure that our schools and students are considered and protected. We understand that another border crossing is needed. Our goal is to ensure the border crossing, the route to the crossing, and the location of the customs plaza are chosen as part of **one** planning exercise that together have the least negative impact on our schools and communities.

Yours truly,

Mary Jean Gallagher,
Director of Education and Secretary.

c. Detroit River International Crossing Study
Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency
Mayor Eddie Francis, City of Windsor
Nelson Santos, Warden, County of Essex
Trustees, GECDSB

THE CITY OF WINDSOR

OFFICE OF THE CHIEF ADMINISTRATIVE OFFICER

JOHN SKOROBOHACZ
CAO

VIA Facsimile & Mail

April 10, 2007

P. Leigh Whyte
Chief Urban Planner
Avalon Consulting Professionals of Ontario LLC
48 Jarvis Street
Fort Erie, Ontario
L2A 2S4

Re: Ambassador Bridge Enhancement Project Public Consultation Process – Heritage Committee Meeting

Dear Leigh:

We confirm that your office has inquired as to making a presentation to the Windsor Heritage Committee at their meeting scheduled for April 11, 2007. While this is a meeting open to the public, and therefore your prerogative to make such a presentation to the Committee, we would encourage your firm to defer such a presentation re-iterating the comments contained in our letter dated March 29, 2007. At that time we noted that the City of Windsor would be meeting internally and with City Council to explore information exchange regarding this project. Our correspondence also indicated that the City of Windsor would be contacting you to arrange a meeting in the near future.

Again, it would be beneficial for the City to coordinate information exchange if all communications from your office regarding this project are directed to the Office of the Chief Administrator.

We thank you for your cooperation.

Sincerely,

John Skorobohacz
Chief Administrative Officer

c.c. Mayor and Members of City Council
General Manager of Public Works
Acting City Planner (Att: Ms. Nancy Morand)

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

April 2, 2007

Councillor Brister
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Councillor Brister:

As a follow up to our letter of March 22, 2007, we would appreciate the opportunity to meet with you to discuss the Enhancement Project. We are optimistic that we will be able to arrange a mutually convenient time. We are very flexible and prepared to meet with you at any time.

Please call me at your earliest convenience at (905) 991-1681 or toll-free at 1-866-807-5113.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Encl.

Avalon

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Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Mayor and Members of Council
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Mayor Francis and Members of Council:

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six-lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process to obtain and encourage public input on the Enhancement Project. We would like to meet with the City of Windsor to discuss the Enhancement Project and respond to any questions you may have that relate directly to the Enhancement Project prior to holding meetings in the community. We are in the midst of arranging the details for several public meetings and expect to have these meetings finalized within the next couple of weeks. We will provide notification in the Windsor Star of the date, time and location of these meetings.

We are hoping to discuss the Enhancement Project with the City of Windsor and provide an overview of the studies being undertaken as part of the federal environmental assessment process. If possible, we would like to meet with you during the week of April 2, 2007.

Please contact **Leigh Whyte at 905-991-1681** with any questions that you may have.

We look forward to meeting with you to discuss the Enhancement Project and the exciting opportunities that it provides for the City of Windsor.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

AVALON CONSULTING
9059911682
2-Apr-2007 16:21

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
332	2/ 4/2007	16:20:40	Send	915192563311	1:06	2	OK

Avalon

Avalon Consulting Professionals of Ontario, LLC
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Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

April 2, 2007

Councillor Brister
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Councillor Brister:

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Please call me at your earliest convenience at (905) 991-1681 or toll-free at 1-888-807-5113.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Encl.

Avalon

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April 2, 2007

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350 City Hall Square West
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Windsor, Ontario N9A 6S1

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Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
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Encl.

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Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

AVALON CONSULTING
9059911682
2-Apr-2007 16:19

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
331	2/ 4/2007	16:18:34	Send	915192563311	1:05	2	OK

Avalon

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46 Jervis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

April 2, 2007

Councillor Jones
The City of Windsor
350 City Hall Square West
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Windsor, Ontario N9A 6S1

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Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Encl.

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

April 2, 2007

Councillor Postma
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Councillor Postma:

As a follow up to our letter of March 22, 2007, we would appreciate the opportunity to meet with you to discuss the Enhancement Project. We are optimistic that we will be able to arrange a mutually convenient time. We are very flexible and prepared to meet with you at any time.

Please call me at your earliest convenience at (905) 991-1681 or toll-free at 1-866-807-5113.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Encl.

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March 22, 2007

Mayor and Members of Council
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Mayor Francis and Members of Council:

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We are hoping to discuss the Enhancement Project with the City of Windsor and provide an overview of the studies being undertaken as part of the federal environmental assessment process. If possible, we would like to meet with you during the week of April 2, 2007.

Please contact **Leigh Whyte at 905-991-1681** with any questions that you may have.

We look forward to meeting with you to discuss the Enhancement Project and the exciting opportunities that it provides for the City of Windsor.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

AVALON CONSULTING
9059911682
2-Apr-2007 16:17

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
330	2/ 4/2007	16:16:22	Send	915192563311	1:06	2	OK

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Avalon Consulting Professionals of Ontario, LLC

45 Jarvis Street • Port Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

April 2, 2007

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The City of Windsor
350 City Hall Square West
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April 2, 2007

Councillor Halberstadt
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Councillor Halberstadt:

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Chief Urban Planner
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cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Encl.

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Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

AVALON CONSULTING
9059911682
2-Apr-2007 16:11

invent

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
328	2/ 4/2007	16:10:42	Send	915192563311	1:03	2	OK

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49 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

April 2, 2007

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350 City Hall Square West
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April 2, 2007

Councillor Valentinis
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Re: Ambassador Bridge Enhancement Project Public Consultation Process

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Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

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AVALON CONSULTING
9059911682
2-Apr-2007 16:04

invent

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
327	2/ 4/2007	16:03:44	Send	915192563311	1:08	2	OK

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Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1661 • Fax 905.991.1662 • www.acp-on.ca

April 2, 2007

Councillor Valentinis
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Councillor Valentinis:

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Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Encl.

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48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

April 2, 2007

Councillor Lewenza
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Councillor Lewenza:

As a follow up to our letter of March 22, 2007, we would appreciate the opportunity to meet with you to discuss the Enhancement Project. We are optimistic that we will be able to arrange a mutually convenient time. We are very flexible and prepared to meet with you at any time.

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P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

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Windsor Port Authority
Canadian Environmental Assessment Agency

Encl.

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Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Mayor and Members of Council
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

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Attention: Mayor Francis and Members of Council:

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Sincerely,

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P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

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9059911682
2-Apr-2007 16:03

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
326	2/ 4/2007	16:01:59	Send	915192563311	1:05	2	OK

Avalon

Avalon Consulting Professionals of Ontario, LLC
46 Jarvis Street • Port Elgin, Ontario N0H 2C4 • Canada
Tel 905.991.1661 • Fax 905.991.1662 • www.acp-on.ca

April 2, 2007

Councillor Lewenza
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Councillor Lewenza:

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Sincerely,

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P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Encl.

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

April 2, 2007

Councillor Marra
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Councillor Marra:

As a follow up to our letter of March 22, 2007, we would appreciate the opportunity to meet with you to discuss the Enhancement Project. We are optimistic that we will be able to arrange a mutually convenient time. We are very flexible and prepared to meet with you at any time.

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P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Encl.

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March 22, 2007

Mayor and Members of Council
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

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P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

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9059911682
2-Apr-2007 16:01

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
325	2/ 4/2007	16:00:10	Send	915192563311	1:06	2	OK

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Avalon Consulting Professionals of Ontario, LLC
49 Jarvis Street • Port Erie, Ontario L2A 2S4 • Canada
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April 2, 2007

Councillor Marra
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Re: Ambassador Bridge Enhancement Project Public Consultation Process

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Windsor Port Authority
Canadian Environmental Assessment Agency

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April 2, 2007

Councillor Gignac
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Councillor Gignac:

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Canadian Environmental Assessment Agency

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March 22, 2007

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The City of Windsor
350 City Hall Square West
P.O. Box 1607
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Windsor Port Authority
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9059911682
2-Apr-2007 15:59

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
324	2/ 4/2007	15:58:24	Send	915192563311	1:02	2	OK

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Avalon Consulting Professionals of Ontario, LLC
49 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
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350 City Hall Square West
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April 2, 2007

Councillor Hatfield
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Re: Ambassador Bridge Enhancement Project Public Consultation Process

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Windsor Port Authority
Canadian Environmental Assessment Agency

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hp LaserJet *3380*

AVALON CONSULTING
9059911682
2-Apr-2007 15:57

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
323	2/ 4/2007	15:56:42	Send	915192563311	1:02	2	OK

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Avalon Consulting Professionals of Ontario, LLC
49 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

April 2, 2007

Councillor Halfield
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Councillor Halfield:

As a follow up to our letter of March 22, 2007, we would appreciate the opportunity to meet with you to discuss the Enhancement Project. We are optimistic that we will be able to arrange a mutually convenient time. We are very flexible and prepared to meet with you at any time.

Please call me at your earliest convenience at (905) 991-1681 or toll-free at 1-866-807-6113.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Encl.

Avalon

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48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

April 2, 2007

Mayor Francis
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Mayor Francis:

As a follow up to our letter of March 22, 2007, we would appreciate the opportunity to meet with you to discuss the Enhancement Project. We are optimistic that we will be able to arrange a mutually convenient time. We are very flexible and prepared to meet with you at any time.

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Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Encl.

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Mayor and Members of Council
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Mayor Francis and Members of Council:

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six-lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process to obtain and encourage public input on the Enhancement Project. We would like to meet with the City of Windsor to discuss the Enhancement Project and respond to any questions you may have that relate directly to the Enhancement Project prior to holding meetings in the community. We are in the midst of arranging the details for several public meetings and expect to have these meetings finalized within the next couple of weeks. We will provide notification in the Windsor Star of the date, time and location of these meetings.

We are hoping to discuss the Enhancement Project with the City of Windsor and provide an overview of the studies being undertaken as part of the federal environmental assessment process. If possible, we would like to meet with you during the week of April 2, 2007.

Please contact **Leigh Whyte at 905-991-1681** with any questions that you may have.

We look forward to meeting with you to discuss the Enhancement Project and the exciting opportunities that it provides for the City of Windsor.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

AVALON CONSULTING
9059911682
2-Apr-2007 15:45

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
322	2/ 4/2007	15:44:01	Send	915192563311	1:01	2	OK

Avalon

Avalon Consulting Professionals of Ontario, LLC
49 Jarvis Street • Port Elgin, Ontario L0A 2B4 • Canada
Tel 905.691.1681 • Fax 905.691.1682 • www.acp-on.ca

April 2, 2007

Mayor Francis
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Attention: Mayor Francis:

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Sincerely,

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P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Encl.

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48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

April 2, 2007

Councillor Dilkens
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Councillor Dilkens:

As a follow up to our letter of March 22, 2007, we would appreciate the opportunity to meet with you to discuss the Enhancement Project. We are optimistic that we will be able to arrange a mutually convenient time. We are very flexible and prepared to meet with you at any time.

Please call me at your earliest convenience at (905) 991-1681 or toll-free at 1-866-807-5113.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Encl.

Paula Lombardi

From: Paula Lombardi
Sent: Sunday, April 01, 2007 1:44 PM
To: 'watson.j@parl.gc.ca'
Subject: Ambassador Bridge Enhancement Project

Good afternoon,

Attached is a letter that was faxed on March 28, 2007 requesting a meeting to discuss the Ambassador Bridge Enhancement Project. The public consultation process for the Enhancement Project is scheduled to begin this month. It is our goal to meet with all government representatives prior to meeting the public and various community groups and organizations having an interest in the Enhancement Project.

We would like to meet with you to provide you with an outline of the presentation that we will be making to the community groups.

Please either e-mail me or call me at 519-660-7850 to arrange a mutually agreeable time and location for this meeting.

Yours very truly,

Paula Lombardi

Paula Lombardi

From: Paula Lombardi
Sent: Sunday, April 01, 2007 1:39 PM
T 'spupatello.mpp.co@liberal.ola.org'
ject: Ambassador Bridge Enhancement Project

Good afternoon,

Attached is a letter that was faxed on March 28, 2007 requesting a meeting to discuss the Ambassador Bridge Enhancement Project. The public consultation process for the Enhancement Project is scheduled to begin this month. It is our goal to meet with all government representatives prior to meeting the public and various community groups and organizations having an interest in the Enhancement Project.

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Yours very truly,

Paula Lombardi

Paula Lombardi

From: Paula Lombardi
Sent: Sunday, April 01, 2007 1:42 PM
To: 'comartin.j@parl.gc.ca'
Subject: Ambassador Bridge Enhancement Project

Good afternoon,

Attached is a letter that was faxed on March 28, 2007 requesting a meeting to discuss the Ambassador Bridge Enhancement Project. The public consultation process for the Enhancement Project is scheduled to begin this month. It is our goal to meet with all government representatives prior to meeting the public and various community groups and organizations having an interest in the Enhancement Project.

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Yours very truly,

Paula Lombardi

Paula Lombardi

From: Paula Lombardi
Sent: Sunday, April 01, 2007 1:41 PM
To: 'bcrozier.mpp.co@liberal.ola.org'
Subject: Ambassador Bridge Enhancement Project

Good afternoon,

Attached is a letter that was faxed on March 28, 2007 requesting a meeting to discuss the Ambassador Bridge Enhancement Project. The public consultation process for the Enhancement Project is scheduled to begin this month. It is our goal to meet with all government representatives prior to meeting the public and various community groups and organizations having an interest in the Enhancement Project.

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Please either e-mail me or call me at 519-660-7850 to arrange a mutually agreeable time and location for this meeting.

Yours very truly,

Paula Lombardi

/2007

Paula Lombardi

From: Masse, Brian - M.P. [Masse.B@parl.gc.ca]
Sent: Monday, April 02, 2007 9:16 AM
To: Paula Lombardi
Cc: Masse, Brian - Riding 1; Masse, Brian - Assistant 1
Subject: RE: Ambassador Bridge Enhancement Project

Dear Paula,

I am writing on behalf of Brian Masse, MP. I would like to acknowledge that we have received your letter regarding a request for a meeting about the Ambassador Bridge Enhancement Project. I will pass this on to Darlene in our constituency office so that she can bring this to Mr. Masse's attention. For your information, the fax number listed at the top of the letter is incorrect - it is Joe Comartin, MP's fax number in Windsor. Our fax line in the constituency is (519) 255-7913.

Thank you and please do not hesitate to contact us directly with any questions or concerns.

Regards,

Melanie Namespetra

Melanie Namespetra
Parliamentary Assistant
to Brian Masse MP
Room 701 Justice Building,
House of Commons
Ottawa, Ontario K1A 0A6
P.(613) 996-1541
F.(613) 992-5397

From: Paula Lombardi [mailto:paula.lombardi@siskinds.com]
Sent: April 1, 2007 1:47 PM
To: Masse, Brian - M.P.
Subject: Ambassador Bridge Enhancement Project

Good afternoon,

Attached is a letter that was faxed on March 28, 2007 requesting a meeting to discuss the Ambassador Bridge Enhancement Project. The public consultation process for the Enhancement Project is scheduled to begin this month. It is our goal to meet with all government representatives prior to meeting the public and various community groups and organizations having an interest in the Enhancement Project.

We would like to meet with you to provide you with an outline of the presentation that we will be making to the community groups.

Please either e-mail me or call me at 519-660-7850 to arrange a mutually agreeable time and location for this meeting.

Yours very truly,

Paula Lombardi

Paula Lombardi
Siskinds LLP
680 Waterloo Street
London, ON N6A 3V8

Tel: (519) 660-7850
Fax: (519) 660-7851
Mail: paula.lombardi@siskinds.com
Web: www.siskinds.com

This message contains confidential information and is intended only for masse.b@parl.gc.ca. If you are not masse.b@parl.gc.ca you should not disseminate, distribute, print or copy this e-mail. Please notify paula.lombardi@siskinds.com immediately by e-mail if you have received this e-mail in error and delete this e-mail from your system. E-mail transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. Paula Lombardi therefore does not accept liability for any errors or omissions in the contents of this message, which arise as a result of e-mail transmission. If verification is required please request a hard-copy version.

Paula Lombardi

From: Paula Lombardi
Sent: Sunday, April 01, 2007 1:45 PM
To: 'masse.b@parl.gc.ca'
Subject: Ambassador Bridge Enhancement Project

Good afternoon,

Attached is a letter that was faxed on March 28, 2007 requesting a meeting to discuss the Ambassador Bridge Enhancement Project. The public consultation process for the Enhancement Project is scheduled to begin this month. It is our goal to meet with all government representatives prior to meeting the public and various community groups and organizations having an interest in the Enhancement Project.

We would like to meet with you to provide you with an outline of the presentation that we will be making to the community groups.

Please either e-mail me or call me at 519-660-7850 to arrange a mutually agreeable time and location for this meeting.

Yours very truly,

Paula Lombardi

/2007

Paula Lombardi

From: Paula Lombardi
Sent: Sunday, April 01, 2007 1:37 PM
'dduncan.mpp.co@liberal.ola.org'
Subject: Ambassador Bridge Enhancement Project

Good afternoon,

Attached is a letter that was faxed on March 28, 2007 requesting a meeting to discuss the Ambassador Bridge Enhancement Project. The public consultation process for the Enhancement Project is scheduled to begin this month. It is our goal to meet with all government representatives prior to meeting the public and various community groups and organizations having an interest in the Enhancement Project.

We would like to meet with you to provide you with an outline of the presentation that we will be making to the community groups.

Please either e-mail me or call me at 519-660-7850 to arrange a mutually agreeable time and location for this meeting.

Yours very truly,

Paula Lombardi

RECEIVED APR 0 2 2007

THE CITY OF WINDSOR

OFFICE OF THE CHIEF ADMINISTRATIVE OFFICER

JOHN SKOROBOHACZ
CAO

March 29, 2007

P. Leigh Whyte
Chief Urban Planner
Avalon Consulting Professionals of Ontario LLC
48 Jarvis Street
Fort Erie, Ontario
L2A 2S4

Dear Leigh:

Re: Ambassador Bridge Enhancement Project Public Consultation Process

We confirm receipt of your letter dated March 22, 2007 addressed to Mayor Francis and Members of City Council, which requested a meeting the week of April 2, 2007. We also note that additional letters were sent to various City Administration representatives also requesting meetings as part of the Ambassador Bridge pubic consultation process for the Enhancement Project. The City of Windsor will be contacting you to arrange a meeting to explore the scope of information exchange necessary between the parties in the near future. We also note that internally a meeting will be coordinated with City Council to engage our elected officials with respect to this project.

In future, we would request that all communications from your office regarding this project be directed to the Office of the Chief Administrator.

We thank you for your cooperation.

Sincerely,

John Skorobohacz
Chief Administrative Officer

c.c. Mayor and Members of City Council
General Manager of Public Works

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DELIVERED BY FAX 519-776-1383 and EMAIL Watson.J@parl.gc.ca

March 28, 2007

The Honourable Jeff Watson
186 Talbot Street South
Essex, Ontario N8M 1B6

Re: Ambassador Bridge Enhancement Project

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project (twinning of the Ambassador Bridge). We understand that you have previously discussed the Enhancement Project with representatives from the Ambassador Bridge. We would however, like to take this opportunity to update you on the environmental assessment process and provide you with an outline of our public consultation plan.

The public consultation process for the Enhancement Project is scheduled to begin mid-April, 2007. It is our goal to meet with all government representatives, the City, County and local municipalities prior to meeting the public and various other community groups and organizations having an interest in the Enhancement Project. We expect to have these meetings finalized within the next couple of weeks.

We would like to meet with you to discuss the Enhancement Project and provide you with an outline the presentation we will be making to the community. We would be pleased to meet with you at your earliest convenience.

Please call Paula Lombardi at 519-660-7850 to arrange a mutually agreeable time and location for this meeting. Should you have any questions, please do not hesitate to contact Paula Lombardi at your earliest convenience.

Yours very truly,

Siskinds LLP

Per: Paula Lombardi

Paula Lombardi

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

****
*** TX REPORT ***
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TRANSMISSION OK

TX/RX NO	3083
RECIPIENT ADDRESS	*111*810750*915197761383
DESTINATION ID	
ST. TIME	03/28 13:36
TIME USE	00'21
PAGES SENT	2
RESULT	OK

680 Waterloo Street, London, ON N6A 3V8

SISKINDS

EMAIL paula.lombardi@siskinds.com

FILE NO. 8

DATE March 28, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
The Honourable Jeff Watson	1-519-776-1383

FROM Paula Lombardi

WE ARE TRANSMITTING 2 PAGE(S) (including cover page)

BY FAX ONLY [X] HARD COPY TO FOLLOW [ ]

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DELIVERED BY FAX 519-988-0152 and EMAIL comartin.j@parl.gc.ca

March 28, 2007

The Honourable Joe Comartin
1304 B Lauzon Road
Windsor, Ontario N8S 3N1

Re: Ambassador Bridge Enhancement Project

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project (twinning of the Ambassador Bridge). We understand that you have previously discussed the Enhancement Project with representatives from the Ambassador Bridge. We would however, like to take this opportunity to update you on the environmental assessment process and provide you with an outline of our public consultation plan.

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We would like to meet with you to discuss the Enhancement Project and provide you with an outline the presentation we will be making to the community. We would be pleased to meet with you at your earliest convenience.

Please call Paula Lombardi at 519-660-7850 to arrange a mutually agreeable time and location for this meeting. Should you have any questions, please do not hesitate to contact Paula Lombardi at your earliest convenience.

Yours very truly,

Siskinds LLP

Per: Paula Lombardi
Paula Lombardi

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

****
*** TX REPORT ***
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TRANSMISSION OK

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ST. TIME	03/28 13:33
TIME USE	00'22
PAGES SENT	2
RESULT	OK

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE March 28, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
The Honourable Joe Comartin	1-519-988-0152

FROM Paula Lombardi

WE ARE TRANSMITTING 2 PAGE(S) (including cover page)

BY FAX ONLY [X] HARD COPY TO FOLLOW [ ]

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DELIVERED BY FAX 519-251-5299 and EMAIL dduncan.mpp.co@liberal.ola.org

March 28, 2007

The Honourable Dwight Duncan
Minister of Energy
2 - 4808 Tecumseh Rd E
Windsor ON N8T 1B8

Re: Ambassador Bridge Enhancement Project

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project (twinning of the Ambassador Bridge). We understand that you have previously discussed the Enhancement Project with representatives from the Ambassador Bridge. We would however, like to take this opportunity to update you on the environmental assessment process and provide you with an outline of our public consultation plan.

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Yours very truly,

Siskinds LLP

Per: Paula Lombardi
Paula Lombardi

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

****
*** TX REPORT ***
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TRANSMISSION OK

TX/RX NO	3079
RECIPIENT ADDRESS	*111*810750*915192515299
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ST. TIME	03/28 13:30
TIME USE	00'46
PAGES SENT	2
RESULT	OK

680 Waterloo Street, London, ON N6A 3V8

SISKINDS

EMAIL paula.lombardi@siskinds.com

FILE NO. 6

DATE March 28, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
The Honourable Dwight Duncan	1-519-251-5299

FROM Paula Lombardi

WE ARE TRANSMITTING 2 PAGE(S) (including cover page)

BY FAX ONLY [X] HARD COPY TO FOLLOW [ ]

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DELIVERED BY FAX 519-255-7913 and EMAIL masse.b@parl.gc.ca

March 28, 2007

The Honourable Brian Masse
336-300 Tecumseh Road East, Plaza 300
Windsor, Ontario N8X 5E8

Re: Ambassador Bridge Enhancement Project

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project (twinning of the Ambassador Bridge). We understand that you have previously discussed the Enhancement Project with representatives from the Ambassador Bridge. We would however, like to take this opportunity to update you on the environmental assessment process and provide you with an outline of our public consultation plan.

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Yours very truly,

Siskinds LLP

Per: Paula Lombardi

Paula Lombardi

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

****
*** TX REPORT ***
****

TRANSMISSION OK

TX/RX NO	3082
RECIPIENT ADDRESS	*111*810750*915192557913
DESTINATION ID	
ST. TIME	03/28 13:32
TIME USE	00'22
PAGES SENT	2
RESULT	OK

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE March 28, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
The Honourable Brian Masse	1-519-255-7913

FROM Paula Lombardi

WE ARE TRANSMITTING 2 PAGE(S) (Including cover page)

BY FAX ONLY [X] **HARD COPY TO FOLLOW** [ ]

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Mayor and Members of Council
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Mayor Francis and Members of Council:

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six-lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

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Please contact **Leigh Whyte at 905-991-1681** with any questions that you may have.

We look forward to meeting with you to discuss the Enhancement Project and the exciting opportunities that it provides for the City of Windsor.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

'ALON CONSULTING
:59911682
22-Mar-2007 18:38

invent

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
114	22/ 3/2007	18:37:52	Send	915192563311	0:53	1	OK

Avalon

Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1881 • Fax 905.991.1882 • www.acp-on.ca

March 22, 2007

Mayor and Members of Council
The City of Windsor
350 City Hall Square West
P.O. Box 1607
Windsor, Ontario N9A 6S1

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Attention: Mayor Francis and Members of Council:

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Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Warden and Mayors of Essex County Council
County of Essex
360 Fairview Avenue
Essex, Ontario N8M 1Y6

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Members of Essex County Council:

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six-lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process to obtain and encourage public input on the Enhancement Project. We would like to meet with Essex County Council to discuss the Enhancement Project and respond to any questions you may have that relate directly to the Enhancement Project prior to holding meetings in the community. We will also be contacting each local municipality to discuss the enhancement project. We are in the midst of arranging the details for several public meetings and expect to have these meetings finalized within the next couple of weeks. We will provide notification in the Windsor Star of the date, time and location of these meetings.

We are hoping to discuss the Enhancement Project with Essex County Council and provide an overview of the studies being undertaken as part of the federal environmental assessment process. If possible, we would like to meet with you during the week of April 2, 2007.

Please contact **Leigh Whyte at 905-991-1681** with any questions that you may have.

We look forward to meeting with you to discuss the Enhancement Project and the exciting opportunities that it provides for Essex County Council.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

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LON CONSULTING
5059911682
22-Mar-2007 18:20

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
106	22/ 3/2007	18:19:38	Send	915197764455	0:41	1	OK

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48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Warden and Mayors of Essex County Council
County of Essex
360 Fairview Avenue
Essex, Ontario N8M 1Y6

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Attention: Members of Essex County Council

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six-lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process to obtain and encourage public input on the Enhancement Project. We would like to meet with Essex County Council to discuss the Enhancement Project and respond to any questions you may have that relate directly to the Enhancement Project prior to holding meetings in the community. We will also be contacting each local municipality to discuss the enhancement project. We are in the midst of arranging the details for several public meetings and expect to have these meetings finalized within the next couple of weeks. We will provide notification in the Windsor Star of the date, time and location of these meetings.

We are hoping to discuss the Enhancement Project with Essex County Council and provide an overview of the studies being undertaken as part of the federal environmental assessment process. If possible, we would like to meet with you during the week of April 2, 2007.

Please contact Leigh Whyte at 905-991-1681 with any questions that you may have.

We look forward to meeting with you to discuss the Enhancement Project and the exciting opportunities that it provides for Essex County Council.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Mayor and Members of Council
The Town of Amherstburg
271 Sandwich Street
Amherstburg, Ontario N9V 2A5

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Mayor Hurst and Members of Council:

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six-lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process to obtain and encourage public input on the Enhancement Project. We would like to meet with the Town of Amherstburg to discuss the Enhancement Project and respond to any questions you may have that relate directly to the Enhancement Project prior to holding meetings in the community. We are in the midst of arranging the details for several public meetings and expect to have these meetings finalized within the next couple of weeks. We will provide notification in the Windsor Star of the date, time and location of these meetings.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Mr. Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

'ALON CONSULTING
J59911682
22-Mar-2007 18:07

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Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
104	22/ 3/2007	18:06:54	Send	915197365403	0:42	1	OK

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48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1641 • Fax 905.991.1652 • www.acp-on.ca

March 22, 2007

Mayor and Members of Council
The Town of Amherstburg
271 Sandwich Street
Amherstburg, Ontario N9V 2A5

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Mayor Hurst and Members of Council:

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six-lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process to obtain and encourage public input on the Enhancement Project. We would like to meet with the Town of Amherstburg to discuss the Enhancement Project and respond to any questions you may have that relate directly to the Enhancement Project prior to holding meetings in the community. We are in the midst of arranging the details for several public meetings and expect to have these meetings finalized within the next couple of weeks. We will provide notification in the Windsor Star of the date, time and location of these meetings.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Mr. Leigh Whyte at (905) 991-1641 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Mayor and Members of Council
The Town of Essex
33 Talbot Street
Essex, Ontario N8M 1A8

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Mayor McDermott and Members of Council:

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six-lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process to obtain and encourage public input on the Enhancement Project. We would like to meet with the Town of Essex to discuss the Enhancement Project and respond to any questions you may have that relate directly to the Enhancement Project prior to holding meetings in the community. We are in the midst of arranging the details for several public meetings and expect to have these meetings finalized within the next couple of weeks. We will provide notification in the Windsor Star of the date, time and location of these meetings.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Mr. Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

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5059911682
22-Mar-2007 18:01

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
100	22/ 3/2007	18:01:09	Send	915197768811	0:34	1	OK

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40 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1661 • Fax 905.991.1662 • www.acp-on.ca

March 22, 2007

Mayor and Members of Council
The Town of Essex
33 Talbot Street
Essex, Ontario N8M 1A8

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Attention: Mayor McDermott and Members of Council:

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six-lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process to obtain and encourage public input on the Enhancement Project. We would like to meet with the Town of Essex to discuss the Enhancement Project and respond to any questions you may have that relate directly to the Enhancement Project prior to holding meetings in the community. We are in the midst of arranging the details for several public meetings and expect to have these meetings finalized within the next couple of weeks. We will provide notification in the Windsor Star of the date, time and location of these meetings.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Mr. Leigh Whyte at (905) 991-1661 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Mayor and Members of Council
Municipality of Learnington
38 Erie Street North
Learnington, Ontario N8H 2Z3

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Mayor Adams and Members of Council:

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six-lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process to obtain and encourage public input on the Enhancement Project. We would like to meet with the Municipality of Learnington to discuss the Enhancement Project and respond to any questions you may have that relate directly to the Enhancement Project prior to holding meetings in the community. We are in the midst of arranging the details for several public meetings and expect to have these meetings finalized within the next couple of weeks. We will provide notification in the Windsor Star of the date, time and location of these meetings.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Mr. Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

ALON CONSULTING
9059911682
22-Mar-2007 18:00

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Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
98	22/ 3/2007	17:59:38	Send	915193262481	0:41	1	OK

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March 22, 2007

Mayor and Members of Council
Municipality of Leamington
38 Erie Street North
Leamington, Ontario N8H 2Z9

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Mayor Adams and Members of Council:

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six-lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process to obtain and encourage public input on the Enhancement Project. We would like to meet with the Municipality of Leamington to discuss the Enhancement Project and respond to any questions you may have that relate directly to the Enhancement Project prior to holding meetings in the community. We are in the midst of arranging the details for several public meetings and expect to have these meetings finalized within the next couple of weeks. We will provide notification in the Windsor Star of the date, time and location of these meetings.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Mr. Leigh Whyte at (905) 991-1681 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Mayor and Members of Council
The Town of Lakeshore
419 Notre Dame Street
Belle River Ontario N0R 1A0

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Mayor Bain and Members of Council:

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six-lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process to obtain and encourage public input on the Enhancement Project. We would like to meet with the Town of Lakeshore to discuss the Enhancement Project and respond to any questions you may have that relate directly to the Enhancement Project prior to holding meetings in the community. We are in the midst of arranging the details for several public meetings and expect to have these meetings finalized within the next couple of weeks. We will provide notification in the Windsor Star of the date, time and location of these meetings.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Mr. Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

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J59911682
22-Mar-2007 17:59

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
97	22/ 3/2007	17:58:22	Send	915197289530	0:49	1	OK

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46 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
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March 22, 2007

Mayor and Members of Council
The Town of Lakeshore
419 Notre Dame Street
Belle River Ontario N0R 1A0

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Mayor Bain and Members of Council:

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six-lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process to obtain and encourage public input on the Enhancement Project. We would like to meet with the Town of Lakeshore to discuss the Enhancement Project and respond to any questions you may have that relate directly to the Enhancement Project prior to holding meetings in the community. We are in the midst of arranging the details for several public meetings and expect to have these meetings finalized within the next couple of weeks. We will provide notification in the Windsor Star of the date, time and location of these meetings.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Mr. Leigh Whyte at (905) 991-1661 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Mayor and Members of Council
The Town of Kingsville
2021 Division Road North
Kingsville, Ontario N9Y 2Y9

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Mayor Santos and Members of Council:

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six-lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process to obtain and encourage public input on the Enhancement Project. We would like to meet with the Town of Kingsville to discuss the Enhancement Project and respond to any questions you may have that relate directly to the Enhancement Project prior to holding meetings in the community. We are in the midst of arranging the details for several public meetings and expect to have these meetings finalized within the next couple of weeks. We will provide notification in the Windsor Star of the date, time and location of these meetings.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Mr. Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

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_J59911682
22-Mar-2007 17:58

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Job	Date	Time	Type	Identification	Duration	Pages	Result
96	22/ 3/2007	17:57:19	Send	915197338108	0:35	1	OK

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March 22, 2007

Mayor and Members of Council
The Town of Kingsville
2021 Division Road North
Kingsville, Ontario N9Y 2Y9

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Mayor Santos and Members of Council:

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six-lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

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Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

"A Culture of Professional Excellence"

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March 22, 2007

Mayor and Members of Council
Town of LaSalle
5950 Malden Road
LaSalle, Ontario N9H 1S4

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Mayor Baxter and Members of Council:

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six-lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process to obtain and encourage public input on the Enhancement Project. We would like to meet with the Town of LaSalle to discuss the Enhancement Project and respond to any questions you may have that relate directly to the Enhancement Project prior to holding meetings in the community. We are in the midst of arranging the details for several public meetings and expect to have these meetings finalized within the next couple of weeks. We will provide notification in the Windsor Star of the date, time and location of these meetings.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Mr. Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

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J59911682
22-Mar-2007 17:56

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Job	Date	Time	Type	Identification	Duration	Pages	Result
95	22/ 3/2007	17:56:05	Send	915199694469	0:46	1	OK

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48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1661 • Fax 905.991.1662 • www.acp-on.ca

March 22, 2007

Mayor and Members of Council
Town of LaSalle
5950 Malden Road
LaSalle, Ontario N9H 1S4

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Attention: Mayor Baxter and Members of Council:

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six-lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

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We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Mr. Leigh Whyte at (905) 991-1661 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Mayor and Members of Council
The Town of Tecumseh
917 Lesperance Road
Tecumseh, Ontario N8N 1W9

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Mayor McNamara and Members of Council:

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six-lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process to obtain and encourage public input on the Enhancement Project. We would like to meet with the Town of Tecumseh to discuss the Enhancement Project and respond to any questions you may have that relate directly to the Enhancement Project prior to holding meetings in the community. We are in the midst of arranging the details for several public meetings and expect to have these meetings finalized within the next couple of weeks. We will provide notification in the Windsor Star of the date, time and location of these meetings.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Mr. Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

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059911682
22-Mar-2007 17:53

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
91	22/ 3/2007	17:52:50	Send	915197356712	0:39	1	OK

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45 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Mayor and Members of Council
The Town of Tecumseh
917 Lesperance Road
Tecumseh, Ontario N8N 1W9

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Attention: Mayor McNamara and Members of Council:

The Ambassador Bridge is beginning its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six-lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process to obtain and encourage public input on the Enhancement Project. We would like to meet with the Town of Tecumseh to discuss the Enhancement Project and respond to any questions you may have that relate directly to the Enhancement Project prior to holding meetings in the community. We are in the midst of arranging the details for several public meetings and expect to have these meetings finalized within the next couple of weeks. We will provide notification in the Windsor Star of the date, time and location of these meetings.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Mr. Leigh Whyte at (905) 991-1681 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Windsor Heritage Committee
c/o Nancy Morand
Suite 404B, 400 City Hall Square East
Windso, ON N9A 7K6

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Ms. Morand:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Windsor Heritage Committee to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

ALON CONSULTING
59911682
22-Mar-2007 19:00

invent

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
123	22/ 3/2007	18:59:50	Send	915192556544	0:49	1	OK

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48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Windsor Heritage Committee
c/o Nancy Morand
Suite 404B, 400 City Hall Square East
Windsor, ON N9A 7K6

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Dear Ms. Morand:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Windsor Heritage Committee to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1681 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Katherine Graham
President
Ontario Archaeological Society - Windsor Chapter
631 Richmond Street
Amherstburg, ON N9V 3Y4

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Ms. Graham:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

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Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Williams, Shannon L.

From: Williams, Shannon L.
Sent: Friday, March 23, 2007 11:23 AM
To: 'windsoroas@yahoo.ca'
Cc: Whyte, P. Leigh
Subject: Ambassador Bridge Enhancement Project

Attachments: LET_LWhyte_to_OntArchSociety_070322.jpg

LET_LWhyte_to_OntArchSociety_0...

Good Morning,

Please see the attached letter regarding the Ambassador Bridge Enhancement Project.

Thanks,

Shannon Williams
Environmental Planner
Avalon Consulting Professionals of Ontario
48 Jarvis Street, Fort Erie, Ontario
L2A 2S4
Tel: (905) 991-1681 Fax: (905) 991-1682

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Mary Jean Gallagher
Director of Education and Secretary of the Board
Greater Essex County District School Board
451 Park Street West, P.O. Box 210
Windsor, ON N9A 6K1

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Ms. Gallagher:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Greater Essex County District School Board to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

'ALON CONSULTING
59911682
23-Mar-2007 10:22

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Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
151	23/ 3/2007	10:21:55	Send	915192557053	0:41	1	OK

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48 Jarvis Street • Port Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

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Director of Education and Secretary of the Board
Greater Essex County District School Board
451 Park Street West, P.O. Box 210
Windsor, ON N9A 6K1

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Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Dr. John Strasser
President
St. Clair College
2000 Talbot Road West
Windsor, ON N9A 6S4

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Dr. Strasser:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage St. Clair College to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

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59911682
22-Mar-2007 18:31

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Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
112	22/ 3/2007	18:30:39	Send	915199663763	0:40	1	OK

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48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Dr. John Strasser
President
St. Clair College
2000 Talbot Road West
Windsor, ON N9A 6S4

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Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Dr. Ross Paul
President & Vice-Chancellor
University of Windsor
505 Chrysler Hall Tower 401 Sunset Avenue
Windsor, ON N9B 3P4

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Dr. Paul:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the University of Windsor to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

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22-Mar-2007 18:29

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Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
111	22/ 3/2007	18:28:57	Send	915199737050	0:50	1	OK

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48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1581 • Fax 905.991.1582 • www.acp-on.ca

March 22, 2007

Dr. Ross Paul
President & Vice-Chancellor
University of Windsor
509 Chrysler Hall Tower 401 Sunset Avenue
Windsor, ON N9B 3P4

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Dr. Paul:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the University of Windsor to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1581 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Williams, Shannon L.

From: Katherine Graham [windsoroas@yahoo.ca]
Sent: Wednesday, April 11, 2007 3:31 PM
To: Williams, Shannon L.
Subject: Re: Ambassador Bridge Enhancement Project

Shannon,
Thank you very much.

Katherine Graham

"Williams, Shannon L." <SWilliams@acp-on.ca> wrote:

> Katherine,
>
> At the request of Leigh Whyte, I am attaching a copy of the notice for the public meetings that will be held regarding the Enhancement Project for your information.
>
> Please call if you have any questions.
>
> Shannon Williams
> Environmental Planner
> Avalon Consulting Professionals of Ontario
> 48 Jarvis Street, Fort Erie, Ontario
> L2A 2S4
> Tel: (905) 991-1681 Fax: (905) 991-1682

The best gets better. See why everyone is raving about the **All-new Yahoo! Mail.**

Williams, Shannon L.

From: Williams, Shannon L.
Sent: Tuesday, April 10, 2007 4:02 PM
To: 'windsoroas@yahoo.ca'
Cc: Whyte, P. Leigh
Subject: Ambassador Bridge Enhancement Project

Attachments: Windsor_public_information_meetings_notice.pdf

Windsor_pub
lformation_m

Katherine,

At the request of Leigh Whyte, I am attaching a copy of the notice for the public meetings that will be held regarding the Enhancement Project for your information.

Please call if you have any questions.

Shannon Williams
Environmental Planner
Avalon Consulting Professionals of Ontario
48 Jarvis Street, Fort Erie, Ontario
L2A 2S4
Tel: (905) 991-1681 Fax: (905) 991-1682

Ambassador Bridge Enhancement Project
PUBLIC WORKSHOP NOTICE

PROJECT BACKGROUND: Ambassador Bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new bridge will connect directly into the existing plazas in both Windsor and Detroit. The New structure will be 31.24 metres wide and 1889.76 metres long, with approximately 670.56 metres traversing the Detroit River. No supporting structures (piers and towers) will be placed in the Detroit River. Once the new structure is completed, the existing Ambassador Bridge will be taken out of service in order to evaluate and make any repairs necessary.

The Ambassador Bridge will conduct a series of Public Workshops on the Enhancement Project at the times and places noted below:

Monday April 16 at 6:30 pm	Tuesday April 17 at 6:30 pm	Wednesday April 18 at 6:30 pm	Thursday April 19 at 6:30 pm
Royal Canadian Legion 3920 Huron Church Road Windsor, Ontario	St. Francis Elementary School 477 Detroit Street Windsor, Ontario	Caboto Club 2175 Parent Avenue Windsor, Ontario	Essex High School Gymnasium 244 Talbot Street North Essex, Ontario

These meetings are being held as part of the public consultation process for the preparation of a Federal Environmental Assessment (EA).

For further information, please contact:

P. Leigh Whyte
Chief Urban Planner
Avalon Consulting Professionals of Ontario, LLC
Tel. 1-866-807-5113
Email lwhyte@acp-on.ca

AMBASSADOR BRIDGE

Ambassador Bridge: www.ambassadorbridge.com

From: Whyte, P. Leigh
Sent: Friday, April 13, 2007 11:11 AM
To: Williams, Shannon L.
Subject: FW: FW: Ambassador Bridge Enhancement Project

OAS indication that they weren't available to meet before the public meetings.

Avalon Consulting Professionals of Ontario
P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
48 Jarvis Street
Fort Erie, ON L2A 2S4
Phone: (905) 991-1681
Fax: (905) 991-1682
Cell: (905) 658-5314

From: Katherine Graham [mailto:windsoroas@yahoo.ca]
Sent: Tuesday, April 03, 2007 11:55 AM
To: Whyte, P. Leigh
Subject: RE: FW: Ambassador Bridge Enhancement Project

Mr Whyte,

Given the availablity of myself and the others in our executive, due to work schedules, and your own present availablity, it would be best if we attended one of the public meetings, where, I am assuming, a similar agenda will be followed. I would hope that if questions were to arise following the presentation that were of a sensitive archaeological nature that we would be able to schedual a private meeting with you at that time.

Katherine Graham
Ontario Archaeological Society
Windsor Chapter President

"Whyte, P. Leigh" <lwhyte@acp-on.ca> wrote:
I am in Windsor all of this week meeting with various stakeholders. I would suggest that the agenda for a meeting with the Ontario Archaeological Society would consist of three items:
1. Brief Introductions (2 minutes);
2. Powerpoint Presentation (15-20 minutes); and
3. Questions and Answers (30 minutes).
The timeframes are flexible. We are totally booked for meetings this week but have some availability during the day during the week of April 16th. I don't have the exact details for the locations of the public meetings but do know that they will be starting at 6:30 pm during the evenings of April 16th (LaSalle), April 17th (Sandwich), April 18th (City Centre), and April 19th (Essex). It is possible that the exact locations of these meetings may have been determined but I don't have that information at my disposal at this time. I know that it will be published in this Saturday's edition of the Windsor Star and likely other newspapers as well. These details are being made on a daily basis. I will send you a copy of the public notice as soon as it is finalized.

We have reserved meeting space at the Hampton Inn on Huron Church Road during the week of April 16th but are flexible if you would like to meet at another location. Please feel free to contact me at any time to make arrangements to meet. In addition to my office, you can also try my cell phone at (905) 658-5314. I will have it off while I am in meetings but will respond to messages as soon as possible.

From: Katherine Graham [mailto:windsoroas@yahoo.ca]
Sent: Mon 4/2/2007 3:11 PM
To: Whyte, P. Leigh
Subject: Re: FW: Ambassador Bridge Enhancement Project

Mr. Whyte,
I tried to call you about the meeting you requested, but discovered that you will be out of your office for the week. Hopefully you will receive this e-mail in a timely manner.
Perhaps there was a misunderstanding from my last e-mail, I wanted to know what the agenda is prior to setting up a meeting. There are three of us in the executive that need to be co-ordinated with in order to set up this meeting. Also do you know yet when and where the public meeting will take place?

Katherine Graham
OAS Windsor Chapter President

"Whyte, P. Leigh" wrote:

Hello Katherine. I am the individual who has been in contact with Bethany Findlay to keep her apprised of the current activity associated with the Customs Plaza Expansion Project. Basically, we are meeting with stakeholder groups to describe the project to them and give various organizations an opportunity to identify issues associated to the project that should be addressed as part of the Environmental Assessment process. Please feel free to give me a call to discuss. The first round of public meetings will be held during the week of April 16th. Details regarding these meetings are still being ironed out.

Avalon Consulting Professionals of Ontario
P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
48 Jarvis Street
Fort Erie, ON L2A 2S4
Phone: (905) 991-1681
Fax: (905) 991-1682
Cell: (905) 658-5314
From: Katherine Graham [mailto:windsoroas@yahoo.ca]
Sent: Monday, March 26, 2007 9:40 AM
To: Williams, Shannon L.
Subject: Re: Ambassador Bridge Enhancement Project

Good Day,

I have a few questions. When is the public meeting to take place and where? Why do you wish to speak with me prior to this meeting? What is it that you would like to discuss at this meeting?

Katherine Graham
OAS Windsor Chapter President

"Williams, Shannon L." wrote:

Good Morning,

Please see the attached letter regarding the Ambassador Bridge Enhancement Project.

Thanks,

Shannon Williams
Environmental Planner
Avalon Consulting Professionals of Ontario
48 Jarvis Street, Fort Erie, Ontario
L2A 2S4
Tel: (905) 991-1681 Fax: (905) 991-1682

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From: Whyte, P. Leigh
Sent: Monday, April 02, 2007 4:30 PM
To: Katherine Graham
Cc: Williams, Shannon L.
Subject: RE: FW: Ambassador Bridge Enhancement Project

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To: Whyte, P. Leigh
Subject: Re: FW: Ambassador Bridge Enhancement Project

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OAS Windsor Chapter President

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P. Leigh Whyte, MCIP, RPP, AICP
Chief Urban Planner
48 Jarvis Street

Fort Erie, ON L2A 2S4
Phone: (905) 991-1681
Fax: (905) 991-1682
Cell: (905) 658-5314
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Thanks,

Shannon Williams
Environmental Planner
Avalon Consulting Professionals of Ontario
48 Jarvis Street, Fort Erie, Ontario
L2A 2S4
Tel: (905) 991-1681 Fax: (905) 991-1682

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Eml_KGraham_of_OAS_to_SWilliams_publicconsulation_070326.txt

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To: Williams, Shannon L.
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OAS Windsor Chapter President

"Williams, Shannon L." <SWilliams@acp-on.ca> wrote:

Good Morning,

Please see the attached letter regarding the Ambassador Bridge Enhancement Project.

Thanks,

Shannon Williams
Environmental Planner
Avalon Consulting Professionals of Ontario
48 Jarvis Street, Fort Erie, Ontario
L2A 2S4
Tel: (905) 991-1681 Fax: (905) 991-1682

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March 22, 2007

Katherine Graham
President
Ontario Archaeological Society - Windsor Chapter
631 Richmond Street
Amherstburg, ON N9V 3Y4

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Ms. Graham:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Ontario Archaeological Society - Windsor Chapter to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Williams, Shannon L.

From: Williams, Shannon L.
nt: Friday, March 23, 2007 11:23 AM
: 'windsoroas@yahoo.ca'
Cc: Whyte, P. Leigh
Subject: Ambassador Bridge Enhancement Project

Attachments: LET_LWhyte_to_OntArchSociety_070322.jpg

LET_LWhyte_to_On tArchSociety_0...

Good Morning,

Please see the attached letter regarding the Ambassador Bridge Enhancement Project.

Thanks,

Shannon Williams
Environmental Planner
Avalon Consulting Professionals of Ontario
48 Jarvis Street, Fort Erie, Ontario
L2A 2S4
Tel: (905) 991-1681 Fax: (905) 991-1682

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March 22, 2007

Mary Jean Gallagher
Director of Education and Secretary of the Board
Greater Essex County District School Board
451 Park Street West, P.O. Box 210
Windsor, ON N9A 6K1

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Ms. Gallagher:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Greater Essex County District School Board to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

'ALON CONSULTING
59911682
23-Mar-2007 10:22

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Job	Date	Time	Type	Identification	Duration	Pages	Result
151	23/ 3/2007	10:21:55	Send	915192557053	0:41	1	OK

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March 22, 2007

Mary Jean Gallagher
Director of Education and Secretary of the Board
Greater Essex County District School Board
451 Park Street West, P.O. Box 210
Windsor, ON N9A 6K1

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Dear Ms. Gallagher:

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Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

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March 22, 2007

Dr. John Strasser
President
St. Clair College
2000 Talbot Road West
Windsor, ON N9A 6S4

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Dr. Strasser:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage St. Clair College to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

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Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
112	22/ 3/2007	18:30:39	Send	915199663763	0:40	1	OK

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Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Dr. John Strasser
President
St. Clair College
2000 Talbot Road West
Windsor, ON N9A 6S4

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Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Dr. Ross Paul
President & Vice-Chancellor
University of Windsor
505 Chrysler Hall Tower 401 Sunset Avenue
Windsor, ON N9B 3P4

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Dr. Paul:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

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Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

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9911682
22-Mar-2007 18:29

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
111	22/ 3/2007	18:28:57	Send	915199737050	0:50	1	OK

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March 22, 2007

Dr. Ross Paul
President & Vice-Chancellor
University of Windsor
505 Chrysler Hall Tower 401 Sunset Avenue
Windsor, ON N9B 3P4

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Dr. Paul:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

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We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1661 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

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March 22, 2007

Joseph Berthiaume
Director of Education
Windsor-Essex Catholic District School Board
1325 California Avenue
Windsor, ON N9B 3Y6

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Mr. Berthiaume:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

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We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

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22-Mar-2007 19:02

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Job	Date	Time	Type	Identification	Duration	Pages	Result
124	22/ 3/2007	19:01:38	Send	915192534819	0:31	1	OK

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Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Joseph Berthiaume
Director of Education
Windsor-Essex Catholic District School Board
1325 California Avenue
Windsor, ON N9B 3Y6

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Mr. Berthiaume:

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P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

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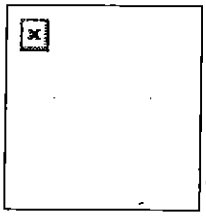
Paula Lombardi

From: Bondy, Cheryl [cbondy@townofessex.on.ca]
Sent: Thursday, September 27, 2007 9:22 AM
To: Paula Lombardi
Subject: Ambassador Bridge Enhancement Project Environmental Assessment Luncheon
Attachments: image001.png

Paula:
Councillor Paul Innes from the Town of Essex will be attending the luncheon on October 1st.
Cheryl



Cheryl A Bondy, Clerk/Deputy-Treasurer
Town of Essex
Telephone: 519-776-7336 ext 32
Cell: 519-791-7060
Fax: 519-776-8811
Email: cbondy@townofessex.on.ca
Web: www.townofessex.on.ca

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immediately and remove it from your system.

Paula Lombardi

From: TDesja1002@aol.com
Sent: Friday, September 28, 2007 12:09 PM
To: Paula Lombardi
Subject: Windsor luncheon

Hi Paula.
Now that I have seen the letter, I do remember it and thought I had replied that I will do my best to be there on Monday October 1 for noon.

Sue Desjarlais,
Town of LaSalle

Paula Lombardi

From: Bailey, Robert [rbailey@amherstburg.ca]
Sent: Sunday, September 30, 2007 8:16 PM
To: Paula Lombardi
Subject: RE: Ambassador Bridge Enhancement Project Luncheon

Good Evening Ms. Lombardi: I apologize for responding late, but due to a change in my schedule I am able to attend you luncheon on October 1st.
I hope this will be ok.

Thank you
Robert Bailey
Deputy Mayor
Town of Amherstburg

From: Paula Lombardi [mailto:paula.lombardi@siskinds.com]
Sent: Thu 27/09/2007 1:57 PM
To: Hurst, Wayne; Bailey, Robert; Rick Fryer; Robert Pillon; John Sutton; Renaud, Paul; White, Rosa
Subject: Ambassador Bridge Enhancement Project Luncheon

Good afternoon,

Attached is a letter dated September 21, 2007 inviting you to a luncheon to discuss the Ambassador Bridge Enhancement Project on Monday, October 1st, between noon and 2 pm. If your are interested in attending could you please reply to this email.

If you have any questions, please do not hesitate to contact me directly.

Thank you,
Paula Lombardi

Paula Lombardi
Siskinds LLP
680 Waterloo Street
London, ON N6A 3V8

Tel: (519) 660-7850
Fax: (519) 660-7851
Mail: paula.lombardi@siskinds.com
Web: www.siskinds.com

This message contains confidential information and is intended only for whurst@amherstburg.ca, rbailey@amherstburg.ca, rfryer@amherstburg.ca, rpillon@amherstburg.ca, jsutton@amherstburg.ca, prenaud@amherstburg.ca, rwhite@amherstburg.ca. If you are not whurst@amherstburg.ca, rbailey@amherstburg.ca, rfryer@amherstburg.ca, rpillon@amherstburg.ca, jsutton@amherstburg.ca, prenaud@amherstburg.ca, rwhite@amherstburg.ca you should not disseminate, distribute, print or copy this e-mail. Please notify paula.lombardi@siskinds.com immediately by e-mail if you have received this e-mail in error and delete this e-mail from your system. E-mail transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. Paula Lombardi therefore does not accept liability for any errors or omissions in the contents of this message, which arise as a result of e-mail transmission. If verification is required please request a hard-copy version.

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Robert Bailey
Deputy Mayor
Town of Amherstburg
271 Sandwich St. South
Amherstburg, ON, N9V 2A5
Tel: 519-978-0974 (HOME)
TTY: 519-736-9860
Fax: 519-736-5403 (Town Hall)
Email: rbailey@amherstburg.ca
http://www.amherstburg.ca

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Paula Lombardi

From: Paula Lombardi
Sent: Sunday, September 30, 2007 11:51 AM
To: 'Timmins, Peter'
Subject: RE: ambassador bridge enhancement project environmental assessment

Thank you for your reply.

From: Timmins, Peter [mailto:ptimmins@townofessex.on.ca]
Sent: Sunday, September 30, 2007 11:45 AM
To: paula.lombardi@siskinds.com.
Subject: ambassador bridge enhancement project environmental assessment

Sorry I did not get back to you earlier but have been away and received your message yesterday. Unfortunately I will not be able to attend the luncheon session on Oct. 1st.

Peter Timmins

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If you receive this communication in error or without authorization, please notify t
immediately and remove it from your system.

Paula Lombardi

From: Meloche, Richard [rmeloche@townofessex.on.ca]
Sent: Monday, October 01, 2007 6:07 PM
To: Paula Lombardi
Subject: RE: Ambassador Bridge Enhancement Project Open House

Paula,

Sorry about NOT making it to the presentation this afternoon.
Upon arrival at work today, I found out my boss would not
be coming into work today due to illness. However, I still
believed that I would have been able to make the lunch/presentation.
As the time approached to leave for the lunch, the problems of the day
were not getting resolved I realized I would not be able to attend.
I did not try to contact you as at this late hour it would not
have made any difference.
However, I'm at a meeting right now with Councillors Paul Innes
and Ron Rogers who attended this afternoon and have briefed me
on the highlights. Regardless of my attendance, I can assure you
that I am a supporter of the Ambassador Bridge plans for a
NEW SPAN!

Richard Meloche
Deputy-Mayor
Town of Essex

From: Paula Lombardi [mailto:paula.lombardi@siskinds.com]
Sent: Friday, September 21, 2007 5:34 PM
To: acomber@cogeco.ca; alice_d@cogeco.ca; amherstq@netcom.ca; ann@bordergateways.com; ashinos@erca.org; bdnure@sympatico.ca; bedard3@uwindsor.ca; bmcqueen@iuoelocal1793.org; bmorland@liunalocal625.org; bre@sympatico.ca; bszekely@cogeco.ca; callsop@uwindsor.ca; cbagin@yahoo.com; cbanks@porchlight.com; cbrown@dwtunnel.com; ClaraD@TheHenryFord.org; cococoncrete@kelcom.net; construction@wca.on.ca; csiltd@mnsi.net; daversa@triamico.com; David.harrison@scotiabank.com; David.mcgregor@brightonbeachpower.com; Dean.clevett@basf.com; dean.jacobs@wifn.org; denunzio@uwindsor.ca; dsitter@cogeco.ca; eclough@etr.com; Eleanore245@hotmail.com; ellebella@hotmail.com; estrickl@uwindsor.ca; fbiekx@teamsters880.org; fjb14@dcx.com; fnazzani@primerose.ca; fsorrell@stclaircollege.ca; gail@chathamchamber.on.ca; honestced@hotmail.com; ibpatwind@mnsi.net; ike@bulldogdesigninc.com; info@shopottawastreet.com; isiljanoski@windsorchamber.org; jcacciato@ambassadordutyfree.com; Jdrummond23@sympatico.ca; jstasser@stclaircollege.ca; jveresuk@downtownwindsor.ca; kfarbota@weche.com; kmbrody69@sympatico.ca; lawolfe@sympatico.ca; lboyd@uniongas.com; lchaif@cogeco.ca; levan7052@yahoo.ca; lgeorgiu@wgh.on.ca; lmccormack@windsorchamber.org; lynnm@win.com; mariacapucci@hotmail.com; Mdugallu700@kelcom.igs.net; mgagliano.local6@bellnet.ca; mhaas1@cogeco.ca; michael.mastromardi@stantec.com; Mike@morency.info; mikeyhanson78@hotmail.com; mkwasnicki@windsor.igs.net; mmaskery@ambassadordutyfree.com; mwoodison@hotmail.com; nbyczynski@stclairecollege.ca; nharding@sympatico.ca; noria.ashande@sympatico.ca; plefave@borderfreightresources.com; pubene@cogeco.ca; reeve1@cogeco.ca; rlucente@bellnet.ca; Rochelle@downtownwindsor.ca; roulavitsas@sympatico.ca; rparent@teamsters880.org; rpaul@uwindsor.ca; s_rowen@hotmail.com; saveojibway@cogeco.ca; sawgrank@hotmail.com; smaxwell@stclaircollege.ca; Solfurerlu773@on.aibn.com; staggerk@yahoo.ca; tdaehn1@yahoo.ca; teragram35@hotmail.com; townandcountry@on.aibn.com; Vinnyboy3@hotmail.com; vkyrialo@air-am.com; walkervillebia@cogeco.ca; windsoroas@yahoo.ca; winnie132264@yahoo.ca; acrazyguynomialpipes@hotmail.com; adan.khan@gecdsb.on.ca; alexlong4@yahoo.com; angerbm@cogeco.ca; ashinas@ERCA.org; awelling134450@comcast.net; beth.cooper@gecdsb.on.ca; bkane@sandwichchc.org; b-re@sympatico.ca; butlerm@tc.gc.ca; bvarga@town.lasalle.on.ca; bwmiii@hotmail.com; cabriojazz@yahoo.com; cathydziedzic@hotmail.com; cheryl.lovell@gecdsb.on.ca; chouston@uwindsor.ca; clewis@liquiforce.com; councilmembers@leamington.ca; crobar231@aol.com; dave.taves@gecdsb.on.ca; director@gecdsb.on.ca; dwesty01@hotmail.com; elmwood@wincom.net; gmcnamara@tecumseh.ca; goocht@uwindsor.ca; helga.bailey@gecdsb.on.ca; jadams@leamington.ca; jason.chapman@chumtv.com; jguerard@ammexdetroitdutyfree.com; jones@hotmail.com; jonna.reaume@gecdsb.on.ca; julia.burgess@gecdsb.on.ca; kayway@windsor.igs.net; kim.mckinley@gecdsb.on.ca; lchalie@cogeco.ca; leovannu52@yahoo.com; lisa.gretzky@gecdsb.on.ca; lulu@uwindsor.ca; lynnm@wincom.net; maggie@ambassadordutyfree.com; maticka@uwindsor.ca; mayor@town.lasalle.on.ca; mchuild@erca.org; mperez1@comcast.net; mweis@uwindsor.ca; news@cjam.ca; newscentre@am800cklu.com; nsantos@kingsville.ca; nsantos@town.kingsville.on.ca; patrick.ouellette@gecdsb.on.ca; pbuckle@ambassadordutyfree.com; pgordonqueen@msn.com; pneice@communityplanners.com; prayl@cbc.ca; rbailey@amherstburg.ca; reclmag@cogeco.ca; rhartley@sympatico.ca; McDermott, Ron; Meloche, Richard; rpeterson9@cogeco.ca; rschmidt@leamington.ca; rsylvester@lakeshore.ca; simone.hobson@cogeco.ca; stomp@mnsi.net; styndale@cogeco.ca; tbain@lakeshore.ca; tburton@tecumseh.ca; teamsterjeff@hotmail.com; tearod112@sbcglobal.net; tom.kilpatrick@gecdsb.on.ca; toml@local444.caw.ca; toufic@teksavvy.com; wdlc_office@bellnet.ca; wecec@elliotenergy.ca; whurst@amherstburg.ca; wwwkenkid@yahoo.com; zeanaattisha@msn.com; jstrasser@stclaircollege.ca
Subject: Ambassador Bridge Enhancement Project Open House

Attached for your information is the notice that will be published in the Windsor Star advertising the open houses for the Ambassador Bridge Enhancement Project environmental assessment update scheduled for **Monday, October 1, 2007** and **Tuesday, October 2, 2007**.

Thank you for your interest in the replacement span and we encourage you to attend one of the open houses and visit the project website at www.ambassadorbridge.com.

If you have any questions, please do not hesitate to contact me directly.

Sincerely,

Paula Lombardi

Paula Lombardi
Siskinds LLP
680 Waterloo Street
London, ON N6A 3V8

Tel: (519) 660-7850
Fax: (519) 660-7851
Mail: paula.lombardi@siskinds.com
Web: www.siskinds.com

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Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Rose MacLachlan
Business Improvement Area Development Officer
City of Windsor
Suite 404B, 400 City Hall Square East
Windsor, ON N9A 7K6

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Ms. MacLachlan:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the City of Windsor to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

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115	22/ 3/2007	18:43:38	Send	915192556544	0:50	1	OK

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46 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1991 • Fax 905.991.1992 • www.acp-on.ca

March 22, 2007

Rose MacLachlan
Business Improvement Area Development Officer
City of Windsor
Suite 404B, 400 City Hall Square East
Windsor, ON N9A 7K6

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Dear Ms. MacLachlan:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the City of Windsor to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1991 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

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48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
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March 22, 2007

Frank Marentette
Vice-President
Olde Sandwich Towne Business Association
3225 Sandwich Street, Unit B
Windsor, ON N9C 1A9

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Mr. Marentette:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Olde Sandwich Towne Business Association to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

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110	22/ 3/2007	18:25:06	Send	915192528069	1:03	1	OK

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48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1581 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Frank Marentette
Vice-President
Olde Sandwich Towne Business Association
3225 Sandwich Street, Unit B
Windsor, ON N9C 1A9

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Mr. Marentette:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Olde Sandwich Towne Business Association to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1581 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

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Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Carolyn McGillivray
Co-ordinator
Kingsville BIA
25 Main Street West, Unit 3 Computer Centre
Kingsville, ON N9Y 1H2

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Ms. McGillivray:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Kingsville BIA to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

\LON CONSULTING
ɔu59911682
23-Mar-2007 10:20

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
150	23/ 3/2007	10:19:46	Send	915197334355	0:57	1	OK

Avalon

Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1661 • Fax 905.991.1662 • www.acp-on.ca

March 22, 2007

Carolyn McGillivray
Co-ordinator
Kingsville BIA
26 Main Street West, Unit 3 Computer Centre
Kingsville, ON N9Y 1H2

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Ms. McGillivray:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Kingsville BIA to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1661 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Judith Veresuk
Executive Director
Downtown Windsor Business Improvement Association
474 Ouellette Avenue
Windsor, ON N9A 1B2

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Ms. Veresuk:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Downtown Windsor Business Improvement Association to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

ALON CONSULTING
3059911682
22-Mar-2007 18:24

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Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
109	22/ 3/2007	18:23:57	Send	915192526817	0:42	1	OK

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46 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Judith Veresuk
Executive Director
Downtown Windsor Business Improvement Association
474 Ouellette Avenue
Windsor, ON N9A 1B2

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Dear Ms. Veresuk:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Downtown Windsor Business Improvement Association to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1681 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Louie Gouin
Office Coordinator
Ford City Business District
980 St. Luke Road
Windsor, ON N8Y 4Y8

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Mr. Gouin:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Ford City Business District to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

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9059911682
22-Mar-2007 18:23

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
108	22/ 3/2007	18:22:16	Send	915197356421	1:12	1	OK

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Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1481 • Fax 905.991.1482 • www.acp-on.ca

March 22, 2007

Louie Gouin
Office Coordinator
Ford City Business District
980 St. Luke Road
Windsor, ON N8Y 4Y8

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Dear Mr. Gouin:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Ford City Business District to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1481 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Bridget Scheuerman
Business Co-ordinator
Walkerville Distillery District
268 Moy Avenue
Windsor, ON N9A 2N2

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Ms. Scheuerman:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Walkerville Distillery District to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

AVALON CONSULTING
5059911682
22-Mar-2007 18:21

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
107	22/ 3/2007	18:20:47	Send	915199738762	1:01	1	OK

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48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Bridget Scheuerman
Business Co-ordinator
Walkerville Distillery District
268 May Avenue
Windsor, ON N9A 2N2

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Ms. Scheuerman:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Walkerville Distillery District to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1681 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Bridget Scheuerman
Coordinator
Wyandotte Towne Centre
963 Windermere Road
Windsor, ON N8Y 3E5

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Ms. Scheuerman:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage Wyandotte Towne Centre to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

ALON CONSULTING
3059911682
22-Mar-2007 18:53

invent

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
118	22/ 3/2007	18:52:21	Send	915192530782	1:06	1	OK

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48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1661 • Fax 905.991.1662 • www.acp-on.ca

March 22, 2007

Bridget Schaverman
Coordinator
Wyandotte Towne Centre
963 Windermere Road
Windsor, ON N8Y 3E5

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Dear Ms. Schaverman:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage Wyandotte Towne Centre to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1661 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Arnold Blaine
President
Ottawa Street Business Improvement Area
1647 Ottawa Street
Windsor, ON N8Y 1R2

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Mr. Blaine:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Ottawa Street Business Improvement Area to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Gary St. Pierre
Chairman
Pillette Village BIA
4746 Wyandotte Street East
Windsor, ON N8Y 1H7

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Mr. St. Pierre:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Pillette Village BIA to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

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9059911682
22-Mar-2007 18:56

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
120	22/ 3/2007	18:55:21	Send	915199455238	0:55	1	OK

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48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1562 • www.acp-on.ca

March 22, 2007

Gary St. Pierre
Chairman
Pillette Village BIA
4746 Wyandotte Street East
Windsor, ON N8Y 1H7

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Mr. St. Pierre:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Pillette Village BIA to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1681 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Frank Duralia
Managing Director
Via Italia / Erie Street BIA
866 Erie Street East
Windsor, ON N9A 3Y6

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Mr. Duralia:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Via Italia / Erie Street BIA to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

VALON CONSULTING
J59911682
22-Mar-2007 18:57

invent

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
121	22/ 3/2007	18:56:44	Send	915192529414	0:52	1	OK

Avalon

Avalon Consulting Professionals of Ontario, LLC
46 Jarvis Street • Port Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1651 • Fax 905.991.1652 • www.acp-on.ca

March 22, 2007

Frank Durelle
Managing Director
Via Italia / Erie Street BIA
866 Erie Street East
Windsor, ON N8A 3Y8

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Dear Mr. Durelle:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Via Italia / Erie Street BIA to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1651 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Marlene Markham
Manager
Essex BIA
33 Talbot Street South
Essex, ON N8M 1A8

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Ms. Markham:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Essex BIA to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

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9059911682
22-Mar-2007 18:59

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
122	22/ 3/2007	18:58:04	Send	915197769658	1:18	1	OK

Avalon

Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1661 • Fax 905.991.1662 • www.acp-on.ca

March 22, 2007

Marlene Markham
Manager
Essex BIA
33 Talbot Street South
Essex, ON N8M 1A8

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Dear Ms. Markham:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

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We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1661 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Al Fazio
Chair
Belle River BIA
571-B Notre Dame Street P.O. Box 885
Belle River, ON N0R 1A0

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Mr. Fazio:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Belle River BIA to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

LON CONSULTING
9059911682
22-Mar-2007 19:11

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
130	22/ 3/2007	19:10:50	Send	915197289530	0:49	1	OK

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48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Al Fazio
Chair
Belle River BIA
571-B Notre Dame Street P.O. Box 685
Belle River, ON N0R 1A0

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Dear Mr. Fazio:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Belle River BIA to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1681 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

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March 22, 2007

Dr. Robert Fetherston
LaSalle Business Association
Mail Box 40
777 Highway 18
LaSalle, ON N9J 3S8

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Dr. Fetherston:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the LaSalle Business Association to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

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9059911682
22-Mar-2007 19:17

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Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
134	22/ 3/2007	19:16:42	Send	915192500046	0:44	1	OK

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48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Dr. Robert Fetherston
LaSalle Business Association
Mail Box 40
777 Highway 18
LaSalle, ON N9J 3S8

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Dear Dr. Fetherston:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the LaSalle Business Association to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1681 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Rose MacLachlan
Tecumseh BIA
1189 Lacasse Boulevard
Tecumseh, ON N8N 2C7

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Ms. MacLachlan:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Tecumseh BIA to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

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9059911682
22-Mar-2007 19:19

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Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
135	22/ .3/2007	19:18:59	Send	915197355978	0:34	1	OK

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48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Rose MacLachlan
Tecumseh BIA
1189 Lacasse Boulevard
Tecumseh, ON N8N 2C7

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Ms. MacLachlan:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

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Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Linda Smith
President
Windsor & District Chamber of Commerce
2575 Ouellette Place
Windsor, ON N8X 1L9

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Ms. Smith:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Windsor & District Chamber of Commerce to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

iLON CONSULTING
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22-Mar-2007 18:45

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Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
116	22/ 3/2007	18:44:57	Send	915199660603	0:29	1	OK

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48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1661 • Fax 905.991.1662 • www.acp-on.ca

March 22, 2007

Linda Smith
President
Windsor & District Chamber of Commerce
2575 Ouellette Place
Windsor, ON N8X 1L9

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Dear Ms. Smith:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Windsor & District Chamber of Commerce to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1661 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Jason Whiston
President
Amherstburg Chamber of Commerce
268 Dalhousie Street P.O Box 101
Amherstburg, ON N9V 2Z3

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Mr. Whiston:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Amherstburg Chamber of Commerce to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Williams, Shannon L.

From: Williams, Shannon L.
Sent: Monday, March 26, 2007 9:35 AM
To: 'jlwltd@sympatico.ca'
Cc: Whyte, P. Leigh
Subject: Ambassador Bridge Enhancement Project

Attachments: LET_LWhyte_to_AmherstburgChamber_070323.jpg

LET_LWhyte_to_A
mherstburgChamb...

Good Morning,

Please see the attached letter regarding the Ambassador Bridge Enhancement Project.

Thanks,

Shannon Williams
Environmental Planner
Avalon Consulting Professionals of Ontario
48 Jarvis Street, Fort Erie, Ontario
L2A 2S4
Tel: (905) 991-1681 Fax: (905) 991-1682

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9059911682
22-Mar-2007 19:23

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
136	22/ 3/2007	19:22:21	Send	915197369721	0:00	0	No Answer

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48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1691 • Fax 905.991.1692 • www.acp-on.ca

March 22, 2007

Jason Whiston
President
Amherstburg Chamber of Commerce
268 Dalhousie Street P.O Box 101
Amherstburg, ON N9V 2Z3

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Mr. Whiston:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Amherstburg Chamber of Commerce to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1691 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

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9059911682
23-Mar-2007 08:09

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
146	23/ 3/2007	08:08:20	Send	915197369721	0:00	0	No Answer

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48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Jason Whiston
President
Amherstburg Chamber of Commerce
268 Dalhousie Street P.O Box 101
Amherstburg, ON N9V 2Z3

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Mr. Whiston:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Amherstburg Chamber of Commerce to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1681 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Scott Waters
President
Harrow & Colchester South Chamber of Commerce
P.O. Box 888
Harrow, ON N0R 1G0

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Mr. Waters:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Harrow & Colchester South Chamber of Commerce to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Williams, Shannon L.

From: Williams, Shannon L.
Sent: Friday, March 23, 2007 11:20 AM
To: 'chamber@harrowchamber.ca'
Cc: Whyte, P. Leigh
Subject: Ambassador Bridge Enhancement Project

Attachments: LET_LWhyte_to_HarrowChamberofComm_070322.jpg

LET_LWhyte_to_Ha
rrowChamberofC...

Good Morning,

Please see the attached letter regarding the Ambassador Bridge Enhancement Project.

Thanks,

Shannon Williams
Environmental Planner
Avalon Consulting Professionals of Ontario
48 Jarvis Street, Fort Erie, Ontario
L2A 2S4
Tel: (905) 991-1681 Fax: (905) 991-1682

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Gail Antaya
General Manager
Chatham & District Chamber of Commerce
235 King Street West
Chatham, ON N7M 1E6

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Ms. Antaya:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Chatham & District Chamber of Commerce to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

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22-Mar-2007 18:47

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
117	22/ 3/2007	18:46:32	Send	915193528741	0:40	1	OK

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48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Gail Antaya
General Manager
Chatham & District Chamber of Commerce
235 King Street West
Chatham, ON N7M 1E8

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Dear Ms. Antaya:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

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Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

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P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Justin Barker
President
Leamington & District Chamber of Commerce
P.O. Box 321
Leamington, ON N8H 3W3

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Mr. Barker:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Leamington & District Chamber of Commerce to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

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59911682
22-Mar-2007 19:08

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
129	22/ 3/2007	19:07:53	Send	915193263204	0:41	1	OK

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46 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Justin Barker
President
Leamington & District Chamber of Commerce
P.O. Box 321
Leamington, ON N8H 3W3

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Dear Mr. Barker:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

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Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Don Nicholson
President
Leamington & District Chamber of Commerce
P.O. Box 321
Leamington, ON N8H 3W3

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Mr. Nicholson:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Leamington & District Chamber of Commerce to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

ALON CONSULTING
9059911682
22-Mar-2007 19:14

invent

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
132	22/ 3/2007	19:14:07	Send	915193263204	0:38	1	OK

Avalon

Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1221 • Fax 905.991.1992 • www.acp-on.ca

March 22, 2007

Don Nicholson
President
Leamington & District Chamber of Commerce
P.O. Box 321
Leamington, ON N8H 3W3

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Dear Mr. Nicholson:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Leamington & District Chamber of Commerce to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1991 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Linda Malenko
General Manager
Essex Community Futures Development Corporation
39 Maidstone Avenue East
Essex, ON N8M 2J3

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Ms. Malenko:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage Essex Community Futures Development Corporation to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

ALON CONSULTING
3059911682
22-Mar-2007 19:04

invent

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
126	22/ 3/2007	19:03:50	Send	915197769297	0:37	1	OK

Avalon

Avalon Consulting Professionals of Ontario, LLC
46 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1661 • Fax 905.991.1662 • www.acp-on.ca

March 22, 2007

Linda Malenko
General Manager
Essex Community Futures Development Corporation
39 Maidstone Avenue East
Essex, ON N8M 2J3

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Ms. Malenko:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage Essex Community Futures Development Corporation to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1661 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Matthew Fischer
Chief Executive Officer
Windsor-Essex County Development Commission Staff
333 Riverside Drive West, Suite 215
Windsor, ON N9A 5K4

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Mr. Fischer:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage Windsor-Essex County Development Commission Staff to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

invent

..LON CONSULTING
9059911682
22-Mar-2007 19:06

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
127	22/ 3/2007	19:04:55	Send	915192559987	1:01	1	OK

Avalon

Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Port Erie, Ontario L2A 2S4 • Canada
Tel 905.691.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Matthew Fischer
Chief Executive Officer
Windsor-Essex County Development Commission Staff
333 Riverside Drive West, Suite 215
Windsor, ON N9A 5K4

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Dear Mr. Fischer:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage Windsor-Essex County Development Commission Staff to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 691-1681 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

"A Culture of Professional Excellence"

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Heavy Construction Association of Windsor
2880 Temple Drive
Windsor, ON N8W 5J5

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Heavy Construction Association of Windsor:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Heavy Construction Association of Windsor to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

ALON CONSULTING
5059911682
22-Mar-2007 19:03

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
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Avalon

Avalon Consulting Professionals of Ontario, LLC
49 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Heavy Construction Association of Windsor
2580 Temple Drive
Windsor, ON N8W 5J5

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Dear Heavy Construction Association of Windsor:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Heavy Construction Association of Windsor to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1681 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

"A Culture of Professional Excellence"

FIRST NATIONS

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DELIVERED BY COURIER

August 27, 2007

Chief Chris Plain
Aamjiwnaang First Nation
978 Tashmoo Avenue
Sarnia ON N7T 7H5

Dear Chief Plain:

Re: Ambassador Bridge Enhancement Project ("Enhancement Project")

We would like to take this opportunity to follow up on our meeting of April 25, 2007 and our letters dated May 16, 2007 and July 23, 2007.

As we indicated in our letter of July 23, 2007, we are seeking information relating to any traditional knowledge of the area to assist in identifying potential environmental effects and provide relevant biophysical and historical information that may otherwise be unavailable.

We would like to continue our discussion and if you have any additional information, or questions, or require any information from the Ambassador Bridge we would ask that you contact the undersigned no later than **September 4, 2007**

Yours very truly,

Siskinds LLP

Per: Paula Lombardi
Paula Lombardi

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

****
*** TX REPORT ***
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TRANSMISSION OK

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RESULT	OK

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE August 28, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Chief Chris Plain Aamjiwnaang First Nation	1-519-336-~~2410~~ 0382

FROM Paula Lombardi

WE ARE TRANSMITTING 2 PAGE(S) (including cover page)

BY FAX ONLY ☐ **HARD COPY TO FOLLOW** ☒

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DELIVERED BY COURIER

July 23, 2007

Chief Chris Plain
Aamjiwnaang First Nation
978 Tashmoo Avenue
Sarnia ON N7T 7H5

Dear Chief Plain:

Re: Ambassador Bridge Enhancement Project ("Enhancement Project")

We would like to take this opportunity to follow up on our meeting of April 25, 2007 and our letter dated May 16, 2007. As we indicated, the Enhancement Project is subject to the requirements of the *Canadian Environmental Assessment Act* and we are in the midst of undertaking the necessary studies for the environmental impact statement. Any information that you may have that would assist in these studies would be very much appreciated.

Again, the Stage I and Stage II archaeological studies are currently underway and being conducted by licensed archaeologists from the Ontario Museum of Archaeology. We understand and appreciate that the wisdom and understanding that Aboriginal peoples have developed is unique and part of the ongoing cultural heritage of Aboriginal peoples and would like your input on the Enhancement Project.

The Ambassador Bridge is seeking input from the Aamjiwnaang First Nation and is looking forward to building a long-term relationship with Aamjiwnaang First Nation. We are optimistic that aboriginal traditional knowledge will assist in identifying potential environmental effects, lead to improved project design, strengthen mitigation measures and provided relevant biophysical information and historical information that may otherwise have been unavailable.

We are eager to continue our discussions and if you have any additional information, or questions, or require any information from the Ambassador Bridge we would ask that you contact the undersigned by August 10, 2007.

Yours very truly,

Siskinds LLP

Per:
Paula Lombardi

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

COPY

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*** TX REPORT ***
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TRANSMISSION OK

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TIME USE	00'24
PAGES SENT	2
RESULT	OK

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE July 23, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Chief Chris Plain Aamjiwnaang First Nation	1-519-336-0384

FROM Paula Lombardi

WE ARE TRANSMITTING 2 PAGE(S) (Including cover page)

BY FAX ONLY [x] HARD COPY TO FOLLOW [ ]

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DELIVERED BY COURIER

May 16, 2007

Chief Chris Plain
Aamjiwnaang First Nation
978 Tashmoo Avenue
Sarnia ON N7T 7H5

Dear Chief Plain:

Re: Ambassador Bridge Enhancement Project ("Enhancement Project")

We would like to take this opportunity to follow up on a letter that was sent to your attention by the consulting firm working on the Enhancement Project dated March 22, 2007. The Enhancement Project is subject to the requirements of the *Canadian Environmental Assessment Act* and we are in the midst of undertaking the necessary studies for the environmental impact statement. We unfortunately have not heard a response from you to our letters, or telephone calls of March 26, 2007 and April 13, 2007.

The Ambassador Bridge recognizes that the wisdom and understanding that Aboriginal peoples have developed is unique and part of the ongoing cultural heritage of Aboriginal peoples. This traditional knowledge ("ATK") is important to the preparation of the environmental impact statement for the Enhancement Project.

The Ambassador Bridge is seeking input from Aamjiwnaang First Nation and is looking forward to building a long-term relationship with Aamjiwnaang First Nation. We anticipate that the ATK will assist in identifying potential environmental effects, lead to improved project design, strengthen mitigation measures and provided relevant biophysical information and historical information that may otherwise have been unavailable.

We are eager to consult with Aamjiwnaang First Nation as soon as possible and would ask that you contact the undersigned to arrange a meeting to discuss next steps and how we can move forward.

Yours very truly,

Siskinds LLP

Per: Paula Lombardi
Paula Lombardi

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

Avalon

Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Chief & Council
Aamjiwnaang
978 Tashmoo Avenue
Sarnia, ON N7T 7H5

Re: Ambassador Bridge Enhancement Project

Dear Chief:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge. We have highlighted the area of the Enhancement Project on the attached map for your review.

We would like to invite, and encourage all First Nations in the area to participate in the public consultation process for the Enhancement Project. We are interested in discussing any community knowledge and aboriginal traditional knowledge that you may have relating to the Enhancement Project and the lands immediately adjacent to the Enhancement Project. Your comments are important to us, and are essential, to providing us with an understanding of your thoughts on the Enhancement Project.

We welcome the opportunity to meet with you to discuss the project in detail. We would like to meet with you during the week of April 2, 2007 in advance of the public meetings that are scheduled to be held in mid-April.

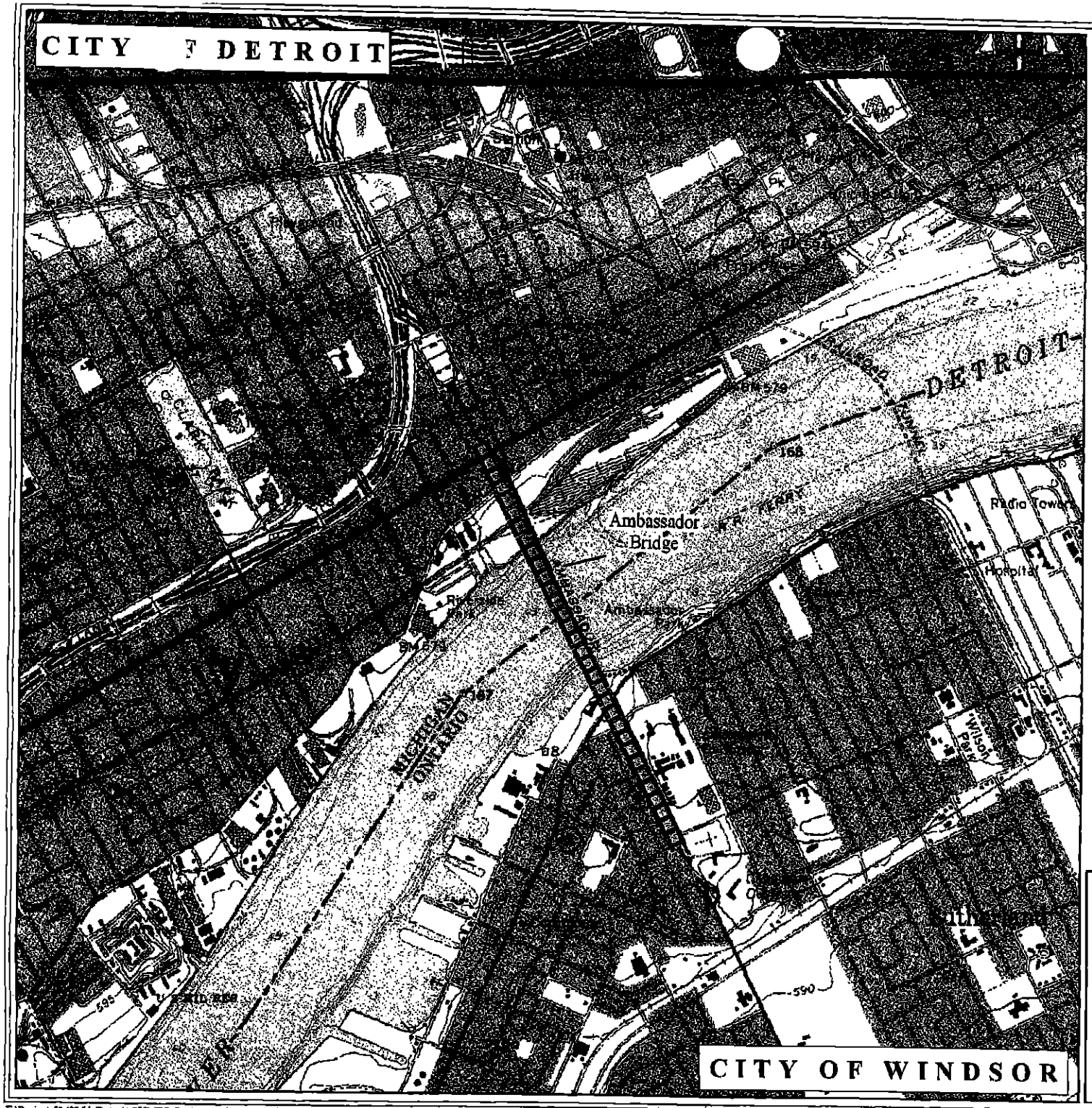
We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting. If you have are interested in arranging a meeting or have further questions or comments, please feel free to contact me at your convenience.

Sincerely,

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

encls.



Project Location

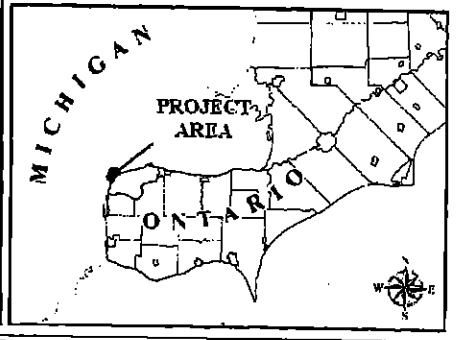
Legend

Proposed Alignment

Source USGS 7.5 Minute Quadrangle, 1981
Detroit, Michigan

0 500 1,000 2,000 Feet

1 inch equals 1,800 feet



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Last Revised: 07022007, DVK

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'ALON CONSULTING
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22-Mar-2007 19:36

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Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
141	22/ 3/2007	19:34:58	Send	915193360384	1:24	2	OK

Avalon

Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Chief & Council
Aamjiwnaang
978 Tashmoo Avenue
Sarnia, ON N7T 7H5

Re: Ambassador Bridge Enhancement Project

Dear Chief:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge. We have highlighted the area of the Enhancement Project on the attached map for your review.

We would like to invite, and encourage all First Nations in the area to participate in the public consultation process for the Enhancement Project. We are interested in discussing any community knowledge and aboriginal traditional knowledge that you may have relating to the Enhancement Project and the lands immediately adjacent to the Enhancement Project. Your comments are important to us, and are essential, to providing us with an understanding of your thoughts on the Enhancement Project.

We welcome the opportunity to meet with you to discuss the project in detail. We would like to meet with you during the week of April 2, 2007 in advance of the public meetings that are scheduled to be held in mid-April.

We would ask that you contact Leigh Whyte at (905) 991-1681 to arrange a convenient time for this meeting. If you have are interested in arranging a meeting or have further questions or comments, please feel free to contact me at your convenience.

Sincerely,

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

encls.

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

SENT BY FACSIMILE 1-519-971-3689

September 27, 2007

Mr. Russell Nahdee
CanAm Indian Friendship Centre of Windsor
496 Sunset Avenue
Windsor ON N9B 3P4

Dear Mr. Nahdee:

Re: Ambassador Bridge Enhancement Project ("Enhancement Project")

We would like to take this opportunity to follow up on our meeting and previous correspondence.

The Ambassador Bridge is proposing to construct a six-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new span will replace the existing Ambassador Bridge and will link directly into the existing plazas in both Windsor and Detroit. When the replacement span is operational, the existing Ambassador Bridge will be re-evaluated and rehabilitated without causing any disruption in traffic flow. After it is rehabilitated, the existing Ambassador Bridge will be maintained and available as a redundant resource for maintenance vehicles, emergencies and approved public events.

The Ambassador Bridge has scheduled a public open house to discuss the results of the technical studies undertaken with the community. As set out in the attached notice the Public Open Houses will be held from 3-9 p.m. on Monday, October 1, 2007 at Mackenzie Hall in Windsor and on Tuesday, October 2, 2007 at the Ciociaro Club in Oldcastle.

We encourage you to attend one of the upcoming Public Open House Sessions and, if possible, we would like to arrange a meeting with you prior to the Open House to review and discuss the replacement span.

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

If you have any questions, or would like to arrange a meeting, please do not hesitate to contact me at your earliest convenience.

Yours very truly,

Siskinds LLP

Per: Paula Lombardi
Paula Lombardi

Ambassador Bridge Enhancement Project
Environmental Assessment Update - OPEN HOUSE

PROJECT BACKGROUND: The Ambassador Bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new span will replace the existing Ambassador Bridge and will link directly into the existing plazas in both Windsor and Detroit. When the replacement span is operational, the existing Ambassador Bridge will be reevaluated and rehabilitated without causing any disruption in traffic flow. After it is rehabilitated, the existing Ambassador Bridge will be maintained and available as a redundant resource for maintenance vehicles, emergencies and approved public events.

The Ambassador Bridge held Public Workshops in April 2007, and Open House Sessions in June 2007, to introduce and discuss the Project and is now pleased to present the results of the environmental studies for the replacement span at two Public Open House Sessions scheduled:

MONDAY, OCTOBER 1st, 2007 **Visit Anytime** **between 3:00 pm - 9:00 pm** **MACKENZIE HALL** 3277 Sandwich St. Windsor, Ontario N9C 1A9 Tel: (519) 255-7600	**TUESDAY, OCTOBER 2nd, 2007** **Visit Anytime** **between 3:00 pm - 9:00 pm** **CIOCIARO CLUB** 3745 North Talbot Road Oldcastle, Ontario N0R 1L0 Tel: (519) 737-6153

We encourage you to attend the Open House anytime between 3:00 p.m. and 9:00 p.m. to review the results from the various studies and ask questions of our technical experts responsible for the analysis and preparation of the studies that will be submitted to the federal government for review and comment.

These meetings are being held as part of the public consultation process for the preparation of a Federal Environmental Assessment (EA).

For further information, please contact:

Paula Lombardi
Environmental Lawyer
Tel. 519-251-8200
Tel. 1-877-672-2121

Email paula.lombardi@siskinds.com
Ambassador Bridge: www.ambassadorbridge.com

AMBASSADOR
AMBASSADOR BRIDGE

****
*** TX REPORT ***
****

TRANSMISSION OK

TX/RX NO	1734
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ST. TIME	09/27 08:21
TIME USE	02'02
PAGES SENT	4
RESULT	OK

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE September 27, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Mr. Russell Nahdee CanAm Indian Friendship Centre of Windsor	1-519-971-3689

FROM Paula Lombardi

WE ARE TRANSMITTING 3 PAGE(S) (including cover page)

BY FAX ONLY [X] HARD COPY TO FOLLOW [ ]

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DELIVERED BY COURIER

August 27, 2007

Mr. Russell Nahdee
CanAm Indian Friendship Centre of Windsor
496 Sunset Avenue
Windsor ON N9B 3P4

Dear Mr. Nahdee:

Re: Ambassador Bridge Enhancement Project ("Enhancement Project")

We would like to take this opportunity to follow up on our meeting of April 25, 2007 and our letters dated May 16, 2007 and July 23, 2007.

As we indicated in our letter of July 23, 2007, we are seeking information relating to any traditional knowledge of the area to assist in identifying potential environmental effects and provide relevant biophysical and historical information that may otherwise be unavailable.

We would like to continue our discussion and if you have any additional information, or questions, or require any information from the Ambassador Bridge we would ask that you contact the undersigned no later than **September 4, 2007.**

Yours very truly,

Siskinds LLP

Per: Qlurdy for
Paula Lombardi

COPY

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

****
*** TX REPORT ***
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TRANSMISSION OK

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ST. TIME	08/27 16:45
TIME USE	00'45
PAGES SENT	2
RESULT	OK

FAXED

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE August 27, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Mr. Russell Nahdee CanAm Indian Friendship Centre of Windsor	1-519-971-3689

FROM Paula Lombardi

WE ARE TRANSMITTING 2 PAGE(S) (including cover page)

BY FAX ONLY [X] **HARD COPY TO FOLLOW** [ ]

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DELIVERED BY COURIER

July 23, 2007

Mr. Russell Nahdee
CanAm Indian Friendship Centre of Windsor
496 Sunset Avenue
Windsor ON N9B 3P4

Dear Mr. Nahdee:

Re: Ambassador Bridge Enhancement Project ("Enhancement Project")

We would like to take this opportunity to follow up on our meeting of April 25, 2007 and our letter dated May 16, 2007. As we indicated, the Enhancement Project is subject to the requirements of the *Canadian Environmental Assessment Act* and we are in the midst of undertaking the necessary studies for the environmental impact statement. Any information that you may have that would assist in these studies would be very much appreciated.

Again, the Stage I and Stage II archaeological studies are currently underway and being conducted by licensed archaeologists from the Ontario Museum of Archaeology. We understand and appreciate that the wisdom and understanding that Aboriginal peoples have developed is unique and part of the ongoing cultural heritage of Aboriginal peoples and would like your input on the Enhancement Project.

The Ambassador Bridge is seeking input from the CanAm Indian Friendship Centre of Windsor and is looking forward to building a long-term relationship. We are optimistic that aboriginal traditional knowledge will assist in identifying potential environmental effects, lead to improved project design, strengthen mitigation measures and provided relevant biophysical information and historical information that may otherwise have been unavailable.

We are eager to continue our discussions and if you have any additional information, or questions, or require any information from the Ambassador Bridge we would ask that you contact the undersigned by August 10, 2007.

Yours very truly,

Siskinds LLP

Per:
Paula Lombardi

COPY

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

****
*** TX REPORT ***
****

TRANSMISSION OK

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ST. TIME	07/23 17:07
TIME USE	00'50
PAGES SENT	2
RESULT	OK

680 Waterloo Street, London, ON N6A 3V8

SISKINDS THE LAW FIRM

EMAIL: paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE July 23, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Mr. Russell Nahdee CanAm Indian Friendship Centre of Windsor	1-519-971-3689

FROM Paula Lombardi

WE ARE TRANSMITTING 2 PAGE(S) (Including cover page)

BY FAX ONLY [X] HARD COPY TO FOLLOW [ ]

Friday, June 8, 2007

William Messenger
3136 Elmwood Cres
Windsor, ON N8R 1X4

Re: AVALON AMBASSADOR BRIDGE COMMITTEE

Dear Mr. W. Messenger:

The following motion was passed by the Can-Am Indian Friendship Centre of Windsor Board of Directors at the regular scheduled meeting of April 24, 2007.

Motion # 2007.04.24.09
Moved by: Eric Hill, that we appoint Bill Messenger, Paul Petahtegoose, and Russell Nahdee as our representatives to the Avalon Ambassador Bridge Committee, seconded by Michelle Cooper. Motion Carried.

If I can be of further assistance, please do not hesitate to contact me at 519-967-0490

Infriendship, Peace & Unity

Andrea Monkman

Andrea Monkman
President
Board of Directors
Can-Am Indian Friendship Centre of Windsor

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DELIVERED BY COURIER

May 16, 2007

Mr. Russell Nahdee
CanAm Indian Friendship Centre of Windsor
496 Sunset Avenue
Windsor ON N9B 3P4

Dear Mr. Nahdee:

Re: Ambassador Bridge Enhancement Project ("Enhancement Project")

We would like to take this opportunity to follow up on our meeting of April 25, 2007. As we indicated at that meeting, the Enhancement Project is subject to the requirements of the *Canadian Environmental Assessment Act* and we are in the midst of undertaking the necessary studies for the environmental impact statement. Any information that you may have that would assist in these studies would be very much appreciated.

The Stage I and Stage II archaeological studies are currently underway and being conducted by licensed archaeologists from the Ontario Museum of Archaeology. The Ambassador Bridge recognizes that the wisdom and understanding that Aboriginal peoples have developed is unique and part of the ongoing cultural heritage of Aboriginal peoples. This traditional knowledge ("ATK") is important to the preparation of the environmental impact statement for the Enhancement Project.

The Ambassador Bridge is seeking input from the CanAm Indian Friendship Centre of Windsor and is looking forward to building a long-term relationship. We anticipate that the ATK will assist in identifying potential environmental effects, lead to improved project design, strengthen mitigation measures and provided relevant biophysical information and historical information that may otherwise have been unavailable.

We are eager to continue our discussions and if you have any additional information, or questions, or require any information from the Ambassador Bridge we would ask that you contact the undersigned.

Yours very truly,

Siskinds LLP

Per: Paula Lombardi
Paula Lombardi

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

Avalon

Avalon Consulting Professionals of Ontario, LLC

48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Russell Nahdee
Aboriginal Education Counselor
Walpole Island Friendship Centre
496 Sunset Avenue
Windsor, ON N9B 3P4

Re: Ambassador Bridge Enhancement Project Public Consultation Process

Dear Mr. Nahdee:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Walpole Island Friendship Centre to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

hp LaserJet *3380*

ALON CONSULTING
59911682
22-Mar-2007 18:37

invent

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
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Avalon

Avalon Consulting Professionals of Ontario, LLC
46 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Russell Nahdee
Aboriginal Education Counselor
Walpole Island Friendship Centre
466 Sunset Avenue
Windsor, ON N9B 3P4

Re: **Ambassador Bridge Enhancement Project Public Consultation Process**

Dear Mr. Nahdee:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge.

The Ambassador Bridge is initiating its public consultation process that is required as part of the federal environmental assessment being undertaken for the Enhancement Project. We would like to invite and encourage the Walpole Island Friendship Centre to participate in the public consultation process for the Enhancement Project. Your comments are important to us and are essential to provide us with an understanding of your thoughts on the Enhancement Project.

We would like to meet with your organization during the week of April 2, 2007 in advance of the public meetings. We would ask that you contact Leigh Whyte at (905) 991-1681 to arrange a convenient time for this meeting.

Should you have any questions, please do not hesitate to contact me at your earliest convenience. We are looking forward to meeting with you to discuss the exciting opportunities presented by the Enhancement Project.

Sincerely,

Avalon Consulting Professionals of Ontario, LLC

P. Leigh Whyte

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

Avalon

Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

CanAm Indian Friendship Centre of Windsor
1100 University Avenue West
Windsor, ON N8Y 8X7

Re: Ambassador Bridge Enhancement Project

Dear CanAm Indian Friendship Centre of Windsor:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge. We have highlighted the area of the Enhancement Project on the attached map for your review.

We would like to invite, and encourage all First Nations in the area to participate in the public consultation process for the Enhancement Project. We are interested in discussing any community knowledge and aboriginal traditional knowledge that you may have relating to the Enhancement Project and the lands immediately adjacent to the Enhancement Project. Your comments are important to us, and are essential, to providing us with an understanding of your thoughts on the Enhancement Project.

We welcome the opportunity to meet with you to discuss the project in detail. We would like to meet with you during the week of April 2, 2007 in advance of the public meetings that are scheduled to be held in mid-April.

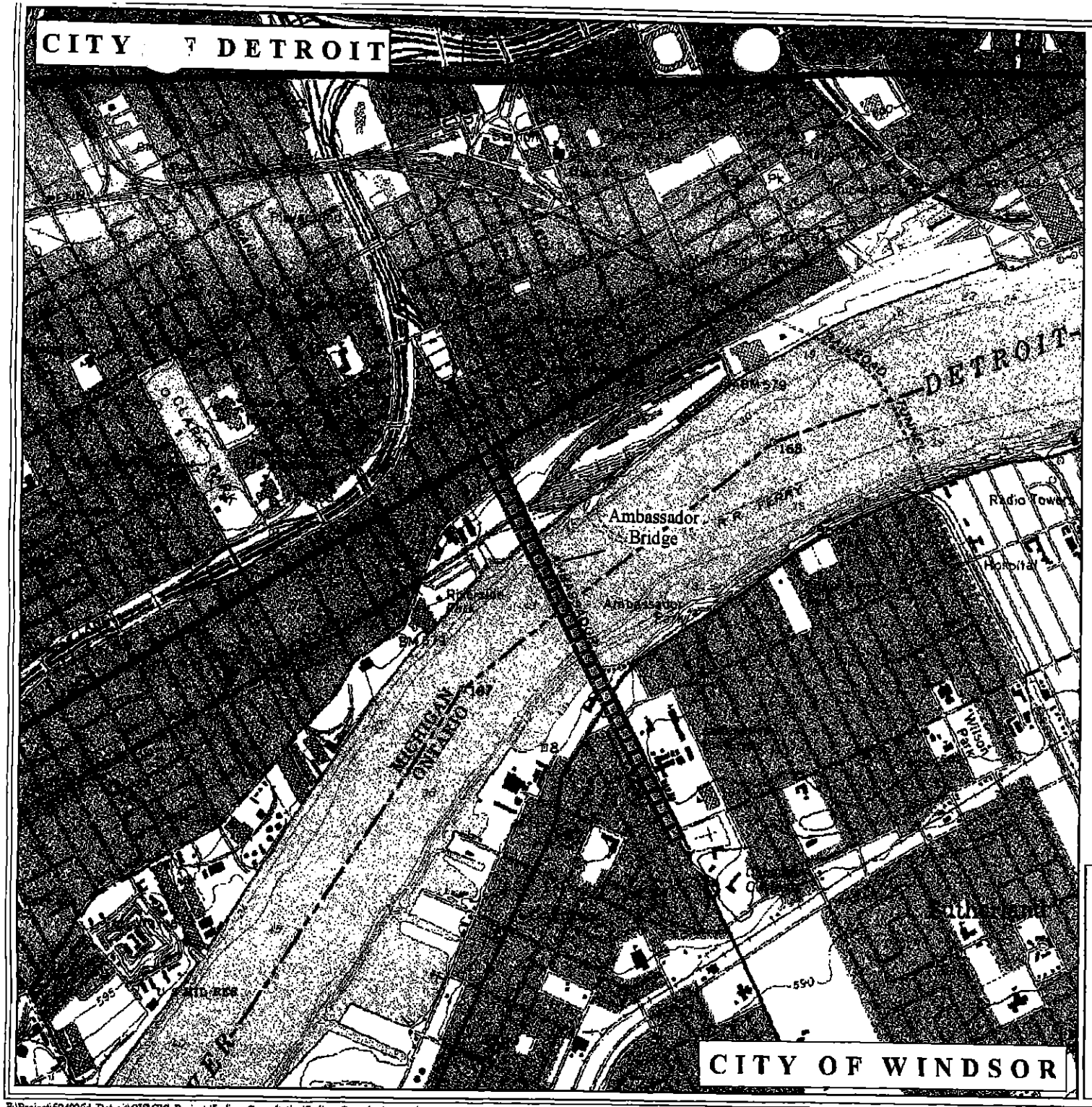
We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting. If you have are interested in arranging a meeting or have further questions or comments, please feel free to contact me at your convenience.

Sincerely,

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

encls.



Project Location

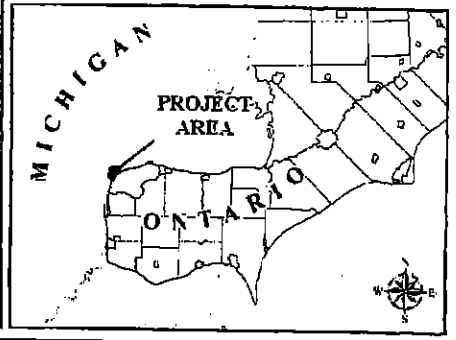
Legend

Proposed Alignment

Source: USGS 7.5 Minute Quadrangle. 1981
Detroit, Michigan

0 500 1,000 2,000 Feet

1 inch equals 1,800 feet



F:\Project\5049964_Detroit\GIS\GIS_Projects\Indian_Consultation\Indian_Consultation.mxd

Last Revised 07022007, DVK

hp LaserJet *3380*

AVALON CONSULTING
905911682
23-Mar-2007 10:41

Fax Call Report

Job	Date	Time	Type	Identification	Duration	Pages	Result
153	23/ 3/2007	10:39:08	Send	915192537876	2:28	2	OK

Avalon

Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

CanAm Indian Friendship Centre of Windsor
1100 University Avenue West
Windsor, ON N9Y 2K7

Re: Ambassador Bridge Enhancement Project

Dear CanAm Indian Friendship Centre of Windsor:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge. We have highlighted the area of the Enhancement Project on the attached map for your review.

We would like to invite, and encourage all First Nations in the area to participate in the public consultation process for the Enhancement Project. We are interested in discussing any community knowledge and aboriginal traditional knowledge that you may have relating to the Enhancement Project and the lands immediately adjacent to the Enhancement Project. Your comments are important to us, and are essential, to providing us with an understanding of your thoughts on the Enhancement Project.

We welcome the opportunity to meet with you to discuss the project in detail. We would like to meet with you during the week of April 2, 2007 in advance of the public meetings that are scheduled to be held in mid-April.

We would ask that you contact Leigh Whyte at (905) 991-1681 to arrange a convenient time for this meeting. If you have are interested in arranging a meeting or have further questions or comments, please feel free to contact me at your convenience.

Sincerely,

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

encls.

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

SENT BY FACSIMILE 1-519-676-5899

September 27, 2007

Chief Louise Hillier
Caldwell First Nation
10297 Talbot Trail
R.R. #2
Blenheim, Ontario N0P 1A0

Dear Chief Hillier:

Re: Ambassador Bridge Enhancement Project ("Enhancement Project")

We would like to take this opportunity to follow up on our previous correspondence.

The Ambassador Bridge is proposing to construct a six-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new span will replace the existing Ambassador Bridge and will link directly into the existing plazas in both Windsor and Detroit. When the replacement span is operational, the existing Ambassador Bridge will be re-evaluated and rehabilitated without causing any disruption in traffic flow. After it is rehabilitated, the existing Ambassador Bridge will be maintained and available as a redundant resource for maintenance vehicles, emergencies and approved public events.

The Ambassador Bridge has scheduled a public open house to discuss the results of the technical studies undertaken with the community. As set out in the attached notice the Public Open Houses will be held from 3-9 p.m. on Monday, October 1, 2007 at Mackenzie Hall in Windsor and on Tuesday, October 2, 2007 at the Ciociaro Club in Oldcastle.

We encourage you to attend one of the upcoming Public Open House Sessions and, if possible, we would like to arrange a meeting with you prior to the Open House to review and discuss the replacement span.

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

If you have any questions, or would like to arrange a meeting, please do not hesitate to contact me at your earliest convenience.

Yours very truly,

Siskinds LLP

Per: Paula Lombardi

Paula Lombardi

cc: Councillor Janne Peters

PL/pl
Page 2

Ambassador Bridge Enhancement Project
Environmental Assessment Update - OPEN HOUSE

PROJECT BACKGROUND: The Ambassador Bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new span will replace the existing Ambassador Bridge and will link directly into the existing plazas in both Windsor and Detroit. When the replacement span is operational, the existing Ambassador Bridge will be reevaluated and rehabilitated without causing any disruption in traffic flow. After it is rehabilitated, the existing Ambassador Bridge will be maintained and available as a redundant resource for maintenance vehicles, emergencies and approved public events.

The Ambassador Bridge held Public Workshops in April 2007, and Open House Sessions in June 2007, to introduce and discuss the Project and is now pleased to present the results of the environmental studies for the replacement span at two Public Open House Sessions scheduled:

MONDAY, OCTOBER 1st, 2007 **Visit Anytime** **between 3:00 pm - 9:00 pm** **MACKENZIE HALL** 3277 Sandwich St. Windsor, Ontario N9C 1A9 Tel: (519) 255-7600	**TUESDAY, OCTOBER 2nd, 2007** **Visit Anytime** **between 3:00 pm - 9:00 pm** **CIOCIARO CLUB** 3745 North Talbot Road Oldcastle, Ontario N0R 1L0 Tel: (519) 737-6153

We encourage you to attend the Open House anytime between 3:00 p.m. and 9:00 p.m. to review the results from the various studies and ask questions of our technical experts responsible for the analysis and preparation of the studies that will be submitted to the federal government for review and comment.

These meetings are being held as part of the public consultation process for the preparation of a Federal Environmental Assessment (EA).

For further information, please contact:

Paula Lombardi
Environmental Lawyer
Tel. 519-251-8200
Tel. 1-877-672-2121

Email paula.lombardi@siskinds.com
Ambassador Bridge: www.ambassadorbridge.com

AMBASSADOR
AMBASSADOR BRIDGE

****
*** TX REPORT ***
****

TRANSMISSION OK

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TIME USE	00'47
PAGES SENT	4
RESULT	OK

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE September 27, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Chief Louise Hillier Caldwell First Nation	1-519-676-5899
Councillor Janne Peters Caldwell First Nation	1-519-676-5899

FROM Paula Lombardi

WE ARE TRANSMITTING 3 PAGE(S) (including cover page)

BY FAX ONLY [X] HARD COPY TO FOLLOW [ ]

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*** TX REPORT ***
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TRANSMISSION OK

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TIME USE	00'34
PAGES SENT	4
RESULT	OK

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE September 27, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Chief Louise Hillier Caldwell First Nation	1-519-676-5899
Councillor Janne Peters Caldwell First Nation	1-519-676-5899

FROM Paula Lombardi

WE ARE TRANSMITTING 3 PAGE(S) (Including cover page)

BY FAX ONLY [X] HARD COPY TO FOLLOW [ ]

680 Waterloo Street, London, ON N6A 3V8

SISKINDS THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

DELIVERED BY FAX **1-519-676-5899**

August 27, 2007

Chief Louise Hillier
Caldwell First Nation
10297 Talbot Trail
R.R. #2
Blenheim, Ontario N0P 1A0

Dear Chief Hillier:

Re: Ambassador Bridge Enhancement Project ("Enhancement Project")

We would like to take this opportunity to follow up on our telephone message of today's date and our letter dated July 30, 2007.

We hope to arrange a meeting with you as soon as possible to discuss the Ambassador Bridge Enhancement Project and the participation of Caldwell First Nation in the preparation of the environmental impact statement.

We are seeking information relating to any traditional knowledge of the area to assist in identifying potential environmental effects and provide relevant biophysical and historical information that may otherwise be unavailable.

As requested in your fax dated July 28, 2007 we have also copied this letter to the attention of Councillor Janne Peters at the Caldwell First Nation fax number provided.

We are eager to consult with the Caldwell First Nation as soon as possible and would ask that you contact the undersigned no later than **September 4, 2007** to arrange a meeting to discuss next steps and how we can move forward.

Yours very truly,

Siskinds LLP

Per: Qurdy for
Paula Lombardi

cc: Councillor Janne Peters

COPY

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

****
*** TX REPORT ***
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TRANSMISSION OK

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ST. TIME	08/27 16:37
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PAGES SENT	2
RESULT	OK

FAXED

680 Waterloo Street, London, ON N6A 3V8

SISKINDS THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE August 27, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Chief Louise Hillier Caldwell First Nation 10297 Talbot Trail R.R. #2 Blenheim, Ontario N0P 1A0	1-519-676-5899
Councillor Janne Peters Caldwell First Nation 10297 Talbot Trail R.R. #2 Blenheim, Ontario N0P 1A0	1-519-676-5899

FROM Paula Lombardi

WE ARE TRANSMITTING 2 PAGE(S) (including cover page)

BY FAX ONLY [X] **HARD COPY TO FOLLOW** [ ]

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*** TX REPORT ***
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TRANSMISSION OK

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PAGES SENT	2
RESULT	OK

FAXED

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE August 27, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Chief Louise Hillier Caldwell First Nation 10297 Talbot Trail R.R. #2 Blenheim, Ontario N0P 1A0	1-519-676-5899
Councillor Janne Peters Caldwell First Nation 10297 Talbot Trail R.R. #2 Blenheim, Ontario N0P 1A0	1-519-676-5899

FROM Paula Lombardi

WE ARE TRANSMITTING 2 PAGE(S) (including cover page)

BY FAX ONLY [X] **HARD COPY TO FOLLOW** [ ]

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

DELIVERED BY FAX **1-519-676-5899**

July 30, 2007

Chief Louise Hillier
Caldwell First Nation
10297 Talbot Trail
R.R. #2
Blenheim, Ontario N0P 1A0

Dear Chief Hillier:

Re: Ambassador Bridge Enhancement Project ("Enhancement Project")

We are in receipt of your fax dated July 28, 2007 and have made the necessary revisions to our contact information. We apologize for any inconvenience that may have occurred in receiving information relating to the Enhancement Project and have attached the letters sent to Caldwell First Nation advising of the Enhancement Project.

We would like to take this opportunity to request a meeting to discuss the Ambassador Bridge Enhancement Project and the participation of Caldwell First Nation in the preparation of the environmental impact statement. The Enhancement Project is subject to the requirements of the *Canadian Environmental Assessment Act* and we are in the midst of undertaking the necessary studies for the environmental impact statement.

The Ambassador Bridge is seeking input from Caldwell First Nation and is looking forward to building a long-term relationship. We are seeking information relating to any traditional knowledge of the area to assist in identifying potential environmental effects and provide relevant biophysical and historical information that may otherwise be unavailable.

We are eager to consult with the Caldwell First Nation as soon as possible and would ask that you contact the undersigned to arrange a meeting to discuss next steps and how we can move forward.

As requested in your fax dated July 28, 2007 we have copied this letter to the attention of Councillor Janne Peters at the Caldwell First Nation fax number provided. If there is another fax number where Councillor Janne Peters should be reached could you please advise so we can ensure that Councillor Peters receives copies of all correspondence.

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

We look forward to discussing the Enhancement Project with you as soon as possible.

Yours very truly,

Siskinds LLP

Per: Paula Lombardi
Paula Lombardi

PL/pl

cc: Councillor Janne Peters

****
*** TX REPORT ***
****

TRANSMISSION OK

TX/RX NO	0815
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ST. TIME	07/30 13:14
TIME USE	00'52
PAGES SENT	6
RESULT	OK

680 Waterloo Street, London, ON N6A 3V8

SISKINDS LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE July 30, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Chief Louise Hillier Caldwell First Nation 10297 Talbot Trail R.R. #2 Blenheim, Ontario N0P 1A0	1-519-676-5899
Councillor Janne Peters Caldwell First Nation 10297 Talbot Trail R.R. #2 Blenheim, Ontario N0P 1A0	1-519-676-5899

FROM Paula Lombardi

WE ARE TRANSMITTING 6 PAGE(S) (including cover page)

BY FAX ONLY [X] HARD COPY TO FOLLOW [ ]

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*** TX REPORT ***
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TRANSMISSION OK

TX/RX NO	0816
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ST. TIME	07/30 13:16
TIME USE	00'52
PAGES SENT	6
RESULT	OK

680 Waterloo Street, London, ON N6A 3V8

SISKINDS LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE July 30, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Chief Louise Hillier Caldwell First Nation 10297 Talbot Trail R.R. #2 Blenheim, Ontario N0P 1A0	1-519-676-5899
Councillor Janne Peters Caldwell First Nation 10297 Talbot Trail R.R. #2 Blenheim, Ontario N0P 1A0	1-519-676-5899

FROM Paula Lombardi

WE ARE TRANSMITTING 6 PAGE(S) (Including cover page)

BY FAX ONLY [X] HARD COPY TO FOLLOW [ ]

Caldwell First Nation

Branch Office: 10297 Talbot Trail, R. R. # 2,
Blenheim, Ontario, N0P 1A0
Phone: 519-676-5499 * Fax: 519-676-5899
Email: caldwell@ciaccess.com with@peoplelight.ca

TO: Paula Lamarsh

FROM: Lonnie Hillier – Chief

DATE: July 28, 2007

SUBJECT: Your Fax

FAX#: 519-660-1857 **#OF PAGES:** 1

Larry Johnson is not Chief nor is he in any fashion connected to the administration and/or Longhouse of the Caldwell First Nation. Caldwell First Nation does not have, in its files, any documentation or information relating to the Ambassador Bridge Project. Please forward any information you may have to our office at your earliest convenience and to the attention of Councillor Janice Peters.

Thank You

Lonnie Hillier, Chief.

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DELIVERED BY COURIER

July 23, 2007

Chief Larry Johnson
Caldwell First Nation
10297 Talbot Trail
R.R.#2
Blenheim ON N0P 1A0

Dear Chief Johnson:

Re: Ambassador Bridge Enhancement Project ("Enhancement Project")

We would like to take this opportunity to follow up on our meeting of April 25, 2007 and our letter dated May 16, 2007. As we indicated, the Enhancement Project is subject to the requirements of the *Canadian Environmental Assessment Act* and we are in the midst of undertaking the necessary studies for the environmental impact statement. Any information that you may have that would assist in these studies would be very much appreciated.

Again, the Stage I and Stage II archaeological studies are currently underway and being conducted by licensed archaeologists from the Ontario Museum of Archaeology. We understand and appreciate that the wisdom and understanding that Aboriginal peoples have developed is unique and part of the ongoing cultural heritage of Aboriginal peoples and would like your input on the Enhancement Project.

The Ambassador Bridge is seeking input from the Caldwell First Nation and is looking forward to building a long-term relationship with Caldwell First Nation. We are optimistic that aboriginal traditional knowledge will assist in identifying potential environmental effects, lead to improved project design, strengthen mitigation measures and provided relevant biophysical information and historical information that may otherwise have been unavailable.

We are eager to continue our discussions and if you have any additional information, or questions, or require any information from the Ambassador Bridge we would ask that you contact the undersigned by August 10, 2007.

Yours very truly,

Siskinds LLP

Per:
Paula Lombardi

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

COPY

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*** TX REPORT ***
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TRANSMISSION OK

TX/RX NO	0680
RECIPIENT ADDRESS	*111*810750*915196765899
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ST. TIME	07/23 17:04
TIME USE	00'23
PAGES SENT	2
RESULT	OK

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE July 23, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Chief Larry Johnson Caldwell First Nation	1-519-676-5899

FROM Paula Lombardi

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BY FAX ONLY [x] HARD COPY TO FOLLOW [ ]

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DELIVERED BY COURIER

May 16, 2007

Chief Larry Johnson
Caldwell First Nation
10297 Talbot Trail
R.R.#2
Blenheim ON N0P 1A0

Dear Chief Johnson:

Re: Ambassador Bridge Enhancement Project ("Enhancement Project")

We would like to take this opportunity to request a meeting to discuss the Ambassador Bridge Enhancement Project and the participation of Caldwell First Nation in the preparation of the environmental impact statement. The Enhancement Project is subject to the requirements of the *Canadian Environmental Assessment Act* and we are in the midst of undertaking the necessary studies for the environmental impact statement.

The Ambassador Bridge recognizes that the wisdom and understanding that Aboriginal peoples have developed is unique and part of the ongoing cultural heritage of Aboriginal peoples. This traditional knowledge ("ATK") is important to the preparation of the environmental impact statement for the Enhancement Project.

The Ambassador Bridge is seeking input from Caldwell First Nation and is looking forward to building a long-term relationship with Caldwell First Nation. We anticipate that the ATK will assist in identifying potential environmental effects, lead to improved project design, strengthen mitigation measures and provided relevant biophysical information and historical information that may otherwise have been unavailable.

We are eager to consult with Caldwell First Nation as soon as possible and would ask that you contact the undersigned to arrange a meeting to discuss next steps and how we can move forward.

Yours very truly,

Siskinds LLP

Per: Paula Lombardi
Paula Lombardi

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

August 1, 2007

Your file Votre reference
810750/PL/pl
Our file Notre reference
5010-1
#175470

Paula Lombardi
Siskinds Law Firm
680 Waterloo Street
London, ON
N6A 3V8

Dear Ms. Lombardi:

RE: First Nations Groups – Ambassador Bridge Enhancement Project

Thank you for your letter of July 30, 2007 regarding the above project.

Please be advised that Indian and Northern Affairs Canada is not in the position to determine which First Nation groups may be interested in the Enhancement project. The responsibility to identify and consult all potentially interested First Nations and other Aboriginal groups lies with the proponent and enabling government agencies. Additionally, it is their responsibility to ensure that Aboriginal consultation and engagement is adequate.

However, the contact information for the First Nation communities that you have identified in your letter are:

Chief and Council Walpole Island First Nation R.R. #3 Wallaceburg, Ontario N8A 4K9 Phone: (519) 627-1481 Fax: (519) 627-0440	Chief and Council Aamjiwnaang First Nation 978 Tashmoo Avenue Sarnia, Ontario N7T 7H5 Phone: (519) 336-8410 Fax: (519) 336-0382	Chief and Council Caldwell First Nation 10297 Talbot Trail R.R. #2 Blenheim, Ontario N0P 1A0 Phone: (519) 676-5499 Fax: (519) 676-5899

Should you have any enquiries regarding land claims in Ontario, please contact the Director General of the Comprehensive Claims Branch at (819) 994-7521, the Director General of Specific Claims Branch at (819) 994-2323 and the Director General of Litigation Management and Resolution Branch at (819) 997-3582.

Thank you for your time and consideration.

Miranda Lesperance
Environment Officer
Environment Unit
INAC - Ontario Region
25 St. Clair Avenue E. 8th Floor
Toronto, Ontario M4T 1M2
lesperancem@inac.gc.ca

cc: K. Stiff, Transport Canada
M. Murtaza, Canadian Environmental Assessment Agency
U. Madisso, Indian and Northern Affairs Canada

This letter has been distributed electronically. If you require a signed copy, please contact the author at the address provided above.

Canada

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DELIVERED BY FAX 1-416-954-6329

July 30, 2007

Ms. Kathleen Padulo
Environment Officer
Environment Unit
INAC - Ontario Region
22 St. Clair Avenue East, 8th Floor
Toronto ON M4T 1M2

Dear Ms. Padulo:

Re: First Nation Groups - Ambassador Bridge Enhancement Project
Your File No. 59286

We have been retained to act on behalf of the Canadian Transit Company and are involved in the preparation of the environmental impact study for the Ambassador Bridge Enhancement Project as required by the *Canadian Environmental Assessment Act*.

The attached letter dated August 10, 2004, from Indian and Northern Affairs Canada indicated that there are three First Nation groups that may have an interest in the Ambassador Bridge Enhancement Project. It recently came to our attention that the Caldwell First Nation may also have an interest in the Enhancement Project, and we have taken the necessary steps to contact Caldwell First Nation.

We would ask that you identify and confirm the addresses of the First Nation groups that may have an interest in the Enhancement Project as soon as possible so we can ensure that all of the First Nation groups are appropriately consulted.

Should you have any questions, please do not hesitate to contact the undersigned.

Yours very truly,

Siskinds LLP

Per: Paula Lombardi

Paula Lombardi

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

PL/pl

cc: K. Stiff, Transport Canada (fax: 1-613-990-9639)
M. Murtaza, Canadian Environmental Assessment Agency (fax: 1-416-952-1573)

****
*** TX REPORT ***
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TRANSMISSION OK

TX/RX NO	0811
RECIPIENT ADDRESS	*111*81075*914169546329
DESTINATION ID	
ST. TIME	07/30 11:10
TIME USE	01'00
PAGES SENT	6
RESULT	OK

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE July 30, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Ms. Kathleen Padulo **Environment Officer** **Environment Unit** **INAC - Ontario Region** **22 St. Clair Avenue East, 8th Floor** **Toronto ON M4T 1M2**	**1-416-954-6329**

FROM Paula Lombardi

WE ARE TRANSMITTING 4 PAGE(S) (including cover page)

BY FAX ONLY ☐ **HARD COPY TO FOLLOW** [X]

Please review attached letter.

680 Waterloo Street, London, ON N6A 3V8

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EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE July 30, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
K. Stiff Transport Canada	1-613-990-9639
M. Murtaza Canadian Environmental Assessment Agency	1-416-952-1573

FROM Paula Lombardi

WE ARE TRANSMITTING 4 PAGE(S) (including cover page)

BY FAX ONLY [X] **HARD COPY TO FOLLOW** [ ]

This message is intended for the use of the individual to whom it is addressed and may contain information that is confidential. If you have received this communication in error, please destroy and notify us immediately by telephone. Thank you.

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

London · Toronto · Windsor · Quebec City

SISKINDS.com

Indian and Northern Affairs Canada
Affaires indiennes et du Nord Canada

August 10, 2004

Your file Votre référence

5010-1 Notre référence
59286

Ms.Cathy Hainsworth
Senior Program Officer
Canadian Environmental Assessment
Agency, Ontario Region
55 St. Clair Avenue East, Rm. # 907
Toronto, ON M4T 1M2

Dear Ms.Hainsworth:

Re: Federal Co-ordination Response Ambassador Bridge Enhancement Project

Thank you for your notice of August 3, 2004 regarding the above project. The Department of Indian and Northern Affairs Canada (INAC) is not likely to require an environmental assessment of this project under s. 5 of the Canadian Environmental Assessment act.

However, the following First Nation groups may have an interest in the proposed project, particularly as the proponent has identified a potential for the presence of archaeological sites and/or burial grounds in the project area. Therefore, it is recommended that the proponent contact and advise them accordingly, at the following addresses:

Chief and Council, Walpole Island
R.R. # 3
Wallaceburg, ON N8A 4K9

Phone: (519) 627-1481
Fax: (519) 627-0440

CanAm Indian Friendship Centre of Windsor
1100 University Avenue West
Windsor, ON N8Y 8X7

Phone: (519) 258-8954
Fax: (519) 258-8419

Chief and Council, Aamjiwnaang
978 Tashmoo, Avenue
Sarnia, ON N7T 7H5

Phone: (519) 336-8410
Fax: (519) 336-0384

Thank you for the opportunity to comment on this project.

Sincerely,

Kathleen Padulo
Environment Officer
Environment Unit
INAC - Ontario Region
25 St. Clair Avenue East, 8th Floor
Toronto, ON M4T 1M2

cc. Chief and Council, **Walpole Island**
Chief and Council, **Aamjiwnaang**
CanAm Native Friendship Centre
Urmas Maddiso, **INAC**

This letter has been distributed electronically. If you require a signed copy, please contact the author at the address provided above

AMBASSADOR BRIDGE ENHANCEMENT PROJECT

Please indicate your contact information:

Name: Kathleen Padulo
Department and Address:
Department of Indian Affairs
25 St. Clair Ave, E. 8th Floor
Toronto, ON M4T 1M2

Phone: (416) 952-0757
Fax: (416) 954-4867
Email:

Please indicate by checking the appropriate box, whether your department/agency:

a) **will** require an environmental assessment of the project under section 5 of the Act. r

- Please indicate the trigger(s) _____

1. **is not likely** to require an environmental assessment of the project under section 5 of the Act. √

2. **needs additional information to make a determination referred to in (a) or (b) above** and you are prepared to participate early as a potential RA until your RA status has been determined. r

- Please indicate the potential trigger(s) _____

d) **is in possession of specialist or expert information** or knowledge that is necessary to conduct the environmental assessment of the project. r

All departments or agencies are requested to sign the signature block and date below and fax the response to this office (416-952-1573, 55 St. Clair Ave. East, Toronto, M4T 1M2) within the time frame specified.

Signature of department responder	Kathleen Padulo Print Name
Environment Officer Title of responder	August 9, 2004 Date

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DELIVERED BY FACSIMILE 1-519-627-1530

September 27, 2007

Dr. Dean Jacobs
Walpole Island First Nation
R.R. #3
Wallaceburg, ON N8A 4K9

Dear Dr. Jacobs:

Re: Ambassador Bridge Enhancement Project ("Enhancement Project")

We would like to take this opportunity to follow up on our previous correspondence.

The Ambassador Bridge is proposing to construct a six-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new span will replace the existing Ambassador Bridge and will link directly into the existing plazas in both Windsor and Detroit. When the replacement span is operational, the existing Ambassador Bridge will be re-evaluated and rehabilitated without causing any disruption in traffic flow. After it is rehabilitated, the existing Ambassador Bridge will be maintained and available as a redundant resource for maintenance vehicles, emergencies and approved public events.

The Ambassador Bridge has scheduled a public open house to discuss the results of the technical studies undertaken with the community. As set out in the attached notice the Public Open Houses will be held from 3-9 p.m. on Monday, October 1, 2007 at Mackenzie Hall in Windsor and on Tuesday, October 2, 2007 at the Ciociaro Club in Oldcastle.

We encourage you to attend one of the upcoming Public Open House Sessions and, if possible, we would like to arrange a meeting with you prior to the Open House to review and discuss the replacement span.

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

If you have any questions, or would like to arrange a meeting, please do not hesitate to contact me at your earliest convenience.

Yours very truly,

Siskinds LLP

Per: Paula Lombardi
Paula Lombardi

Ambassador Bridge Enhancement Project
Environmental Assessment Update - OPEN HOUSE

PROJECT BACKGROUND: The Ambassador Bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new span will replace the existing Ambassador Bridge and will link directly into the existing plazas in both Windsor and Detroit. When the replacement span is operational, the existing Ambassador Bridge will be reevaluated and rehabilitated without causing any disruption in traffic flow. After it is rehabilitated, the existing Ambassador Bridge will be maintained and available as a redundant resource for maintenance vehicles, emergencies and approved public events.

The Ambassador Bridge held Public Workshops in April 2007, and Open House Sessions in June 2007, to introduce and discuss the Project and is now pleased to present the results of the environmental studies for the replacement span at two Public Open House Sessions scheduled:

MONDAY, OCTOBER 1st, 2007 **Visit Anytime** **between 3:00 pm - 9:00 pm** **MACKENZIE HALL** 3277 Sandwich St. Windsor, Ontario N9C 1A9 Tel: (519) 255-7600	**TUESDAY, OCTOBER 2nd, 2007** **Visit Anytime** **between 3:00 pm - 9:00 pm** **CIOCIARO CLUB** 3745 North Talbot Road Oldcastle, Ontario N0R 1L0 Tel: (519) 737-6153

We encourage you to attend the Open House anytime between 3:00 p.m. and 9:00 p.m. to review the results from the various studies and ask questions of our technical experts responsible for the analysis and preparation of the studies that will be submitted to the federal government for review and comment.

These meetings are being held as part of the public consultation process for the preparation of a Federal Environmental Assessment (EA).

For further information, please contact:

Paula Lombardi
Environmental Lawyer
Tel. 519-251-8200
Tel. 1-877-672-2121

Email paula.lombardi@siskinds.com
Ambassador Bridge: www.ambassadorbridge.com

AMBASSADOR
AMBASSADOR BRIDGE

****
*** TX REPORT ***
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TRANSMISSION OK

TX/RX NO	1728
RECIPIENT ADDRESS	*111*810750*915196271530
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ST. TIME	09/27 07:59
TIME USE	00'49
PAGES SENT	4
RESULT	OK

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE September 27, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Dr. Dean Jacobs Walpole Island First Nation	1-519-627-1530

FROM Paula Lombardi

WE ARE TRANSMITTING 3 PAGE(S) (including cover page)

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SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DELIVERED BY COURIER AND FAX 1-519-627-1530

August 27, 2007

Dr. Dean Jacobs
Walpole Island First Nation
R.R. #3
Wallaceburg, ON N8A 4K9

Dear Dr. Jacobs:

Re: Ambassador Bridge Enhancement Project

We are surprised by the email dated August 24, 2007, sent to Leigh Whyte, Avalon Consulting from Ms. Fiona Christiansen of R. J. Burnside & Associates Limited ("R.J. Burnside"). This email indicates that R. J. Burnside has been instructed by Walpole Island to assist with the review of the natural and socio-economic studies relating to the Ambassador Bridge Enhancement Project. We have been attempting to contact you directly since the Walpole Island workshop held on June 28, 2007 and have not received any response or acknowledgement of our letters, faxes and voice messages.

We are confused as to the role Ms. Rosemarie Denunzio is taking for Walpole Island. It was our understanding during the Stage I and Stage II archaeological assessment that Ms. Dennunzio was representing the interests of Walpole Island. It is with that understanding we have accommodated her requests to attend the Site during the archaeological assessment. We would ask that you clarify Ms. Denunzio's role as soon as possible.

As you are aware, we have been attempting to contact you to discuss and obtain the details relating to the Consultation Budget you proposed on May 14, 2007. At the Walpole Island Community Public Meeting held at Walpole Island United Church on June 28, 2007 you indicated that these details would be provided within that week. We have made several attempts to contact you to resolve this issue.

A telephone message was left on your voice mail on July 9, 2007 and facsimile was sent on July 13, 2007, we also attempted to leave a voice mail on July 13, 2007 but your office mailbox was full and your cell phone indicated that the customer was not available. In addition a letter was sent to your attention on July 30, 2007 requesting that we continue our discussions and that you contact us as soon as possible.

As we indicated at the public meeting, and our correspondence, we understand and appreciate that the wisdom and understanding that your community has developed is unique

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SISKINDS | THE LAW FIRM

and part of the ongoing cultural heritage of Walpole Island First Nation and would like your continued input on the Enhancement Project. However, it is difficult to continue these discussions absent any response to our correspondence.

We are eager to continue our discussions and if you have any additional information, or questions, or require any information from the Ambassador Bridge we would ask that you contact the undersigned no later than **September 4, 2007**.

Yours very truly,

Siskinds LLP

Per: Audrey for
Paula Lombardi

PL/pl

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*** TX REPORT ***
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TRANSMISSION OK

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ST. TIME	08/28 11:22
TIME USE	00'30
PAGES SENT	3
RESULT	OK

FAXED

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SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE August 27, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Dr. Jacobs Walpole Island	1-519-627-1530

FROM Paula Lombardi

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nder:
The law Firm of
Siskinds Cromarty Ivey & Dowler
680 Waterloo Street
London, ON N6A 3V8

Date: Aug 28

File #/ Sender's Initial: 810750 PL

Total Pcs. = 1 Can/US Total Amt in $ = 8.05

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To / Destinataire

Name / Nom: Walpole Island First Nation

Address / Adresse: R.R. #3

City / Ville: Wallaceburg

Province: ON Postal Code / Code postal: N8A 4K9

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680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DELIVERED BY FAX **1-519-627-1530**

July 30, 2007

Dr. Dean Jacobs
Walpole Island First Nation
R.R. #3
Wallaceburg, ON N8A 4K9

Dear Dr. Jacobs:

Re: Ambassador Bridge Enhancement Project

I would like to take this opportunity to follow up on our discussions at the Walpole Island Community Public Meeting held at Walpole Island United Church on June 28, 2007 and my telephone message of July 9, 2007 and facsimile of July 13, 2007.

As we indicated at the public meeting, we understand and appreciate that the wisdom and understanding that your community has developed is unique and part of the ongoing cultural heritage of Walpole Island First Nation and would like your continued input on the Enhancement Project.

We are seeking information relating to the current use of land in the area of the Enhancement Project for traditional purposes. We are optimistic that aboriginal traditional knowledge will assist in identifying potential environmental effects, lead to improved project design, assist in developing mitigation measures and provide the relevant biophysical and historical information that may otherwise be unavailable.

We are eager to continue our discussions and would ask that you contact the undersigned as soon as possible.

Yours very truly,

Siskinds LLP

Per: Paula Lombardi
Paula Lombardi

PL/pl

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

****
*** TX REPORT ***
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TRANSMISSION OK

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ST. TIME	07/30 15:20
TIME USE	00'29
PAGES SENT	2
RESULT	OK

680 Waterloo Street, London, ON N6A 3V8

SISKINDS THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE July 30, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Dr. Jacobs Walpole Island First Nation	1-519-627-1530

FROM Paula Lombardi

WE ARE TRANSMITTING 2 PAGE(S) (including cover page)

BY FAX ONLY [X] **HARD COPY TO FOLLOW** [ ]

Please see letter attached.

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*** TX REPORT ***
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TRANSMISSION OK

TX/RX NO	2140
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DESTINATION ID	
ST. TIME	07/13 14:58
TIME USE	00'15
PAGES SENT	1
RESULT	OK

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE July 13, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Dr. Jacobs Walpole Island	1-519-627-1530

FROM Paula Lombardi

WE ARE TRANSMITTING 1 PAGE(S) (including cover page)

BY FAX ONLY [X] HARD COPY TO FOLLOW [ ]

Good afternoon Dr. Jacobs,

I am following up on my telephone message on Monday, July 9, 2007. I tried to call you this afternoon but your voice mailbox is full and your cell phone does not take messages.

A couple of weeks' ago you indicated that you would be providing us with some further information and details on your Consultation Budget. If you could let me know when we could discuss this further, it would be greatly appreciated.

Thank you,

Paula

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*** TX REPORT ***
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RECIPIENT ADDRESS	*111*810750*915196271530
DESTINATION ID	
ST. TIME	06/06 15:11
TIME USE	00'17
PAGES SENT	1
RESULT	OK

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE June 6, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Dr. Jacobs Walpole Island	1-519-627-1530

FROM Paula Lombardi

WE ARE TRANSMITTING 1 PAGE(S) (including cover page)

BY FAX ONLY [X] HARD COPY TO FOLLOW [ ]

Good afternoon Dr. Jacobs,

Further to my telephone messages, it is important that we touch base today to discuss an issue that has been brought to our attention.

If you could contact me as soon as possible it would be greatly appreciated.

Miigwech,

Paula

****
*** TX REPORT ***
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TRANSMISSION OK

TX/RX NO	4837
RECIPIENT ADDRESS	*111*810750*915196270879
DESTINATION ID	
ST. TIME	06/01 11:29
TIME USE	05'18
PAGES SENT	16
RESULT	OK

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE June 1, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Inez Jacobs	1-519-627-0879

FROM Paula Lombardi

WE ARE TRANSMITTING 16 PAGE(S) (including cover page)

BY FAX ONLY [X] HARD COPY TO FOLLOW [ ]

Good morning Inez,
Attached is a copy of the presentation. Susan Whelan and I will be attending the Council meeting on Monday evening at 7:00 p.m. at the public library.

If you need additional information, please do not hesitate to contact me.

Thanks,
Paula

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE June 1, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Inez Jacobs	1-519-627-0879

FROM Paula Lombardi

WE ARE TRANSMITTING 16 PAGE(S) (including cover page)

BY FAX ONLY [X] HARD COPY TO FOLLOW [ ]

Good morning Inez,
Attached is a copy of the presentation. Susan Whelan and I will be attending the Council meeting on Monday evening at 7:00 p.m. at the public library.

If you need additional information, please do not hesitate to contact me.

Thanks,
Paula

This message is intended for the use of the individual to whom it is addressed and may contain information that is confidential. If you have received this communication in error, please destroy and notify us immediately by telephone. Thank you.

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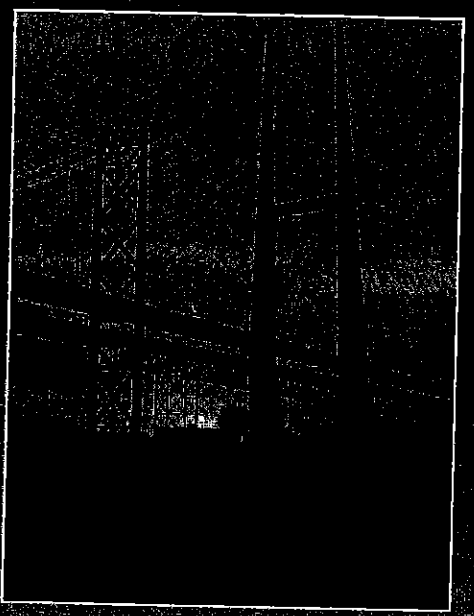


Ambassador Bridge Enhancement Project

[redacted]

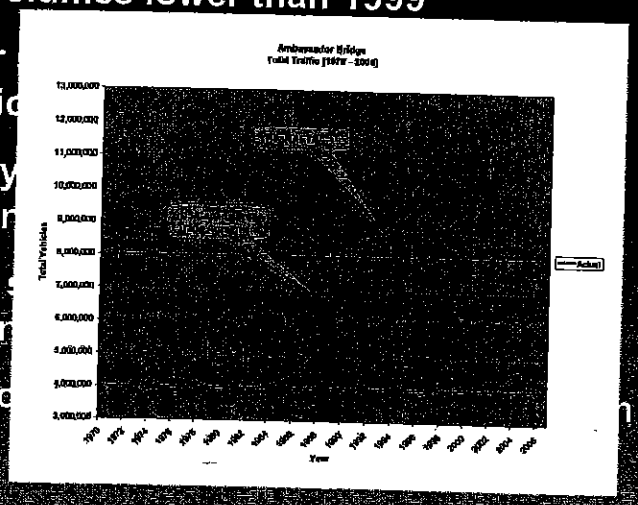
June 4, 2007

Enhancement Project Objectives

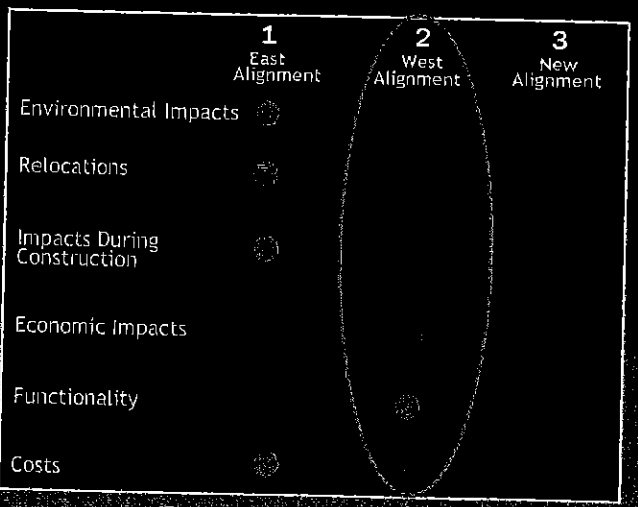
- Simply modifies the existing crossing
- Vital link between Canada and United States
- Plaza connections will accommodate second span
- Dedicated lanes for FAST and NEXUS travelers

Enhancement Project Need

- Traffic volumes lower than 1999
- Corridor
  (3.5 millio
- Currently
  delays ar
- Existing
  redundar
- No impac

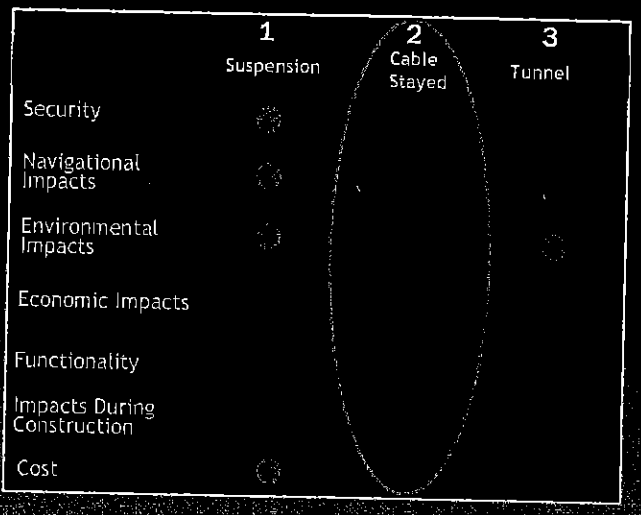


Enhancement Project



- Center Alignment not feasible
- West Alignment easily integrated

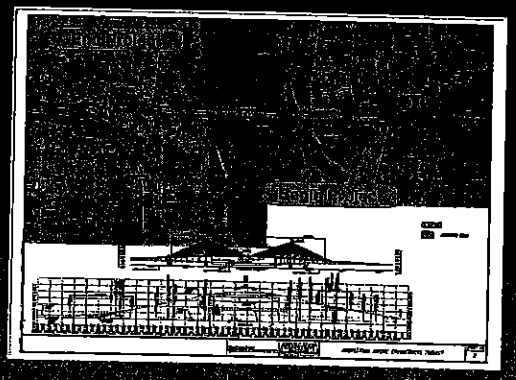
Enhancement Project



- Cable stayed alternative provides a viable solution

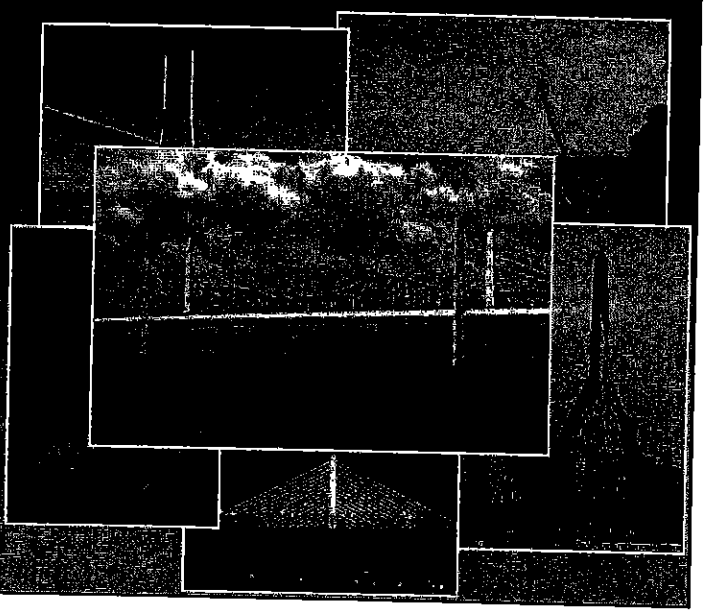
Enhancement Project

- New 6 lane structure approximate length – 1890m (6200 ft)
- Cable stayed span roughly 670 m (2200 ft) over river
- No piers in the river
- 46m (152 ft) vertical clearance
- Link directly into the current plaza projects



Enhancement Project

- Flexibility in the look of the towers
- Community input encouraged to ensure a context sensitive design

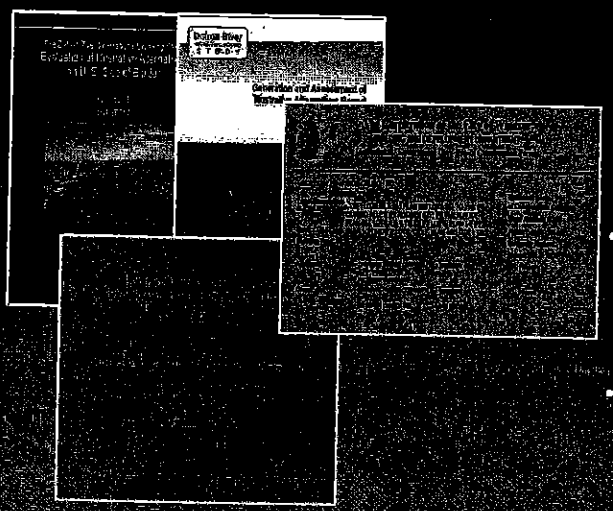


Enhancement Project

Benefits of Enhancement Project

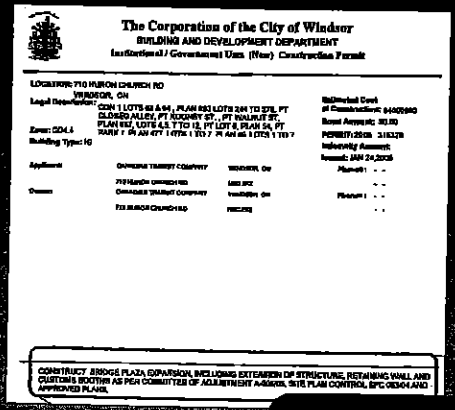
- Secure, dependable, and redundant infrastructure
- Maintains the free flow of trade, commerce and tourism
- New state-of-the-art bridge
- Requires no Municipal, Provincial or Federal funds
- Dedicated FAST lanes provide uninterrupted flow for prescreened vehicles
- More efficient flow of traffic through the Plazas

Corridor History



- Canadian expansion approval east and west phases 2005
- Detroit River International Crossing (DRIC) Study
- US Gateway full EA resulting in a FONSI issued in 1997 and re-evaluated in 1999 and 2004

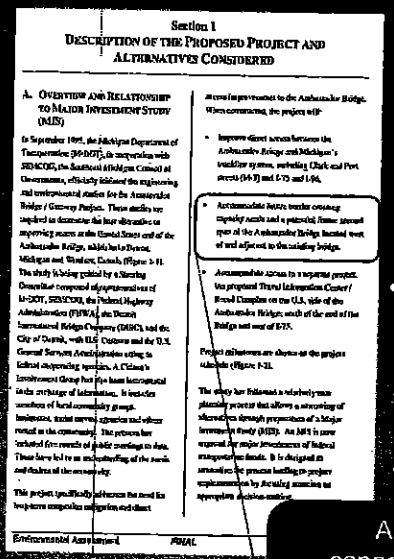
Canadian Plaza Project



- Plaza accommodates future second span
- FAST Truck processing

Approval to construct bridge plaza expansion, including expansion of structure, retaining wall and customs booths.

US Gateway FONSI



Section 1
DESCRIPTION OF THE PROPOSED PROJECT AND ALTERNATIVES CONSIDERED

A. OVERVIEW AND RELATIONSHIP TO MAJOR INVESTMENT STUDY (MIS)

In September 1995, the Michigan Department of Transportation (MDOT), in cooperation with SEMCOG, the Southeast Michigan Council of Governments, officially initiated the engineering and environmental studies for the Ambassador Bridge / Gateway Project. These studies are required to determine the best alternatives to improving access at the United States end of the Ambassador Bridge, which links Detroit, Michigan and Windsor, Canada. (Figure 1-1).

This study is being guided by a Steering Committee composed of representatives of MDOT, SEMCOG, the Federal Highway Administration (FHWA), the Detroit International Bridge Company (DIBC), and the City of Detroit, with U.S. Customs and the U.S. General Services Administration acting in ex-officio (advisory) capacities. A Citizen's Involvement Group has also been instrumental in the exchange of information. It includes members of local community groups, businesses, transit service agencies and others vested in the community. The process has included five rounds of public meetings to date. These have led to an understanding of the needs and desires of the community.

This project specifically addresses the need for long-term cross-border integration and direct access improvement to the Ambassador Bridge. When constructed, the project will:

- Improve direct access between the Ambassador Bridge and Michigan's roadway system, including Clark and Fort streets (M-85) and I-75 and I-96.
- Accommodate future border crossing capacity needs and a potential future second span of the Ambassador Bridge located west of and adjacent to the existing bridge.
- Accommodate access to a separate project, the proposed Truck Inspection Center / Retail Complex on the U.S. side of the Ambassador Bridge, south of the end of the Bridge and west of I-75.

Project alternatives are shown on the project schedule (Figure 1-2).

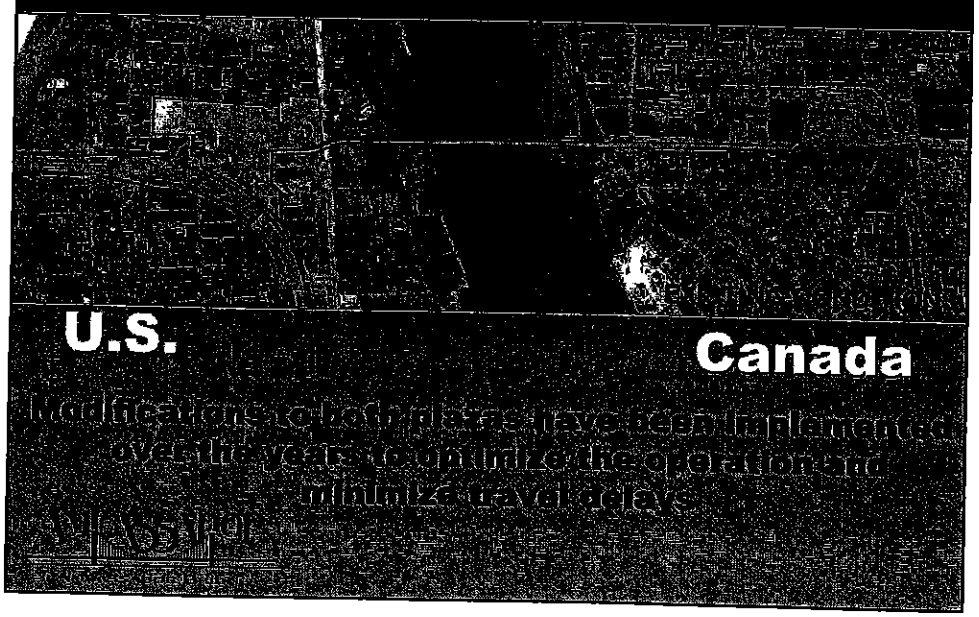
The study has followed a relatively new planning process that allows a screening of alternatives through preparation of a Major Investment Study (MIS). An MIS is now required for major investments of federal transportation funds. It is designed to streamline the process leading to project implementation by focusing attention on appropriate decision-making

Environmental Assessment — FINAL

- Three primary objectives were addressed including the accommodation of a future second span
- Plaza configuration will provide a direct connection to a second span with minimal impacts to traffic operations during its construction

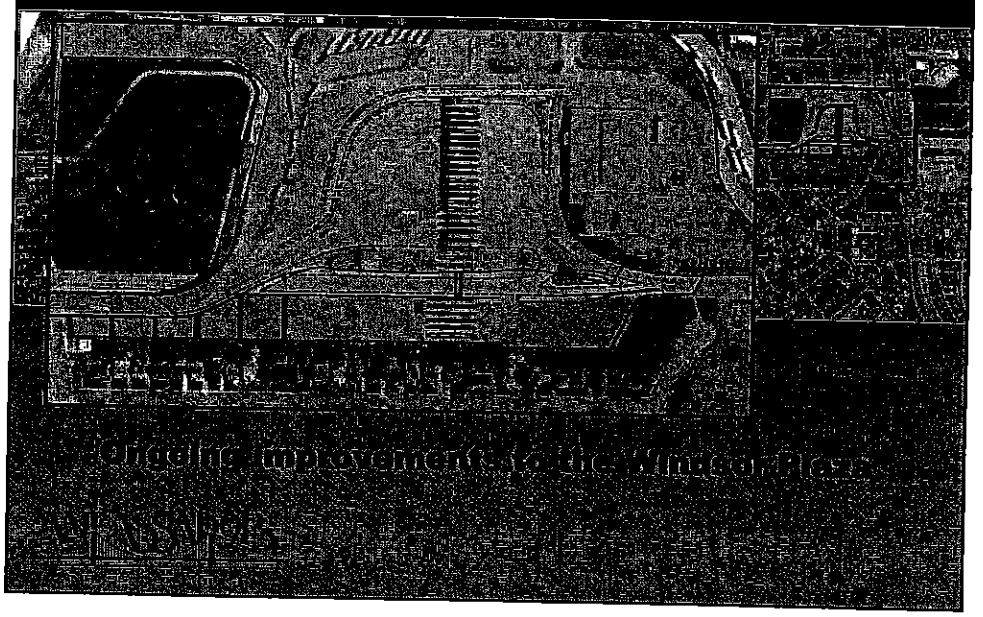
Accommodate future border crossing capacity needs and a potential future second span of the Ambassador Bridge located west of and adjacent to the existing bridge.

Current Footprint



Modifications to both plazas have been implemented over the years to optimize the operation and minimize travel delays.

Windsor Plaza Expansion

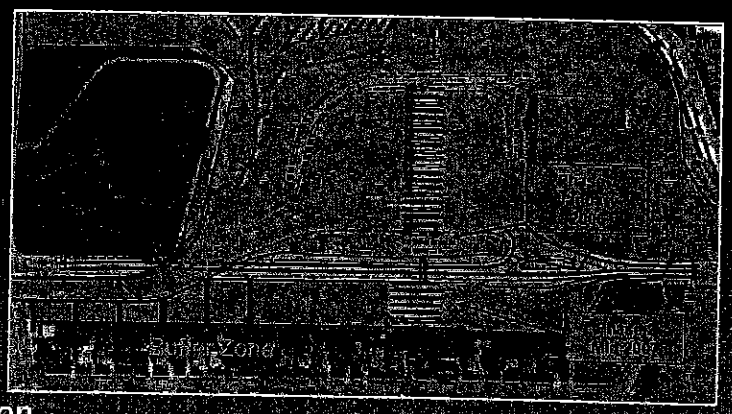


Pending Improvements to the Windsor Plaza

Windsor Plaza Expansion

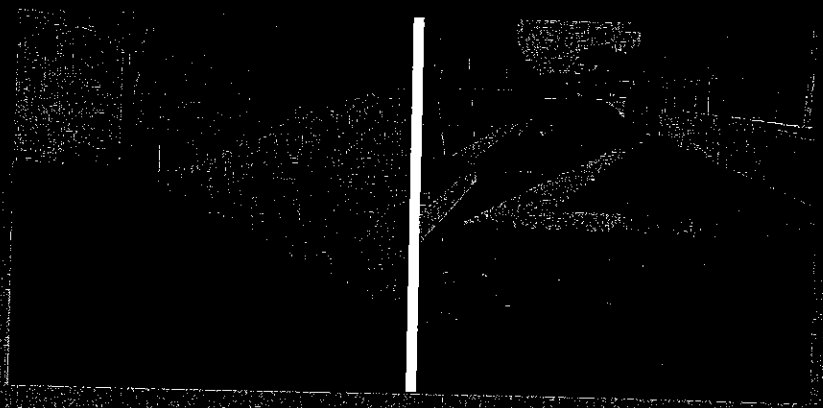
Approved Improvements

- Adding nine additional custom booths
- Buffer area provided
- No modification to circulation patterns on local streets required

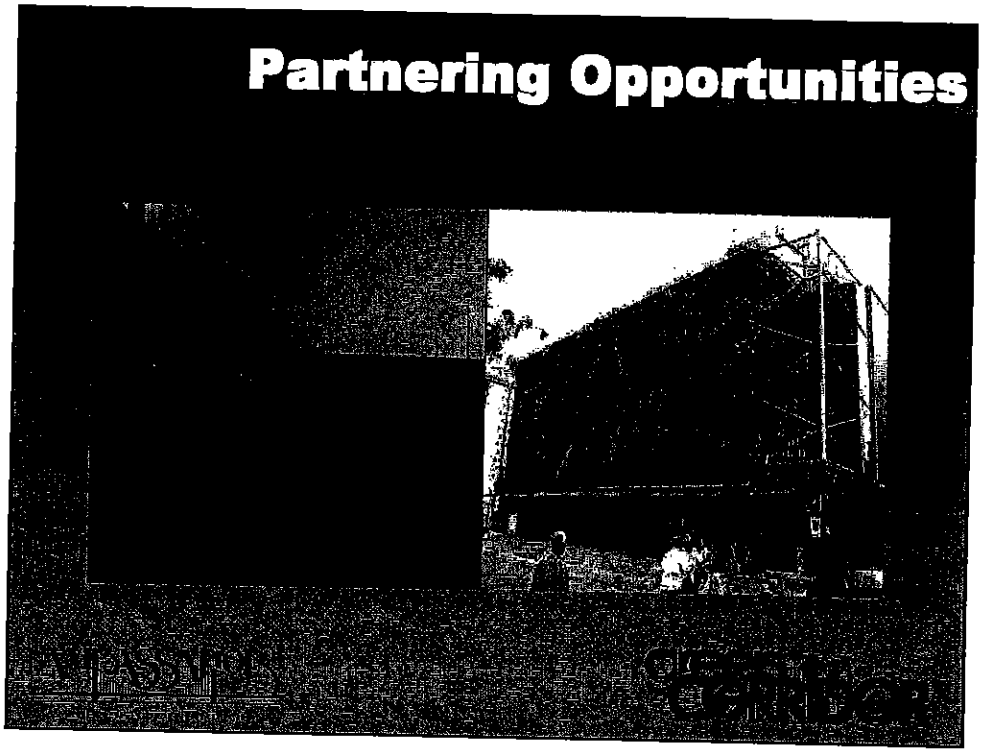


Partnering Opportunities

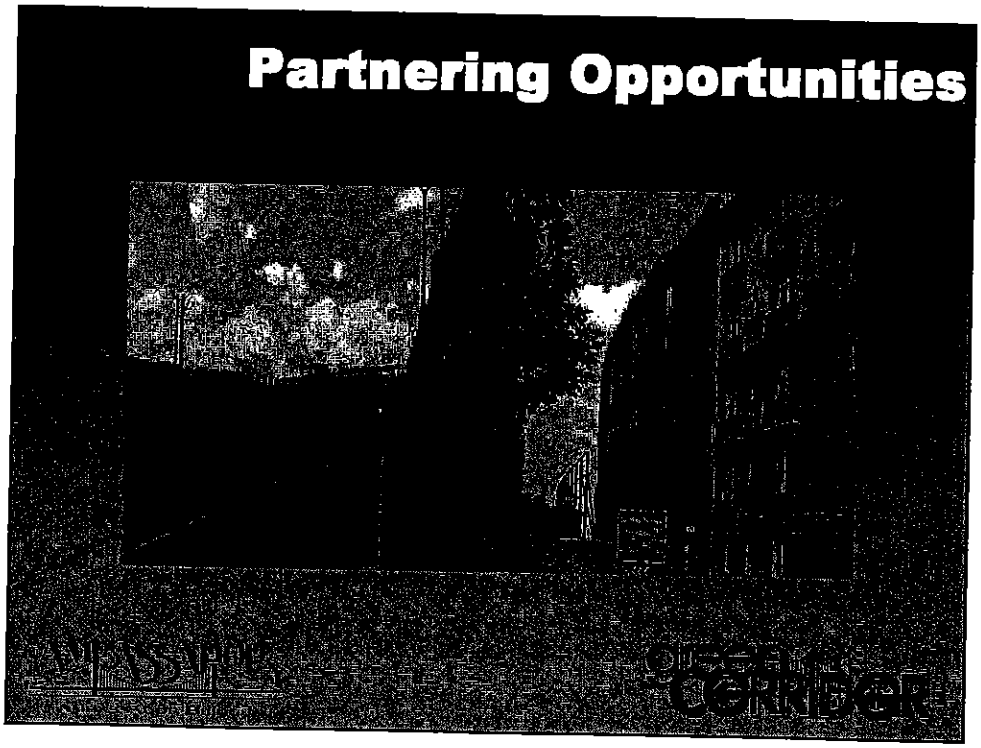
Partnering Opportunities



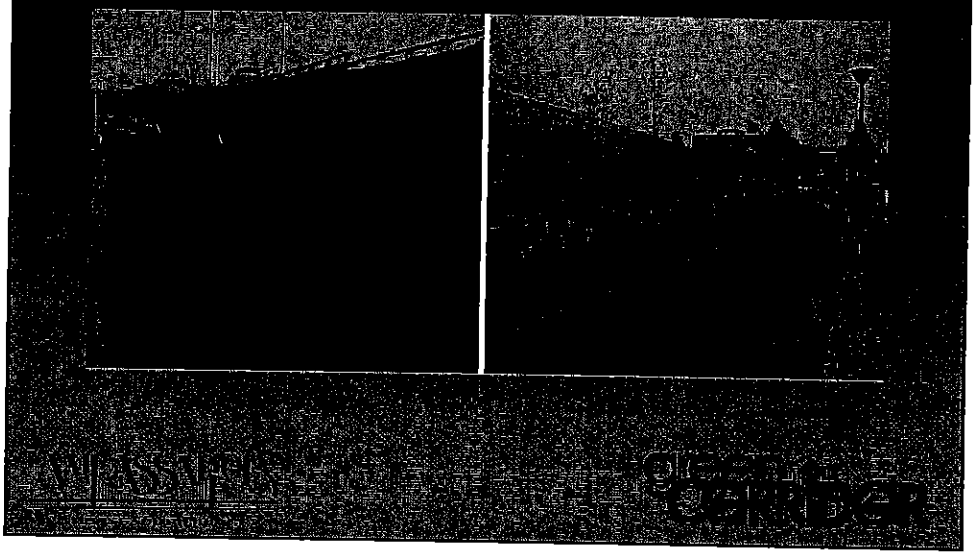
Partnering Opportunities



Partnering Opportunities



Partnering Opportunities



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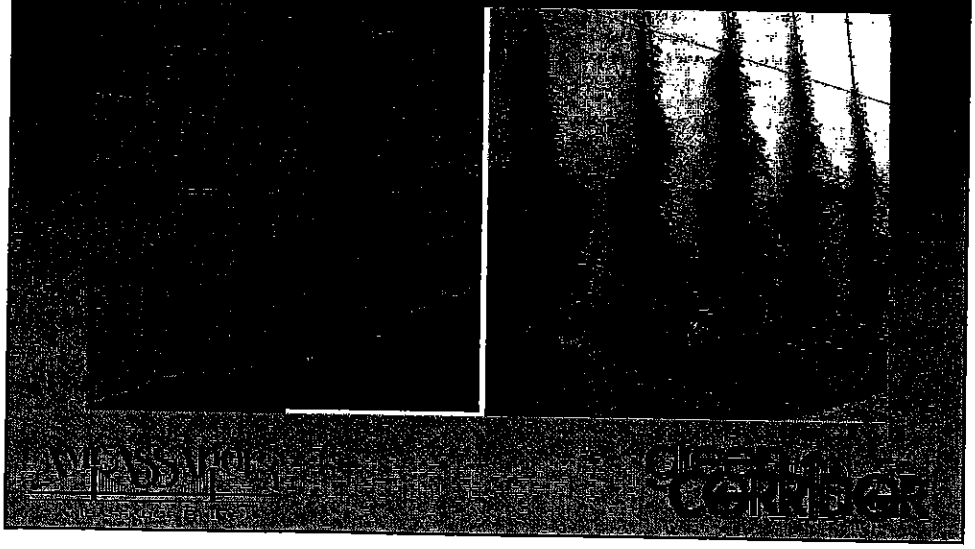
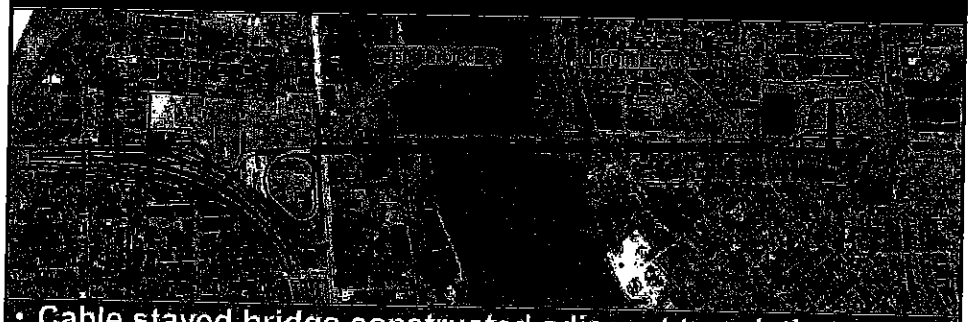


Gateway Interchange & Plaza

- MDOT is currently reconstructing the Ambassador Bridge interchange with I-75
- Bridge plaza expansion is underway with completion anticipated in 2009

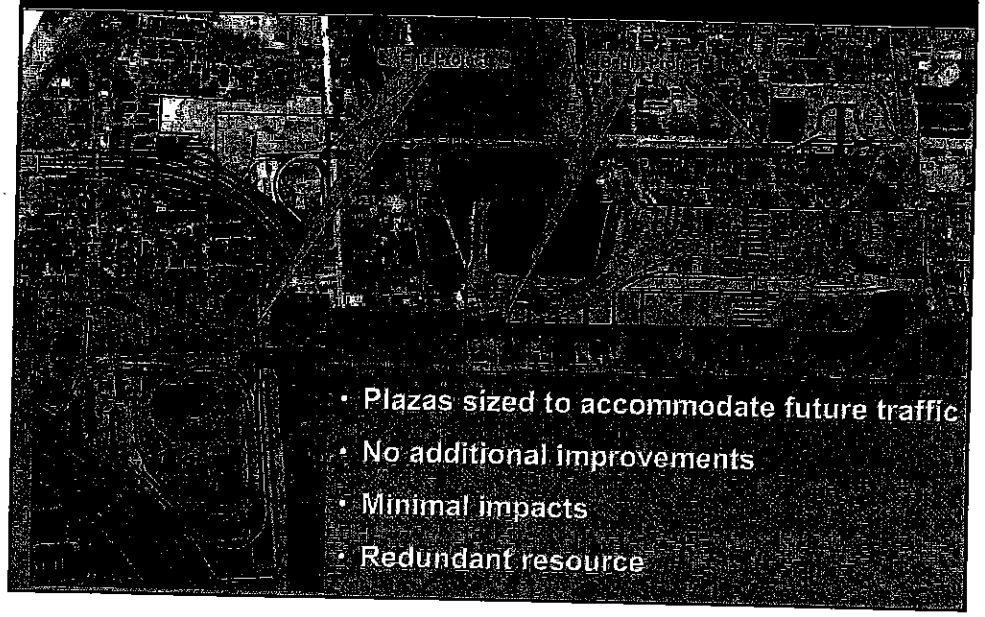
- Improvements provide improved access between I-75 and the Ambassador Bridge

Enhancement Project



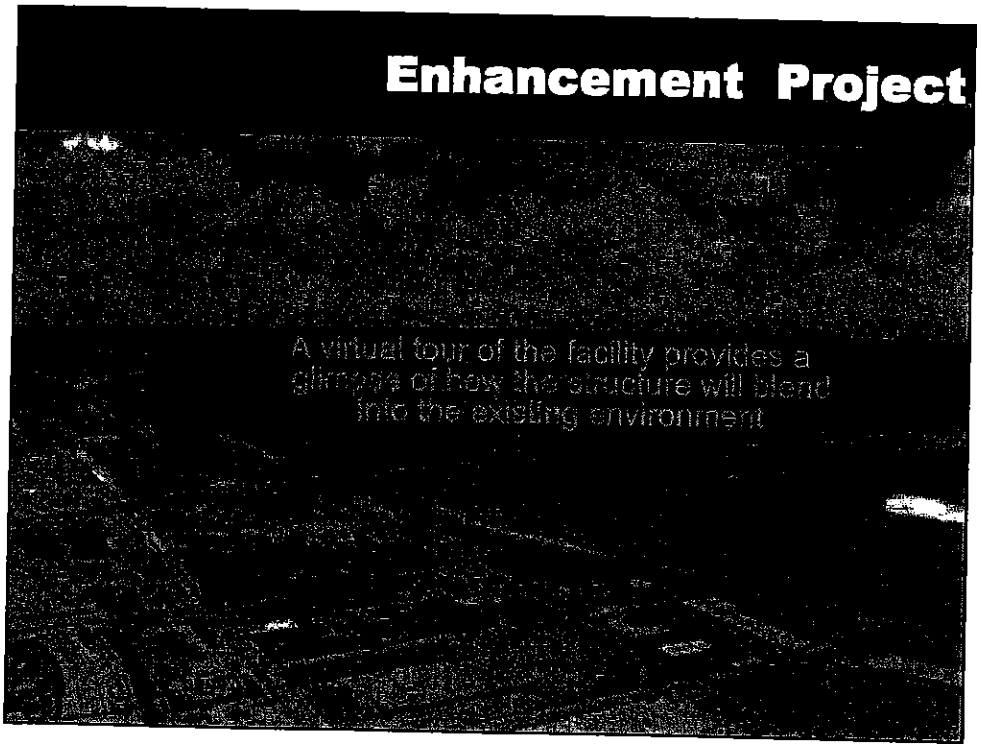
- Cable stayed bridge constructed adjacent to existing Ambassador Bridge
- New bridge will accommodate more efficient traffic flow
- Provides dedicated lanes for FAST

Enhancement Project

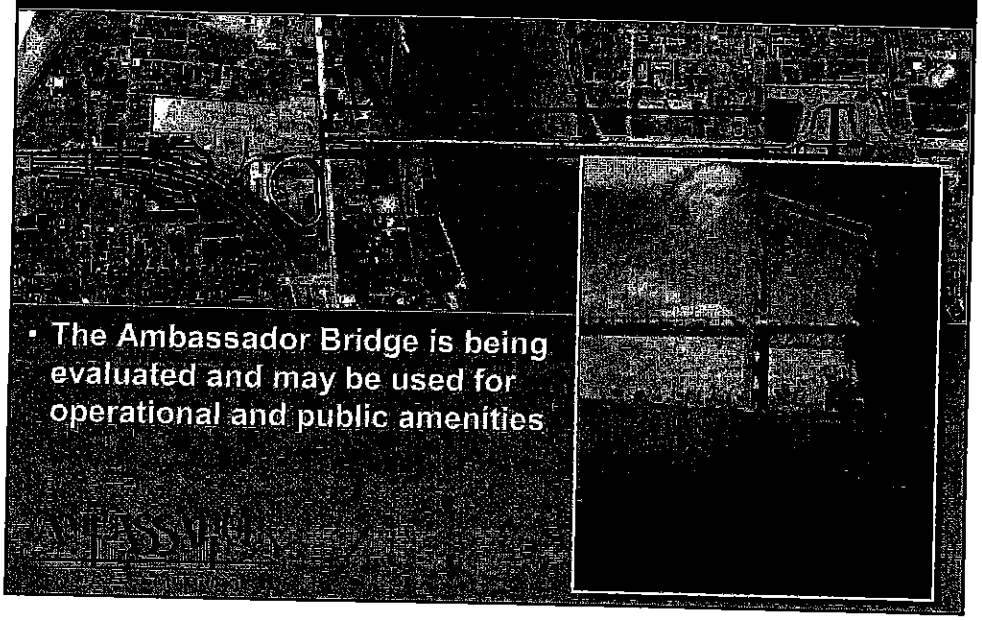


- Plazas sized to accommodate future traffic
- No additional improvements
- Minimal impacts
- Redundant resource

Enhancement Project

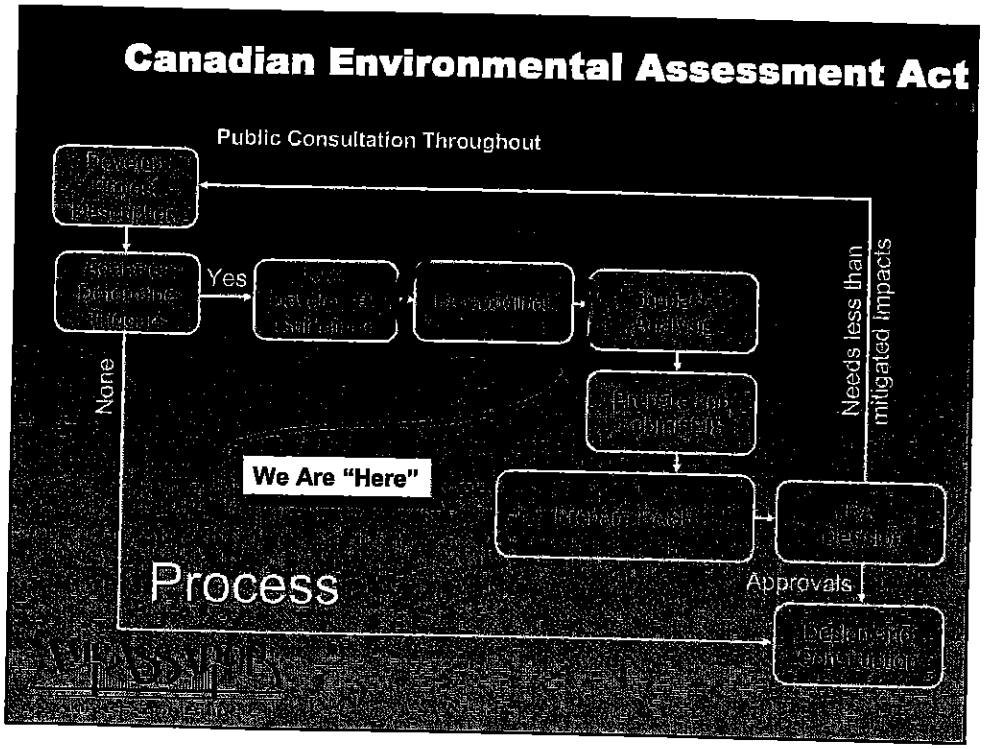


Evaluation of Existing Structure



- The Ambassador Bridge is being evaluated and may be used for operational and public amenities

Canadian Environmental Assessment Act

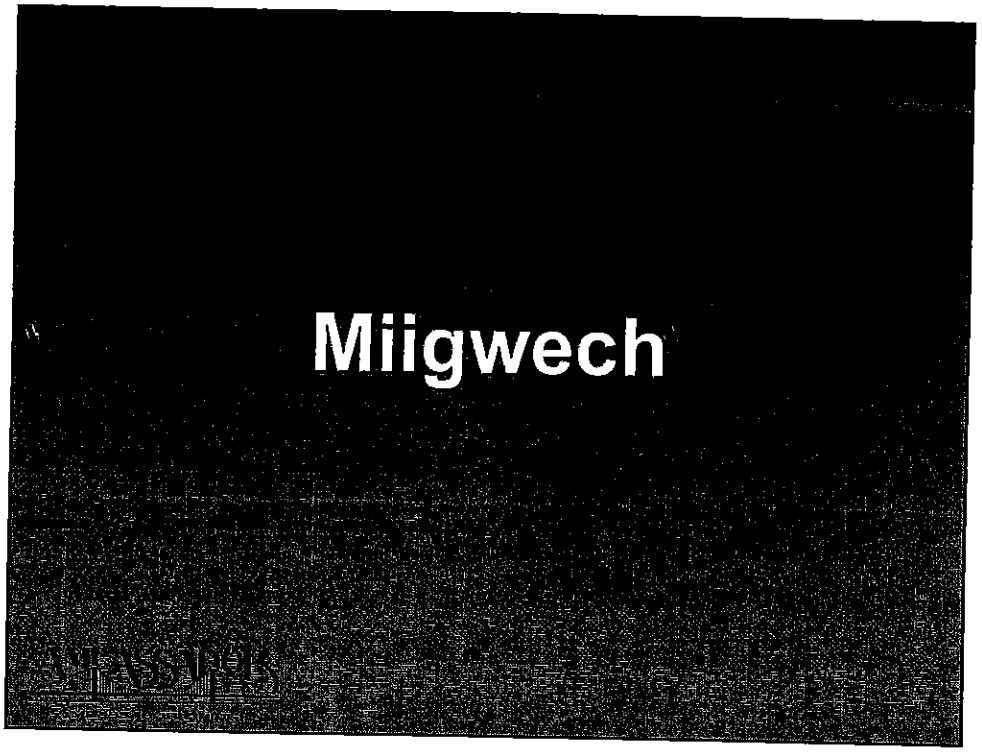


Environmental Analysis

- Air Quality and Climate
- Surface Water Quality/Quantity
- Surface and Subsurface Geology and Soils
- Sediment Characteristics
- Vegetation and Vegetation Communities
- Fish and Fish Habitat
- Wildlife and Wildlife Habitat (including Migratory Birds)

Environmental Analysis

- Current Use of Land and Resources for Traditional Purposes by First Nations
- Community and Neighbourhood Characteristics
- Species at Risk (*Species at Risk Act*)
- Noise and Vibration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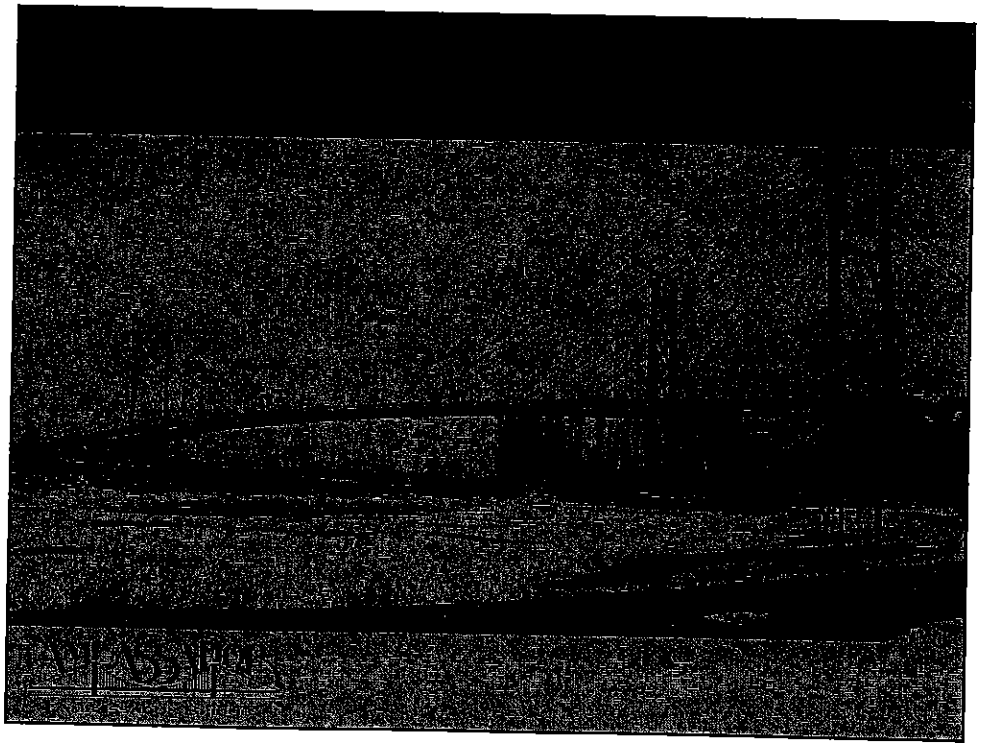

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SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

VIA FAX 519-627-1530

May 17, 2007

Chief Joseph B. Gilbert
Walpole Island First Nation
Walpole Island Heritage Centre
RR#3
Wallaceburg ON N8K 4K9

Dear Chief Gilbert:

Re: Ambassador Bridge Enhancement Project

File Copy

A representative from the Ambassador Bridge Enhancement Project ("Enhancement Project") met Dr. Dean Jacobs yesterday to discuss the involvement of Walpole Island First Nation in the preparation of the environmental impact statement. We would like to thank Dr. Jacobs for taking the time to meet with us and are looking forward to working together on this project. As you are aware, the Enhancement Project is subject to the requirements of the *Canadian Environmental Assessment Act* and we are in the midst of undertaking the necessary studies for the environmental impact statement.

The Ambassador Bridge recognizes that the wisdom and understanding that Aboriginal peoples have developed is unique and part of the ongoing cultural heritage of Aboriginal peoples. This traditional knowledge ("ATK") is important to the preparation of the environmental impact statement for the Enhancement Project.

The Ambassador Bridge is seeking input from Walpole Island and is eager to build a long-term relationship with Walpole Island. We anticipate that the ATK will assist in identifying potential environmental effects, lead to improved project design, strengthen mitigation measures and provided relevant biophysical information and historical information that may otherwise have been unavailable.

It is our understanding that Walpole Island may request a memorandum of understanding setting out how the ATK will be accessed and used as part of the environmental assessment process. The memorandum of understanding can set out how and by whom the information will be collected, how the community will be acknowledged and credited with any ATK that is provided throughout the process, it can also include how and the timing of when the

community will be provided with any reports that incorporate their ATK so that it can be reviewed.

We are in the midst of reviewing your letter to Mr. Leigh Whyte of Avalon Consulting dated May 14, 2007 and received on May 16, 2007. We will contact Dr. Jacobs to discuss the Proposed Consultation Budget.

We are eager to move forward and will be contacting Dr. Jacobs to arrange a meeting to discuss next steps and how we can move forward.

Yours very truly,

Siskinds LLP

Per: Paula Lombardi

Paula Lombardi

PL/pl

cc: Dr. Dean Jacobs, Walpole Island Heritage Centre

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680 Waterloo Street, London, ON N6A 3V8

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Siskinds LLP

Per: Paula Lombardi

Paula Lombardi

PL/pl

cc: Dr. Dean Jacobs, Walpole Island Heritage Centre

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*** TX REPORT ***
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FILE NO. ●/PL/pl

DATE May 16, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Chief Joseph B. Gilbert Walpole Island First Nation Walpole Island Heritage Centre	1-519-627-0440
Dr. Dean Jacobs Walpole Island First Nation Walpole Island Heritage Centre	1-519-627-0440

FROM Paula Lombardi

WE ARE TRANSMITTING 3 PAGE(S) (including cover page)

BY FAX ONLY [X] HARD COPY TO FOLLOW [ ]

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DATE May 16, 2007

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NAME & COMPANY	FACSIMILE NO.
Chief Joseph B. Gilbert Walpole Island First Nation Walpole Island Heritage Centre	1-519-627-0440
Dr. Dean Jacobs Walpole Island First Nation Walpole Island Heritage Centre	1-519-627-0440

FROM Paula Lombardi

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EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/ap

DATE May 17, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Dr. Dean Jacobs Walpole Island First Nation	519-627-1530

A copy will follow via regular mail

FROM Paula Lombardi

WE ARE TRANSMITTING 3 PAGE(S) (including cover page)

BY FAX ONLY **HARD COPY TO FOLLOW** x

RECEIVED MAY 16 2007

Walpole Island First Nation Council of Three Fires

WALPOLE ISLAND HERITAGE CENTRE

TO: P. Leigh Whyte

FROM: **DEAN M. JACOBS**
DIRECTOR

DATE: May 16, 2007

FAX NO.: 905 991 1682

NUMBER OF PAGES IN THIS TRANSMISSION INCLUDING COVER: 3

SUBJECT: Ambassador Bridge Enhancement Project

COMMENTS: Originals in the mail

SHOULD THERE BE ANY PROBLEMS RECEIVING THE FULL TRANSMISSION PLEASE PHONE (519) 627-1475 AND ASK FOR Tammy.

THIS FACSIMILE IS DIRECTED IN CONFIDENCE SOLELY TO THE PERSON NAMED ABOVE, AND MAY NOT OTHERWISE BE DISTRIBUTED, COPIED OR DISCLOSED. IF YOU HAVE RECEIVED THIS FACSIMILE IN ERROR, PLEASE NOTIFY US IMMEDIATELY.

R. R. 3 • Wallaceburg • Ontario • N8A 4K9 • Phone: (519) 627-1475 • Fax: (519) 627-1530
Walpole Island Heritage Centre) NIN • DA • WAAB • JIG

The Council of Three Fires

May 14, 2007

Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street
Fort Erie, Ontario
L2A 2S4
Canada

In reply to: Ambassador Bridge Enhancement Project

Dear Mr. Whyte

Thank you for your letter dated March 22, 2007 inviting our First Nation to participate in the public consultation process for the Enhancement Project. I am aware that Dr. Dean Jacobs, Director, Walpole Island Heritage Centre attended your Open House on April 17, 2007. I understand that Dr. Jacobs provided you with a copy of our consultation guidelines.

Attached for your consideration and approval is our Proposed Consultation Budget in respect of the Ambassador Bridge Enhancement Project in the amount of $107,000. Please contact Dr. Jacobs at (519) 627-1475 if you require any clarification or additional information in support of our budget request.

I look forward to working together with you in the review of this proposed project.

Sincerely,

Joseph B. Gilbert
Chief
Walpole Island First Nation

cc: Dean Jacobs, Director
Walpole Island Heritage Centre

R.R. #3, WALPOLE ISLAND, ONTARIO N8A 4K9 • TEL: (519) 627-1481 • FAX: (519) 627-0440

Dr. Jacobs (Fax)
519-627-1530

PROPOSED CONSUTATION BUDGET FOR WALPOLE ISLAND FIRST NATION ("WIFN") WITH AMBASSADOR BRIDGE ENHANCEMENT PROJECT (ABEP)
In respect of Ambassador Bridge's proposal to construct a new six lane cable-stayed bridge across the Detroit River

This is an estimate only, and WIFN expects that all its costs reasonably necessary for it to participate in an informed and meaningful way in such consultations and negotiations ("consultations") will be covered by ABEP. Without possession of the documents that might need to be assessed and analyzed by our advisors, it is impossible for WIFN to provide more than these estimated at this time. As documents and further information become available to WIFN, WIFN will revise this budget and requested by ABEP.

It is WIFN's understanding that ABEP requires at this time a budget for consultation related work for the next six months, up to and not including any negotiation of any impacts and benefits agreement or the like, should there be such negotiation in the future. This budget thus reflects this understanding.

1. WIFN internal Consultation Costs

    - Band council meetings called for and dealing with the consultations: $12,000;
    - Costs of the WIFN Review Team of the ABEP to conduct and coordinate an independent review, community consultations and communications: $35,000.

2. Legal costs

    - Costs to review, analyse and advise WIFN on effects on its rights and interests of the various documents presented to WIFN: $10,000;
    - Costs to attend meetings and facilitate organization before, during and after such meetings: $15,000.

3. Expert Costs

    - Costs for necessary experts retained by WIFN to review and analyse the documents supplied by or through AHEP to determine the nature and extent of potential impacts to WIFN's asserted and known aboriginal and treaty rights, its environment and its way of life, and to make recommendations for furtherance of and of protection for such rights: $35,000.

TOTAL BUDGET ESTIMATE $ 107,000

Avalon

Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Chief & Council
Walpole Island First Nation
R.R.3
Wallaceburg, ON N8A 4K9

Re: Ambassador Bridge Enhancement Project

Dear Chief:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge. We have highlighted the area of the Enhancement Project on the attached map for your review.

We would like to invite, and encourage all First Nations in the area to participate in the public consultation process for the Enhancement Project. We are interested in discussing any community knowledge and aboriginal traditional knowledge that you may have relating to the Enhancement Project and the lands immediately adjacent to the Enhancement Project. Your comments are important to us, and are essential, to providing us with an understanding of your thoughts on the Enhancement Project.

We welcome the opportunity to meet with you to discuss the project in detail. We would like to meet with you during the week of April 2, 2007 in advance of the public meetings that are scheduled to be held in mid-April.

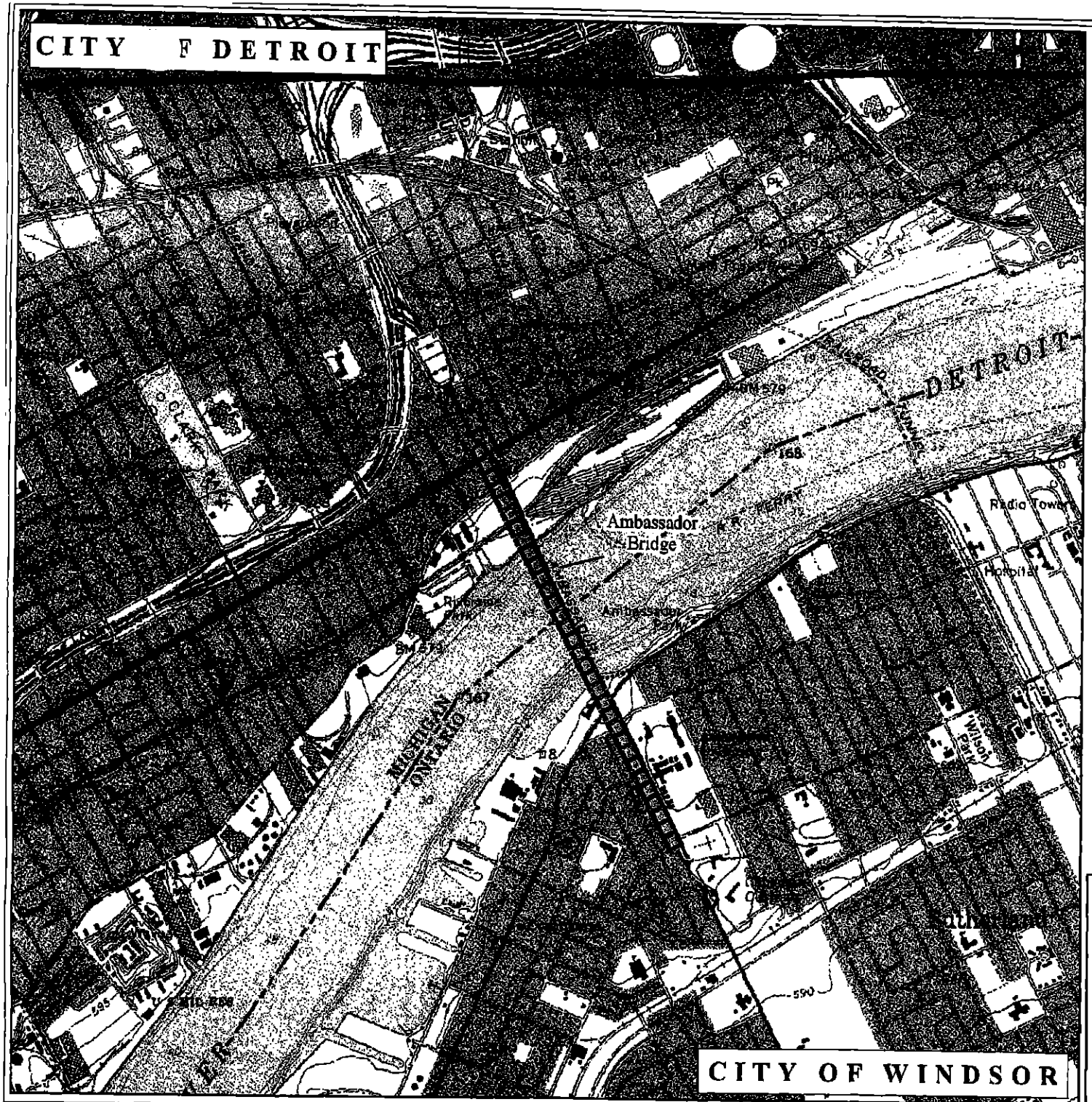
We would ask that you contact **Leigh Whyte at (905) 991-1681** to arrange a convenient time for this meeting. If you have are interested in arranging a meeting or have further questions or comments, please feel free to contact me at your convenience.

Sincerely,

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

encls.



Project Location

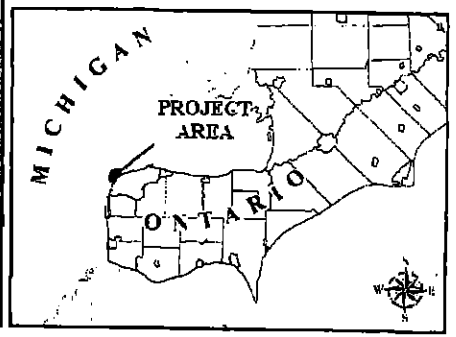
Legend

Proposed Alignment

Source USGS 7.5 Minute Quadrangle. 1981
Detroit, Michigan

0 500 1,000 2,000 Feet

1 inch equals 1,800 feet



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Avalon

Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

March 22, 2007

Chief & Council
Walpole Island First Nation
R.R.3
Wallaceburg, ON N8A 4K9

Re: Ambassador Bridge Enhancement Project

Dear Chief:

The Ambassador Bridge Enhancement Project ("Enhancement Project") proposes to construct a six lane cable-stayed bridge across the Detroit River, immediately to the west of the existing span of the Ambassador Bridge. The Enhancement Project will replace the existing traffic lanes currently provided by the Ambassador Bridge. We have highlighted the area of the Enhancement Project on the attached map for your review.

We would like to invite, and encourage all First Nations in the area to participate in the public consultation process for the Enhancement Project. We are interested in discussing any community knowledge and aboriginal traditional knowledge that you may have relating to the Enhancement Project and the lands immediately adjacent to the Enhancement Project. Your comments are important to us, and are essential, to providing us with an understanding of your thoughts on the Enhancement Project.

We welcome the opportunity to meet with you to discuss the project in detail. We would like to meet with you during the week of April 2, 2007 in advance of the public meetings that are scheduled to be held in mid-April.

We would ask that you contact Leigh Whyte at (905) 991-1681 to arrange a convenient time for this meeting. If you have are interested in arranging a meeting or have further questions or comments, please feel free to contact me at your convenience.

Sincerely,
P. Leigh Whyte

P. Leigh Whyte
Chief Urban Planner
lwhyte@acp-on.ca

cc: Transport Canada
Windsor Port Authority
Canadian Environmental Assessment Agency

encls.

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

SENT BY FACSIMILE 1-918-678-2944

September 27, 2007

Ms. Sherri L. Clemons
N.A.G.P.R.A. Representative,
Wyandotte Nation
64700 E. Hwy 60
Wyandotte, OK 74370

Dear Ms. Clemons:

Re: Ambassador Bridge Enhancement Project

We would like to take this opportunity to follow up on our letters dated July 23, 2007 and August 28, 2007.

The Ambassador Bridge is proposing to construct a six-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new span will replace the existing Ambassador Bridge and will link directly into the existing plazas in both Windsor and Detroit. When the replacement span is operational, the existing Ambassador Bridge will be re-evaluated and rehabilitated without causing any disruption in traffic flow. After it is rehabilitated, the existing Ambassador Bridge will be maintained and available as a redundant resource for maintenance vehicles, emergencies and approved public events.

The Ambassador Bridge has scheduled a public open house to discuss the results of the technical studies undertaken with the community. As set out in the attached notice the Public Open Houses will be held from 3-9 p.m. on Monday, October 1, 2007 at Mackenzie Hall in Windsor and on Tuesday, October 2, 2007 at the Ciociaro Club in Oldcastle.

We encourage you to attend one of the upcoming Public Open House Sessions and, if possible, we would like to arrange a meeting with you prior to the Open House to review and discuss the replacement span.

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

If you have any questions, or would like to arrange a meeting, please do not hesitate to contact me at your earliest convenience.

Yours very truly,

Siskinds LLP

Per: Paula Lombardi
Paula Lombardi

Ambassador Bridge Enhancement Project
Environmental Assessment Update - OPEN HOUSE

PROJECT BACKGROUND: The Ambassador Bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new span will replace the existing Ambassador Bridge and will link directly into the existing plazas in both Windsor and Detroit. When the replacement span is operational, the existing Ambassador Bridge will be reevaluated and rehabilitated without causing any disruption in traffic flow. After it is rehabilitated, the existing Ambassador Bridge will be maintained and available as a redundant resource for maintenance vehicles, emergencies and approved public events.

The Ambassador Bridge held Public Workshops in April 2007, and Open House Sessions in June 2007, to introduce and discuss the Project and is now pleased to present the results of the environmental studies for the replacement span at two Public Open House Sessions scheduled:

MONDAY, OCTOBER 1st, 2007 **Visit Anytime** **between 3:00 pm - 9:00 pm** **MACKENZIE HALL** 3277 Sandwich St. Windsor, Ontario N9C 1A9 Tel: (519) 255-7600	**TUESDAY, OCTOBER 2nd, 2007** **Visit Anytime** **between 3:00 pm - 9:00 pm** **CIOCIARO CLUB** 3745 North Talbot Road Oldcastle, Ontario N0R 1L0 Tel: (519) 737-6153

We encourage you to attend the Open House anytime between 3:00 p.m. and 9:00 p.m. to review the results from the various studies and ask questions of our technical experts responsible for the analysis and preparation of the studies that will be submitted to the federal government for review and comment.

These meetings are being held as part of the public consultation process for the preparation of a Federal Environmental Assessment (EA).

For further information, please contact:

Paula Lombardi
Environmental Lawyer
Tel. 519-251-8200
Tel. 1-877-672-2121

Email paula.lombardi@siskinds.com
Ambassador Bridge: www.ambassadorbridge.com

AMBASSADOR
AMBASSADOR BRIDGE

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*** TX REPORT ***
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TRANSMISSION OK

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680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

DATE September 27, 2007

FILE NO. 810750/PL/pl

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Ms. Sherri L. Clemons N.A.G.P.R.A. Representative, Wyandotte Nation	1-918-678-2944

FROM Paula Lombardi

WE ARE TRANSMITTING 3 PAGE(S) (including cover page)

BY FAX ONLY [X] **HARD COPY TO FOLLOW** [ ]

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

SENT BY FACSIMILE (1-248-349-4846)

September 27, 2007

Gertrude Free
Director
Detroit River Wyandot's
6662 Thornberry Crescent
Windsor Ontario N8T 2X2

Dear Ms. Free:

Re: Ambassador Bridge Enhancement Project

We would like to take this opportunity to follow up on our letter dated August 28, 2007.

The Ambassador Bridge is proposing to construct a six-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new span will replace the existing Ambassador Bridge and will link directly into the existing plazas in both Windsor and Detroit. When the replacement span is operational, the existing Ambassador Bridge will be re-evaluated and rehabilitated without causing any disruption in traffic flow. After it is rehabilitated, the existing Ambassador Bridge will be maintained and available as a redundant resource for maintenance vehicles, emergencies and approved public events.

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We encourage you to attend one of the upcoming Public Open House Sessions and, if possible, we would like to arrange a meeting with you prior to the Open House to review and discuss the replacement span.

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

If you have any questions, or would like to arrange a meeting, please do not hesitate to contact me at your earliest convenience.

Yours very truly,

Siskinds LLP

Per: Paula Lombardi

Paula Lombardi

Ambassador Bridge Enhancement Project
Environmental Assessment Update - OPEN HOUSE

PROJECT BACKGROUND: The Ambassador Bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new span will replace the existing Ambassador Bridge and will link directly into the existing plazas in both Windsor and Detroit. When the replacement span is operational, the existing Ambassador Bridge will be reevaluated and rehabilitated without causing any disruption in traffic flow. After it is rehabilitated, the existing Ambassador Bridge will be maintained and available as a redundant resource for maintenance vehicles, emergencies and approved public events.

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These meetings are being held as part of the public consultation process for the preparation of a Federal Environmental Assessment (EA).

For further information, please contact:

Paula Lombardi
Environmental Lawyer
Tel. 519-251-8200
Tel. 1-877-672-2121

Email paula.lombardi@siskinds.com
Ambassador Bridge: www.ambassadorbridge.com

AMBASSADOR
AMBASSADOR BRIDGE

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*** TX REPORT ***
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TRANSMISSION OK

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SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE September 27, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Gertrude Free Director Detroit River Wyandot's	1-248-~~349-4946~~ 1-248-349-6643

FROM Paula Lombardi

WE ARE TRANSMITTING 3 PAGE(S) (including cover page)

BY FAX ONLY [X] HARD COPY TO FOLLOW [ ]

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

SENT BY COURIER AND FACSIMILE 1-918-678-2944

August 28, 2007

Ms. Sherri L. Clemons
N.A.G.P.R.A. Representative
Wyandotte Nation
64700 E. Hwy 60
Wyandotte, OK 74370

Dear Ms. Clemons:

Re: Ambassador Bridge Enhancement Project

We would like to take this opportunity to follow up on our letter dated July 23, 2007.

As indicated in our earlier correspondence, the Ambassador Bridge is seeking input from the Wyandotte Nation and is looking forward to building a long-term relationship. We anticipate that the information provided by the Wyandotte Nation will assist in identifying potential environmental effects, lead to improved project design, strengthen mitigation measures and provide relevant biophysical information and historical information that may otherwise have been unavailable.

We reiterate our earlier request of July 23, 2007 and ask that you share any information relating to the location of the Wyandotte burial sites so we can determine whether there is in fact any impact on these sacred sites by the Enhancement Project. The Ambassador Bridge does not want to disturb any ancient burial sites and would like to ensure that this does not occur.

We are eager to discuss the Project with you to avoid any unfortunate situations arising. Enclosed for your review is a copy of the letters sent to The Wyandot of Anderdon Nation and the Detroit River Wyandot's. We would like to ensure that any and all concerns of the Wyandot Nation are taken into account and reflected in the preparation of the environmental impact study.

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

Please contact the undersigned no later than **September 4, 2007** to discuss this matter further and determine how best to proceed.

Yours very truly,

Siskinds LLP

Per: Paula Lombardi
Paula Lombardi

PL/pl

cc: Gertrude Free, Director DRW (sent by courier and facsimile)
Michel Gros-Louis, DRW Project Director (sent by courier)
Taywanoka (Flying Arrow) Steve A. Gronda, Grand Chief, The Wyandot of Anderdon Nation (sent by courier)

Attachments (letters to The Wyandot of Anderdon Nation dated August 28, 2007 and to the Detroit River Wyandot's dated August 28, 2007)

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

SENT BY COURIER

August 28, 2007

Taywanoka (Flying Arrow) Steve A. Gronda
Grand Chief / CEO
The Wyandot of Anderdon Nation
P.O. 68 Trenton Michigan
48183

Dear Grand Chief Gronda:

We have recently been forwarded your letter dated May 11, 2007 to the United States Coast Guard 9th District.

You will note in the attached letter dated August 10, 2004 from Indian and Northern Affairs Canada that CanAm Indian Friendship Centre of Windsor along with Walpole Island and Aamjiwnaang were identified as the First Nations groups potentially having an interest in the Enhancement Project. On August 1, 2007, Indian and Northern Affairs confirmed that Walpole Island, Aamjiwnaang and Caldwell were the First Nations groups potentially having an interest in the Enhancement Project.

We have been in contact, and are working with, Walpole Island and the CanAm Friendship Centre. We have not received any response to our letters from the Aamjiwnaang or Caldwell First Nations. Unfortunately, none of the Wyandot Nations were identified as having a possible interest in the Enhancement Project. We received a letter dated June 12, 2007 from Wyandotte Nation. Attached, for your review is our response to the Wyandotte Nation dated July 23, 2007. We sincerely apologize for not contacting The Wyandot of Anderdon Nation earlier to discuss the Enhancement Project.

We would like to take this opportunity to advise you that the Ambassador Bridge is in the midst of its public consultation process as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

A Stage I and Stage II archaeological assessment are well underway and being conducted by licensed archaeologists from the Ontario Museum of Archaeology. The Ambassador Bridge recognizes that the wisdom and understanding that Aboriginal peoples have developed is unique and part of the ongoing cultural heritage of Aboriginal peoples. We recognize the importance and value of this traditional knowledge when preparing the environmental impact statement for the Enhancement Project..

Any information that you may have that would assist with the preparation of these studies would be very much appreciated. In your letter dated May 11, 2007 you express you indicated that "The Wyandot Nation is very concerned by the potential impact and destruction to our ancestral burial grounds on Sandwich Ontario lands."

The Ambassador Bridge does not want to, nor have any intention of, disturbing any ancient burial sites and would like to ensure that this does not occur. We are familiar with the Wyandot burial site on the Detroit River, in the Town of Amherstburg (formerly Anderdon Township), located outside of the Project Area situated approximately 30 kilometres or 19 miles from the proposed Enhancement Project.

We would like to take this opportunity to request that you share any information relating to the location of any other burial sites so we can determine whether there is in fact any impact on these sacred sites by the Enhancement Project. The Enhancement Project links directly into the existing plazas on both sides of the border, there are no piers placed in the water and has minimal impacts on the lands in the area.

The Ambassador Bridge is seeking input from The Wyandot of Anderdon Nation and is looking forward to building a long-term relationship. We anticipate that the information you provide will assist in identifying potential environmental effects, lead to improved project design, strengthen mitigation measures and provide relevant biophysical information and historical information that may otherwise have been unavailable.

We are eager to discuss the Project with you to avoid any unfortunate situations arising. Enclosed for your review is a copy of the letters sent to Wyandotte Nation and the Detroit River Wyandot's.

In your letter of May 11, 2007 we note that you also copied the Grand Chief of Wendake Nation, Max Grois Louis and the Chief of Wyandot – Kansas Nation, Jan English. Unfortunately we have not received any correspondence from these

individuals. We would ask that you forward a copy of our letter to these individuals and any other individuals or groups that may have an interest in the Enhancement Project. We would like to ensure that any and all concerns of the Wyandot Nation are taken into account and reflected in the preparation of the environmental impact study.

Please contact the undersigned to discuss the Enhancement Project and arrange a meeting as soon as possible.

Yours very truly,

Siskinds LLP

Per: Paula Lombardi
Paula Lombardi

PL/pl

cc: Gertrude Free, Director DRW (sent by courier and facsimile)
Michel Gros-Louis, DRW Project Director (sent by courier)
Leaford Bearskin, Grand Chief of Wyandotte – Oklahoma Nation (sent by courier and facsimile)
Sherri L. Clemons, N.A.G.P.R.A., Representative, Wyandotte Nation (sent by courier and facsimile)

Attachments (letters to Wyandotte Nation dated July 23, 2007 and August 28, 2007 and to the Detroit River Wyandot's dated August 28, 2007)

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

SENT BY COURIER AND FACSIMILE (1-248-349-4846)

August 28, 2007

Gertrude Free
Director
Detroit River Wyandot's
6662 Thornberry Crescent
Windsor Ontario N8T 2X2

Dear Ms. Free:

Re: Ambassador Bridge Enhancement Project

We have recently been forwarded your letter dated June 10, 2007 to the United States Coast Guard 9th District.

You will note in the attached letter dated August 10, 2004 from Indian and Northern Affairs Canada that CanAm Indian Friendship Centre of Windsor along with Walpole Island and Aamjiwnaang were identified as the First Nations groups potentially having an interest in the Enhancement Project. On August 1, 2007, Indian and Northern Affairs confirmed that Walpole Island, Aamjiwnaang and Caldwell were the First Nations groups potentially having an interest in the Enhancement Project.

We have been in contact, and are working with, Walpole Island and the CanAm Friendship Centre. We have not received any response to our letters from the Aamjiwnaag or Caldwell First Nations. Unfortunately, none of the Wyandot Nations were identified as having a possible interest in the Enhancement Project. We received a letter dated June 12, 2007 from Wyandotte Nation. Attached, for your review is our response to the Wyandotte Nation dated July 23, 2007. We sincerely apologize for not contacting the Detroit River Wyandot's earlier to discuss the Enhancement Project.

We would like to take this opportunity to advise you that the Ambassador Bridge is in the midst of its public consultation process as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement

Project is proposing to construct a six lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

A Stage I and Stage II archaeological assessment are well underway and being conducted by licensed archaeologists from the Ontario Museum of Archaeology. The Ambassador Bridge recognizes that the wisdom and understanding that Aboriginal peoples have developed is unique and part of the ongoing cultural heritage of Aboriginal peoples. We recognize the importance and value of this traditional knowledge when preparing the environmental impact statement for the Enhancement Project.

Any information that you may have that would assist with the preparation of these studies would be very much appreciated. In your letter dated June 10, 2007 you express your opposition to any bridge that "will cause any destruction of the sacred ground surrounding the historical area in Sandwich, Ontario."

The Ambassador Bridge does not want to, nor have any intention of, disturbing any ancient burial sites and would like to ensure that this does not occur. We are familiar with the Wyandot burial site on the Detroit River, in the Town of Amherstburg (formerly Anderdon Township), located well outside of the Project Area and situated approximately 30 kilometres or 19 miles from the proposed Enhancement Project.

We would like to take this opportunity to request that you share any information relating to the location of any other Wyandot burial sites so we can determine whether there is in fact any impact on these sacred sites by the Enhancement Project. The Enhancement Project links directly into the existing plazas on both sides of the border, there are no piers placed in the water and the project has minimal impacts on the lands in the area.

The Ambassador Bridge is seeking input from the Detroit River Wyandot's and is looking forward to building a long-term relationship. We anticipate that the information you provide will assist in identifying potential environmental effects, lead to improved project design, strengthen mitigation measures and provide relevant biophysical information and historical information that may otherwise have been unavailable.

We are eager to discuss the Project with you to avoid any unfortunate situations arising. Enclosed for your review is a copy of the letters sent to Wyandotte Nation and The Wyandot of Anderdon Nation. We would like to ensure that any and all concerns of the Wyandot Nation are taken into account and reflected in the preparation of the environmental impact study.

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

Please contact the undersigned to discuss the Enhancement Project and arrange a meeting as soon as possible.

Yours very truly,

Siskinds LLP

Per: Paula Lombardi
Paula Lombardi

PL/pl

cc: Michel Gros-Louis, DRW Project Director (sent by courier)
Taywanoka (Flying Arrow) Steve A. Gronda, Grand Chief, The Wyandot of Anderdon Nation (sent by courier)
Leaford Bearskin, Grand Chief of Wyandotte – Oklahoma Nation (sent by courier and fax)
Sherri L. Clemons, N.A.G.P.R.A., Representative, Wyandotte Nation (sent by courier and fax)

Attachments (letters to Wyandotte Nation dated July 23, 2007 and August 28, 2007 and to The Wyandot of Anderdon Nation dated August 28, 2007)

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*** TX REPORT ***
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680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/ap

DATE August 29, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Ms. Sherri L. Clemons N.A.G.P.R.A. Representative Wyandotte Nation	1-918-678-2944

FROM Paula Lombardi

WE ARE TRANSMITTING 11 PAGE(S) (including cover page)

BY FAX ONLY ☐ HARD COPY TO FOLLOW ☒

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

SENT BY COURIER AND FACSIMILIE 1-918-678-2944

July 23, 2007

Ms. Sherri L. Clemons
N.A.G.P.R.A. Representative
Wyandotte Nation
64700 E. Hwy 60
Wyandotte, OK 74370

Dear Ms. Clemons:

Re: Ambassador Bridge Enhancement Project

The United States Coast Guard recently forwarded your letter dated June 12, 2007 to our attention. You will note in the attached letter dated August 10, 2004 from Indian and Northern Affairs Canada that CanAm Indian Friendship Centre of Windsor along with Walpole Island and Aamjiwnaag were identified as the First Nations groups potentially having an interest in the Enhancement Project. Although not initially identified by the federal government we were advised, and have tried to contact, the Chief and Council, for the Caldwell to discuss the project.

We have been in contact, and are working with, Walpole Island and the CanAm Friendship Centre. We have not received any response to our letters from the Aamjiwnaag or Caldwell First Nations. Unfortunately, the Wyandotte Nation was not identified to us as having a possible interest in the Enhancement Project. We sincerely apologize for not contacting the Wyandotte Nation earlier to discuss the Enhancement Project.

We would like to take this opportunity to advise you that the Ambassador Bridge is in the midst of its public consultation process as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

A Stage I and Stage II archaeological assessment are currently underway and being conducted by licensed archaeologists from the Ontario Museum of Archaeology. The Ambassador Bridge recognizes that the wisdom and understanding that Aboriginal peoples have developed is unique and part of the ongoing cultural heritage of Aboriginal peoples. The Ambassador

Bridge understands that this traditional knowledge is important for the preparation of the environmental impact statement for the Enhancement Project.

Any information that you may have that would assist with the preparation of these studies would be very much appreciated. In your letter dated June 12, 2007 you indicate that there is proof and knowledge of ancient Wyandotte burial sites in the proposed project area. The Ambassador Bridge does not want to disturb any ancient burial sites and would like to ensure that this does not occur. We are aware of the Wyandotte burial site on the Detroit River, in the Town of Amherstburg (formerly Anderdon Township), which is approximately 30 kilometres or 19 miles from the proposed Enhancement Project. If possible, we would request that you share any information relating to the location of any other Wyandotte burial sites so we can determine whether there is in fact any impact on these sacred sites by the Enhancement Project. As you may know, the Enhancement Project is a six land cable stayed bridge that links directly into the existing plazas on both sides of the border, there are no piers placed in the water and the project has minimal impacts on the lands in the area.

The Ambassador Bridge is seeking input from the Wyandotte Nation and is looking forward to building a long-term relationship. We anticipate that the information provided by the Wyandotte Nation will assist in identifying potential environmental effects, lead to improved project design, strengthen mitigation measures and provide relevant biophysical information and historical information that may otherwise have been unavailable.

We are eager to discuss the Project with you to avoid any unfortunate situations arising. I would ask that you contact the undersigned as soon as possible to discuss this matter so we can move forward.

Yours very truly,

Siskinds LLP

Per: Paula Lombardi

Paula Lombardi

PL/pl

COPY

Track Shipments
Detailed Results

Quick Help

Tracking number	934493468579	**Reference**	810750
Signed for by	J.LOFLAND	**Purchase order number**	April
Ship date	Aug 28, 2007		
Delivery date	Aug 29, 2007 9:19 AM	**Destination**	WYANDOTTE, OK
		Delivered to	Receptionist/Front Desk
		Service type	Priority Envelope
		Weight	1.0 lbs.
Status	Delivered		
Signature image available	Yes		

Date/Time		*Activity*	*Location*	*Details*
Aug 29, 2007	9:19 AM	**Delivered**	WYANDOTTE, OK	
	8:21 AM	On FedEx vehicle for delivery	JOPLIN, MO	
	7:53 AM	At local FedEx facility	JOPLIN, MO	
	6:07 AM	At dest sort facility	SPRINGFIELD, MO	
	4:28 AM	Departed FedEx location	MEMPHIS, TN	
	12:27 AM	Int'l shipment release	MEMPHIS, TN	
Aug 28, 2007	6:26 PM	Left origin	LONDON, ON	
	5:13 PM	Picked up	LONDON, ON	
	5:07 PM	Package data transmitted to FedEx		

Signature proof | E-mail results | Track more shipments

Subscribe to tracking updates (optional)

Your Name: **Your E-mail Address:**

E-mail address	**Language**	**Exception updates**	**Delivery updates**
	English	☐	☑
	English	☐	☑
	English	☐	☑
	English	☐	☑

Select format: ◉ HTML ○ Text ○ Wireless

Add personal message:

Not available for Wireless or non-English characters.

☑ By selecting this check box and the Submit button, I agree to these Terms and Conditions

Submit

Track Shipments
Detailed Results

Quick Help

Tracking number	934493468568	**Reference**	810750
Signed for by	B.LANGLONE	**Purchase order number**	April
Ship date	Aug 28, 2007	**Destination**	WINDSOR, ON
Delivery date	Aug 29, 2007 10:35 AM	**Delivered to**	Residence
		Service type	Priority Envelope
		Weight	1.0 lbs.
Status	Delivered		
Signature image available	Yes		

Date/Time		*Activity*	*Location*	*Details*
Aug 29, 2007	10:35 AM	**Delivered**	WINDSOR, ON	
	9:05 AM	On FedEx vehicle for delivery	WINDSOR, ON	
	8:00 AM	At local FedEx facility	WINDSOR, ON	
Aug 28, 2007	6:26 PM	Left origin	LONDON, ON	
	5:13 PM	Picked up	LONDON, ON	
	5:05 PM	Package data transmitted to FedEx		

Signature proof | E-mail results | Track more shipments

Subscribe to tracking updates (optional)

Your Name: **Your E-mail Address:**

E-mail address	**Language**	**Exception updates**	**Delivery updates**
	English	☐	☑
	English	☐	☑
	English	☐	☑
	English	☐	☑

Select format: ◉ HTML ○ Text ○ Wireless

Add personal message:

Not available for Wireless or non-English characters.

☑ By selecting this check box and the Submit button, I agree to these Terms and Conditions

Submit

Canada Post Corporation

Security or Registered Receipt (Bulk). This receipt is necessary if enquiry is desired. Fragile and perishable articles are not indemnity against damage. Indemnity and fees information Is available on request from your Postal Outlet

Sender:
The law Firm of
Siskinds Cromarty Ivey & Dowler
680 Waterloo Street
London, ON N6A 3V8

Date: Aug. 29/07

File #/ Sender's Initial: 810750 PL

Total Pcs. = 1 Can/US Total Amt in $ = 8.05

R Registered Recommandé

International/USA International/É. U.

CANADA POST POSTES CANADA

Attention: Tawanoka (Flying Arrow)

To Destinataire

Name Nom: Steve A. Gronda

For enquiry call: 1 888 550-6333

Pour renseignements appelez:

Grand Chief / CEO P068

Address Adresse: The Wyandotte of Anderdon

Advice of Receipt Avis de réception YES OUI NO NON

City Ville: Trenton Mohawks

Country Pays: Nation

Declared Value Valeur déclarée $

CUSTOMER RECEIPT REÇU DU CLIENT 49183 Item No. N° de l'article

33-086-582 (98-10)

RT 862 058 696 CA

2007 -08- 29

LONDON, ON

Canada Post Corporation

Security or Registered Receipt (Bulk). This receipt is necessary if enquiry is desired. Fragile and perishable articles are not indemnity against damage. Indemnity and fees information Is available on request from your Postal Outlet

nder:

The law Firm of
Siskinds Cromarty Ivey & Dowler
680 Waterloo Street
London, ON N6A 3V8

Date: 08/29/07

File #/ Sender's Initial: 810750/PLL/AP

Total Pcs. = ____ Can/US Total Amt in $ = ____

R Registered / Recommandé
Domestic / Régime intérieur

CANADA POST / POSTES CANADA

To / Destinataire

Name / Nom: Michel Gros-Louis
Address / Adresse: 35 Kabir Kouba
City / Ville: Wedake Province: Quebec Postal Code / Code postal: G0A 4V0

FOR DELIVERY CONFIRMATION / POUR CONFIRMER LA LIVRAISON
1 888 550-6333
www.canadapost.ca
www.postescanada.ca

Declared Value / Valeur déclarée ▶ $

Item No. / N° de l'article: 79 192 642 350

CUSTOMER RECEIPT / REÇU DU CLIENT

33-886-594 (98-10)

R Registered / Recommandé
International/USA / International/É. U.

CANADA POST / POSTES CANADA

To / Destinataire

Name / Nom: Chief Leaford Bearskin
At / Adresse: 600 E HWY 60
City / Ville: WYANDOTTE, OK Country / Pays: USA 74370

For enquiry call: / Pour renseignements appelez: 1 888 550-6333

Advice of Receipt / Avis de réception ▶ YES / OUI NO / NON

Declared Value / Valeur déclarée ▶ $

Item No. / N° de l'article: RT 862 058 679 CA

CUSTOMER RECEIPT / REÇU DU CLIENT

33-886-582 (98-10)

42?004
2007 -08- 29
LONDON, ON
N6A 3W0

C:\Documents and Settings\anders_c\Desktop\Misc\Mails\Registered Waybill.doc

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/ap

DATE August 29, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Ms. Gertrude Free Director Detroit River Wyandotte's	1-248-349-~~4840~~ 6693.

FROM Paula Lombardi

WE ARE TRANSMITTING 11 PAGE(S) (including cover page)

BY FAX ONLY ☐ **HARD COPY TO FOLLOW** ☒

I spoke with Ms. Free on August 30, 2007 at 3:44 PM and she confirmed with me that she has all four letters we sent to her via FedEx.

This message is intended for the use of the individual to whom it is addressed and may contain information that is confidential. If you have received this communication in error, please destroy and notify us immediately by telephone. Thank you.

DIRECT
TELEPHONE (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

London · Toronto · Windsor · Quebec City

SISKINDS.com

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

SENT BY COURIER AND FACSIMILIE 1-918-678-2944

July 23, 2007

Ms. Sherri L. Clemons
N.A.G.P.R.A. Representative
Wyandotte Nation
64700 E. Hwy 60
Wyandotte, OK 74370

Dear Ms. Clemons:

Re: Ambassador Bridge Enhancement Project

The United States Coast Guard recently forwarded your letter dated June 12, 2007 to our attention. You will note in the attached letter dated August 10, 2004 from Indian and Northern Affairs Canada that CanAm Indian Friendship Centre of Windsor along with Walpole Island and Aamjiwnaag were identified as the First Nations groups potentially having an interest in the Enhancement Project. Although not initially identified by the federal government we were advised, and have tried to contact, the Chief and Council, for the Caldwell to discuss the project.

We have been in contact, and are working with, Walpole Island and the CanAm Friendship Centre. We have not received any response to our letters from the Aamjiwnaag or Caldwell First Nations. Unfortunately, the Wyandotte Nation was not identified to us as having a possible interest in the Enhancement Project. We sincerely apologize for not contacting the Wyandotte Nation earlier to discuss the Enhancement Project.

We would like to take this opportunity to advise you that the Ambassador Bridge is in the midst of its public consultation process as part of the federal environmental assessment being undertaken for the Enhancement Project. The Enhancement Project is proposing to construct a six lane cable stayed bridge over the Detroit River, located just to the west of the existing Ambassador Bridge.

A Stage I and Stage II archaeological assessment are currently underway and being conducted by licensed archaeologists from the Ontario Museum of Archaeology. The Ambassador Bridge recognizes that the wisdom and understanding that Aboriginal peoples have developed is unique and part of the ongoing cultural heritage of Aboriginal peoples. The Ambassador

Bridge understands that this traditional knowledge is important for the preparation of the environmental impact statement for the Enhancement Project.

Any information that you may have that would assist with the preparation of these studies would be very much appreciated. In your letter dated June 12, 2007 you indicate that there is proof and knowledge of ancient Wyandotte burial sites in the proposed project area. The Ambassador Bridge does not want to disturb any ancient burial sites and would like to ensure that this does not occur. We are aware of the Wyandotte burial site on the Detroit River, in the Town of Amherstburg (formerly Anderdon Township), which is approximately 30 kilometres or 19 miles from the proposed Enhancement Project. If possible, we would request that you share any information relating to the location of any other Wyandotte burial sites so we can determine whether there is in fact any impact on these sacred sites by the Enhancement Project. As you may know, the Enhancement Project is a six land cable stayed bridge that links directly into the existing plazas on both sides of the border, there are no piers placed in the water and the project has minimal impacts on the lands in the area.

The Ambassador Bridge is seeking input from the Wyandotte Nation and is looking forward to building a long-term relationship. We anticipate that the information provided by the Wyandotte Nation will assist in identifying potential environmental effects, lead to improved project design, strengthen mitigation measures and provide relevant biophysical information and historical information that may otherwise have been unavailable.

We are eager to discuss the Project with you to avoid any unfortunate situations arising. I would ask that you contact the undersigned as soon as possible to discuss this matter so we can move forward.

Yours very truly,

Siskinds LLP

Per: Paula Lombardi

Paula Lombardi

PL/pl

COPY

****
*** TX REPORT ***
****

TRANSMISSION OK

TX/RX NO	0657
RECIPIENT ADDRESS	*111*810750*919186782944
DESTINATION ID	
ST. TIME	07/23 10:19
TIME USE	00'44
PAGES SENT	3
RESULT	OK

FAXED

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/pl

DATE July 23, 2007

PLEASE DELIVER TO

NAME & COMPANY	FACSIMILE NO.
Ms. Sherri L. Clemons N.A.G.P.R.A. Representative Wyandotte Nation	1-918-678-2944

FROM Paula Lombardi

WE ARE TRANSMITTING 3 PAGE(S) (including cover page)

BY FAX ONLY [x] HARD COPY TO FOLLOW [ ]

Original letter is being couriered.

Leaford Bearskin
Chief

64700 E. Hwy 60
Wyandotte, OK 74370

WYANDOTTE NATION

Billy Friend
2nd Chief

Phone: 918-678-2297
Fax: 918-678-2944

June 12, 2007

Untied States Coast Guard 9th District
Captain Joseph R. Castillo, Chief of Staff
1240 E. Ninth St. 2025
Cleveland, OH 41999-2060

14 - FOPAC

Dear Captain Castillo;

The Wyandotte Nation would like to address the project:

Ambassador Bridge, Sandwich Ontario Site.

The Wyandotte Nation has a great concern in the project due to the cultural impact on scared burial sites.
The site involved is a known burial site of many tribal ancestral graves. These graves would be impacted by any future development on the proposed site.

The Wyandotte Nation is in support of local Windsor residents who have expressed their concerns on the environmental and cultural in this area due to this pending project.

After documenting proof of ancient Wyandotte burial sites in the proposed project area, we are requesting these sites not be disturbed as these remains of our ancestors are scared to our way of life. In short, we anticipate a response of how this unfortunate situation will be handled going forward.

Sincerely,

Sherri L. Clemons

Sherri L. Clemons, N.A.G.P.R.A. Representative, Wyandotte Nation

Detroit River Wyandot's
6662 Thornberry Crescent
Windsor Ontario
N8T 2X2

Recieved by email August 27/07

June 10, 2007

Mr. Scot Striffler
External Affairs
U.S. Coast Guard
1240 E. 9th Street
Suite 2073
Cleveland, OH 44199

Dear Mr. Scot Striffler

We are the Detroit River Wyandots (DRW) and descendents of the former band of Anderdon. We are a tribal organization in Windsor Ontario. The board of Directors and our members of the DRW are formed of Wyandot Indian descendents.

We are opposed to building a bridge that will cause any destruction of the sacred ground surrounding the historical area in Sandwich Ontario.

We would like to be kept informed of any development that may affect our native sites and offer any support possible to stop the building of a bridge that will cause great destruction of this very sacred site. These grounds mean so much to so many different people, especially to the Wyandot Indians of Anderdon, Ontario.

Sincerely

Gertrude Free

Gertrude Free, Director DRW
25885 Sierra Dr
Novi, Michigan 48374-2335

gafree@twmi.rr.com
Fax 248-349-4846

c.c. Michel Gros-Louis
DRW Project Director
35 Kabir Kouba
Wendake G0A 4V0
QC, Canada

The Wyandot of Anderdon Nation
P.O. 68 Trenton Michigan
48183

Rcvd (dpb)
5/18/07

Received by email August 27/07

May 11th 2007
United States Coast Guard 9th District
1240 E. Ninth St. Room 2025
Cleveland, Ohio
41999-2060
Attn: Chief of Staff Captain Joseph R. Castillo

RE: Ambassador Bridge project Sandwich Ontario site

Kwe (Hello) Captain Castillo,

The Wyandot Nation is very concerned by the potential impact and destruction to our ancestral burial grounds on Sandwich Ontario lands due to future development of the proposed Ambassador Bridge project.

We also agree with and are in support of the local Windsor residents who have voiced concerns on environmental and cultural issues in this area as well due to this pending project.

Having documented proof of Wyandot ancestral remains in the very area of proposed development; we are requesting these burial sites not be disturbed as these remains of our ancestors are sacred to our way of life.

We anticipate in short order your response on how this unfortunate situation will be handled going forward.

Grand Chief / CEO
The Wyandot of Anderdon Nation
Taywanoka (Flying Arrow) Steve A. Gronda

Steve A. Gronda

CC:
Detroit River Wyandot Nation
Director Gert Free
Project Manager Michel Gros Louis

Grand Chief of Wendake Nation
Max Gros Louis
Grand Chief of Wyandotte - Oklahoma Nation
Leaford Bearskin
Chief of Wyandot - Kansas Nation
Jan English

GENERAL PUBLIC

From: margaret atkinson

To: Whyte, P. Leigh;

CC:

Subject: bridge public meeting feedback

Date: Wednesday, April 18, 2007 8:11:55 PM

Attachments:

Hi,
the following is my feedback (sans typos) which I sent earlier.

The following are my comments about yesterday's public meeting at St. Francis School:

1. I found the gentleman answering residents' questions to be condescending and unprofessional. He deferred most of the valid questions to "Skip" who was mysteriously not capable of answering simple questions on the night of the public meeting. Why on earth would you come to a public meeting, where some pretty obvious questions about people's property were most certainly going to be asked, and not bring along ALL pertinent information? In these days of instant information, surely this is unacceptable.
2. The word 'enhancement' is misleading and insulting, as it is certainly NOT an enhancement to our community. I live three blocks from the bridge, and have lived here for 40 years. I can't open my windows in the summer because of the noise and exhaust from your cash cow.
3. My belief is that the bridge company has been purposely and systematically destroying our community by buying up property in a seemingly random way, and then leaving these properties vacant and uncared for. Not exactly an enhancement. Not exactly good neighbour policy.
4. It was also obvious that you have very little respect for the residents of Sandwich, and that you have no understanding of the history of our neighbourhood. I live here. I understand.
5. Are you going to properly compensate residents for all of the inconvenience and suffering and uncertainty you are causing? I don't know if my house, which I own, will be worth even as much as I put out for it 17 years ago. My parents built a beautiful house in Sandwich. Will my mother be compensated for the fact that when she needs to sell it, she will get far less than what it is worth?

Thank you for your attention to this matter,
sincerely,
Margaret Atkinson Romain
3127 Donnelly Street

519 253 2389

Explore the seven wonders of the world Learn more!

Paula Lombardi

From: Skip McMahon [skip@canadiantransit.com]
Sent: Friday, April 20, 2007 12:30 PM
To: eleanore245@hotmail.com
Cc: Paula Lombardi
Subject: RE: Ambassador Bridge Feedback

Eleanore, thanks for your note. We are in the process of posting the information on the site. Hopefully done early next week. I am getting a map showing our properties and will be happy to share that with you when completed. Pls call next week to set an appointment to view. 519-977-0700. Regards

---

From: eleanore245@hotmail.com [mailto:eleanore245@hotmail.com]
Sent: Thursday, April 19, 2007 10:38 PM
To: undisclosed-recipients:
Subject: Ambassador Bridge Feedback

Hi There,
The following information has just been submitted through the form on your website:

Attention	Ambassador Bridge
Name	Eleanore
Last Name	Sedge
Country	CANADA
Comments / Suggestions	I want to see the photo of the map that shows the footprint of the plaza and how much of the West Windor that it will take up. We where told that the information will be on the website!!! Where is the one that asks for input on the type of towers we can input on??? Please send it ASAP. Please make sure the names of the streets are labled. Also I would like to see which properties the Bridge Corp. (or its numbered company) owns. It was stated that there are properties on INdian, St. Antoine, Rosedale and... that the is owned by you. Thanks You. Eleanore
B1	Submit

Paula Lombardi

From: Paula Lombardi
Sent: Thursday, June 21, 2007 4:05 PM
To: eleanore245@hotmail.com
Subject: Ambassador Bridge Enhancement Project
Attachments: Windsor Public Information Meetings Notice_June.pdf

Good Afternoon,

Attached is the notice published in the Windsor Star advertising the open house for the Ambassador Bridge Enhancement Project scheduled for Monday, June 25, 2007 and Tuesday, June 26, 2007.

Thank you for your continued interest in the project and we encourage you to attend the open house and visit the project website at www.ambassadorbridge.com.

If you have any questions, please do not hesitate to contact me directly.

Sincerely,

Paula Lombardi

Ambassador Bridge Enhancement Project
PUBLIC WORKSHOP NOTICE

PROJECT BACKGROUND: The Ambassador Bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new bridge will connect directly into the existing plazas in both Windsor and Detroit. The new structure will be 31.24 metres wide and 1889.76 metres long, with approximately 670.56 metres traversing the Detroit River. No supporting structures (piers and towers) will be placed in the Detroit River. Once the new structure is completed, the existing Ambassador Bridge will be taken out of service and evaluated to make all of the repairs necessary.

The Ambassador Bridge held Public Workshops in April 2007, introducing the Enhancement Project and will now present the preliminary results of the environmental studies undertaken for the Enhancement Project on:

Monday, June 25th, from 4:00 pm to 8:00 pm and Tuesday, June 26th, from 4:00 pm to 8:00 pm
University of Windsor, School of Visual Arts LeBel Building at Huron Church Road and College Ave 955 Huron Church Road Windsor, Ontario Parking is available from the College Avenue Entrance across from McDonald's restaurant

These meetings are being held as part of the public consultation process for the preparation of a Federal Environmental Assessment (EA) under the *Canadian Federal Environmental Assessment Act.*

For further information, please contact:

P. Leigh Whyte
Chief Urban Planner
Avalon Consulting Professionals of Ontario, LLC
Tel. 1-866-807-5113
Email lwhyte@acp-on.ca

AMBASSADOR
AMBASSADOR BRIDGE

Ambassador Bridge: www.ambassadorbridge.com

Paula Lombardi

From: noreply@ambassadorbridge.com
Sent: Thursday, August 16, 2007 2:05 AM
To: undisclosed-recipients
Subject: Comment Submitted

Hello,

The following was just submitted on the comments form:

This person arrived at the form via the webpage: http://www.ambassadorbridge.com/comments/?module=comments

Submitted at:	02:04:03 AM : Aug 16, 2007
Name:	Zeana Attisha
Address:	7404 Sherwood Creek CT
City:	west bloomfield
State/Province:	MICHIGAN
Zip/Postal Code:	48322
Email:	zeanaattisha@msn.com
Comments:	I think the new bridge should be constructed on Post Avenue in Detroit.
Contact via email?	Yes

Paula Lombardi

From: noreply@ambassadorbridge.com
Sent: Monday, August 06, 2007 1:14 PM
To: undisclosed-recipients
Subject: Comment Submitted

Hello,

The following was just submitted on the comments form:

This person arrived at the form via the webpage: http://www.ambassadorbridge.com/ambassador-project.html

Submitted at:	12:58:08 PM : Aug 6, 2007
Name:	Alexander Long
Address:	4369 Goldenwood Dr
City:	Windsor
State/Province:	Ontario
Zip/Postal Code:	N9G 2R4
Email:	alexlong4@yahoo.com
Comments:	I'm very encouraged by the new project. This will really help my commute to work!
Contact via email?	Yes

Paula Lombardi

From: noreply@ambassadorbridge.com
Sent: Wednesday, July 04, 2007 4:26 PM
To: undisclosed-recipients
Subject: Comment Submitted

Hello,

The following was just submitted on the comments form:

This person arrived at the form via the webpage: http://www.ambassadorbridge.com/ambassador-project.html

Submitted at:	15:56:15 PM : Jul 4, 2007
Name:	Brady Mahler
Address:	3970 Acorn Cres
City:	Windsor
State/Province:	Ontario
Zip/Postal Code:	N8W5R2
Email:	bwmiii@hotmail.com
Comments:	Great plan to enhance the border. I'm a regular crosser, we need this. Gov. proposals take too long
Contact via email?	Yes

Paula Lombardi

From: noreply@ambassadorbridge.com
Sent: Wednesday, May 02, 2007 6:13 AM
To: undisclosed-recipients
Subject: Comment Submitted

Hello,

The following was just submitted on the comments form:

This person arrived at the form via the webpage: http://www.ambassadorbridge.com/comments/

Submitted at:	12:09:48 PM : Apr 30, 2007
Name:	Ralph Jones
Address:	12215 Westlake Drive
City:	Tecumseh
State/Province:	Ontario
Zip/Postal Code:	N8N-4W3
Email:	cabriojazz@yahoo.com
Comments:	Need limited access road from Huron Church to EC row & 401 to fix truck traffic issue.
Contact via email?	Yes

Paula Lombardi

From: noreply@ambassadorbridge.com
Sent: Wednesday, May 09, 2007 6:15 AM
To: undisclosed-recipients
Subject: Comment Submitted

Hello,

The following was just submitted on the comments form:

This person arrived at the form via the webpage: Unknown

Submitted at:	09:14:51 AM : May 8, 2007
Name:	Tony welling
Address:	4040 forest edge dr
City:	commerce
State/Province:	Michigan
Zip/Postal Code:	48382
Email:	awelling134450@comcast.net
Comments:	2nd bridge yes,down river,away from the existing bridge.original should be kept working.close tunnel
Contact via email?	Yes

Paula Lombardi

From: noreply@ambassadorbridge.com
Sent: Sunday, May 20, 2007 8:14 PM
To: undisclosed-recipients
Subject: Comment Submitted

Hello,

The following was just submitted on the comments form:

This person arrived at the form via the webpage: http://www.ambassadorbridge.com/comments/

Submitted at:	17:38:24 PM : May 20, 2007
Name:	Simone Hobson
Address:	1164 Askin Ave.
City:	Windsor
State/Province:	Ontario
Zip/Postal Code:	N9B 2Y1
Email:	simone.hobson@cogeco.ca
Comments:	As a west Windsor resident, I would like to voice my concern for construction of a second bridge.
Contact via email?	Yes

Paula Lombardi

From: Paula Lombardi
Sent: Thursday, June 21, 2007 4:16 PM
To: 'simone.hobson@cogeco.ca'
Subject: Ambassador Bridge Enhancement Project
Attachments: Windsor Public Information Meetings Notice_June.pdf

Good Afternoon,

Attached is the notice published in the Windsor Star advertising the open house for the Ambassador Bridge Enhancement Project scheduled for Monday, June 25, 2007 and Tuesday, June 26, 2007.

Thank you for your continued interest in the project and we encourage you to attend the open house and visit the project website at www.ambassadorbridge.com.

If you have any questions, please do not hesitate to contact me directly.

Sincerely,

Paula Lombardi

Ambassador Bridge Enhancement Project
PUBLIC WORKSHOP NOTICE

PROJECT BACKGROUND: The Ambassador Bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new bridge will connect directly into the existing plazas in both Windsor and Detroit. The new structure will be 31.24 metres wide and 1889.76 metres long, with approximately 670.56 metres traversing the Detroit River. No supporting structures (piers and towers) will be placed in the Detroit River. Once the new structure is completed, the existing Ambassador Bridge will be taken out of service and evaluated to make all of the repairs necessary.

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University of Windsor, School of Visual Arts LeBel Building at Huron Church Road and College Ave 955 Huron Church Road Windsor, Ontario Parking is available from the College Avenue Entrance across from McDonald's restaurant

These meetings are being held as part of the public consultation process for the preparation of a Federal Environmental Assessment (EA) under the *Canadian Federal Environmental Assessment Act*.

For further information, please contact:

P. Leigh Whyte
Chief Urban Planner
Avalon Consulting Professionals of Ontario, LLC
Tel. 1-866-807-5113
Email lwhyte@acp-on.ca

AMBASSADOR
AMBASSADOR BRIDGE

Ambassador Bridge: www.ambassadorbridge.com

Paula Lombardi

From: noreply@ambassadorbridge.com
Sent: Monday, May 14, 2007 1:58 PM
To: undisclosed-recipients
Subject: Comment Submitted

Hello,

The following was just submitted on the comments form:

This person arrived at the form via the webpage: http://www.ambassadorbridge.com/comments/?module=comments

Submitted at:	13:56:21 PM : May 14, 2007
Name:	maria perez
Address:	300 w grand blvd
City:	det
State/Province:	mi
Zip/Postal Code:	48216
Email:	mperez1@comcast.net
Comments:	i live west grand by there

Contact via email? Yes

Paula Lombardi

From: noreply@ambassadorbridge.com
Sent: Tuesday, May 15, 2007 12:14 PM
To: undisclosed-recipients
Subject: Comment Submitted

Hello,

The following was just submitted on the comments form:

This person arrived at the form via the webpage: http://www.ambassadorbridge.com/comments/?module=comments

Submitted at:	13:56:21 PM : May 14, 2007
Name:	maria perez
Address:	300 w grand blvd
City:	det
State/Province:	mi
Zip/Postal Code:	48216
Email:	mperez1@comcast.net
Comments:	i live west grand by there
Contact via email?	Yes

Paula Lombardi

From: noreply@ambassadorbridge.com
Sent: Thursday, May 17, 2007 8:50 AM
To: undisclosed-recipients
Subject: Comment Submitted

Hello,

The following was just submitted on the comments form:

This person arrived at the form via the webpage: http://www.ambassadorbridge.com/comments/?module=comments

Submitted at:	13:56:21 PM : May 14, 2007
Name:	maria perez
Address:	300 w grand blvd
City:	det
State/Province:	mi
Zip/Postal Code:	48216
Email:	mperez1@comcast.net
Comments:	i live west grand by there

Contact via email? Yes

Paula Lombardi

From: Paula Lombardi
Sent: Thursday, June 21, 2007 4:15 PM
To: 'mperez1@comcast.net'
Subject: Ambassador Bridge Enhancement Project
Attachments: Windsor Public Information Meetings Notice_June.pdf

Good Afternoon,

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If you have any questions, please do not hesitate to contact me directly.

Sincerely,

Paula Lombardi

Ambassador Bridge Enhancement Project
PUBLIC WORKSHOP NOTICE

PROJECT BACKGROUND: The Ambassador Bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new bridge will connect directly into the existing plazas in both Windsor and Detroit. The new structure will be 31.24 metres wide and 1889.76 metres long, with approximately 670.56 metres traversing the Detroit River. No supporting structures (piers and towers) will be placed in the Detroit River. Once the new structure is completed, the existing Ambassador Bridge will be taken out of service and evaluated to make all of the repairs necessary.

The Ambassador Bridge held Public Workshops in April 2007, introducing the Enhancement Project and will now present the preliminary results of the environmental studies undertaken for the Enhancement Project on:

Monday, June 25th, from 4:00 pm to 8:00 pm and Tuesday, June 26th, from 4:00 pm to 8:00 pm
University of Windsor, School of Visual Arts LeBel Building at Huron Church Road and College Ave 955 Huron Church Road Windsor, Ontario Parking is available from the College Avenue Entrance across from McDonald's restaurant

These meetings are being held as part of the public consultation process for the preparation of a Federal Environmental Assessment (EA) under the *Canadian Federal Environmental Assessment Act*.

For further information, please contact:

P. Leigh Whyte
Chief Urban Planner
Avalon Consulting Professionals of Ontario, LLC
Tel. 1-866-807-5113
Email lwhyte@acp-on.ca

AMBASSADOR BRIDGE

Ambassador Bridge: www.ambassadorbridge.com

Paula Lombardi

From: noreply@ambassadorbridge.com
Sent: Monday, May 07, 2007 4:23 PM
To: undisclosed-recipients
Subject: Comment Submitted

Hello,

The following was just submitted on the comments form:

This person arrived at the form via the webpage: http://www.ambassadorbridge.com/ambassador-project.html

Submitted at:	16:21:14 PM : May 7, 2007
Name:	Ken Higgins
Address:	3583 Meldrum
City:	Casco
State/Province:	Michigan
Zip/Postal Code:	48064-1905
Email:	wwwkenkid@yahoo.com
Comments:	I think this new bridge over the Detroit River is a very imporant project that should go ahead asap.
Contact via email?	Yes

Paula Lombardi

From: Paula Lombardi
Sent: Thursday, June 21, 2007 4:13 PM
To: 'wwwkenkid@yahoo.com'
Subject: Ambassador Bridge Enhancement Project
Attachments: Windsor Public Information Meetings Notice_June.pdf

Good Afternoon,

Attached is the notice published in the Windsor Star advertising the open house for the Ambassador Bridge Enhancement Project scheduled for Monday, June 25, 2007 and Tuesday, June 26, 2007.

Thank you for your continued interest in the project and we encourage you to attend the open house and visit the project website at www.ambassadorbridge.com.

If you have any questions, please do not hesitate to contact me directly.

Sincerely,

Paula Lombardi

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AMBASSADOR BRIDGE

Ambassador Bridge: www.ambassadorbridge.com

Paula Lombardi

From: Paula Lombardi
Sent: Friday, April 27, 2007 7:14 AM
To: 'Leo Petrilli'
Cc: 'Whyte, P. Leigh'
Subject: RE: an opinion

Good morning Leo,

Thank you for the information. We will review during the preparation of the technical studies.

If you have any additional information, please do not hesitate to send to our attention.

Thanks,
Paula

From: Leo Petrilli [mailto:leovan7052@yahoo.ca]
Sent: Thursday, April 26, 2007 8:56 PM
To: Paula Lombardi
Subject: Fw: an opinion

Diesel has more than one are of concern.

Alot of folks agree with some of my issues discussed.

Be well, Leo.

Leo Petrilli
www.planethawk.org
cell: 1-519-564-3085
leovan7052@yahoo.ca

----- Forwarded Message ----
From: Leo Petrilli <leovan7052@yahoo.ca>
To: leo pet <leovan7052@yahoo.ca>
Sent: Monday, April 16, 2007 1:51:06 PM
Subject: an opinion

Examining Trade and Environment Issues

The concerns expressed below are being raised as a result of suspected health problems as a

result of the North American Free Trade Agreement. More specifically, both air and water are being polluted relentlessly as more and more freight is being shipped by transport truck. The damage from diesel engine exhaust manifests in the form of asthma, cancer, respiratory ailments, heart disease, babies not being brought to term. As diesel engine exhaust is also a component of smog and ozone, therefore greenhouse gases and global warming, the Commission for Environmental Cooperation's role in protecting society is growing.

There is a need to use environmental science to understand human biology and human diseases.

- Fetal origins of diseases need scientific clarification and much more discussion.

- The science is not 100%, but it is suggested that Diesel Engine Exhaust (DDE) may play a causal role in asthma, autism, Huntingtons Disease, Parkinsons Disease, various cancers, ischemetic disorders, myocardial infarctions, arterial vasoconstriction, and foetuses aborting before coming to term.

- When a person is subject to DDE, arterial vasoconstriction occurs that is -- the arteries constrict in response, shying away from the exposure.

- This causes less blood flow to the fetus in the case of a pregnant woman, and decreases lung size and function, possibly leading to asthma and other possible respiratory ailments such as autism, Huntingtons disease, or Parkinsons disease.

- There is a basic biological need to determine public health by using interdisciplinary research, that is -- Health officials at all levels of government along with all agencies should unite. In working together, this research and the articles are submitted and peer-reviewed by scientists. Pending approval, submissions would then be published. The information would then be more available for dissemination to the public.

- There needs to be a focused understanding of the chemicals and biologics in the environment, and how this affects humans.

- There is a need to develop local issues regarding microbal environmental disruption on human growth cells.

- There needs to be very clear and concise research before developing any new transportation systems, which accurately reflect all of the potential harm that is imposed on the communities.

- Ischemetic diseases, - blood spurts (uneven blood flow) in arteries and veins.

- Myocardial infarction, - irregular and uneven heartbeats.

New areas of research will include:

- Environmental Epiginetics:
- Environmental Stress-Gene Expression and Human Fetal Development, including

DNA Methylation,

- Genomic Imprinting
- Histone modification.

- Cumulative affects of environmental and all other exposures (home, diet, lifestyle, exercise).

- endocrine disruptors that negatively impact gene growth.

All of these areas will contribute to developing diseases in populations, especially regional populations.
Specific to Cancer:

Agencies such as the World Health Organization's – International Agency for Research on Cancer (IARC) and the United States National Toxicology Program follow a scientific process and consider the weight of scientific evidence to determine whether a substance or chemical causes cancer.

Class 1: exposure causes cancer in humans.

Class 2A: exposure probably causes cancer in humans.

Class 2B: exposure possibly causes cancer in humans.

Class 3: scientists are unable to determine or classify whether exposure does or does not cause cancer in humans.

Class 4: exposure probably does not cause cancer in humans.

Leo Petrilli
www.planethawk.org
cell: 1-519-564-3085
leovan7052@yahoo.ca

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Get a sneak peak at messages with a handy reading pane.

Paula Lombardi

From: Leo Petrilli [leovan7052@yahoo.ca]
Sent: Thursday, April 26, 2007 8:35 PM
To: Paula Lombardi
Subject: Fw: Windsor Environmental Concerns

Paula, it was so nice to meet you last week here at the Caboto.

I have forward this information, as well as two others to Leigh.

I finally found your business care which contained the e-mail address.

Be well, Leo Petrilli.

Leo Petrilli
www.planethawk.org
cell: 1-519-564-3085
leovan7052@yahoo.ca

----- Forwarded Message ----
From: Leo Petrilli <leovan7052@yahoo.ca>
To: leigh whyte <lwhyte@acp-on.ca>
Cc: leo pet <leovan7052@yahoo.ca>
Sent: Thursday, April 19, 2007 4:48:44 PM
Subject: Fw: Windsor Environmental Concerns

Leigh, some local environmental concerns.

Be well, Leo.

Leo Petrilli
www.planethawk.org
cell: 1-519-564-3085
leovan7052@yahoo.ca

----- Forwarded Message ----
From: Leo Petrilli <leovan7052@yahoo.ca>

To: leo pet <leovan7052@yahoo.ca>
Sent: Monday, January 29, 2007 2:42:06 PM
Subject: Windsor Environmental Concerns

According to a July 2004 Executive Summary prepared by Health Canada entitled " Human Health Effects of Ozone: Update in Support of the Canada Wide Standards for Particulate Matter and Ozone " there are several concerns which also need mentioning. As part of the development of a National Ambient Air Quality Objective (NAAQO) for ground level ozone, a Scientific Assessment Document, (SAD) containing critical scientific groundwork and evaluation was prepared in 1997 and published in 1999.

Since ozone toxicology and human health effect studies, including clinical and epidemiological research, are fields of inquiry that are evolving rapidly, it was determined that an update to the Canada Wide Standard for ozone should be brought forward to present relevant scientific information and current state of knowledge in these fields.

New studies on ***ozone-induced epithelial injury and*** **inflammation** generally confirm the information presented in the 1999 SAD while further characterizing specific mechanisms. **Individual chemokines and cytokines** involved in the response to ozone have been identified, and their __expression and interplay delineated. The importance of mast cells in the pathogenesis of epithelial injury has been recognized, and there is further evidence of airway remodelling and mucous cell metaplasia, especially over long-term exposure. Also, new findings concerning the effects of ozone exposure on pulmonary function confirm those reported in the 1999 Ozone SAD, such as increased respiratory frequency and airway reactivity, and decreased tidal volume and heart rate. New information has been added on the induction of rapid shallow breathing, direct vascular constriction, and the involvement of pulmonary irritant receptors and parasympathetic pathways, as well as effects on surfactant. There was no direct information in previous assessments on the effects of ozone on inflammation and airway responsiveness arising from allergic sensitization and inflammation.

Acute exposure to ozone results in lung function decrements indicated by decreased FVC (Forced Vital Capacity), and induced spirometric responses. Acute exposure to ozone is known to produce an inflammatory response that entails increased permeability of the respiratory epithelium, and production of proinflammatory cytokines and prostaglandins. New clinical studies support previous findings reported in the 1999 SAD and further characterize the cellular and molecular changes involved in the inflammatory response. The cellular toxicity of ozone has also been investigated in new studies that found increased apoptosis in lung cells and ozonation of lipids in the airway epithelial lining fluid (ELF) of humans. Finally, a number of new studies have found significant effects of ozone on markers for antioxidant defence such as glutathione (GSH), glutathione peroxidase activity and ascorbate levels in lungs.

Ozone induces non-specific airway responsiveness as well as responsiveness to agents such as allergens and SO 2. (Sulphur Dioxide). New clinical data confirm the enhancement of bronchial responsiveness to broncho constrictors following ozone inhalation. Information on

health effects resulting from exposure to air pollutant mixtures that contain ozone remains limited. The 1999 SAD indicated that synergism between ozone and SO 2 was evident in some studies, while NO 2 (Nitrous Dioxide) was found to enhance ozone-induced spirometric changes.

Epidemiological Studies.

Epidemiological studies of the effects of ozone on human health explore statistical associations between changes in ambient levels of ozone and changes in the occurrence of cardio-respiratory health problems in the general population. Four major designs are used:
- Time-series studies investigate the acute effects of ozone, i.e. the temporal association between daily variation in ozone levels and daily counts of mortality, hospital admission and emergency room visits:
- Cohort studies investigate chronic effects, i.e. the association between cumulative exposure and endpoints such as mortality, chronic diseases and lung function decrements;
- Cross-sectional studies investigate the association between current exposure and endpoints, such as lung function and biomarkers;
- Panel studies investigate the association between daily variation in ozone levels and transient changes in respiratory and cardio function.

The 1999 Ozone SAD concluded that, overall, there was a significantly positive association between ground level ozone pollution on non-accidental mortality. Increases in mortality were found at mean ozone concentrations (daily 1-hour maximum) between 20 and 75 ppb (parts per billion), below the current Canadian NAAQO for ozone of 82 ppb, and across widely varying climatic conditions and pollutant mixtures in different study locations.

In general and consistent with the 1999 Ozone SAD, the new data demonstrates an association between ambient ozone concentrations in urban centres and increased population mortality after adjustment for time trends, seasonality, weather variables, day to day, day of the week, and other factors. More than 50% of the studies used multi-pollutant models to control for co-founding by co-pollutants. In many (about 50%) of these studies, ozone remained statistically significant with mortality in multi-pollutants models, the ozone effect was attenuated by co-pollutants in other studies; this suggests that the air pollution mixture as a whole may have a more significant impact on pollution mortality. Health Canada , [Stieb et al., 2002] conducted a meta-analysis of air pollution and mortality from around the world.

New data are suggesting that persons who had congestive heart failure or coronary artery disease before death as well as persons of more senior age to appear to be more susceptible than the general population to ozone pollution. More comparison studies on age, race, or health status are needed to better characterize particular susceptible group of people to air pollution. The knowledge gap identified in the 1999 Ozone SAD surrounding biomarkers has been addressed in new studies as some researchers have investigated potential markers (hydroxyl radical attack in nasal lavage, nasal inflammation, lung clara-cell protein - cc16, 8-OhdG formation) of cell and tissue injury in relation to ozone exposure.

A number of cohort studies concerning respiratory symptoms and pulmonary function have been published. Ten of these studies have been released, (including one biomarker study) with nine of ten demonstrating a positive and significant association between long-term exposure to ozone and various adverse respiratory outcomes. As with previous analyses on the effects of chronic exposure to ozone, these studies rely on outdoor ozone monitoring data, which may result in exposure misclassification. Moreover, factors that modify personal exposure - such as indoor penetration, hours spent outside and physical activity levels - are typically ignored. That being said, many of the new studies did attempt to control for various covariates and account for the interaction of co-pollutants.

Taken together, these studies, especially those of longitudinal design, present important new epidemiological findings, indicating that long-term exposure to ozone my lead to a number of adverse effects, with children appearing particularly sensitive. Effect include asthma, lung function decrements, exacerbation of asthmatic and other respiratory symptoms, decreased lung growth in children and incident lung cancer. Toxicological and chemical studies, as discussed in previous sections of this missive, provide consistent evidence linking ozone to these very effects, further bolstering the epidemiological findings.

Another Executive Summary : Human Health Effects of Fine Particulate Matter : Update in Support of the Canada-Wide Standards For Particulate Matter and Ozone bears useful information as well. The report was prepared for the Canadian Council of Ministers of the Environment. Revised in July, 2004 and is entitled Fine Fraction of PM Human Health Effects.

As part of the development of a National Ambient Air Quality Objective (NAAQO) for particulate matter (PM), a Science Assessment Document (SAD) containing critical scientific groundwork and evaluation was prepared in 1997 and published in 1999. The Canadian Environmental Protection Act/ National Advisory Committee (CEPA/NAC) Working Group on Air Quality and Objectives Guidelines produced this Scientific Assessment Document for Particulate Matter and released it in July 1999. This Particulate Matter Science Assessment Document constitutes a literature review and critical analysis of all relevant information concerning the effects of PM on human health, animals, aesthetic effects and environmental impacts. The information contained in this document is current to 1997. Because PM toxicology and human health studies, including clinical and epidemiological research, and human exposure science are evolving rapidly, it was determined that an update Canada-Wide Standard for Particulate Matter should be brought forward to identify and issue from science which might materially alter or add to the existing Canada -Wide Standards. The means to achieve this was, primarily, to assess individual research papers and determine if they contained any information relevant to the already in-place standards for PM 2.5. [It is of interest that in the United States , studies include ultra fine PM 1.0, and nitro-Polycyclic Aromatic Hydrocarbons, which measure at PM 0.1]

This compilation brings together new information on the health effects of fine PM that has been published in peer reviewed journals since completion of the 1999 PM Science Assessment Document. It includes relevant information in the following areas: human exposure studies, animal and in vitro toxicology, clinical studies and epidemiology/ the period covered in this update ranges from March 1997 to October 2002. New studies have been collected and critically reviewed in order to gauge the extent to which new information supports previous

findings in the above-mentioned areas, and to determine if the conclusions reached in the 1999 PM SAD remain valid and whether new action is warranted.

For long-term exposure and the effects on cancer, studies were reviewed that examined the exposure to ambient PM rather than from diesel emissions. It has been stated that it would be immoral for science to submit humans to diesel engine exhaust, as these people would most likely be exposed to chemicals which are suspected, probable or known to be carcinogenic. Based on the present review, on balance, the evidence for adverse effects of PM on humans is qualitatively more certain than in 1997. Most of the new evidence gathered from epidemiological laboratory (including human and animal) studies and exposures studies validated the conclusions reached in 1997. Most significantly, new epidemiology studies not only demonstrate a significant association between acute exposure to ambient air fine PM and increased population mortality and morbidity, but also clearly delineate an association between long-term exposure to fine PM and increased mortality due to cardio-respiratory illness, and lung cancer, and reduced lung function growth of children. New evidence is emerging on low birth weight, birth defects and infant mortality attributed to particulate are pollution. Significant questions remain regarding quantification and the extract relevance of the chronic exposure effect in Canadian populations.

Much work has been done and is ongoing regarding further physical and chemical characterization of PM. This includes identification and measurement of PM other than mass, including particle number, particle size, total surface area and specific chemical and biological components is ambient, micro-environmental and personal exposure samples. The work needs to identify the key characteristics and attributes of PM that cause health effects. This would provide input to future toxicological, clinical, and epidemiological health effect works. Exposure to PM arising from transportation is ubiquitous in urban environments. Considerable work has been undertaken over the last few years to characterize traffic-related PM, with a variety of experimental designs utilized. To date, it has been found that microenvironments have the potential to create very high levels of personal exposure. Epidemiological studies of the effects of ambient PM and changes in the occurrence of cardiovascular and respiratory health problem in the population. These are more categorized into: acute exposure and mortality, acute exposure and hospital admissions, acute exposure and emergency room visits, health effects, and long-term exposures.

The 1997 PM SAD concluded that there were increases in all-cause mortality in studies carried out in 20 cities across North and South America and Europe . The document left questions which need to be studied and concluded. Questions such as 1) What are the components and sources of the particle mixture that have the greatest effect on health? 2) What are the health effects of ultrafine particles? and 3) What is the impact of exposure misclassification due to using data from fixed ambient monitors rather than personal exposure data. Mentioned in this report was another, entitled PM Update document document included more than 25 studies that investigated the associations between various PM metrics and cardiovascular and respiratory admissions. These studies were not only in North America and Europe, but also in Australia and Asia . The consistency of the risk estimates regardless of the statistical methods, age, location, health status and socio economic status further support an underlying relationship between ambient PM pollution and cardiovascular and respiratory hospital admissions.

The Health professionals state the following in this report: A review of studies that compared the strength of the association between PM pollution and hospital admissions among groups with various health statuses, age groups, races and socio-economic status. Results from studies on health status support the assumption that people with pre-existing health conditions have a higher risk to the adverse effects of ambient PM pollution. These health conditions include cardiovascular and respiratory illness and diabetes. They have reviewed four studies on children respiratory admissions with various PM metrics, in North and South American cities. These studies consistently demonstrate a significant association between PM pollution and respiratory admissions. Very young children (less than 2 years old) appear to be more vulnerable to the effects of PM pollution, with a higher risk estimate of respiratory hospital admissions of the elderly, with various PM metrics, at cities in Australia and Asia, as well as in North America and Europe . All these studies demonstrate a significant association between PM pollution and hospital admissions due to either cardiovascular or respiratory disease in single pollutant models. Between cardiovascular and respiratory admissions, the elderly tend to have stronger association between PM pollution and cardiac admission than respiratory admissions. In some studies in which various age groups were compared, PM shows stronger association with hospital admissions in the elderly than in the younger group. PM effects were often attenuated by gaseous pollutants when regressed in the multi-pollutant models, suggesting that some effects may be attributed to gaseous pollutants. Comparing the components of PM, these studies demonstrate that ambient fine particles have a stronger association with hospitalizations than larger particles however, the effect of coarse particles, (PM 10, PM 2.5) is still significant. Aerosol acidity and sulphate do seem to have a stronger association than other PM components. Emissions from transportation sources contribute substantially the PM effects. (This would of course refer to diesel engine exhaust pollution as well. I would refer at this point to both Stationary Point Sources, (Coal Plants), and Mobile Point Sources, (Diesel Trucks, Diesel Engine Exhaust).

The report states that four new Canadian studies have used various PM metrics and observed various age groups. Consistent with international studies, and with previous Canadian studies, reviewed in the 1997 PM SAD, the Canadian results all demonstrate significant association between PM and cardiovascular and respiratory admissions.

Other paragraphs in this Executive Summary appear to cloud questions. In the Subtitle - Acute Exposure and Emergency Room Visits:
In the PM SAD (1999), only five studies were available for review on emergency room visits (ERVs) and doctors' office visits. Only respiratory ERVs were investigated in these studies. Two studies used multi-pollutant regression models to adjust for the confounding effect of co-pollutants. These studies contained limited data on ERVs and Pm exposure either one year, or two summers, usually in one location) which provided only limited statistical power for detecting a significant relation. Overall, the results from these studies show a positive association, although in some cases not statistically significant, between ERVs and various PM metrics. High correlation coefficients between PM and gaseous pollutants were reported, which suggest possible confounding effects of the co-pollutants. Because of diverse PM metrics, including PM 10, PM 2.5 and BS (Black Soot), used in the small number of studies, (the report then states) - **No Corporate Risk can be drawn from them.** By including this statement in this executive summary entitled, " Human Health Effects of Fine-Particulate

Matter: Update in Support of the Canada-Wide Standards For Particulate Matter and Ozone there is concern that this report was prepared with some secrecy and outside agenda. Possible for business purposes only.

The next sub-title in the Executive Summary regarded Long-Term exposure and Health Effects for PM and Ozone I will re-phrase my previous concerns before revealing what the health effects are. **No Corporate Risk can be drawn from them.**

I will re-quote from the Summary. In the 1999 Science Assessment Document we reviewed two cohort studies that have substantially improved the knowledge of long-term mortality effects of PM (Dockery et al. 1993; Pope et al. 1995). As part of the Harvard Six Cities Study, Dockey et al, (1993) had prospectively followed a cohort of 8,111 adult subjects in the northeast and Midwest United States for 14-16 years beginning in the mid 1970's. The authors found that higher ambient levels of the fine particles (PM 2.5) and sulphate were associated with a 26% increase in mortality from all causes when comparing the most polluted to the least polluted city, and that an increase in fine particles was also associated with increased mortality from cardiopulmonary disease.

In the much larger American Cancer Society (ACS) study, Pope et al. 1995 followed 552,138 adult subjects in 154 cities beginning in 1982 and ending in 1989. Again, higher ambient levels of fine particles were associated with increased mortality from all causes, and from cardio pulmonary disease in the 50 cities for which fine particle data were available (sampled 1979-1983). Higher ambient sulphate levels were associated with increase mortality from all causes, cardiopulmonary disease, and lung cancer in the 151 cities for which sulphate data were available (sampled 1980-1982). The Science Assessment Document, (1999) also reviewed studies on chronic respiratory illness. The increases in prevalence and incidence of chronic bronchitis and decreases in lung function, capacity, growth and development that were shown in Children across North America after chronic or lifetime exposure to acidity, sulphate, and fine particle pollution should be considered to be true chronic effects. There were indications also from a long term (20-25 years) cohort study in older adults that this increased incidence of disease, and probably also the reduced lung capacity that accompanies it, are carried over into adulthood and increased susceptibility to adverse effects of air pollutants. Although the development of lung cancer was also associated with fine particulate air pollution, the associations were weak by comparison with other lifestyle factors such as smoking.

" It is suggested that studies use only non-smokers to alleviate these weak associations." The scientific community should finish doing what they started regarding the Health Effects of Particulate Matter and Ozone. Too often in discussion regarding these subjects, the science stops on the possibility of cigarette smoking. This is weak science.

Next the Executive Summary stated that five case-control studies were reviewed which examined the relationship between long-term exposure and traffic-related air pollution and both child and adult cancer. The researchers used Geographic Information System to map the distribution of traffic in the communities and to estimate the exposure levels to each residence. They used neither nitrogen dioxide nor traffic density as an indicator of traffic-

related air pollution, and none of these studies provided PM monitoring information. Cases were matched up by age, gender, calendar year and in most studies by neighborhoods. Four of these studies demonstrate a significant association between traffic and lung cancer incidence, or childhood leukemia or lymphoma. These results suggest that automobile vehicle emissions may be a particularly important source for air pollution-related cancer mortality or incidence. Although these traffic studies do not deliver direct evidence to show linkages.

To continue in this area, The Executive Summary reviewed six studies that investigated the relationship between long-term exposure to air pollution and respiratory symptoms, lung function, changes and new cases of asthma (incidence) of children from Southern California communities. These studies used a cross-sectional method to examine the prevalence of symptoms and lung function, while three studies used prospective methods to follow up the subjects and observe the effects of air pollution on lung growth and the health impacts of air pollution intervention. All six studies demonstrate significant association between PM (PM 10, PM 2.5 and aerosol acidity and adverse respiratory endpoints).

According to the Executive Summary, Field Studies are epidemiological studies designed to examine groups of people engaged in normal activities in the natural environment in which pollutant levels may be closely monitored and exposures are usually to the ambient mix of pollutants. These studies have the advantage that the subjects may be either health people or patients with pre-existing disease(s), of all ages, and their medical histories, lifestyles and activity patterns, and episodes of illness are closely followed. Endpoints studies may be clinical, biochemical, or physiological changes. Personal exposure may be conducted to reduce exposure misclassification.

In recent years, researchers have significantly advanced knowledge on particle-related adverse health effects in field (panel) studies. The new research includes some of the following:

1. In addition to respiratory effects, effects on cardiovascular system and hematology have also been investigated. Overall studies have demonstrated that PM pollution is associated with increased heart rate and decreased heart rate variability in adults. PM pollution also has been found to be associated with increased blood plasthma viscosity, accompanied by an increase in plasthma fibrogen in adults. One study found that in the elderly, PM pollution was associated with a decrease in blood fibrogen, platelets, and hemoglobin. It is proposed that PM pollution may initiate autonomic-nervous-activated changes in heart rate, blood pressure, and blood viscosity, which consequently may increase the likelihood of sudden cardiac death.
2. Studies using traffic deaths on the distance between motorways and homes or schools as indicator of air pollution demonstrate significantly positive association between traffic-related pollution and children's respiratory symptoms, lung function decrements, and allergy. One study reported that lung function decrements had a stronger association with **truck traffic density than with automobile suggesting that diesel exhaust might contribute more to the adverse respiratory effects than gasoline exhaust**. However, most of the studies did not characterize which of the air pollutants from vehicle emissions contributed to children's respiratory health problems, though two studies used Black Smoke as an approximation to diesel exhaust particles, and reported a significant association between black smoke concentrations in schools and lung function decrement and symptoms. Overall, these studies

are cross-sectional or case-control in design, and thus the results should be interpreted with caution when inferring a casual relationship between vehicle emission-related particulate matter and adverse health effects. Nevertheless, these studies present a fresh and novel direction on conducting a sector-related health study.

Many more field studies on children's health have been conducted world-wide in various meteorological and socio-economic conditions and air pollution combinations. The majority of recently published studies demonstrate a significant association between particulate air pollution and children's respiratory health effects. Studies using prospective design to follow children for several years demonstrate that lung function growth in children is slowed by particulate pollution. Two studies also show that following a cleaning-up of particulate air pollution there was a substantial reduction in the prevalence of children's respiratory illness. These intervention studies from another angle corroborate the claim that particulate pollution causes adverse health effects in children. These studies also demonstrate that air quality improvement contributes significantly to socio-economic benefits.

Other studies reported a seemingly protective effect of antioxidant vitamin supplements against PM 10- associated lung function decrements, suggesting a mechanism of pollutant-induced oxidative stress in the body. These studies also support a causal relationship between air pollution and adverse respiratory health effects.

In terms of susceptible groups, studies examing changes in electro cardiography have shown that persons with cardiovascular conditions or with high blood viscosity had significantly more changes in heart rate and heart rate variability in response to variation of daily PM 2.5 or total suspended particulate concentrations compared with normal subjects. Most studies that compared the responses of healthy persons with person with respiratory conditions show that children or adult who had increased (IgE), bronchial hyper responsiveness, or asthma had more respiratory symptoms, more decrements in lung function in association with ambient PM 10 or PM 2.5, then their healthy counterparts.

In addition to findings on conventional health effect markers such as symptoms and lung function, some researchers also looked into other biological markers. The immunological biomarkers detect subtle sub-clinical modifications of immune system in relation to air pollution, and they may provide mechanistic evidence for the adverse effects of particulate pollution. The results from a cross-sectional study, although cannot conclude an etiological linkage between PM 2.5 pollution and immunological effects, warrant further exploration in this field.

Other biological markers that have been developed based on particle toxicological mechanisms include the oxidation of low density lipoprotein, nasal lesions, DNA aberration and mutation **of p. 53 tumor suppression gene in nasal biopsy.** At this point I would certainly ask the scientific community for guidance regarding these terms. **Also of concern and clarification are the following terms - The biomarker, x-ray films for lung hyperinflation, serum Clara cell protein, nitric oxide, and DNA aberration**, represent chronic effects of exposure. These markers to a certain degree have all shown some significance in association with air pollution. Yet none of these biomarkers are specific for airborne particles. Well-

designed experimental studies or field studies with good statistical tools may overcome these shortcomings.

In discussing controlled Human Exposure Studies the following information is presented. The 1999 Science Assessment Document concluded that overall the clinical data did not lend much support to the observations in the epidemiological studies. Controlled exposure to ambient concentrations of acid aerosol or acid sulphates or nitrate aerosols had not produced much adverse changes in lung function, - **mucociliary clearance and airway reactivity in normal subjects**. Also mentioned in the report were airway reactivity in normal subjects, asthamatic children and adolescents appeared responsive to lower concentrations of acidic aerosols. The data is limited and many of the studies had been conducted using artificial particles that do not reflect the complexity of ambient particles. These clinical studies did not report whether exposure to particles caused any cardiovascular effects as observed in epidemiological studies.

Newly published human clinical studies have had significant improvements with respect to using freshly produced " real world " particles such as concentrated ambient particles or diesel exhaust particles (DEP), at levels often encountered by general population or by occupational groups. The observation endpoints consist of not only respiratory effects but also cardiovascular effects. Particle deposition studies compared depositions in healthy subjects against those in various subgroups such as smokers and individuals with cardio respiratory diseases.

Controlled human exposure studies using real-time ambient particles show that outdoor fine particles at concentrations sometimes encountered by the general population appear to be capable of inducing a mild inflammation in the lower respiratory tract in healthy subjects. Ambient particles also included an increase in Blood Fibrinogen Concentration, which is a blood coagulating factor whose cancer coagulation factor exists in the lower respiratory tract. A very recent study demonstrates that concentrated PM 2.5 with ozone caused significant reduction in arterial vasodilatation in healthy adults, suggesting a response of vasoconstriction. Data from these studies warrant further research to investigate ambient particle effects on various age groups and on subjects with various health conditions.

Data from studies using controlled exposure to diesel exhaust show a marked inflammatory cell infiltration in the airways of healthy subjects. The levels of diesel exhaust particulates uses in these studies often occur in work settings. Although the respiratory effects seem to be attributable to particles, other studies using similar exposure facility but with a particle trap have shown that a reduction of particles in diesel exhaust by 50 % was not sufficient to completely abolish adverse respiratory effects. These data suggest that finer particles and gaseous compounds together in diesel exhaust induce lung inflammation.

The Utah Valley particle study, although using an unnatural exposure means (i.e. intratracheal instillation.) provides some mechanistic interpretation of the epidemiological findings of particle-associated adverse health effects in Utah Valley . This study suggests that two metals in PM 10 may play a role in adversely affecting lung macrophage function and cell death. **Question, is this how cancer forms? Asthma? Respiratory Illness? Heart ailments?**

Results from disposition studies demonstrate that individuals with respiratory diseases may tend to have more particles deposited into their lungs compared with healthy subjects, which can lead to more severe lung injury. The data may contribute to providing a biologically plausible explanation for the epidemiological findings that people with pre-existing cardio respiratory illnesses are more at risk for particle pollution related to mortality and morbidity.

The 1999 Particulate Matter Science Assessment Document concluded that particles may cause toxicological effects in experimental animals and in cultured cells. These effects include decreased lung function, decreased (or in some cases increased) particle clearance from airways, altered alveolar macrophage numbers and functions, modified immunological function, cytotoxicity and histological changes, and cardiographic abnormalities. There is also evidence that long term exposure to high levels of particles can lead to lung cancer in rats. Particles in the ambient atmosphere that are most likely to induce acute adverse effects include the fine particle mode, such as **acid sulphates** possibly occurring as a coating on fine or even ultrafine carrier particles. The ultrafine particle mode appears to be of significant toxicological importance, although most ultrafine particles used in laboratories were of higher toxicity in nature than ambient particles. The particle deposition data clearly indicate that total suspended particulate is not an appropriate measure of PM for human health effects, as only particles less than 10mm in diameter (and possibly up to 15mm in diameter during mouth breathing) penetrate to the lungs. The interaction between ozone and sulphuric acid eventual is one in which sulphuric acid aerosols enhance the damaging effects of the ozone in the centriacinar region of the lung. It is suggested that this is possibly what is occurring in the border community of Windsor Ontario .

In the 1997 Particulate Matter Science Assessment Document the majority of animal studies have used very high concentrations of artificial particles or ambient dusts that had been stored for a long time, which may not reflect the complexity of freshly generated ambient particles encountered by humans. Little information was reported on whether age and health conditions affected the susceptibility of animals to particle pollution. Most studies focused on respiratory effects and reported very little information on particle induced cardiovascular changes. Due to the uncertainties in extrapolating data from animal and invitro studies, this has proved to be a great challenge. Therefore, animal studies contribute primarily to an understanding of the mechanisms that may lead to particle effects in humans. These uncertainties limit the application of animal and in vitro toxicological data for developing particulate matter control policy.

Significant advancement has been achieved on toxicology research of Particulate Matter since the 1997 PM SAD was completed. The largest achievements include the following:

1. Concentrated ambient air fine particles have been used to expose to animals by inhalation at doses close to ambient concentrations to follow for examination of adverse health effects of real world particles rather than artificial particles. Many of these studies demonstrate that outdoor particles can induce a moderate inflammation in the respiratory system and lung function changes, and anomalies in electrocardiograph.

2. In addition to the investigation of conventional endpoints such as respiratory effects,

researchers have started to look into the adverse effects on the cardiovascular system, immune system and neural pathways, trying to figure out why exposure to particles via the respiratory tract may result in the cardiovascular outcomes seen in epidemiological studies. Cardiovascular effects include abnormal Electro Cardio Gram, decreased core body temperature and changes in blood coagulation factors. The immunological effects include severely damaged macrophage function resulting in reduced production of antiviral agents. Particulate matter may increase the allergic responses initiated by an allergen such as house dust mites and may potentiate allergen-induced lung inflammation. The investigation on neural pathways is still at its beginning stage. Based on the studies using allergens, viruses and tobacco smoke, (note-- I am including this only because it is mentioned and often confuses issues regarding particulate matter and diesel engine exhaust. My concerns are that non smokers get cancer from diesel engine exhaust. The Tobacco smoke argument weakens at this point. If studies were affected using only non-smokers, clear- true facts would be available for scientific use.) It has been proposed that Particulate Matter may activate neural pathways and enhance the sensitivity and reactivity of neural reflex arcs thus providing a mechanism for the amplification of respiratory cardiovascular effects.

3. New animal models have been designed to mimic the health situation of persons with pre-existing disease. These models allow scientists to examine whether animals with compromised cardiovascular and respiratory system are more at risk to particle pollution. These studies demonstrate that animal with pre-existing pulmonary or cardiovascular conditions are more responsive to urban particles and ultrafine metals than their healthy counterparts. The particle-induced adverse effects are more severe in those animals with cardio respiratory illness and mortality occurred only in these animals when exposed to particles.

4. New studies further demonstrate that oxidative stress induced by Particulate Matter, especially metal-rich particles is a very important mechanism in causing cell death, lung inflammation and cardio-physiological responses. There is a wealth of evidence to indicate that reactive oxygen species induced by Particulate Matter, especially metal rich particles, may cause oxidative stress and destabilize essential proteins and lipids. This is demonstrated by **the capability of airborne particles to deplete endogenous antioxidants by inhibition of cytotoxicity of particles by radical scavengers, but enhancement of toxicity by a metal chelator. Consequently, there is cell death, lung tissue injury and cardiovascular disorder**.

5. There is a very limited analysis on comparative dissymmetry of PM, although this is a very important issue, as many of the particle toxicology studies were carried out on animals and particle exposure for concentration far above ambient concentrations. Based on the differences in airway anatomy and physiology between species, a reasonable argument can be made that humans are more susceptible with respect to receiving particles in the alveolar region than are rodents when given the same dose. Doses used in some animal studies are thought to be relevant to human exposure.

The following are chemicals in Diesel Exhaust listed by the Californian Air Resources Board as

Toxic Air Contaminants:
acetaldehyde
acrolein
aniline
antimony compounds
arsenic
benzene
beryllium compounds
biphenyl
bis[2-ethylhexyl]phthalate
1,3-butadiene
cadmium
chlorine
hexane
inorganic lead
manganese compounds
mercury compounds
methanol
methyl ethyl ketone
naphthalene
nickel
4-nitobiphenyl
phenol
phosphorus
Polycyclic Aromatic Hydrocarbons
chlorobenzene
chromium compounds
cobalt compounds
cresol isomers
cyanide compounds
dioxins and dibenzofurans
dibutylphthalate
ethyl benzene
formaldehyde
propionaidehyde
selenium compounds
styrene
toluene
xylene isomers and mixtures
o-xylenes
m-xylenes
p-xylenes

According to the Safe Drinking Water and Toxic Enforcement Act of 1986, the following chemicals have been identified.

napthalene, cancer, CAS No. 91203, Listed- April 19, 2002
benz[b+j+k]fluoranthene, cancer, CAS Nos. 205992, 205823, 207089, Listed- July 1, 1987
benzo[a]pyrene, cancer, CAS No. 50328, Listed- July 1, 1987

dibenzo[a]anthracene, cancer, CAS No.53703, Listed- January 1, 1988
4-nitrobiphenyl, cancer, CAS No. 92933, Listed- April 1, 1988
2-nitrofluorene, cancer, CAS No. 607578, Listed- Oct 1, 1990
1-nitropyrene, cancer, CAS No. 5522430, Listed- Oct 1, 1990
1,6 dinitropyrene, cancer, CAS No. 42397648, Listed- October 1, 1990
1,8 dinitropyrene, cancer, CAS No. 42397659, Listed- October 1, 1990

A search of the website www.scorecard.org/chemical-profiles/ revealed the following information regarding diesel exhaust chemicals.

Possible Carcinogens include:
coronene
methylphenanthrene
methylanthracene
methylphenanthrene
ethylphenanthrene
3 methylchrysenene
Suspected Carcinogens include:
biphenyl
2 methylbiphenyl
acenaphthylene
acenaphthene
phenanthrene
fluorene
anthracene
fluoranthene
pyrene
Known Carcinogens include:
napthalene
dimethylbiphenyl
benz[a]anhracene
chrysene
methylbenz[a]anthracene
dibenzopyrene
4 nitrobiphenyl
2 nitofluorene
1 nitrofluoranthene
1,6 dinitropyrene
1,8 dinitropyrene

The following information comes from a search of the above mentioned Scorecard Chemical Website and a list of Chemicals in Diesel Exhaust listed by the California Air Resources Board as Toxic Air Contaminants.

acetaldehyde- CAS No. 75-07-0. Recognized Carcinogen. Developmental Toxicant, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

acrolein- CAS No. 107-02-8. Suspected Carcinogen. Cardiovascular or Blood Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant

aniline- CAS No. 62-53-3. Recognized Carcinogen. Cardiovascular or Blood Toxicant, Gastrointestinal of Liver Toxicant, Kidney Toxicant, Neurotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

antimony compounds- CAS No. ADQ 500. Suspected Carcinogen. Respiratory Toxicant, Skin or Sense Organ Toxicant.

antimony- CAS No. 7440-36-0. Suspected Carcinogen. Cardiovascular or Blood Toxicant, Neurotoxicant, Reproductive Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

arsenic- CAS No. 7440-38-2. Recognized Carcinogen - Developmental Toxicant. Suspected Carcinogen - Cardiovascular or Blood Toxicant, Endocrine Toxicant, Gastrointestinal or Liver Toxicant, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Reproductive Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

benzene- CAS No. 71-43-2. Recognized Carcinogen - Developmental Toxicant, Reproductive Toxicant. Suspected Carcinogen - Cardiovascular or Blood Toxicant, Endocrine Toxicant, Gastrointestinal or Liver Toxicant, Immunotoxicant, Neurotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

beryllium compounds- CAS No. BFQ 500. Recognized Carcinogen and Suspected Carcinogen- Immunotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxciant.

1,3 butadiene- CAS No. 106-99-0. Recognized Carcinogen- Developmental Toxicant, Reproductive Toxicant, Suspected Cardiovascular or Blood Toxicant, Gastro Intestinal Toxicant, Neurotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

cadmium- CAS No. 7440-43-9. Recognized Carcinogen- Developmental Toxicant, Reproductive Toxicant. Suspected Carcinogen- Cardiovascular Toxicant, Blood, Endocrine, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Respiratory Toxicant.

chlorine- CAS No. 7782-50-5. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Gastrointestinal or Liver Toxicant, Kidney Toxicant, Neurotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

hexane- CAS No. 590-73-8. Data Lacking.

inorganic lead- CAS No. 7439-92-1. Recognized Carcinogen- Developmental Toxicant, Reproductive Toxicant. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Endocrine Toxicant, Gastrointestinal or Liver Toxicant, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

manganese compounds- CAS No. MAR 500. Suspected Carcinogen. Neurotoxicant, Reproductive Toxicant, Respiratory Toxicant.

mercury compounds- CAS No. EDF-033. Recognized Carcinogen- Developmental Toxicant. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Neurotoxicant.

methanol- CAS No. 67-56-1. Suspected Carcinogen- Developmental Toxicant. Gastrointestinal or Liver Toxicant, Kidney Toxicant, Neurotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

methyl ethyl ketone- CAS No. 78-93-3. Suspected Carcinogen- Blood Toxicant, Developmental Toxicant, Gastrointestinal or Liver Toxicant, Kidney Toxicant, Neurotoxicant, Respiratory Toxicant, Reproductive Toxicant, Skin or Sense Organ Toxicant.

nickel- CAS No. 7440-02-0. Recognized Carcinogen. Suspected Carcinogen also- Cardiovascular or Blood Toxicant, Developmental Toxicant, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Reproductive Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

phenol- CAS No. 108-95-2. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Developmental Toxicant, Gastrointestinal Toxicant, Liver Toxicant, Kidney Toxicant, Neurotoxicant, Reproducitve Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

phosphorus- CAS No. 7723-14-0. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Developmental Toxicant, Gastrointestinal or Liver Toxicant, Kidney Toxicant, Muscoskeletal Toxicant, Neurotoxicant, Reproductive Toxicant, Skin or Sense Organ Toxicant.

chlorobenzene- CAS No. 108-90-7. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Developmental Toxicant, Gastrointestinal or Liver Toxicant, Kidney Toxicant, Muscoskeletal Toxicant, Neurotoxicant, Reproductive Toxicant, Skin or Sense Organ Toxicant.

cobalt compounds- CAS No. CNB 850, IARC P65-MC. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Gastrointestinal or Liver Toxicant, Immunotoxicant, Kidney Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

cresol isomers- CAS No. 1319-77-3. Suspected Carcinogen. Cardiovascular or Blood Toxicant, Neurotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

cyanide compounds- CAS No. 1073. Suspected Carcinogen. Cardiovascular or Blood Toxicant, Endocrine Toxicant, Neurotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

dioxins- CAS No. 1746-01-6. Recognized Carcinogen- Developmental Toxicant. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Endocrine Toxicant, Gastrointestinal or Liver Toxicant, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Reproductive Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

dibenzofurans- CAS No. 1080. Recognized Carcinogen- Cardiovascular or Blood Toxicant, Developmental Toxicant, Endocrine Toxicant, Gastrointestinal or Liver Toxicant, Reproductive Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

dibutylphthalate- CAS No. 84-74-2. Suspected Carcinogen- Developmental Toxicant, Endocrine Toxicant, Gastrointestinal Toxicant, Liver Toxicant, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Seproductive Toxicant, Skin or Sense Organ Toxicant.

ethyl benzene- CAS No. 100-41-4. Recognized Carcinogen. Also Suspected Carcinogen- Cardiovascular or Blood Toxicant, Developmental Toxicant, Endocrine Toxicant,

Gastrointestinal or Liver Toxicant, Kidney Toxicant, Neurotoxicant, Reproductive Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

formaldehyde- CAS No. 50-00-0. Recognized Carcinogen, Also Suspected Carcinogen- Gastrointestinal or Liver Toxicant, Immunotoxicant, Neurotoxicant, Reproductive Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

propionaldehyde- CAS No. 123-38-6. Suspected Carcinogen- Neurotoxicant.

selenium compounds- CAS No. SBP 500, 7782-49-2. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Gastrointestinal or Liver Toxicant, Kidney Toxicant, Musculoskeletal Toxicant, Neurotoxicant, Reproductive Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

toluene- CAS No. 108-88-3. Recognized Carcinogen- Developmental Toxicant, Cardiovascular or Blood Toxicant, Gastrointestinal or Liver Toxicant, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Reproductive Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

o-xylenes- CAS No. 95-47-6. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Development Toxicant, Gastrointestinal Toxicant, Liver Toxicant, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Reproductive Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

m-xylenes- CAS No.108-38-3. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Developmental Toxicant, Gastrointestinal or Liver Toxicant, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

p-xylenes- CAS No. 106-42-3. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Developmental Toxicant, Gastrointestinal or Liver Toxicant, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Reproductive Toxicant, Skin or Sense Organ Toxicant

Leo Petrilli
www.planethawk.org
Cell Phone – 519-564-3085.
Home Phone – 519-253-4223.

Leo Petrilli
www.planethawk.org
cell: 1-519-564-3085
leovan7052@yahoo.ca

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Paula Lombardi

From: Leo Petrilli [leovan7052@yahoo.ca]
Sent: Tuesday, May 01, 2007 12:35 AM
To: Paula Lombardi
Subject: Re: Completing another report.

Okay Paula, I will forward when completed.

Be well, Leo.

Leo Petrilli
www.planethawk.org
cell: 1-519-564-3085
leovan7052@yahoo.ca

----- Original Message -----
From: Paula Lombardi <paula.lombardi@siskinds.com>
To: Leo Petrilli <leovan7052@yahoo.ca>
Sent: Monday, April 30, 2007 7:37:15 AM
Subject: RE: Completing another report.

Thank you Leo. Why don't you send me the information and then we can discuss. That may be a better use of time but I am open to suggestions.

Have a good day,
Paula

Paula Lombardi
Siskinds LLP
680 Waterloo Street
London, ON N6A 3V8

Tel: (519) 660-7850
Fax: (519) 660-7851
Mail: paula.lombardi@siskinds.com
Web: www.siskinds.com

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From: Leo Petrilli [mailto:leovan7052@yahoo.ca]

Sent: Monday, April 30, 2007 1:29 AM
To: Paula Lombardi
Subject: Completing another report.

Hello Paula.

I am completing something that I will forward which should be an environmental blue print of what should be the minimum standard in terms of environmental necessities for Windsor, and certainly transportation hubs such as Toronto.

Call my cell if you get the chance so we can chat, if you get the time, in what I am sure is an extremely busy schedule!

Will forward within the next two weeks.

Be well, Leo.

Leo Petrilli
www.planethawk.org
cell: 1-519-564-3085
leovan7052@yahoo.ca

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Paula Lombardi

From: Paula Lombardi
Sent: Thursday, June 21, 2007 4:10 PM
To: 'Leo Petrilli'
Subject: Ambassador Bridge Enhancement Project
Attachments: Windsor Public Information Meetings Notice_June.pdf

Good Afternoon,

Attached is the notice published in the Windsor Star advertising the open house for the Ambassador Bridge Enhancement Project scheduled for Monday, June 25, 2007 and Tuesday, June 26, 2007.

Thank you for your continued interest in the project and we encourage you to attend the open house and visit the project website at www.ambassadorbridge.com.

If you have any questions, please do not hesitate to contact me directly.

Sincerely,

Paula Lombardi

Ambassador Bridge Enhancement Project
PUBLIC WORKSHOP NOTICE

PROJECT BACKGROUND: The Ambassador Bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new bridge will connect directly into the existing plazas in both Windsor and Detroit. The new structure will be 31.24 metres wide and 1889.76 metres long, with approximately 670.56 metres traversing the Detroit River. No supporting structures (piers and towers) will be placed in the Detroit River. Once the new structure is completed, the existing Ambassador Bridge will be taken out of service and evaluated to make all of the repairs necessary.

The Ambassador Bridge held Public Workshops in April 2007, introducing the Enhancement Project and will now present the preliminary results of the environmental studies undertaken for the Enhancement Project on:

Monday, June 25th, from 4:00 pm to 8:00 pm and Tuesday, June 26th, from 4:00 pm to 8:00 pm
University of Windsor, School of Visual Arts LeBel Building at Huron Church Road and College Ave 955 Huron Church Road Windsor, Ontario Parking is available from the College Avenue Entrance across from McDonald's restaurant

These meetings are being held as part of the public consultation process for the preparation of a Federal Environmental Assessment (EA) under the *Canadian Federal Environmental Assessment Act.*

For further information, please contact:

P. Leigh Whyte
Chief Urban Planner
Avalon Consulting Professionals of Ontario, LLC
Tel. 1-866-807-5113
Email lwhyte@acp-on.ca

AMBASSADOR BRIDGE

Ambassador Bridge: www.ambassadorbridge.com

Paula Lombardi

From: Leo Petrilli [leovan7052@yahoo.ca]
Sent: Friday, June 22, 2007 1:23 AM
To: Paula Lombardi; leigh whyte; dave battegello
Subject: Re: Ambassador Bridge Enhancement Project

Hello Paula, hope you are well.

Did you get a chance to read the information I provided you with regarding diesel engine exhaust, and if so how has this continued into the presentation?

Let me know if there are any questions, or issues that I can assist with. The more information made public the better, I believe.

I am cc'ing Dave Battagello from the Windsor Star in order to get out the message regarding the community health that much faster.

Be well, Leo.
Leo Petrilli
www.planethawk.org
cell: 1-519-564-3085
leovan7052@yahoo.ca

----- Original Message ----
From: Paula Lombardi <paula.lombardi@siskinds.com>
To: Leo Petrilli <leovan7052@yahoo.ca>
Sent: Thursday, June 21, 2007 4:10:00 PM
Subject: Ambassador Bridge Enhancement Project

Good Afternoon,

Attached is the notice published in the Windsor Star advertising the open house for the Ambassador Bridge Enhancement Project scheduled for Monday, June 25, 2007 and Tuesday, June 26, 2007.

Thank you for your continued interest in the project and we encourage you to attend the open house and visit the project website at www.ambassadorbridge.com.

If you have any questions, please do not hesitate to contact me directly.

Sincerely,

Paula Lombardi

Paula Lombardi
Siskinds LLP

680 Waterloo Street
London, ON N6A 3V8

Tel: (519) 660-7850
Fax: (519) 660-7851
Mail: paula.lombardi@siskinds.com
Web: www.siskinds.com

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Ask a question on any topic and get answers from real people. **Go to Yahoo! Answers.**

Paula Lombardi

From: Leo Petrilli [leovan7052@yahoo.ca]
Sent: Tuesday, June 26, 2007 8:29 PM
To: hank van bakel; leigh whyte; Paula Lombardi
Subject: Commission for environmental Cooperation. Children

Folks, this is the second document.

Be well, Leo.

Leo Petrilli
www.planethawk.org
cell: 1-519-564-3085
leovan7052@yahoo.ca

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Paula Lombardi

From: Leo Petrilli [leovan7052@yahoo.ca]
Sent: Tuesday, June 26, 2007 8:33 PM
To: hank van bakel; Paula Lombardi; leigh whyte
Subject: The State of California.

Number three.

Be well, Leo.

Leo Petrilli
www.planethawk.org
cell: 1-519-564-3085
leovan7052@yahoo.ca

Ask a question on any topic and get answers from real people. **Go to Yahoo! Answers.**

Paula Lombardi

From: Leo Petrilli [leovan7052@yahoo.ca]
Sent: Tuesday, June 26, 2007 8:19 PM
To: hvankalel@ortech.ca; Paula Lombardi; leigh whyte
Subject: Fw: Windsor Environmental Concerns.

One of four,please forward to Scott and I forgot to grab his information.

It was nice to see you all tonight.

Be well, Leo.

Leo Petrilli
www.planethawk.org
cell: 1-519-564-3085
leovan7052@yahoo.ca

----- Forwarded Message ----
From: Leo Petrilli <leovan7052@yahoo.ca>
To: leo pet <leovan7052@yahoo.ca>
Sent: Thursday, June 21, 2007 12:40:19 PM
Subject: Windsor Environmental Concerns.

FYI.

According to a July 2004 Executive Summary prepared by Health Canada entitled " Human Health Effects of Ozone: Update in Support of the Canada Wide Standards for Particulate Matter and Ozone " there are several concerns which also need mentioning. As part of the development of a National Ambient Air Quality Objective (NAAQO) for ground level ozone, a Scientific Assessment Document, (SAD) containing critical scientific groundwork and evaluation was prepared in 1997 and published in 1999.

Since ozone toxicology and human health effect studies, including clinical and epidemiological research, are fields of inquiry that are evolving rapidly, it was determined that an update to the Canada Wide Standard for ozone should be brought forward to present relevant scientific information and current state of knowledge in these fields.

New studies on ***ozone-induced epithelial injury and*** **inflammation** generally confirm the information presented in the 1999 SAD while further characterizing specific mechanisms. **Individual chemokines and cytokines** involved in the response to ozone have been identified, and their __expression and interplay delineated. The importance of mast cells in the pathogenesis of epithelial injury has been recognized, and there is further evidence of airway remodelling and mucous cell metaplasia, especially over long-term exposure. Also, new

findings concerning the effects of ozone exposure on pulmonary function confirm those reported in the 1999 Ozone SAD, such as increased respiratory frequency and airway reactivity, and decreased tidal volume and heart rate. New information has been added on the induction of rapid shallow breathing, direct vascular constriction, and the involvement of pulmonary irritant receptors and parasympathetic pathways, as well as effects on surfactant. There was no direct information in previous assessments on the effects of ozone on inflammation and airway responsiveness arising from allergic sensitization and inflammation.

Acute exposure to ozone results in lung function decrements indicated by decreased FVC (Forced Vital Capacity), and induced spirometric responses. Acute exposure to ozone is known to produce an inflammatory response that entails increased permeability of the respiratory epithelium, and production of proinflammatory cytokines and prostaglandins. New clinical studies support previous findings reported in the 1999 SAD and further characterize the cellular and molecular changes involved in the inflammatory response. The cellular toxicity of ozone has also been investigated in new studies that found increased apoptosis in lung cells and ozonation of lipids in the airway epithelial lining fluid (ELF) of humans. Finally, a number of new studies have found significant effects of ozone on markers for antioxidant defence such as glutathione (GSH), glutathione peroxidase activity and ascorbate levels in lungs.

Ozone induces non-specific airway responsiveness as well as responsiveness to agents such as allergens and SO 2. (Sulphur Dioxide). New clinical data confirm the enhancement of bronchial responsiveness to broncho constrictors following ozone inhalation. Information on health effects resulting from exposure to air pollutant mixtures that contain ozone remains limited. The 1999 SAD indicated that synergism between ozone and SO 2 was evident in some studies, while NO 2 (Nitrous Dioxide) was found to enhance ozone-induced spirometric changes.

Epidemiological Studies.

Epidemiological studies of the effects of ozone on human health explore statistical associations between changes in ambient levels of ozone and changes in the occurrence of cardio-respiratory health problems in the general population. Four major designs are used:
- Time-series studies investigate the acute effects of ozone, i.e. the temporal association between daily variation in ozone levels and daily counts of mortality, hospital admission and emergency room visits:
- Cohort studies investigate chronic effects, i.e. the association between cumulative exposure and endpoints such as mortality, chronic diseases and lung function decrements;
- Cross-sectional studies investigate the association between current exposure and endpoints, such as lung function and biomarkers;
- Panel studies investigate the association between daily variation in ozone levels and transient changes in respiratory and cardio function.

The 1999 Ozone SAD concluded that, overall, there was a significantly positive association between ground level ozone pollution on non-accidental mortality. Increases in mortality were found at mean ozone concentrations (daily 1-hour maximum) between 20 and 75 ppb (parts per billion), below the current Canadian NAAQO for ozone of 82 ppb, and

across widely varying climatic conditions and pollutant mixtures in different study locations.

In general and consistent with the 1999 Ozone SAD, the new data demonstrates an association between ambient ozone concentrations in urban centres and increased population mortality after adjustment for time trends, seasonality, weather variables, day to day, day of the week, and other factors. More than 50% of the studies used multi-pollutant models to control for co-founding by co-pollutants. In many (about 50%) of these studies, ozone remained statistically significant with mortality in multi-pollutants models, the ozone effect was attenuated by co-pollutants in other studies; this suggests that the air pollution mixture as a whole may have a more significant impact on pollution mortality. Health Canada , [Stieb et al., 2002] conducted a meta-analysis of air pollution and mortality from around the world.

New data are suggesting that persons who had congestive heart failure or coronary artery disease before death as well as persons of more senior age to appear to be more susceptible than the general population to ozone pollution. More comparison studies on age, race, or health status are needed to better characterize particular susceptible group of people to air pollution. The knowledge gap identified in the 1999 Ozone SAD surrounding biomarkers has been addressed in new studies as some researchers have investigated potential markers (hydroxyl radical attack in nasal lavage, nasal inflammation, lung clara-cell protein - cc16, 8-OhdG formation) of cell and tissue injury in relation to ozone exposure.

A number of cohort studies concerning respiratory symptoms and pulmonary function have been published. Ten of these studies have been released, (including one biomarker study) with nine of ten demonstrating a positive and significant association between long-term exposure to ozone and various adverse respiratory outcomes. As with previous analyses on the effects of chronic exposure to ozone, these studies rely on outdoor ozone monitoring data, which may result in exposure misclassification. Moreover, factors that modify personal exposure - such as indoor penetration, hours spent outside and physical activity levels - are typically ignored. That being said, many of the new studies did attempt to control for various covariates and account for the interaction of co-pollutants.

Taken together, these studies, especially those of longitudinal design, present important new epidemiological findings, indicating that long-term exposure to ozone my lead to a number of adverse effects, with children appearing particularly sensitive. Effect include asthma, lung function decrements, exacerbation of asthmatic and other respiratory symptoms, decreased lung growth in children and incident lung cancer. Toxicological and chemical studies, as discussed in previous sections of this missive, provide consistent evidence linking ozone to these very effects, further bolstering the epidemiological findings.

Another Executive Summary : Human Health Effects of Fine Particulate Matter : Update in Support of the Canada-Wide Standards For Particulate Matter and Ozone bears useful information as well. The report was prepared for the Canadian Council of Ministers of the Environment. Revised in July, 2004 and is entitled Fine Fraction of PM Human Health Effects.

As part of the development of a National Ambient Air Quality Objective (NAAQO) for

particulate matter (PM), a Science Assessment Document (SAD) containing critical scientific groundwork and evaluation was prepared in 1997 and published in 1999. The Canadian Environmental Protection Act/ National Advisory Committee (CEPA/NAC) Working Group on Air Quality and Objectives Guidelines produced this Scientific Assessment Document for Particulate Matter and released it in July 1999. This Particulate Matter Science Assessment Document constitutes a literature review and critical analysis of all relevant information concerning the effects of PM on human health, animals, aesthetic effects and environmental impacts. The information contained in this document is current to 1997. Because PM toxicology and human health studies, including clinical and epidemiological research, and human exposure science are evolving rapidly, it was determined that an update Canada-Wide Standard for Particulate Matter should be brought forward to identify and issue from science which might materially alter or add to the existing Canada -Wide Standards. The means to achieve this was, primarily, to assess individual research papers and determine if they contained any information relevant to the already in-place standards for PM 2.5. [It is of interest that in the United States , studies include ultra fine PM 1.0, and nitro-Polycyclic Aromatic Hydrocarbons, which measure at PM 0.1]

This compilation brings together new information on the health effects of fine PM that has been published in peer reviewed journals since completion of the 1999 PM Science Assessment Document. It includes relevant information in the following areas: human exposure studies, animal and in vitro toxicology, clinical studies and epidemiology/ the period covered in this update ranges from March 1997 to October 2002. New studies have been collected and critically reviewed in order to gauge the extent to which new information supports previous findings in the above-mentioned areas, and to determine if the conclusions reached in the 1999 PM SAD remain valid and whether new action is warranted.

For long-term exposure and the effects on cancer, studies were reviewed that examined the exposure to ambient PM rather than from diesel emissions. It has been stated that it would be immoral for science to submit humans to diesel engine exhaust, as these people would most likely be exposed to chemicals which are suspected, probable or known to be carcinogenic. Based on the present review, on balance, the evidence for adverse effects of PM on humans is qualitatively more certain than in 1997. Most of the new evidence gathered from epidemiological laboratory (including human and animal) studies and exposures studies validated the conclusions reached in 1997. Most significantly, new epidemiology studies not only demonstrate a significant association between acute exposure to ambient air fine PM and increased population mortality and morbidity, but also clearly delineate an association between long-term exposure to fine PM and increased mortality due to cardio-respiratory illness, and lung cancer, and reduced lung function growth of children. New evidence is emerging on low birth weight, birth defects and infant mortality attributed to particulate are pollution. Significant questions remain regarding quantification and the extract relevance of the chronic exposure effect in Canadian populations.

Much work has been done and is ongoing regarding further physical and chemical characterization of PM. This includes identification and measurement of PM other than mass, including particle number, particle size, total surface area and specific chemical and biological components is ambient, micro-environmental and personal exposure samples. The work needs to identify the key characteristics and attributes of PM that cause health effects. This

would provide input to future toxicological, clinical, and epidemiological health effect works. Exposure to PM arising from transportation is ubiquitous in urban environments. Considerable work has been undertaken over the last few years to characterize traffic-related PM, with a variety of experimental designs utilized. To date, it has been found that microenvironments have the potential to create very high levels of personal exposure. Epidemiological studies of the effects of ambient PM and changes in the occurrence of cardiovascular and respiratory health problem in the population. These are more categorized into: acute exposure and mortality, acute exposure and hospital admissions, acute exposure and emergency room visits, health effects, and long-term exposures.

The 1997 PM SAD concluded that there were increases in all-cause mortality in studies carried out in 20 cities across North and South America and Europe . The document left questions which need to be studied and concluded. Questions such as 1) What are the components and sources of the particle mixture that have the greatest effect on health? 2) What are the health effects of ultrafine particles? and 3) What is the impact of exposure misclassification due to using data from fixed ambient monitors rather than personal exposure data. Mentioned in this report was another, entitled PM Update document document included more than 25 studies that investigated the associations between various PM metrics and cardiovascular and respiratory admissions. These studies were not only in North America and Europe, but also in Australia and Asia . The consistency of the risk estimates regardless of the statistical methods, age, location, health status and socio-economic status further support an underlying relationship between ambient PM pollution and cardiovascular and respiratory hospital admissions.

The Health professionals state the following in this report: A review of studies that compared the strength of the association between PM pollution and hospital admissions among groups with various health statuses, age groups, races and socio-economic status. Results from studies on health status support the assumption that people with pre-existing health conditions have a higher risk to the adverse effects of ambient PM pollution. These health conditions include cardiovascular and respiratory illness and diabetes. They have reviewed four studies on children respiratory admissions with various PM metrics, in North and South American cities. These studies consistently demonstrate a significant association between PM pollution and respiratory admissions. Very young children (less than 2 years old) appear to be more vulnerable to the effects of PM pollution, with a higher risk estimate of respiratory hospital admissions of the elderly, with various PM metrics, at cities in Australia and Asia, as well as in North America and Europe . All these studies demonstrate a significant association between PM pollution and hospital admissions due to either cardiovascular or respiratory disease in single pollutant models. Between cardiovascular and respiratory admissions, the elderly tend to have stronger association between PM pollution and cardiac admission than respiratory admissions. In some studies in which various age groups were compared, PM shows stronger association with hospital admissions in the elderly than in the younger group. PM effects were often attenuated by gaseous pollutants when regressed in the multi-pollutant models, suggesting that some effects may be attributed to gaseous pollutants. Comparing the components of PM, these studies demonstrate that ambient fine particles have a stronger association with hospitalizations than larger particles however, the effect of coarse particles, (PM 10, PM 2.5) is still significant. Aerosol acidity and sulphate do seem to have a stronger association than other PM components. Emissions from transportation sources contribute substantially the PM effects. (This would of course refer to diesel engine exhaust pollution as

well. I would refer at this point to both Stationary Point Sources, (Coal Plants), and Mobile Point Sources, (Diesel Trucks, Diesel Engine Exhaust).

The report states that four new Canadian studies have used various PM metrics and observed various age groups. Consistent with international studies, and with previous Canadian studies, reviewed in the 1997 PM SAD, the Canadian results all demonstrate significant association between PM and cardiovascular and respiratory admissions.

Other paragraphs in this Executive Summary appear to cloud questions. In the Subtitle - Acute Exposure and Emergency Room Visits:
In the PM SAD (1999), only five studies were available for review on emergency room visits (ERVs) and doctors' office visits. Only respiratory ERVs were investigated in these studies. Two studies used multi-pollutant regression models to adjust for the confounding effect of co-pollutants. These studies contained limited data on ERVs and Pm exposure either one year, or two summers, usually in one location) which provided only limited statistical power for detecting a significant relation. Overall, the results from these studies show a positive association, although in some cases not statistically significant, between ERVs and various PM metrics. High correlation coefficients between PM and gaseous pollutants were reported, which suggest possible confounding effects of the co-pollutants. Because of diverse PM metrics, including PM 10, PM 2.5 and BS (Black Soot), used in the small number of studies, (the report then states) - **No Corporate Risk can be drawn from them.** By including this statement in this executive summary entitled, " Human Health Effects of Fine-Particulate Matter: Update in Support of the Canada-Wide Standards For Particulate Matter and Ozone there is concern that this report was prepared with some secrecy and outside agenda. Possible for business purposes only.

The next sub-title in the Executive Summary regarded Long-Term exposure and Health Effects for PM and Ozone I will re-phrase my previous concerns before revealing what the health effects are. **No Corporate Risk can be drawn from them.**

I will re-quote from the Summary. In the 1999 Science Assessment Document we reviewed two cohort studies that have substantially improved the knowledge of long-term mortality effects of PM (Dockery et al. 1993; Pope et al. 1995). As part of the Harvard Six Cities Study, Dockey et al, (1993) had prospectively followed a cohort of 8,111 adult subjects in the northeast and Midwest United States for 14-16 years beginning in the mid 1970's. The authors found that higher ambient levels of the fine particles (PM 2.5) and sulphate were associated with a 26% increase in mortality from all causes when comparing the most polluted to the least polluted city, and that an increase in fine particles was also associated with increased mortality from cardiopulmonary disease.

In the much larger American Cancer Society (ACS) study, Pope et al. 1995 followed 552,138 adult subjects in 154 cities beginning in 1982 and ending in 1989. Again, higher ambient levels of fine particles were associated with increased mortality from all causes, and from cardio pulmonary disease in the 50 cities for which fine particle data were available (sampled 1979-1983). Higher ambient sulphate levels were associated with increase mortality from all causes, cardiopulmonary disease, and lung cancer in the 151 cities for which sulphate data

were available (sampled 1980-1982). The Science Assessment Document, (1999) also reviewed studies on chronic respiratory illness. The increases in prevalence and incidence of chronic bronchitis and decreases in lung function, capacity, growth and development that were shown in Children across North America after chronic or lifetime exposure to acidity, sulphate, and fine particle pollution should be considered to be true chronic effects. There were indications also from a long term (20-25 years) cohort study in older adults that this increased incidence of disease, and probably also the reduced lung capacity that accompanies it, are carried over into adulthood and increased susceptibility to adverse effects of air pollutants. Although the development of lung cancer was also associated with fine particulate air pollution, the associations were weak by comparison with other lifestyle factors such as smoking.

" It is suggested that studies use only non-smokers to alleviate these weak associations." The scientific community should finish doing what they started regarding the Health Effects of Particulate Matter and Ozone. Too often in discussion regarding these subjects, the science stops on the possibility of cigarette smoking. This is weak science.

Next the Executive Summary stated that five case-control studies were reviewed which examined the relationship between long-term exposure and traffic-related air pollution and both child and adult cancer. The researchers used Geographic Information System to map the distribution of traffic in the communities and to estimate the exposure levels to each residence. They used neither nitrogen dioxide nor traffic density as an indicator of traffic-related air pollution, and none of these studies provided PM monitoring information. Cases were matched up by age, gender, calendar year and in most studies by neighborhoods. Four of these studies demonstrate a significant association between traffic and lung cancer incidence, or childhood leukemia or lymphoma. These results suggest that automobile vehicle emissions may be a particularly important source for air pollution-related cancer mortality or incidence. Although these traffic studies do not deliver direct evidence to show linkages.

To continue in this area, The Executive Summary reviewed six studies that investigated the relationship between long-term exposure to air pollution and respiratory symptoms, lung function, changes and new cases of asthma (incidence) of children from Southern California communities. These studies used a cross-sectional method to examine the prevalence of symptoms and lung function, while three studies used prospective methods to follow up the subjects and observe the effects of air pollution on lung growth and the health impacts of air pollution intervention. All six studies demonstrate significant association between PM (PM 10, PM 2.5 and aerosol acidity and adverse respiratory endpoints).

According to the Executive Summary, Field Studies are epidemiological studies designed to examine groups of people engaged in normal activities in the natural environment in which pollutant levels may be closely monitored and exposures are usually to the ambient mix of pollutants. These studies have the advantage that the subjects may be either health people or patients with pre-existing disease(s), of all ages, and their medical histories, lifestyles and activity patterns, and episodes of illness are closely followed. Endpoints studies may be clinical, biochemical, or physiological changes. Personal exposure may be conducted to reduce exposure misclassification.

In recent years, researchers have significantly advanced knowledge on particle-related adverse health effects in field (panel) studies. The new research includes some of the following:

1. In addition to respiratory effects, effects on cardiovascular system and hematology have also been investigated. Overall studies have demonstrated that PM pollution is associated with increased heart rate and decreased heart rate variability in adults. PM pollution also has been found to be associated with increased blood plasthma viscosity, accompanied by an increase in plasthma fibrogen in adults. One study found that in the elderly, PM pollution was associated with a decrease in blood fibrogen, platelets, and hemoglobin. It is proposed that PM pollution may initiate autonomic-nervous-activated changes in heart rate, blood pressure, and blood viscosity, which consequently may increase the likelihood of sudden cardiac death.
2. Studies using traffic deaths on the distance between motorways and homes or schools as indicator of air pollution demonstrate significantly positive association between traffic-related pollution and children's respiratory symptoms, lung function decrements, and allergy. One study reported that lung function decrements had a stronger association with **truck traffic density than with automobile suggesting that diesel exhaust might contribute more to the adverse respiratory effects than gasoline exhaust**. However, most of the studies did not characterize which of the air pollutants from vehicle emissions contributed to children's respiratory health problems, though two studies used Black Smoke as an approximation to diesel exhaust particles, and reported a significant association between black smoke concentrations in schools and lung function decrement and symptoms. Overall, these studies are cross-sectional or case-control in design, and thus the results should be interpreted with caution when inferring a casual relationship between vehicle emission-related particulate matter and adverse health effects. Nevertheless, these studies present a fresh and novel direction on conducting a sector-related health study.

Many more field studies on children's health have been conducted world-wide in various meteorological and socio-economic conditions and air pollution combinations. The majority of recently published studies demonstrate a significant association between particulate air pollution and children's respiratory health effects. Studies using prospective design to follow children for several years demonstrate that lung function growth in children is slowed by particulate pollution. Two studies also show that following a cleaning-up of particulate air pollution there was a substantial reduction in the prevalence of children's respiratory illness. These intervention studies from another angle corroborate the claim that particulate pollution causes adverse health effects in children. These studies also demonstrate that air quality improvement contributes significantly to socio-economic benefits.

Other studies reported a seemingly protective effect of antioxidant vitamin supplements against PM 10- associated lung function decrements, suggesting a mechanism of pollutant-induced oxidative stress in the body. These studies also support a causal relationship between air pollution and adverse respiratory health effects.

In terms of susceptible groups, studies examing changes in electro cardiography have shown that persons with cardiovascular conditions or with high blood viscosity had significantly more changes in heart rate and heart rate variability in response to variation of daily PM 2.5 or total

suspended particulate concentrations compared with normal subjects. Most studies that compared the responses of healthy persons with person with respiratory conditions show that children or adult who had increased (IgE), bronchial hyper responsiveness, or asthma had more respiratory symptoms, more decrements in lung function in association with ambient PM 10 or PM 2.5, then their healthy counterparts.

In addition to findings on conventional health effect markers such as symptoms and lung function, some researchers also looked into other biological markers. The immunological biomarkers detect subtle sub-clinical modifications of immune system in relation to air pollution, and they may provide mechanistic evidence for the adverse effects of particulate pollution. The results from a cross-sectional study, although cannot conclude an etiological linkage between PM 2.5 pollution and immunological effects, warrant further exploration in this field.

Other biological markers that have been developed based on particle toxicological mechanisms include the oxidation of low density lipoprotein, nasal lesions, DNA aberration and mutation **of p. 53 tumor suppression gene in nasal biopsy.** At this point I would certainly ask the scientific community for guidance regarding these terms. **Also of concern and clarification are the following terms - The biomarker, x-ray films for lung hyperinflation, serum Clara cell protein, nitric oxide, and DNA aberration**, represent chronic effects of exposure. These markers to a certain degree have all shown some significance in association with air pollution. Yet none of these biomarkers are specific for airborne particles. Well-designed experimental studies or field studies with good statistical tools may overcome these shortcomings.

In discussing controlled Human Exposure Studies the following information is presented. The 1999 Science Assessment Document concluded that overall the clinical data did not lend much support to the observations in the epidemiological studies. Controlled exposure to ambient concentrations of acid aerosol or acid sulphates or nitrate aerosols had not produced much adverse changes in lung function, - **mucociliary clearance and airway reactivity in normal subjects**. Also mentioned in the report were airway reactivity in normal subjects, asthamatic children and adolescents appeared responsive to lower concentrations of acidic aerosols. The data is limited and many of the studies had been conducted using artificial particles that do not reflect the complexity of ambient particles. These clinical studies did not report whether exposure to particles caused any cardiovascular effects as observed in epidemiological studies.

Newly published human clinical studies have had significant improvements with respect to using freshly produced " real world " particles such as concentrated ambient particles or diesel exhaust particles (DEP), at levels often encountered by general population or by occupational groups. The observation endpoints consist of not only respiratory effects but also cardiovascular effects. Particle deposition studies compared depositions in healthy subjects against those in various subgroups such as smokers and individuals with cardio respiratory diseases.

Controlled human exposure studies using real-time ambient particles show that outdoor fine

particles at concentrations sometimes encountered by the general population appear to be capable of inducing a mild inflammation in the lower respiratory tract in healthy subjects. Ambient particles also included an increase in Blood Fibrinogen Concentration, which is a blood coagulating factor whose cancer coagulation factor exists in the lower respiratory tract. A very recent study demonstrates that concentrated PM 2.5 with ozone caused significant reduction in arterial vasodilatation in healthy adults, suggesting a response of vasoconstriction. Data from these studies warrant further research to investigate ambient particle effects on various age groups and on subjects with various health conditions.

Data from studies using controlled exposure to diesel exhaust show a marked inflammatory cell infiltration in the airways of healthy subjects. The levels of diesel exhaust particulates uses in these studies often occur in work settings. Although the respiratory effects seem to be attributable to particles, other studies using similar exposure facility but with a particle trap have shown that a reduction of particles in diesel exhaust by 50 % was not sufficient to completely abolish adverse respiratory effects. These data suggest that finer particles and gaseous compounds together in diesel exhaust induce lung inflammation.

The Utah Valley particle study, although using an unnatural exposure means (i.e. intratracheal instillation.) provides some mechanistic interpretation of the epidemiological findings of particle-associated adverse health effects in Utah Valley . This study suggests that two metals in PM 10 may play a role in adversely affecting lung macrophage function and cell death. **Question, is this how cancer forms? Asthma? Respiratory Illness? Heart ailments?** Results from disposition studies demonstrate that individuals with respiratory diseases may tend to have more particles deposited into their lungs compared with healthy subjects, which can lead to more severe lung injury. The data may contribute to providing a biologically plausible explanation for the epidemiological findings that people with pre-existing cardio respiratory illnesses are more at risk for particle pollution related to mortality and morbidity.

The 1999 Particulate Matter Science Assessment Document concluded that particles may cause toxicological effects in experimental animals and in cultured cells. These effects include decreased lung function, decreased (or in some cases increased) particle clearance from airways, altered alveolar macrophage numbers and functions, modified immunological function, cytotoxicity and histological changes, and cardiographic abnormalities. There is also evidence that long term exposure to high levels of particles can lead to lung cancer in rats. Particles in the ambient atmosphere that are most likely to induce acute adverse effects include the fine particle mode, such as **acid sulphates** possibly occurring as a coating on fine or even ultrafine carrier particles. The ultrafine particle mode appears to be of significant toxicological importance, although most ultrafine particles used in laboratories were of higher toxicity in nature than ambient particles. The particle deposition data clearly indicate that total suspended particulate is not an appropriate measure of PM for human health effects, as only particles less than 10mm in diameter (and possibly up to 15mm in diameter during mouth breathing) penetrate to the lungs. The interaction between ozone and sulphuric acid eventual is one in which sulphuric acid aerosols enhance the damaging effects of the ozone in the centriacinar region of the lung. <u>It is suggested that this is possibly what is occurring in the border community of Windsor Ontario .</u>

In the 1997 Particulate Matter Science Assessment Document the majority of animal studies

have used very high concentrations of artificial particles or ambient dusts that had been stored for a long time, which may not reflect the complexity of freshly generated ambient particles encountered by humans. Little information was reported on whether age and health conditions affected the susceptibility of animals to particle pollution. Most studies focused on respiratory effects and reported very little information on particle induced cardiovascular changes. Due to the uncertainties in extrapolating data from animal and invitro studies, this has proved to be a great challenge. Therefore, animal studies contribute primarily to an understanding of the mechanisms that may lead to particle effects in humans. These uncertainties limit the application of animal and in vitro toxicological data for developing particulate matter control policy.

Significant advancement has been achieved on toxicology research of Particulate Matter since the 1997 PM SAD was completed. The largest achievements include the following:

1. Concentrated ambient air fine particles have been used to expose to animals by inhalation at doses close to ambient concentrations to follow for examination of adverse health effects of real world particles rather than artificial particles. Many of these studies demonstrate that outdoor particles can induce a moderate inflammation in the respiratory system and lung function changes, and anomalies in electrocardiograph.

2. In addition to the investigation of conventional endpoints such as respiratory effects, researchers have started to look into the adverse effects on the cardiovascular system, immune system and neural pathways, trying to figure out why exposure to particles via the respiratory tract may result in the cardiovascular outcomes seen in epidemiological studies. Cardiovascular effects include abnormal Electro Cardio Gram, decreased core body temperature and changes in blood coagulation factors. The immunological effects include severely damaged macrophage function resulting in reduced production of antiviral agents. Particulate matter may increase the allergic responses initiated by an allergen such as house dust mites and may potentiate allergen-induced lung inflammation. The investigation on neural pathways is still at its beginning stage. Based on the studies using allergens, viruses and tobacco smoke, (note-- I am including this only because it is mentioned and often confuses issues regarding particulate matter and diesel engine exhaust. My concerns are that non smokers get cancer from diesel engine exhaust. The Tobacco smoke argument weakens at this point. If studies were affected using only non-smokers, clear- true facts would be available for scientific use.) It has been proposed that Particulate Matter may activate neural pathways and enhance the sensitivity and reactivity of neural reflex arcs thus providing a mechanism for the amplification of respiratory cardiovascular effects.

3. New animal models have been designed to mimic the health situation of persons with pre-existing disease. These models allow scientists to examine whether animals with compromised cardiovascular and respiratory system are more at risk to particle pollution. These studies demonstrate that animal with pre-existing pulmonary or cardiovascular conditions are more responsive to urban particles and ultrafine metals than their healthy counterparts. The particle-induced adverse effects are more severe in those animals with cardio respiratory illness and mortality occurred only in these animals when exposed to particles.

4. New studies further demonstrate that oxidative stress induced by Particulate Matter, especially metal-rich particles is a very important mechanism in causing cell death, lung inflammation and cardio-physiological responses. There is a wealth of evidence to indicate that reactive oxygen species induced by Particulate Matter, especially metal rich particles, may cause oxidative stress and destabilize essential proteins and lipids. This is demonstrated by **the capability of airborne particles to deplete endogenous antioxidants by inhibition of cytotoxicity of particles by radical scavengers, but enhancement of toxicity by a metal chelator. Consequently, there is cell death, lung tissue injury and cardiovascular disorder.**

5. There is a very limited analysis on comparative dissymmetry of PM, although this is a very important issue, as many of the particle toxicology studies were carried out on animals and particle exposure for concentration far above ambient concentrations. Based on the differences in airway anatomy and physiology between species, a reasonable argument can be made that humans are more susceptible with respect to receiving particles in the alveolar region than are rodents when given the same dose. Doses used in some animal studies are thought to be relevant to human exposure.

The following are chemicals in Diesel Exhaust listed by the Californian Air Resources Board as Toxic Air Contaminants:
acetaldehyde
acrolein
aniline
antimony compounds
arsenic
benzene
beryllium compounds
biphenyl
bis[2-ethylhexyl]phthalate
1,3-butadiene
cadmium
chlorine
hexane
inorganic lead
manganese compounds
mercury compounds
methanol
methyl ethyl ketone
naphthalene
nickel
4-nitobiphenyl
phenol
phosphorus
Polycyclic Aromatic Hydrocarbons
chlorobenzene
chromium compounds

cobalt compounds
cresol isomers
cyanide compounds
dioxins and dibenzofurans
dibutylphthalate
ethyl benzene
formaldehyde
propionaidehyde
selenium compounds
styrene
toluene
xylene isomers and mixtures
o-xylenes
m-xylenes
p-xylenes

According to the Safe Drinking Water and Toxic Enforcement Act of 1986, the following chemicals have been identified.

napthalene, cancer, CAS No. 91203, Listed- April 19, 2002
benz[b+j+k]fluoranthene, cancer, CAS Nos. 205992, 205823, 207089, Llsted- July 1, 1987
benzo[a]pyrene, cancer, CAS No. 50328, Listed- July 1, 1987
dibenzo[a]anthracene, cancer, CAS No.53703, Listed- January 1, 1988
4-nitrobiphenyl, cancer, CAS No. 92933, Listed- April 1, 1988
2-nitrofluorene, cancer, CAS No. 607578, Listed- Oct 1, 1990
1-nitropyrene, cancer, CAS No. 5522430, Listed- Oct 1, 1990
1,6 dinitropyrene, cancer, CAS No. 42397648, Listed- October 1, 1990
1,8 dinitropyrene, cancer, CAS No. 42397659, Listed- October 1, 1990

A search of the website www.scorecard.org/chemical-profiles/ revealed the following information regarding diesel exhaust chemicals.

Possible Carcinogens include:
coronene
methylphenanthrene
methylanthracene
methylphenanthrene
ethylphenanthrene
3 methylchrysenene
Suspected Carcinogens include:
biphenyl
2 methylbiphenyl
acenaphthylene
acenaphthene
phenanthrene
fluorene
anthracene
fluoranthene

pyrene
Known Carcinogens include:
napthalene
dimethylbiphenyl
benz[a]anhracene
chrysene
methylbenz[a]anthracene
dibenzopyrene
4 nitrobiphenyl
2 nitofluorene
1 nitrofluoranthene
1,6 dinitropyrene
1,8 dinitropyrene

The following information comes from a search of the above mentioned Scorecard Chemical Website and a list of Chemicals in Diesel Exhaust listed by the California Air Resources Board as Toxic Air Contaminants.

acetaldehyde- CAS No. 75-07-0. Recognized Carcinogen. Developmental Toxicant, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

acrolein- CAS No. 107-02-8. Suspected Carcinogen. Cardiovascular or Blood Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant

aniline- CAS No. 62-53-3. Recognized Carcinogen. Cardiovascular or Blood Toxicant, Gastrointestinal of Liver Toxicant, Kidney Toxicant, Neurotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

antimony compounds- CAS No. ADQ 500. Suspected Carcinogen. Respiratory Toxicant, Skin or Sense Organ Toxicant.

antimony- CAS No. 7440-36-0. Suspected Carcinogen. Cardiovascular or Blood Toxicant, Neurotoxicant, Reproductive Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

arsenic- CAS No. 7440-38-2. Recognized Carcinogen - Developmental Toxicant. Suspected Carcinogen - Cardiovascular or Blood Toxicant, Endocrine Toxicant, Gastrointestinal or Liver Toxicant, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Reproductive Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

benzene- CAS No. 71-43-2. Recognized Carcinogen - Developmental Toxicant, Reproductive Toxicant. Suspected Carcinogen - Cardiovascular or Blood Toxicant, Endocrine Toxicant, Gastrointestinal or Liver Toxicant, Immunotoxicant, Neurotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

beryllium compounds- CAS No. BFQ 500. Recognized Carcinogen and Suspected Carcinogen- Immunotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxciant.

1,3 butadiene- CAS No. 106-99-0. Recognized Carcinogen- Developmental Toxicant, Reproductive Toxicant, Suspected Cardiovascular or Blood Toxicant, Gastro Intestinal Toxicant, Neurotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

cadmium- CAS No. 7440-43-9. Recognized Carcinogen- Developmental Toxicant, Reproductive Toxicant. Suspected Carcinogen- Cardiovascular Toxicant, Blood, Endocrine, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Respiratory Toxicant.

chlorine- CAS No. 7782-50-5. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Gastrointestinal or Liver Toxicant, Kidney Toxicant, Neurotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

hexane- CAS No. 590-73-8. Data Lacking.

inorganic lead- CAS No. 7439-92-1. Recognized Carcinogen- Developmental Toxicant, Reproductive Toxicant. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Endocrine Toxicant, Gastrointestinal or Liver Toxicant, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

manganese compounds- CAS No. MAR 500. Suspected Carcinogen. Neurotoxicant, Reproductive Toxicant, Respiratory Toxicant.

mercury compounds- CAS No. EDF-033. Recognized Carcinogen- Developmental Toxicant. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Neurotoxicant.

methanol- CAS No. 67-56-1. Suspected Carcinogen- Developmental Toxicant. Gastrointestinal or Liver Toxicant, Kidney Toxicant, Neurotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

methyl ethyl ketone- CAS No. 78-93-3. Suspected Carcinogen- Blood Toxicant, Developmental Toxicant, Gastrointestinal or Liver Toxicant, Kidney Toxicant, Neurotoxicant, Respiratory Toxicant, Reproductive Toxicant, Skin or Sense Organ Toxicant.

nickel- CAS No. 7440-02-0. Recognized Carcinogen. Suspected Carcinogen also- Cardiovascular or Blood Toxicant, Developmental Toxicant, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Reproductive Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

phenol- CAS No. 108-95-2. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Developmental Toxicant, Gastrointestinal Toxicant, Liver Toxicant, Kidney Toxicant, Neurotoxicant, Reproducitve Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

phosphorus- CAS No. 7723-14-0. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Developmental Toxicant, Gastrointestinal or Liver Toxicant, Kidney Toxicant, Muscoskeletal Toxicant, Neurotoxicant, Reproductive Toxicant, Skin or Sense Organ Toxicant.

chlorobenzene- CAS No. 108-90-7. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Developmental Toxicant, Gastrointestinal or Liver Toxicant, Kidney Toxicant, Muscoskeletal Toxicant, Neurotoxicant, Reproductive Toxicant, Skin or Sense Organ Toxicant.

cobalt compounds- CAS No. CNB 850, IARC P65-MC. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Gastrointestinal or Liver Toxicant, Immunotoxicant, Kidney

Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

cresol isomers- CAS No. 1319-77-3. Suspected Carcinogen. Cardiovascular or Blood Toxicant, Neurotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

cyanide compounds- CAS No. 1073. Suspected Carcinogen. Cardiovascular or Blood Toxicant, Endocrine Toxicant, Neurotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

dioxins- CAS No. 1746-01-6. Recognized Carcinogen- Developmental Toxicant. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Endocrine Toxicant, Gastrointestinal or Liver Toxicant, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Reproductive Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

dibenzofurans- CAS No. 1080. Recognized Carcinogen- Cardiovascular or Blood Toxicant, Developmental Toxicant, Endocrine Toxicant, Gastrointestinal or Liver Toxicant, Reproductive Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

dibutylphthalate- CAS No. 84-74-2. Suspected Carcinogen- Developmental Toxicant, Endocrine Toxicant, Gastrointestinal Toxicant, Liver Toxicant, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Seproductive Toxicant, Skin or Sense Organ Toxicant.

ethyl benzene- CAS No. 100-41-4. Recognized Carcinogen. Also Suspected Carcinogen- Cardiovascular or Blood Toxicant, Developmental Toxicant, Endocrine Toxicant, Gastrointestinal or Liver Toxicant, Kidney Toxicant, Neurotoxicant, Reproductive Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

formaldehyde- CAS No. 50-00-0. Recognized Carcinogen, Also Suspected Carcinogen- Gastrointestinal or Liver Toxicant, Immunotoxicant, Neurotoxicant, Reproductive Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

propionaldehyde- CAS No. 123-38-6. Suspected Carcinogen- Neurotoxicant.

selenium compounds- CAS No. SBP 500, 7782-49-2. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Gastrointestinal or Liver Toxicant, Kidney Toxicant, Musculoskeletal Toxicant, Neurotoxicant, Reproductive Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

toluene- CAS No. 108-88-3. Recognized Carcinogen- Developmental Toxicant, Cardiovascular or Blood Toxicant, Gastrointestinal or Liver Toxicant, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Reproductive Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

o-xylenes- CAS No. 95-47-6. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Development Toxicant, Gastrointestinal Toxicant, Liver Toxicant, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Reproductive Toxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

m-xylenes- CAS No.108-38-3. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Developmental Toxicant, Gastrointestinal or Liver Toxicant, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Respiratory Toxicant, Skin or Sense Organ Toxicant.

p-xylenes- CAS No. 106-42-3. Suspected Carcinogen- Cardiovascular or Blood Toxicant, Developmental Toxicant, Gastrointestinal or Liver Toxicant, Immunotoxicant, Kidney Toxicant, Neurotoxicant, Reproductive Toxicant, Skin or Sense Organ Toxicant

Leo Petrilli
www.planethawk.org
Cell Phone – 519-564-3085.
Home Phone – 519-253-4223.

Leo Petrilli
www.planethawk.org
cell: 1-519-564-3085
leovan7052@yahoo.ca

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Ask a question on any topic and get answers from real people. **Go to Yahoo! Answers.**

Paula Lombardi

From: Leo Petrilli [leovan7052@yahoo.ca]
Sent: Tuesday, June 26, 2007 8:37 PM
To: hank van bakel; Paula Lombardi; leigh whyte
Subject: An opinion.

The fourth document I promised.

Please forward them to Scott for me.

Let me know if I can help with anything.

Take care, Leo.

Leo Petrilli
www.planethawk.org
cell: 1-519-564-3085
leovan7052@yahoo.ca

Be smarter than spam. See how smart SpamGuard is at giving junk email the boot with the **All-new Yahoo! Mail**

Paula Lombardi

From: Leo Petrilli [leovan7052@yahoo.ca]
Sent: Thursday, June 28, 2007 5:13 PM
To: Paula Lombardi
Subject: Re: Fourth Document.

Excellent Paula.

Please let me know if I can help with anything.

Be well, Leo.

Leo Petrilli
www.planethawk.org
cell: 1-519-564-3085
leovan7052@yahoo.ca

----- Original Message ----
From: Paula Lombardi <paula.lombardi@siskinds.com>
To: Leo Petrilli <leovan7052@yahoo.ca>
Sent: Thursday, June 28, 2007 6:22:06 AM
Subject: RE: Fourth Document.

Thank you Leo I have all four emails and will forward them to Scott and Hank.

Have a good day,
Paula

Paula Lombardi
Siskinds LLP
680 Waterloo Street
London, ON N6A 3V8

Tel: (519) 660-7850
Fax: (519) 660-7851
Mail: paula.lombardi@siskinds.com
Web: www.siskinds.com

This message contains confidential information and is intended only for leovan7052@yahoo.ca. If you are not leovan7052@yahoo.ca you should not disseminate, distribute, print or copy this e-mail. Please notify

paula.lombardi@siskinds.com immediately by e-mail if you have received this e-mail in error and delete this e-mail from your system. E-mail transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. Paula Lombardi therefore does not accept liability for any errors or omissions in the contents of this message, which arise as a result of e-mail transmission. If verification is required please request a hard-copy version.

From: Leo Petrilli [mailto:leovan7052@yahoo.ca]
Sent: Wednesday, June 27, 2007 9:33 PM
To: Paula Lombardi
Subject: Fourth Document.

4th report.

Be well Leo.

Leo Petrilli
www.planethawk.org
cell: 1-519-564-3085
leovan7052@yahoo.ca

Be smarter than spam. See how smart SpamGuard is at giving junk email the boot with the **All-new Yahoo! Mail**

All new Yahoo! Mail

Get news delivered. Enjoy RSS feeds right on your Mail page.

Paula Lombardi

From: Diane Westenberg [dwesty01@hotmail.com]
Sent: Sunday, April 22, 2007 9:31 PM
To: Paula Lombardi
Subject: RE: Ambassador Bridge - Comment Submitted

Ms. Lombardi,

Thank you for your prompt reply.

I noticed your address as being in London, Ontario. Interesting. I live *directly* off of Huron Line (ie. Talbot Rd.) in Windsor and work in the United States. I have absolutely no other option than to take this route to work DAILY. I would sincerely *love* for even ONE of the persons involved in the multitude of studies conducted to spend a week or two commuting my (and thousands others) commute. Might be a whole 'nother level of understanding....

And the numbers that you hold that indicate a decreased amount of truck traffic since last year? Questionable. The windows on my house that require cleaning 4-6 times per year tell the tale. I'm not talking about the pain that this is for me to clean them...I'm taling about why they are so filthy. This is *certainly* not a consideration to others not living in the area and seeing the toll the truck traffic has taken in more that one aspect.

Food for thought??....

Mrs. Diane Westenberg

From: *"Paula Lombardi" <paula.lombardi@siskinds.com>*
To: *<dwesty01@hotmail.com>*
Subject: *Ambassador Bridge - Comment Submitted*
Date: *Sun, 22 Apr 2007 13:36:00 -0400*

Good afternoon,

As indicated at our public presentations, the local road issue is not part of the Enhancement Project.

The Enhancement Project is in the preliminary stages of the environmental assessment project. All studies will be conducted in accordance with the regulatory requirements. We encourage you to continue to visit the Ambassador Bridge web site as the status of the studies will be posted.

However, traffic volumes at the Ambassador Bridge crossing are in fact lower today than they were in 1999. Also, traffic volumes are down this year than the previous year. The Ambassador Bridge continues to undertake modifications to the Plazas on both sides of the crossing for a more efficient flow of traffic back and forth.

Please do not hesitate to submit any additional comments or questions that you may have.

Sincerely,
Paula Lombardi

Paula Lombardi
Siskinds LLP
680 Waterloo Street

London, ON N6A 3V8

Tel: (519) 660-7850
Fax: (519) 660-7851
Mail: paula.lombardi@siskinds.com
Web: www.siskinds.com

This message contains confidential information and is intended only for dwesty01@hotmail.com. If you are not dwesty01@hotmail.com you should not disseminate, distribute, print or copy this e-mail. Please notify paula.lombardi@siskinds.com immediately by e-mail if you have received this e-mail in error and delete this e-mail from your system. E-mail transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. Paula Lombardi therefore does not accept liability for any errors or omissions in the contents of this message, which arise as a result of e-mail transmission. If verification is required please request a hard-copy version.

From: noreply@ambassadorbridge.com [mailto:noreply@ambassadorbridge.com]
Sent: Wednesday, April 18, 2007 11:27 AM
To: undisclosed-recipients
Subject: Comment Submitted

Hello,

The following was just submitted on the comments form:

This person arrived at the form via the webpage: http://www.ambassadorbridge.com/ambassador-project.html

Submitted at:	10:32:07 AM : Apr 18, 2007
Name:	Diane Westenberg
Address:	1231 Surrey Dr.
City:	LaSalle
State/Province:	Ontario
Zip/Postal Code:	N9H 1A8
Email:	dwesty01@hotmail.com
Comments:	Have you considered what will happen to the increased truck congestion on Huron Line? POOR plan!
Contact via email?	Yes

Build a winning team this season! Use all new Windows Live Messenger NHL Stats Agent! Get the Agent now-Free

Paula Lombardi

From: Paula Lombardi
Sent: Thursday, June 21, 2007 4:06 PM
To: 'dwesty01@hotmail.com'
Subject: Ambassador Bridge Enhancement Project
Attachments: Windsor Public Information Meetings Notice_June.pdf

Good Afternoon,

Attached is the notice published in the Windsor Star advertising the open house for the Ambassador Bridge Enhancement Project scheduled for Monday, June 25, 2007 and Tuesday, June 26, 2007.

Thank you for your continued interest in the project and we encourage you to attend the open house and visit the project website at www.ambassadorbridge.com.

If you have any questions, please do not hesitate to contact me directly.

Sincerely,

Paula Lombardi

Ambassador Bridge Enhancement Project
PUBLIC WORKSHOP NOTICE

PROJECT BACKGROUND: The Ambassador Bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new bridge will connect directly into the existing plazas in both Windsor and Detroit. The new structure will be 31.24 metres wide and 1889.76 metres long, with approximately 670.56 metres traversing the Detroit River. No supporting structures (piers and towers) will be placed in the Detroit River. Once the new structure is completed, the existing Ambassador Bridge will be taken out of service and evaluated to make all of the repairs necessary.

The Ambassador Bridge held Public Workshops in April 2007, introducing the Enhancement Project and will now present the preliminary results of the environmental studies undertaken for the Enhancement Project on:

Monday, June 25th, from 4:00 pm to 8:00 pm and Tuesday, June 26th, from 4:00 pm to 8:00 pm
University of Windsor, School of Visual Arts LeBel Building at Huron Church Road and College Ave 955 Huron Church Road Windsor, Ontario Parking is available from the College Avenue Entrance across from McDonald's restaurant

These meetings are being held as part of the public consultation process for the preparation of a Federal Environmental Assessment (EA) under the *Canadian Federal Environmental Assessment Act*.

For further information, please contact:

P. Leigh Whyte
Chief Urban Planner
Avalon Consulting Professionals of Ontario, LLC
Tel. 1-866-807-5113
Email lwhyte@acp-on.ca

AMBASSADOR
AMBASSADOR BRIDGE

Ambassador Bridge: www.ambassadorbridge.com

Paula Lombardi

From: noreply@ambassadorbridge.com
Sent: Saturday, April 21, 2007 10:58 PM
To: undisclosed-recipients
Subject: Comment Submitted

Hello,

The following was just submitted on the comments form:

This person arrived at the form via the webpage: http://www.ambassadorbridge.com/ambassador-project.html

Submitted at:	22:46:03 PM : Apr 21, 2007
Name:	Teresa H. Rodriguez
Address:	1635 23rd Street
City:	Detroit
State/Province:	Michigan
Zip/Postal Code:	48216
Email:	tearod112@sbcglobal.net
Comments:	instead on pedestrian bridge, relocate businesses in Mexicantown to east side of I-75 in one area.
Contact via email?	Yes

Paula Lombardi

From: Paula Lombardi
Sent: Sunday, April 22, 2007 1:29 PM
To: 'crobar231@aol.com'
Subject: Ambassador Bridge - Comment Submitted

Thank you for your comment, it is much appreciated. We encourage you to continue to visit the www.ambassadorbridge.com web site on a regular basis so we can keep you posted on the status of the environmental assessment process.

Sincerely,
Paula Lombardi

From: noreply@ambassadorbridge.com [mailto:noreply@ambassadorbridge.com]
Sent: Tuesday, April 17, 2007 4:53 PM
To: undisclosed-recipients
Subject: Comment Submitted

Hello,

The following was just submitted on the comments form:

This person arrived at the form via the webpage: http://www.ambassadorbridge.com/ambassador-project.html

Submitted at:	22:18:30 PM : Apr 16, 2007
Name:	Colleen Robar
Address:	1495 Burns
City:	Detroit
State/Province:	MI
Zip/Postal Code:	48214
Email:	crobar231@aol.com
Comments:	I think the new Bridge is great!

Contact via email? Yes

Paula Lombardi

From: noreply@ambassadorbridge.com
Sent: Tuesday, April 17, 2007 4:53 PM
To: undisclosed-recipients
Subject: Comment Submitted

Hello,

The following was just submitted on the comments form:

This person arrived at the form via the webpage: http://www.ambassadorbridge.com/ambassador-project.html

Submitted at:	22:18:30 PM : Apr 16, 2007
Name:	Colleen Robar
Address:	1495 Burns
City:	Detroit
State/Province:	MI
Zip/Postal Code:	48214
Email:	crobar231@aol.com
Comments:	I think the new Bridge is great!

Contact via email? Yes

Paula Lombardi

From: Paula Lombardi
Sent: Thursday, June 21, 2007 4:08 PM
To: 'crobar231@aol.com'
Subject: Ambassador Bridge Enhancement Project
Attachments: Windsor Public Information Meetings Notice_June.pdf

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If you have any questions, please do not hesitate to contact me directly.

Sincerely,

Paula Lombardi

Ambassador Bridge Enhancement Project
PUBLIC WORKSHOP NOTICE

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For further information, please contact:

P. Leigh Whyte
Chief Urban Planner
Avalon Consulting Professionals of Ontario, LLC
Tel. 1-866-807-5113
Email lwhyte@acp-on.ca

AMBASSADOR BRIDGE

Ambassador Bridge: www.ambassadorbridge.com

Paula Lombardi

From: noreply@ambassadorbridge.com
Sent: Saturday, April 21, 2007 10:58 PM
To: undisclosed-recipients
Subject: Comment Submitted

Hello,

The following was just submitted on the comments form:

This person arrived at the form via the webpage: http://www.ambassadorbridge.com/ambassador-project.html

Submitted at:	22:46:03 PM : Apr 21, 2007
Name:	Teresa H. Rodriguez
Address:	1635 23rd Street
City:	Detroit
State/Province:	Michigan
Zip/Postal Code:	48216
Email:	tearod112@sbcglobal.net
Comments:	instead on pedestrian bridge, relocate businesses in Mexicantown to east side of I-75 in one area.
Contact via email?	Yes

Paula Lombardi

From: Paula Lombardi
Sent: Thursday, June 21, 2007 4:07 PM
To: 'tearod112@sbcglobal.net'
Subject: Ambassador Bridge Enhancement Project
Attachments: Windsor Public Information Meetings Notice_June.pdf

Good Afternoon,

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Sincerely,

Paula Lombardi

Ambassador Bridge Enhancement Project
PUBLIC WORKSHOP NOTICE

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For further information, please contact:

P. Leigh Whyte
Chief Urban Planner
Avalon Consulting Professionals of Ontario, LLC
Tel. 1-866-807-5113
Email lwhyte@acp-on.ca

AMBASSADOR
AMBASSADOR BRIDGE

Ambassador Bridge: www.ambassadorbridge.com

Paula Lombardi

From: noreply@ambassadorbridge.com
Sent: Thursday, July 26, 2007 11:21 AM
To: undisclosed-recipients
Subject: Comment Submitted

Hello,

The following was just submitted on the comments form:

This person arrived at the form via the webpage: http://www.ambassadorbridge.com/siteindex.html

Submitted at:	10:08:58 AM : Jul 26, 2007
Name:	Jeff Muttart
Address:	HPL UMASS
City:	Amherst
State/Province:	MA
Zip/Postal Code:	01003
Email:	jmuttart@engin.umass.edu
Comments:	How has the passive (infrared) ice detection systems worked? 860-912-2280.

Contact via email? No

Paula Lombardi

From: noreply@ambassadorbridge.com
Sent: Monday, May 21, 2007 8:58 PM
To: undisclosed-recipients
Subject: Comment Submitted

Hello,

The following was just submitted on the comments form:

This person arrived at the form via the webpage: http://www.ambassadorbridge.com/ambassador-project.html

Submitted at:	19:47:47 PM : May 14, 2007
Name:	David d monk
Address:	652 st. clair ave r3
City:	belle river
State/Province:	Ontario
Zip/Postal Code:	Nor-1A0
Email:	Angrymonk13@hotmail.com
Comments:	Im closterphobic in tunnels and the new bridge gets my approval, Fast card local driver Dave Monk
Contact via email?	No

Paula Lombardi

From: noreply@ambassadorbridge.com
Sent: Wednesday, April 18, 2007 12:43 PM
To: undisclosed-recipients
Subject: Comment Submitted

Hello,

The following was just submitted on the comments form:

This person arrived at the form via the webpage: http://www.ambassadorbridge.com/ambassador-project.html

Submitted at:	11:31:27 AM : Apr 18, 2007
Name:	GREG lumley
Address:	3776 dougall
City:	windsor
State/Province:	ontario
Zip/Postal Code:	n9e 1t7
Email:	glumley@cntrline.com
Comments:	I asked the question regarding the over and under - eliminating the trucks from auto lanes etc. tks
Contact via email?	No

Paula Lombardi

From: noreply@ambassadorbridge.com
Sent: Thursday, April 19, 2007 10:35 AM
To: undisclosed-recipients
Subject: Comment Submitted

Hello,

The following was just submitted on the comments form:

This person arrived at the form via the webpage: http://www.ambassadorbridge.com/ambassador-project.html

Submitted at:	10:32:49 AM : Apr 19, 2007
Name:	Doug Burt
Address:	1130 wigle Ave.
City:	Windsor
State/Province:	Ont.
Zip/Postal Code:	N9C 3N1
Email:	burts@sympatico.ca
Comments:	I disagree with this proposal because it does not solve the problem of getting trucks to the bridge
Contact via email?	No

Paula Lombardi

From: noreply@ambassadorbridge.com
Sent: Monday, April 16, 2007 3:16 PM
To: undisclosed-recipients
Subject: Comment Submitted

Hello,

The following was just submitted on the comments form:

This person arrived at the form via the webpage: http://www.ambassadorbridge.com/ambassador-project.html

Submitted at:	15:14:45 PM : Apr 16, 2007
Name:	slingsby
Address:	1090 Talbot Rd.
City:	windsor
State/Province:	ontario
Zip/Postal Code:	n9h1a3
Email:	edwardslingsby8@msn.com
Comments:	For highway dwellers on route to the new or old bridge, how are we to deal with more traffic?
Contact via email?	No

Paula Lombardi

From: Paula Lombardi
Sent: Wednesday, May 23, 2007 3:56 PM
To: 'edwardslingsby8@msn.com'
Subject: Ambassador Bridge Enhancement Project

Good afternoon,

Thank you for visiting the Ambassador Bridge web site and we appreciate you taking the time to submit your question.

In response to your question, the Ambassador Bridge is responsible for hiring all the consultants to conduct the various studies required under the *Canadian Environmental Assessment Act*. Once these studies are completed a report is prepared and then submitted to the various governmental agencies and departments for review and comment.

Generally it takes between four to six months to complete the environmental studies. However, depending on the nature of the study, some take longer than others. If you have a question relating to a specific study we would be pleased to provide a more detailed and specific response.

If you have any other questions, or require additional information, please do not hesitate to either respond to me directly, or post your question on the web site.

Thank you again and have a nice day.

Paula Lombardi

Paula Lombardi

From: Paula Lombardi
Sent: Thursday, June 21, 2007 4:25 PM
To: 'edwardslingsby8@msn.com'
Subject: Ambassador Bridge Enhancement Project
Attachments: Windsor Public Information Meetings Notice_June.pdf

Good Afternoon,

Attached is the notice published in the Windsor Star advertising the open house for the Ambassador Bridge Enhancement Project scheduled for Monday, June 25, 2007 and Tuesday, June 26, 2007.

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If you have any questions, please do not hesitate to contact me directly.

Sincerely,

Paula Lombardi

Ambassador Bridge Enhancement Project
PUBLIC WORKSHOP NOTICE

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For further information, please contact:

P. Leigh Whyte
Chief Urban Planner
Avalon Consulting Professionals of Ontario, LLC
Tel. 1-866-807-5113
Email lwhyte@acp-on.ca

AMBASSADOR BRIDGE

Ambassador Bridge: www.ambassadorbridge.com

Paula Lombardi

From: noreply@ambassadorbridge.com
Sent: Thursday, April 19, 2007 10:35 AM
To: undisclosed-recipients
Subject: Comment Submitted

Hello,

The following was just submitted on the comments form:

This person arrived at the form via the webpage: http://www.ambassadorbridge.com/ambassador-project.html

Submitted at:	10:32:49 AM : Apr 19, 2007
Name:	Doug Burt
Address:	1130 wigle Ave.
City:	Windsor
State/Province:	Ont.
Zip/Postal Code:	N9C 3N1
Email:	burts@sympatico.ca
Comments:	I disagree with this proposal because it does not solve the problem of getting trucks to the bridge
Contact via email?	No

Paula Lombardi

From: Paula Lombardi

Sent: Friday, September 21, 2007 5:34 PM

To: acomber@cogeco.ca; alice_d@cogeco.ca; amherstq@netcom.ca; ann@bordergateways.com; ashinos@erca.org; bdnure@sympatico.ca; bedard3@uwindsor.ca; bmcqueen@iuoelocal1793.org; bmorland@liunalocal625.org; bre@sympatico.ca; bszekely@cogeco.ca; callsop@uwindsor.ca; cbagin@yahoo.com; cbanks@porchlight.com; cbrown@dwtunnel.com; ClaraD@TheHenryFord.org; cococoncrete@kelcom.net; construction@wca.on.ca; csiltd@mnsi.net; daversa@triamico.com; David.harrison@scotiabank.com; David.mcgregor@brightonbeachpower.com; Dean.clevett@basf.com; dean.jacobs@wifn.org; denunzio@uwindsor.ca; dsitter@cogeco.ca; eclough@etr.com; Eleanore245@hotmail.com; ellebella@hotmail.com; estrickl@uwindsor.ca; fbiekx@teamsters880.org; fjb14@dcx.com; fnazzani@primerose.ca; fsorrell@stclaircollege.ca; gail@chathamchamber.on.ca; honestced@hotmail.com; ibpatwind@mnsi.net; ike@bulldogdesigninc.com; info@shopottawastreet.com; isiljanoski@windsorchamber.org; jcacciato@ambassadordutyfree.com; Jdrummond23@sympatico.ca; jstasser@stclaircollege.ca; jveresuk@downtownwindsor.ca; kfarbota@weche.com; kmbrody69@sympatico.ca; lawolfe@sympatico.ca; lboyd@uniongas.com; lchaif@cogeco.ca; levan7052@yahoo.ca; lgeorgiu@wgh.on.ca; lmccormack@windsorchamber.org; lynnm@win.com; mariacapucci@hotmail.com; Mdugallu700@kelcom.igs.net; mgagliano.local6@bellnet.ca; mhaas1@cogeco.ca; michael.mastromardi@stantec.com; Mike@morency.info; mikeyhanson78@hotmail.com; mkwasnicki@windsor.igs.net; mmaskery@ambassadordutyfree.com; mwoodison@hotmail.com; nbyczynski@stclairecollege.ca; nharding@sympatico.ca; noria.ashande@sympatico.ca; plefave@borderfreightresources.com; pubene@cogeco.ca; reeve1@cogeco.ca; rlucente@bellnet.ca; Rochelle@downtownwindsor.ca; roulavitsas@sympatico.ca; rparent@teamsters880.org; rpaul@uwindsor.ca; s_rowen@hotmail.com; saveojibway@cogeco.ca; sawgrank@hotmail.com; smaxwell@stclaircollege.ca; Solfurerlu773@on.aibn.com; staggerk@yahoo.ca; tdaehn1@yahoo.ca; teragram35@hotmail.com; townandcountry@on.aibn.com; Vinnyboy3@hotmail.com; vkyrialo@air-am.com; walkervillebia@cogeco.ca; windsoroas@yahoo.ca; winnie132264@yahoo.ca; acrazyguynomialpipes@hotmail.com; adan.khan@gecdsb.on.ca; alexlong4@yahoo.com; angerbm@cogeco.ca; ashinas@ERCA.org; awelling134450@comcast.net; beth.cooper@gecdsb.on.ca; bkane@sandwichchc.org; b-re@sympatico.ca; butlerm@tc.gc.ca; bvarga@town.lasalle.on.ca; bwmiii@hotmail.com; cabriojazz@yahoo.com; cathydziedzic@hotmail.com; cheryl.lovell@gecdsb.on.ca; chouston@uwindsor.ca; clewis@liquiforce.com; councilmembers@leamington.ca; crobar231@aol.com; dave.taves@gecdsb.on.ca; director@gecdsb.on.ca; dwesty01@hotmail.com; elmwood@wincom.net; gmcnamara@tecumseh.ca; goocht@uwindsor.ca; helga.bailey@gecdsb.on.ca; jadams@leamington.ca; jason.chapman@chumtv.com; jguerard@ammexdetroitdutyfree.com; jones@hotmail.com; jonna.reaume@gecdsb.on.ca; julia.burgess@gecdsb.on.ca; kayway@windsor.igs.net; kim.mckinley@gecdsb.on.ca; lchalie@cogeco.ca; leovannu52@yahoo.com; lisa.gretzky@gecdsb.on.ca; lulu@uwindsor.ca; lynnm@wincom.net; maggie@ambassadordutyfree.com; maticka@uwindsor.ca; mayor@town.lasalle.on.ca; mchuild@erca.org; mperez1@comcast.net; mweis@uwindsor.ca; news@cjam.ca; newscentre@am800cklu.com; nsantos@kingsville.ca; nsantos@town.kingsville.on.ca; patrick.ouellette@gecdsb.on.ca; pbuckle@ambassadordutyfree.com; pgordonqueen@msn.com; pneice@communityplanners.com; prayl@cbc.ca; rbailey@amherstburg.ca; reclmag@cogeco.ca; rhartley@sympatico.ca; rmcdermott@townofessex.on.ca; rmeloche@townofessex.on.ca; rpeterson9@cogeco.ca; rschmidt@leamington.ca; rsylvester@lakeshore.ca; simone.hobson@cogeco.ca; stomp@mnsi.net; styndale@cogeco.ca; tbain@lakeshore.ca; tburton@tecumseh.ca; teamsterjeff@hotmail.com; tearod112@sbcglobal.net; tom.kilpatrick@gecdsb.on.ca; toml@local444.caw.ca; toufic@teksavvy.com; wdlc_office@bellnet.ca;

wecec@elliotenergy.ca; whurst@amherstburg.ca; wwwkenkid@yahoo.com; zeanaattisha@msn.com; jstrasser@stclaircollege.ca

Subject: Ambassador Bridge Enhancement Project Open House

Attachments: Open House - October.pdf

Attached for your information is the notice that will be published in the Windsor Star advertising the open houses for the Ambassador Bridge Enhancement Project environmental assessment update scheduled for **Monday, October 1, 2007** and **Tuesday, October 2, 2007**.

Thank you for your interest in the replacement span and we encourage you to attend one of the open houses and visit the project website at www.ambassadorbridge.com.

If you have any questions, please do not hesitate to contact me directly.

Sincerely,

Paula Lombardi

Ambassador Bridge Enhancement Project
Environmental Assessment Update - OPEN HOUSE

PROJECT BACKGROUND: The Ambassador Bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new span will replace the existing Ambassador Bridge and will link directly into the existing plazas in both Windsor and Detroit. When the replacement span is operational, the existing Ambassador Bridge will be reevaluated and rehabilitated without causing any disruption in traffic flow. After it is rehabilitated, the existing Ambassador Bridge will be maintained and available as a redundant resource for maintenance vehicles, emergencies and approved public events.

The Ambassador Bridge held Public Workshops in April 2007, and Open House Sessions in June 2007, to introduce and discuss the Project and is now pleased to present the results of the environmental studies for the replacement span at two Public Open House Sessions scheduled:

MONDAY, OCTOBER 1st, 2007 **Visit Anytime** **between 3:00 pm - 9:00 pm** **MACKENZIE HALL** 3277 Sandwich St. Windsor, Ontario N9C 1A9 Tel: (519) 255-7600	**TUESDAY, OCTOBER 2nd, 2007** **Visit Anytime** **between 3:00 pm - 9:00 pm** **CIOCIARO CLUB** 3745 North Talbot Road Oldcastle, Ontario N0R 1L0 Tel: (519) 737-6153

We encourage you to attend the Open House anytime between 3:00 p.m. and 9:00 p.m. to review the results from the various studies and ask questions of our technical experts responsible for the analysis and preparation of the studies that will be submitted to the federal government for review and comment.

These meetings are being held as part of the public consultation process for the preparation of a Federal Environmental Assessment (EA).

For further information, please contact:

Paula Lombardi
Environmental Lawyer
Tel. 519-251-8200
Tel. 1-877-672-2121

Email paula.lombardi@siskinds.com
Ambassador Bridge: www.ambassadorbridge.com

AMBASSADOR
AMBASSADOR BRIDGE

Paula Lombardi

From: Korosec, Jackie [jkorosec@city.windsor.on.ca]

Sent: Friday, September 14, 2007 3:33 PM

To: Paula Lombardi

Subject: Windsor Environment Committee

Hi Paula,
Thank you for your presentation to the Environment Committee on September 6th at Windsor Airport. For my records, can you please email me your powerpoint presentation. Thanks very much,

Jackie Korosec

Council Committee Coordinator

Council Services, 350 City Hall Sq. W.

Windsor, ON N9A 6S1

(519) 255-6222 x6470

Paula Lombardi

Subject: FW: Ambassador Bridge presentation Sept 20

-----Original Message-----
From: Tom Henderson <tomhend99@yahoo.com>

Date: Thu, 20 Sep 2007 14:02:55
To:susanwhelan@bell.blackberry.net
Subject: Ambassador Bridge presentation Sept 20

Dear Ms. Whelan,

By way of introduction, I was the guy on the speaker phone when you addressed the Implementation Committee of the DRCC today. I write as a private individual and not as a member of the DRCC.

Although unable to view the video I did check the Ambassador Bridge website as you spoke. Your talk outlined many of the facts the public rarely gets to see in the local media. Many of the points you raised were new to me. My belief is the bridge has a good, workable plan and it's wrong for the City of Windsor to refuse to meet with you and other bridge officials.

The Ambassador Bridge means a lot. I grew up on Rankin Avenue in Windsor, almost in its shadow. My father was at the opening in 1929. As a kid in the 1950s my father, grandfather and I would walk across to a Tiger game at least once a year. I travelled underneath it each school day while attending Forster Collegiate.

It's more than just nostalgia that I wish the bridge company and its enhancement project success. Keep plugging away.

Regards,
Tom Henderson

Boardwalk for $500? In 2007? Ha! Play Monopoly Here and Now (it's updated for today's economy) at Yahoo! Games.
http://get.games.yahoo.com/proddesc?gamekey=monopolyherenow

Paula Lombardi

Subject: FW: DRCC Implementation meeting Sept 20th/07

-----Original Message-----
From: "dave munro" <dmunro@mnsi.net>

Date: Sun, 23 Sep 2007 12:40:16
To:"Susan Whelan" <susanwhelan@bell.blackberry.net>
Subject: DRCC Implementation meeting Sept 20th/07

Hi Susan:

I want to say thank you to you and Skip (McMahon) (sp?) for the excellent Ambassador Bridge presentation on September the 20th.

I was most dissapointed at the extremely low member turnout and my heart went out to you both.

Please continue with your efforts to meet with City Council.

As an environmentalist I believe you have the best plan for Windsor.

Sincerely
David Munro

Paula Lombardi

From: Sol Furer [solfurerlu773@on.aibn.com]
Sent: Monday, September 24, 2007 8:26 AM
To: Paula Lombardi
Subject: Re: Ambassador Bridge Enhancement Project Open House

Thanks for the up date.
If the Ambassador Bridge wants an endorsement from the Essex and Kent Building and Construction Trades Association, the Bridge has to tell us, that the new Bridge will be built by members of the Building Trades.

Sincerely

Sol Furer
President
Essex and Kent Building Trades

----- Original Message -----
From: Paula Lombardi
To: acomber@cogeco.ca ; alice_d@cogeco.ca ; amherstq@netcom.ca ; ann@bordergateways.com ; ashinos@erca.org ; bdnure@sympatico.ca ; bedard3@uwindsor.ca ; bmcqueen@iuoelocal1793.org ; bmorland@liunalocal625.org ; bre@sympatico.ca ; bszekely@cogeco.ca ; callsop@uwindsor.ca ; cbagin@yahoo.com ; cbanks@porchlight.com ; cbrown@dwtunnel.com ; ClaraD@TheHenryFord.org ; cococoncrete@kelcom.net ; construction@wca.on.ca ; csiltd@mnsi.net ; daversa@triamico.com ; David.harrison@scotiabank.com ; David.mcgregor@brightonbeachpower.com ; Dean.clevett@basf.com ; dean.jacobs@wifn.org ; denunzio@uwindsor.ca ; dsitter@cogeco.ca ; eclough@etr.com ; Eleanore245@hotmail.com ; ellebella@hotmail.com ; estrickl@uwindsor.ca ; fbiekx@teamsters880.org ; fjb14@dcx.com ; fnazzani@primerose.ca ; fsorrell@stclaircollege.ca ; gail@chathamchamber.on.ca ; honestced@hotmail.com ; ibpatwind@mnsi.net ; ike@bulldogdesigninc.com ; info@shopottawastreet.com ; isiljanoski@windsorchamber.org ; jcacciato@ambassadordutyfree.com ; Jdrummond23@sympatico.ca ; jstasser@stclaircollege.ca ; jveresuk@downtownwindsor.ca ; kfarbota@weche.com ; kmbrody69@sympatico.ca ; lawolfe@sympatico.ca ; lboyd@uniongas.com ; lchaif@cogeco.ca ; levan7052@yahoo.ca ; lgeorgiu@wgh.on.ca ; lmccormack@windsorchamber.org ; lynnm@win.com ; mariacapucci@hotmail.com ; Mdugallu700@kelcom.igs.net ; mgagliano.local6@bellnet.ca ; mhaas1@cogeco.ca ; michael.mastromardi@stantec.com ; Mike@morency.info ; mikeyhanson78@hotmail.com ; mkwasnicki@windsor.igs.net ; mmaskery@ambassadordutyfree.com ; mwoodison@hotmail.com ; nbyczynski@stclairecollege.ca ; nharding@sympatico.ca ; noria.ashande@sympatico.ca ; plefave@borderfreightresources.com ; pubene@cogeco.ca ; reeve1@cogeco.ca ; rlucente@bellnet.ca ; Rochelle@downtownwindsor.ca ; roulavitsas@sympatico.ca ; rparent@teamsters880.org ; rpaul@uwindsor.ca ; s_rowen@hotmail.com ; saveojibway@cogeco.ca ; sawgrank@hotmail.com ; smaxwell@stclaircollege.ca ; Solfurerlu773@on.aibn.com ; staggerk@yahoo.ca ; tdaehn1@yahoo.ca ; teragram35@hotmail.com ; townandcountry@on.aibn.com ; Vinnyboy3@hotmail.com ; vkyrialo@air-am.com ; walkervillebia@cogeco.ca ; windsoroas@yahoo.ca ; winnie132264@yahoo.ca ; acrazyguynomialpipes@hotmail.com ; adan.khan@gecdsb.on.ca ; alexlong4@yahoo.com ; angerbm@cogeco.ca ; ashinas@ERCA.org ; awelling134450@comcast.net ; beth.cooper@gecdsb.on.ca ; bkane@sandwichchc.org ; b-re@sympatico.ca ; butlerm@tc.gc.ca ; bvarga@town.lasalle.on.ca ; bwmiii@hotmail.com ; cabriojazz@yahoo.com ; cathydziedzic@hotmail.com ; cheryl.lovell@gecdsb.on.ca ; chouston@uwindsor.ca ; clewis@liquiforce.com ; councilmembers@learnington.ca ; crobar231@aol.com ; dave.taves@gecdsb.on.ca ; director@gecdsb.on.ca ; dwesty01@hotmail.com ; elmwood@wincom.net ; gmcnamara@tecumseh.ca ; goocht@uwindsor.ca ; helga.bailey@gecdsb.on.ca ; jadams@learnington.ca ; jason.chapman@chumtv.com ; jguerard@ammexdetroitdutyfree.com ; jones@hotmail.com ; jonna.reaume@gecdsb.on.ca ; julia.burgess@gecdsb.on.ca ; kayway@windsor.igs.net ; kim.mckinley@gecdsb.on.ca ; lchalie@cogeco.ca ; leovannu52@yahoo.com ; lisa.gretzky@gecdsb.on.ca ; lulu@uwindsor.ca ; lynnm@wincom.net ; maggie@ambassadordutyfree.com ; maticka@uwindsor.ca ; mayor@town.lasalle.on.ca ; mchuild@erca.org ; mperez1@comcast.net ; mweis@uwindsor.ca ; news@cjam.ca ; newscentre@am800cklu.com ; nsantos@kingsville.ca ; nsantos@town.kingsville.on.ca ; patrick.ouellette@gecdsb.on.ca ; pbuckle@ambassadordutyfree.com ; pgordonqueen@msn.com ;

pneice@communityplanners.com ; prayl@cbc.ca ; rbailey@amherstburg.ca ; reclmag@cogeco.ca ; rhartley@sympatico.ca ; rmcdermott@townofessex.on.ca ; rmeloche@townofessex.on.ca ; rpeterson9@cogeco.ca ; rschmidt@leamington.ca ; rsylvester@lakeshore.ca ; simone.hobson@cogeco.ca ; stomp@mnsi.net ; styndale@cogeco.ca ; tbain@lakeshore.ca ; tburton@tecumseh.ca ; teamsterjeff@hotmail.com ; tearod112@sbcglobal.net ; tom.kilpatrick@gecdsb.on.ca ; toml@local444.caw.ca ; toufic@teksavvy.com ; wdlc_office@bellnet.ca ; wecec@elliotenergy.ca ; whurst@amherstburg.ca ; wwwkenkid@yahoo.com ; zeanaattisha@msn.com ; jstrasser@stclaircollege.ca
Sent: Friday, September 21, 2007 5:33 PM
Subject: Ambassador Bridge Enhancement Project Open House

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If you have any questions, please do not hesitate to contact me directly.

Sincerely,

Paula Lombardi

Paula Lombardi
Siskinds LLP
680 Waterloo Street
London, ON N6A 3V8

Tel: (519) 660-7850
Fax: (519) 660-7851
Mail: paula.lombardi@siskinds.com
Web: www.siskinds.com

This message contains confidential information and is intended only for acomber@cogeco.ca, allce_d@cogeco.ca, amherstq@netcom.ca, ann@bordergateways.com, ashinos@erca.org, bdnure@sympatico.ca, bedard3@uwindsor.ca, bmcqueen@luoelocal1793.org, bmorland@llunalocal625.org, bre@sympatico.ca, bszekely@cogeco.ca, callsop@uwindsor.ca, cbagin@yahoo.com, cbanks@porchlight.com, cbrown@dwtunnel.com, ClaraD@TheHenryFord.org, cococoncrete@kelcom.net, construction@wca.on.ca, csiltd@mnsi.net, daversa@triamico.com, David.harrison@scotiabank.com, David.mcgregor@brightonbeachpower.com, Dean.clevett@basf.com, dean.jacobs@wlfn.org, denunzio@uwindsor.ca, dsitter@cogeco.ca, eclough@etr.com, Eleanore245@hotmail.com, ellebella@hotmail.com, estricki@uwindsor.ca, fblekx@teamsters880.org, fjb14@dcx.com, fnazzani@primerose.ca, fsorrell@stclaircollege.ca, gail@chathamchamber.on.ca, honestced@hotmail.com, lbpatwind@mnsi.net, lke@bulldogdesigninc.com, info@shopottawastreet.com, lsiljanoski@windsorchamber.org, jcacciato@ambassadordutyfree.com, Jdrummond23@sympatico.ca, jstasser@stclairrcollege.ca, jveresuk@downtownwindsor.ca, kfarbota@weche.com, kmbrody69@sympatico.ca, lawolfe@sympatico.ca, lboyd@uniongas.com, lchalf@cogeco.ca, levan7052@yahoo.ca, lgeorgiu@wgh.on.ca, lmccormack@windsorchamber.org, lynnm@win.com, mariacapucci@hotmail.com, Mdugallu700@kelcom.lgs.net, mgagliano.local6@bellnet.ca, mhaas1@cogeco.ca, michael.mastromardi@stantec.com, Mike@morency.info, mikeyhanson78@hotmail.com, mkwasnicki@windsor.lgs.net, mmaskery@ambassadordutyfree.com, mwoodlson@hotmail.com, nbyczynski@stclairecollege.ca, nharding@sympatico.ca, noria.ashande@sympatico.ca, plefave@borderfreightresources.com, pubene@cogeco.ca, reeve1@cogeco.ca, rlucente@bellnet.ca, Rochelle@downtownwindsor.ca, roulavitsas@sympatico.ca, rparent@teamsters880.org, rpaul@uwindsor.ca, s_rowen@hotmail.com, savegilbway@cogeco.ca, sawgrank@hotmail.com, smaxwell@stclairrcollege.ca, Solfurerlu773@on.aibn.com, staggerk@yahoo.ca, tdaehn1@yahoo.ca, teragram35@hotmail.com, townandcountry@on.aibn.com, Vinnyboy3@hotmail.com, vkyrialo@air-am.com, walkervillebia@cogeco.ca, windsoroas@yahoo.ca, winnie132264@yahoo.ca, acrazyguynomialpipes@hotmail.com, adan.khan@gecdsb.on.ca, alexlong4@yahoo.com, angerbm@cogeco.ca, ashinas@ERCA.org, awelling134450@comcast.net, beth.cooper@gecdsb.on.ca, bkane@sandwichchc.org, b-re@sympatico.ca, butlerm@tc.gc.ca, bvarga@town.lasalle.on.ca, bwmill@hotmail.com, cabriojazz@yahoo.com, cathydziedzic@hotmail.com, cheryl.lovell@gecdsb.on.ca, chouston@uwindsor.ca, clewis@liquiforce.com, councilmembers@leamington.ca, crobar231@aol.com, dave.taves@gecdsb.on.ca, director@gecdsb.on.ca, dwesty01@hotmail.com, elmwood@wincom.net, gmcnamara@tecumseh.ca, goocht@uwindsor.ca,

helga.bailey@gecdsb.on.ca, jadams@leamington.ca, jason.chapman@chumtv.com, jguerard@ammexdetroitdutyfree.com, jones@hotmail.com, jonna.reaume@gecdsb.on.ca, julia.burgess@gecdsb.on.ca, kayway@windsor.lgs.net, kim.mckinley@gecdsb.on.ca, lchalie@cogeco.ca, leovannu52@yahoo.com, lisa.gretzky@gecdsb.on.ca, lulu@uwindsor.ca, lynnm@wincom.net, maggie@ambassadordutyfree.com, maticka@uwindsor.ca, mayor@town.lasalle.on.ca, mchuild@erca.org, mperez1@comcast.net, mwels@uwindsor.ca, news@cjam.ca, newscentre@am800cklu.com, nsantos@kingsville.ca, nsantos@town.kingsville.on.ca, patrick.ouellette@gecdsb.on.ca, pbuckle@ambassadordutyfree.com, pgordonqueen@msn.com, pneice@communityplanners.com, prayl@cbc.ca, rbailey@amherstburg.ca, reclmag@cogeco.ca, rhartley@sympatico.ca, rmcdermott@townofessex.on.ca, rmeloche@townofessex.on.ca, rpeterson9@cogeco.ca, rschmidt@leamington.ca, rsylvester@lakeshore.ca, simone.hobson@cogeco.ca, stomp@mnsi.net, styndale@cogeco.ca, tbain@lakeshore.ca, tburton@tecumseh.ca, teamsterjeff@hotmail.com, tearod112@sbcglobal.net, tom.kilpatrick@gecdsb.on.ca, toml@local444.caw.ca, toufic@teksavvy.com, wdlc_office@bellnet.ca, wecec@elliotenergy.ca, whurst@amherstburg.ca, wwwkenkid@yahoo.com, zeanaattisha@msn.com, jstrasser@stclairclollege.ca. 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PUBLIC NOTIFICATION

Avalon

Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

TELEPHONE CALL RECORD

Date: June 21, 2007 **Date Issued:** June 21, 2007

Time: 9:48 am **Issued by:** Shannon Williams

Contact: Unknown **Phone #:** Toll-free line call

Company:

Project: Ambassador Bridge Enhancement Project

Subject: Public Meetings – Week of June 25th

The following notes reflect our understanding of the discussions and decisions made during this telephone conversation. If you have any questions, additions or comments, please contact us at the above address. We will consider the record to be accurate unless written notice is received within 10 working days of the date issued.

Individual called the toll-free line and inquired as to whether or not there was going to be a formal presentation or if you could just show up any time between 4 and 8 pm.

I indicated that there would be no formal presentation and that the meeting would be an open house format with presentation materials for people to view at their leisure. I said there would be no formal question and answer period, but that there would be technical experts available to answer questions on the studies that have been done.

Project #: 5049964

Copies To: File, Lombardi

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Avalon

Avalon Consulting Professionals of Ontario, LLC
48 Jarvis Street • Fort Erie, Ontario L2A 2S4 • Canada
Tel 905.991.1681 • Fax 905.991.1682 • www.acp-on.ca

TELEPHONE CALL RECORD

Date: June 20, 2007 **Date Issued:** June 20, 2007

Time: 11:10 am **Issued by:** Shannon Williams

Contact: Unknown **Phone #:** Toll-free line call

Company:

Project: Ambassador Bridge Enhancement Project

Subject: Public Meetings – Week of June 25th

The following notes reflect our understanding of the discussions and decisions made during this telephone conversation. If you have any questions, additions or comments, please contact us at the above address. We will consider the record to be accurate unless written notice is received within 10 working days of the date issued.

Individual called the toll-free line regarding the public meeting notice that had been published in the Windsor Star. He asked what the purpose of the meeting was.

I indicated that the purpose was to present the findings of our studies to date.

The individual asked why he would want to see that and said that he feels that there should not be a monopoly on the bridge, but that this project should go ahead. He asked what agency will approve this project. I told him that Transport Canada was the Responsible Authority on this project. He asked which branch and I indicated that it would be the Environmental Assessment and Approvals Branch. I told him that the Draft Guidelines for the study and the agency contacts were available on the Canadian Environmental Assessment Agency (CEAA) website. He asked if I would email the Draft Guidelines to him and I indicated that I would send him a link to the CEAA webpage. He asked me to email the link to rjp@potomski.com.

I told him that he could submit a comment that would be part of the environmental assessment document on the Ambassador Bridge website.

Project #: 5049964

Copies To: File, Lombardi

Document1

A BETTER BRIDGE.

Ambassador Bridge Enhancement Project
Environmental Assessment Update - OPEN HOUSE

PROJECT BACKGROUND: The Ambassador Bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new span will replace the existing Ambassador Bridge and will link directly into the existing plazas in both Windsor and Detroit. When the replacement span is operational, the existing Ambassador Bridge will be reevaluated and rehabilitated without causing any disruption in traffic flow. After it is rehabilitated, the existing Ambassador Bridge will be maintained and available as a redundant resource for maintenance vehicles, emergencies and approved public events.

The Ambassador Bridge held Public Workshops in April 2007, and Open House Sessions in June 2007, to introduce and discuss the Project and is now pleased to present the results of the environmental studies for the replacement span at two Public Open House Sessions scheduled:

MONDAY, OCTOBER 1st, 2007
Visit Anytime
Between 3:00 pm - 9:00 pm

MACKENZIE HALL
3277 Sandwich St.
Windsor, Ontario N9C 1A9
Tel: (519) 255-7600

TUESDAY, OCTOBER 2nd, 2007
Visit Anytime
Between 3:00 pm - 9:00 pm

CIOCIARO CLUB
3745 North Talbot Road
Oldcastle, Ontario N0R 1L0
Tel: (519) 737-6153

We encourage you to attend the Open House anytime between 3:00 p.m. and 9:00 p.m. to review the results from the various studies and ask questions of our technical experts responsible for the analysis and preparation of the studies that will be submitted to the federal government for review and comment.

These meetings are being held as part of the public consultation process for the preparation of a Federal Environmental Assessment (EA).

For further information, please contact:

Paula Lombardi
Environmental Lawyer
Tel. 519-251-8200
Tel. 1-877-672-2121
Email: paula.lombardi@siskinds.com
Ambassador Bridge: www.ambassadorbridge.com

AMBASSADOR BRIDGE

Sept 27, 2007 The Windsor Star A7

residential real estate transactions, and I do not recall any client ever saying the process was cheaper than they thought.

The cost cannot only be measured in money, but in many cases in time as well. You will often spend several months going to open houses and viewing numerous homes looking for the perfect place to call your own.

Even better, most lawyers do not charge extra for this service.

Once the deal has been signed by all parties, and is not subject to any conditions, like having to get a mortgage, or selling another home first, your lawyer will research the title of the property and complete various other searches to ensure that once the transaction is process to answer them and eliminate some of the worries associated with buying a house.

By the time you receive the keys to the house, your only concern should be how to fit that oversized sofa into the basement of your new home.

Scott M. Sullivan is a local lawyer. He can be reached at (519) 253-2550

Catalyst boss touts Bell solution

BY ANNE HOWLAND
CANWEST NEWS SERVICE
OTTAWA

The man behind the latest ownership proposal for Bell Canada says the telecom company would be "hard-pressed" not to consider his suggestion.

Brent Fullard, executive managing director of Catalyst Asset Management Inc., said he is simply trying to "facilitate a better outcome and earn a success fee" with his company's refinancing plan for Bell, released Friday.

Bell Canada, formerly known as BCE Inc., is currently the takeover target of three separate private equity bidding groups "that would result in this iconic Canadian company falling into the hands of predominantly foreign capital," Catalyst said in a statement.

On Thursday, Bell and Telus Corp. – Canada's second largest phone company, confirmed they were in merger talks – a move that would reduce "the competitive landscape in Canada for telecommunications services, to the detriment of consumers and employment in this important knowledge-based industry," Catalyst added.

Telus chief executive Darren Entwistle said Thursday the merger would be an "all-Canadian solution for both immediate and long-term value creation."

Catalyst, a Toronto-based investment banking firm, said Friday it was proposing a "Canadian solution" that would leave Bell Canada a standalone operation, to the benefit of numerous stakeholders.

Catalyst's recommendation involves a relatively little-known financing option that would entail an "exchange offer" from a new Canadian corporation formed for this purpose, called "Bidco." The new company would offer one "stapled security" of Bidco in exchange for each outstanding common share of Bell Canada, Catalyst suggested. Each stapled security of Bidco would consist of one Bidco common share and one subordinated debt security.

The combined dividends and interest per stapled security would be set at an initial annual rate of $2.55, compared to the current dividend of $1.46 per Bell Canada common share, Catalyst said. Following the purchase of Bell Canada by Bidco, the two corporations would be amalgamated to form "New Bell Canada," Catalyst added.

Fullard said he "didn't know how (the Catalyst proposal) could not be considered" by Bell, which has set a deadline for bids of June 30.

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Ambassador Bridge Enhancement Project
PUBLIC WORKSHOP NOTICE

PROJECT BACKGROUND: the ambassador bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new bridge will connect directly into the existing plazas in both Windsor and Detroit. The new structure will be 32.24 metres wide and 1689.76 metres long, with approximately 670.56 metres traversing the Detroit River. Once the new structure is completed, the existing Ambassador Bridge will be taken out of service and evaluated to make all of the repairs necessary.

The Ambassador Bridge held Public Workshops in April 2007, introducing the Enhancement Project and will now present the preliminary results of the environmental studies undertaken for the Enhancement Project on:

Monday, June 25th, from 4:00 pm to 8:00 pm and Tuesday, June 26th, from 4:00 pm to 8:00 pm
University of Windsor, School of Visual Arts LeBel Building at Huron Church road and College Ave. 955 Huron Church Road Windsor, Ontario Parking is available from the College Avenue Entrance across from McDonald's restaurant.

These meetings are being held as part of the public consultation process for the preparation of a Federal Environmental Assessment (EA) under the Canadian Federal Environmental Assessment Act.

For further information, please contact:

P. Leigh Whyte
Chief Urban Planner
Avalon Consulting Professionals of Ontario LLC
Tel: 1-866-807-5113
Email: lwhyte@acp-on.ca
Ambassador Bridge:
www.ambassadorbridge.com

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an Kentner fights a stubborn fire Friday at the Gummer Street in downtown Guelph. The fire started in the Twisted Asylum and Goldfinger businesses and er building. Early estimates indicate the fire caused million in damage. CP photo: Dave Carter

trouble kills sonar system

EEBY
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that's supposed sovereignty by rsea attacks has hat don't hunt. uments obtained ss show that the elivered in 1999 four years later akdowns. fix the malfunc- been disastrous, ashed on patrol, repairs. QS 511 side-scan the 1990s to take res of the deep erways to watch stile devices. rsion was then underwrote pro- ypes for its fleet /ith MacDonald, tes Ltd. as prime

pedo-shaped de- ate-of-the-art, but could be used be- d in all four. d after the manu- arranty had ex- the 10-year pro- 'towfish," which e they're towed behind the minesweepers.

"The AN/SQS 511 system was purchased for operational and training missions despite the fact that it was a prototype," says one internal briefing note, obtained under the Access to Information Act.

"Since its purchase, the four payloads have never been fully operational. The system has been limited by inoperative electronics and excessive costs for repair."

The navy originally ordered just two years' worth of spare parts and has since had to cannabilize one of the prototypes to keep the other three operational. The estimated cost of buying a replacement towfish, now at about $10 million, is considered prohibitive.

HMCS Whitehorse has twice smashed its towfish as it tried to make them work even with their faulty electronics.

In the meantime, much cheaper commercial models have become available — and have done yeoman's service for the navy, which bought two from L-3 Klein Associates Inc., a U.S. firm.

A navy spokesman defended the AN/SQS 511, calling it cutting-edge technology that was never intended to last a long time.

"Back in 1999, it was the best system in the world for its ability to find targets," Lt.-Cmdr. James Hewitt said in an interview. "It remains unequalled for that."

n patient's mouth

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ien Garcia, said v a staff person with a rat in his ... with the rat" rch 18. arcia said, para- ene noted "pos- poison" in their ency room file says that Bock was "found in room in care facility with dead rat in mouth."

Melody Chatelle, a spokeswoman for Sunwest Management Inc., the company that operates Paragon, said the allegations were false.

Chatelle said instead that Bock was found holding a glue trap that had been placed in his room by a pest control company to catch a single field mouse. She said the dead field mouse was inside the trap when Bock picked it up.

and He was raised the third day according to the scriptures. (1 Cor. 15:3-4)

المسيح مات من أجل خطايانا وأنه دفن وانه
قام في اليوم الثالث حسب الكتب. (١كو١٥: ٣-٤)

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VICTIMS SPEAK OUT!
National Victim Awareness Week April 22-28, 2007

Join Victim Services of Windsor and Essex County as we recognize the resilience, courage and strength of all victim survivors.

Meet a panel of presenters who have faced devastation and incomparable challenges and have chosen to make public their personal stories of survival and triumph.

Melissa McCormick was kidnapped at the age of nineteen. She was then gang raped, beaten and nearly shot. Melissa is now a successful entrepreneur and authour of The Queen's Daughter.

To hear Melissa's and other inspiring stories, join us on April 27, 2007 at 12:00p.m. at the Hellenic Banquet Hall. Cost is $10.00/person (lunch included) Funded by the Department of Justice Canada

Secondly, in countless national and international tragedies, certified crisis responders deal with the devastating effects of natural and manmade disasters. Become a member of the highly trained volunteers who were called upon to aid the survivors of the World Trade Center Tourist Attacks and Hurricane Katrina.

If you wish to assist worldwide or prepare yourself to help in the event of a traumatic incident in your own organization, NOVA training will provide you with the tools required.

Register for National Organization of Victim Assistance (NOVA) Basic, April 20-24 and Advanced training, April 25-27, facilitated by Dr. W. V. McDermott.

For more information, to register for training or to purchase presentation tickets please call **Victim Services of Windsor and Essex County at 519.723.2711**

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Ambassador Bridge Enhancement Project
PUBLIC WORKSHOP NOTICE

PROJECT BACKGROUND: Ambassador Bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new bridge will connect directly into the existing plazas in both Windsor and Detroit. The new structure will be 31.24 metres wide and 1889.76 metres long, with approximately 670.56 metres traversing the Detroit River. No supporting structures (piers and towers) will be placed in the Detroit River. Once the new structure is completed, the existing Ambassador Bridge will be taken out of service in order to evaluate and make any repairs necessary.

The Ambassador Bridge will conduct a series of Public Workshops on the Enhancement Project at the times and places noted below:

Monday April 16 at 6:30 pm	Tuesday April 17 at 6:30 pm	Wednesday April 18 at 6:30 pm	Thursday April 19 at 6:30 pm
Royal Canadian Legion 3920 Huron Church Road Windsor, Ontario	St. Francis Elementary Sch. 477 Detroit Street Windsor, Ontario	Cabeto Club 2175 Parent Avenue Windsor, Ontario	Essex High School Gym. 244 Talbot Street North Essex, Ontario

These meetings are being held as part of the public consultation process for the preparation of a Federal Environmental Assessment (EA).

For further information, please contact:

P. Leigh Whyte
Chief Urban Planner
Avalon Consulting Professionals of Ontario, LLC
Tel. 1-8666-807-5113
Email lwhyte@acp-on.ca

AMBASSADOR BRIDGE
Ambassador Bridge: www.ambassadorbridge.com

4520500

A.10 The Windsor Star Sat., April 7, 2007

La finale régionale de la dictée PGL se tenait à l'école l'Envolée

Mario De Luca

Ce sont quatre élèves francophones qui ont tenté de se qualifier dimanche dernier, le 1er avril, pour la grande finale internationale qui aura lieu à Montréal le 20 mai prochain.

La dictée Paul-Gérin-Lajoie est un projet éducatif, parrainé par la fondation du même nom, qui, à partir de la maternelle, s'adresse à tous les enfants de l'élémentaire (classes francophones et classes d'immersion).

Selon Danièla Burghelea, enseignante et responsable de la Dictée à l'école L'Envolée, trois objectifs sont visés : éveiller les jeunes aux réalités internationales, permettre d'accroître la maîtrise du français écrit, éveiller chez les parents et enfants un sentiment de compassion pour un projet scolaire.

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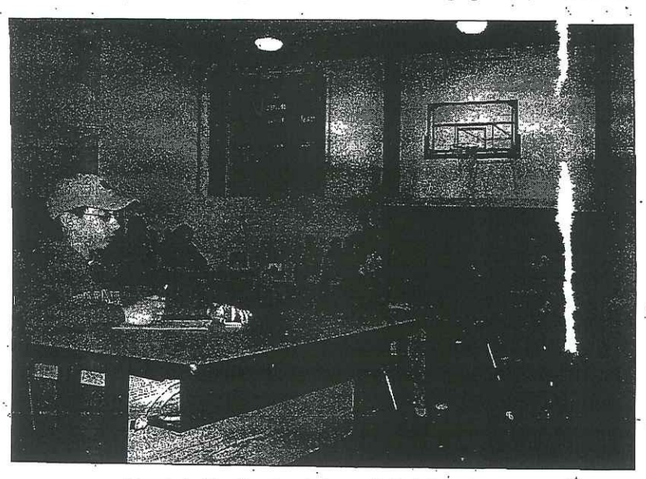
Lors de la finale du Sud, étaient présents Bryan St-Louis (école Monseigneur-Jean-Noël de Windsor), Cameron Crozman (école Marie-Curie de London), William Hyland (Académie de la Tamise de London) et Jonathan Raymond (école L'Envolée).

Les juges, pour l'occasion, étaient Rose Lalonde, enseignante à la retraite, Sania Jawad-Youssef, parent, Diane Salimou, moniteur de langue à L'Envolée et Andrea Telea, enseignante suppléante. L'heureux gagnant, Cameron Crozman, aura la chance d'aller se mesurer à d'autres francophones à l'occasion de la finale internationale à Montréal.



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La Troupe Royale présente

CYRANO

27 et 28 avril 2007
19 h 30
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L'aquilon

Journaliste recherché

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Villanova students present 2 comedies

'Big Bad,' 'Brothers Grimm' on stage Saturday and Sunday

Submitted photo courtesy: Catherine Jeffrey

From left, Aimee Vandwolf, Kaitlyn Kelly, Samantha Ouellette are the three little pigs in Villanova's performance of "Big Bad" at the Sears Ontario Drama Fest's in March. The students will present the play as well as "World of Brothers Grimm" this weekend.

By Anna Foard Whidden

If you like humourous, engaging and interactive plays, Villanova's double feature this weekend is the show for you.

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"Big Bad," by Alec Strum, is a take on the old Three Little Pigs tale.

"The big bad wolf gets his day in court, and the audience gets to decide his fate," explains Catherine Jeffrey, drama teacher at the school.

There are three different possible endings to the play, depending on what the audience decides.

Directed by Jeffrey, the show stars students grades nine through 12.

The students took the play to the recent Sears Ontario Drama Fest's Windsor-Essex district competition, where the students won four acting awards and one spirit award.

The second play, "World of the Brothers Grimm," is a series of three fairy tales that touch on different morals: being humble, greed doesn't pay, and hard work is rewarded, said Jeffrey.

"The magic we put on stage is amazing."

Samantha Ouellette
Villanova grade 12 drama student

The play is by Carolyn B. Lane. Jeffrey's grade 12 drama class has been in charge of every aspect of the play, including costumes, set design, lighting, sound, as well as acting.

Both plays, about 45 minutes each, are geared toward families and children.

"It's like storytelling," Jeffrey said.

For Samantha Ouellette, 17, acting in the shows is like "stepping back into childhood," she said.

"The magic we put on stage is amazing," said the grade 12 student.

Samantha, who plays a princess in Brothers Grimm and a pig in Big Bad, said the preparation before the shows is hard, but the end result is worth it.

"It's nice to actually show everyone what you've been working so hard on," Samantha said.

"I love drama. I love how you can go up there and not be yourself ... and there's no judgement."

Tickets cost $7 for adults and $5 for children under 12.

For information, call 519-734-6444 Ext. 317. Villanova Festival Theatre is located at 2800 North Townline.

Your Opinion

This week's question:

What is your favourite and least favourite Easter holiday candy?

"White chocolate is my least favourite. My favourite is jellybeans, believe it or not."
- Marcy Charette

"My favourite is the Whopper eggs with the malted stuff on the inside. I'm not a fan of jellybeans at all."
- Jen Neilson

"My least favourite is the solid chocolate bunny — it's just not a good quality chocolate. And my most favourite are Cadbury eggs."
- Diane Bezaire

"I like chocolate eggs that the Easter Bunny left for me. I don't like gum."
- Liam Buzzeo, 5

"I got a chocolate spiderman from the Easter Bunny."
- Ethan Buzzeo, 2

Next week's question:

How well is town council doing in addressing the needs of residents?

Call 519-250-2880 Ext. 26
with your response and leave a message with your name and phone number.
Deadline for responses is Monday at 9 a.m.
E-mail responses are also welcome at lapost@windsoressexnews.com

The opinions expressed in this column are independently offered and are not necessarily the views of the LaSalle Post.

Ambassador Bridge Enhancement Project
PUBLIC WORKSHOP NOTICE

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The Ambassador Bridge will conduct a series of Public Workshops on the Enhancement Project at the times and places noted below:

Monday April 16 at 6:30 pm	Tuesday April 17 at 6:30 pm	Wednesday April 18 at 6:30 pm	Thursday April 19 at 6:30 pm
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These meetings are being held as part of the public consultation process for the preparation of a Federal Environmental Assessment (EA).

For further information, please contact:

P. Leigh Whyte
Chief Urban Planner
Avalon Consulting Professionals of Ontario, LLC
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Loss of a friend is also a loss for science

'RAM' was at leading edge of conservation biology

David Suzuki
Science Matters

On March 30, Science, one of the world's most respected scientific journals, published a paper about how the overfishing of big sharks in our oceans has led to an increase in ray and skate populations which, in turn, is having cascading effects down the ocean food chain.

It's a fascinating piece of work – one of those big-picture studies that helps connect the dots and shed light on the complex interconnections between various species in an ecosystem.

But what makes this particular piece of science so important to me personally is the lead author – Ransom Myers of Dalhousie University in Halifax.

Dr. R.A. Myers – RAM to his friends – died earlier that same week.

The Science paper is typical of RAM's work. He was a brilliant scientist who became a tireless advocate for conservation after finding disturbing trends in our oceans.

It was those trends that led him to raise alarm bells over mismanagement of the Atlantic cod when he was with the Canadian Department of Fisheries and Oceans.

For his efforts, he was first ignored, and then reprimanded. The fact that he was later proven right I'm sure offered him little consolation as he watched the fisheries collapse.

More than 15 years later, it has yet to recover.

In 2003, RAM published a paper in the journal Nature that earned him worldwide recognition.

The report was a culmination of years of work with his colleague, Dr. Boris Worm.

Together, they had carefully dissected decades worth of fishing data and found that major large predatory fish – the ones we most like to eat – such as tuna, cod and swordfish, had seen their populations plummet by some 90 per cent in just 50 years.

The paper was controversial, especially in the fishing industry, because it warned that many more fisheries would face collapse if we don't seriously cut back on what we are taking out of the oceans.

But RAM was never one to back down from controversy. In fact, controversy probably helped the story earn media attention around the world – shedding light on a problem that for many is out-of sight, out-of-mind.

It was this sort of big-picture thinking that helped make RAM such a giant in his field.

In 2005, Fortune magazine named him one of the world's Top 10 people to watch. He was indeed a distinguished scientist, an engaging public speaker and leading advocate for change.

Sadly, we will now never know what else he may have accomplished. His death from a brain tumor, at just 54, came at the height of his scientific career and at a time when the world needs him most.

In February, I was fortunate enough to be able to visit RAM in the hospital. By then, he could only say yes or no, but he understood everything that was going on and what was being said.

I hope I was able to adequately convey just how much he had accomplished and how much he had done for science and for conserving nature for future generations.

RAM's Science paper on the demise of sharks seems to be getting good publicity, as it should. Rather than merely being mindless man eaters, sharks are an integral part of the ocean's web of life.

As the report shows, killing them off for shark fin soup has allowed other species, like rays to thrive.

But booming ray populations are now decimating their favourite food source – scallops. And since scallops help filter water, their loss has actually resulted in poorer water quality in some areas.

Dr. Ransom Myers was at the leading edge of conservation biology. He consistently strove to dig deeper and go further in the search for answers to pressing ecological issues.

His efforts raised the public's understanding of the plight of our oceans, and he inspired a generation of marine biologists.

His work will be sorely missed, and so will he.

Take the Nature Challenge
and learn more at www.davidsuzuki.org

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AMBASSADOR BRIDGE

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SHORELINE Town Crier

E-mail shoreline@windsoressexnews.com to have your event listed.

April 14 - Oliver Jones Jazz Concert at École Secondaire l'Essor

Internationally renowned jazz pianist Oliver Jones will be performing in the new amphitheatre at École Secondaire l'Essor on Saturday, April 14 at 8 p.m. VIP tickets include preferred seating as well as a catered reception prior to the show. Tickets are available at École Secondaire l'Essor (519-735-4115), Caisse Populaire Tecumseh (519-735-6069), and Place Concorde (519-948-5545).

April 14 - Teachers Have Heart Charity Gala at Serbian Centre

The third annual Teachers Have Heart charity gala will be held at 6 p.m. at the Serbian Community Centre on Saturday, April 14. The evening will include dinner, dancing, raffles, entertainment, and a silent auction. Proceeds will go to the the Make-A-Wish Foundation of Southwestern Ontario. All are welcome. For tickets, please call Scott at 519-735-1881.

April 15 - Windsor Regiment Band Concert at Armouries

The Windsor Regiment Band will host its premier concert performance on Sunday April 15 at 2 p.m. at the Major F.A. Tilston Armouries, 4007 Sandwich St. W. The concert will feature military music, movie and show tunes, with a dance spectacular by the Celtic Fury Irish Dance Company.

April 18 - 'Pasta Night 4 the Cure'

The Polish Canadian Women's Federation – Windsor Chapter presents a "Pasta Night 4 the Cure" on Wednesday, April 18 at 6 p.m. at the Royal Canadian Legion Br. 394, 3920 Huron Church Rd. This event is being held to honour the life of Janet Greene-Potomski (1952-2005) and will raise funds for cancer research. For more information, please call Arleta at 519-979-0925.

April 20 - 'Friday Night at the Hop: Fun from the '50's'

The '50s are back! "Friday Night at the Hop: Fun from the '50s" will be held on Friday, April 20 at the Teutonia Club, 55 Edinborough St. Chicken and ribs dinner at 7 p.m. Entertainment at 8:30 p.m. featuring Windsor's own "Elvis" Kevin Bezaire. Proceeds will benefit the Catholic Family Services Windsor/Essex Foundation. For tickets or more information, please call John at 519-735-9332.

April 21 - Third Annual Tribute to Dr. Percy Demers

The third annual Tribute to Dr. Percy Demers will be held on Saturday, April 21 at Essex Golf & Country Club, 7555 Matchette Rd. in LaSalle. The evening will include dinner, dancing, entertainment, a silent auction, and cash bar. Cocktails and hors d'oeuvres at 6 p.m. Dinner at 7 p.m. Proceeds will go to IRIS Residential Inns and Services. For tickets or more information, please call IRIS at 519-252-1819 (ask for Anne) or Doreen at 519-735-9319.

April 24 - Pasta Dinner for A Breast or Knot Dragonboat Team

A Breast or Knot DragonBoat Racing Team is having their last Pasta Dinner until the fall on Tuesday, April 24 from 5 p.m. to 7:30 p.m. at the Fogolar Furlan Club. Buffet style with excellent food and great desserts. Fantastic raffle prizes and a 50-50 draw as well. For tickets, please call Tammie at 519-796-0501 or e-mail tammie@medexcourierservice.com

April 26 - Lakeview Montessori School Pasta Night/Book Fair

Lakeview Montessori School in Tecumseh is having its annual Pasta Night/Scholastic Book Fair on Thursday, April 26 at St. Mark's Church Hall, 150 St. Mark's Rd. from 5 p.m. to 7:30 p.m. Proceeds will be going to the "Building for the Future" fund. Tickets are available at the school or call 519-735-5005.

April 26 - Women of the Vine Meeting at Atonement Parish

Women of the Vine will hold their next meeting on Thursday, April 26 at Atonement Parish, 2940 Forest Glade Dr. Mass at 6:30 p.m., followed by guest speaker Debra Herbeck from Renewal Ministries in Ann Arbor, MI. Topic: My Journey Home. For more information, please call 519-974-0673 or e-mail ihs@mdirect.net. All women welcome – bring a friend!

April 28 - Indoor Bargain Sale at St. Paul's United Church

St. Paul's United Church, 973 Pillette Rd., will hold an Indoor Bargain Sale on Saturday, April 28 from 9 a.m. to 2 p.m. A great variety of items will be available as well as fresh baked goods. The hall in handicapped accessible from both Pillette and Arthur. For more information, please call 519-948-1724.

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La finale régionale de la dictée PGL se tenait à l'école l'Envolée

Mario De Luca

Ce sont quatre élèves francophones qui ont tenté de se qualifier dimanche dernier, le 1er avril, pour la grande finale internationale qui aura lieu à Montréal le 20 mai prochain.

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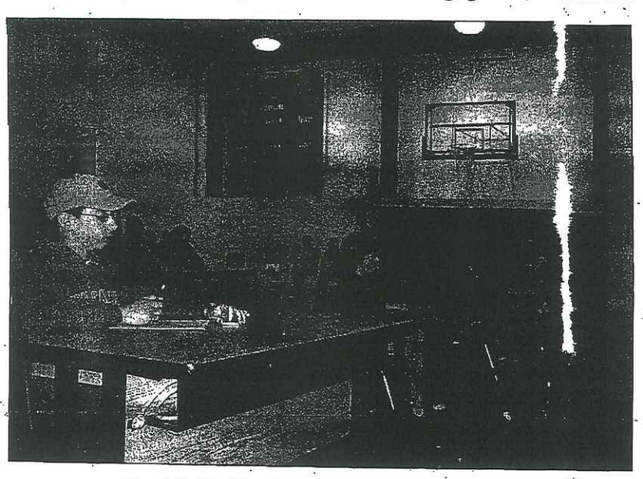

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Submitted photo courtesy: Catherine Jeffrey

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The play is by Carolyn B. Lane. Jeffrey's grade 12 drama class has been in charge of every aspect of the play, including costumes, set design, lighting, sound, as well as acting.

Both plays, about 45 minutes each, are geared toward families and children.

"It's like storytelling," Jeffrey said.

For Samantha Ouellette, 17, acting in the shows is like "stepping back into childhood," she said.

"The magic we put on stage is amazing," said the grade 12 student.

Samantha, who plays a princess in Brothers Grimm and a pig in Big Bad, said the preparation before the shows is hard, but the end result is worth it.

"It's nice to actually show everyone what you've been working so hard on," Samantha said.

"I love drama. I love how you can go up there and not be yourself ... and there's no judgement."

Tickets cost $7 for adults and $5 for children under 12.

For information, call 519-734-6444 Ext. 317. Villanova Festival Theatre is located at 2800 North Townline.

Your Opinion

This week's question:

What is your favourite and least favourite Easter holiday candy?

"White chocolate is my least favourite. My favourite is jellybeans, believe it or not."
- Marcy Charette

"My favourite is the Whopper eggs with the malted stuff on the inside. I'm not a fan of jellybeans at all."
- Jen Neilson

"My least favourite is the solid chocolate bunny — it's just not a good quality chocolate. And my most favourite are Cadbury eggs."
- Diane Bezaire

"I like chocolate eggs that the Easter Bunny left for me. I don't like gum."
- Liam Buzzeo, 5

"I got a chocolate spiderman from the Easter Bunny."
- Ethan Buzzeo, 2

Next week's question:

How well is town council doing in addressing the needs of residents?

Call 519-250-2880 Ext. 26
with your response and leave a message with your name and phone number.
Deadline for responses is Monday at 9 a.m.
E-mail responses are also welcome at lapost@windsoressexnews.com

The opinions expressed in this column are independently offered and are not necessarily the views of the LaSalle Post.

Ambassador Bridge Enhancement Project
PUBLIC WORKSHOP NOTICE

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Chief Urban Planner
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Tel. 1-866-807-5113
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CarStory

with Bill Sherk, the Old Car Detective
BROUGHT TO YOU BY WOODSLEE CREDIT UNION

A 1929 Buick with a back seat urinal

Gord Hazlett worked 50 years as an auto mechanic in Toronto. He retired in 1984 and joined the team of writers at Old Autos newspaper in 1989, where his hilarious old car stories are published twice a month and eagerly read by hobbyists all across Canada.

One of his all-time favourite stories took place in the early 1950s: "Remember when drive-in movies first started? They were a boon to the family man with children. Six got in for the price of two. Dad paid for Mum and himself and four kids under 12 got in free.

"At this time, I had a 1929 Buick six-wheel four-door sedan in lovely shape. Only 22,000 miles on it - our family car. You who have been to drive-in movies know the problem with the kids. Well, I do too! No sooner had one relieved himself than another started bouncing on the back seat. He's got to go too! A lot of good movies I never saw, as I was making these rush calls to the washroom.

"The wife says, "I'll fix this. Next time we'll bring a jam jar." That worked fine for a couple of times until it got kicked over by one of the kids in the excitement of Bugs Bunny, and the lid was cross-threaded. The woven rear mat had to be dried and aired.

"I decided to take care of the situation myself. I drilled a two-inch hole in the wooden floorboards and installed a three-foot length of rad hose. I had the only '29 Buick, to my knowledge, with a built-in urinal, and not a drop was spilled inside the car from then on. And as you may have already realized, my four kids were all boys."

One night, Gord and his wife took the four boys to the Maple Leaf Dairy on Danforth Ave. in Toronto's east end for some ice cream. As Gord was pulling into a parking spot with the '29 Buick, the car behind began blowing its horn. Gord got out and went back to see what the fellow wanted. He told Gord his gas tank was leaking, so Gord got back into the Buick and said to his wife: "No ice cream tonight. Our gas tank's sprung a leak and we have to go home."

Gord's wife started laughing. "There's nothing wrong with our gas tank. Little Gordie just had a pee."

The photo shows Gord with three of his four boys around 1952. When he sold the '29 Buick, he filled the hole in the floor and kept the rad hose. It now resides in the back seat of his 1927 Pontiac four-door sedan, a car he has owned for the past 40 years.

Town Crier
Upcoming Community Events
See page 5

Curves cares

Curves manager Pat Tellier and co-worker Denise Chevalier pose with Glenyis Betts from Lakeshore Community Services, and with local Goodfellows members Jerry Best, Ed Tellier and Don Robert last Wednesday at the local Curves branch. Curves held its annual food drive during the month of March, waving the registry fee for the first ten days if you brought in any food to contribute to the drive."We had 50 new members come in, it was a great turn out." Pat Tellier explained before the food was split between Lakeshore Community Services and the Belle River/Rochester Goodfellows. In total, the all women's gym collected 1210 lbs worth of food, almost doubling last years outcome of 695lbs.

Autoliv workforce talks possible job losses

continued from page 1

with employees at the plant about the possibility of the job losses. There were also meetings at the Local offices for other employees.

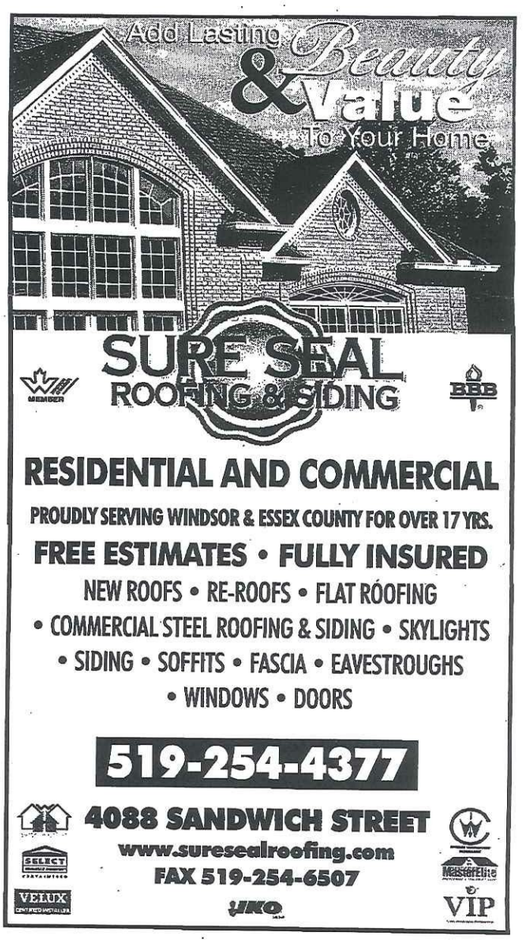
Carson said the issue is the same as the issue that arose shortly after they organized with the CAW in 2005. At that time, the company wanted to move cutting and assembly jobs to Mexico, claiming the move was in the works before the Tilbury workforce was organized by the Union. The timing, however, was suspect and appeared to go against Ontario labour law. Through negotiation, the CAW secured a Voluntary Exit Package (VEP) which allowed enough employees to quit their jobs with a generous severance agreement.

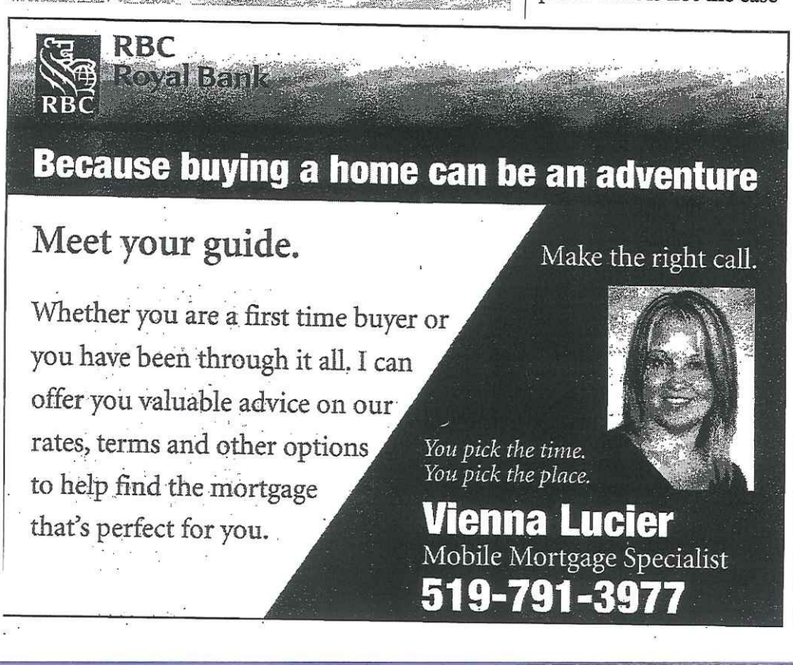
The company released statements at the time explaining that a rise in orders necessitated the move so they could expand the weaving, scouring, and coating operations in the Tilbury plant. That is not the case this time around, said Carson.

As of last Wednesday, CAW officials were awaiting a company proposal regarding the future of the cutting jobs. They were expecting to go into negotiations after that to determine what will happen. Carson said that if they cannot save the jobs, the Union will seek another VEP to ease the loss of the Tilbury employees.

Morale is down in the plant, Tilbury's newest manufacturing facility. "The employees are blaming themselves," said Carson. "They're all wondering if they could have worked harder in the past and head off the job cuts." Carson went on to say the workers have always done their best and that they have never had a recall. "They are also proud that the product they make saves lives," she commented.

"These jobs would have been gone a long time ago if we had not organized with the CAW," she said. "Our National Rep, Joe McCabe and our past president Rick Garantwere instrumental in helping save these jobs. The people who took the VEP the last time, left with money in their pockets. The Union got that for them," she added. "It's all about the people. The manufacturing sector is in trouble and Autoliv needs to take care of those who helped put them where they are now."





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AMBASSADOR BRIDGE

Ambassador Bridge: www.ambassadorbridge.com

Loss of a friend is also a loss for science

'RAM' was at leading edge of conservation biology

David Suzuki

Science Matters

On March 30, Science, one of the world's most respected scientific journals, published a paper about how the overfishing of big sharks in our oceans has led to an increase in ray and skate populations which, in turn, is having cascading effects down the ocean food chain.

It's a fascinating piece of work – one of those big-picture studies that helps connect the dots and shed light on the complex interconnections between various species in an ecosystem.

But what makes this particular piece of science so important to me personally is the lead author – Ransom Myers of Dalhousie University in Halifax.

Dr. R.A. Myers – RAM to his friends – died earlier that same week.

The Science paper is typical of RAM's work. He was a brilliant scientist who became a tireless advocate for conservation after finding disturbing trends in our oceans.

It was those trends that led him to raise alarm bells over mismanagement of the Atlantic cod when he was with the Canadian Department of Fisheries and Oceans.

For his efforts, he was first ignored, and then reprimanded. The fact that he was later proven right I'm sure offered him little consolation as he watched the fisheries collapse.

More than 15 years later, it has yet to recover.

In 2003, RAM published a paper in the journal Nature that earned him worldwide recognition.

The report was a culmination of years of work with his colleague, Dr. Boris Worm.

Together, they had carefully dissected decades worth of fishing data and found that major large predatory fish – the ones we most like to eat – such as tuna, cod and swordfish, had seen their populations plummet by some 90 per cent in just 50 years.

The paper was controversial, especially in the fishing industry, because it warned that many more fisheries would face collapse if we don't seriously cut back on what we are taking out of the oceans.

But RAM was never one to back down from controversy. In fact, controversy probably helped the story earn media attention around the world – shedding light on a problem that for many is out-of sight, out-of-mind.

It was this sort of big-picture thinking that helped make RAM such a giant in his field.

In 2005, Fortune magazine named him one of the world's Top 10 people to watch. He was indeed a distinguished scientist, an engaging public speaker and leading advocate for change.

Sadly, we will now never know what else he may have accomplished. His death from a brain tumor, at just 54, came at the height of his scientific career and at a time when the world needs him most.

In February, I was fortunate enough to be able to visit RAM in the hospital. By then, he could only say yes or no, but he understood everything that was going on and what was being said.

I hope I was able to adequately convey just how much he had accomplished and how much he had done for science and for conserving nature for future generations.

RAM's Science paper on the demise of sharks seems to be getting good publicity, as it should. Rather than merely being mindless man eaters, sharks are an integral part of the ocean's web of life.

As the report shows, killing them off for shark fin soup has allowed other species, like rays to thrive.

But booming ray populations are now decimating their favourite food source – scallops. And since scallops help filter water, their loss has actually resulted in poorer water quality in some areas.

Dr. Ransom Myers was at the leading edge of conservation biology. He consistently strove to dig deeper and go further in the search for answers to pressing ecological issues.

His efforts raised the public's understanding of the plight of our oceans, and he inspired a generation of marine biologists.

His work will be sorely missed, and so will he.

Take the Nature Challenge
and learn more at www.davidsuzuki.org

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AMBASSADOR BRIDGE

Ambassador Bridge: www.ambassadorbridge.com

SHORELINE Town Crier

E-mail shoreline@windsoressexnews.com to have your event listed.

April 14 - Oliver Jones Jazz Concert at École Secondaire l'Essor

Internationally renowned jazz pianist Oliver Jones will be performing in the new amphitheatre at École Secondaire l'Essor on Saturday, April 14 at 8 p.m. VIP tickets include preferred seating as well as a catered reception prior to the show. Tickets are available at École Secondaire l'Essor (519-735-4115), Caisse Populaire Tecumseh (519-735-6069), and Place Concorde (519-948-5545).

April 14 - Teachers Have Heart Charity Gala at Serbian Centre

The third annual Teachers Have Heart charity gala will be held at 6 p.m. at the Serbian Community Centre on Saturday, April 14. The evening will include dinner, dancing, raffles, entertainment, and a silent auction. Proceeds will go to the the Make-A-Wish Foundation of Southwestern Ontario. All are welcome. For tickets, please call Scott at 519-735-1881.

April 15 - Windsor Regiment Band Concert at Armouries

The Windsor Regiment Band will host its premier concert performance on Sunday April 15 at 2 p.m. at the Major F.A. Tilston Armouries, 4007 Sandwich St. W. The concert will feature military music, movie and show tunes, with a dance spectacular by the Celtic Fury Irish Dance Company.

April 18 - 'Pasta Night 4 the Cure'

The Polish Canadian Women's Federation – Windsor Chapter presents a "Pasta Night 4 the Cure" on Wednesday, April 18 at 6 p.m. at the Royal Canadian Legion Br. 394, 3920 Huron Church Rd. This event is being held to honour the life of Janet Greene-Potomski (1952-2005) and will raise funds for cancer research. For more information, please call Arleta at 519-979-0925.

April 20 - 'Friday Night at the Hop: Fun from the '50's'

The '50s are back! "Friday Night at the Hop: Fun from the '50s" will be held on Friday, April 20 at the Teutonia Club, 55 Edinborough St. Chicken and ribs dinner at 7 p.m. Entertainment at 8:30 p.m. featuring Windsor's own "Elvis" Kevin Bezaire. Proceeds will benefit the Catholic Family Services Windsor/Essex Foundation. For tickets or more information, please call John at 519-735-9332.

April 21 - Third Annual Tribute to Dr. Percy Demers

The third annual Tribute to Dr. Percy Demers will be held on Saturday, April 21 at Essex Golf & Country Club, 7555 Matchette Rd. in LaSalle. The evening will include dinner, dancing, entertainment, a silent auction, and cash bar. Cocktails and hors d'oeuvres at 6 p.m. Dinner at 7 p.m. Proceeds will go to IRIS Residential Inns and Services. For tickets or more information, please call IRIS at 519-252-1819 (ask for Anne) or Doreen at 519-735-9319.

April 24 - Pasta Dinner for A Breast or Knot Dragonboat Team

A Breast or Knot DragonBoat Racing Team is having their last Pasta Dinner until the fall on Tuesday, April 24 from 5 p.m. to 7:30 p.m. at the Fogolar Furlan Club. Buffet style with excellent food and great desserts. Fantastic raffle prizes and a 50-50 draw as well. For tickets, please call Tammie at 519-796-0501 or e-mail tammie@medexcourierservice.com

April 26 - Lakeview Montessori School Pasta Night/Book Fair

Lakeview Montessori School in Tecumseh is having its annual Pasta Night/Scholastic Book Fair on Thursday, April 26 at St. Mark's Church Hall, 150 St. Mark's Rd. from 5 p.m. to 7:30 p.m. Proceeds will be going to the "Building for the Future" fund. Tickets are available at the school or call 519-735-5005.

April 26 - Women of the Vine Meeting at Atonement Parish

Women of the Vine will hold their next meeting on Thursday, April 26 at Atonement Parish, 2940 Forest Glade Dr. Mass at 6:30 p.m., followed by guest speaker Debra Herbeck from Renewal Ministries in Ann Arbor, MI. Topic: My Journey Home. For more information, please call 519-974-0673 or e-mail ihs@mdirect.net. All women welcome – bring a friend!

April 28 - Indoor Bargain Sale at St. Paul's United Church

St. Paul's United Church, 973 Pillette Rd., will hold an Indoor Bargain Sale on Saturday, April 28 from 9 a.m. to 2 p.m. A great variety of items will be available as well as fresh baked goods. The hall in handicapped accessible from both Pillette and Arthur. For more information, please call 519-948-1724.

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Ontario's economy expected to rebound: RBC Economics

Ontario's economy will start to rebound in 2007 after being weighed down by a struggling manufacturing sector over the past year, according to a new provincial forecast released by RBC.

"Weaker commodity prices and a stabilized Canadian dollar will help boost the province's economic growth to 2 per cent in 2007," said Craig Wright, vice-president and chief economist, RBC. "A fuller recovery is anticipated for 2008 as growth should return to a healthy pace of 3.1 per cent."

Manufacturing continued to struggle as January shipment numbers declined, especially in the transportation equipment sector, which accounts for one-third of Ontario's shipments. Acknowledging the difficulties felt by manufacturers and processors, the recent federal budget offered some relief. It implemented a temporary measure that allows manufacturers a two-year write-off on new investment in equipment acquired before 2009 and has increased the capital cost allowance for buildings and computers.

"The result may well increase capital expenditure spending," said Wright.

The report also noted that unlike the federal spending spree, Ontario's 2007 budget did not provide significant additional stimulus to the Ontario economy. The province's businesses were also hit by a 28 per cent hike in the minimum wage by 2010, despite already having the highest rate in the country and evidence that higher minimums destroy jobs for less skilled workers.

"Given the low-balled revenue and economic growth assumptions made by the provincial government, we could see additional off-budget spending in light of the looming October election," added Wright.

For the overall Canadian economy, RBC forecasts that the gap between growth in the more heavily resource based provinces and central Canada will narrow over 2007-08. Newfoundland and Labrador will be the leader this year with growth of 4 per cent followed by Alberta at 3.6 per cent. Prince Edward Island and Ontario will be at the back of the pack, each with growth rate of about 2 per cent.

The RBC Economic Provincial Outlook assesses the provinces according to economic growth, employment growth, unemployment rates, personal income growth, retail sales, housing starts, and the Consumer Price Index.

– CNW

Bruschetta chicken bake

Prep Time: 10 minutes
Total Time: 40 minutes
Serves: 6

1 can (19 oz/540 mL) stewed tomatoes, undrained
1 pkg (120 g) Stove Top Stuffing Mix for Chicken
2 cloves garlic, minced
1-1/2 lbs (750 g) boneless, skinless chicken breasts, cut into bite-size pieces
1 tsp dried basil leaves
1 cup Kraft mozzarella shredded cheese

Preheat oven to 400°F. Place tomatoes in medium bowl. Add stuffing mix and garlic; stir just until stuffing mix is moistened. Set aside.

Place chicken in 13x9-inch or other 3-L baking dish; sprinkle with basil and cheese. Top with stuffing mixture.

Bake 30 minutes or until chicken is cooked through.

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4.22 per cent tax hike proposed

By Bob Odette

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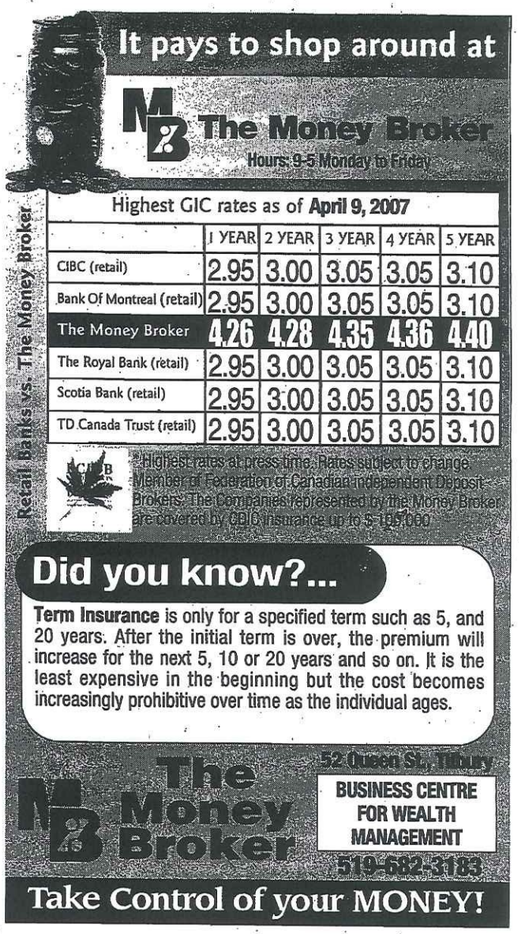

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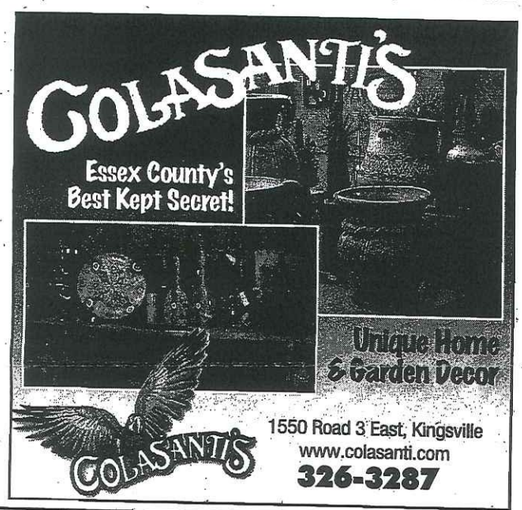
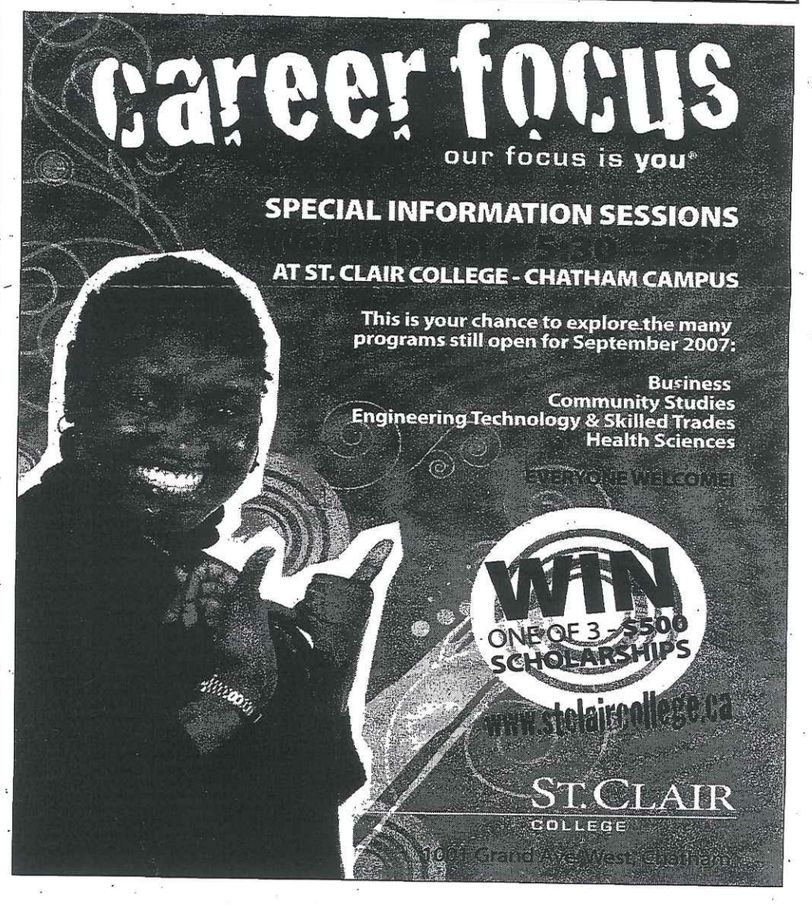
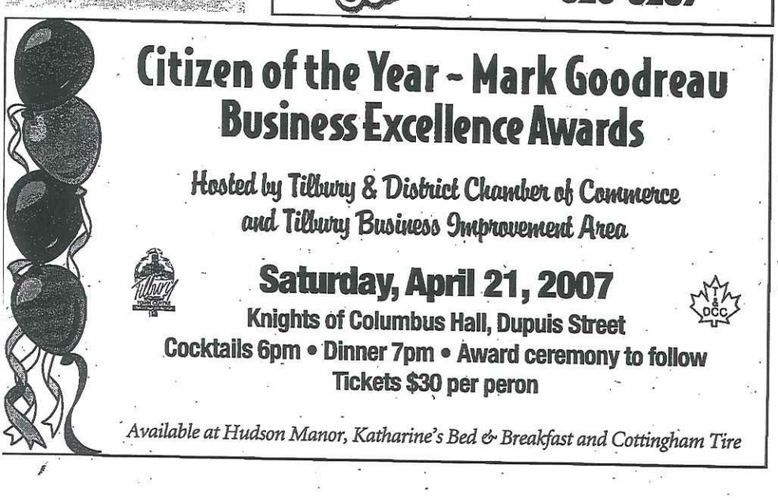
AMBASSADOR BRIDGE

Ambassador Bridge: www.ambassadorbridge.com

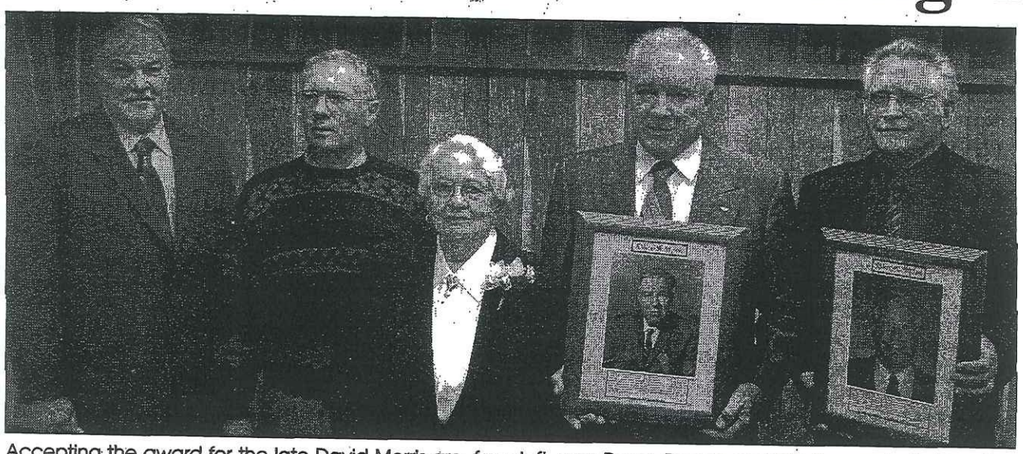






Hall of Fame inducts 'hard working' farmers

By Andy Comber



Accepting the award for the late David Morris are, from left, sons Doug, Duane and Winston and wife Dorothy, joined by Hall of Fame inductee Robert McKim, right.

For their dedication to family, farm, church and community, two Essex County farmers were inducted into the Essex County Agricultural Hall of Fame during a ceremony at the Exhibition Hall in Harrow, April 5.

Robert V. McKim, sponsored by the Colchester South and Harrow Agricultural Society, and the late David H. Morris, sponsored by the R. Pinsonneault Family, were recognized for their outstanding and significant contributions to the development and betterment of Essex County agriculture.

Dan Diemer, president of the association, gave special tribute to the inductees, their sponsors and family members, followed by tributes to the inductees from the provincial and federal government.

"You should be proud of their achievements," said Essex MP Jeff Watson, speaking at the ceremony.

David Howard Morris 1912-1971

David Howard Morris lived and farmed his entire life at 11307 North Middle Road in Lakeshore, the former Township of Tilbury West. Under his stewardship, the family farm grew from 100 acres to 356 acres of mixed grains. He transformed a few mixed cows into a herd of 120, establishing Morridell Holsteins in 1946.

On their family farm, Morris led a very active life, with his wife Dorothy raising three sons, Winston, Duane and Douglas.

Morris was a member of numerous farm organizations, including the Comber Agricultural Committee of Essex County, Comber Farms Co-Op, Holstein Freisen Association of Canada, and the Essex Holstein Club. He was instrumental in assembling the Essex Centennial yearbook and active in the planning for the Blytheswood International Plowing Match.

Active in the community, Morris served as director, president and manager of the Comber Fair Board, was a founding member of the Tilbury West Museum, served on the planning board of the Lower Thames Valley Conservation Authority, and board member for Metropolitan Hospital.

Acclaimed as Tilbury West councillor in 1961, Morris served as reeve from 1962-1969 and also served on numerous Essex County council committees. Involved with Comber Baseball and the Essex County Softball League, he even made a ball diamond on his farm for the "Young People's" softball games.

Morris's life achievements garnered many awards including a commendation from the County of Essex, William Murdock Trophy, Premier Exhibitor banners, a Premier Breeder banner, T. Eaton Company Special Award for best Junior Herd, and the Simpson Sears Ltd. Special Award for best Dam and Daughter.

Morris's farm and civic duties never overshadowed his religious commitments. He was an active member of the United Church's choir and Two-by-Two Club.

Robert Vern McKim 1946-

In 1965, at 19 years of age, Robert "Bob" McKim entered into a partnership with his father Vern to take over the family farm located at 3900 North Malden Road, Essex. The operation includes both beef cattle and cash crops of mixed grains. Over the years, McKim's Hereford beef herd has garnered many awards, earning respect and recognition in this field. In addition to his farm duties, McKim also served as a sales agent for Funks Seeds.

The 'family' part of the farm includes his wife Frances, affectionately known as Frankie, daughter Kristie and sons Lorne and Grant.

Involved with many farm organizations, McKim served terms with the Essex County 4-H, Essex County Cattlemen, Essex County Soil and Crop, Southwestern Ontario Soil and Crop Improvement and the Essex Agricultural Advisory Committee. He also chaired the Producer Communications Committee while serving as director with the Ontario Cattlemen's Association.

McKim's contribution to the agricultural community includes serving with the provincial tribunal for farm tax, drainage and farm products rebates. He chaired the inaugural committee of the Ontario Beef Expo 2000 and served on the inaugural committee for the Essex County Agricultural Hall of Fame Association. Bob was involved with the Ag Mural Committee for the Town of Essex and ECFA education programs.

With his church, McKim has served as treasurer, people's warden and rector's warden. He is a member of the parish council and cemetery board.

Dedicated to his community for many years, McKim is considered a major supporter of the Harrow Fair. He has assisted the Colchester South and Harrow Agricultural Society's Board of Directors with the open beef classes.

In recognition of his dedication to farming and his community, McKim has received awards from the Essex County Farm Safety Association, Canadian Red Cross Society, and Canadian Blood Services. His expertise with cattle has garnered the "Best Beef Herd" award at the Harrow Fair.

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Ontario's economy expected to rebound: RBC Economics

Ontario's economy will start to rebound in 2007 after being weighed down by a struggling manufacturing sector over the past year, according to a new provincial forecast released by RBC.

"Weaker commodity prices and a stabilized Canadian dollar will help boost the province's economic growth to 2 per cent in 2007," said Craig Wright, vice-president and chief economist, RBC. "A fuller recovery is anticipated for 2008 as growth should return to a healthy pace of 3.1 per cent."

Manufacturing continued to struggle as January shipment numbers declined, especially in the transportation equipment sector, which accounts for one-third of Ontario's shipments. Acknowledging the difficulties felt by manufacturers and processors, the recent federal budget offered some relief. It implemented a temporary measure that allows manufacturers a two-year write-off on new investment in equipment acquired before 2009 and has increased the capital cost allowance for buildings and computers.

"The result may well increase capital expenditure spending," said Wright.

The report also noted that unlike the federal spending spree, Ontario's 2007 budget did not provide significant additional stimulus to the Ontario economy. The province's businesses were also hit by a 28 per cent hike in the minimum wage by 2010, despite already having the highest rate in the country and evidence that higher minimums destroy jobs for less skilled workers.

"Given the low-balled revenue and economic growth assumptions made by the provincial government, we could see additional off-budget spending in light of the looming October election," added Wright.

For the overall Canadian economy, RBC forecasts that the gap between growth in the more heavily resource based provinces and central Canada will narrow over 2007-08. Newfoundland and Labrador will be the leader this year with growth of 4 per cent followed by Alberta at 3.6 per cent. Prince Edward Island and Ontario will be at the back of the pack, each with growth rate of about 2 per cent.

The RBC Economic Provincial Outlook assesses the provinces according to economic growth, employment growth, unemployment rates, personal income growth, retail sales, housing starts, and the Consumer Price Index

– CNW

Bruschetta chicken bake

Prep Time: 10 minutes
Total Time: 40 minutes
Serves: 6

1 can (19 oz/540 mL) stewed tomatoes, undrained
1 pkg (120 g) Stove Top Stuffing Mix for Chicken
2 cloves garlic, minced
1-1/2 lbs (750 g) boneless, skinless chicken breasts, cut into bite-size pieces
1 tsp dried basil leaves
1 cup Kraft mozzarella shredded cheese

Preheat oven to 400°F. Place tomatoes in medium bowl. Add stuffing mix and garlic; stir just until stuffing mix is moistened. Set aside.

Place chicken in 13x9-inch or other 3-L baking dish; sprinkle with basil and cheese. Top with stuffing mixture.

Bake 30 minutes or until chicken is cooked through.

Ambassador Bridge Enhancement Project
PUBLIC WORKSHOP NOTICE

PROJECT BACKGROUND: Ambassador Bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new bridge will connect directly into the existing plazas in both Windsor and Detroit. The New structure will be 31.24 metres wide and 1889.76 metres long, with approximately 670.56 metres traversing the Detroit River. No supporting structures (piers and towers) will be placed in the Detroit River. Once the new structure is completed, the existing Ambassador Bridge will be taken out of service in order to evaluate and make any repairs necessary.

The Ambassador Bridge will conduct a series of Public Workshops on the Enhancement Project at the times and places noted below:

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Royal Canadian Legion 3820 Huron Church Road Windsor, Ontario	St. Francis Elementary School 477 Detroit Street Windsor, Ontario	Caboto Club 2175 Parent Avenue Windsor, Ontario	Essex High School Gymnasium 244 Talbot Street North Essex, Ontario

These meetings are being held as part of the public consultation process for the preparation of a Federal Environmental Assessment (EA).

For further information, please contact:

P. Leigh Whyte
Chief Urban Planner
Avalon Consulting Professionals of Ontario, LLC
Tel. 1-866-807-5113
Email lwhyte@acp-on.ca

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Chamber holding seminar about Big Box retailers

By Ron Giofu & Breck MacLellan

AMHERSTBURG — Small businesses looking to compete with a big box retailer should mark Wednesday, April 18 on their calendars.

The Amherstburg Chamber of Commerce has scheduled guest speaker Roy Prevost to come to town and speak with local retailers and their employees. Prevost travels across Canada giving his knowledge to business owners and operators. The seminar will be called "Prospering in a Big Box Retail World."

Tickets for this seminar are $10 per person for members, and $20 per person for non members. It will be held at The Verdi Club.

Michael Greenaway of Sovran Greenaway Chartered Accountants and Nancy Greenaway of Edward Jones Investments are co-sponsoring the event.

The seminar will be teaching small business owners how to get closer and identify with their customers, and show them that they "are not and never will be in competition with big box" companies, explains Prevost.

Roy believes that the owners have to define what a customer is, and who their customers are. They also have to recognize that while majority of the population goes to big box companies on a regular basis "20 percent still support the small business owner."

Some tips that Roy would give to these business owners is to keep a database of your customers. They should ask themselves the question "How well do I know my customers?".

Prevost will be giving all kinds of examples on how to answer this question, and also examples of people who do know and keep track of their customers very well. Another tip from Roy is to thrive and do your best to be really close with your customers.

Prevost adds that "people who attend the workshop are very thrilled." The workshops give them hope that they can really do well without worrying about big box companies. They leave with a whole new attitude on how they can achieve this.

According to his web site (www.royprevost.com), he "will debunk the mythology around Big Box Retail and provide you with tools and techniques to thrive in the 21st Century.

Most of the seminar is in 'workshop' style and you will interact with other participants. By the end of the three hours, you will have a better understanding of Big Box Retail, a new approach to your business, and a new paradigm for your small business."

Prevost continues, "This is not a slam on Big Box Retail. It is an uplifting positive seminar/workshop that empowers the smaller retailer to raise their standards regarding customer service and to focus on the positive elements of their business."

Wal-Mart has also been invited to send a representative down to discuss their plans for the Amherstburg store, scheduled to open later this year or early 2008. They have been invited to speak on topics including why they chose Amherstburg and what they have brought to similar communities.

Chamber vice-president Nancy Greenaway said they are looking to protect the interests of the small business community by

Continued on Page 10

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Ambassador Bridge Enhancement Project
PUBLIC WORKSHOP NOTICE

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For further information, please contact:

P. Leigh Whyte
Chief Urban Planner
Avalon Consulting Professionals of Ontario, LLC
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what's goin' on

APRIL 11 - ESSEX COUNTY FIELD NATURALISTS' CLUB members meeting. Essex Civic Centre, 7:30 PM.

APRIL 13 - DANCING FIDDLES 7:30 PM at Essex United Church. For info. tickets, call 519-776-5121.

APR. 13 - PASTA DINNER at St. Paul's Anglican Church, 5-6:30 p.m.

APRIL 13 - WRITE YOUR MEMORIES. Essex Library, 10:30 a.m. to 12 noon. Register at the library.

APRIL 14 - SPRING TEA & MORE hosted by the Harrow Fair Board at the Agricultural Fair Building, 1-4 PM. Proceeds towards the washroom fund.

APRIL 21 - FAMILY EXPO FOR BABIES & KIDS at Forest Glade Arena, 10AM-3PM. Call 250-0012 or visit www.TheFamilyExpo.ca for more information.

APRIL 21 - ROAST BEEF DINNER Woodslee United Church, Cty Rd 27 from 4 - 7 PM. For info. call 519-728-2394, 519-975-2517 or 519-723-4601.

APRIL 21 - ESSEX LIBRARY "SPRING INTO SPRING" ages 7 & up. 2 PM. Register at the branch Fri.

APRIL 23 - STRESS MANAGEMENT FOR PARENTS OF PRESCHOOLERS workshop by The Windsor-Essex County Health Unit, at the Essex Civic Centre - Room C 7-9 p.m. Register 258-2146 ext. 1340.

APRIL 24 - MCGREGOR LIBRARY "SPRING HAS SPRUNG" ages 5 & up. 5:45 PM. Register at branch.

APRIL 28 - SCRAPBOOKING FUNDRAISER for the Multiple Sclerosis Society. Contact Rita (519) 728-2817.

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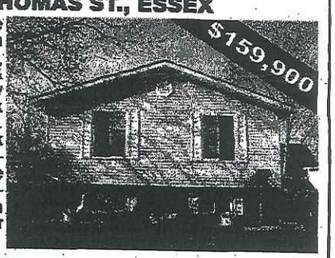

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Ambassador Bridge Enhancement Project
PUBLIC WORKSHOP NOTICE

PROJECT BACKGROUND: Ambassador Bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new bridge will connect directly into the existing plazas in both Windsor and Detroit. The New structure will be 31.24 metres wide and 1889.76 metres long, with approximately 670.56 metres traversing the Detroit River. No supporting structures (piers and towers) will be placed in the Detroit River. Once the new structure is completed, the existing Ambassador Bridge will be taken out of service in order to evaluate and make any repairs necessary.

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These meetings are being held as part of the public consultation process for the preparation of a Federal Environmental Assessment (EA).

For further information, please contact:

P. Leigh Whyte
Chief Urban Planner
Avalon Consulting Professionals of Ontario, LLC
Tel. 1-866-807-5113
Email lwhyte@acp-on.ca

AMBASSADOR BRIDGE
Ambassador Bridge: www.ambassadorbridge.com

The Essex Voice
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DEADLINES: Submissions must be no later than 4 pm on the Friday prior to publication.

CarStory
with Bill Sherk, the Old Car Detective
BROUGHT TO YOU BY WOODSLEE CREDIT UNION

The 1929 Buick with The Back Seat Urinal

Gord Hazlett worked 50 years as an auto mechanic in Toronto. He retired in 1984 and joined the team of writers at *Old Autos* newspaper in 1989, where his hilarious old car stories are published twice a month and eagerly read by hobbyists all across Canada.

One of his all-time favourite stories took place in the early 1950s:

"Remember when drive-in movies first started? They were a boon to the family man with children. Six got in for the price of two. Dad paid for Mum and himself and four kids under 12 got in free. "At this time, I had a 1929 Buick six-wheel four-door sedan in lovely shape. Only 22,000 miles on it – our family car. You who have been to drive-in movies know the problem with the kids. Well, I do too! No sooner had one relieved himself than another started bouncing on the back seat. He's got to go too! A lot of good movies I never saw, as I was making these rush calls to the washroom.

Gord Hazlett and sons with their 1929 Buick.

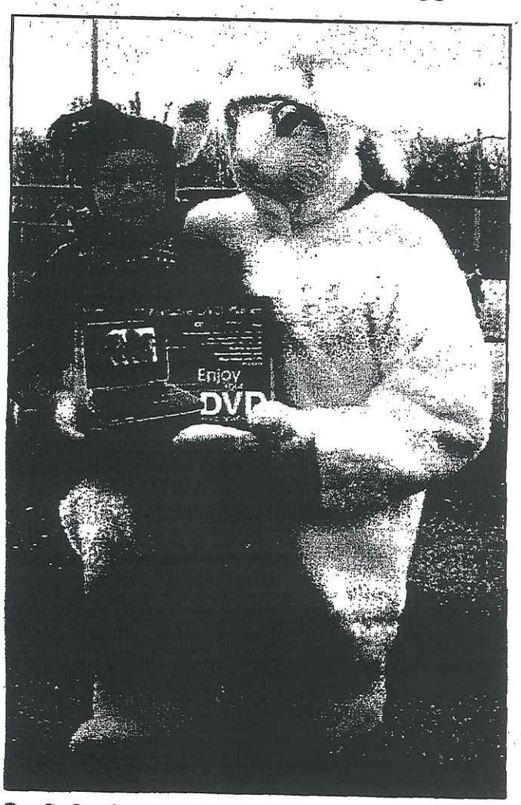
"The wife says, 'I'll fix this. Next time we'll bring a jam jar.' That worked fine for a couple of times until it got kicked over by one of the kids in the excitement of Bugs Bunny, and the lid was cross-threaded. The woven rear mat had to be dried and aired.

"I decided to take care of the situation myself. I drilled a two-inch hole in the wooden floorboards and installed a three-foot length of rad hose. I had the only '29 Buick, to my knowledge, with a built-in urinal, and not a drop was spilled inside the car from then on. And as you may have already realized, my four kids were all boys." One night, Gord and his wife took the four boys to the Maple Leaf Dairy on Danforth Ave. in Toronto's east end for some ice cream. As Gord was pulling into a parking spot with the '29 Buick, the car behind began blowing its horn. Gord got out and went back to see what the fellow wanted. He told Gord his gas tank was leaking, so Gord got back into the Buick and said to his wife: 'No ice cream tonight. Our gas tank's sprung a leak and we have to go home.' Gord's wife started laughing. 'There's nothing wrong with our gas tank. Little Gordie just had a pee.'

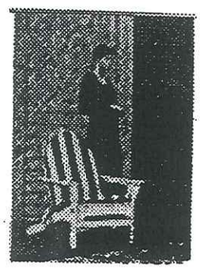
The photo shows Gord with three of his four boys around 1952. When he sold the '29 Buick, he filled the hole in the floor and kept the rad hose. It now resides in the back seat of his 1927 Pontiac four-door sedan, a car he has owned for the past 40 years.

Do you have any car stories or photos to share with our readers? Email: bill@carstory.com or write Bill Sherk, 33 Oak St. E., P.O. Box 10012, Leamington, ON N8H 2C3.

Large Crowd for Kinsmen Easter Egg Hunt



Despite freezing temperatures, a large crowd of children attended the annual Easter Egg Hunt at the Harrow Park on Saturday, April 7. Kinsmen members handed-out chips, chocolate egg and fruit drink for the children. Pictured, 3-year-old Noah Boudreau, son of Neil & Jessica Boudreau, won top prize - a Venturer 7" portable DVD Player.



"One day there'll be an empty chair..."

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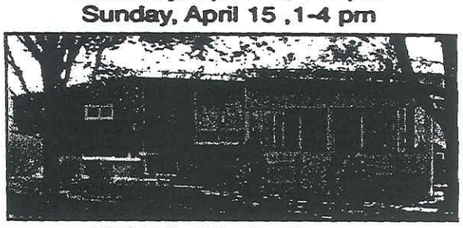
The Harrow News

OPEN HOUSE
Saturday, April 14, 1-4 pm
Sunday, April 15 ,1-4 pm



304 Erie St. S., Harrow
Edge of small town, large lot - 100' x 200'.
Phone: 738-6841 or 738-2238 for info.

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Email lwhyte@acp-on.ca

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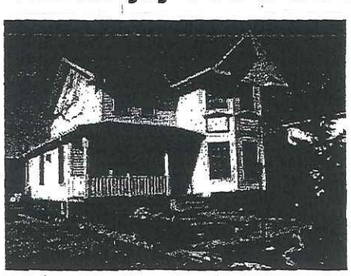

426 KING ST. E. $229,900
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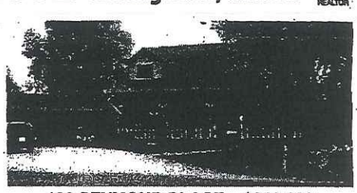

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Ridge Rd. - 25 acres - gas, water, great soil - $169,900.
Concession 3 - 20.3 acres - gas, water - $144,900.
Pigeon Beach - 4.6 and 4.3 acres - sanitary sewers and beach rights - $79,900 each.

Mayor Led Way In Campaign Expenses

Election Campaign Financial Report

An aggressive and expensive campaign paid off for Kingsville Mayor Nelson Santos who led the way in expenditures among 19 candidates in last fall's municipal election.

Santos' expenses totalled $12,983.49, still well under his limit of $18,824.

Second in expenses was Deputy Mayor Katherine Gunning who spent $9,782.28. Close behind in third, was Mayoral candidate Pat O'Neil with $9,747.04 in expenses.

Keith Macnab came in fourth on the list with expenditures of $6,033.18.

Rounding out the top ten were Ken Turner who spent $4,598.09, Councillor Brad Stevenson who spent $4,284.03, Councillor Gord Queen who spent $4,001.86, Brian Sanger who spent $3,671.44, Jim Augerman who spent $3,599.25, and Willy Fittler who spent $2,565.28.

Councillor Christopher Lewis was 11th on the list with $2,365.62 in expenditures. He was followed by Councillor Bob Peterson at $2,135.85, and Gail Stiffler at $1,163.51.

Six candidates kept their expenditures under $1,000. Among those, Nick Mastronardi had the highest total at $796.25 followed by Trustee Julia Burgess at $796.14.

Councillor Tamara Stomp earned her re-election with a relatively inexpensive campaign. Stomp's expenditures totalled $647.61. Completing the list are Michael Binder at $642.84, Kevin Madden at $350.63, and Tania Radu at $190.95.

Face Of Farming Continues To Change

The face of farming is changing. At a luncheon at Colasanti's Tropical Gardens last Thursday, Essex County Federation of Agriculture (ECFA) President Bernard Nelson noted that changes in the agricultural sector are rampant.

"Nowadays, it's more urban people living in a rural setting," he said. Nelson stated that homes in the rural areas are being bought by those who may have grown up on the farm, but left, gained employment and have moved back. He added that today, less than three per cent of the population derives its living from agriculture.

Those who remain on the farm are fighting a constant battle to make a profit due to a variety of reasons. The competing U.S. market has brought Canadian prices down, and there was little help for farmers in the recent Federal and Provincial budgets. Unpredictable weather patterns often leave the farm community in the lurch, whether it is too wet or too dry.

More needs to be done to aide the plight of farmers, and one way to do this is by buying locally grown food. Rather than opting for items grown out of province or even out of country, residents are encouraged to look for produce grown practically in their own backyard. "It's fresher and it tastes better," added Nelson.

In addressing those in attendance, Nelson stated that on June 1, 2007, the Essex County Federation of Agriculture (ECFA) is planning to be on the World Wide Web. Their new website will deal with a variety of agricultural topics and

continued on page twenty

New California News

By Alice Keyes

The Ruthven Pastoral Charge Good Friday Service was held at Trinity Church on April 6 at 10 a.m. The service was led by Fran Monminie, assisted by Gary and Dorothy Balkwill who were greeters and by Laura Rumbles and Deanna Reid who were Readers. Margaret Pare presided at the organ. The choir, led by Margaret Pare performed several anthems, during which Jeannette Frenette sang a solo.

***

The Easter Sunday Sunrise Service for the Ruthven Pastoral Charge was held at Trinity Church on April 8 at 8 a.m. It was led by Emily Rumbles, and members of the Sunday School participated in two skits. Laura Rumbles and Marilyn Hedge coordinated the service.

***

The 11 a.m. service at Trinity Church on Easter Sunday, April 8, was led by the guest speaker, Phil Hernandez, assisted by Fran and Bonnie Monminie who were the greeters, and by Fran who was the Lay Reader. Bonnie and Fran were in charge of the Offertory. During the service, Phil favoured the congregation with a solo. Next Sunday, April 15, the second Sunday after Easter, the 11 a.m. service will be led by Lonnie Jones.

***

Trinity UCW will meet at the church on Wednesday, April 11 at 7:30 p.m. Grace Richards and Evelyn Mulcaster will be hostesses and Deanna Reid will be in charge of Devotions.

***

Alice and Barbara Keyes were among those who attended a lovely baby shower in honour of Andrea Smith on Saturday, April 7 at the Ramada Inn in Leamington. The shower was hosted by Andrea's mother, Agatha Smith and her aunt, Cindy Kok. Other guests included Andrea's grandmother, Corrie Kok, her great aunt Mina DeJong, her aunt, Toni Kok and her cousins, Deedee and Dana Kok and Kristi and Marina Kok.

***

Jane Bowen hosted a lovely Easter dinner at her home on Saturday evening, April 7. Her guests were Waiva Cowell, Steve and Heather Cowell, Melissa Cowell-O'Grady, and Thomas and Miranda, Alice Keyes and Barbara Keyes.

***

Marie and Miguel Santos hosted Easter Sunday dinner at their home. Their guests were Jose Santos, Michael Santos and Joey Santos.

***

Evelyn Mulcaster hosted a family Easter lunch on Easter Sunday at the Kingsville Golf & Country Club. Her guests were her daughter and son-in-law, Margaret and John Pare, her grandson and granddaughter-in-law and great grandchildren, Rob and Tara Pare, Justin and Mackenzie, her granddaughter and grandson-in-law, Michelle and Dan Hickey, and her granddaughter, Leanne Pare and Brad Campbell.

***

Jeannette and Don Frenette and Anthony were Easter Sunday dinner guests of her brother and sister-in-law, John and Colleen Lyons of Windsor. Also attending the dinner were their daughter and elder son, Natalie and Paul Middleton.

***

Happy birthday to Evelyn Mulcaster who celebrated on April 9, to Layne Van Loo on April 10, to Elaine Wright on April 11, to Rachel Balkwill who will celebrate on April 13 and to Clayton Balkwill on April 14.

***

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Saturday, April 21st • 9:30 a.m.
Sale will be held at the Exhibition Hall at Leamington Fair Grounds, Leamington, just off Hwy 77 (behind Applebee's & across from Tim Horton's)
Selling the property of John & Freida Woelk of Leamington, plus items from two Windsor estates.
Please note 9:30 a.m. start.

Woelk Shop Tools - selling at 9:30 a.m.: Sears 10" band saw; Craftsman handled router & Craftsman router w/table; Sears table scroll 5/8" saw; Craftsman radial arm saw; 16" scroll saw & table; 12" drill press; 10" table saw; pressure washer; plus numerous misc. shop items; **Woelk Antiques, China, Glass & Collectibles:** 12" blue water pitcher signed; blue painted bowl & pitcher: various jugs & pitchers; pink depression glass; lg. quantity china including hand painted Nippon, Noritake, Japanese & Belgium; collector plates & numerous misc. pcs china & glass; quantity of quilts & linens; Russian dishes & samovar; coal oil lamps & numerous small collectibles; **Woelk Furniture:** Sklar Peplar mahogany 9 pc. DR suite w/table that seats 12 when extended, 6 cane back chairs w/needlepoint seats, lg. hutch & side table; stand for bowl & pitcher; chesterfield & loveseat; lamps; desk; dressers; approx. 6 pcs. wicker furniture; beds; cedar chest; sewing machine; deacons bench; children's toy furniture; etc. **Antiques & Furniture from two Windsor estates:** lovely 140 yr old Rosewood sofa, ornately carved & reupholstered in burgundy velvet; two drop leaf tables; small tables; 30" Victorian marble topped round table; antique parlour & DR chairs; marble top dresser; lg. wool carpet in rose w/floral border; 2 sm. oriental rugs; BR set; floor & table lamps; prints & paintings; 3 Shelley cups & saucers; Carltonware fruit bowl; misc. glass & china; old violin; old medical satchels & medical tools; Heintzman upright piano; quantity of toys; cedar chest; BR suite; 80 HP Mercury outboard motor; 9.7 HP Johnson outboard motor; fishing equip; quantity of golf balls; db. pedestal wooden desk; other misc. items.

Terms: Cash or personalized cheque day of sale.
Owner or auctioneer not responsible for accidents day of sale.
Lunch available.
Auctioneer: Jack Morris, 519-687-2530 or 1-800-462-3561.
Details & photos at www.jackmorrisauctions.com

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PUBLIC WORKSHOP NOTICE

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AMBASSADOR BRIDGE

Ambassador Bridge: www.ambassadorbridge.com

Ambassador Bridge Enhancement Project
Environmental Assessment Update - OPEN HOUSE

PROJECT BACKGROUND: The Ambassador Bridge is proposing to construct a 6-lane cable stayed bridge over the Detroit River, just west of the existing Ambassador Bridge. The new span will replace the existing Ambassador Bridge and will link directly into the existing plazas in both Windsor and Detroit. When the replacement span is operational, the existing Ambassador Bridge will be reevaluated and rehabilitated without causing any disruption in traffic flow. After it is rehabilitated, the existing Ambassador Bridge will be maintained and available as a redundant resource for maintenance vehicles, emergencies and approved public events.

The Ambassador Bridge held Public Workshops in April 2007, and Open House Sessions in June 2007, to introduce and discuss the Project and is now pleased to present the results of the environmental studies for the replacement span at two Public Open House Sessions scheduled:

MONDAY, OCTOBER 1st, 2007 **Visit Anytime** **between 3:00 pm - 9:00 pm** **MACKENZIE HALL** 3277 Sandwich St. Windsor, Ontario N9C 1A9 Tel: (519) 255-7600	**TUESDAY, OCTOBER 2nd, 2007** **Visit Anytime** **between 3:00 pm - 9:00 pm** **CIOCIARO CLUB** 3745 North Talbot Road Oldcastle, Ontario N0R 1L0 Tel: (519) 737-6153

We encourage you to attend the Open House anytime between 3:00 p.m. and 9:00 p.m. to review the results from the various studies and ask questions of our technical experts responsible for the analysis and preparation of the studies that will be submitted to the federal government for review and comment.

These meetings are being held as part of the public consultation process for the preparation of a Federal Environmental Assessment (EA).

For further information, please contact:

Paula Lombardi
Environmental Lawyer
Tel. 519-251-8200
Tel. 1-877-672-2121

Email paula.lombardi@siskinds.com
Ambassador Bridge: www.ambassadorbridge.com

AMBASSADOR

AMBASSADOR BRIDGE

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The Ambassador Bridge held Public Workshops in April 2007, introducing the Enhancement Project and will now present the preliminary results of the environmental studies undertaken for the Enhancement Project on:

Monday, June 25th, from 4:00 pm to 8:00 pm and Tuesday, June 26th, from 4:00 pm to 8:00 pm
University of Windsor, School of Visual Arts LeBel Building at Huron Church Road and College Ave 955 Huron Church Road Windsor, Ontario Parking is available from the College Avenue Entrance across from McDonald's restaurant

These meetings are being held as part of the public consultation process for the preparation of a Federal Environmental Assessment (EA) under the *Canadian Federal Environmental Assessment Act*.

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Ambassador Bridge: www.ambassadorbridge.com

First Name	Last Name	Address 1	City	Postal Code	Meeting Date	Purpose	Notified
Ed	Slingsby	1090 Talbot Road	Windsor	N9H 1A3	April 16/07	Public Meeting	Mail
Mike	Kenney	1095 Watson Avenue	Windsor	N85 3T3	April 16/07	Public Meeting	Mail
Paul & Denise	Ausner	1230 Eastbourne	LaSalle	N9H 1B7	April 16/07	Public Meeting	Mail
J.	Rauti	1290 Outram	Windsor	N9J 3S1	April 16/07	Public Meeting	Mail
Grat	Wooy	2460 Cousineau Road	Windsor	N9H 1C1	April 16/07	Public Meeting	Mail
Pierre	Quenneville	1115 Talbot Road	Windsor	N9H 1A4	April 16/07	Public Meeting	Mail
Pat & Winn	Seguin	3233 Dominion	Windsor	N9E 2N6	April 16/07	Public Meeting	Mail
Mary Ann	Cuderman	3118 Sandwich Street	Windsor	N9C 1A6	April 16/17/18/19	Public Meeting	Mail
Bill	Szekely	6080 Matchette Road	Windsor	N9J 3V9	April 16/07	Public Meeting	Mail
John	Redmile	1304 Oak Avenue	Windsor	N8X 2B3	April 16/07	Public Meeting	Mail
Al	Reaume	1709 Rankin Avenue	Windsor	N9B 3W3	April 16/07	Public Meeting	Mail
Jean	Grandmaison	4871 Sixth Street	Windsor	N9E 4X1	April 16/07	Public Meeting	Mail
James	Demers	4283 Roseland Drive E	Windsor	N9G 1Y6	April 16/07	Public Meeting	Mail
Colleen	Callegari	600 Cousineau	Windsor	N9G 1V5	April 16/07	Public Meeting	Mail
D.	Garris	3630 Morris Drive	Windsor	N9E 2K7	April 16/07	Public Meeting	Mail
S.	Rolinson	1456 Felix	Windsor	N9C 3M2	April 16/07	Public Meeting	Mail
Diana	Peters	336 Briar Ridge	Amherstburg	N9V 3X1	April 16/07	Public Meeting	Mail
Abbie	Gosselin	204-5830 Malden Road	Windsor	N9E 3V7	April 16/07	Public Meeting	Mail
Frances	Reaume	1709 Rankin Avenue	Windsor	N9B 3W3	April 16/07	Public Meeting	Mail
Dave	Paddon	3194 Rankin Avenue	Windsor	N9E 3B9	April 16/07	Public Meeting	Mail
Ray	Ross	2321 Spring Garden	Windsor	N9E 3P8	April 16/07	Public Meeting	Mail
John	Muir	1320 Chateau Avenue	Windsor	N8P 1M2	April 16/07	Public Meeting	Mail
Les	Muir	1208 Prince Road	Windsor	N9C 3A3	April 16/07	Public Meeting	Mail
Jim	O'Neill	4350 Ashfield Crescent	Windsor	N9G 2G9	April 16/07	Public Meeting	Mail
Ray & Rose	Bejaire	2289 Lamont Street	Windsor	N9E 4X5	April 16/07	Public Meeting	Mail
Karen	Farbota	1637 Chappell Avenue	Windsor	N9C 3E5	April 16/07	Public Meeting	Mail
Bob	Poulin	1585 Argus Street	LaSalle	N9J 3H5	April 16/07	Public Meeting	Mail
Louann	Sharp	1406 Armanda Street	Windsor	N9C 3W9	April 16/07	Public Meeting	Mail
Lucy	Malgin	1440 Armanda Street	Windsor	N9X 3W9	April 16/07	Public Meeting	Mail
Joel	Foster	659 Exeter Road	London	N6E 1L3	April 16/07	Public Meeting	Mail
Bob	Harrington	536 Curry Avenue	Windsor	N9B 2B9	April 16/07	Public Meeting	Mail
Bob	Willan	2719 Everts Avenue	Windsor	N9E 2T9	April 16/07	Public Meeting	Mail
David	Rossit	2884 California Avenue	Windsor	N9E 3W9	April 16/07	Public Meeting	Mail
Marlene	Redmee	1304 Oak Avenue	Windsor	N8X 2B3	April 16/07	Public Meeting	Mail
Stan	Pewton	1270 Minto Avenue	Windsor	N9J 3H8	April 16/07	Public Meeting	Mail
Roger	Seguin	1557 Sunvalley Drive	Windsor	N9C 3R1	April 16/07	Public Meeting	Mail
A.	Plots	1500 Tanglewood	Windsor	N9J 2K2	April 16/07	Public Meeting	Mail
Alex	Husqti Jr.	1300 Tanglewood	Windsor	N9J 2K2	April 16/07	Public Meeting	Mail
Terrence	Kennedy	3248 Baby Street	Windsor	N9C 1K5	April 16/17/18/19/07	Public Meeting	Mail
Brian	Kersey	1070 Felix Avenue	Windsor	N9C 3L5	April 17/07	Public Meeting	Mail
Steve	Chaborek	699 Indian Road	Windsor	N9C 2M7	April 17/07	Public Meeting	Mail
James	Gatto	1033 Dot Avenue	Windsor	N9C 3H7	April 17/07	Public Meeting	Mail
Anna	Rutinger	456 Detroit Street	Windsor	N9C 2P7	April 17/07	Public Meeting	Mail

Dustin	Davies	2634 St. Clair Avenue	Windsor	N9E 4L6	April 17/07	Public Meeting	Mail
Diane	Rabideau	3528 Bloomfield Road	Windsor	N9C 1R7	April 17/07	Public Meeting	Mail
Jim	Cusson	937 Esoras Place	Windsor	N8S 2M8	April 17/07	Public Meeting	Mail
Jean	Cohan	100 Willow Drive	Windsor	N9J 1W6	April 17/07	Public Meeting	Mail
Cindy & Ed	Trymbulak	1096 Dot Avenue	Windsor	N9C 3H8	April 17/07	Public Meeting	Mail
Ray	Bezaire	2289 Lamont Street	Windsor	N9E 4X5	April 17/07	Public Meeting	Mail
Don	Snapiella	373 Detroit Street	Windsor	N9C 4B4	April 17/07	Public Meeting	Mail
L. & Mike	Moore	454 Rosedale Avenue	Windsor	N9C 2N4	April 17/07	Public Meeting	Mail
Michael	Appel	224 Sunset Avenue	Windsor	N9B 3A7	April 17/07	Public Meeting	Mail
Lisa	Lumley	3776 Dougall Avenue	Windsor	N9E 1T7	April 17/07	Public Meeting	Mail
Greg	Lumley	3776 Dougall Avenue	Windsor	N9E 1T7	April 17/07	Public Meeting	Mail
Mary	Atkinson	3131 Donnelly Street	Windsor	N9C 1M3	April 17/07	Public Meeting	Mail
Heather	Londr	3560 Roxborough Avenue	Windsor	N9E 3A2	April 17/07	Public Meeting	Mail
Doug	Brant	1130 Wigle Avenue	Windsor	N9C 3N1	April 17/07	Public Meeting	Mail
Brad	Hutchings	1645 Felix Avenue	Windsor	N9C 3MS	April 17/07	Public Meeting	Mail
Patrick	Petro	436 Rosedale	Windsor	N9C 2N4	April 17/07	Public Meeting	Mail
Paula	Buckle	502 St. Pierre Street	Windsor	N8N 1Y9	April 17/07	Public Meeting	Mail
Olga	Howchuk	3546 Bloomfield Road	Windsor	N9C 1R7	April 17/07	Public Meeting	Mail
Doug & Sharon	Reeve	3038 Alexander Avenue	Windsor	N9C 1G5	April 17/07	Public Meeting	Mail
Brenda	Tinker	3541 Bloomfield Road	Windsor	N9C 1R7	April 17/07	Public Meeting	Mail
Jim	Yeadon	3541 Bloomfield Road	Windsor	N9C 1R7	April 17/07	Public Meeting	Mail
Kris	Cudling	3605 Bloomfield Road	Windsor	N9C 151	April 17/07	Public Meeting	Mail
Hugo	Drivinebosker	3615 Bloomfield Road	Windsor	N9C 151	April 17/07	Public Meeting	Mail
Dawna	LeVasseur	3105 Donnelly Street	Windsor	N9C 1M3	April 17/07	Public Meeting	Mail
William	Lane	695 Tournier Street	Windsor	N9C 3G9	April 17/07	Public Meeting	Mail
Alicia	De Souza	483 Rosedale Avenue	Windsor	N9C 2N3	April 17/07	Public Meeting	Mail
Leisha	Nazarawich	322 Rosedale Avenue	Windsor	N9C 2N2	April 17/07	Public Meeting	Mail
Jenna	Syroid	3924 Whitney Avenue	Windsor	N9C 2C6	April 17/07	Public Meeting	Mail
G	DeLesk	2890 Tecumseh Road West	Windsor	N9C 2B4	April 17/07	Public Meeting	Mail
Theresa	Gatto	1033 Dot Avenue	Windsor	N9C 3H7	April 17/07	Public Meeting	Mail
Craig	Parrott	2419 Riverside Drive West	Windsor	N9B 1B2	April 17/07	Public Meeting	Mail
Joe	Rottinger	456 Detroit Street	Windsor	N9C 2P7	April 17/07	Public Meeting	Mail
John	Muir	1320 Chateau Avenue	Windsor	N8P 1M2	April 18/07	Public Meeting	Mail
Dan	Czuchnowsky	264 Patrice Drive	Windsor	N8S 2R6	April 18/07	Public Meeting	Mail
Meredith	Fortier	2765 Garvey Crescent	Windsor	N8W 4W7	April 18/07	Public Meeting	Mail
Wayne	Fortin	6045 Malden Road	Windsor	N9H 1S7	April 18/07	Public Meeting	Mail
Colleen	Sarazin	2431 Todd Lane	Windsor	N9H 1K4	April 18/07	Public Meeting	Mail
Rob & Elaine	Macintyre	1059 St. Louis	Windsor	N8S 2K9	April 18/07	Public Meeting	Mail
Chris	Schnurr	804 Chilver Road	Windsor	N8Y 2K4	April 18/07	Public Meeting	Mail
Mike	Duchene	1675 Winfield Drive	LaSalle	N9H 2G4	April 18/07	Public Meeting	Mail
Jim	Duchene	440 Lafferty	LaSalle	N9J 1K6	April 18/07	Public Meeting	Mail
Arvind	Sharda	152 Martin Drive	Windsor	N9J 1W8	April 18/07	Public Meeting	Mail
Leo	Petrelli	306 Partington Avenue	Windsor	N9B 2B5	April 18/07	Public Meeting	Mail
Kristin	Knowler	Yorkville Gardens	Windsor	N9E 4W4	April 18/07	Public Meeting	Mail

Maria	Cappucci	2375 Everts Avenue	Windsor	N9E 3Y1	April 18/07	Public Meeting	Mail
Bobby	Gilligan	272 Giles Boulevard East	Windsor	N9A 4C2	April 18/07	Public Meeting	Mail
R.V.	Farat	1208 Gladstone Avenue	Windsor	N8X 3H3	April 18/07	Public Meeting	Mail
Rob & Patty	Pozzobon	3404 Hemlock Road	Windsor	N8R 1Z9	April 18/07	Public Meeting	Mail
Angelina	Taranto	1675 Stanton Avenue	Windsor	N9J 3H3	April 18/07	Public Meeting	Mail
J	Tessrel	2570 Francois Road	Windsor	N8W 4T6	April 18/07	Public Meeting	Mail
Irene	Roberts	373 Detroit Street	Windsor	N9C 4B4	April 18/07	Public Meeting	Mail
Americo	Simeo	3771 Poplar Avenue	Windsor	N9C 2E2	April 18/07	Public Meeting	Mail
Louann	Sharp	1406 Armanda Street	Windsor	N9C 3W9	April 19/07	Public Meeting	Mail
Jim	Oates	RR#1	Essex	N8M 2X5	April 19/07	Public Meeting	Mail
Mr. & Mrs. Gerald	Soulliere	3564 Birch Street	Windsor	N9C 1Y9	April 19/07	Public Meeting	Mail
Tom	Belchuk	366 E. County Road 34	Kingsville	N0P 2G0	April 19/07	Public Meeting	Mail
Lucy	Mlizia	1440 Armanda Street	Windsor	N9C 3W9	April 19/07	Public Meeting	Mail
Bob	Reid	7159 County Road 46	Comber	N0P 1J0	April 19/07	Public Meeting	Mail
Peter	Neile	2052 Hopgood	Essex	N8M 2X7	April 19/07	Public Meeting	Mail
Donna	Bas	937 Virginia Avenue	Windsor	N8S 2Y5	April 19/07	Public Meeting	Mail
J.	Makish		Cottam	N0R 1B0	April 19/07	Public Meeting	Mail
P.	Harris	2059 Concession 3	S. Woodslee	N0R 1V0	April 19/07	Public Meeting	Mail
Roula	Vitsas	3055 Austen Drive	Windsor	N8T 1Z4	April 19/07	Public Meeting	Mail
Ed	Callegari				April 19/07	Public Meeting	Mail

Russell	Nahdee	CanAm Indian Friendship Centre of Windsor	496 Sunset Avenue	Windsor	N9B 3P4	519-253-3000	Organization Meeting	Email
Dr. John	Strasser	St. Clair College	2000 Talbot Road West	Windsor	N9A 6S4	519-972-2701	Organization Meeting	Email
Mary Ann	Cuderman	Olde Sandwich Towne Business Association	3225 Sandwich Street, Unit B	Windsor	N9C 1A9	519-258-0361	Organization Meeting	Email
Judith	Veresuk	Downtown Windsor Business Improvement Association	474 Ouellette Avenue	Windsor	N9A 1B2	519-252-5723	Organization Meeting	Email
Louie	Gouin	Ford City Business District	980 St. Luke Road	Windsor	N8Y 4Y8	519-254-4111	Organization Meeting	Email
Joan	Charette	Walkerville Business Improvement Area	268 Moy Avenue	Windsor	N9A 2N2	519-919-8733	Organization Meeting	Email
		Via Italia / Erie Street BIA	866 Erie Street East	Windsor	N9A 3Y6	519-252-7140	Organization Meeting	Email
Bridget	Scheuerman	Wyandotte Towne Centre BIA	963 Windermere Road	Windsor	N8Y 3E5	519-253-8826	Organization Meeting	Email
Linda	Smith	Windsor & District Chamber of Commerce	2575 Ouellette Place	Windsor	N8X 1L9	519-966-3696 x22	Organization Meeting	Email
Scott	Waters	Harrow & Colchester South Chamber of Commerce	P.O. Box 888	Harrow	N0R 1G0		Organization Meeting	Email
Don	Nicholson	Leamington & District Chamber of Commerce	P.O. Box 321	Leamington	N8H 3W3	519-326-2721	Organization Meeting	Email
Justin	Barker	Leamington & District Chamber of Commerce	P.O. Box 321	Leamington	N8H 3W3	519-326-2721	Organization Meeting	Email
Jason	Whiston	Amherstburg Chamber of Commerce	268 Dalhousie Street P.O Box 101	Amherstburg	N9V 2Z3	519-736-2001	Organization Meeting	Email
Matthew	Fischer	Windsor-Essex Development Commission	333 Riverside Drive West, Suite 215	Windsor	N9A 5K4	519-255-9200	Organization Meeting	Email
Linda	Malenko	Essex Community Futures Development Corporation	39 Maidstone Avenue East	Essex	N8M 2J3	519-776-4611	Organization Meeting	Email
		Heavy Construction Association of Windsor	2880 Temple Drive	Windsor	N8W 5J5	519-974-9680	Organization Meeting	Email
Joseph	Berthiaume	Windsor-Essex Catholic District School Board	1325 California Avenue	Windsor	N9B 3Y6	519-253-2481 x201	Organization Meeting	Email
		CanAm Indian Friendship Centre of Windsor	1377 Ouellette Avenue	Windsor	N8H 1J8	519-253-3243	Organization Meeting	Email
Marlene	Markham	Essex BIA	33 Talbot Street South	Essex	N8M 1A8	519-776-9811	Organization Meeting	Email
Carolyn	McGillivray	Kingsville BIA	25 Main Street West, Unit 3 Computer Centre	Kingsville	N9Y 1H2	519-733-6250	Organization Meeting	Email
Rina	Guarascio	Tecumseh BIA	1189 Lacasse Blvd	Tecumseh	N8N 2C7	519-735-3795	Organization Meeting	Email
c/o Rick	Garant	Canadian Auto Workers Local 1941	P.O. Box 518	Tilbury	N0P 2L0	519-682-3577	Organization Meeting	Email
Mike	Renaud	Canadian Auto Workers Local 195	3400 Somme Avenue	Windsor	N8W 1V4	519-253-1107	Organization Meeting	Email
Jerry	Hind	Canadian Auto Workers Local 35	P.O. Box 1139	Chatham	N7M 5L8	519-436-4084	Organization Meeting	Email
Glen	Myers	Canadian Auto Workers, Regional Office	2345 Central Avenue	Windsor	N8W 4J1	1-800-465-0974	Organization Meeting	Email
Sandra	Tunstall	Canadian Auto Workers Area Office	200 Riverview Drive	Chatham	N7M 5Z8	519-354-5800	Organization Meeting	Email
Chad	Goebel	Canadian Union of Public Employees Local 82	1576 Parent Avenue	Windsor	N8X 4J7	519-252-2877	Organization Meeting	Email
Aaron	De Meester	Chatham Kent District Labour Council	336 King Street West	Chatham	N7M 1G1	519-351-6621	Organization Meeting	Email
Frank	Biekx	Teamsters Local 880	6566 Hawthorne Drive	Windsor	N8T 1J9	519-944-9880	Organization Meeting	Email
		City of Windsor						Email
Jean-Luc	Bernard	Conseil Scolaire de District du Centre-Sud-Ouest	116 Cornelius Parkway	Toronto	M6L 2K5	1-888-538-1702 x5906	Organization Meeting	Email
Les	Wolfe	Chatham & District Chamber of Commerce					Organization Meeting	Email
Ike	Ericson	Chatham & District Chamber of Commerce					Organization Meeting	Email
Gail	Antaya	Chatham & District Chamber of Commerce				519-352-7540	Organization Meeting	Email
Brent	DeNure						Organization Meeting	Email
Mike	Morency	CTC Community Coalition					Organization Meeting	Email
Marilyn	Woodison	CTC Community Coalition					Organization Meeting	Email
Eleanor	Sedgi	CTC Community Coalition					Organization Meeting	Email
Chris	Asmar	CTC Community Coalition					Organization Meeting	Email
Alice	Di Caro	CTC Community Coalition					Organization Meeting	Email
Les	Chaif	CTC Community Coalition					Organization Meeting	Email

Judith	Veresuk	Downtown Windsor BIA				519-252-5723	Organization Meeting	Email
Rochelle	Emery-Luckett	Downtown Windsor BIA				519-252-5723	Organization Meeting	Email
Noel	Harding	Green Corridor Group					Organization Meeting	Email
Rod	Strickland	Green Corridor Group					Organization Meeting	Email
John	Bazinet						Organization Meeting	Email
John	Strasser	President, St. Clair College				519-972-2701	Organization Meeting	Email
Fred	Sorrell	Vice President, St. Clair College					Organization Meeting	Email
Natalie	Byczynski	Manager, Occupational Health and Safety, St. Clair College					Organization Meeting	Email
Susan	Maxwell	Executive Director, St. Clair College Foundation					Organization Meeting	Email
Frank	Biekx	President, Teamsters Local 880				519-944-9880	Organization Meeting	Email
Rick	Parent	Vice-President, Teamsters Local 880				519-944-9880	Organization Meeting	Email
Dr. Ross	Paul	University of Windsor				519-253-3000 x2000	Organization Meeting	Email
Bob	McQueen	International Union of Operating Engineers				519-948-2221	Organization Meeting	Email
Kevin	Elliot	International Painters and Allied Trades Union					Organization Meeting	Email
Bill	Moreland	LIUNA Local 625					Organization Meeting	Email
Mark	Dugal	Iron Workers Local 700					Organization Meeting	Email
Sol	Furer	The Essex and Kent Counties Building & Construction Trades Council and the International Brotherhood of Electical Workers Local 773				519-948-2221	Organization Meeting	Email
Miker	Gagliano						Organization Meeting	Email
Matt	Kwasnicki	Greater Ontario Regional Council of Carpenters, Drywall and Allied Workers Local 494					Organization Meeting	Email
Rocco	Lucente	Heavy Construction Association of Windsor					Organization Meeting	Email
Peter	Scalia	Heavy Construction Association of Windsor					Organization Meeting	Email
Jim	Lyons	Heavy Construction Association of Windsor					Organization Meeting	Email
Ed	Smith	Heavy Construction Association of Windsor					Organization Meeting	Email
Domenic	Aversa	Heavy Construction Association of Windsor					Organization Meeting	Email
Edward	Clough	Express Transit Route					Organization Meeting	Email
Igor	Siljanoski	Camber of Commerce					Organization Meeting	Email
Rick	Bigness						Organization Meeting	Email
Dave	McGregor						Organization Meeting	Email
Lorna	McCormack						Organization Meeting	Email
Michael	Mastromardi						Organization Meeting	Email
Lindsay	Boyd						Organization Meeting	Email
Carolyn	Brown	Detroit Windsor Tunnel					Organization Meeting	Email
Dave	Harrison						Organization Meeting	Email
Jim	Drummond						Organization Meeting	Email
Dean	Clevett	BASF Canada					Organization Meeting	Email
Vicky	Kyrialo-Wilson	Chamber Transportation Committee					Organization Meeting	Email
Federica	Nazzani	Chamber Finance & Tax Committee					Organization Meeting	Email
Paul	LeFave	Border Freight Resources					Organization Meeting	Email
Linda	Georgiu	Windsor & District Labour Council					Organization Meeting	Email
Tom	Lesperance	Windsor & District Labour Council					Organization Meeting	Email
Nick	Posta	Windsor & District Labour Council					Organization Meeting	Email

Evelyn	Anger	Windsor & District Labour Council					Organization Meeting	Email
Mayor Wayne	Hurst	Essex County Council				519-736-7646	Organization Meeting	Email
Deputy Mayor Robert	Bailey	Essex County Council				519-978-0974	Organization Meeting	Email
Mayor Ron	McDermott	Essex County Council				519-776-8150	Organization Meeting	Email
Deputy Mayor Richard	Meloche	Essex County Council				519-776-5726	Organization Meeting	Email
Mayor Nelson	Santos	Essex County Council				519-733-9936□	Organization Meeting	Email
Deputy Mayor Katherine	Gunning	Essex County Council				519- 839-4731	Organization Meeting	Email
Mayor Tom	Bain	Essex County Council				519-728-2394	Organization Meeting	Email
Deputy Mayor Robert	Sylvester	Essex County Council				519-727-3849	Organization Meeting	Email
Mayor Gary□	Baxter	Essex County Council				519-250-0944	Organization Meeting	Email
Deputy Mayor Bill □	Varga	Essex County Council				519-734-7324	Organization Meeting	Email
Mayor John	Adams	Essex County Council				519-326-7010	Organization Meeting	Email
Deputy Mayor Robert	Schmidt	Essex County Council				519-326-7443 □	Organization Meeting	Email
Mayor Gary □	McNamara	Essex County Council				519-735-6654	Organization Meeting	Email
Deputy Mayor Tom	Burton	Essex County Council				519-979-2339	Organization Meeting	Email
Helga	Bailey	Trustee, Greater Essex County District School Board□				519-978-0974□	Organization Meeting	Email
Julia	Burgess	Trustee, Greater Essex County District School Board□				519-733-5324	Organization Meeting	Email
Beth	Cooper	Trustee, Greater Essex County District School Board□				519-966-4114	Organization Meeting	Email
Lisa	Gretzky	Trustee, Greater Essex County District School Board□				519-252-6385	Organization Meeting	Email
Tom	Kilpatrick	Trustee, Greater Essex County District School Board□				519-252-7065	Organization Meeting	Email
Cheryl	Lovell	Trustee, Greater Essex County District School Board□				519-735-5171	Organization Meeting	Email
Kim	McKinley	Trustee, Greater Essex County District School Board□				519-972-4609	Organization Meeting	Email
Patrick	Ouellette	Trustee, Greater Essex County District School Board□				519-979-1953□	Organization Meeting	Email
Gale	Simko-Hatfield	Trustee, Greater Essex County District School Board□				519-979-7782	Organization Meeting	Email
Mary Jean	Gallagher	Director, Greater Essex County District School Board					Organization Meeting	Email
Adan	Khan	Student Trustee, Greater Essex County District School Board□					Organization Meeting	Email
Jonna	Reaume	Student Trustee, Greater Essex County District School Board□					Organization Meeting	Email
Mayor Nelson	Santos	Mayor, Town of Kingsville				(519) 733-6811	Organization Meeting	Email
Deputy Mayor Katherine	Gunning	Deputy Mayor, Town of Kingsville				(519) 839-4731	Organization Meeting	Email
Councillor Christopher	Lewis	Councillor, Town of Kingsville				(519) 733-0409	Organization Meeting	Email
Councillor Gord	Queen	Councillor, Town of Kingsville				(519) 733-4241	Organization Meeting	Email
Councillor Bob	Peterson	Councillor, Town of Kingsville				(519) 733-5039	Organization Meeting	Email
Councillor Brad	Stevenson	Councillor, Town of Kingsville				(519) 839-4236	Organization Meeting	Email
Councillor Tamara	Stomp	Councillor, Town of Kingsville				519-948-9778	Organization Meeting	Email
Mayor & Council		Municipality of Leamington				519-326-5761	Organization Meeting	Email

Sign-. Sheet

AMBASSADOR BRIDGE

The Ambassador Bridge Enhancement Project
Public Open House
Windsor, Ontario

Meeting Purpose:	**Information will be provided and comments will be received on the proposed project.**
Date & Time:	**October 1, 2007**
Location:	**Mackenzie Hall**

	NAME (please print)	ADDRESS	EMAIL
	MIKE PROVOST	3880 HILLCREST	MPROVOST60@COGECO.CA
	RICHARD FEICK	2466 RANDOLPH AVE	

Sign . Sheet

AMBASSADOR BRIDGE

The Ambassador Bridge Enhancement Project
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Windsor, Ontario

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Location:	**Mackenzie Hall**

	NAME (please print)	ADDRESS	EMAIL
	LES CHAIT	769 MCKAY AVE WINDSOR	lchait@cogeco.ca

Sign- Sheet

AMBASSADOR
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The Ambassador Bridge Enhancement Project
Public Open House
Windsor, Ontario

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	NAME (please print)	ADDRESS	EMAIL
	Bill Ischay	3843 HILLCREST	
	DAN DAGENAIS	141 Riverview	
	KEN & PATRICIA THOMPSON	496 MAPLE, LASALLE	
	Ray Blakemore	Riverside Dr E	
	Hal H. SZARAN	2219 Louis Windsor	
	BOB + BARB MARION	3760 BLACKBURN	

Sign Sheet

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	NAME (please print)	ADDRESS	EMAIL
	Louann Sharp	1406 Amanda	
	Pietro Russo	1557 Bruce	
	MARTHA LaBENNÉ	826 HILDALE	
	Steve A. Gionda	23777 Carter Brownstown Mich 48183-1326	
	Hugo-Duivenvoorden	3615 Bloomfield	
	PATRICK PETRO	436 Rosedale	

Sign Sheet

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Location:	**Mackenzie Hall**

	NAME (please print)	ADDRESS	EMAIL
	BRIAN RIZOK	4027 SANDWICH	
	LUCY MALIZIA	1440 ARMANDA, WINDSOR	
	[signature]	1411 RIVERSIDE DR, WINDSOR	
	LOUISE GAGNE'	986 JOSEPHINE AVE., WINDSOR	weezy@cogeco.ca
	JACK McGUIRE	1070 CHATHAM STE UNIT 704 WINDSOR N9A6T9	
	MICHAEL STAILEY	21699 TREVOR CT Macomb, MI 48044	MIKE.STAILEY@COMCAST.NET

Sign Sheet

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The Ambassador Bridge Enhancement Project
Public Open House
Windsor, Ontario

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	NAME (please print)	ADDRESS	EMAIL
	JULIE ELISE ILES	1060 PRINCE RD, WINDSOR N9C2Z7	julieiles@sympatico.ca
	JOHN ILES	" " " " "	—
	Penny Allen	Greater Essex Cty D.S.B.	
	Mary Ann Cudemore	3118 Sandwich St. Windsor N9C1A6	
	~~Peter Laquille~~ BDick	1181 Wigle Windsor	
Media →	Kimberley Dukas	CBC Radio	

Sign Sheet

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Windsor, Ontario

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Location:	**Mackenzie Hall**

	NAME (please print)	ADDRESS	EMAIL
	Iryna de Pendleton	857 Frank ave. Windsor, On N8S 3P4	idependleton@hotmail.com
	Robert J Sward	3150 Mandolte 21	
	Paula Buckle	502 St. Pierre St. Tecumseh N8N 1Y9	pbuckle@ambassadorduty free.com
	TERRY KENNEDY	3248 BABY ST. WINDSOR N9C-1K5	
	CLAYTON AMBERY	1034 THURSO WAY	
	PETER NEILE	COMMUNITY PLANNERS INC. 2109 OTTAWA ST. WINDSOR, ON N8Y 4Y9	pneice@communityplanners.com

Sign Sheet

The Ambassador Bridge Enhancement Project
Public Open House
Windsor, Ontario

Meeting Purpose:	**Information will be provided and comments will be received on the proposed project.**
Date & Time:	**October 1, 2007**
Location:	**Mackenzie Hall**

	NAME (please print)	ADDRESS	EMAIL
	Andrew Dowie	340 Coronado Drive Tecumseh, ON N8N 2E6	edited for tv@yahoo.ca.
	JAMES GATTO	1033 DOT AVE	——
	THERESA GATTO	1033 Dot Ave N9C 3H7	
	John Cacciato	430 Dalhousie	jcacciato@cogeco.
	IRENE ROBERTS	373 DETROIT ST., #409	
	Wm Robinson	5055 Riverside Dr. #901 Windsor	

Sign Sheet

AMBASSADOR BRIDGE

The Ambassador Bridge Enhancement Project
Public Open House
Windsor, Ontario

Meeting Purpose:	**Information will be provided and comments will be received on the proposed project.**
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Location:	**Mackenzie Hall**

	NAME (please print)	ADDRESS	EMAIL
	Matt Kucharski	1947 Meldrum Rd., Windsor, ON.	
	DON & JANET BEEDLE	987 C HAPPUS WINDSOR N9C 3S7	
	Stacey Drummond	511 Windermere Rd Windsor.	
	Brian & Kersey	1070 Felix Ave Windsor N9C-3L5	
	Nancy Johns-Root	1712 Dacotah Windsor N8Y-1S5	
	Stuart Johns	2815 Jos. St. Louis Ave. Windsor	N8T-2M7
	STEVEN & TAMARA BRADLEY	764 ST. ANTOINE WINDSOR N9C 3L6	

Sign Sheet

AMBASSADOR BRIDGE

The Ambassador Bridge Enhancement Project
Public Open House
Windsor, Ontario

Meeting Purpose:	**Information will be provided and comments will be received on the proposed project.**
Date & Time:	**October 1, 2007**
Location:	**Mackenzie Hall**

	NAME (please print)	ADDRESS	EMAIL
	David Estrin	1 First Canadian Place Suite 1600 Toronto	david.estrin@gowlings.com
	Justin Simpson	10730 Eastcourt Drive	Justin-Simpson@MSN.com
	MARSHA ARDITT	710 Roselawn Dr.	
	Thomas King.	986 Rankin	
	Mark Butler	Transport Canada	butlerm@tc.gc.ca
	Lesley Racicot	Lasalle	

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AMBASSADOR BRIDGE

The Ambassador Bridge Enhancement Project
Public Open House
Windsor, Ontario

Meeting Purpose:	**Information will be provided and comments will be received on the proposed project.**
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Location:	**Mackenzie Hall**

	NAME (please print)	ADDRESS	EMAIL
	ED ARDITTI	710 ROSECRAUN DR	
	JERRY GERVAIS	3648 KING ST.	
	GORD HARDING	2094 WILLISTEAD CR.	gord_harding@yahoo.ca
	JOHN BEWSHER-jb	3200-2 SANDWICH ST.	projects.jb@gmail.com
	FRAN CADOTTE	222 Elm Windsor ON	
	RICK KUCHARSKI BEV KUCHARSKI	359 WATSON AVE 359 WATSON AVE.	

Sign-In Sheet

The Ambassador Bridge Enhancement Project
Public Open House
Windsor, Ontario

Meeting Purpose:	**Information will be provided and comments will be received on the proposed project.**
Date & Time:	**October 1, 2007**
Location:	**Mackenzie Hall**

	NAME (please print)	ADDRESS	EMAIL
	D Cochlin	897 Wallace	
	TARRA SIMPSON	10730 Eastcourt Drive.	
	LEO PETRILLI	306 Parkington Ave, Apt 105 Windsor Ontario N9B2B5	leovan7052@yahoo.ca
	M. STOCKWELL		
	Jason Haney	144 Riverville Court N9J3N9	thehat2k5@gmail.com
	MARK ABRAHAM	2590 ST. PATRICKS DRIVE	

Sign. . Sheet

AMBASSADOR BRIDGE

The Ambassador Bridge Enhancement Project
Public Open House
Windsor, Ontario

Meeting Purpose:	**Information will be provided and comments will be received on the proposed project.**
Date & Time:	**October 1, 2007**
Location:	**Mackenzie Hall**

	NAME (please print)	ADDRESS	EMAIL
	Tom Burton.	Town of Tecumseh 917 Lesperance	tburton@tecumseh.ca
	PAUL INNES	TOWN OF ESSEX.	
	Rosa White	Town of Amherstburg	rosa.white@sympatico.ca
	Jeff Hewitt	2510 Ouellette Windsor ON N8X 1L4	jhewitt@therightcall.ca
	Sue Desjarlais	Town of LaSalle 5950 Malden Rd	sdesjarl@lasalletown.com
	Robert Bailey	Town of Amherstburg	rbailey@amherstburg.ca

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AMBASSADOR

AMBASSADOR BRIDGE

The Ambassador Bridge Enhancement Project
Public Open House
Windsor, Ontario

Meeting Purpose:	**Information will be provided and comments will be received on the proposed project.**
Date & Time:	**October 1, 2007**
Location:	**Mackenzie Hall**

	NAME (please print)	ADDRESS	EMAIL
	Rob Schmidt.	327 Mersea Rd 6. R.R. 5 Leamington N8H 3V8	rschmidt@leamington.ca.
	MAYOR WAYNE HURST	AMHERSTBURG ON.	WHURST@AMHERSTBURG.CA.
	RON ROGERS COUNCIL - ESSEX	157 ADELAIDE ST. RR#3 HARROW NOR 1G0	RROGERS@TOWNOFESSEX.ON.CA
	CAROL MORRIS	738 BROCK	CAMORRIS@excite.com

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AMBASSADOR BRIDGE

The Ambassador Bridge Enhancement Project
Public Open House
Windsor, Ontario

MEDIA

Meeting Purpose:	**Information will be provided and comments will be received on the proposed project.**
Date & Time:	**October 1, 2007**
Location:	**Mackenzie Hall**

	NAME (please print)	ADDRESS	EMAIL
	Melanie Borrelli	CHYR & The Rock	
	Peter Laugille	CKLW	

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AMBASSADOR BRIDGE

The Ambassador Bridge Enhancement Project
Public Open House
Windsor, Ontario

MEDIA

Meeting Purpose:	**Information will be provided and comments will be received on the proposed project.**
Date & Time:	**October 1, 2007**
Location:	**Mackenzie Hall**

	NAME (please print)	ADDRESS	EMAIL
	Anna Whidden	In Business Magazine	editor@inbusinesswindsor.com.
	Sonja Puzic	167 Ferry St. The Windsor Star	spuzic@thestar.canwest.com.
	Gérard Malo	Radio-Canada	gerard_malo@radio Canada.ca
	John D-Lewis	CTV Channel	john.lewis@ctvtv.com
	Pat Jeffyn	CBC-TV	
	Dan Janisse	The Windsor Star	

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AMBASSADOR BRIDGE

The Ambassador Bridge Enhancement Project
Public Open House

Meeting Purpose:	**Information will be provided and comments will be received on the proposed project.**
Date & Time:	**October 1, 2007**
Location:	**Ciociaro Club**

NAME (please print)	ADDRESS	EMAIL
Tonii Hulk Konen	1255 Croydon Rd, Lasalle, N9H 1B3	orgtoni@windsor.igs.net.
ROBERT FETHERSTON	2235 TALBOT ROAD LASALLE ON	townandcountry@on.aibn
PIERRE QUENNEVILLE	1115 TALBOT ROAD	N/A
SAMANTHA HILL	1003 WINDERMERE Rd.	S.HILL@COGECO.CA.
JIM GARNIER	40 MALLARD	Thegarnie@YAHOO.com

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AMBASSADOR BRIDGE

The Ambassador Bridge Enhancement Project
Public Open House

Meeting Purpose:	**Information will be provided and comments will be received on the proposed project.**
Date & Time:	**October 1, 2007**
Location:	**Ciociaro Club**

NAME (please print)	ADDRESS	EMAIL
Silvio Barresi	2470 Lambton St.	sbarresi@cogeco.ca
STEW ROBINSON	1456 FELIX	
GEORGE & NANCY PLANTUS.	1735 LABELLE ST. WINDSOR N9E1B3	
DAVID LARIVIERE	235 [illegible]	DLARIVIERE@RIVIERELECTRIC.COM
Danny Denomme	9681 Ridge windsor ont	
WAYNE FORTIN	6045 MALDEN ROAD. LASALLE N9H-1S7	

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AMBASSADOR BRIDGE

The Ambassador Bridge Enhancement Project
Public Open House

Meeting Purpose:	**Information will be provided and comments will be received on the proposed project.**
Date & Time:	**October 1, 2007**
Location:	**Ciociaro Club**

NAME (please print)	ADDRESS	EMAIL
FRANK COLETTI	2365 EVERTS Ave	
PAUL MASCARIN	3210 ST. PATRICK'S DR.	
~~PAT LEFEBVRE~~	~~2205 CHURCH ST N8X 1G1~~	
MARTIN VERMEER. ANNE	541 MORAND ST.	
Gino Conte	CBC Radio News - Windsor 825 Riverside Dr. W. Wds.	
Mario Barresi	2435 Lambton St. Windsor	

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AMBASSADOR BRIDGE

The Ambassador Bridge Enhancement Project
Public Open House

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Date & Time:	**October 1, 2007**
Location:	**Ciociaro Club**

	NAME (please print)	ADDRESS	EMAIL
	TED & JUDY FINNERTY	50 TOWNSVIEW CRT. ESSEX	
	Dean Wilkinson	920 MERCER ST WINDSOR	
	Andy Comeau	HARROW NEWS	
	MARK & MARYANN MARIETTI	2995 Randolph.	
	~~Sheila Tousignant~~	~~3616 Byng Windsor, Ont~~	
	BRUCE PACIORKA		

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AMBASSADOR BRIDGE

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Date & Time:	**October 1, 2007**
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NAME (please print)	ADDRESS	EMAIL
Gchevalier	953 Rhodaine Dr Windsor N8S3Z9	
ENZO PAPINI	2095 SOUTH CR, OLDCASTLE NOR 1C0	
Elsa Colletti	2365 Everts Av. Windsor	
SHANNON & PAUL TWIGG	299 RUSSELL WOODS DR CAKESHORE N9H4K4	
MOE HAAS	2512 VILLA BORGHESE CT. WINDSOR N9G 2K2	
GARY CASSAR	2605 MARK AVE. WINDSOR ONT.	

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	NAME (please print)	ADDRESS	EMAIL
	Colleen Gosnell	1555 Talbot Rd	cgosnell@bertall.com
	James Coulter	9080 Conway Cres.	jcoulter@stclaircollege.ca
	W Lawrenson	2458 MARK	
	Laura & Bob Thebeau	1366 Talbot	
	John Fairley	711-3801 Riverside DR E	
	ED LINK	768 Newport Cres.	ed link@cogeco.ca

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The Ambassador Bridge Enhancement Project
Public Open House

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Location:	**Ciociaro Club**

NAME (please print)	ADDRESS	EMAIL
Ann Arquette	163 Heritage Rd.	ann@bordergateways.com
Dave Woodall	WCCH	dwoodall@woodallconstruction.ca
Vic Hebert	3200 Deziel Drive, Suite 608 Windsor, Ont N8W 5K8 Dillon Consulting Ltd	
Ty Tyler	2679 ASKIN AVE N9E 3B4	N/A
B. DELAWEY	598 Henderson Ct.	
H. SHAPIRO	1233 Ingersoll Cres.	

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NAME (please print)	ADDRESS	EMAIL
Maggie Hillman	944 Bellagio Dr. Windsor ON N8P 1J7	
Andrew Foot	595 Catarraqui St Windsor, ON N9A 3S2	
BM McLyle	4777 Azar Windsor N8T 3M7	
Paul Blanchard	4046 Rogers Windsor	
Kathy Ouellette	RR3 Cottam	Kathy@bordergateways.com
R. Lucchini	3753 Prairie Crt. Windsor ON. N9G-2X4	

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	NAME (please print)	ADDRESS	EMAIL
	Mike Rochefort	2597 Howard Ave Windsor N8X 3W4	
	Matt Markham	11	
	Larry Cote	4227 Masotti Cr. Windsor N9G 2V4	
	Suzanne DeFroy	910 Duchesne Windsor N9G 1K9	
	Mike Maskery	1629 White wood Dr. Belle River, Ont.	
	James O'Neill	4345 ASHFIELD CR. WINDSOR ONT N9G2G6	

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NAME (please print)	ADDRESS	EMAIL
Ted O'Neill	32 Steacie Dr Ottawa Golder Associates	toneill@golder.com
John Coleman JOHN COLEMAN	757 St Rose Windsor	chessman@cogeco.ca.
Barb + John Lane	11112- 11th Conc ~~370~~ McGregor	
M. Kyles	2925 Dominion Blvd	
Elaine + Grant Wood	2460 Lauzon Rd. LaSalle.	
Kate Peel	2392 Clover Ave	

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	NAME (please print)	ADDRESS	EMAIL
	Dean Jacobs	R.R.3 Wallaceburg	dean.jacobs@wifn.org
	TERRI HARRISON	32 STEACIE DR. OTTAWA. CLAW/GOLDER ASSOC's.	terri.harrison@rogers.com
	THOMAS BELCHUK	366E. COUNTY RD 34 RUTHVEN ONT	
	PHIL MARCOTTE	1242 PARKVIEW WINDSOR	PJMARCOTTE@COGECO.CA
	Cynthia Maclean	1614 Trillium Crt. LaSalle	cynthia.maclean@sympatico.ca
	John Gazo	1180 outram, Lasalle	

MONDAY

Sign-in Sheet

AMBASSADOR BRIDGE

The Ambassador Bridge Enhancement Project
Public Open House
Windsor, Ontario

Meeting Purpose:	**Information will be provided and comments will be received on the proposed project.**
Date & Time:	**June 25, 2007 and June 26, 2007**
Location:	**University of Windsor, School of Visual Arts, LeBel Building, 955 Huron Church Road**

	NAME (please print)	ADDRESS	EMAIL
M	BRAD HUTCHINGS	1645 FELIX AVE WINDSOR ONT N9C3H5.	
M	M.A. CUDERMAN	3118 SANDWICH ST WINDSOR	
M	DALSON CHEN	WINDSOR STAR	
M	BILL VARGA	TOWN OF LASALLE	
M	Daraleigh Irving	949 McDougall.	
M	MARK ADAMSON	2590 ST. PATRICKS	

MONDAY

Sign-in Sheet - MEDIA

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Location:	**University of Windsor, School of Visual Arts, LeBel Building, 955 Huron Church Road**

	NAME (please print)	ADDRESS	EMAIL
✓	MARK PRATT	CBC	PRATT@CBC.CA
✓	Kathie McMann	AM 800	newscentre@am800cklw.com
✓	Ryan Solomon	CJAM 91.5	news@cjam.ca
✓	Jason Chapman	A-Channel	jason.chapman@chumtv.com.

MONDAY

Sign-in Sheet

AMBASSADOR BRIDGE

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	NAME (please print)	ADDRESS	EMAIL
✓	George & Shirley Sterling	2362 Bethlehem ave. Windsor	
✓	K. Brady.	160 HADDEN CRESC.	
✓	Terry Whelan	737 FRONT N A'burg	
✓	PIERRE QUENNEVILLE	1115 TALBOT ROAD LASALLE	N/A
✓	Yoocef Chekiri	2545 VIRGINIA PARK AVE	chekiri@uwindsor.ca
✓	STEW ROBINSON	1456 FELIX AVE	

MONDAY

Sign-in Sheet

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	NAME (please print)	ADDRESS	EMAIL
✓	Joel Foster	949 McDougall Ave	
✓	JEANNETTE STREID	3924 WHITNEY WINDSOR N9C 2C6	✓
✓	GIUSEPPE GRECO	4409 VILLA PARADISO N9G 2L7 WINDSOR	
✓	James Kane	168 Stoneridge East Aurora, N.Y. 14052	
✓	Andrew Dowie	340 CORONADO DRIVE Tecumseh, ON. N8N 2R6	
✓	Dave Paddon	3194 RANKIN BLVD WINDSOR ONT. N9E 3B9	

MONDAY

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	NAME (please print)	ADDRESS	EMAIL
✓	GEORGE PETROZZI	2280 UNION ST	
✓	DAVE MCGREGOR	100 Chappus St	david.mcgregor@brightonbeachpower.com.
✓	[illegible]	2451 RUSD	tawfic@teksavvy.com
✓	Clara Dela	436 Rosedale Windsor	
✓	N. Mo[illegible]		
✓	[illegible]	3561 Bruce, Windsor	

- MONDAY

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	NAME (please print)	ADDRESS	EMAIL
7.	GORD HARDING		gord_harding@yahoo.ca
8.	[signature]	707 Patricia St.	mmaskery@ambassadordutyfree.com
9.	Janet Guerard		jguerard@ammexdetroitdutyfree.com
10.	Mike Jones		jones@hotmail.com
	BILL RANKING	2074 ARRAS AV. WINDSOR	
	M. Ronsley.	1066 CHAPPUS.	

ONDAY

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	NAME (please print)	ADDRESS	EMAIL
1.	Marie Brownlie	1610 Trillium Ct Lasalle N9H2K9	b-re@sympatico.ca
2.	LES CHAIT	769 McKay AVE WINDSOR N9B1Z9	lchait@cogeco.ca
3.	JIM ONEILL	4345 ASHFIELD dr. WINDSOR ON	
4.	Paula Buckle	502 St. Pierre, St. Tecumseh ON	pbuckle@ambassadordutyfree.com
5.	Maggie Hillman	944 Bellagio Dr. Windsor ON	maggie@ambassadordutyfree.com
6.	Lorie Brady	1616 Ouellette Pl Windsor N9C3S2	

MONDAY

Sign-in Sheet

AMBASSADOR BRIDGE

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	NAME (please print)	ADDRESS	EMAIL
✓	CECIL HOUSTON	U. of W	choustan@uwindsor.ca
✓	TERRENCE KENNEDY	3248 BABY STREET WINDSOR N9C-1K5	
✓	Rosemarie Demunjo	2338 Chilver, Windsor N8W2V5	
✓	ABBIE GOSSELIN	AMMEX DETROIT	
✓	Brian E Kersey	3470 Sandwich Win ON N9C-3L6	
✓	DAN. BENARD	605 INDIAN RD.	

Sign-in Sheet

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	NAME (please print)	ADDRESS	EMAIL
1.	Dr. W. Ballard	Windsor	
2.	MaryRose Shafer	362 California Ave Windsor Ont	lulu@uwindsor.ca.
3.		41-211 Buckingham N8S 2E5	
4.	Sanford Tyndale	3445 Avondale crt	STYNDALE@COGECO.CA
5.	Jeff Gaudette	5815 CANADA ST	TEAMSTERJEFF@HOTMAIL.COM
6.	Ekanor Maticka-Tyndale		maticka@uwindsor.ca

MONDAY

Sign-in Sheet

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	NAME (please print)	ADDRESS	EMAIL
7.	David Robertson	3529 Bloomfield Road	
8.			
9.			
10.			

TUESDAY

Sign-in Sheet

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	NAME (please print)	ADDRESS	EMAIL
1. √	Anna Lynn Meloche	611 Steven Dr. LaSalle, Ont N9J 3A5.	lynnm@wincom.net
2. √	Alex Shinaq	360 Fairview Ave. Town of Essex — Essex Region Conservation Authority	ashinaq@ERCA.org
3.			
4.			
5.			
6.			

TUESDAY

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	NAME (please print)	ADDRESS	EMAIL
√	Laurie D'Alessandro	129 Seymour Cres Tecumseh, Ont N8N 4R6	
√	Richard Hartley	791 MAPLE LEAF DR. HARROW, ON N0R 1G0	rhartley@sympatico.ca
√	Cathy Dziedzic	1314 Bernard Str. Windsor, ON	cathydziedzic@hotmail.com
√	Tony Pizzuti	6720 MALDEN ROAD.	
√	Mark Butler	Transport Canada	butlerm@tc.gc.ca
√	William Love	695 Tourmies St.	N/A

TUESDAY

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	NAME (please print)	ADDRESS	EMAIL
✓	Bobby Gilligan	1134 Lilydale Belle River Ont.	
✓	Moe Haas	2512 Villa Borghese Ct N9G 2K2	Mhaas1@cogeco.ca
✓	Sean O'Dell	Transport Canada	
✓	Sandy & Joel Phelps	1616 Kenmore Ct. Windsor	
✓	M. Child	ERCA	mchild@erca.org
✓	Jon St. Louis	WEST SIDE	

- TUESDAY

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	NAME (please print)	ADDRESS	EMAIL
√	Bob Reid	Comber Ont. P.O. Box 302	
√	Jim Kane	East Amherst, NY. 14052	
√	Terrence Kennedy	3248 Baby Street Windsor N9c-1K5	
M √	Melanie Borrelli	The Rock + CHYR	
√	Abul Alam	1020 Dot Ave, Windsor N9C 3H8	
√	Ray Bezaire	2289 Lamont ST	

TUESDAY

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	NAME (please print)	ADDRESS	EMAIL
✓	Damian Piper	1542 Church St	acrazyguyonmypipes@hotmail.com
✓	Roger Seguin	1557 Sunvalley	reclmag@cogeco.ca
✓	LEO PETRILLI	306 Partington Ave, Apt 105 Windsor Ontario N9B 2B5	leo van 7052@yahoo.ca
✓	Bonnie Kam	~~5505~~ CANADA ST. LASALLE ON	bkam@sandwichchc.org
✓	Rolly MARENTETTE	2351 LONGFELLOW AVE WINDSOR N9B 3J7	
✓	Leisha Nazarewich.	322 Rosedale Ave. WINDSOR N9C 2N2	

TUESDAY

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	NAME (please print)	ADDRESS	EMAIL
✓	Verna Whelan	3530 Dandurand Windsor N9E 2G1	
✓	JAMES GATTO	1033 DOT AVE.	
✓	Jo Ann Wells	3726 Rosemount N9C 2E5	
✓	Mr. Mrs. Gerald Soulliere	3564 Birch Cr. N9C 1Y9	
✓	Mr & Mrs R. G. MARION	3760 BLACKBURN CRT. N9C-2E7	
✓	John Cacciato	430 Donlon St N9J-3Y2	

- TUES

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	NAME (please print)	ADDRESS	EMAIL
✓	PETER NEICE	2052 HOPGOOD ESSEX ON N8M 2X7	pneiceecommunityplanners.com
✓	JEROME ST LOUIS	3140 ROSEMOUNT.	
✓	Tiffany J. Goochi.		goocht@uwindsor.ca.
✓	Mike Weis	838 Sunset Ave.	mweis@uwindsor.ca
✓	M. A. Cuderman	3118 Sandwich St. N9C1A6	
✓	RON ELLIOTT	LEAMINGTON	wecec@elliottenergy.ca.
✓	ED SLEIMAN	1351 ROSSINI BLVD, WINDSOR	

RESPONSE TO PUBLIC COMMENTS

Ambassador Bridge Public Informa[illegible] Meetings Comments and Responses

Date	Respondent	Content	Response	Topic
April 2, 2007	Press	Timing of the Environmental Assessment.	It is anticipated that the documents will be submitted to the Transport Canada, the Responsible Agency, in six to eight months.	process
April 2, 2007	Press	Composition of public meetings.	There will be a presentation followed by a question and answer period.	process
April 2, 2007	Press	Details of public consultation process.	We have set up a series of meetings with stakeholder organizations, some of which are in public forums, to explain the Project and four Public Meetings. When the studies are completed a second series of stakeholder and public meetings will be held to bring the results of the studies back to the community.	process
April 2, 2007	Press	Function of the existing bridge.	The existing Ambassador Bridge will be taken out of service rehabilitated and maintained.	existing Ambassador Bridge
April 2, 2007	Press	Design of new bridge.	Public input will be sought on the design of the new bridge and the two state-of-the-art structures will be integrated.	process
April 2, 2007	Press	The biggest challenge in the project will be.	This cannot be answered until the studies are completed.	misc
April 2, 2007	Press	Are any other approvals needed after the Environmental Assessment is completed.	Building permits may be necessary.	process
April 2, 2007	Press	DRIC study.	The purpose of the DRIC study is to look at a future crossing to provide capacity to accommodate future estimated demand while the Ambassador Bridge Enhancement Project is essentially a large maintenance project.	DRIC
April 2, 2007	Press	Purpose of the increase from 4 to 6 lanes.	Original intention was to only build 4 lanes, however, customs requested 6 lanes in order to have two lanes dedicated to FAST users.	bridge details
April 2, 2007	Press	Structures next to the old bridge.	All the property needed for the project is owned by the Ambassador Bridge and no new acquisitions are anticipated and a green buffer zone will be developed.	local property
April 2, 2007	Press	Timeline.	The new bridge will be built within 2 years from the approval of the Environmental Assessment.	process
April 2, 2007	Press	Cost of the new bridge.	The new bridge will cost approximately $500 million and will be 100% privately funded.	funding
April 2, 2007	Press	Consequences if the new bridge is not built.	The issue is not the creation of new capacity and increased traffic volumes and congestion on Huron Church Road. Congestion is caused by the delays at customs. The FAST lanes will decrease congestion on the Bridge and the back-ups on Huron Church Road. Secondly, the new Bridge is needed to reduce maintenance costs.	misc
April 2, 2007	Press	Confusion over DRIC study.	Until the Initiation of this Public Consultation Program there as be confusion with regard to the Enhancement Project. Through this Program we hope to provide clarification.	DRIC
April 2, 2007	Press	Capacity of new bridge	The capacity of the Ambassador Bridge or the Enhancement Project is not an issue.	bridge details
April 2, 2007	Press	DRIC's involvement.	DRIC will have to make that decision.	DRIC
April 2, 2007	Press	Questioned the control of the second span.	There will still just be one bridge operation similar to the situation we have today.	misc
April 2, 2007	Press	Possibility of both bridges being in operation.	The Enhancement Project just shifts the traffic from one bridge to another. The existing Ambassador Bridge will be taken out of service, rehabilitated and maintained.	existing Ambassador Bridge
April 2, 2007	Press	Demolition of existing bridge.	The Ambassador Bridge is listed as a designated historic structure in the US and will not be demolished.	existing Ambassador Bridge
April 3, 2007	Windsor and District Chamber of Commerce	Detail about the green buffer area.	The buffer zone will consist of the land occupied by the houses to the west of the existing Plaza and the Enhancement Project, along the east side of Indian Road, most of which are already owned by DIBC / CTC. They will be demolished to create a buffer between the Bridge and the residential community to the west.	green buffer zone
April 3, 2007	Windsor and District Chamber of Commerce	Will reverse customs be implemented?	The Ambassador Bridge is in support of reverse customs.	customs
April 3, 2007	Windsor and District Chamber of Commerce	Current life expectancy of Ambassador Bridge.	The capacity of the Ambassador Bridge is not an issue.	infrastructure

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Date	Respondent	Content	Response	Topic
April 3, 2007	Windsor and District Chamber of Commerce	The Enhancement Project and the expanded Plazas what will happen to the connecting corridors and the 401 access?	Local road issues are not part of the Enhancement Project. Local, Provincial and Federal governments are responsible for local roads.	local roads
April 3, 2007	Windsor and District Chamber of Commerce	Existing Ambassador Bridge.	Ambassador Bridge will be taken out of service, rehabilitated and maintained.	existing Ambassador Bridge
April 3, 2007	Windsor and District Chamber of Commerce	What will be done to create Detroit and Windsor Gateways at the entrances and exits to the Bridge.	On the US side there is a proposed Welcome Centre and greenspace and on the Canadian Side we will be working with the University of Windsor Green Corridor Group and hopefully the City of Windsor on a Huron Church Road Gateway.	green buffer zone
April 3, 2007	Windsor and District Chamber of Commerce	Will access to Wyandotte Street remain?	Local roads will remain the same.	local roads
April 3, 2007	Windsor and District Labour Council	Possible twinning of bridge to create a total of ten lanes.	The existing Ambassador Bridge will be taken out of service rehabilitated and maintained. The purpose of the meetings is to clarify the difference between DRIC, which is looking at a future crossing to provide capacity to accommodate future estimated demand, and the Ambassador Bridge Enhancement Project, which can essentially be viewed as a large maintenance project.	existing Ambassador Bridge
April 3, 2007	Windsor and District Labour Council	Impact be on Huron Church Road.	The issue is not the creation of new capacity and increased traffic volumes and congestion on Huron Church Road. Congestion is caused by the delays at Customs. The Enhancement Project just shifts the traffic from one bridge to another.	local roads
April 3, 2007	Town of Lakeshore	Reasons for commencement of Environmental Assessment.	The process was triggered by the crossing of the Windsor Port Authority air rights.	process
April 3, 2007	Town of Lakeshore	Impacts on Lakeshore.	No impacts are anticipated.	infrastructure
April 3, 2007	Town of Lakeshore	Scope of the Environmental Assessment.	The Environmental Assessment does not apply to the local roads.	process
April 3, 2007	Town of LaSalle	Trigger of the Environmental Assessment.	The process was triggered by the crossing of the Windsor Port Authority air rights by the Enhancement Project.	process
April 3, 2007	Town of LaSalle	Impacts on LaSalle.	There are no anticipated impacts on LaSalle.	infrastructure
April 3, 2007	Town of LaSalle	Scope of the environmental assessment.	We see the scope of the Project as being quite narrow. The connection of the Enhancement Project with the two already approved Plazas. The scope is set out in the Draft EA Guidelines.	process
April 3, 2007	Town of LaSalle	Scope of the Environmental Assessment.	The Environmental Assessment does not apply to changes or improvements of the route to the Bridge.	process
April 3, 2007	Town of LaSalle	Relationship between enhancement project and DRIC study.	The purpose of the DRIC study is to look at a future crossing to provide capacity to accommodate future estimated demand while the Ambassador Bridge Enhancement Project is essentially a large maintenance project.	DRIC
April 3, 2007	Town of LaSalle	Anticipated timelines.	We anticipate the documents will be submitted to the Transport Canada, the Responsible Agency, in six to eight months. Public Meetings will held during the week of April 16 to 19, 2007 to identify issues and following those the required reports will be prepared and submitted to Transport Canada for review and approval.	process
April 3, 2007	Town of LaSalle	Confusion over the term 'public amenities'.	Possible use by pedestrians and cyclists subject to any security issues being resolved and for other community uses such as the marathon and the Terry Fox Run.	existing Ambassador Bridge
April 3, 2007	Windsor Chamber of Commerce	Details of buffer zone.	The houses to the west along the east side of Indian Road, most of which are already owned by the Ambassador Bridge, will be demolished to create a green buffer zone between the Bridge and the residential community to the west. All the property needed for the Project is owned by the Ambassador Bridge and no new acquisitions are anticipated.	green buffer zone

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April 3, 2007	Windsor Chamber of Commerce	Landscaping of the buffer zone.	Input from the public, and the University of Windsor, and the Green Corridor Group is being sought.	green buffer zone
April 3, 2007	Windsor Chamber of Commerce	Security enhancement through the use of x-ray technology and reverse customs.	We are working with the two federal governments in reverse customs and looking at static equipment to detect security threats to the structure.	security
April 3, 2007	Windsor Chamber of Commerce	Implications of the Interim Control By-law recently passed by the City.	Waiting for City Council's decision on six recent demolition permit applications for houses along the east side of Indian Road are not considered heritage properties.	infrastructure
April 3, 2007	Windsor Chamber of Commerce	Life expectancy of the existing bridge.	There is lots of capacity on the bridge and the expensive ongoing maintenance will keep it operating.	existing Ambassador Bridge
April 3, 2007	Windsor Chamber of Commerce	Possible challenges to the Environmental Assessment.	Once the report is posted on the Federal government's web site it can be challenged.	process
April 3, 2007	Windsor Chamber of Commerce	Possibility of more booths to increase capacity.	The number of booths at both Plazas are adequate now and customs is committed to staffing them.	plaza details
April 3, 2007	Windsor Chamber of Commerce	FAST Lanes.	Since the FAST lanes were requested by customs. Customs are also committed to staffing the booths.	plaza details
April 3, 2007	Windsor Chamber of Commerce	Connecting corridors and the 401 access.	The impact of the Enhancement Project is the focus, but we will continue to work with the Ministry of Transportation and the federal government to find solutions to provide an improved corridor connection the 401 and the Bridge.	local roads
April 3, 2007	Windsor Chamber of Commerce	Future of old bridge.	The existing Ambassador Bridge will be taken out of service rehabilitated and maintained.	existing Ambassador Bridge
April 3, 2007	Windsor Chamber of Commerce	Assumptions on payback on the investments.	Analysis indicates current traffic volumes would pay of the bonds in 25 to 30 years.	funding
April 3, 2007	Windsor Chamber of Commerce	Possible government intervention.	We have no knowledge or information relating to such an intervention.	misc
April 3, 2007	Windsor Chamber of Commerce	Status of the US process.	The US process is further along and has not encountered any problems. The migratory bird issue has been satisfactorily resolved.	US process
April 3, 2007	Windsor Chamber of Commerce	Status with the City of Windsor.	The City has declined to discuss the Enhancement Project with the Ambassador Bridge.	local issues
April 3, 2007	Windsor Chamber of Commerce	Aesthetics of the new ambassador Bridge less bridge.	Some examples have been provided and more will be provided when we discuss the design with the community. The goal is to create something Windsor / Detroit can be proud of.	bridge design
April 3, 2007	Windsor Chamber of Commerce	Possible environmental impacts from the old bridge.	There shouldn't be any additional impacts – it will be rehabilitated and maintained and the new structure will be designed to current standards for such things as storm water management quality.	existing Ambassador Bridge
April 3, 2007	Windsor Chamber of Commerce	Creation of Detroit and Windsor Gateways at the entrances and exits of the Bridge.	On the US side there is a proposed Welcome Centre and green space. On the Canadian Side we will be working with the University of Windsor and the Green Corridor Group and hopefully the City of Windsor to create a Huron Church Road Gateway.	plaza details and green buffer zone
April 3, 2007	Windsor Chamber of Commerce	Access to Wyandotte Street.	Access to Wyandotte Street will remain.	infrastructure
April 3, 2007	Windsor Chamber of Commerce	Role of the Chamber of Commerce.	The purpose of this meeting is primarily to inform the Chamber of Commerce Ambassador Bridge out the Enhancement Project.	misc
April 3, 2007	Windsor Chamber of Commerce	Accessibility of other groups in this process.	The Separate School Board initially agreed to meet and then declined, a few groups haven't responded yet and some municipalities said no because their mayor's would meet with us at the County Council meeting.	process
April 3, 2007	Windsor Chamber of Commerce	Implications from Bill C3.	There have been discussions with the government with regard to the Regulations and there is no concern with the oversight provisions. There are some concerns with regard to rights on tolling but the issues is not to let tolls affect traffic flow. C3 will apply to all bridges.	legislation
April 3, 2007	Windsor Chamber of Commerce	Security threats.	The details of security cannot be discussed.	security
April 3, 2007	Windsor Chamber of Commerce	Environmental Assessment requirement for existing Ambassador Bridge.	An Environmental Assessment is not required for the rmaintenance and rehabilitation of the Ambassador Bridge.	existing Ambassador Bridge

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Date	Respondent	Content	Response	Topic
April 3, 2007	Windsor Chamber of Commerce	Construction timelines.	Construction will be complete two years from the approval of the Environmental Assessment.	process
April 3, 2007	Ambassador Bridge out Council	Possibility of twining the bridges to create 10 lanes.	The existing bridge will be taken out of service rehabilitated and maintained. Customs requested 6 lanes in order to have two lanes dedicated to FAST users.	existing Ambassador Bridge
April 3, 2007	Ambassador Bridge out Council	Impact on Huron Church Road.	The issue is not the creation of new capacity and increased traffic volumes and congestion on Huron Church Road.	infrastructure
April 3, 2007	Essex County Council	Effects on delay time at border.	The delays are due to customs and immigration. Ambassador Bridge continues to work with customs to try to improve processing times by doing such things as including the FAST Lanes to provide access to the FAST and Nexus booths.	customs
April 3, 2007	Essex County Council	Questioned whether improvements are being done on the Canadian side to improve the connection with the 401.	Local road issues are not part of the Enhancement Project. Local, Provincial and Federal governments are responsible for local roads.	local roads
April 3, 2007	Essex County Council	The Enhancement Project is a great proposal that will become a tourist attraction. The Bridge can't be responsible for Huron Church Road. Pressure has to be put on the provincial and federal governments to do something while not hindering the Bridge.		support
April 3, 2007	Town of Essex County	Believes that pressure should be put on the US government to open more booths to reduce the congestion on Huron Church Road.	The Ambassador Bridge is working with US customs. The creation of the FAST/NEXUS Lanes should assist in reducing congestion.	customs
April 4, 2007	University of Windsor	Length of time to complete the environmental assessment.	We anticipate the documents will be submitted to the Transport Canada, the Responsible Agency, in six to eight months. Public Meetings will held during the week of April 16 to 19, 2007 to identify issues and following those the required reports will be prepared and submitted to Transport Canada for review and approval.	process
April 4, 2007	University of Windsor	When will construction on the Enhancement Project begin?	Approximately two years after approval is received from the federal government.	process
April 4, 2007	University of Windsor	What impact will the Enhancement Project on the University of Windsor.	The environmental studies are not completed to be able to say what, if any, impacts may be caused by the Enhancement Project.	process
April 4, 2007	University of Windsor	Timing of public meetings.	April 16th through to April 19th.	public process
April 4, 2007	Essex County Council	Delays are due to Customs and Immigration.	The Ambassador Bridge will continue to work with Customs to try to improve processing times by doing such things as including the FAST Lanes to provide access to the FAST and Nexus booths.	customs
April 4, 2007	Essex County Council	On the US side there are improvements to connect to I-75 is there anything similar on the Canadian side.	Local road issues are not part of the Enhancement Project. Local, Provincial and Federal governments are responsible for local roads.	local roads
April 4, 2007	Essex County Council	The Enhancement Project is a great proposal that will become a tourist attraction. Also, the Bridge can't be responsible for Huron Church Road. Pressure has to be put on the provincial and federal governments to do something while not hindering the Bridge.		support

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Date	Respondent	Content	Response	Topic
April 4, 2007	Essex County Council	While the redundancy is important it would not be reasonable to ask the Bridge to be responsible for the congestion on Huron Church Road or a freeway connection to the 401. Can Ambassador Bridge put pressure on the US government to open more booths to reduce the congestion on Huron Church Road?	We have a good working relationship with US Customs. They have 13 booths open about 20 hours a day and more are planned. Their staffing levels are good. The FAST Lanes should help to reduce the congestion.	customs
April 4, 2007	Essex County District School Board	Concerns about traffic along Huron Church Road that provides access to the Bridge.	Local road issues are not part of the Enhancement Project. Local, Provincial and Federal governments are responsible for local roads.	local roads
April 4, 2007	Essex County District School Board	Should a new location for the bridge be considered.	DRIC wasn't interested in discussing the relocation of the bridge with us. One of the purposes of these meetings is to clarify the difference between DRIC, which is looking at a future crossing to provide capacity to accommodate future estimated demand, and the Ambassador Bridge Enhancement Project, which can essentially be viewed as a large maintenance project. The cost of carrying out maintenance while the Bridge is under load is very high.	DRIC
April 4, 2007	Essex County District School Board	Reference to findings of no significant interest.	That is a reference to the Detroit Gateway Project which found no significant impacts for that project. The studies to determine impact of the Enhancement Project have not been completed.	US process
April 4, 2007	Essex County District School Board	The issue is not about future traffic, it is about the impact of the existing bridge. Isn't a new bridge needed.	There is nothing in the anticipated economic forecasts to lead us to believe there will be an increase in manufacturing and resulting traffic. Car traffic, much of which is tourism, will probably decline, partly due to the new passport requirements and other security issues. There is not a lot of valid information supporting a new bridge. We dispute the projection of continued traffic growth based on both past and recent trends. There was a spike in traffic resulting from the Auto Pact and Free Trade Agreements and NAFTA but there have been recent declines in traffic and growth now resembles the lower rate of previous years. We anticipate truck traffic to remain constant with fluctuations based on manufacturing operations.	traffic levels
April 4, 2007	Windsor Building Trades Council, IUOE Local 793 and United Brotherhood of Carpenters and Joiners	Number of booths dedicated to trucks.	The number of booths that are dedicated to trucks will depend on the demand. The congestion problems are caused by customs and not bridge capacity.	customs
April 4, 2007	Windsor Building Trades Council, IUOE Local 793 and United Brotherhood of Carpenters and Joiners	Issues with improvements for Huron Church Road. Scope of the Enhancement Project.	The responsibility for improvements to Huron Church Road lies with the Federal, Provincial and Municipal governments. The plaza expansions and improvements on the US side are approved and under construction.	Infrastructure

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April 4, 2007	Windsor Building Trades Council, IUOE Local 793 and United Brotherhood of Carpenters and Joiners	Effect of the change in leadership of the Federal Government on the project. Possibility of the government holding up the process. Timeline for a government decision.	It is anticipated that the required studies and public participation will be completed and submitted in six to eight months.	process
April 4, 2007	Windsor Building Trades Council, IUOE Local 793 and United Brotherhood of Carpenters and Joiners	Timing of most recent traffic projection. Issues with the differences between car and truck traffic.	The most recent traffic projection was completed less than a year ago. There was a spike in traffic resulting from the Auto Pact and Free Trade Agreements and NAFTA but since 1999 there has been continuing decline in traffic and growth now resembles the lower rate of previous years.	process
April 4, 2007	Windsor Building Trades Council, IUOE Local 793 and United Brotherhood of Carpenters and Joiners	Destination of $400 million in Federal funding.	The $400 million in Federal money is going to DRIC.	funding
April 4, 2007	Windsor Building Trades Council, IUOE Local 793 and United Brotherhood of Carpenters and Joiners	Union involvement in construction of the booths.	If the bids are competitive the booths will be union built.	process.
April 4, 2007	Windsor Building Trades Council, IUOE Local 793 and United Brotherhood of Carpenters and Joiners	Funding of new bridge.	The savings on maintenance will in essence pay for the new bridge. Analysis indicates current traffic volumes would pay off the bonds in 25 to 30 years.	funding
April 5, 2007	Town of Lakeshore	Why was the environmental assessment process started?	The environmental assessment process was triggered by the Enhancement Project crossing over lands owned by the Windsor Port Authority.	process
April 5, 2007	Town of Lakeshore	Does the Ambassador Bridge anticipate any impacts on the Town of Lakeshore.	There are no impacts anticipated on the Town of Lakeshore, but all of the environmental studies are currently being undertaken.	process
April 5, 2007	Essex County Council	Access to Wyandotte Street and Downtown.	There will be no change to the access of Wyandotte Street and Downtown will be kept	infrastructure
April 5, 2007	Essex County Council	Length of time of Environmental Assessment.	It is anticipated that the documents will be submitted to the Transport Canada, the Responsible Agency, in six to eight months.	process
April 5, 2007	Essex County Council	Function of the new bridge and the old bridge.	The existing bridge will be taken out of service rehabilitated and maintained.	existing Ambassador Bridge
April 5, 2007	Essex County Council	Bridge funding.	The new bridge will be completely funded with private money.	funding
April 5, 2007	Essex County Council	Commencement of construction.	Construction will begin 2 years from the approval of the Environmental Assessment.	process
April 5, 2007	Essex County Council	Effects on Sandwich Towne	A green buffer zone will be provided. The studies for the environmental assessment have not yet been completed.	environmental
April 5, 2007	Essex County Council	Input from the Sandwich BIA.	The Sandwich BIA has been contacted but has yet to respond. We want to partner with the BIA, the community and the University.	community issues
April 5, 2007	Essex County Council	Timing of public meetings.	Public meetings will be held from April 16-19.	process
April 5, 2007	Essex County Council	Public input.	Public open houses are being help April 16-19.	process

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April 5, 2007	Essex County Council	There should be emphasis on green building materials in this world class "bridging" structure. The public should be exposed to potential possibilities / ideas for the design of the new bridge and the use of the old bridge.	The community in put on the design is being sought after as part of the public process.	suggestions
April 5, 2007	University of Windsor	Timing of the Environmental Assessment.	It is anticipated that the documents will be submitted to the Transport Canada, the Responsible Agency, in six to eight months.	process
April 5, 2007	University of Windsor	Commencement of construction.	Construction will begin 2 years from the approval of the Environmental Assessment.	process
April 5, 2007	University of Windsor	Effects on the University.	The studies to determine what impacts the bridge would have on the University have not been completed.	process
April 5, 2007	University of Windsor	Timing of public meetings.	Public meetings will be held from April 16-19.	process
April 5, 2007	Windsor BIA	Access to Wyandotte Street and Downtown.	Local road issues are not part of the Enhancement Project. Local, Provincial and Federal governments are responsible for local roads.	local roads
April 5, 2007	Windsor BIA	Timing of the Environmental Assessment process.	We anticipate the documents will be submitted to the Transport Canada, the Responsible Agency, in six to eight months. Public Meetings will held during the week of April 16 to 19, 2007 to identify issues and following those the required reports will be prepared and submitted to Transport Canada for review and approval.	process
April 5, 2007	Windsor BIA	Will each bridge be one way?	The Ambassador Bridge will be taken out of service, rehabilitated and maintained.	existing Ambassador Bridge
April 5, 2007	Windsor BIA	Funding of the Enhancement Project.	The Enhancement Project is entirely privately funded.	funding
April 5, 2007	Windsor BIA	Impacts on Sandwich Towne.	We are conducting all of the studies to determine the impacts on Sandwich Towne. A green space buffer will be provided along Indian Road, which will anticipate will mitigate impacts and have a positive effect on Sandwich Towne.	green buffer zone
April 5, 2007	Windsor BIA	Will you meet with the Sandwich BIA?	We have requested a meeting with the BIA but have not received a response. We are eager to partner with the BIA, the community and the University.	process
April 5, 2007	Windsor BIA	Are public meetings going to be held?	Public meetings will be held from April 16-19.	process
April 11, 2007	Labourer's Int'l Union, Local 1089	Difference between the Enhancement Project and DRIC.	The Enhancement Project shifts the traffic from one bridge to another. DRIC is examining the need for a new crossing to accommodate future traffic growth. We believe the DRIC timeline is overly aggressive and that the traffic projections are not realistic.	DRIC
April 11, 2007	Labourer's Int'l Union, Local 1089	Route to the Ambassador Bridge along Huron Church Road from the 401	Local road issues are not part of the Enhancement Project. Local, Provincial and Federal governments are responsible for local roads.	local roads
April 11, 2007	Labourer's Int'l Union, Local 1089	What is the timing of the environmental assessment process?	We anticipate the documents will be submitted to the Transport Canada, the Responsible Agency, in six to eight months. Public Meetings will held during the week of April 16 to 19, 2007 to identify issues and following those the required reports will be prepared and submitted to Transport Canada for review and approval.	process
April 11, 2007	Labourer's Int'l Union, Local 1089	Willing to support the Enhancement Project.		support
April 16, 2007	Resident	Use of local roads to get to the Ambassador Bridge.	Local road issues are not part of the Enhancement Project. Local, Provincial and Federal governments are responsible for local roads.	local roads
April 16, 2007	Resident	Local roads to the bridge.	Local road issues are not part of the Enhancement Project. Local, Provincial and Federal governments are responsible for local roads.	local roads
April 16, 2007	Resident	Need for a new bridge.	The purpose of the Enhancement Project is not to increase capacity, it is to replace the old bridge which has very high maintenance costs.	need
April 16, 2007	Resident	Decrease in traffic levels due to traffic loss to the Bluewater Bridge and the Port Huron Sarnia Bridge.	The Port Huron Sarnia Bridge has lower levels and experience more of a decrease in traffic levels than the Ambassador Bridge.	traffic levels

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Date	Respondent	Content	Response	Topic
April 16, 2007	Resident	Local roads to the bridge and why the Enhancement Project is six lanes.	The Enhancement Project is six lanes to provide one lane in each direction for FAST and NEXUS users. Local road issues are not part of the Enhancement Project. Local, Provincial and Federal Governments are responsible for local roads.	local roads
April 16, 2007	Resident	Concerned with Ambassador Bridge's purchase of property on Bloomfield, King, Queen, Edison, and St. Antoine.	Previously purchasing properties to help the Federal and Provincial governments with the roadways. Have ceased buying these properties and local roads are the responsibility of local, Provincial and Federal governments.	local property
April 16, 2007	Resident	DRIC report and whether Ambassador Bridge involved in the DRIC process.	The DRIC report contained incorrect drawings relating to the Plaza needs for the Enhancement Project. The Ambassador bridge was not involved in the creation of the DRIC report.	DRIC
April 16, 2007	Resident	Area of land required by Canadian Border Services.	Canadian Border Services requires 38 acres of land.	plaza details
April 16, 2007	Resident	Use of Ambassador Bridge.	The Ambassador Bridge will be taken out of service, rehabilitated and maintained.	existing Ambassador Bridge
April 16, 2007	Resident	Local roads to the bridge and why there can't be a seamless route on the Canadian side.	Local road issues are not part of the Enhancement Project. Local, Provincial and Federal governments are responsible for local roads.	local roads
April 16, 2007	Resident	Cost to construct the Enhancement Project.	The cost of the bridge is $450M and the cost of buying the properties, doing the demolition, and engineering was $480M. The Enhancement Project is entirely privately funded, no public funding required.	funding
April 16, 2007	Resident	Questioned whether the Ambassador Bridge would be against a new crossing being built down the river.	Ambassador would be against moving the corridor as it would add $4billion in costs to the project.	location
April 16, 2007	Resident	Cost of tolls.	Tolls are not part of the Enhancement Project.	tolls
April 16, 2007	Resident	Whether permits have been obtained on the Canadian side to start building the Enhancement Project.	All permits will be acquired if necessary. The studies required as part of the environmental assessment process are in their preliminary stages.	process
April 16, 2007	Resident	Handling of hazardous waste.	All hazardous waste will be handled in accordance with existing legislation, and its requirements.	environmental
April 16, 2007	Teamsters, Local 880	Are you waiting for the EA approvals?	Currently we are waiting for the Federal Government's approval and we will then apply to the city for a Building Permit.	process
April 16, 2007	Teamsters, Local 880	Will the buffer be on the east side of Indian Road and how long is the buffer?	Yes, a green buffer zone will be put along the east side of Indian Road. The buffer zone will extend from Mill Street to the River.	green buffer zone
April 16, 2007	Teamsters, Local 880	How long will it take to get the EA approvals?	We anticipate the documents will be submitted to the Transport Canada, the Responsible Agency, in six to eight months. Public Meetings will held during the week of April 16 to 19, 2007 to identify issues and following those the required reports will be prepared and submitted to Transport Canada for review and approval.	process
April 16, 2007	Teamsters, Local 880	Do you have any plans for improvements to Huron Church Road?	Local road issues are not part of the Enhancement Project. Local, Provincial and Federal governments are responsible for local roads.	local roads
April 16, 2007	Teamsters, Local 880	Are there any implications with regard to the alleged burial ground?	A licensed archaeologist is on site at all times and will continue to be as construction proceeds. The archaeologist determined we were not disturbing any previously undisturbed ground. There will be an archaeologist on site during the construction of the Enhancement Project.	process

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April 16, 2007	Teamsters, Local 880	Local 880 supports the project and will be happy to help if needed and when asked. The Huron Church Road congestion problem has to be fixed and the Enhancement Project seems to be part of the solution.		support for Enhancement Project
April 16, 2007	Teamsters, Local 880	Will reverse customs be implemented?	The Ambassador Bridge is in support of reverse customs.	customs
April 17, 2007	Resident	Exit coming off the ambassador bridge. Whether the existing buildings will be taken down in order to make room for the exit	The bridge will link directly into the existing plaza. The Ambassador Bridge will be taken out of service, rehabilitated and maintained.	existing Ambassador Bridge
April 17, 2007	Resident	Impact on property values in the area. Concerned that if his house goes from being 100ft from the bridge to 10ft from the bridge his property value will decrease.	All of the acquisitions made in the area around the bridge have driven housing prices up, not down. The Enhancement Project along with the involvement of the Green Corridor will likely improve the local situation.	local property
April 17, 2007	Resident	Size of the green buffer zone.	The green buffer zone is approximately half a block wide. The green buffer zone was initially developed without the Green Corridor being involved. The Green Corridor, in conjunction with the University of Windsor, are now involved and working on plans for the entire area around the bridge	green buffer zone
April 17, 2007	Resident	Property value of the houses that are not on Indian Road and have not had offers made on them.	The goal now is to work with the Green Corridor and the University of Windsor to improve Sandwich Towne and the area around the Ambassador Bridge.	local property
April 17, 2007	Resident	Question the amount of work done without consulting the community.	The public process just started and there will be many more meetings and communications before the screening report is submitted to the federal government.	community consultation
April 17, 2007	Resident	Width of the Enhancement Project.	The bridge is approximately 105 ft. wide and located approximately 100ft. immediately to the west of the current bridge from centre line to centre line.	bridge details
April 17, 2007	Resident	Reference to statements made in the DRIC report. Expressed concern that the Enhancement Project will negatively affect the community and local businesses. Wants to know what will happen to the properties that were bought and if there is a document available that states which properties have been purchased.	The DRIC report shows the Enhancement Project as being much more intrusion into the community than willing to necessary. Representatives from the Ambassador Bridge will be meet with local community groups to discuss its proposal for the purchased properties.	DRIC local property
April 17, 2007	Resident	Building another bridge in the same spot will 'create a larger parking lot' over the river	The gateway project in the US will expand the customs facilities, bridge facilities, and roadway connections. The bridge will allow for many more vehicles to cross and move traffic more efficiently.	infrastructure
April 17, 2007	Resident	Not in the public's best interest to have another bridge in the same spot. Concerned that profits will take precedence over the community interests. Questioned why the engine brake signs have not been put up on the Ambassador Bridge.	The purpose of the federal environmental assessment process is to determine the environmental effects and whether there are any impacts on the community. The Ambassador Bridge is not aware of any requirement or request for engine brake signs.	misc

Ambassador Bridge Public Informa[illegible] Meetings Comments and Responses

Date	Respondent	Content	Response	Topic
April 17, 2007	Resident	Opposed to the bridge primarily for reasons of noise and air pollution. Believes that the community is not involved in the process enough. Thinks that the bridge would be better off in a different location. The Enhancement Project will not alleviate the traffic problem at the border. Also worried Ambassador Bridge out having the Enhancement Project so close to the Ambassador Bridge for reasons of National Security.	Studies are underway and are in the preliminary stages of the federal environmental assessment process. All of the comments from these meetings will be submitted as part of the Environmental Impact Statement to the federal government.	noise and air quality
April 17, 2007	Resident	Timelines of the environmental assessment process.	Ambassador Bridge is waiting for Transport Canada to finalize the environmental assessment guidelines.	process
April 17, 2007	Resident	Doesn't believe that the Enhancement Project will improve the community. Skeptical that the Ambassador Bridge will actually consider the needs of the community.	Part of the environmental assessment process and the reason for the public meetings is to consider the issues raised by the community and bring the issues to the attention of the Ambassador Bridge.	community issues
April 17, 2007	Resident	Would like the design of the enhancement to be more like in San Francisco. Believes that the trucks should be separated from the cars.	The new bridge will have a lane specifically dedicated for trucks, safety lanes on the shoulders, wider lanes and better lighting.	bridge details
April 17, 2007	Resident	Doesn't think the US FONSI report is relevant because it is American and they are not experts on Canadian issues. Also believes that the Ambassador Bridge is responsible for damages to Assumption Church.	The FONSI report is only relevant because it shows how the bridge connects with the roads on the American side. The issues with Assumption Church will be addressed.	misc
April 17, 2007	Resident	The houses that were purchased on his block becoming a target for vandals.	These property issues will be looked into and all of the houses will be dealt with on a case by case basis. Each property will be considered individually to determine the best course of action.	local property
April 17, 2007	Resident	Possibility of increase in tolls.	The tolls on the Ambassador Bridge are competitive with all the other international crossings, except for Bluewater Bridge, which is subsidized.	tolls
April 17, 2007	Resident	Recent purchase of eight homes in the community.	Will look into the homes and provide additional information at a later date.	local property
April 17, 2007	Resident	Impact on the community and validity of the environmental studies.	All studies are being undertaken in accordance with Transport Canada's guidelines as established under the Canadian Environmental Assessment Act.	process
April 17, 2007	Resident	Why is property being purchased on Bloomfield Road	That property is not part of the project	local property
April 17, 2007	Resident	How will trucks navigate through the area.	The trucks will be on the west side of Huron Church and enter Huron Church before the railroad tracks, not at the College. The trucks will be getting on the bridge at the same location as the existing Ambassador Bridge.	plaza details
April 18, 2007	St. Clair College	What is the construction design?	The existing bridge is a suspension and the new one will be cable stayed.	infrastructure
April 18, 2007	St. Clair College	Length of time to complete the environmental assessment.	We anticipate the documents will be submitted to the Transport Canada, the Responsible Agency, in six to eight months. Public Meetings will held during the week of April 16 to 19, 2007 to identify issues and following those the required reports will be prepared and submitted to Transport Canada for review and approval.	process

Ambassador Bridge Public Informa' Meetings Comments and Responses

Date	Respondent	Content	Response	Topic
April 18, 2007	St. Clair College	The impacts are mostly from the road users on Huron Church.	Local road issues are not part of the Enhancement Project. Local, Provincial and Federal governments are responsible for local roads.	local roads
April 18, 2007	St. Clair College	Does the environmental assessment affect the Ambassador Bridge?	Ambassador Bridge will be taken out of service, rehabilitated and maintained.	existing Ambassador Bridge
April 18, 2007	Resident	Connection to the new bridge	Just to the west side of the Ambassador Bridge a ramp is being built.	Infrastructure
April 18, 2007	Resident	Whether there are any historic homes on Indian Road or in the area?	An archaeologist is on the Windsor plaza construction site to ensure that no heritage homes are being destroyed. The plaza expansion is already approved and not subject to the environmental assessment process.	heritage sites
April 18, 2007	Resident	Grading of new bridge	The grade will mirror the Ambassador Bridge.	Plaza details
April 18, 2007	Resident	Secondary site inspections and whether reverse customs ever be implemented. Asked whether plaza will accommodate future needs.	No plans to relocate the secondary site inspections. However, due to new processing implemented on April 1, 2007 the number of trucks sent to secondary inspections has decreased considerably . Traffic management program will make sure customs can see any truck that they need to. Ambassador Bridge is in favour of reverse customs but the Canadian government would need to make that change.	processing
April 18, 2007	Resident	West side of Indian Road	West side of Indian Road will remain unchanged.	local property
April 18, 2007	Resident	Noise and vibration	All of the studies are in the preliminary stages and will comply with Transport Canada's guidelines and federal and provincial legislative requirements.	noise and vibration
April 18, 2007	Resident	Whether tunneling is more harmful to the environment.	Tunneling can result in a concentration of air emissions at specific locations.	environmental
April 18, 2007	Resident	Would like to see improvements to the Wyandotte Street exit and close that exit to trucks.	Immediately after 9/11 the Ambassador Bridge met with local officials and it was decided that the closure of Wyandotte Street would not be feasible.	local roads
April 18, 2007	Resident	Separation of car and truck traffic.	The possibility of separating car and truck traffic with two bridges is not feasible at this time.	bridge details
April 18, 2007	Resident	Local roads.	Local roads and highways are not part of the Enhancement Project. Local, Provincial and Federal Governments are responsible for local roads.	local roads
April 18, 2007	Resident	Whether there will be any weight restrictions on the new bridge. Would like to see the Enhancement Project Ambassador to hold heavier trucks to meet the needs of the future.	The weight restrictions will comply with current standards. It would not be useful to have a heavier weight restriction because the roads leading up to the bridge have weight restrictions as well.	infrastructure
April 18, 2007	Resident	Location of the duty free stores.	The duty free store in Michigan is being moved to the new plaza.	plaza details
April 18, 2007	Resident	Price of tolls.	No plans to raise the tolls in the near future.	tolls
April 18, 2007	Resident	Continued purchase of properties in the community by the Ambassador Bridge.	No plans to purchase any additional property although some properties are still being purchased along Indian Road.	local property
April 18, 2007	Resident	Transparency of the environmental process, increase in noise and vibration, air pollution tests should consider all the air pollution factors in the community, not just the traffic.	All studies are in their preliminary stages and the results of the studies will be shared with the community. The process will be entirely transparent. All applicable provincial and federal standards will be followed.	noise/vibration/air quality
April 18, 2007	Resident	Trucks required to use the new customs' booths on both sides of the border.	Not all trucks will be directed to the new booths. Some trucks will continue to use the customs' booths on the east side of the plaza. The American side will be a little different because there will be a direct ramp onto the expressway.	plaza details
April 18, 2007	Resident	Pedestrians along Huron Church from Wyandotte St	As part of the permitting process the City recommended that the sidewalk be closed and the students be asked to walk up Indian Road.	plaza details
April 18, 2007	Resident	No need for a new bridge because traffic rates are falling and will continue to fall.	The new bridge is replacing the existing 78 year old bridge.	misc

Ambassador Bridge Public Informa' Meetings Comments and Responses

Date	Respondent	Content	Response	Topic
April 18, 2007	Ottawa Street BIA	What would be the benefit to traffic movement of reverse customs?	FAST and Nexus users would be separated from occasional users. More efficient movement of traffic.	customs
April 18, 2007	Ottawa Street BIA	What's the reason for decreased traffic and cars versus trucks?	There are many reasons. Cars are down but trucks are also down but less drastically. Overall traffic is projected to decline with trucks flat-lining.	traffic levels
April 18, 2007	Ottawa Street BIA	What are the Tunnel's projections?	We don't know their projections but we do know that they have lost more traffic than we have.	tunnel
April 18, 2007	Ottawa Street BIA	Are other forms of transportation being used instead of the roads and bridges?	Windsor needs a double or triple stack rail tunnel. Traffic is down due to economic conditions.	alternatives
April 18, 2007	Ottawa Street BIA	Use of existing Ambassador Bridge.	Ambassador Bridge will be taken out of service, rehabilitated and maintained.	existing Ambassador Bridge
April 18, 2007	Ottawa Street BIA	Bridge still first in traffic volumes	For commercial vehicles it continues to have the most commercial traffic crossing.	traffic levels
April 18, 2007	Ottawa Street BIA	Will there be a buffer zone implemented?	A green space corridor is being proposed along the Indian Road corridor.	green buffer zone
April 18, 2007	Ottawa Street BIA	What is the Bridge's opinion regarding the best solution for Huron Church traffic congestion?	Local road issues are not part of the Enhancement Project. Local, Provincial and Federal governments are responsible for local roads.	local roads
April 18, 2007	Ottawa Street BIA	Can the new bridge function with the existing Huron Church Road?	The new bridge can function because it is simply a shift of traffic off of the existing bridge onto the Enhancement Project. We believe traffic congestion on the local road needs to be fixed but that the bottle neck is with Customs not the road or the bridge.	local roads
April 18, 2007	Ottawa Street BIA	Will the Plaza have to be increased in size to accommodate reverse Customs?	There is no indication and the Ambassador Bridge does not think an increase is necessary.	customs
April 18, 2007	Ottawa Street BIA	Why is the City involved – why not just the federal and provincial governments doing what is needed?	Unless the province assumes responsibility for Huron Church Road, the City should be involved in the resolution of the local road problems.	local roads
April 18, 2007	Ottawa Street BIA	What if E. C. Row or another bypass road are constructed with access to a new bridge.	It will not impact the Enhancement Project. The Ambassador Bridge Enhancement Project is a shift off traffic from one structure onto the new structure. The cost of carrying out maintenance while the Bridge is under load is very high and given the current economic and bond markets it makes sense to construct a new bridge now, take the current bridge out of service and assess its long term maintenance needs.	DRIC
April 18, 2007	Ottawa Street BIA	Does the Enhancement Project need six lanes?	No, only four. The additional two lanes were requested by Customs for FAST and Nexus.	infrastructure
April 19, 2007	Resident	Staffing of the new customs booths.	Currently in discussions with customs' on both the Canadian and American sides. However, both governments are responsible for customs personnel. Ambassador believes that the customs' facilities in both Windsor and Detroit are dedicated to making sure that traffic moves smoothly.	plaza details
April 19, 2007	Resident	Location of Enhancement Project.	Located between the Ambassador Bridge and the student residence.	bridge details
April 19, 2007	Resident	Use of Ambassador Bridge. Separation of cars and trucks.	Ambassador Bridge will be rehabilitated and maintained and be used for emergency vehicles. No separation of car and truck traffic.	existing Ambassador Bridge
April 19, 2007	Resident	Questioned if the impact analysis will include traffic, noise, vibration, environmental, storm water, and air quality analysis.	The environmental assessment includes studies relating to all environmental effects. The exact requirements are available on-line at www.ceaa.gc.ca.	environmental
April 19, 2007	Resident	Use of Ambassador Bridge.	Ambassador Bridge will be taken out of service, rehabilitated and maintained.	existing Ambassador Bridge
April 19, 2007	Resident	DRIC process and proposal for another bridge.	The DRIC process is a separate process. The Enhancement Project is being constructed because it is extremely expensive to continue to maintain the existing bridge under load.	DRIC
April 19, 2007	Resident	How much traffic has decreased since 1999.	Traffic is down Ambassador Bridge out 3 million vehicles since 1999.	traffic

Ambassador Bridge Public Informa[illegible]Meetings Comments and Responses

Date	Respondent	Content	Response	Topic
April 19, 2007	Resident	Efficiency of the Enhancement Project.	The new crossing will be more efficient because one lane each way is dedicated to FAST and NEXUS users.	infrastructure
April 19, 2007	Resident	Design of the Enhancement Project should be posted on the website. Concerned with the local roads to the Enhancement Project.	The design will be posted on the website. The roads are not part of the Enhancement Project. Local, Provincial and Federal Governments are responsible for local roads.	local roads
April 19, 2007	Resident	Location of the Enhancement Project.	The environmental assessment includes alternate needs assessment.	process
April 19, 2007	Resident	Scope of the environmental assessment.	The draft environmental assessment guidelines are posted on the CEAA website. Transport Canada is the lead agency, all other agencies are circulated by transport Canada.	process
April 19, 2007	Resident	The DRIC process and studies are not confronting the issue of traffic to and from the bridge.	DRIC is a different process. The Enhancement Project is a maintenance project, while the DRIC is looking to future needs. Local road issues are not part of the Enhancement Project. Local, Provincial and Federal governments are responsible for local roads.	DRIC and local roads
April 19, 2007	Resident	Air emissions and future strain on Health Care.	The air quality studies are in the preliminary stages and the results will be shared with the community.	air quality
April 19, 2007	Resident	Enhancement Project will resolve traffic issues.	Traffic will move more efficiently and reduce traffic congestion.	support for Enhancement Project
April 19, 2007	Resident	Plaza enlargement increases air pollution.	The plaza extension is not part of the Enhancement Project. The results of the air quality studies will be shared with the community.	air quality
April 19, 2007	Resident	Believes that with 3 million less cars crossing since 1999 and better emissions from new cars that pollution will not be a significant issue.		support for Enhancement Project
April 19, 2007	Resident	Tolls.	Tolls are not part of the Enhancement Project. Also, the Enhancement Project is not Ambassador Bridge out increasing the tolls, it is Ambassador Bridge out replacing a 78 year old structure.	tolls
April 19, 2007	Heavy Construction Association	What is the distance between the Bluewater Bridges?	Approximately 150 feet.	Infrastructure
April 19, 2007	Heavy Construction Association	What is the approximate cost of rehabilitating the Ambassador Bridge?	Approximately sixty million dollars.	existing Ambassador Bridge
April 19, 2007	Heavy Construction Association	Will the I75 Gateway Project happen regardless of the Enhancement Project?	Yes, it will be completed by 2009.	infrastructure
April 19, 2007	Heavy Construction Association	Existing Ambassador Bridge.	Local road issues are not part of the Enhancement Project. Local, Provincial and Federal governments are responsible for local roads.	local roads
April 19, 2007	Heavy Construction Association	Will there be reverse customs?	The Ambassador Bridge is in support of reverse customs.	customs
April 19, 2007	Heavy Construction Association	Timing of environmental assessment process?	We anticipate the documents will be submitted to the Transport Canada, the Responsible Agency, in six to eight months. Public Meetings will held during the week of April 16 to 19, 2007 to identify issues and following those the required reports will be prepared and submitted to Transport Canada for review and approval.	process
April 19, 2007	Heavy Construction Association	Cost of Enhancement Project?	Approximately one billion dollars.	funding
April 19, 2007	Heavy Construction Association	What happens to the Enhancement Project if DRIC proceeds.	The Enhancement Project just shifts the traffic from one bridge to another. We believe the DRIC timeline is overly aggressive and that the traffic projections are not realistic.	DRIC

Ambassador Bridge Public Informat Meetings Comments and Responses

Date	Respondent	Content	Response	Topic
April 19, 2007	Chatham & District Chamber of Commerce	Citizen response to this location.	The responsibility for local road improvements lies with the federal, provincial and municipal governments. The Ambassador Bridge will continue to work with the Ministry of Transportation and the federal government to find solutions to provide an improved corridor connection between the 401 and the Bridge.	local roads
April 19, 2007	Chatham & District Chamber of Commerce	Are the additional of the Customs booths adequate?	The Ambassador Bridge will work with Customs to try to improve processing times by doing such things as including the FAST Lanes to provide access to the FAST and Nexus booths. We have a good working relationship with Customs and continue. The FAST Lanes should help to reduce the congestion.	customs
April 19, 2007	Chatham & District Chamber of Commerce	Is there second Customs location.	Yes, the secondary inspection area is on Industrial Drive.	customs
April 19, 2007	Chatham & District Chamber of Commerce	What are the impacts on the Tunnel	When the Tunnel works efficiently so does the Ambassador Bridge and vice versa.	tunnel
April 19, 2007	Chatham & District Chamber of Commerce	Ownership of other border crossings, are others privately owned.	Currently, there several unique forms of ownership of the Ambassador Bridge.	border ownership
April 19, 2007	Chatham & District Chamber of Commerce	Are the traffic levels down at the other crossings?	Yes, traffic levels are down at all the crossings.	traffic levels
April 19, 2007	Chatham & District Chamber of Commerce	Is truck traffic down at the Ambassador Bridge?	Trucks are almost at the same levels – a bit lower.	traffic levels
April 19, 2007	Chatham & District Chamber of Commerce	What happened to the old train tunnel proposal?	Yes, and it is still being considered by the public.	tunnel
April 19, 2007	Chatham & District Chamber of Commerce	Status of the environmental assessment process.	We anticipate submitting the reports in approximately six to eight months. Public Meetings are being held this week to identify issues and following those the required reports will be prepared and submitted to Transport Canada for review and approval.	process
April 19, 2007	Chatham & District Chamber of Commerce	Environmental impacts of a tunnel.	Tunnels can have a variety of environmental impacts including two points of concentrated air quality impact among other things.	tunnel
April 19, 2007	Chatham & District Chamber of Commerce	Noise mitigation.	A green buffer zone will be created to minimize the impacts of noise and vibration.	noise and vibration and green buffer zone
April 19, 2007	Chatham & District Chamber of Commerce	Where is the funding for the Enhancement Project coming from?	The Enhancement Project is entirely privately funded.	funding
April 19, 2007	Chatham & District Chamber of Commerce	Height of the Enhancement Project.	It will be a minimum of 46 metres in height and will have no impact on navigation.	Infrastructure
April 19, 2007	Chatham & District Chamber of Commerce	Cost of the Enhancement Project.	It will be approximately one billion dollars.	funding
April 19, 2007	Chatham & District Chamber of Commerce	Length of time of Environmental Assessment.	We anticipate submitting the reports in approximately six to eight months. Public Meetings are being held this week to identify issues and following those the required reports will be prepared and submitted to Transport Canada for review and approval	process
April 19, 2007	Chatham & District Chamber of Commerce	Are there any obstacles in the United States?	We do not anticipate any obstacles in the United States.	process

Ambassador Bridge Public Informa' Meetings Comments and Responses

Date	Respondent	Content	Response	Topic
April 19, 2007	Chatham & District Chamber of Commerce	Is customs causing the bottleneck?	Yes, the ability to inspect and man the customs booths has an impact on the flow of traffic.	customs
April 23, 2007	CanAm Friendship Centre	How do you propose to work with the First Nations on this project. Scope of the archeological study.	The Ambassador Bridge is getting proposals for the archaeological work. Shovel testing and grid work on the east side of Indian Road from Mill Street to the River and an archaeologist on site when needed particularly when the existing basements and foundations are being removed.	archeological
April 23, 2007	CanAm Friendship Centre	Historical significance of the area.	The existing houses on the east side of Indian Road have been assessed and are not considered historically significant.	heritage sites
April 23, 2007	CanAm Friendship Centre	Opportunities to teach about the history of the area.	There may be an opportunity through the Green Corridor part of the process and we've considered a Sandwich store front to show the project.	green buffer zone
April 23, 2007	CanAm Friendship Centre	Depth of the green buffer zone.	The depth is approximately 120 feet from Mill Street to the River.	green buffer zone
April 23, 2007	CanAm Friendship Centre	Possibility for a cultural centre in the green buffer zone.	It is possible, although we are in the early stages of the process and anticipate that we would be very receptive to the idea depending on the details.	green buffer zone
April 23, 2007	CanAm Friendship Centre	Access to the site while work is ongoing?	Access will be provided and a procedure for that will be one of the first things that is set up.	archeological
April 23, 2007	Leamington	Existing Ambassador Bridge.	Ambassador Bridge will be taken out of service, rehabilitated and maintained.	existing Ambassador Bridge
April 23, 2007	Leamington	Route to the Ambassador Bridge along Huron Church Road from the 401	Local road issues are not part of the Enhancement Project. Local, Provincial and Federal governments are responsible for local roads.	local roads
April 23, 2007	Leamington	Will issues of heritage, noise, air, be evaluated?	All of the studies, noise, vibration, air, heritage, are currently in their preliminary studies but will be submitted as part of the environmental assessment process.	process
April 23, 2007	Leamington	Dialogue with County residents.	Representatives are meeting with various stakeholder groups and the public throughout the environmental assessment process.	public process
April 23, 2007	Leamington	Length of time of the public consultation process take and is the Ambassador Bridge seeking comments from the municipality.	We anticipate the documents will be submitted to Transport Canada, the Responsible Authority, in six to eight months. Public Meetings were held last week to identify issues and following those the required reports will be prepared and submitted to Transport Canada for review and approval. These presentations are to inform you about the project and to solicit your issues and concerns.	public process
April 23, 2007	Leamington	I like the fact that no public money is required and that there will be an increase in the number of toll booths but a solution for the Huron Church Road congestion has to be found. The old bridge has served its purpose and now it's time for a new one. I think this type of bridge is attractive, a tourist attraction and that it will bring badly needed jobs.		support for Enhancement Project
April 23, 2007	Town of Kingsville	Has all the land needed for Enhancement Project been acquired?	Yes, with the exception of 3 properties we are still negotiating with.	local property
April 23, 2007	Town of Kingsville	Cost of maintaining the Enhancement Project?	The cost of carrying out maintenance while the Bridge is under load is very high and given the current economic and bond markets it makes sense to construct a new bridge now, take the current bridge out of service and assess its long term maintenance needs.	funding
April 23, 2007	Town of Kingsville	Is the existing Ambassador Bridge a heritage site?	The entire structure is listed as a heritage site in the US even though they don't have jurisdiction on the Canadian side.	existing Ambassador Bridge
April 23, 2007	Town of Kingsville	Status of the US process?	It is currently underway and similar to the Canadian process.	US process

Ambassador Bridge Public Informat Meetings Comments and Responses

Date	Respondent	Content	Response	Topic
April 23, 2007	Town of Kingsville	What is the status of the environmental assessment process?	We anticipate the documents will be submitted to the Transport Canada, the Responsible Agency, in six to eight months. Public Meetings will held during the week of April 16 to 19, 2007 to identify issues and following those the required reports will be prepared and submitted to Transport Canada for review and approval.	process
April 24, 2007	Community Coalition	Use of FAST cards on the Canadian Side	Yes, FAST cards may be used on the Canadian side of the border.	customs
April 24, 2007	Community Coalition	Who would be responsible for developing the green buffer zone.	The Ambassador Bridge is working with the Green Corridor Group and the University of Windsor and will be seeking community input.	green buffer zone
April 24, 2007	Community Coalition	Will the homes along Indian Road be demolished for the green buffer zone?	Yes. Everything from Mill Street to the River although the Ambassador Bridge is trying to keep Villa Maria.	local property
April 24, 2007	Community Coalition	What is the timing of the environmental assessment process?	We anticipate submitting the reports in approximately six to eight months. Public Meetings are being held this week to identify issues and following those the required reports will be prepared and submitted to Transport Canada for review and approval	process
April 24, 2007	Community Coalition	Possibility of a new access road.	Local road issues are not part of the Enhancement Project. Local, Provincial and Federal governments are responsible for local roads.	local roads
April 24, 2007	Community Coalition	Plans for the "off-site" inspection area.	Trucks without the primary paper work already complete will not be allowed to go to the "off-site", they will have to return to the US side of the border to complete their paperwork. We don't intend to buy additional land in Sandwich.	customs
April 24, 2007	Community Coalition	Could the government just expropriate for a new road?	The government could but it is easier for everyone if there is a willing buyer and seller situation like exists now between the residents and an entity like the Ambassador Bridge who will buy the land. The expropriation process is slow and difficult for everyone involved.	local roads
April 24, 2007	Community Coalition	Grading of new bridge	Same as the existing Ambassador Bridge.	infrastructure
April 24, 2007	Community Coalition	Are there any safety issues with trucks from the last 6 booths merging with other traffic?	We don't anticipate any safety issues, the City of Windsor reviewed and approved the site plan drawings.	customs
April 24, 2007	Community Coalition	When will the gateway project be completed?	2009	process
April 24, 2007	Community Coalition	Use of the existing Ambassador Bridge.	The existing Ambassador Bridge will be taken out of service rehabilitated and maintained.	existing Ambassador Bridge
April 24, 2007	Community Coalition	Have the approvals be given to keep the Ambassador Bridge.	One the U.S. side approval has been granted to keep the Ambassador Bridge. On the Canadian side approval is not required for regular maintenance activities.	existing Ambassador Bridge
May 7, 2007	Town of Essex Council	Future of old bridge.	Once the new span is complete and operational, the current Bridge would be taken out of service and rehabilitated and maintained.	existing Ambassador Bridge
May 7, 2007	Town of Essex Council	Life expectancy of the existing bridge.	The shelf life of the current bridge is definitely not up; it will last for many decades to come. Each and every year we undertake a full blown engineering review, and make necessary repairs.	existing Ambassador Bridge
May 7, 2007	Town of Essex Council	Traffic issues such as the overflow on Huron Church line. Environmental issues.	The Project itself is not Ambassador Bridge out the roads on Huron Church. Local road issues are not part of the Enhancement Project. Local, Provincial and Federal Governments are responsible for local roads. The Enhancement Project is simply a maintenance project. The EA will analyze air quality issues.	air quality
May 7, 2007	Town of Essex Council	Steps taken in the past to increase bridge efficiency.	Four booths have been opened for traffic going into the U.S. and we are in discussions to do more. Most back ups have been eliminated. As long as the trucks are moving, they are more efficient. Three booths are being added to the US side and the Windsor Plaza is being expanded.	customs

Ambassador Bridge Public Informa' Meetings Comments and Responses

Date	Respondent	Content	Response	Topic
May 7, 2007	Town of Essex Council	Safety of the new bridge.	The new span will ensure that vehicles in distress won't effect traffic flow. It will actually improve the functions and traffic flow of the bridge. The safety of the bridge will be improved.	safety
May 7, 2007	Town of Essex Council	Location of the bridge with respect to the neighborhood.	There will also be a green buffer zone along the East Side of Indian Road. As of April 1st the Ambassador Bridge has made another change for trucks using the off site facilities. Normally 600-800 go to off site, today less than 100.	green buffer zone
May 7, 2007	Town of Essex Council	Mitigation of the impact of transient materials and other potential environmental issues.	Those issues are part of the Environmental Assessment.	process
May 7, 2007	Town of Essex Council	Motion to support the project. Motion to support passes in a 5-1 vote.		support

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/cc

October 10, 2007

Alex Shinas
Essex Region Conservation Authority
360 Fairview Ave.
Town of Essex, ON

Dear Mr. Shinas:

Re: Ambassador Bridge Enhancement Project

We appreciate you taking the time to fill out the comment card provided at the Enhancement Project Public Meetings in April and Open Houses held in June and October. We hope that the answer provided below fully responds to your question.

On the comment card you submitted, you asked "If the impact analysis phase includes; traffic, noise, vibration, environmental, storm water, and air quality and whether mitigation will be included in the analysis?"

In response to your question, the Environmental Impact Study that is being prepared as part of the environmental assessment process includes the analysis of noise, air pollution, vibration, surface water, groundwater, vegetation, wildlife, environmental impacts and stormwater, among others, as well as any possible mitigation measures undertaken.

The Ambassador Bridge held Open House meetings on October 2, 2007 and October 3, 2007 to present the results of the technical studies undertaken as part of the environmental assessment process. Please find enclosed a copy of the materials presented at the Open House. The technical studies are now complete and the written reports are being finalized by the various consultants. These studies will be submitted to the federal government for review and comment within the next couple of weeks.

DIRECT (519) 672-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

If you have any further questions I urge you to visit the website www.ambassadorbridge.com or contact us directly via e-mail or by letter.

Yours very truly,

Siskinds LLP

COPY

Per:

Paula Lombardi

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/cc

October 10, 2007

Terrance Kennedy
3248 Baby Street
Windsor, ON
N9C 1K5

Dear Mr. Kennedy:

Re: Ambassador Bridge Enhancement Project

We appreciate you taking the time to fill out the comment card provided at the Enhancement Project Public Meetings in April and Open Houses held in June and October. We hope that the answer provided below fully responds to your question.

On the comment card you submitted, you asked "About the proposed design and stated your opposition to the design of the Enhancement Project. You indicated that the new bridge is too intrusive on the Sandwich Town community. You also expressed concern about the construction of the toxic waste containment basins and the further protection of the neighborhood."

In response to your question, throughout the public consultation process we have asked for input from the community to develop a design that compliments the neighbourhood and reflects the characteristics of the existing Ambassador Bridge.

The construction of any waste containment basins, including those used for hazardous waste, will comply with all legislated standards and requirements.

The Ambassador Bridge held Open House meetings on October 2, 2007 and October 3, 2007 to present the results of the technical studies undertaken as part of the environmental assessment process. Please find enclosed a copy of the materials presented at the Open House. The technical studies are now complete and the written reports are being finalized by the various consultants. These studies will be submitted to the federal government for review and comment within the next couple of weeks.

If you have any further questions I urge you to visit the website www.ambassadorbridge.com or contact us directly via e-mail or by letter.

Yours very truly,

Siskinds LLP

COPY

Per:

Paula Lombardi

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/cc

October 10, 2007

Brian and Chris Allsop
102 Kingsway
Essex, ON N8M 3C2

Dear Brian and Chris Allsop:

Re: Ambassador Bridge Enhancement Project

We appreciate you taking the time to fill out the comment card provided at the Enhancement Project Public Meetings in April and Open Houses held in June and October. We hope that the answer provided below fully responds to your question.

On the comment card you submitted, you asked "What is the number of new customs booths on both sides of the border? You also asked if the Ambassador Bridge has federal approvals/commitments to staff the booths? Also, how traffic will be handled to and from the bridge? (Hwy 401/ Hwy 3/ Huron Church) and asked about the location of the Enhancement Project."

In response to your question, prior to 9/11 there were 12 customs booths for automobiles and 6 customs booths for trucks on the United States side of the border. Currently an additional 8 booths for automobiles are under construction and when completed will amount to a total of 20 booths for automobiles in the United States. There are 13 booths for trucks and 3 additional truck booths on the United States side of the border that will be constructed in the very near future. On the Canadian side of the border there were 20 customs booths prior to 9/11; 10 booths for automobiles and th e other 10 customs booths for dual use (automobiles or trucks). In January, 2006 an additional 3 customs booths for trucks were constructed and six new customs booths for trucks finished this summer; bringing the total number of customs booths in Canada to 29 and in the United States to 25.

The bridge is responsible for constructing the customs booths, however, staffing the actual booth is the responsibility of the Canada Border Service Agency ("CBSA") and not the Ambassador Bridge. The Ambassador Bridge continues to work with CBSA to ensure that the customs booths are adequately staffed at all times.

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FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

Traffic routes to and from the bridge will not change, but with the Enhancement Project traffic will flow more efficiently across the border. The Enhancement Project is proposing to construct a six lane cable-stayed bridge that is located immediately to the west of the existing Ambassador Bridge. The Enhancement Project links directly into the existing plazas on both sides of the border, there are no piers placed in the water and the Enhancement Project has minimal impact on land in the area.

The Ambassador Bridge held Open House meetings on October 2, 2007 and October 3, 2007 to present the results of the technical studies undertaken as part of the environmental assessment process. Please find enclosed a copy of the materials presented at the Open House. The technical studies are now complete and the written reports are being finalized by the various consultants. These studies will be submitted to the federal government for review and comment within the next couple of weeks.

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Yours very truly,

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Paula Lombardi

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/cc

October 10, 2007

Jim Oates
RR#1
Essex, Ontario

Dear Mr. Oates:

Re: Ambassador Bridge Enhancement Project

We appreciate you taking the time to fill out the comment card provided at the Enhancement Project Public Meetings in April and Open Houses held in June and October. We hope that the answer provided below fully responds to your question.

On the comment card you submitted, you asked "About the status of the existing Ambassador Bridge."

When the new span is operational, the existing Ambassador Bridge will be reevaluated and rehabilitated without causing any disruption in traffic flow. Once rehabilitated, the existing Ambassador Bridge will be maintained and available as a redundant resource for maintenance vehicles, emergencies and approved public events.

The Ambassador Bridge held Open House meetings on October 2, 2007 and October 3, 2007 to present the results of the technical studies undertaken as part of the environmental assessment process. Please find enclosed a copy of the materials presented at the Open House. The technical studies are now complete and the written reports are being finalized by the various consultants. These studies will be submitted to the federal government for review and comment within the next couple of weeks.

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Yours very truly,

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680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/cc

October 10, 2007

Dan Czuchnowsky
264 Patrice Drive
Windsor, ON
N8S 2R6

Dear Mr. Czuchnowsky:

Re: Ambassador Bridge Enhancement Project

We appreciate you taking the time to fill out the comment card provided at the Enhancement Project Public Meetings in April and Open Houses held in June and October. We hope that the answer provided below fully responds to your question.

On the comment card you submitted, you asked "Whether the existing Ambassador Bridge will be used for automobiles."

In response to your question, the proposed Enhancement Project is a six lane bridge that will meet current traffic demands. When the new span is operational, the existing Ambassador Bridge will be reevaluated and rehabilitated without causing any disruption in traffic flow. Once rehabilitated, the existing Ambassador Bridge will be maintained and available as a redundant resource for maintenance vehicles, emergencies and approved public events.

The Ambassador Bridge held Open House meetings on October 2, 2007 and October 3, 2007 to present the results of the technical studies undertaken as part of the environmental assessment process. Please find enclosed a copy of the materials presented at the Open House. The technical studies are now complete and the written reports are being finalized by the various consultants. These studies will be submitted to the federal government for review and comment within the next couple of weeks.

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Yours very truly,

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680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/cc

October 10, 2007

Wayne Fortin
6045 Malden Road
La Salle, ON N9H 1S7

Dear Mr. Fortin:

Re: Ambassador Bridge Enhancement Project

We appreciate you taking the time to fill out the comment card provided at the Enhancement Project Public Meetings in April and Open Houses held in June and October. We hope that the answer provided below fully responds to your question.

On the comment card you submitted, you asked "About the noise and vibration study."

In response to your question, the Environmental Impact Study that is being finalized as part of the environmental assessment process includes the analysis of noise, air pollution, vibration, surface water, groundwater, vegetation, wildlife, environmental impacts and stormwater, among others, as well as any possible mitigation measures undertaken.

As you know, the Ambassador Bridge held Open House meetings on October 2, 2007 and October 3, 2007 presented the results of the technical studies undertaken as part of the environmental assessment process. In case you did not have an opportunity to pick up the materials available at the Open House we have enclosed a copy for your review. The technical studies are now complete and the written reports are being finalized by the various consultants. These studies will be submitted to the federal government for review and comment within the next couple of weeks.

If you have any further questions I urge you to visit the website www.ambassadorbridge.com or contact us directly via e-mail or by letter.

Yours very truly,

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DIRECT (519) 660-7850
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680 Waterloo Street, London, ON N6A 3V8

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EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/cc

October 10, 2007

Lunette Ovanin
3745 Holdburn Street
Windsor, ON

Dear Lunette Ovanin:

Re: Ambassador Bridge Enhancement Project

We appreciate you taking the time to fill out the comment card provided at the Enhancement Project Public Meetings in April and Open Houses held in June and October. We hope that the answer provided below fully responds to your question.

On the comment card you submitted, you asked "About the existing problem with truck traffic throughout the city of Windsor."

In response to your question, the Enhancement Project is a six lane cable stayed bridge. One lane in each direction of the new span (two lanes in total) will be designated as a FAST lane to allow trucks to move more efficiently across the Enhancement Project and reduce delays and back-ups.

The Ambassador Bridge held Open House meetings on October 2, 2007 and October 3, 2007 to present the results of the technical studies undertaken as part of the environmental assessment process. Please find enclosed a copy of the materials presented at the Open House. The technical studies are now complete and the written reports are being finalized by the various consultants. These studies will be submitted to the federal government for review and comment within the next couple of weeks.

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680 Waterloo Street, London, ON N6A 3V8

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EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/cc

October 10, 2007

R.V. Ford
1208 Gladstone
Windsor

Dear R.V. Ford:

Re: Ambassador Bridge Enhancement Project

We appreciate you taking the time to fill out the comment card provided at the Enhancement Project Public Meetings in April and Open Houses held in June and October. We hope that the answer provided below fully responds to your question.

On the comment card you submitted, you asked "Whether the Enhancement Project will increase the weight of trucks."

In response to your question, the weight of trucks will not increase as a result of the Enhancement Project. Road restrictions along with manufacturers' restrictions determines the weight of the trucks.

The Ambassador Bridge held Open House meetings on October 2, 2007 and October 3, 2007 to present the results of the technical studies undertaken as part of the environmental assessment process. Please find enclosed a copy of the materials presented at the Open House. The technical studies are now complete and the written reports are being finalized by the various consultants. These studies will be submitted to the federal government for review and comment within the next couple of weeks.

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680 Waterloo Street, London, ON N6A 3V8

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EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/cc

October 10, 2007

Mary Ann Cuderman
3118 Sandwich
Windsor, ON N9C 1A6

Dear Ms. Cuderman:

Re: Ambassador Bridge Enhancement Project

We appreciate you taking the time to fill out the comment card provided at the Enhancement Project Public Meetings in April and Open Houses held in June and October. We hope that the answer provided below fully responds to your question.

On the comment card you submitted, you asked "About the possible degradation of the Sandwich Town neighborhood; air quality and noise information; the grade of the new bridge; size of the plaza; and whether the Windsor Port Authority is an RA."

In response to your question, the Environmental Impact Study that is being finalized as part of the environmental assessment process includes the analysis of noise, air pollution, vibration, surface water, groundwater, vegetation, wildlife, environmental impacts and stormwater, among others, as well as any possible mitigation measures undertaken.

The Windsor Port Authority is the "landowning" trigger for the preparation of the federal environmental assessment, and is actively participating in the preparation of the environmental assessment. However, Transport Canada is taking the lead as the Responsible Authority

The Enhancement Project proposes the construction of a six lane cable-stayed bridge across the Detroit River, to the west of, and adjacent to, the existing span of the Ambassador Bridge that will connect to the approved customs inspection plaza in Windsor.

The Ambassador Bridge held Open House meetings on October 2, 2007 and October 3, 2007 to present the results of the technical studies undertaken as part of the environmental assessment process. Please find enclosed a copy of the materials presented at the Open House. The technical studies are now complete and the written reports are being finalized by the various consultants. These studies will be submitted to the federal government for review and comment within the next couple of weeks.

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SISKINDS | THE LAW FIRM

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FILE NO. 810750/PL/cc

October 10, 2007

J. Syroid
3924 Whitney
Windsor, ON
N9C 2C6

Dear J. Syroid:

Re: Ambassador Bridge Enhancement Project

We appreciate you taking the time to fill out the comment card provided at the Enhancement Project Public Meetings in April and Open Houses held in June and October. We hope that the answer provided below fully responds to your question.

On the comment card you submitted, you asked "About security on the Ambassador Bridge and the environmental impacts of the Enhancement Project on area residents. Also, about the environmental impacts on those individuals that suffer illnesses."

In response to your question, while the bridge has its own security team, the major security issues will continue to be handled by the Canada Border Services Agency. The Environmental Impact Study that is being finalized as part of the environmental assessment process includes the analysis of noise, air pollution, vibration, surface water, groundwater, vegetation, wildlife, environmental impacts and stormwater, among others, as well as any possible mitigation measures undertaken.

The studies are currently being prepared by the consultants for the Ambassador Bridge and will be submitted to the federal government for review and comment. The environmental effects of the Enhancement Project, including the possible impacts of the environmental effects on human health, if any, has been included in the technical analysis conducted as part of the environmental assessment process.

The Ambassador Bridge held Open House meetings on October 2, 2007 and October 3, 2007 to present the results of the technical studies undertaken as part of the environmental assessment process. Please find enclosed a copy of the materials presented at the Open House. The technical studies are now complete and the written reports are being finalized by the

various consultants. These studies will be submitted to the federal government for review and comment within the next couple of weeks.

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Yours very truly,

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680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/cc

October 10, 2007

William G. Ranking
2074 Arras Ave.
Windsor, ON N8W 1T5

Dear Mr. Ranking:

Re: Ambassador Bridge Enhancement Project

We appreciate you taking the time to fill out the comment card provided at the Enhancement Project Public Meetings in April and Open Houses held in June and October. We hope that the answer provided below fully responds to your question.

On the comment card you submitted, you asked "If there are any problems with the vibration of cable stays and stress corrosion. You also expressed your support for the Enhancement Project."

The Ambassador Bridge is inspected annually by an outside engineering company and is subject to ongoing maintenance to ensure that it is properly maintained. The Environmental Impact Study that is being finalized as part of the environmental assessment process includes the analysis of noise, air pollution, vibration, surface water, groundwater, vegetation, wildlife, environmental impacts and stormwater, among others, as well as any possible mitigation measures undertaken. We appreciate and thank-you for your support.

The Ambassador Bridge held Open House meetings on October 2, 2007 and October 3, 2007 to present the results of the technical studies undertaken as part of the environmental assessment process. Please find enclosed a copy of the materials presented at the Open House. The technical studies are now complete and the written reports are being finalized by the various consultants. These studies will be submitted to the federal government for review and comment within the next couple of weeks.

If you have any further questions I urge you to visit the website www.ambassadorbridge.com or contact us directly via e-mail or by letter.

Yours very truly,

Siskinds LLP

COPY

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FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

680 Waterloo Street, London, ON N6A 3V8

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EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/cc

October 10, 2007

Ihor Stebelsky
3545 Bruce Ave.
Windsor, ON N9E 1W9

Dear Mr. Stebelsky:

Re: Ambassador Bridge Enhancement Project

We appreciate you taking the time to fill out the comment card provided at the Enhancement Project Public Meetings in April and Open Houses held in June and October. We hope that the answer provided below fully responds to your question.

On the comment card you submitted, you asked "Whether truck congestion on Huron Church Road will be dealt with by the Ambassador Bridge?"

In response to your question, road improvements are not part of the Enhancement Project. The Federal and Provincial governments made a commitment to improve the access to the current Ambassador Bridge in 2002.

The Environmental Impact Study that is being finalized as part of the environmental assessment process includes the analysis of noise, air pollution, vibration, surface water, groundwater, vegetation, wildlife, environmental impacts and stormwater, among others, as well as any possible mitigation measures undertaken. As part of the federal environmental assessment process air quality, noise and vibration and socio-economic effects have been studied.

The Ambassador Bridge held Open House meetings on October 2, 2007 and October 3, 2007 to present the results of the technical studies undertaken as part of the environmental assessment process. Please find enclosed a copy of the materials presented at the Open House. The technical studies are now complete and the written reports are being finalized by the various consultants. These studies will be submitted to the federal government for review and comment within the next couple of weeks.

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680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/cc

October 10, 2007

William Lane
695 Tournier Street
Windsor, ON N9C 3G9

Dear Mr. Lane:

Re: Ambassador Bridge Enhancement Project

We appreciate you taking the time to fill out the comment card provided at the Enhancement Project Public Meetings in April and Open Houses held in June and October. We hope that the answer provided below fully responds to your question.

On the comment card you submitted, you asked "About the traffic congestion, socio-economic impacts, noise and vibration concerns relating to the Enhancement Project."

We would like to advise you that road improvements are not part of the Enhancement Project. However, the Federal and Provincial governments did make a commitment to improve the access to the current Ambassador Bridge in 2002.

In response to your question, the Environmental Impact Study that is being finalzed as part of the environmental assessment process includes the analysis of noise, air pollution, vibration, surface water, groundwater, vegetation, wildlife, environmental impacts and storm water, among others, as well as any possible mitigation measures undertaken. As part of the federal environmental assessment process air quality, noise and vibration and socio-economic effects have been studied.

The Ambassador Bridge held Open House meetings on October 2, 2007 and October 3, 2007 to present the results of the technical studies undertaken as part of the environmental assessment process. Please find enclosed a copy of the materials presented at the Open House. The technical studies are now complete and the written reports are being finalized by the various consultants. These studies will be submitted to the federal government for review and comment within the next couple of weeks.

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SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/cc

October 10, 2007

Kathy Galey
1899 Imperial Cres.
Windsor, ON
N9G 2T4

Dear Ms. Galey:

Re: Ambassador Bridge Enhancement Project

We appreciate you taking the time to fill out the comment card provided at the Enhancement Project Public Meetings in April and Open Houses held in June and October. We hope that the answer provided below fully responds to your question.

On the comment card you submitted, you asked "About the property being bought by the Ambassador Bridge on Bloomfield."

In response to your question, the Enhancement Project proposes the construction of a six-lane cable-stayed bridge across the Detroit River, to the west of, and adjacent to, the existing span of the Ambassador Bridge that will connect to the approved customs inspection plaza in Windsor. Property along Bloomfield is not required for the Enhancement Project.

The Ambassador Bridge held Open House meetings on October 2, 2007 and October 3, 2007 to present the results of the technical studies undertaken as part of the environmental assessment process. Please find enclosed a copy of the materials presented at the Open House. The technical studies are now complete and the written reports are being finalized by the various consultants. These studies will be submitted to the federal government for review and comment within the next couple of weeks.

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Yours very truly,

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SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/cc

October 10, 2007

Colleen Callegoi
600 Coreseneau Road
Windsor, ON N9G 1V5

Dear Ms. Callegoi:

Re: Ambassador Bridge Enhancement Project

We appreciate you taking the time to fill out the comment card provided at the Enhancement Project Public Meetings in April and Open Houses held in June and October. We hope that the answer provided below fully responds to your question.

On the comment card you submitted, you asked "Whether the routes of supply trucks during construction will go through residential areas and whether construction will occur on a 24/7 basis. You also asked about the disposal of excavated soil."

In response to your question, construction trucks, wherever possible, will avoid residential areas. All building and construction must comply with the city of Windsor's by-laws governing the time permitted for construction activities. There will be a minimal amount of soil excavated. However, any disposal of soil will be done in accordance with all legislated standards and requirements.

The Ambassador Bridge held Open House meetings on October 2, 2007 and October 3, 2007 to present the results of the technical studies undertaken as part of the environmental assessment process. Please find enclosed a copy of the materials presented at the Open House. The technical studies are now complete and the written reports are being finalized by the various consultants. These studies will be submitted to the federal government for review and comment within the next couple of weeks.

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SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/cc

October 10, 2007

Leisha Nazarewich
322 Rosedale Ave.
Windsor, ON N9C 2N2

Dear Ms. Nazarewich:

Re: Ambassador Bridge Enhancement Project

We appreciate you taking the time to fill out the comment card provided at the Enhancement Project Public Meetings in April and Open Houses held in June and October. We hope that the answer provided below fully responds to your question.

On the comment card you submitted, you asked "How the Enhancement Project maintains or improves the quality of life for those individuals that will remain in the area?"

In response to your question, the Environmental Impact Study that is being finalized as part of the environmental assessment process includes the analysis of noise, air pollution, vibration, surface water, groundwater, vegetation, wildlife, environmental impacts and stormwater, among others, as well as any possible mitigation measures undertaken. The Enhancement Project will move traffic more efficiently across the border.

The Ambassador Bridge held Open House meetings on October 2, 2007 and October 3, 2007 to present the results of the technical studies undertaken as part of the environmental assessment process. Please find enclosed a copy of the materials presented at the Open House. The technical studies are now complete and the written reports are being finalized by the various consultants. These studies will be submitted to the federal government for review and comment within the next couple of weeks.

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SISKINDS | THE LAW FIRM

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FILE NO. 810750/PL/cc

October 10, 2007

D. Galax
1099 Imperial
Windsor, ON

Dear D. Galax:

Re: Ambassador Bridge Enhancement Project

We appreciate you taking the time to fill out the comment card provided at the Enhancement Project Public Meetings in April and Open Houses held in June and October. We hope that the answer provided below fully responds to your question.

On the comment card you submitted, you asked "About the present tolls on the Ambassador Bridge and whether there will be an increase?"

In response to your question, tolls on the Enhancement Project will remain competitive with all other international crossings.

The Ambassador Bridge held Open House meetings on October 2, 2007 and October 3, 2007 to present the results of the technical studies undertaken as part of the environmental assessment process. Please find enclosed a copy of the materials presented at the Open House. The technical studies are now complete and the written reports are being finalized by the various consultants. These studies will be submitted to the federal government for review and comment within the next couple of weeks.

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FILE NO. 810750/PL/cc

October 10, 2007

Pierre Quenneville
1115 Talbot Road
La Salle, ON
N9H 1A4

Dear Mr. Quenneville:

Re: Ambassador Bridge Enhancement Project

We appreciate you taking the time to fill out the comment card provided at the Enhancement Project Public Meetings in April and Open Houses held in June and October. We hope that the answer provided below fully responds to your question.

On the comment card you submitted, you asked "About the look of the Enhancement Project. You indicated that, it will show the world that the area is open to new ideas in business, industry technology and health care."

In response to your question, we are seeking input from the community to develop a design that compliments the neighbourhood and reflects the characteristics of the existing Ambassador Bridge. We also believe that the Enhancement Project will be beneficial and allow for a more efficient flow of traffic across the border. The six lane cable stayed bridge, once completed, will be state of the art and definitely show the world that the area is open for business.

The Ambassador Bridge held Open House meetings on October 2, 2007 and October 3, 2007 to present the results of the technical studies undertaken as part of the environmental assessment process. Please find enclosed a copy of the materials presented at the Open House. The technical studies are now complete and the written reports are being finalized by the various consultants. These studies will be submitted to the federal government for review and comment within the next couple of weeks.

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EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/cc

October 10, 2007

John Muir
1320 Chateau Ave.
Windsor, ON
N8P 1M2

Dear Mr. Muir:

Re: Ambassador Bridge Enhancement Project

We appreciate you taking the time to fill out the comment card provided at the Enhancement Project Public Meetings in April and Open Houses held in June and October. We hope that the answer provided below fully responds to your question.

On the comment card you submitted, you asked "About the Ambassador Bridge Company's purchase of homes on Bloomfield, Queen, King and Edison Street?"

In response to your question, the Enhancement Project proposes the construction of a six-lane cable-stayed bridge across the Detroit River, to the west of, and adjacent to, the existing span of the Ambassador Bridge that will connect to the approved customs inspection plaza in Windsor. Also, property along the streets you have mentioned are not required for the Enhancement Project.

The Ambassador Bridge held Open House meetings on October 2, 2007 and October 3, 2007 to present the results of the technical studies undertaken as part of the environmental assessment process. Please find enclosed a copy of the materials presented at the Open House. The technical studies are now complete and the written reports are being finalized by the various consultants. These studies will be submitted to the federal government for review and comment within the next couple of weeks.

If you have any further questions I urge you to visit the website www.ambassadorbridge.com or contact us directly via e-mail or by letter.

Yours very truly,

Siskinds LLP

COPY

Per: Paula Lombardi

DIRECT (519) 660-7850
FACSIMILE (519) 660-7851

HEAD OFFICE
TELEPHONE (519) 672-2121
FACSIMILE (519) 672-6065

680 Waterloo Street, London, ON N6A 3V8

SISKINDS | THE LAW FIRM

EMAIL paula.lombardi@siskinds.com

FILE NO. 810750/PL/cc

October 10, 2007

Ken Thompson
496 Maple Street
LaSalle, ON
N9J 1P4

Dear Mr. Thompson:

Re: Ambassador Bridge Enhancement Project

We appreciate you taking the time to fill out the comment card provided at the Enhancement Project Public Meetings in April and Open Houses held in June and October. We hope that the answer provided below fully responds to your question.

On the comment card you submitted, you asked "About the Enhancement Project, and indicated your support."

In response to your question, the Enhancement Project proposes the construction of a six-lane cable-stayed bridge across the Detroit River, to the west of, and adjacent to, the existing span of the Ambassador Bridge that will connect to the approved customs inspection plaza in Windsor. We thank you for your comments and support, and believe that the Enhancement Project will have a positive impact on the area.

The Ambassador Bridge held Open House meetings on October 2, 2007 and October 3, 2007 to present the results of the technical studies undertaken as part of the environmental assessment process. Please find enclosed a copy of the materials presented at the Open House. The technical studies are now complete and the written reports are being finalized by the various consultants. These studies will be submitted to the federal government for review and comment within the next couple of weeks.

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