

# **Appendix A**

## **Reevaluation – Environmental Assessment**

***Ambassador Bridge Enhancement Project***

Prepared for the  
United States Coast Guard  
in order to meet NEPA Requirements

Prepared By:  
Detroit International Bridge Company  
Canadian Transit Company

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## **SECTION 1 PROJECT DESCRIPTION**

The ABEP involves the construction of a new six lane cable-stayed bridge located in the same corridor and adjacent to the existing Ambassador Bridge, connecting to the Ambassador Bridge Gateway Plaza without the need for modification to its currently constructed configuration. The proposed bridge will run roughly parallel to the existing Ambassador Bridge. The width of the proposed bridge is set to allow transition directly into the connection points in both the United States and Canadian plazas and to provide the necessary safety shoulders that are not present on the existing bridge.

The proposed bridge will provide six lanes of travel, three in each direction. One lane in each direction will be dedicated to low-risk commercial traffic participating in the FAST program operated by customs authorities of the United States and Canada. The other lanes will be open to general automobile and commercial traffic. Although the proposed new bridge is immediately adjacent to the existing Ambassador Bridge, it is not intended to expand the current capacity of the Ambassador Bridge. Rather, the new bridge will more efficiently and safely service the traffic now being handled at the existing Ambassador Bridge. Once the proposed companion bridge is operational, the DIBC/CTC plans to take the existing Ambassador Bridge out of service, rehabilitated, maintained and used for redundancy, emergency traffic, and approved public events. Discussions between the US State Department and Transport Canada and other Canadian authorities are ongoing regarding this issue.

## **SECTION 2 PROJECT HISTORY**

This reevaluation has been prepared to update the information provided in the Coast Guard's 2009 Final Environmental Assessment (EA) and 2015 Re-evaluation. There are no substantial changes in the proposed action that are relevant to environmental concerns; nor are there any significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts which would give rise to a demand for a supplemental EA as prescribed by 40 C.F.R. § 1502.9. However, in order to inform the public of all relevant information, this update is offered.

On July 13, 2006 the Detroit International Bridge Company (DIBC) submitted an application to the U.S. Coast Guard (USCG) for a bridge permit to construct a new bridge adjacent to the existing Ambassador Bridge due to the age of the existing structure, the need to update to current standards for safety shoulders and the demands of modern traffic and security. The new bridge proposal is referred to as the Ambassador Bridge Enhancement Project (ABEP). The DIBC plans to construct the new bridge in coordination with its commonly-owned Canadian counterpart, the Canadian Transit Company (CTC), an Ontario corporation. Both the DIBC and CTC are owned by Centra, Inc., a Michigan corporation.

On April 24, 2007, as lead federal agency for the purposes of the National Environmental Policy Act (NEPA), the Coast Guard issued a Draft Environmental Assessment (EA). Availability of the Draft EA was advertised in all local media in Detroit for public comment on May 1, 2007 and by Coast Guard public notice released on May 10, 2007. On February 27, 2009 the Coast Guard published the Final Environmental Assessment (EA) and a Draft Finding of No Significant Impact (FONSI) for public comment. Written public comments were accepted during this comment period from February 27 through April 30, 2009. Additionally, a public meeting was held on March 17, 2009 at which public comments were also received. The majority of the public comments received related to potential traffic impacts on neighborhood streets, property ownership required for the bridge, air quality impacts, closure of the existing bridge, and the relationship of this bridge to the Gateway Plaza Project.

During the Final EA public comment period, certain Michigan litigation and actions by the Detroit City Council led the Coast Guard to conclude that DIBC was not likely to obtain the necessary property rights in the near future. On June 15, 2009, the Coast Guard issued an Abeyance Letter which halted the processing of the bridge permit application for the ABEP. Despite several meetings between the Coast Guard and DIBC, there had been no movement by DIBC or other involved entities on the issues outlined in the Abeyance Letter. On March 2, 2010, the Coast Guard issued a letter to DIBC stating the ABEP permit application was incomplete, after 3.5 years, and returned the application to DIBC. The Coast Guard also stated in that letter that to continue processing the bridge permit application, DIBC should demonstrate that sufficient legal authority to build the proposed

bridge existed, which would need to include definitive proof of resolution of the property rights issue.

On March 22, 2010, the DIBC initiated litigation against the Coast Guard in an attempt to obtain a final FONSI and Coast Guard bridge permit. During the course of litigation in 2012, DIBC provided the Coast Guard with an updated bridge permit application for the proposed project. That application included an addendum that studied a tower pier to be constructed on property owned by CSX Railroad, and not on Riverside Park property owned by the City of Detroit. On July 11, 2012, DIBC provided a revised air quality analysis as an update to the air quality modeling analyses included in the 2009 Final EA. This air quality analysis reflected the MDOT-approved final design for the Ambassador Bridge Gateway Project, a separate but related transportation project that enhanced freeway connections between Mexicantown and the Ambassador Bridge and removed truck traffic from Fort Street. The Coast Guard sent the air quality analysis to the United States Environmental Protection Agency (USEPA) and the Michigan State Historic Preservation Officer (MI-SHPO) for review and comment.

On August 23, 2012, the USEPA wrote to the Coast Guard stating USEPA's outstanding regulatory issues with the ABEP had been resolved based on the 2012 updated air quality analysis. In its letter, the USEPA also continued to recommend voluntary mitigation measures first recommended in their July 17, 2007 letter and reiterated in their April 29, 2009 letter. More detailed information regarding the air quality analysis can be found in Section 4.11 of this report. The MI-SHPO also responded stating the existing MOA was adequate for the proposed modification, and therefore it was not necessary to reopen the Section 106 consultation process.

A Bridge Permit application was submitted to the USCG in June 2012. Due to the time lapse between when the Final EA was submitted and all outstanding regulatory issues had been resolved, the DIBC submitted a Re-evaluation to the EA to the USCG in December 2015. The re-evaluation was meant to supplement the USCG Bridge Permit Application. The Finding of No Significant Impact was approved by the USCG on March 11, 2016. The Bridge Permit was subsequently issued on March 15, 2016. The permit required the DIBC to begin construction by March 2019.

Subsequent to the issuance of permits within the United States, the CTC (a Canadian subsidiary of DIBC) received approval of the EA in Canada in February 2014 by Transport Canada and the Windsor Port Authority. In September 2017, CTC received issuance of the International Tunnels and Bridges Act (IBTA) permit and Navigable Protection Act Permit (NPP). Numerous terms and conditions were set forth within the IBTA permit. One of these conditions stipulated that CTC demolish the Ambassador Bridge within five post construction of new bridge. This condition is in direct opposition to a condition with the USCG Bridge Permit to preserve the existing Ambassador Bridge. The DIBC has since been working with the United States State Department, the USCG, TC and others to resolve this issue. However, due to this outstanding issue, construction of the ABEP has not yet begun. As a result, an amendment extending the original Bridge Permit or issuing a new permit is

required. This reevaluation has been prepared as part of the stipulations for the amendment to the USCG Bridge Permit. Updates related to all other applicable environmental control laws can be found in **Section 4**.

## SECTION 3 STATUS OF CONDITIONS OF THE USCG BRIDGE PERMIT

As part of the issuance of the Bridge Permit, the USCG set forth 11 conditions that must be met. Below is a synopsis of those conditions as well as the current status of each.

**Condition 1:** No deviation from the approved plans may be made either before or after completion of the structures unless the modification of said plans has previously been submitted to and received the approval of the Commandant.

*Status: No major modifications have been made to the approved plans for the project. The latest construction plans are included with this reevaluation in Attachment A.*

**Condition 2:** The construction of falsework, pilings, cofferdams or other obstructions, if required, shall be in accordance with plans submitted to and approved work shall be so conducted that the free navigation of the waterway is not unreasonably interfered with and the present navigable depths are not impaired. Timely notice of any and all events that may affect navigation shall be given to the District Commander during modification of the bridge. The channel or channels through the structures shall be promptly cleared of all obstructions placed therein or caused by the modification of the bridge to the satisfaction of the District Commander, when in the judgment of the District Commander the modification work has reached a point where such action should be taken.

*Status: No major modifications have been made to the approved plans for the project. The latest construction plans are included with this reevaluation in Attachment A. No piers will be in the water. Prior to construction, the USCG will be notified of any necessary barges or vessels required for construction that may affect navigation.*

**Condition 3:** Issuance of this permit amendment does not relieve the permittee of the obligation or responsibility for compliance with the provisions of any other law or regulation as may be under the jurisdiction of the Department of the Interior, National Park Service; State of Michigan: State Historic Preservation Office, Department of Transportation, Department of Natural Resources; Southeast Michigan Council of Governments, or any other federal, state or local authority having cognizance of any aspect of the location, design, modification or maintenance of said bridge project, to include the MDOT Contract 2004-2013.

*Status: As discussed further in Section 4 of this reevaluation, all federal, state and local permits and approvals have been obtained (Attachments B and C). Additionally, all federal approvals have been obtained in Canada (Attachment F). There are no provincial requirements pertaining to the project. The CTC is working closely with the City of Windsor on any remaining municipal requirements.*

**Condition 4:** This permit is conditioned upon the Detroit International Bridge Company obtaining all necessary Federal and State approvals associated with the use of Riverside Park, including those under the Land and Water Conservation Fund Act and the Michigan Natural Resources and Environmental Protection Act. Written proof of the final approval and conveyance of all property required for the modification of the bridge as approved shall be provided to the District Commander prior to commencement of construction.

*Status: Riverside Park was purchased through Land and Water Conservation Act (LWCA) funds, and therefore, the park is protected under Section 6(f) of the LWCA. Section 6(f) requires that the conversion of lands or facilities acquired with Land and Water Conservation Act funds must be approved by NPS within the Department of Interior. The tower pier of the proposed bridge is located within the eastern boundary of the Riverside Park. In addition, the proposed bridge will span the eastern limits of Riverside Park. The DIBC approached the City of Detroit with a proposal to provide 4.8 acres of replacement land adjacent to the west side of Riverside Park, as well as five million dollars to provide park improvements and recreational opportunities within Riverside Park in exchange for 3.783 acres of the eastern portion of the park to accommodate the replacement span. The park land proposed for conversion will allow the replacement span to tie into existing plazas in both the United States and Canada.*

*The DIBC completed an EA for the conversion of the park property in 2016 as well as an application for conversion to be reviewed and submitted by the City and the Michigan Department of Natural Resources. The Michigan Department of Natural Resources (MDNR) submitted a completed application of the City of Detroit's proposal for the conversion of Riverside Park to the NPS on July 12, 2018. The letter of support from the MDNR to the Department of Interior can be found in Attachment D. Approval of the land conversion is expected by June 2019. The DIBC has already provided the City with the five million dollar donation which has been used to revitalize Riverside Park. Additional information on the park and conveyance can be found in Section 4.*

**Condition 5:** This bridge permit amendment approves only that portion of the bridge to be modified across waters under the jurisdiction of the United States.

*Status: As discussed further in Section 4 of this reevaluation, all federal and provincial approvals have been obtained in Canada.*

**Condition 6:** This permit is conditioned upon the Detroit International Bridge Company and/or Canadian Transit Company obtaining all necessary approvals, including, but not limited to, those under the International Bridges and Tunnels Act and the Navigation Protection Act, required under Canadian jurisdiction. All proper and requisite authority for modification of the bridge shall be obtained from the appropriate federal, state and local governments of Canada prior to commencement of construction. Written proof of compliance with this requirement must be

provided to the District Commander prior to commencement of construction under this bridge permit amendment.

**Status:** *The CTC received approval of the EA in Canada in February 2014 by Transport Canada and the Windsor Port Authority. In September 2017, CTC received issuance of the International Tunnels and Bridges Act (IBTA) permit and Navigable Protection Act Permit (NPP). Numerous terms and conditions were set forth within the IBTA permit. Copies of Canadian approvals can be found in Attachment F.*

**Condition 7:** A bridge tendering system shall be installed and maintained in good condition by and at the expense of the owner of the bridge when so required by the District Commander. Said installation and maintenance shall be for the safety of navigation and be in accordance with plans submitted to and approved by the District Commander prior to its construction.

**Status:** *The proposed bridge is a fixed bridge with no supports planned within the water. A bridge tendering system is not needed.*

**Condition 8:** Clearance gauges shall be installed and maintained in a good and legible condition by and at the expense of the owner of the bridge when so required by the District Commander. The type of gauges and the locations in which they are to be installed will be submitted to the District Commander for approval.

**Status:** *The proposed bridge will span the entire Detroit River with no piers or other structures in the water. Therefore, clearance gauges are not possible.*

**Condition 9:** The permittee shall comply with the stipulations in the "Memorandum of Agreement" Among The United States Coast Guard, Michigan State Historic Preservation Officer (SHPO), Advisory Council On Historic Preservation, And The Detroit International Bridge Company Regarding The Ambassador Bridge Enhancement Project (ABEP), Michigan SHPO Project ER-05-422, Across the Detroit River Between Detroit, Michigan, United States, and Windsor, Ontario, Canada Pursuant to 36 CFR Part 800.6(b)(2) for the purpose of keeping impacts on the existing historic bridge to a minimum.

**Status:** *The MOA remains in effect. As the design for the second span has advanced, the shape of the towers has been modified slightly for a variety of reasons including safety related to potential falling ice from stay cables located directly over traffic, constructability, functionality, schedule and costs. The Memorandum of Agreement signed by all parties anticipated extensive coordination as the final design unfolds. Under these provisions, the DIBC shall coordinate these types of changes directly with the SHPO and the ACHP during the final design process.*

**Condition 10:** When the existing Ambassador Bridge or the new companion bridge is no longer used for transportation purposes, it shall be removed in its entirety or to an elevation deemed

appropriate by the District Commander and the waterway cleared to the satisfaction of the District Commander. Use of the existing Ambassador Bridge for transportation purposes shall be in accordance with the intended future use as set forth in the environmental documents prepared by the Coast Guard in support of this permit. If either structure will be removed, such removal will require an amendment to permit. Such removal and clearance shall be completed by and at the expense of the owner of the bridge upon due notice from the District Commander.

*Status: There is no update to this status. The DIBC continues to agree to this condition of the permit.*

**Condition 11:** The approval hereby granted shall cease and be null and void unless modification of the bridge is commenced within three years and completed within five years after the date of this bridge permit amendment.

*Status: As previously described, the DIBC was unable to commence construction by March 2019 (three years after the bridge permit was issued). Therefore, we submit this bridge permit application and associated reevaluation to obtain an amendment to the original bridge permit to extend the time to commence construction.*

## **SECTION 4 EXISTING CONDITIONS AND AFFECTED ENVIRONMENT**

### **4.1 SOCIOECONOMICS**

The impacts identified in the Final EA indicated that the project would not have significant adverse impacts to the sociocultural environment. Impacts were temporary in nature due to construction. The Proposed Project is not expected to have any permanent or temporary adverse impacts to local traffic, pedestrian safety, or the local district or neighborhood. The Proposed Project will not further divide or isolate the area as it is already divided by the existing Ambassador Bridge, plazas, and interstate system. Similar to what is reported in the EA, a review of EPA's Environmental Justice Screening and Mapping Tool, EJScreen, indicates that the project area and City of Detroit have a higher percentage of minority and low-income populations compared to Wayne County. The project is not expected to create significant environmental impacts to the populations in the study area. Thus, the project will not adversely impact minority or low-income populations and is consistent with Executive Order 12898. There is no change in the nature or level of impact from the 2009 EA and subsequent reevaluation.

### **4.2 LAND USE**

The Project will be located within the same land use corridor as the existing Ambassador Bridge. The proposed project is bordered by the Detroit River to the south and the Ambassador Bridge truck/customs plaza to the north. A review of current land uses indicates that vacant and industrial land uses surround the Project Area to the east and west, as reported in the EA. The Fisher Freeway (I-75) severs the Ambassador Bridge from mixed land uses located in the Hubbard/Richard district north of the freeway.

As discussed further in Section 4.3 below, the City of Detroit together with the Michigan Department of Natural Resources approved the transfer of 3.783 acres of the eastern portion of Riverside Park to the DIBC in exchange for 4.8 acres of riverfront land to the west. The transfer of lands is awaiting approval by the National Parks Service (NPS). As the project footprint is the same as that proposed and evaluated in the 2009 Final EA, no adverse impacts to land use are anticipated from the construction or operation of the Proposed Project. There is no change in the nature or level of impact from the 2009 EA and subsequent reevaluation.

### **4.3 PARKLANDS**

Riverside Park was established in 1922 through the use of Land and Water Conservation Funds (LWCF) and is owned and operated by the City of Detroit. The park is located on the west side of the existing Ambassador Bridge. The condition of the park has been in a decline since the early 2000's. Sections of the park were closed citing security concerns related to the existing Ambassador Bridge following the events of September 11, 2001 and contamination concerns. The contamination cleanup is ongoing and expected to be completed in the summer of 2019.

The tower pier of the proposed bridge is located within the eastern boundary of the Riverside Park. In addition, the proposed bridge will span the eastern limits of Riverside Park. The DIBC approached the City of Detroit with a proposal to provide 4.8 acres of replacement land adjacent to the west side of Riverside Park, as well as five million dollars to provide park improvements and recreational opportunities within Riverside Park in exchange for 3.783 acres of the eastern portion of the park to accommodate the replacement span. The park land proposed for conversion will allow the replacement span to tie into existing plazas in both the United States and Canada. The conversion will increase the overall LWCF encumbrance by an additional acre, add an additional 508 linear feet of riverfront access, retain an easement across the conversion parcel allowing it to eventually link to the future Detroit RiverWalk and provide funding to renovate Riverside Park and add additional amenities.

Because Riverside Park was purchased through LWCF funds, the park is protected under Section 6(f) of the Land and Water Conservation Act. Section 6(f) requires that the conversion of lands or facilities acquired with Land and Water Conservation Act funds must be approved by NPS within the Department of Interior. The DIBC completed an EA for the conversion of the park property in 2016 as well as an application for conversion to be reviewed and submitted by the City and the Michigan Department of Natural Resources. The Michigan Department of Natural Resources submitted a completed application of the City of Detroit's proposal for the conversion of Riverside Park to the NPS on July 12, 2018. The letter of support from the MDNR to the Department of Interior can be found in **Attachment D**. Approval of the land conversion is expected by June 2019.

Meanwhile, the land swap and monetary donation from the DIBC has spurred a revitalization of the park. Enhancements made to the park to date include a baseball field, restrooms, skate park, dog park, pavilions, soccer field and basketball court. Additional improvements and expansions are proposed for 2019 and 2020. Thus, the proposed project is anticipated to enhance park lands.

#### **4.4 WATER USE AND NAVIGATION**

No adverse impacts to commercial or recreational navigation or potable water are anticipated from the Proposed Project. The operational phase of the Proposed Project will have no effects on navigation since the clearance provided by the bridge will be identical to that of the existing bridge and there will be no bridge support structures located within the Detroit River. Measures to minimize navigational obstructions during construction will be followed in accordance with U.S. Coast Guard, Transport Canada and Department of Fisheries and Oceans Canada requirements. As a condition of the original bridge permit, the USCG will be notified of construction commencement and any and all events that may affect navigation during construction. There is no change in the nature or level of impact from the 2009 environmental assessment and subsequent reevaluation.

#### **4.5 VISUAL QUALITY AND AESTHETICS**

A comprehensive discussion on the results of the Visual Quality and Aesthetics was conducted as part of the EA. No adverse impacts were identified with the exception of the existing Ambassador Bridge. In a letter dated March 26, 2007 the Michigan SHPO determined that the Proposed Project would have an adverse effect on the existing Ambassador Bridge. The adverse effect finding specifically referenced potential visual effects that would introduce a visual element that diminished the integrity of the Ambassador Bridge's significant historic features. Mitigation has been incorporated in a Memorandum of Agreement (MOA), executed on January 14, 2009 and the Preservation Agreement, signed on December 8, 2008 to reduce impacts to the historic character of the existing Ambassador Bridge. As the design for the second span has advanced, the shape of the towers has been modified slightly for a variety of reasons including safety related to potential falling ice from stay cables located directly over traffic, constructability, functionality, schedule and costs. The Memorandum of Agreement signed by all parties anticipated extensive coordination as the final design unfolds. Under these provisions, the DIBC shall coordinate these types of changes directly with the SHPO and the ACHP during the final design process. The MOA and Preservation Agreement remain valid. There is no change in the nature or level of impact from the 2009 environmental assessment.

Additionally, Riverside Park may be visually impacted by the addition of a second bridge structure, as a portion of the park may be shaded at times during the day. The 2009 EA reported that the riverfront projects proposed as part of the Greenways Initiative and by the Detroit Riverfront Conservancy, if constructed, may be impacted by the construction of the Proposed Project when soil is excavated for foundation structures. However, this project has not been constructed. Further, the current proposal includes the Detroit RiverWalk. As part of the RiverWalk the City of Detroit plans to repave W. Jefferson Street between Centennial Park and Riverside Park, making it a major park connector. As part of the agreement between the DIBC and City of Detroit regarding the Section 6(f) approval discussed in Section 4.3, the City has retained an easement across the conversion parcel allowing it to eventually link to the future Detroit RiverWalk. There is no change in the nature or level of impact from the 2009 environmental assessment and subsequent reevaluation.

#### **4.6 CULTURAL AND ARCHEOLOGICAL RESOURCES**

A Section 106 process under the National Historic Preservation Act was conducted in conjunction with the NEPA process for this project. During the Section 106 consultation process Native American tribal governments were contacted and offered opportunities to comment on the project. No tribal interests were identified. One previously unidentified archaeological site was found during the Phase I archaeological investigation. However, intensive modern disturbance has impacted the site and there is little to no interpretable archaeological context present in the Area of Potential Effect (APE). In a letter dated January 18, 2008 the Michigan State Historic Preservation Office (SHPO) concurred with the conclusions of the archaeology study.

During the Section 106 consultation process, the SHPO made a determination of adverse effect on the existing Ambassador Bridge on March 26, 2007. The mitigation of impacts on the existing Ambassador Bridge has been completed as part of the Section 106 process in coordination with the Michigan SHPO and the Advisory Council on Historic Preservation (AChP), and a Memorandum of Agreement (MOA) was developed with the appropriate agencies and consulting parties. The MOA, and all correspondence related to the Section 106 consultation, is included in the Final EA in Appendix J. Furthermore, the MOA developed as a result of the Section 106 consultation includes conditions for maintaining the existing bridge by applying the Secretary of Interior guidelines for the maintenance of historic structures, completing Historic Architecture and Engineering Record (HAER) and National Register Nomination documentation, providing materials for a permanent exhibit at the Gateway Plaza Welcome Center, and contributions from DIBC amounting to \$20,000 annually for five (5) years to the Detroit Riverfront Conservancy or a new committee to ensure access to the Detroit Riverfront west of the downtown area for public use; to support and promote the Corktown/Mexicantown Green Link connecting southwest Detroit to the greater southeast Michigan greenway system; and to initiate contact with the U.S. and Canadian agencies with jurisdiction at the border crossing to research the feasibility and, if appropriate, plan the implementation, of non-motorized use of the historic Ambassador Bridge between Detroit and Windsor, Canada. Impacts to Native American tribes are not anticipated. The MOA and Preservation Agreement remain valid. There is no change in the nature or level of impact from the 2009 environmental assessment and subsequent reevaluation.

#### **4.7 TOPOGRAPHY, GEOLOGY AND SOILS**

The studies documented in Final EA indicated that the project would not have adverse impacts to topography, geology, soils, prime farmland, or natural landmarks. The area will then be graded to conditions compatible with the surrounding area and will comply with all erosion controls per MDEQ permit number WRP012756 v.1 to prevent loss of soils during construction. There is no change in the nature or level of impact from the 2009 environmental assessment and subsequent reevaluation.

#### **4.8 SURFACE WATER RESOURCES**

The impacts identified in Final EA indicated that the project would not have adverse impacts to surface water resources including hydrology, floodplains, water quality, stormwater, wetlands, and wild and scenic rivers. After the initial Part 301 Inland Lakes and Streams permit expired, DIBC received a new Part 301 permit from the Michigan Department of Environmental Quality (MDEQ) Water Resources Division in August 2018. This permit, which remains valid until August 2023, can be found in **Attachment B**. The MDEQ permit includes concurrence that the project is in compliance with the State Coastal Management Program as well as issuance of the Water Quality Certification. There is no change in the nature or level of impact from the 2009 environmental assessment and subsequent reevaluation.

#### **4.9 AQUATIC ECOLOGY AND ESSENTIAL FISH HABITAT**

The impacts identified in Final EA indicated that the project would not have adverse impacts to aquatic resources or essential fish habitat. There is no change in the nature or level of impact from the 2009 environmental assessment and subsequent reevaluation.

#### **4.10 TERRESTRIAL ECOSYSTEMS**

Due to the urban nature of the project location, suitable habitat for listed species was not found. Analysis conducted in 2009 indicated that there would be no significant adverse impact to terrestrial vegetation or wildlife anticipated from the construction or operation of the Proposed Project.

Based on comments received from the U.S. Fish and Wildlife Service an additional review concerning lighting and avian collisions, low intensity white strobe lights will be utilized on the towers pending any change needed based on final design criteria. No red or yellow steady lights which can disorient avian species will be used on the bridge. If colored lighting is utilized to illuminate the cables, DIBC will use lower intensity, lower wavelength lighting of blue, turquoise or green, pending final design criteria. There is no change in the nature or level of impact from the 2009 environmental assessment and subsequent reevaluation.

#### **4.11 AIR QUALITY**

The Final EA included an analysis of air quality impacts from the proposed project. When the air quality analyses were conducted, Wayne County was designated as a non-attainment area for ozone ( $O_3$ ) and for particulate matter equal to or less than 2.5 micrometers in aerodynamic diameter (PM2.5). A portion of Wayne County was designated a maintenance area for carbon monoxide (CO), which included the area of the proposed bridge. All of Wayne County was designated a maintenance area for particulate matter equal to or less than 10 micrometers in aerodynamic diameter (PM10). The County was an attainment area for the remaining criteria pollutants including lead, nitrogen oxides and sulfur dioxide.

The project was determined to be a project of air quality concern for purposes of transportation conformity due to its size and significant levels of diesel vehicle traffic. USEPA determined that the project was considered to be regionally significant, as reflected in e-mail correspondence on September 28, 2007. The "regional significance" determination made by USEPA under 40 CFR Part 93.101 required the project be evaluated under Transportation Conformity Rule requirements and be included in the regional transportation plan implemented through the Southeast Michigan Council of Governments (SEMCOG), and therefore required air dispersion modeling, or "hot-spot" analysis.

The air quality analysis performed for this project was derived from the same projected overall traffic counts, including truck traffic, used in the Gateway Project and DRIC studies. For purposes of this analysis, it was assumed that for operation of the new bridge in year 2030, that all U.S. Customs

booths were open and that with the use of the FAST lanes each truck booth processed one truck every 1.5 minutes and each car booth processed one car every minute. This very conservative assumption was held constant for all 8,760 hours of the modeled year and indicated that the northbound cars and trucks entering the U.S. would be backed-up across the entire bridge span to the Canadian Plaza, with the southbound traffic entering Canada experiencing only a short back-up. Thus, the volumes that were used in the Air Quality Analysis for the project exceed those obtained from the DRIC Level 3 Report. This analysis did not consider the fact that once constructed the DRIC bridge would carry some portion of this traffic assumed to be carried by the ABEP in 2030.

For the assessment of regional impacts, the 2010 and 2030 annual air emissions of all criteria pollutants from vehicle traffic on the new bridge consisted of only 0.0144% and 0.0097% of the annual emissions of criteria pollutants for Wayne County, Michigan. Based on these estimates, vehicle emissions on the new bridge will not involve significant air quality impacts.

The dispersion modeling analysis demonstrates that the maximum predicted impacts combined with the current background concentrations are less than NAAQS, and that the maximum predicted concentrations of air toxics are less than MDEQ health based screening levels. Thus, the Project is not expected to have significant local air quality impacts. The analysis also shows that the potential transboundary air quality impacts of the Project are insignificant. The maximum predicted ambient air concentration was then added to the ambient air background concentration and the combined impacts were compared to the NAAQS. The combined impacts were compared to the NAAQS. The combined maximum predicted ambient air impacts for 2010 and 2030 are presented in **Tables 4-1 and 4-2**. As shown in **Tables 4-1 and 4-2**, the combined maximum impacts for all pollutants are less than the appropriate NAAQS.

The analysis of predicted emissions demonstrated that the project will not exceed de minimus levels for any criteria pollutant during construction or operation. In addition, the maximum annual air emissions of any individual criteria pollutant from the operation and construction of the proposed bridge is less than 10% of the annual emissions for Wayne County, Michigan for that pollutant. Therefore, under the General Conformity Rule, no further analysis was required.

**Table 4-1 Year 2010 Existing Bridge NAAQS Modeling Results**

	POLLUTANTS								
	PM <sub>10</sub>	PM <sub>2.5</sub> <sup>b</sup>		NO <sub>x</sub>	SO <sub>2</sub>			CO	
	24-hr	Annual	24-hr	Annual	Annual	24-hr	3-hr <sup>c</sup>	8-hr	1-hr
	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	(ppm)	(ppm)
Maximum Modeled Impacts <sup>a</sup>	2.5	0.60	1.8	30.0	0.38	1.13	3.2	0.75	1.0
Background	69.0	13.4	32.0	37.6	18.3	128	286	1.1	2.8
Total	71.5	14.0	33.8	67.6	18.7	130	289	1.9	3.8
NAAQS	150	15	35	100	80	365	1,300	9	35

*Source: Air Conformity Determination Report, Weston 2007.*

**Table 4-2 Year 2030 New Bridge NAAQS Modeling Results**

	POLLUTANTS									
	PM <sub>10</sub>		PM <sub>2.5</sub> <sup>b</sup>		NO <sub>x</sub>		SO <sub>2</sub>		CO	
	24-hr	Annual	24-hr	Annual	Annual	24-hr	3-hr <sup>c</sup>	8-hr	1-hr	
	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	mg/m <sup>3</sup>	(ppm)	(ppm)	
Maximum Modeled Impacts <sup>a</sup>	1.7	0.33	0.85	23.3	0.36	0.82	1.5	1.9	2.4	
Background	69.0	13.4	32.0	37.6	18.3	128	286	1.1	2.8	
Total	70.7	13.7	32.9	60.9	18.7	129	287	3.0	5.2	
NAAQS	150	15	35	100	80	365	1,300	9	35	

Source: Air Conformity Determination Report, Weston 2007.

CO = carbon monoxide

mg/m<sup>3</sup> = micrograms/cubic meter

NAAQS = National Ambient Air Quality Standards

NOx = oxides of nitrogen

PM2.5 = particulate matter with an aerodynamic diameter less than 2.5 microns (PM2.5)

PM10 = particulate matter with an aerodynamic diameter less than 10 microns (PM10)

ppm = parts per million

SO2 = Sulfur dioxide

Notes:

a Maximum predicted concentrations occur in the area within 100 m south of the southbound Gateway Loop and U.S. Truck Plaza.

b Maximum predicted 24-hour PM<sub>2.5</sub> model impact at the monitor location = 0.049 µg/m<sup>3</sup>

c CAL3QHCR does not predict 3-hour concentrations; therefore the maximum predicted 1-hour concentration was multiplied by the 0.9 conversion factor

The USEPA reviewed the General Conformity and air dispersion modeling performed by DIBC in 2007 and confirmed the applicability of General Conformity Rule requirements for the project in the Coast Guard's NEPA review. The air dispersion modeling was also reviewed and determined to be adequate for submission to SEMCOG for their consideration of the project in the regional transportation plan and Transportation Conformity Rule requirements. On June 26, 2008, SEMCOG's General Assembly amended the Ambassador Bridge Enhancement Project (ABEP) to the 2030 Regional Transportation Plan for Southeast Michigan, conditioned upon identification of the preferred alternative on the Canadian side by the appropriate Canadian officials. On September 1, 2016, the SEMCOG verified that the SEMCOG supports the construction of a replacement bridge for the existing Ambassador Bridge. Further, SEMCOG's adopted 2040 Regional Transportation Plan (RTP) identifies the need for several border infrastructure improvements, including a replacement structure for the existing Ambassador Bridge. The proposed replacement of the existing Ambassador Bridge is included in the illustrative portion of SEMCOG's adopted 2040 RTP. The letter can be found in **Attachment E**.

In order to address concerns expressed by the USEPA and USCG, an addendum to the 2007 Air Quality Dispersion Modeling Analysis was performed in 2012 (included as part of the 2015 reevaluation) to combine the original traffic pattern of the Ambassador Bridge Gateway Project

(Gateway) with the previously modeled ABEP and plaza operations. This includes the dedicated truck exit from the United States (US) Customs Plaza to Interstate Highway 75 (I-75) as well as the Canadian bound plaza operations connecting from I-75, as designed by the Detroit International Bridge Company (DIBC). The revised modeling was conducted only for the year 2030. The revised modeling in this addendum followed the same modeling methodology as the 2007 Air Quality Dispersion Modeling Analysis and 2009 Air Quality Dispersion Modeling Analysis, which considered the "As Built" Gateway Project configuration. An air quality dispersion modeling analysis was performed to assess the ambient air impacts from the operation of the new Gateway Project using the originally planned configuration and new Ambassador Bridge span that would relocate traffic from the existing span. The modeling analysis showed that:

- The maximum predicted impacts combined with the current background concentrations are less than NAAQS,
- The maximum predicted concentrations of air toxics are less than the MDEQ health based screening levels; and
- The transboundary effects from the Gateway, US Customs Plazas, and new bridge are insignificant.

On August 22, 2012, the USEPA confirmed that the modeling for the full project (Gateway Plaza, New Span and expanded Canadian Plaza) met the requirement for a qualitative hot spot analysis and demonstrates conformity.

Since the final approval of the air quality studies in 2012, overall air quality for the entire State of Michigan has improved to attainment status with the National Ambient Air Quality Standards (NAAQS) for CO, NO<sub>2</sub>, lead, PM<sub>10</sub> and annual and 24-hour PM<sub>2.5</sub>. However, a small area of Wayne County that includes the project area is now in nonattainment for SO<sub>2</sub>. Though at the time of the 2007 and 2009 studies the project limits were in attainment for SO<sub>2</sub>, this pollutant was analyzed in the project air quality study. As demonstrated from the results shown in **Tables 4-1 and 4-2** above taken from the air quality study in the EA, the project contributes a small fraction of the NAAQS; 0.45%, 0.22% and 0.10% for annual, 24-hour and 3-hour SO<sub>2</sub> respectively in the 2030 modeling results, even when assuming that the projected traffic volumes DRIC-NITC would be carried by the ABEP. This is due to the fact that vehicles effectively no longer emit measurable SO<sub>2</sub>. In 2006, diesel technology was upgraded to utilize ultra-low sulfur diesel fuel that reduced the fuel's sulfur content by 97 percent. Currently, the largest sources of SO<sub>2</sub> emissions are from fossil fuel combustion at power plants (73%) and other industrial facilities (20%). Smaller sources of SO<sub>2</sub> emissions include industrial processes such as extracting metal from ore, and the burning of high sulfur containing fuels by locomotives, large ships, and non-road equipment. Vehicles are not a significant source for SO<sub>2</sub> emissions. Clearly these minimal percentages have no measurable effect on the surrounding air quality for SO<sub>2</sub>.

The DRIC-NITC projected traffic volumes from their 2005 study were used in the ABEP air quality analysis in both 2007 and 2009 as well as the 2012 addendum. This 2005 study presented the full demand based truck and auto projections at the Ambassador Bridge thru 2035. As can be seen in **Table 4-3** below, the DRIC-NITC projected traffic volumes from 2006 thru 2018 at the Ambassador Bridge are far greater than the volumes that actually occurred. In 2018, trucks were only 45.3% of the projected numbers and autos only 51.2% of the projected numbers that were utilized in the air quality analysis. Since the full projected traffic volumes were used in the ABEP air quality studies, the results are highly conservative and significantly over estimate the actual emissions given this dramatic reduction in traffic volumes versus the projections used in the study.

**Table 4-3 DRIC/NITC Projected vs Actual Traffic Volumes at Ambassador Bridge since Analyses within Environmental Assessment**

Year	DRIC-NITC Projection			Actual			Actual/DRIC Projection		
	Cars	Trucks	Total	Cars	Trucks	Total	Cars	Trucks	Total
2006	6,495,011	3,617,008	10,112,018	6,113,114	3,567,118	9,680,232	94.1%	98.6%	95.7%
2007	6,663,881	3,747,220	10,411,101	5,649,619	3,432,816	9,082,435	84.8%	91.6%	87.2%
2008	6,837,142	3,882,120	10,719,262	4,447,793	2,901,512	7,349,305	65.1%	74.7%	68.6%
2009	7,014,908	4,021,876	11,036,784	4,187,568	2,307,052	6,494,620	59.7%	57.4%	58.8%
2010	7,197,295	4,166,664	11,363,959	4,536,678	2,695,688	7,232,366	63.0%	64.7%	63.6%
2011	7,384,425	4,316,663	11,701,089	4,625,799	2,627,117	7,252,916	62.6%	60.9%	62.0%
2012	7,576,420	4,472,063	12,048,483	4,800,491	2,509,811	7,310,302	63.4%	56.1%	60.7%
2013	7,773,407	4,633,058	12,406,465	4,895,535	2,351,069	7,246,604	63.0%	50.7%	58.4%
2014	7,975,516	4,799,848	12,775,363	4,691,983	2,470,179	7,162,162	58.8%	51.5%	56.1%
2015	8,395,634	5,151,657	13,547,291	4,466,494	2,462,705	6,929,199	53.2%	47.8%	51.1%
2016	8,613,920	5,337,117	13,951,037	4,203,114	2,546,977	6,750,091	48.8%	47.7%	48.4%
2017	8,837,882	5,529,253	14,367,136	4,327,114	2,547,653	6,874,767	49.0%	46.1%	47.9%
2018	9,067,667	5,728,306	14,795,974	4,645,011	2,593,503	7,238,514	51.2%	45.3%	48.9%

At the time the ABEP air quality analyses were initially completed in 2007, the USEPA mandated that heavy duty vehicles had to reduce harmful pollution by more than 90 percent. Additionally, starting in 2010, manufacturers had to further reduce nitrogen oxide emissions. In response, the diesel industry developed a combination of advanced-technology compression-ignition engines, exhaust control systems, and reformulated fuels to meet these standards. These measures were expected to result in substantially reduced emissions of other exhaust constituents as well. The USEPA

projected that the targeted emissions reductions of about 90% (compared with emissions from pre-2007 heavy duty diesel engine systems) would have substantial public health benefits.

The Health Effects Institute (HEI) undertook an independent study of new technology diesel engines to determine whether the engines achieved the expected emissions reductions, thereby improving air quality for public health, as well as whether the new technologies resulted in any unintended increases in emission components. In January 2015, HEI published its findings in the Advanced Collaborative Emissions Study, which confirmed that the concentrations of particulate matter and toxic air pollutants emitted from "new-technology diesel exhaust" (NTDE) are more than 90% lower than emissions from pre-2007 traditional older diesel engines (TDE). The ACES also concluded that exposure to new technology diesel exhaust does not cause any increase in the risk of lung cancer or other significant adverse health effects in study animals. Further, according to research commissioned by the Diesel Technology Forum, heavy-duty diesel commercial vehicles powered by an engine that meets or exceeds the model year 2010 standard has resulted in a reduction of 1.5 million tons of NOx between 2010 and 2014, while vehicles powered by engines that meet or exceed the 2007 standard have reduce emissions of particulate matter by 40,000 tons since 2007.

Today, more than one-third of all commercial trucks on the road are powered with 2007 generation or newer engines that have reduced particulate matter and NOx emissions by 98 percent compared to 1988 vehicles. In some states, the percentage of new technology diesel engine-equipped trucks exceeds 50 percent. The results of ACES verify the environmental benefits of the new clean diesel technology, which have near-zero emissions for nitrogen oxides (NOx), hydrocarbons (HC) and particulate matter (PM). The new clean diesel technology has the potential for reducing emissions for all transportation sectors, including passenger cars, agriculture, construction, maritime and transportation.

On September 29, 2015, the Coast Guard asked the USEPA to again consider the 2012 analysis to determine whether the methodology and results remain valid in light of changing attainment standards. The USEPA responded to the Coast Guard's request to review the letter dated October 27, 2015 with four recommendations, but no additional requirements. They recommended the air quality and travel forecasts be updated with more recent data and that DIBC use the MOVES2014 mobile source emissions model to develop updated mobile source emissions projections. They also recommended a new mobile hot-spot analysis for PM2.5 and that DIBC work with the SEMCOG to include the ABEP on the 2040 Regional Transportation Plan, as it was previously included in the 2030 RTP.

In December 2015, the USCG forwarded the reevaluation for the Proposed Project to EPA for review. The reevaluation documented the updated air quality standards within the project limits and the results of the air quality analyses. The reevaluation contended that additional air quality analyses are not required because the outcome of the air analyses are expected to be the same or better than what was previously reported. This is largely due lower traffic forecasts than were

projected in the analyses and subsequent improvements in fleet emissions. EPA agreed with this analysis in a letter dated February 8, 2016.

In conclusion, no additional air quality studies are required as part of the Coast Guard permitting process for the following reasons:

- The project was shown to be well below the de minimis thresholds using the worst case traffic scenarios in the 2007, 2009 and 2012 studies;
- There are no changes to the project scope and footprint since the 2012 study that included the combined Gateway and ABEP;
- The actual 2018 traffic volumes are only about 49% (45.3% for trucks and 51.2% for autos) of those projected and used in the air quality studies; and
- The vehicle fleet is reported to produce 90% fewer emissions than those utilized in the 2007 study.

This conclusion is consistent with the approved reevaluation for the DRIC-NITC project, which also recognized that the traffic numbers used in their analysis were higher than those actually measured and thus, an updated air quality study was not required. There is no change in the nature or level of impact from the 2009 environmental assessment and subsequent reevaluation.

#### **4.12 NOISE**

A detailed traffic noise analysis was performed in August 2008 for the project as part of the Final EA. This noise study was performed in accordance with Title 23 Code of Federal Regulations (CFR), Part 772 (Procedures for Abatement of Highway Traffic Noise and Construction Noise) and the Michigan Department of Transportation Procedures and Rules for Implementation of State Transportation Commission Policy 10136 Noise Abatement.

No design changes are proposed from the conceptual design plans included in the Final EA. Traffic used in the traffic noise study indicated a worst case scenario, however, actual volumes using the crossing are much less than predicted. In 2018, trucks were only 45.3% of the projected numbers and autos only 51.2% of the projected numbers that were utilized in the traffic noise study. Since the full projected traffic volumes were used in the ABEP noise study, the results of the noise study were highly conservative.

Since the time of the noise study conducted as part of the EA, 23 CFR 772: Procedures for Abatement of Highway Traffic Noise and Construction Noise (effective July 13, 2011) as well as the Michigan Department of Transportation Highway Noise Analysis and Abatement Handbook (effective July 13, 2011) were updated. Updates included changes to the Noise Abatement Criteria (NAC) for land uses. In addition, the noise barrier abatement goals were updated to include:

- Reduce design year traffic noise by 10 dB(A) for at least one benefited receptor and provide at least a 7 dB(A) reduction for 50% or more of the benefited receptor sites. This is a required reasonableness factor.
- If possible, reduce future highway traffic noise levels to the low-60 decibel range.
- If possible, reduce future highway traffic noise levels back to existing noise levels.

Additional criteria were also updated, though these were the major updates as it pertains to this project.

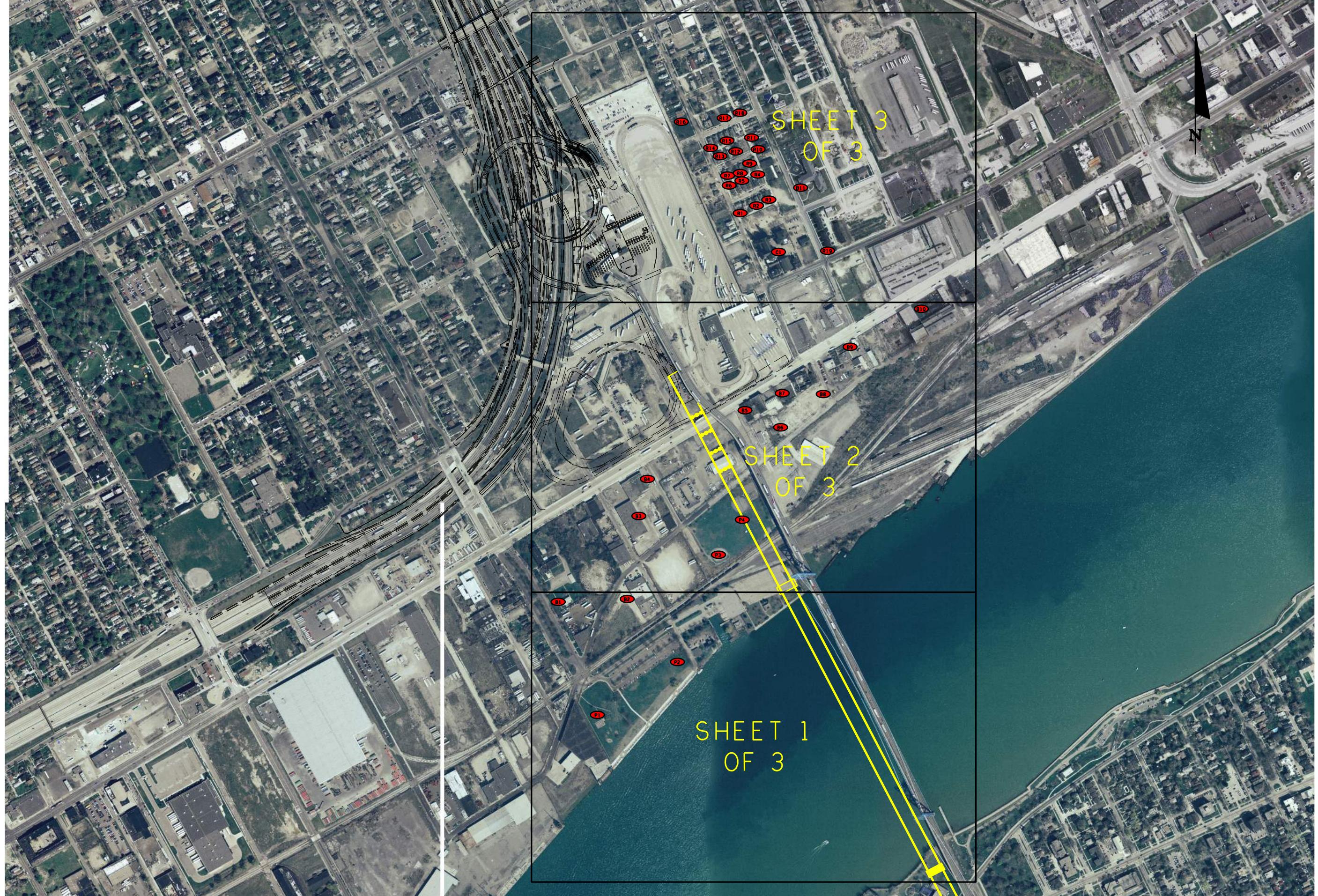
A review of land uses and building permits was conducted to determine if additional noise sensitive sites are located adjacent to the project limits that should be included in the noise modeling. A synopsis of the additional noise sensitive sites and results are included below and can be found in **Figure 4-1:**

1. One noise-sensitive site modeled as a business (referred to as B11 in the 2008 study) in the August 2008 noise study, has since been converted to a multi-family residence. The NAC for this facility under the new regulations is 67 dB(A), whereas a business under the old regulations had a NAC of 72 dB(A). The predicted noise level in 2030 with the proposed project was 59.5 dB(A) at this location. The predicted future noise level in 2030 in the No-Build condition was also 59.5 dB(A), indicating that traffic from the proposed project does not affect the noise levels at the facility. With a NAC of 57 dB(A), this property is not adversely impacted by the project, consistent with the original findings in the 2008 study. A noise barrier or other noise abatement measures are not warranted at this location. The change in land use does not affect the results of the 2008 analysis.
2. A previously vacant parcel that was not modeled in the 2008 study now consists of three duplexes. The addresses for the duplexes include 1207, 1217 and 1233 18<sup>th</sup> Street. These duplexes are located between previously modeled sites R3 and B11. In the Build condition, receptor R3 was predicted to experience a noise level of 60.4 dB(A), while receptor B11 was predicted to experience a noise level of 59.4 dB(A). Both R3 and B11 did not exceed the NAC. Based on these results, predicted noise levels to the three new duplexes are not anticipated to exceed the NAC for residential properties of 67 dB(A) and a noise barrier analysis would not be warranted. No additional modeling is warranted for this change.
3. Additional multi-family residences have been constructed within the property identified as R19 in the 2008 study. In the 2008 noise study, R19 comprised of 12 apartments. Since that time, 16 additional apartments or row houses have been constructed. In the Build condition, receptor R19 was predicted to experience a noise level of 61.3 dB(A), a level that did not exceed the NAC of 67 dB(A). The additional multi-family residences constructed on this property are expected to have a similar or lower noise level based on their location.

Therefore, a noise barrier analysis would not be warranted for these residences. No additional modeling is warranted for this change.

4. Receptors B5 through B8 from the 2008 Noise Study have been torn down. The sites of these receptors are now vacant. Further, due to changes in the NAC, business receptors included in the study would no longer require modeling as they do not have an exterior area of frequent use. No additional modeling is warranted for this change.
5. The location of the tower pier in the United States is proposed within Riverside Park. The DIBC worked with the City of Detroit to purchase a portion of Riverside Park closest to the existing bridge where the proposed tower pier would be located. In the 2008 noise study, this was the site of receptor P4. The location of receptor P4 is now owned by DIBC and is no longer part of Riverside Park. No additional modeling is warranted for this change.
6. The City of Detroit has purchased much of the property on the west side of the Ambassador Bridge along the Detroit River. The property is being converted into park property that will be part of the expanded Riverside Park. The expanded portion of the park was conceptually considered prior to the Date of Public Knowledge. However, the property was purchased, permitted and developed after the Date of Public Knowledge for the project. Per the Michigan Department of Transportation Highway Noise Analysis and Abatement Handbook, developed and undeveloped lands are required to have been permitted by the Date of Public Knowledge to be eligible for abatement consideration unless major design changes are proposed. No major design changes have been proposed for the ABEP since the original noise study.

However, given that conceptual plans for the park did exist, the expanded Riverside Park has been considered in this reevaluation. In the 2008 noise study, four receptors were modeled to represent Riverside Park (P1 through P4). The expanded Riverside Park would also include previously vacant land that was not modeled but is bounded by receptors P2, P3, B2, B3 and B4. **Table 4-4** shows predicted noise levels for these receptors from the 2008 study.

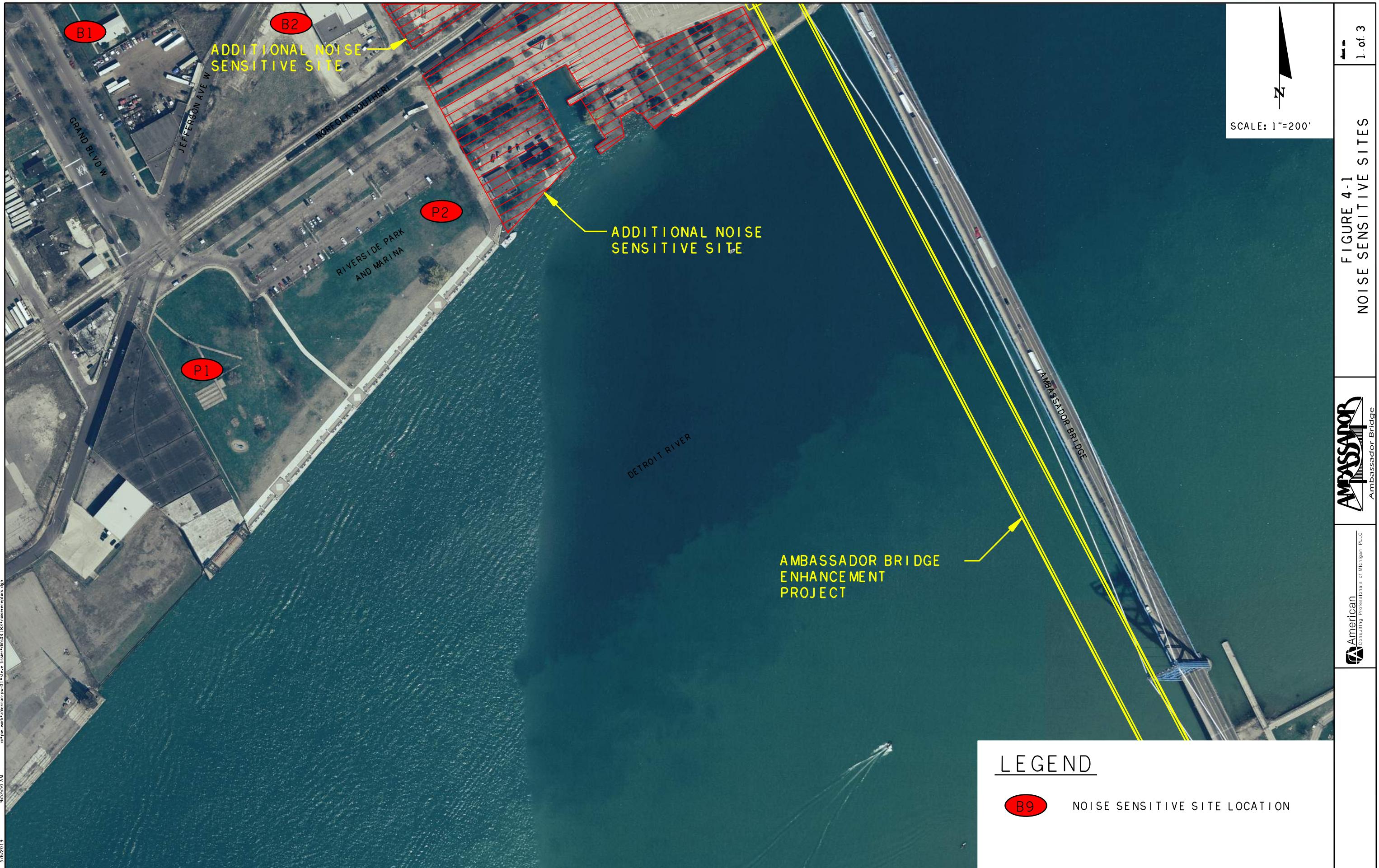


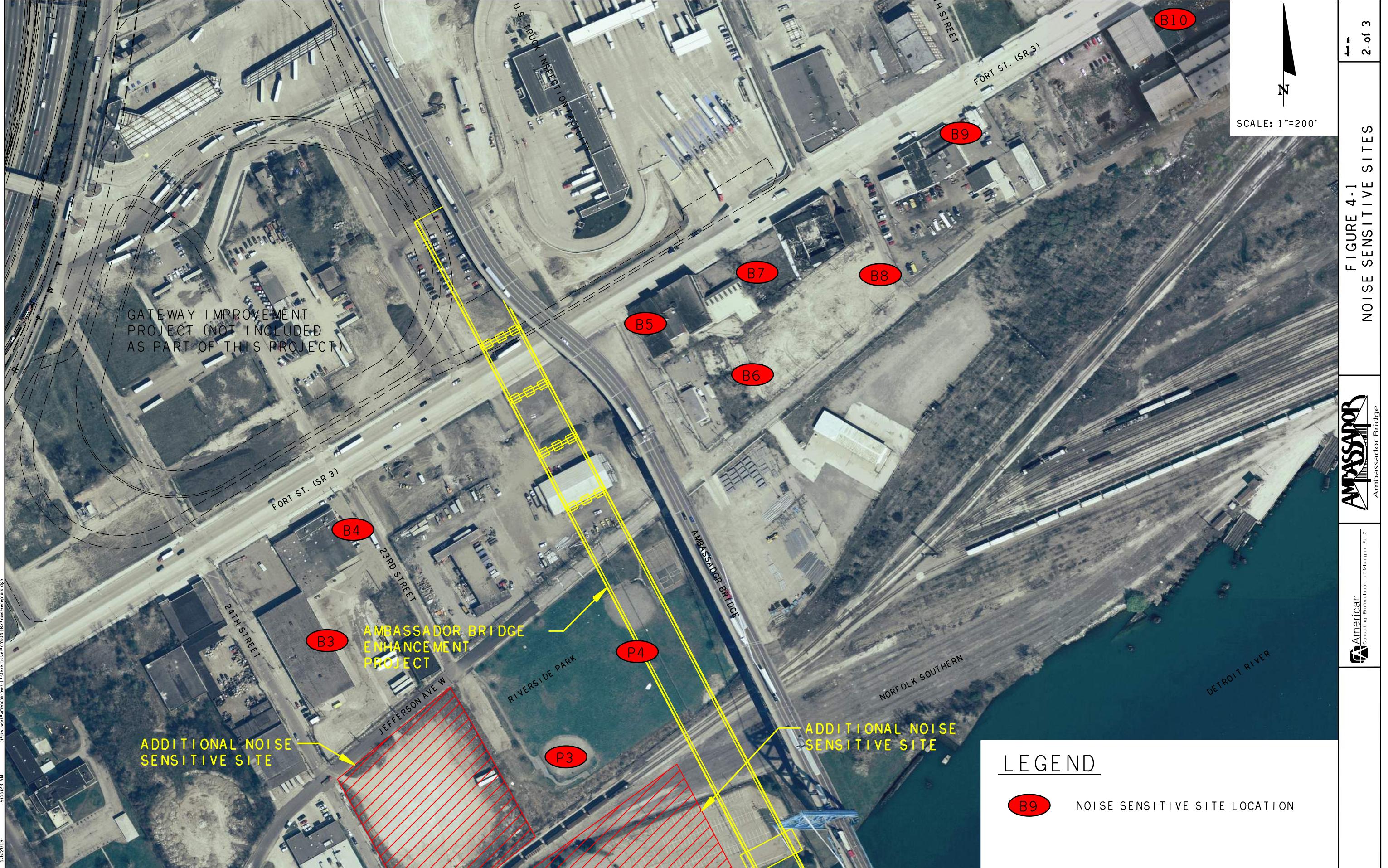
SLP-1

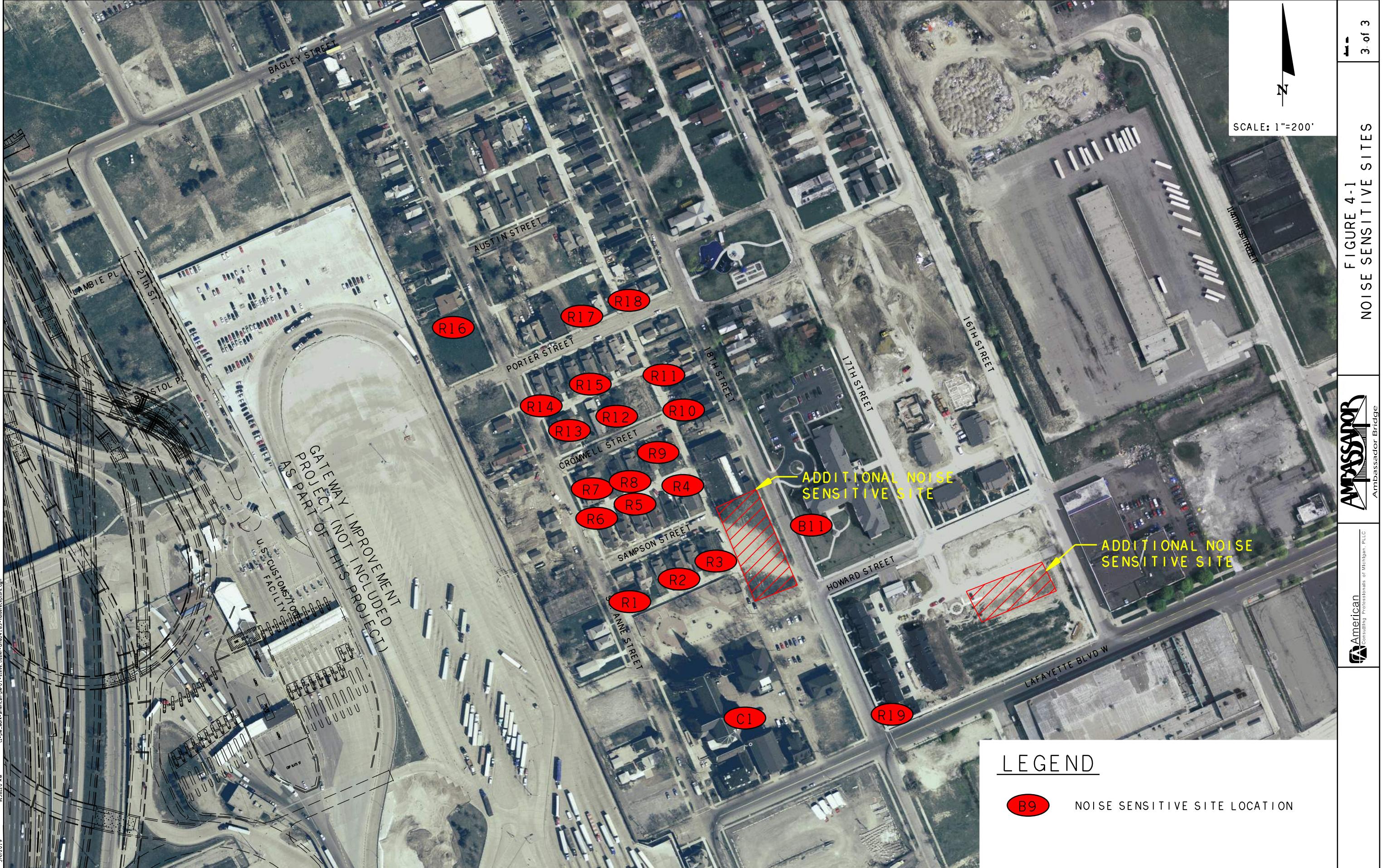
FIGURE 4-1. SHEET LAYOUT PLAN  
NOISE SENSITIVE SITES



American  
Consulting Professionals of Michigan, PLLC  
Ambassador Bridge







**Table 4-4 Predicted Traffic Noise Levels from 2008 Noise Study**

Site ID	# of units	Land Use	Build (2030) $L_{Aeq1h}$ (dBA)	Approaches, Meets, or Exceeds NAC?
P2	1	Riverside Park	61.8	No
P3	1	Riverside Park	68.9	Yes
B2	1	Business	62.3	No
B3	1	Business	67.3	No
B4	1	Business	71.0	Yes

Based on these results, it is likely that the newly converted portions of Riverside Park would be impacted by the project by traffic noise. A noise barrier was evaluated in the 2008 study for the impacted Riverside Park and impacted business (B4). The barrier was evaluated at a length of 1,384 ft (422 m), extending from the Detroit River to north of Riverside Park. The barrier was located on top of the outside barrier wall of the structure on the southbound side of the proposed bridge. Evaluating a barrier on the ground would not provide noise abatement as the noise source is located on the bridge. The height of the barrier evaluated was limited to 12 feet or less due to the height of the bridge structure. As shown in **Table 4-5**, the barrier analysis indicated that the barrier could not provide a noise reduction of more than 2.6 dBA for the affected noise sensitive sites. As shown, the barrier could not provide the minimum goal of reducing traffic noise levels 7 dBA for any of the receptors at any height evaluated. While portions of Riverside Park were not evaluated in this barrier analysis, it is clear from the results that noise abatement would not be possible. No additional modeling is warranted for this change.

**Table 4-5 Southbound Barrier Results**

Affected Receptors	Barrier Height	Calculated $L_{Aeq1h}$ With Barrier	Noise Reduction (dBA)			Reasonable Yes/No
			Calculated	Minimum required	Calc-Goal	
P3	12	65.6	2.6	7	-4.4	No
P4	12	64.5	0.8	7	-6.2	No
B4	12	70.8	0.7	7	-6.3	No

In conclusion, additional noise modeling for the project is not warranted for the following reasons:

- There are no changes to the project scope and footprint since the 2008 study that included the combined Gateway and ABEP;
- The actual 2018 traffic volumes are only about 49% (45.3% for trucks and 51.2% for autos) of those projected and used in the air quality studies;
- Though changes in the NAC have occurred, these changes do not alter the results of the study;

- Of the five impacted noise-sensitive sites, three no longer require consideration for traffic noise under the new regulations; and
- Additional noise sensitive sites have been identified. Based on the information from the 2008 noise study, the additional residential noise sensitive sites would not experience noise levels above the NAC requiring mitigation.
- Regarding the expanded Riverside Park, the noise barrier analysis previously evaluated for the park would not provide the minimum reduction in noise to be considered reasonable under 23 CFR 772. These results are applicable to the proposed new park sites as well.

The results of the August 2008 traffic noise study remain valid. There is no change in the nature or level of impact from the 2009 environmental assessment and subsequent reevaluation.

#### **4.13 HAZARDOUS WASTE AND BROWNFIELD SITES**

The proposed project footprint is the same as that proposed in the 2009 Final EA. Riverside Park, owned by the City of Detroit, is divided into two separate areas (north and south) by railroad tracks running west and east. The historical use of the Riverside Park area as a manufactured gas plant (MGP) may have resulted in environmental contamination of the property. During its operation between 1884 and 1950, the MGP utilized several underground and aboveground storage tanks (USTs and ASTs). In addition, portions of the park were filled in 1928 with unknown fill material but thought to be construction debris and waste material from a nearby industrial site. Weston Solutions of Michigan, Inc. (Weston) conducted a subsurface investigation in April 2006 and identified contamination that is characteristic of hazardous waste material consistent with the MGP operations.

Riverside Park was the location of Detroit Gas Company – Station A, operational from 1866 to 1940 under the name Michigan Consolidated Gas Company (MichCon). All three methods of gas production (coal carbonization, carbureted water gas, and oil gas) were used at different stages of plant operations. The operations at the MichCon facility included a retort house (gas house), condenser, above ground tar tanks, a large coke shed, a coke pile, oil tanks, gas holding tanks, a gas house, industrial buildings and tar wells. Other historical uses of adjacent properties to Riverside Park included a tannery, an automotive manufacturing plant, and a sash door and blind factory. Solvents, petroleum products and other hazardous materials and waste products are associated with these operations.

Weston concluded that soil contamination at Riverside Park were above several of the MDEQ Part 201 Commercial/Industrial Cleanup Criteria, including Industrial / Commercial Soil Volatilization to Indoor Air and Direct Contact. Groundwater contamination was also identified as exceeding several of the applicable Part 201 criteria. The contaminants identified as exceeding the applicable criteria at the Riverside Park site include metals, cyanide, polycyclic aromatic hydrocarbons (PAHs),

benzene, toluene, ethylbenzene, and xylene (collectively, BTEX), and trimethylbenzenes (TMBs). These identified contaminants are consistent with MGP operations. The sheens observed in the soil and groundwater along with the noticeable presence of tar is also consistent with MGP operations.

In March 2012, the City closed Riverside Park due to the known contamination. Contamination remediation at the park has been ongoing since 2016 by company DTE. In March 2018, the MDEQ approved the contamination clean-up plan and remediation work began in April 2018. Completed remediation work includes the installation of a new anchor wall for the existing seawall to allow for the excavation of the parcels down to native clay (~22-30 feet below ground). Approximately 278,000 tons of soil/material was excavated and transported off-site for disposal at a licensed landfill. Approximately 6,000,000 gallons of groundwater were treated and disposed per Great Lakes Water Authority permits. Clean backfill was used to replace the excavated material and was compacted to City of Detroit specifications. In addition, to address any remaining groundwater impacts, a permeable reactive barrier (i.e., sand, gypsum, wood mulch and peat moss) was also installed. DTE is in the final stages of completing remediation work at parcels west of the Ambassador Bridge and south of the existing railroad tracks and are expected to be completed by the summer of 2019. Post-excavation groundwater monitoring will continue for two years after work is completed per the MDEQ approved work plan.

Remediation efforts will be completed prior to the completion of construction of the proposed project. Construction is not expected to interfere with contamination monitoring efforts during this time. Though not anticipated, if additional contaminated soil is encountered during construction, MDEQ will be notified and appropriate control measures implemented. Management of any solid waste generated during construction will be in accordance with MDEQ and local regulations. Materials excavated for the construction of the support tower and piers will be disposed off-site, with the method and location of disposal determined in accordance with the hazardous classification of the materials. All such excavation, testing and disposal will be done in accordance with applicable MDEQ regulations.

There is no change in the nature or level of impact from the 2009 environmental assessment and subsequent reevaluation.

#### **4.14 SECONDARY AND CUMULATIVE IMPACTS**

A detailed secondary and cumulative impact analysis was conducted as part of the Final EA. Cumulative impacts are not expected to be significant as the proposed project is enhancing an existing transportation facility rather than adding any new capacity or changes to traffic flow. There are no changes to the project scope or limits. There is no change in the nature or level of impact from the 2009 environmental assessment and subsequent reevaluation.

## **4.15 TRANSBOUNDARY IMPACTS**

Transboundary impacts are effects from projects within the U.S. that "extend across the border and affect another country's environment," per the Council on Environmental Quality (CEQ) Guidance on NEPA Analyses for Transboundary Impacts (July 1, 1997). CEQ Guidance on NEPA requires assessment of transboundary impacts.

The Proposed Project is an international border crossing and thus is not entirely located in the United States. Further, the source of air emissions for the Proposed Project are mobile (motor vehicles) where all sources either came from or are going to Canada. In order to assess the transboundary impacts, environmental studies undertaken in both countries included the entire bridge, and not just the portion of the project within one country. Following is a synopsis for studies conducted in both countries on air quality and noise, which are the only factors determined to have potential transboundary impacts.

The air analysis conducted in the U.S. evaluated the entire length of the bridge from the US into Canada and concluded that the Proposed Project will not create any significant adverse air quality impacts or violate any of the National Ambient Air Quality Standards in effect for the area. The noise analysis in the US extends approximately halfway across the bridge from the US Ambassador Bridge Gateway Project to the international border. Similarly, the noise and air quality analyses in Canada extended approximately halfway across the bridge to the international border. As described below, there are both air quality and noise impacts that may result from the proposed project. In both cases the transboundary effects of air quality and noise impacts would not violate established standards.

### ***4.15.1 Transboundary Air Quality Impacts***

The International Boundary between the United States and Canada is located approximately midway across the Ambassador Bridge span. Transboundary impacts related to air quality were studied in both countries. Weston Solutions, Inc. completed the air quality study in the U.S. in 2007 that was approved by the USEPA in 2008. At the request of the USEPA and USCG, an air quality addendum was completed in July of 2012 to include the dispersion modeling of the combined ABEP and original configuration of the Gateway project. This addendum was approved by USEPA on August 22, 2012.

In December 2015, the USCG forwarded the reevaluation for the Proposed Project to EPA for review. The reevaluation documented the updated air quality standards within the project limits and the results of the air quality analyses. The reevaluation contended that additional air quality analyses are not required because the outcome of the air analyses are expected to be the same or better than what was previously reported. This is largely due lower traffic forecasts than were projected in the analyses and subsequent improvements in fleet emissions. EPA agreed with this analysis in a letter dated February 8, 2016.

The air quality report in Windsor, completed by Ortech Environmental in November, 2007, and updated in April 2011, was based on factors for air quality and climate change outlined in the Environmental Assessment Guidelines Prepared by the Responsible Authorities with jurisdiction and approval authority for the project in Canada. 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 air quality. The US EPA AERMOD model was used to assess the impact of emissions resulting from the construction activities. The air dispersion modeling analysis was based on the Air Dispersion Modeling Guideline for Ontario (ADMGO), version 1, July 2005.

The existing conditions indicate that the greatest air quality impacts do not occur at the bridge or the customs plaza, but instead occur around key intersection locations along Huron Church Road. Under the future scenario, the impacts from construction activities related to the replacement span will result in air quality in close proximity to the bridge being impacted due to emissions from construction equipment. There is a potential for concentrations of PM10 and PM2.5 to exceed air quality criteria. During construction, however, numerous mitigation measures will be implemented to ensure that there is no significant adverse effect from the Proposed Project. Under the future scenario in 2025, referred to as "Future Do Nothing" or 2025 (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 projected increase in traffic volumes. Again, there is no impact on transboundary air quality as these effects are all localized.

Under the future scenario referred to as 2025 (A), which considers 10 years after construction and operation of the replacement span, 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. 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 operation of the new bridge span. The reduced vehicle emissions appear to outweigh the projected 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 NOx. Under this scenario, NOx concentrations are predicted to be below the air quality criteria. A comparison of the future 2025 "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. Because the studied impacts are local, there is no impact on transboundary air quality.

The results of the assessment concluded that the greatest air quality impacts currently do not occur at the bridge or the customs plaza, but around key intersection locations around Huron Church Road. The assessment also indicated that air quality in close proximity to the bridge will be temporarily impacted due to emissions from construction equipment during construction of the companion bridge.

The potential for transboundary air quality impacts is deemed insignificant and the studies conclude that there are no significant adverse effects arising from the Proposed Project. Further, the contribution from the Project Area 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 companion bridge. This improvement in traffic flow will reduce emissions originating from the Project Area compared to the No-Build, or FDN, scenario. Construction impacts will be mitigated on both sides of the bridge in accordance with construction industry best management practices.

#### ***4.15.2 Transboundary Noise Impacts***

A noise impact assessment was conducted in the U.S. by Avalon Consulting Professionals, LLC in August 2008 to determine the scope and magnitude of project related effects. The noise analysis in the U.S. extends approximately halfway across the bridge from the U.S. Ambassador Bridge Gateway Plaza to the international border. This noise study was approved by the USCG prior to issuing the Draft FONSI and Final EA for public comment.

In addition, a noise study was completed in Windsor by HCG Engineering in November 2007 and updated in April 2011, to consider noise from the construction and ongoing operations of the companion bridge in Canada 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 neighborhood 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. 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 dB(A) from the future no build to the future build scenario. At a number of residences located along Indian Road and Rosedale Avenue (west of the bridge), sound levels are predicted to increase by a minor amount (between 1 and 3 decibels). The majority of the vacant structures on the east side of Indian Road will be removed and replaced with a green area. 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.

In order to mitigate construction-related noise effects of the proposed project in Canada, the following measures will be undertaken. Sound and vibration levels will be monitored during pile driving within 100 meters (328 feet) of the identified sensitive receptors. If exceedances are noted, reduced driving force and/or temporary noise barriers will be investigated. In addition, two noise barriers will be installed to reduce operational traffic noise. One noise wall is proposed on the western edge of the proposed bridge and the second is proposed along the western extent of the customs inspection plaza.

With the proposed mitigation measures, traffic noise levels for all residences are predicted to decrease or remain the same when compared to the No-Build scenario. As such, there will be no noise effects on transboundary receptors.

#### ***4.15.3 Canadian Approvals***

The Environmental Assessment prepared under the Canadian Environmental Assessment Act was approved in February 2014 by Transport Canada and the Windsor Port Authority (**Attachment F**). In September 2017, CTC received issuance of the International Tunnels and Bridges Act (IBTA) permit and Navigable Protection Act Permit (NPP) (**Attachment F**). Numerous terms and conditions were set forth within the IBTA permit. One of these conditions stipulated that CTC demolish the Ambassador Bridge within five years post construction of new bridge. This condition is in direct opposition to a condition with the USCG Bridge Permit to preserve the existing Ambassador Bridge. The DIBC has since been working with the USCG, the US State Department, Transport Canada and other Canadian authorities to resolve this issue. Outside of the permit stipulations, and necessary coordination with local officials regarding the stipulations, no other approvals in Canada are required.

# **Attachment A**

## **Design Plans for Preferred Alternative**

**CITY OF DETROIT, MICHIGAN, UNITED STATES**  
**CITY OF WINDSOR, ONTARIO, CANADA**

**CONTRACT PLANS**

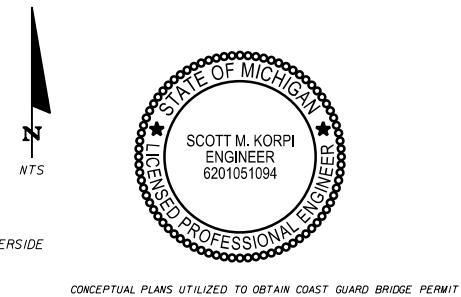
**INDEX OF PLANS**

SHEET NO.	SHEET DESCRIPTION
1 OF 9	KEY SHEET
2 OF 9	PROJECT OVERVIEW
3 OF 9	PLAN AND ELEVATION (1 OF 3)
4 OF 9	PLAN AND ELEVATION (2 OF 3)
5 OF 9	PLAN AND ELEVATION (3 OF 3)
6 OF 9	TYPICAL SECTION
7 OF 9	MAIN SPAN PYLON
8 OF 9	MAIN SPAN PIER
9 OF 9	APPROACH SPAN PIER



PROJECT LENGTH IS BASED ON & CONSTRUCTION

LENGTH OF PROJECT		
	LINEAR FEET	MILES
ROADWAY		
BRIDGES	6082' (1853.82m)	1.2 (1.9 km)
NET LENGTH OF PROJECT	6082' (1853.82m)	1.2 (1.9 km)
EXCEPTIONS		
GROSS LENGTH OF PROJECT	6082' (1853.82m)	1.2 (1.9 km)



PLANS PREPARED BY:



NOTE: THE SCALE OF THESE PLANS MAY  
HAVE CHANGED DUE TO REPRODUCTION.

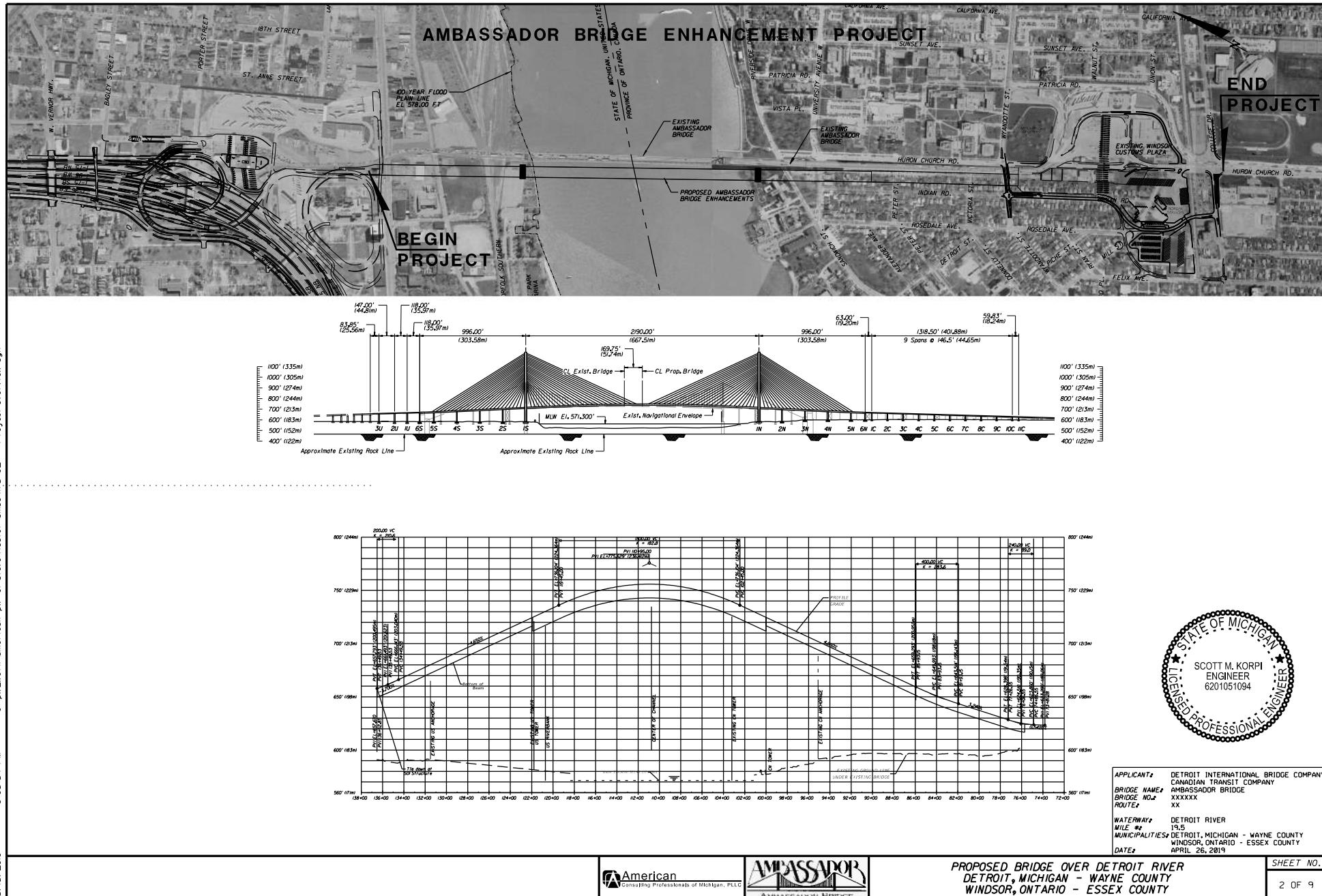
ENGINEER OF RECORD: SCOTT M. KORPI, P.E.

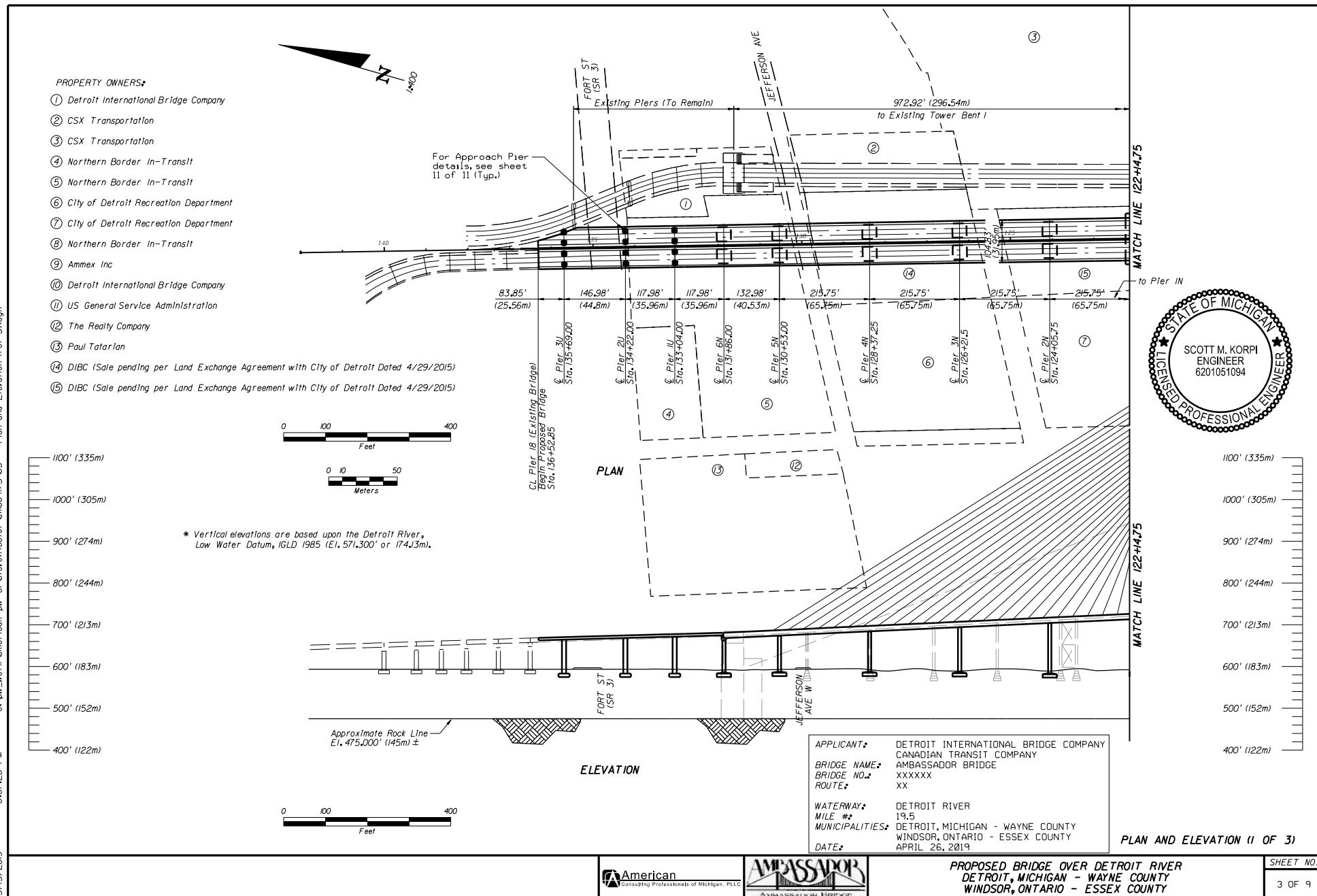
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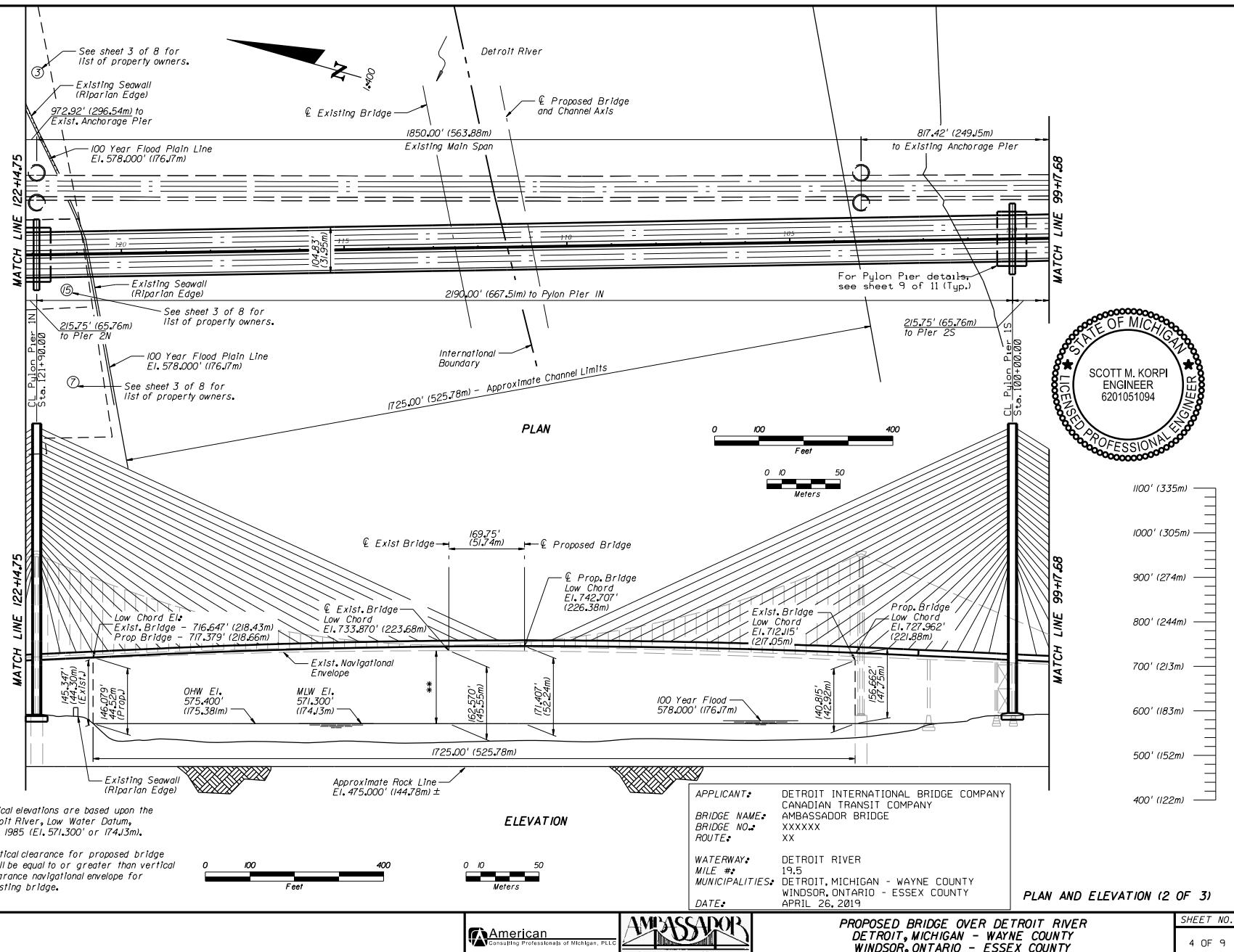
APPLICANT: DETROIT INTERNATIONAL BRIDGE COMPANY  
CANADIAN TRANSIT COMPANY  
BRIDGE NAME: AMBASSADOR BRIDGE  
BRIDGE NO.: XXXXXX  
ROUTE: XX  
WATERWAY: DETROIT RIVER  
MILE #: 19.5  
MUNICIPALITIES: DETROIT, MICHIGAN - WAYNE COUNTY  
WINDSOR, ONTARIO - ESSEX COUNTY  
DATE: APRIL 26, 2019

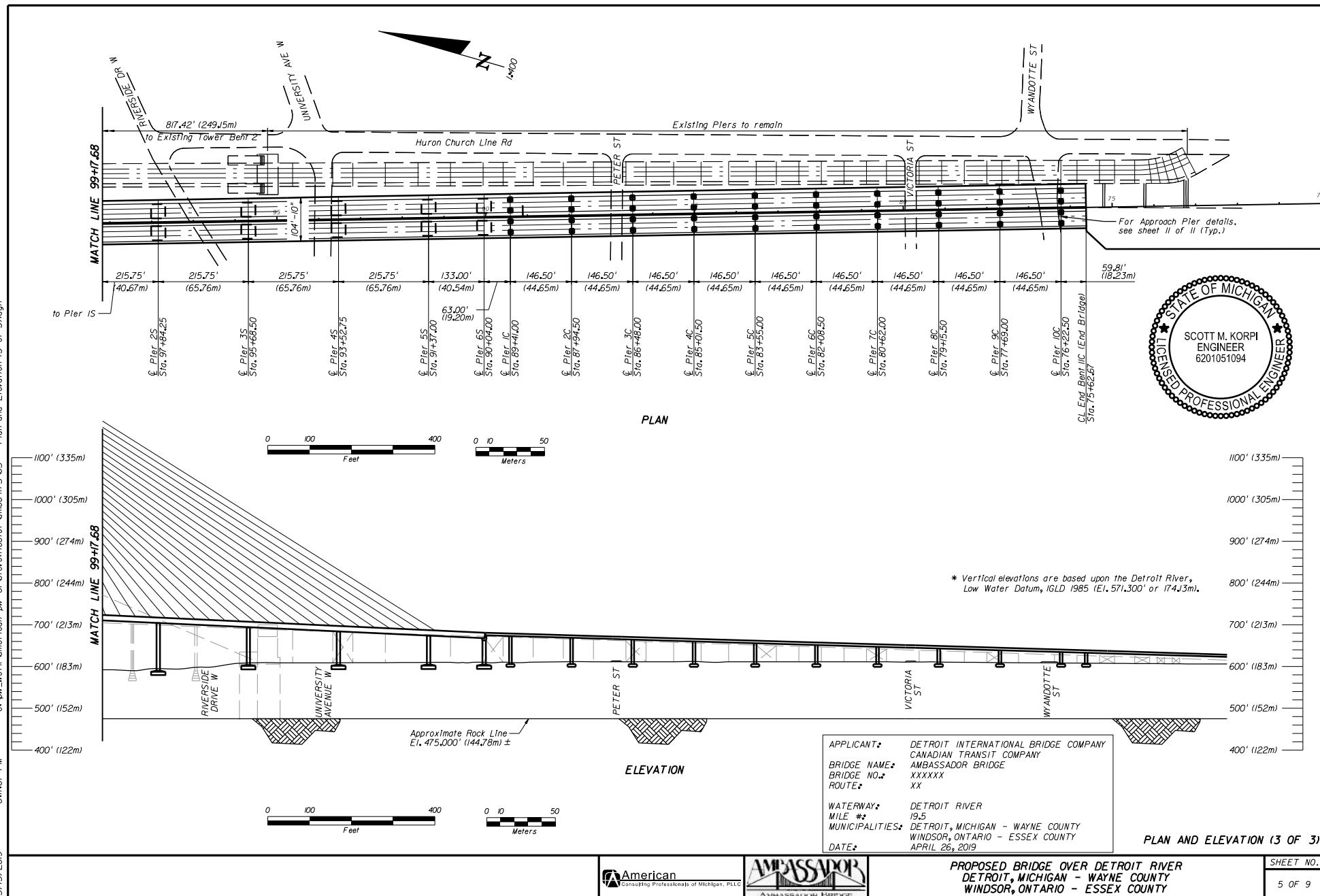
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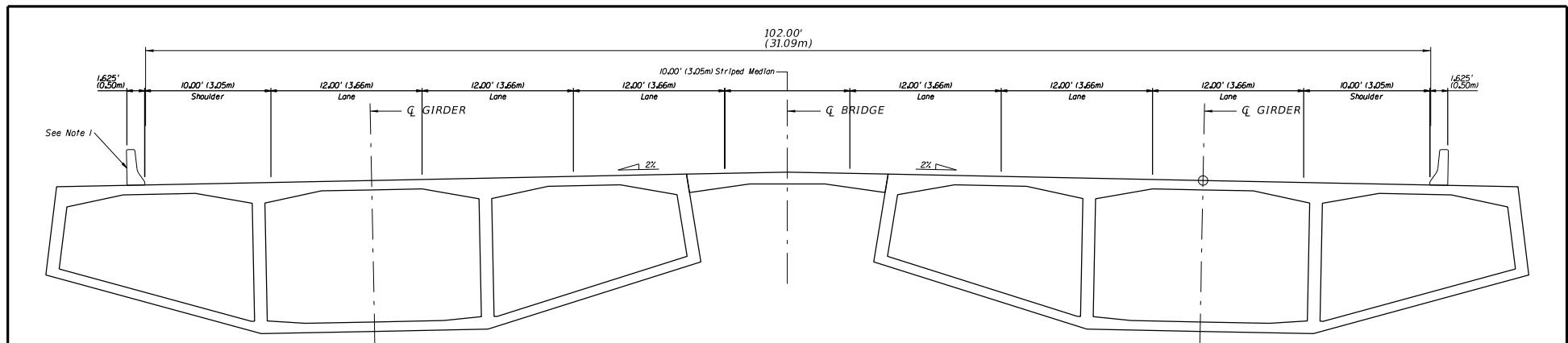
1 OF 9



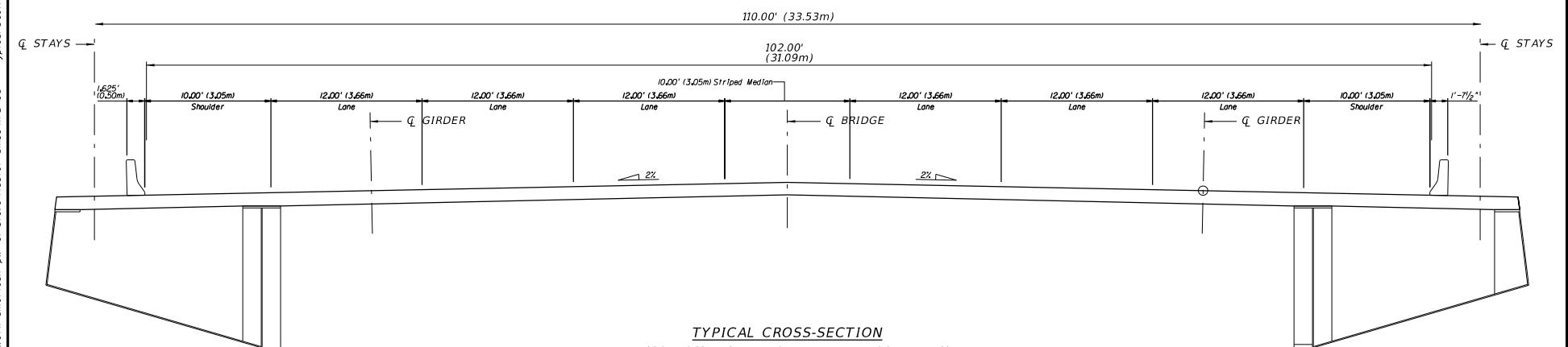




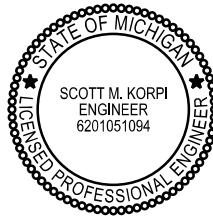




TYPICAL CROSS-SECTION  
(CONCRETE BOX GIRDERS)

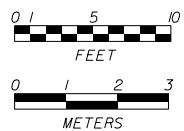


TYPICAL CROSS-SECTION  
(COMPOSITE STEEL BOX BETWEEN FLOOR BEAMS)



Notes:

1. Shape of barrier wall to be determined in final design



APPLICANT:	DETROIT INTERNATIONAL BRIDGE COMPANY CANADIAN TRANSIT COMPANY
BRIDGE NAME:	AMBASSADOR BRIDGE
BRIDGE NO.:	XXXXXX
ROUTE#:	XX
WATERWAY:	DETROIT RIVER
MILE #:	19.5
MUNICIPALITIES:	DETROIT, MICHIGAN - WAYNE COUNTY WINDSOR, ONTARIO - ESSEX COUNTY
DATE:	APRIL 26, 2019

TYPICAL SECTION

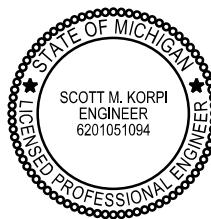


PROPOSED BRIDGE OVER DETROIT RIVER  
DETROIT, MICHIGAN - WAYNE COUNTY  
WINDSOR, ONTARIO - ESSEX COUNTY

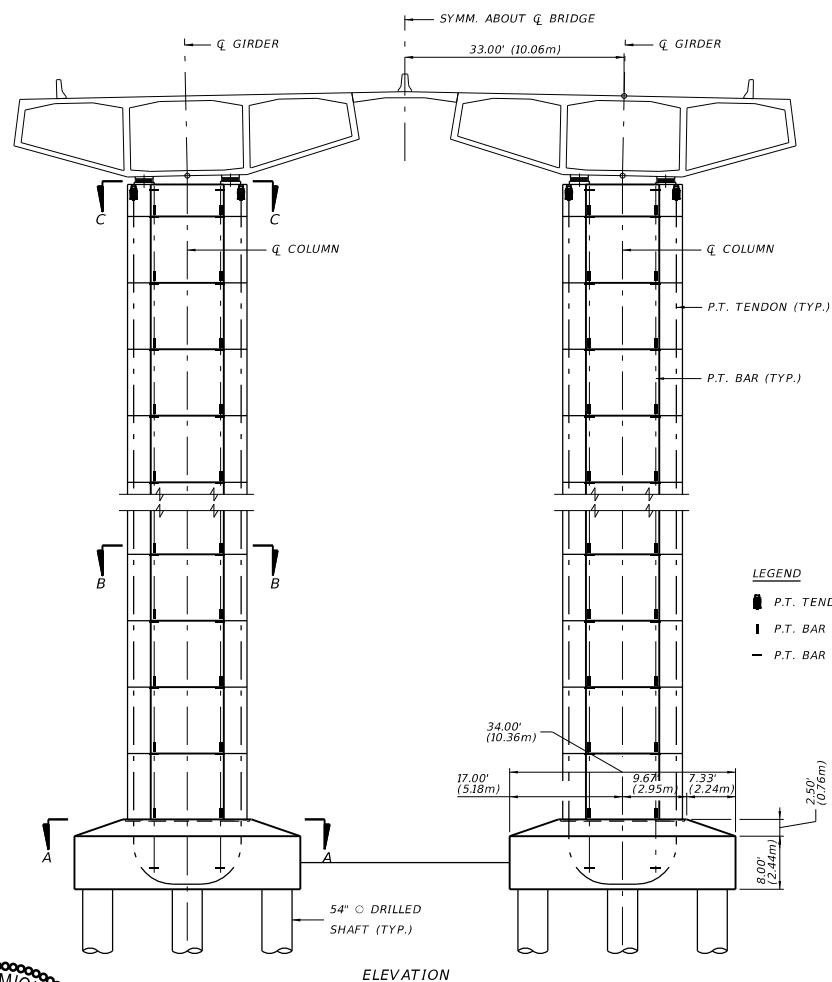
SHEET NO.

6 OF 9

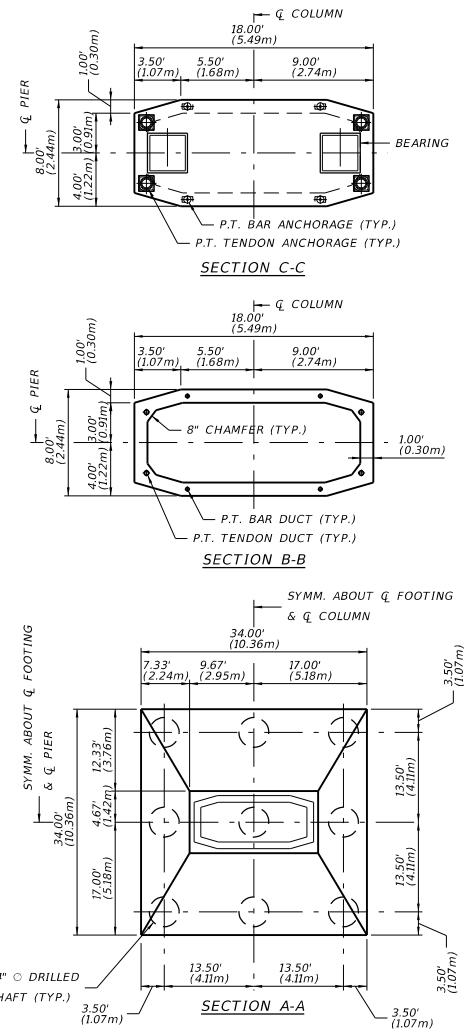
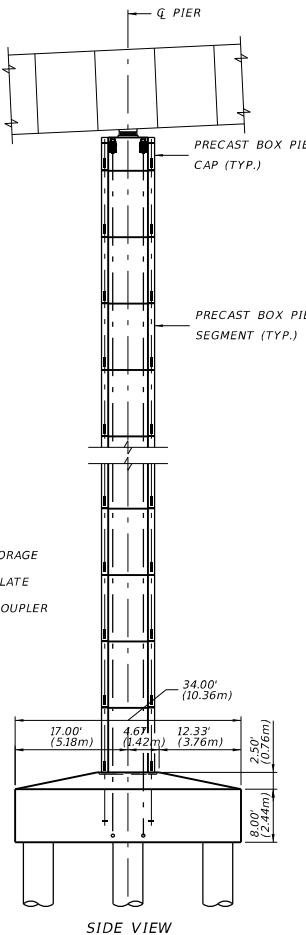




SCOTT M. KORPI  
ENGINEER  
6201051094

**NOTES:**

- ALL DIMENSIONS ARE PRELIMINARY AND SUBJECT TO MINOR ADJUSTMENTS IN FINAL DESIGN.



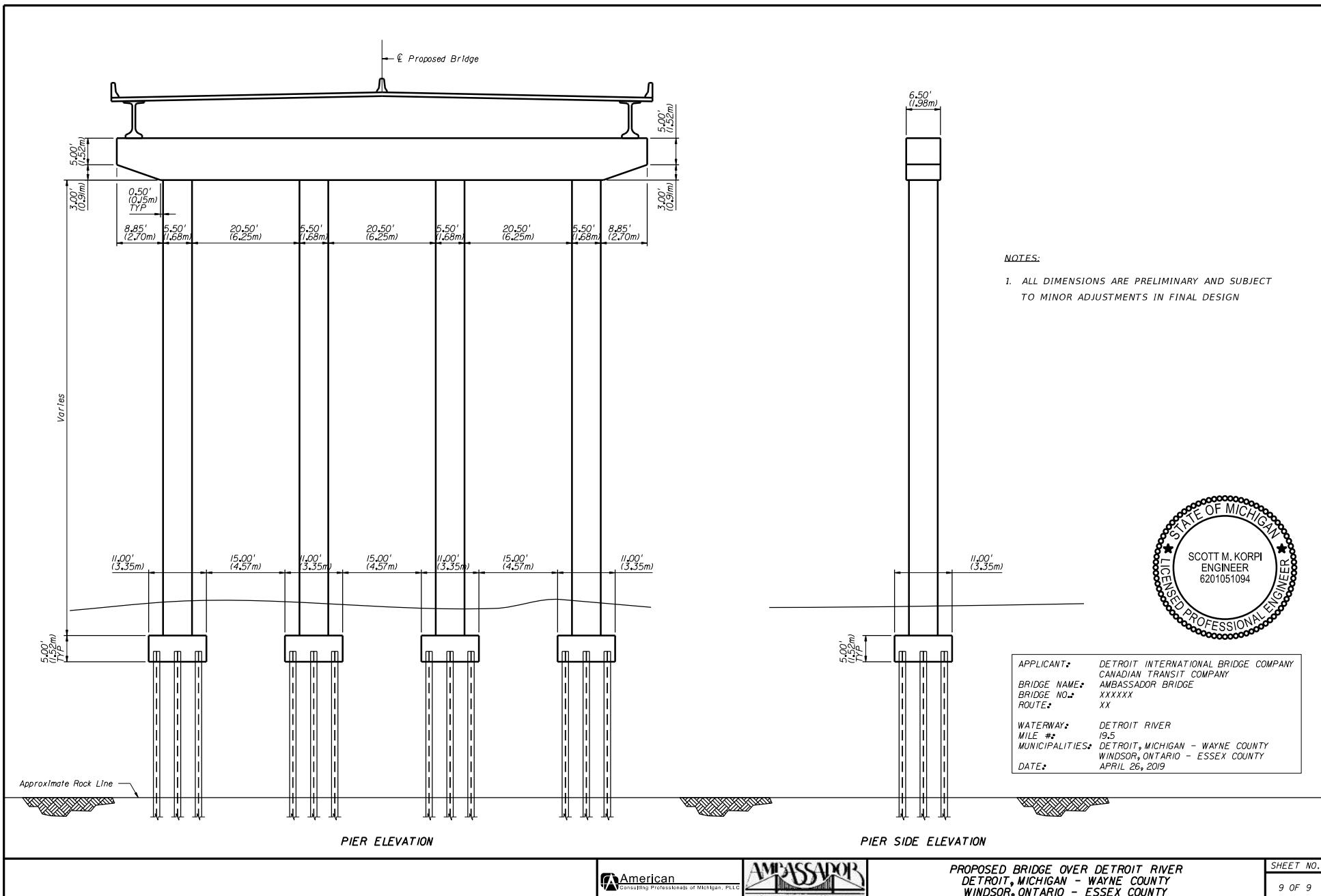
APPLICANT:	DETROIT INTERNATIONAL BRIDGE COMPANY
BRIDGE NAME:	CANADIAN TRANSIT COMPANY
BRIDGE NO.:	AMBASSADOR BRIDGE
ROUTE#:	XXXXXX
WATERWAY:	DETROIT RIVER
MILE #:	19.5
MUNICIPALITIES:	DETROIT, MICHIGAN - WAYNE COUNTY WINDSOR, ONTARIO - ESSEX COUNTY
DATE:	APRIL 26, 2019

PROPOSED BRIDGE OVER DETROIT RIVER  
DETROIT, MICHIGAN - WAYNE COUNTY  
WINDSOR, ONTARIO - ESSEX COUNTY



SHEET NO.

8 OF 9



# **Attachment B**

## **MDEQ Permit**



## NOTICE OF AUTHORIZATION

**Permit Number: WRP012756 v. 1**

**Site Name: 82-Ambassador Bridge-Detroit**

**Issue Date: August 1, 2018**

**Expiration Date: August 1, 2023**

The Michigan Department of Environmental Quality, Water Resources Division, P.O. Box 30458, Lansing, Michigan 48909-7958, under provisions of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended; specifically:

- Part 31, Floodplain Regulatory Authority of the Water Resources Protection.
- Part 301, Inland Lakes and Streams.
- Part 303, Wetlands Protection.
- Part 315, Dam Safety.
- Part 323, Shorelands Protection and Management.
- Part 325, Great Lakes Submerged Lands.
- Part 353, Sand Dunes Protection and Management.

Authorized activity:

Build six new lanes (three in each direction) over the Detroit River to the west and adjacent to the existing Ambassador Bridge. This will be done by constructing a new cable stayed toll bridge located in the same corridor near the existing bridge.

To be conducted at property located in: Wayne County, Waterbody: Detroit River, City of Detroit

Permittee:

Dan Stamper, Detroit International Bridge Company  
12225 Stephens Road  
Warren, MI 48009

Andrew Hartz  
Southeast Michigan District Office  
Water Resources Division

*This notice must be displayed at the site of work.*

*Laminating this notice or utilizing sheet protectors is recommended.*

Please refer to the above permit number with any questions or concerns.



**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY  
WATER RESOURCES DIVISION  
PERMIT**

---

**Issued To:**

Mr. Dan Stamper  
Detroit International Bridge Company  
12225 Stephens Road  
Warren, MI 48009

**Permit No:** WRP012756 v.1  
**Submission No.:** HNC-AK92-STNCA  
**Site Name:** 82-Ambassador Bridge-Detroit  
**Issued:** August 1, 2018  
**Revised:**  
**Expires:** August 1, 2023

This permit is being issued by the Michigan Department of Environmental Quality (MDEQ), Water Resources Division, under the provisions of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA); specifically:

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Part 301, Inland Lakes and Streams                         | <input type="checkbox"/> Part 323, Shorelands Protection and Management |
| <input type="checkbox"/> Part 303, Wetlands Protection   | <input type="checkbox"/> Part 325, Great Lakes Submerged Lands          |
| <input type="checkbox"/> Part 315, Dam Safety  | <input type="checkbox"/> Part 353, Sand Dunes Protection and Management |
| <input type="checkbox"/> Part 31, Water Resources Protection (Floodplain Regulatory Authority) |   |

Permission is hereby granted, based on permittee assurance of adherence to State of Michigan requirements and permit conditions, to:

**Authorized Activity:**

Build six new lanes (three in each direction) over the Detroit River to the west and adjacent to the existing Ambassador Bridge. This will be done by constructing a new cable stayed toll bridge located in the same corridor near the existing bridge.

Waterbody Affected: Detroit River  
Property Location: Wayne County, City of Detroit

**Authority granted by this permit is subject to the following limitations:**

- A. Initiation of any work on the permitted project confirms the permittee's acceptance and agreement to comply with all terms and conditions of this permit.
- B. The permittee, in exercising the authority granted by this permit, shall not cause unlawful pollution as defined by Part 31 of the NREPA.
- C. This permit shall be kept at the site of the work and available for inspection at all times during the duration of the project or until its date of expiration.
- D. All work shall be completed in accordance with the approved plans and specifications submitted with the application and/or plans and specifications attached to this permit.

- E. No attempt shall be made by the permittee to forbid the full and free use by the public of public waters at or adjacent to the structure or work approved.
- F. It is made a requirement of this permit that the permittee give notice to public utilities in accordance with 2013 PA 174 (Act 174) and comply with each of the requirements of Act 174.
- G. This permit does not convey property rights in either real estate or material, nor does it authorize any injury to private property or invasion of public or private rights, nor does it waive the necessity of seeking federal assent, all local permits, or complying with other state statutes.
- H. This permit does not prejudice or limit the right of a riparian owner or other person to institute proceedings in any circuit court of this state when necessary to protect his rights.
- I. Permittee shall notify the MDEQ within one week after the completion of the activity authorized by this permit by completing and forwarding the attached preaddressed postcard to the office addressed thereon.
- J. This permit shall not be assigned or transferred without the written approval of the MDEQ.
- K. Failure to comply with conditions of this permit may subject the permittee to revocation of permit and criminal and/or civil action as cited by the specific state act, federal act, and/or rule under which this permit is granted.
- L. All dredged or excavated materials shall be disposed of in an upland site (outside of floodplains, unless exempt under Part 31 of the NREPA, and wetlands).
- M. In issuing this permit, the MDEQ has relied on the information and data that the permittee has provided in connection with the submitted application for permit. If, subsequent to the issuance of a permit, such information and data prove to be false, incomplete, or inaccurate, the MDEQ may modify, revoke, or suspend the permit, in whole or in part, in accordance with the new information.
- N. The permittee shall indemnify and hold harmless the State of Michigan and its departments, agencies, officials, employees, agents, and representatives for any and all claims or causes of action arising from acts or omissions of the permittee, or employees, agents, or representative of the permittee, undertaken in connection with this permit. The permittee's obligation to indemnify the State of Michigan applies only if the state: (1) provides the permittee or its designated representative written notice of the claim or cause of action within 30 days after it is received by the state, and (2) consents to the permittee's participation in the proceeding on the claim or cause of action. It does not apply to contested case proceedings under the Administrative Procedures Act, 1969 PA 306, as amended, challenging the permit. This permit shall not be construed as an indemnity by the State of Michigan for the benefit of the permittee or any other person.
- O. Noncompliance with these terms and conditions and/or the initiation of other regulated activities not specifically authorized shall be cause for the modification, suspension, or revocation of this permit, in whole or in part. Further, the MDEQ may initiate criminal and/or civil proceedings as may be deemed necessary to correct project deficiencies, protect natural resource values, and secure compliance with statutes.
- P. If any change or deviation from the permitted activity becomes necessary, the permittee shall request, in writing, a revision of the permitted activity from the MDEQ. Such revision request shall include complete documentation supporting the modification and revised plans detailing the proposed modification. Proposed modifications must be approved, in writing, by the MDEQ prior to being implemented.
- Q. This permit may be transferred to another person upon written approval of the MDEQ. The permittee must submit a written request to the MDEQ to transfer the permit to the new owner. The new owner must also submit a written request to the MDEQ to accept transfer. The new owner must agree, in writing, to accept all conditions of the permit. A single letter signed by both parties that includes all of the above information may be provided to the MDEQ. The MDEQ will review the request and, if approved, will provide written notification to the new owner.
- R. Prior to initiating permitted construction, the permittee is required to provide a copy of the permit to the contractor(s) for review. The property owner, contractor(s), and any agent involved in exercising the permit are held responsible to ensure that the project is constructed in accordance with all drawings and specifications. The contractor is required to provide a copy of the permit to all subcontractors doing work authorized by the permit.
- S. Construction must be undertaken and completed during the dry period of the wetland. If the area does not dry out, construction shall be done on equipment mats to prevent compaction of the soil.
- T. Authority granted by this permit does not waive permit requirements under Part 91, Soil Erosion and Sedimentation Control, of the NREPA, or the need to acquire applicable permits from the County Enforcing Agent (CEA).

- U. Authority granted by this permit does not waive permit requirements under the authority of Part 305, Natural Rivers, of the NREPA. A Natural Rivers Zoning Permit may be required for construction, land alteration, streambank stabilization, or vegetation removal along or near a natural river.
- V. The permittee is cautioned that grade changes resulting in increased runoff onto adjacent property is subject to civil damage litigation.
- W. Unless specifically stated in this permit, construction pads, haul roads, temporary structures, or other structural appurtenances to be placed in a wetland or on bottomland of the water body are not authorized and shall not be constructed unless authorized by a separate permit or permit revision granted in accordance with the applicable law.
- X. For projects with potential impacts to fish spawning or migration, no work shall occur within fish spawning or migration timelines (i.e., windows) unless otherwise approved in writing by the Michigan Department of Natural Resources, Fisheries Division.
- Y. Work to be done under authority of this permit is further subject to the following special instructions and specifications:
  1. Authority granted by this permit does not waive permit or program requirements under Part 91 of the NREPA or the need to acquire applicable permits from the CEA. To locate the Soil Erosion Program Administrator for your county, visit [www.mi.gov/deqstormwater](http://www.mi.gov/deqstormwater) and select "Soil Erosion and Sedimentation Control Program" under "Related Links."
  2. The authority to conduct the activity as authorized by this permit is granted solely under the provisions of the governing act as identified above. This permit does not convey, provide, or otherwise imply approval of any other governing act, ordinance, or regulation, nor does it waive the permittee's obligation to acquire any local, county, state, or federal approval or authorization necessary to conduct the activity.
  3. No fill, excess soil, or other material shall be placed in any wetland, floodplain, or surface water area not specifically authorized by this permit, its plans, and specifications.
  4. This permit does not authorize or sanction work that has been completed in violation of applicable federal, state, or local statutes.
  5. The permit placard shall be kept posted at the work site, in a prominent location at all times for the duration of the project, or until permit expiration.
  6. This permit is being issued for the maximum time allowed and no extensions of this permit will be granted. Initiation of the construction work authorized by this permit indicates the permittee's acceptance of this condition. The permit, when signed by the MDEQ, will be for a five-year period beginning on the date of issuance. If the project is not completed by the expiration date, a new permit must be sought.

Issued By:

  
Andrew J. Hartz  
District Supervisor  
Southeast Michigan District Office  
Water Resources Division

cc: City of Detroit Clerk  
Mr. Pat Cullen, Wayne County Public Works  
Mr. Scott Korpi, Project Manager  
Mr. Jeremy Richardson, DEQ

# **Attachment C**

## **Additional Project Permits**



DEPARTMENT OF THE ARMY  
DETROIT DISTRICT, CORPS OF ENGINEERS  
477 MICHIGAN AVENUE  
DETROIT MI 48226-2550

June 12, 2018

REPLY TO  
ATTENTION OF:

Engineering & Technical Services  
Regulatory Office  
File No. LRE-2004-70270-A18

Dan Stamper  
Detroit International Bridge Company  
12225 Stephens Road  
Birmingham, Michigan 48009

Dear Mr. Stamper:

We have reviewed the application that you recently submitted for a proposed expansion of the Ambassador Bridge in the City of Detroit, Wayne County, Michigan. Per your description of the project, we understand the project involves construction of additional lanes to the west of the existing bridge from the United States to Canada and spanning the entire Detroit River.

In Detroit River, as in all navigable waters of the United States including their adjacent wetlands, any construction or discharge of dredged and/or fill material must be authorized by the Department of the Army. The authority of the Corps of Engineers to regulate construction or other work in navigable waters of the United States is contained in Section 10 of the Rivers and Harbors Act, Section 404 of the Clean Water Act, and regulations promulgated pursuant to these acts. Please be advised that filling and grading work, mechanized landclearing, the sidecasting of excavated material, and some forms of piling installation constitute or otherwise involve discharges of dredged and/or fill material under the Corps' regulatory authority.

We have determined that a Department of Army (DA) permit is not required for the work indicated on the enclosed plans, as the work does not involve the discharge of dredged and/or fill material into waters of the United States and/or adjacent wetlands. Any construction activity other than shown on the plans you provided, or which occur outside your specified work area, may render this review invalid. To fully document your proposed activity, we have made your application and copies of the plans a part of our permanent records.

If you anticipate discharging any dredged or fill material into a water of the United States including adjacent wetlands and/or you anticipate any construction or other work waterward of the Ordinary High Water Mark of a Navigable Water of the U.S., you will need to apply for and receive authorization from the Corps prior to starting such work. The necessary permit application can be found on our website at <http://www.lre.usace.army.mil/Missions/RegulatoryProgramandPermits.aspx>. Please complete and return the application following the procedures set forth in the application. Plan view and cross-sectional view drawings, in 8½" x 11" format, should accompany the application. Drawings and a narrative on the form should specifically identify and

describe all of the structures, work, and discharges which we regulate as described above, including temporary or construction measures.

Please note that this letter does not address nor include any consideration for geographic jurisdiction on aquatic resources and shall not be interpreted as such. Should you have any questions, please contact Robert Morningstar at the above address, by E-Mail at [Robert.L.Morningstar@usace.army.mil](mailto:Robert.L.Morningstar@usace.army.mil), or by telephone at (313) 226-2015. In all communications, please refer to File Number LRE-2004-70270-A18.

We are interested in your thoughts and opinions concerning your experience with the Detroit District, Corps of Engineers Regulatory Program. If you are interested in letting us know how we are doing, you can complete an electronic Customer Service Survey from our web site at: [http://corpsmapu.usace.army.mil/cm\\_apex/f?p=136:4:0](http://corpsmapu.usace.army.mil/cm_apex/f?p=136:4:0). Alternatively, you may contact us and request a paper copy of the survey that you may complete and return to us by mail or fax. Thank you for taking the time to complete the survey, we appreciate your feedback.

Sincerely,

Original Signed By Acting Chief

Eric J. Warda  
Chief, Permit Evaluation Eastern Branch  
Regulatory Office

Copy Furnished (Electronic)

Scott Korpi (American Consulting)  
Andy Hartz (MDEQ)  
Enforcement  
NOAA



United States Department of State  
*Washington, D.C. 20520*

September 18, 2008

Ms. Hala Elgaaley  
United States Coast Guard  
2100 Second Street SW  
Washington, D.C. 20593

Dear Ms. Elgaaley:

Thank you for bringing to our attention the letter you received from the Detroit International Bridge Company (DIBC) concerning its effort to obtain the required Coast Guard permits to twin the current span of the Ambassador Bridge. This letter is to clarify the Department of State position concerning the twinning of Ambassador Bridge.

As the letter correctly notes, the Department of State has determined that the Ambassador Bridge does not require a Presidential permit to expand or twin its span at its current location. This determination was based on the original Congressional statutes authorizing the bridge and the 1972 Bridge Act; there is no Presidential permit issued by this Department for the Ambassador Bridge.

The Department's determination that the twinning of the Ambassador Bridge at that location does not require a Presidential permit should not be considered as in any way affecting the standards or outcomes for reviews of this project undertaken by other U.S. federal agencies such as the Coast Guard. The Department of State determination also has no bearing on Canadian reviews of this project. Canadian authorities have clearly communicated to the Department of State and to DIBC that the Ambassador Bridge twinning project does require Canadian federal government approval for its construction under Canada's International Bridges and Tunnels Act. So far, Canadian federal authorities have not given such approval. The Department of State takes no position concerning Canada's regulation but respects Canada's right as a sovereign nation to require prior Canadian federal approval of any international bridge construction project between the U.S. and Canada. As would be the case in the United States, the bridge may also require approval by Canadian provincial and local authorities.

As a Presidential permit is not required, the Department of State has made no determination as to whether or not the twinning of the Ambassador Bridge is in the U.S. national interest. In general, and subject to the points raised above, the Department of State does support the creation of additional infrastructure to facilitate trade and travel between the United States and Canada.

We are also happy to consult with the Coast Guard on the ramifications, if any, of any Coast Guard permitting decision for our relations with Canada.

I hope this information is helpful to you.

Sincerely,



Edwin R. Nolan  
Director  
Office of Canadian Affairs

Attachment: 2005 letter to DIBC concerning Ambassador Bridge twinning

Drafted: WHA/CAN: EMFox, 7-2151

Cleared: WHA/CAN: GSheaffer – ok  
L/EEB: JSchnitker – ok  
OES/EGC: EOrlando  
L/WHA: RLahne  
L/OES: JKIm

David H. Coburn, Esq.  
Steptoe & Johnson, LLP  
1330 Connecticut Ave., N.W.  
Washington, D.C. 20036

Re: Detroit International Bridge Company

Dear Mr. Coburn:

This is in response to your question on behalf of the Detroit International Bridge Company (DIBC) as to whether the DIBC is required to obtain a Presidential Permit to construct a second span for the Ambassador Bridge, which crosses the Detroit River between Detroit, Michigan and Windsor, Ontario. In connection with your question, you have also provided the Office of the Legal Adviser with several pieces of correspondence concerning this matter. Based on the information available to us (including the information you have provided), we have determined that the DIBC does not require a Presidential permit to expand (or twin) the existing bridge at that location.

The Ambassador Bridge was constructed pursuant to a 1921 congressional statute that authorized the "American Transit Company, its successors and assigns, to construct, maintain, and operate a bridge and approaches thereto across the Detroit River at a point suitable to the interests of navigation, within or near the city limits of Detroit, Wayne County, Michigan, in accordance with the provisions" of the 1906 Bridge Act, provided that the necessary authority for construction was obtained from the Canadian Government and that construction was commenced within three years and completed within seven years. Although the time periods within which the bridge could be constructed and completed were extended by Congress several times, it is our understanding that the bridge was built after Canadian approval was eventually obtained. You have further furnished us with information indicating that DIBC is the assignee of the American Transit Company, having acquired the bridge and the authority to operate it in 1927, pursuant to the 1921 congressional authorization.

In 1972, Congress enacted the International Bridge Act, which effectively ratified the Presidential permit process (delegated to the Department of State in 1968 under Executive Order 11423) that had been in operation for some time. In passing the 1972 statute, Congress made clear that activities conducted pursuant to prior congressional statutory authorizations would not be affected by the new law. Specifically, the House Report provides that the International Bridge Act "should not be construed to adversely affect the rights of those operating bridges previously authorized by Congress to repair, replace or enlarge existing bridges." H.R. Rep. No. 92-1303, 92d Cong., 2d Sess. 3-4 (1972). Further, as your letters note, in a number of prior instances, the Department has advised that the replacement or expansion of existing bridges authorized by Congress prior to passage of the 1972 International Bridge Act did not require a Presidential Permit. However, if expansion of the Ambassador Bridge Detroit were to require an agreement between the State of Michigan (or a subdivision or instrumentality of the State) and the Canadian government, a Canadian province or a subdivision or instrumentality of either, approval of such an agreement by the Secretary of State would be required under section 3 of the 1972 Act.

Therefore, based on our understanding that the DIBC is the assignee of the American Transit Company authorized by Congress to maintain and operate the Ambassador Bridge Detroit and that the DIBC is only seeking to expand (or twin) the operation of that bridge at that location, the DIBC does not require a Presidential permit under E.O. 11423, as amended. The fact that a Presidential permit is not required in this instance does not, however, exempt the DIBC from any other requirements under U.S. law, such as the requirement of advance approval of any plans for modification of the existing bridge by the Secretary of Homeland Security or his delegate under the 1906 Bridge Act.

I hope that you find this information helpful.

Sincerely yours,

Len Kusnitz  
Acting Director  
Office of Canadian Affairs

## **Attachment D**

### **Land and Water Conservation Act (LWCA) Letter of Support from MDNR to Department of Interior**



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF NATURAL RESOURCES  
LANSING



KEITH CREAGH  
DIRECTOR

July 12, 2018

Mr. Roger Knowlton  
U.S. Department of the Interior  
National Park Service – Midwest Region  
601 Riverfront Drive  
Omaha, NE 68102-2571

Dear Mr. Knowlton:

SUBJECT: Conversion proposal for Riverside Park (Wayne County)  
LWCF Grant: 26-00700

The Department of Natural Resources (DNR), Grants Management Section requests the National Park Service's review and approval of a conversion proposal for the City of Detroit (City). The City is converting 3.783 acres to accommodate the second span of the Ambassador Bridge. The City is mitigating this conversion with 4.8 adjacent acres of riverfront property.

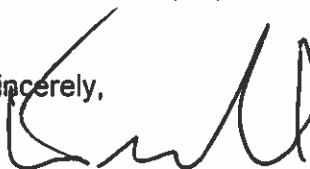
On December 8, 2016, the DNR requested concurrence that the mitigation parcel had the potential to be acceptable as adequate recreation replacement for the conversion parcel based on a review by staff of the DNR and Michigan Department of Natural Resources (DNR). The review included both an on-site and in-house evaluation of both the conversion and mitigation parcels including, but not limited to: alternatives to the proposed conversion, project boundary maps, a comparison of recreation usefulness, compliance with the location recreation plan, Due Care Plans, and the need for the conversion.

The remaining steps of the conversion process have now been completed, including the public meeting, PD-ESF, and appraisals. The DNR supports the proposed mitigation parcel of land as consistent with the approved SCORP we have on file with the National Park Service. It is the DNR's belief that the City has complied with all requirements for the mitigation of this conversion.

With this letter we are requesting your review of the enclosed documents and your concurrence that the mitigation parcel presented by the City of Detroit is an acceptable recreation replacement for the conversion parcel.

If you have any questions regarding this conversion proposal, please contact me at 517-290-5603 or [lordd1@michigan.gov](mailto:lordd1@michigan.gov).

Sincerely,

  
Dan Lord, Section Manager  
Grants Management

# **Attachment E**

## **SEMCOG Letter Supporting ABEP**

September 1, 2016

Mr. Scott Korpi, PE, SE  
Principal  
American Consulting Professionals, LLC  
2818 Cypress Ridge Blvd.  
Suite 200  
Wesley Chapel, FL 33544

Dear Mr. Korpi:

The purpose of this letter is to communicate that SEMCOG, the Southeast Michigan Council of Governments, supports the construction of a replacement bridge for the existing Ambassador Bridge. SEMCOG's adopted 2040 Regional Transportation Plan (RTP) identifies the need for several border infrastructure improvements, including a replacement structure for the existing Ambassador Bridge, construction of the new Gordie Howe International Crossing, and improvements at the Blue Water Bridge customs plaza. These projects will increase the efficiency, reliability, safety, and security of cross border travel in Southeast Michigan. The proposed replacement of the existing Ambassador Bridge is included in the illustrative portion of SEMCOG's adopted 2040 RTP.

The international border crossings Southeast Michigan shares with Ontario, Canada, are essential to the operations of existing industry and to the value proposition for expanding supply chain and logistics activity within Michigan.

Please contact me if you have any questions.

Sincerely



Carmine Palombo, P.E.  
Deputy Executive Director

# **Attachment F**

## **Canadian Approvals**



Place de Ville  
Ottawa  
K1A 0N5

Your file   Votre référence

Fax (613) 990-9639      Télécopieur (613) 990-9639

Our file   Notre référence  
RDIMS #9082809

February 12, 2014

Dan Stamper, President  
Canadian Transit Company  
780 Huron Church Road, Suite 202  
Windsor, ON N9C 2K2

Dear Mr. Stamper:

Transport Canada and the Windsor Port Authority have completed the environmental assessment screening report for the Canadian Transit Company's proposed Ambassador Bridge Enhancement Project and have made their environmental assessment decisions in accordance with the *Canadian Environmental Assessment Act*.

With the implementation of the mitigation, monitoring, and follow-up measures described in the report, Transport Canada and the Windsor Port Authority have determined that the project is not likely to cause a significant adverse environmental effect. This environmental assessment decision is based on the information provided by the Canadian Transit Company in its revised Environmental Impact Statement (2013) and subsequent documentation.

As you are aware, the environmental assessment decision does not constitute approval for the project to proceed, but rather will inform future federal approval requirements under the *Navigable Waters Protection Act*; the *Port Authority Regulations*; and the *International Bridges and Tunnels Act*.

.../2

We look forward to continuing to work with the Canadian Transit Company throughout the planning, construction, and operational phases of the project to ensure the implementation of the environmental assessment commitments. If you have any questions, please do not hesitate to contact Cathy Hainsworth at (613) 991-3476, or Sarah O'Keefe at (613) 991-1187.

Sincerely,



Alec Simpson, Senior Director  
Environmental Management Branch  
Transport Canada

cc: FRT, NWPP, TC Surface policy

Encl. *Final Environmental Assessment Screening Report*

# Environmental Assessment Screening Report

Prepared pursuant to the *Canadian Environmental Assessment Act*

by Transport Canada and the Windsor Port Authority

for the

## AMBASSADOR BRIDGE ENHANCEMENT PROJECT



*February 12, 2014*

*Final Version*

Transport Canada File: #9172715

Canadian Environmental Assessment Registry (CEAR) #21100

## **Executive Summary**

The Canadian Transit Company, referred to throughout this document as the Proponent, is proposing to expand and build new bridge-related infrastructure along the existing Ambassador Bridge corridor by: constructing a new bridge adjacent to the existing; expanding the existing plaza facility; and, taking the existing Ambassador Bridge out of service to be rehabilitated, maintained and used as a redundant resource for operational vehicles, emergency traffic and approved public events.

In 2004 and subsequently in 2006, the Proponent approached the Government of Canada with a project description describing its proposed Project, referred to throughout this document as the Ambassador Bridge Enhancement Project.

In order to enable the Project to proceed, in whole or in part, Transport Canada approval under the *Navigable Waters Protection Act* and the *International Bridges and Tunnels Act* is required. In addition, the Windsor Port Authority may provide a lease for the use of federal water lots and issue a permit, necessary for the Project to proceed.

Under the *Canadian Environmental Assessment Act*, a screening-level environmental assessment of the Project is required before the federal approvals and lease can be contemplated. As such, Transport Canada and the Windsor Port Authority prepared this screening report following a technical review of the Proponent's final Environmental Impact Statement, submitted in March 2013. Environment Canada, Health Canada, Fisheries and Oceans Canada, the Canada Border Services Agency, and Parks Canada provided advice during this assessment process related to their fields of expertise.

During this assessment process, the potential effects of the Project were considered on various environmental components, including: air quality, vegetation, wildlife and wildlife habitat, water quality and aquatic habitat; noise and vibration; human health; archaeological resources; and current use of lands and resources for traditional purposes by Aboriginal peoples. The evaluation of the potential effects on these components was based on the information provided by the Proponent, advice provided by federal experts, and comments provided by the public.

Mitigation measures were identified to reduce or eliminate the Project's potential environmental effects and that are to be incorporated into the planning, construction and operational phases of the Project. In addition to monitoring, a follow-up program has been developed to verify the accuracy of the environmental assessment, to determine the effectiveness of the mitigation measures, and to identify adaptive management measures.

Taking into account the implementation of the mitigation, and monitoring measures, the follow-up measures, and the adherence to any future federal permits, authorizations and approvals, Transport Canada and the Windsor Port Authority have concluded that the Project is not likely to cause a significant adverse environmental effect.

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## 1.0 Introduction

### 1.1 Overview of the Ambassador Bridge Enhancement Project

The Canadian Transit Company (the Proponent) has proposed to enhance its existing border crossing infrastructure by expanding the plaza facility and constructing a new six-lane cable-stayed bridge adjacent to, and replacing, the existing four-lane Ambassador Bridge. Once the replacement bridge is constructed and operational, the Proponent has stated that the existing Ambassador Bridge will be taken out of service, rehabilitated, maintained, and used as a redundant resource for operational vehicles, emergency traffic and approved public events.

The Ambassador Bridge Enhancement Project is distinct from the project to build a new international crossing between Windsor and Detroit, referred to in Canada as the Detroit River International Crossing (DRIC) project. The DRIC project is being carried out at a different location. In 2005, the proponents of the DRIC ruled out the alternative of a twinned Ambassador Bridge with a new plaza and highway connection as it did not meet the criteria established for the federally and provincially harmonized environmental assessment process. Specifically, the DRIC study concluded that the Ambassador Bridge corridor did not meet the established need for system connectivity, redundancy, capacity, or economic security needs.

By contrast, the proponent-stated purpose of the proposed Ambassador Bridge Enhancement Project is not to increase capacity; it is to improve the efficiency of the existing crossing. The proposed Ambassador Bridge Enhancement Project will only see an increase of two lanes of traffic, for FAST/NEXUS, as the existing bridge will be taken out of service.

*Figure 1: Existing Ambassador Bridge Location*



## 1.2 Federal Environmental Assessment Process

The *Canadian Environmental Assessment Act*<sup>1</sup> (the Act) applies to federal regulatory authorities when they contemplate certain actions or decisions that would enable a project to proceed in whole or in part.

Following a federal review of the project description submitted to the Canadian Environmental Assessment Agency in March 2006, it was determined that Transport Canada and the Windsor Port Authority required an environmental assessment under the Act prior to contemplating future approvals. Specifically:

- Transport Canada determined that it is a responsible authority pursuant to paragraph 5(1)(d) of the Act, as it may issue an approval under section 5 of the *Navigable Waters Protection Act* for the Project.
- Pursuant to section 9 and paragraph 5(1)(c) of the Act, the Windsor Port Authority determined that it is a prescribed authority under the Canada Port Authority Regulations, in relation to a lease of federal water lots on the Detroit River it may grant.

In order for the Project to proceed, it will also require approval under the *International Bridges and Tunnels Act*. Although there is no formal trigger under the *Canadian Environmental Assessment Act* requiring an environmental assessment before issuing this approval, Transport Canada will ensure that matters in the public interest including environmental mitigation and follow-up in this environmental assessment are considered to the extent possible.

Federal authorities also contributed specialist or expert advice necessary to conduct the assessment including: Environment Canada (air quality, species at risk and migratory birds); Health Canada (human health); Fisheries and Oceans Canada (aquatic systems including fish and fish habitat); Canada Border Services Agency (border services); and Parks Canada (archaeology). The Canadian Environmental Assessment Agency was the federal environmental assessment coordinator for the Project. Together, the responsible, prescribed and federal authorities, and the federal environmental assessment coordinator comprised the federal review team for the conduct of this environmental assessment.

The Project is not described in the Comprehensive Study List Regulations, therefore a screening-level environmental assessment process has been followed in accordance with subsection 18(1) of the Act.

---

<sup>1</sup> The *Canadian Environmental Assessment Act, 2012* (CEAA 2012) came into force on July 6, 2012, replacing the *Canadian Environmental Assessment Act S.C. 1992, c. 37*. Section 124 of CEAA 2012 sets out transition measures including timelines for environmental assessments, such as the Ambassador Bridge Enhancement Project, which commenced under the former Act. For this project, all references to federal environmental assessment legislation reflect the requirements and regulations of the *Canadian Environmental Assessment Act S.C. 1992, c. 37*.

### 1.3 Environmental Assessment Timelines

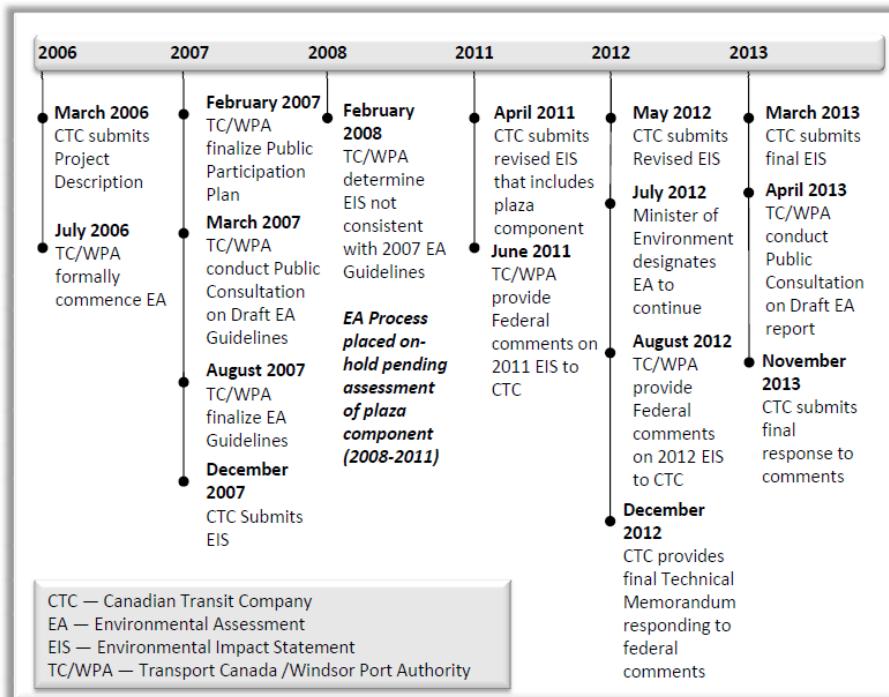
The Proponent submitted a preliminary Environmental Impact Statement to Transport Canada and the Windsor Port Authority in December 2007. Based on a preliminary review, it was noted that the report did not include analysis concerning the potential environmental effects associated with modifications and/or expansion of the border inspection facilities, as required by the 2007 federal environmental assessment guidelines.

As a result, the environmental assessment process was placed in abeyance between February 2008 and April 2011, while the Proponent worked with the Canada Border Services Agency to develop a master plan for the inspections plaza<sup>2</sup> and revised the environmental effects analysis in the Environmental Impact Statement.

In April 2011, responsible and federal authorities received the revised Environmental Impact Statement and began a detailed review resulting in several revisions to the report. In response to comments from federal authorities, the Environmental Impact Statement was finalized by the Proponent in March 2013.

Public participation on the draft screening report was conducted in April 2013 and the Proponent provided final responses in November 2013. After considering public comments and responses from the Proponent, Transport Canada and the Windsor Port Authority prepared this screening report. Figure 2 provides a summary of environmental assessment milestones.

*Figure 2: Overview of Environmental Assessment Milestones*



<sup>2</sup> Canada Border Services Agency funded the development of the Border Services Master Plan (July 2010)

#### **1.4 Canadian Approvals and Land Acquisition**

Prior to Transport Canada or the Windsor Port Authority contemplating any action or approval in relation to the Project as proposed, the environmental assessment decision under the *Canadian Environmental Assessment Act* is required.

Subsequent to the completion of the environmental assessment process, Transport Canada and the Windsor Port Authority will determine specific requirements for approvals under the *Navigable Waters Protection Act*, the *International Bridges and Tunnels Act*, *The Port Authority Operations Regulations* and completion of water lot lease agreements. These approval processes had not been initiated by the Proponent at the time this screening report was prepared.

In order to accommodate the expansion of the plaza facility, it may be necessary for the Proponent to acquire City of Windsor, provincial and/or federal approvals for the relocation and/or closure of portions of several local roadways, modifications to the Essex Terminal Railway and the demolition of existing housing. The Proponent has stated that approvals from the City of Windsor regarding the road alignment and zoning requirements have not been initiated and will be completed, where required, during the design phase of the Project.

#### **1.5 Coordination with Other Environmental Assessment Jurisdictions**

Throughout the environmental assessment process, the Canadian Environmental Assessment Agency and the responsible and prescribed authorities corresponded with the Province of Ontario and American authorities to determine whether there was an opportunity to coordinate with other environmental assessment requirements.

The Ontario Ministry of Environment confirmed in August 2013 that a provincial environmental assessment would not be required for this undertaking under the Ontario *Environmental Assessment Act*. However, additional requirements may be determined at a future date in relation to required municipal roadwork and may include a municipal class environmental assessment process, as required by the City of Windsor.

In the U.S., the U.S. Coast Guard is the lead agency for the environmental assessment of the American portion of the Project under the *National Environmental Policy Act*. Throughout the Canadian environmental assessment process, Transport Canada and the U.S. Coast Guard sought opportunities to coordinate information requirements.

Transport Canada was committed to sharing information with the U.S. Coast Guard, U.S. Environmental Protection Agency, the Ontario Ministry of Environment and the City of Windsor during key stages in the federal environmental assessment process.

## **2.0 Project Description**

### **2.1 Scope of the Project**

The scope of the Project for the purposes of the environmental assessment was identified by the responsible and prescribed authorities to include all physical works and activities associated with the construction, operation, modification, and decommissioning of the Canadian portion of the Project. This includes the replacement bridge, expansion of the plaza facility, and adjacent green space areas. With respect to the existing Ambassador Bridge, the scope of the Project includes taking the existing Ambassador Bridge out of service; and rehabilitating and maintaining it for use as a redundant resource for operational vehicles, emergency traffic and approved public events. The decommissioning of the existing Ambassador Bridge was not assessed as part of this environmental assessment, because the *Canadian Environmental Assessment Act* requires the environmental assessment of the project as proposed by the Proponent and the Proponent has stated that the demolition of the existing four-lane Ambassador Bridge is not a component of the Project it has proposed.

### **2.2 Project Components**

The Proponent has indicated that construction of the Project will be undertaken in phases as components are approved by the appropriate authorities. Operation will be phased in throughout construction as allowed by staging and completion of the primary components. Based on information provided by the Proponent<sup>3</sup>, the Project phases are described as follows:

*Phase 1 - Site Clearing:* The first phase of the Project will include the demolition of up to 100 homes and two apartments owned by the Proponent to accommodate the Project. Construction activities will also include delivery of materials, the movement of supplies and people on site, removal of vegetative ground cover, brush cutting, removal of selected trees, and placement of fill material in order to prepare the site for the construction of Project components.

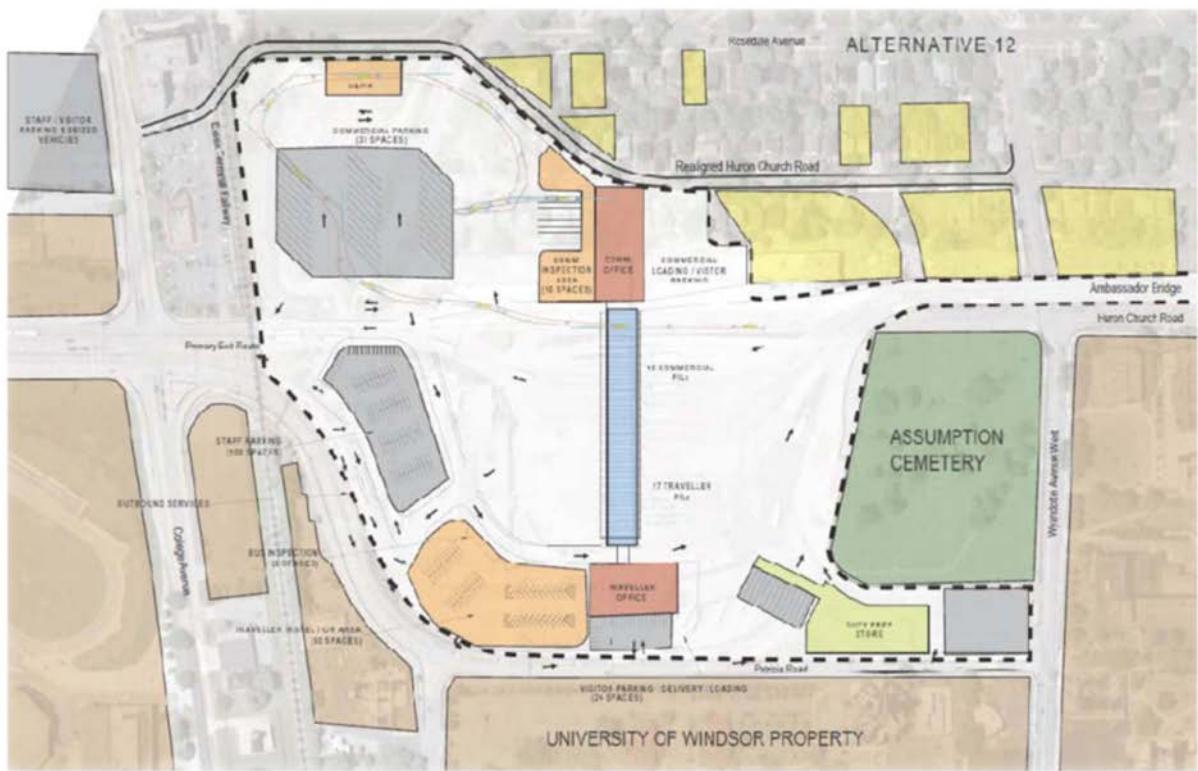
*Phase 2 - Relocation of Huron Church Road:* To implement improvements to the plaza facility as described in the *Canada Border Services Agency Ambassador Bridge Plaza Master Plan Study Report (July 2010)*, the next phase of the Project is expected to include the relocation of a section of Huron Church Road and modifications to Indian Road including new signalized intersections. Construction activities will also include municipal and private utility relocations, and road construction activities including the placement of asphalt, curbs, sidewalks, lighting and line painting.

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<sup>3</sup> Additional information and a detailed project description can be found in the *Ambassador Bridge Enhancement Project Environmental Impact Statement (Section 1.1 and Appendix B)* and *Technical Memorandum: Ambassador Bridge Enhancement Project Environmental Impact Statement Clarification (2013)*.

**Phase 3 – Plaza Facility Expansion:** Construction of a 77 293 m<sup>2</sup> expanded plaza facility to accommodate existing offsite secondary inspections. With the exception of municipal roads that will be decommissioned, the proposed plaza facility footprint is located within properties owned by the Proponent, bordered by Mill Street to the north, College Avenue to the south, Felix Avenue to the west, and Huron Church Road to the east. Construction activities will include: the decommissioning of local roads; construction of a storm water management facility to treat runoff; and, construction and paving of roads, processing and parking areas, construction of new Canada Border Services Agency facilities, and installation of lighting and fencing.

*Figure 3: Configuration of the Proposed Plaza Facility*



**Phase 4 – Rehabilitation/Construction of Approach:** To rehabilitate the approach to the existing Ambassador Bridge, a new approach will be constructed to tie into the existing bridge. This will allow traffic to continue its unimpeded flow through the facility during rehabilitation work. The new approach ramp will be permanent and is expected to connect to the replacement bridge once it is constructed. Construction activities will include excavation, pouring concrete shafts for support piers, and footing construction. Fourteen concrete piers on the Canadian side will be constructed, spaced at approximately 43 metre intervals.

**Phase 5 - Buffer and Green Space:** Approximately 21 257 m<sup>2</sup> of green space will be developed between the plaza facility and the adjacent community of Sandwich on the east side

of Indian Road between Wyandotte Street and Mill Street. This area will be re-planted using native grasses and tree/shrub species.

*Phase 6 - Main Span Construction:* A new six-lane cable-stayed bridge span will be constructed approximately 30.5 metres west of the centre line of the existing Ambassador Bridge span. The new bridge will be approximately 2 130 metres in length with approximately 670 metres traversing the Detroit River from tower to tower. The total width of the new replacement bridge will be approximately 31 metres and be a minimum of 46 metres in height above the Detroit River, with the same minimal clearance of the existing Ambassador Bridge. The Canadian tower will be approximately 178 metres above existing ground level and approximately 30.5 metres south of the Detroit River. Construction of the replacement span will include excavation down to the bedrock for the main tower construction. The Canadian main tower and a concrete deck will be suspended cables. Prior to the commencement of the operation phase, a final cleanup of construction activities and areas will be undertaken.

*Phase 7 - Operation and Maintenance:* Operations are anticipated to commence in 2015 and are expected to operate indefinitely. Once the new bridge is in operation, the Proponent has stated that the existing bridge will be taken out of service and maintained for use as a redundant resource for operational vehicles, emergency traffic and approved public events. Operation of the plaza facility will include border inspections and vehicle processing (using equipment such as VACIS). Maintenance activities during operations will include de-icing in winter months as required, management of storm water, bridge and infrastructure repair as required, and maintenance of security and perimeter controls.

Daily operations of the Project will be dominated by the flow of international traffic. For the purposes of this environmental assessment, traffic forecasts developed for the DRIC project were used by the Proponent to generate a reasonable future traffic demand scenario. As part of the environmental assessment process for the DRIC project, traffic forecasts and analysis were undertaken on the Ambassador Bridge traffic corridor as part of an overall regional and cross border future traffic scenario until 2035. It is these traffic forecasts and analyses that the Proponent chose to use for the purpose of this environmental assessment.

An anticipated worst case scenario for traffic volumes in the Ambassador Bridge corridor (year 2030) was established by the proponent by combining the predicted volume (16 205 000 vehicles) of traffic at the Ambassador Bridge using the DRIC no-build scenario<sup>4</sup>, with the number of vehicles from other crossings that the new six-lane DRIC crossing was predicted to attract (266 000 vehicles). As a result, a total of 16 471 000 vehicles are anticipated to use the

---

<sup>4</sup> The DRIC no-build scenario is considered in the “Detroit River International Crossing Study Travel Demand Forecasts” (September 2005) and was completed as part of the DRIC harmonized environmental assessment. This document established the year 2030 total cross border unconstrained travel demand and the profile of that total volume distributed among the existing crossings in the regions, which included the Ambassador Bridge corridor.

Ambassador Bridge corridor in the year 2030. Although total capacity at the Ambassador Bridge crossing could be much higher, potentially reaching 40 million vehicles in six-lanes of traffic annually<sup>5</sup>, the volume of 16 471 000 is reasonably considered to be the upper bound for cross border traffic demand.

### **3.0 Scope of the Environmental Assessment**

#### **3.1 Factors to be Considered**

Pursuant to subsection 16(1) of the Act, the following factors must be considered as part of a screening:

- a) The environmental effects of the Project, including the environmental effects of malfunctions or accidents that may occur in connection with the Project, and any cumulative environmental effects that are likely to result from the Project in combination with other projects or activities that have been or will be carried out;
- b) The significance of the effects;
- c) Comments from the public that are received in accordance with the Act and the regulations;
- d) Measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the Project; and,
- e) Any other matter relevant to the screening, such as need for the Project and alternatives to the Project that the responsible authority may require to be considered.

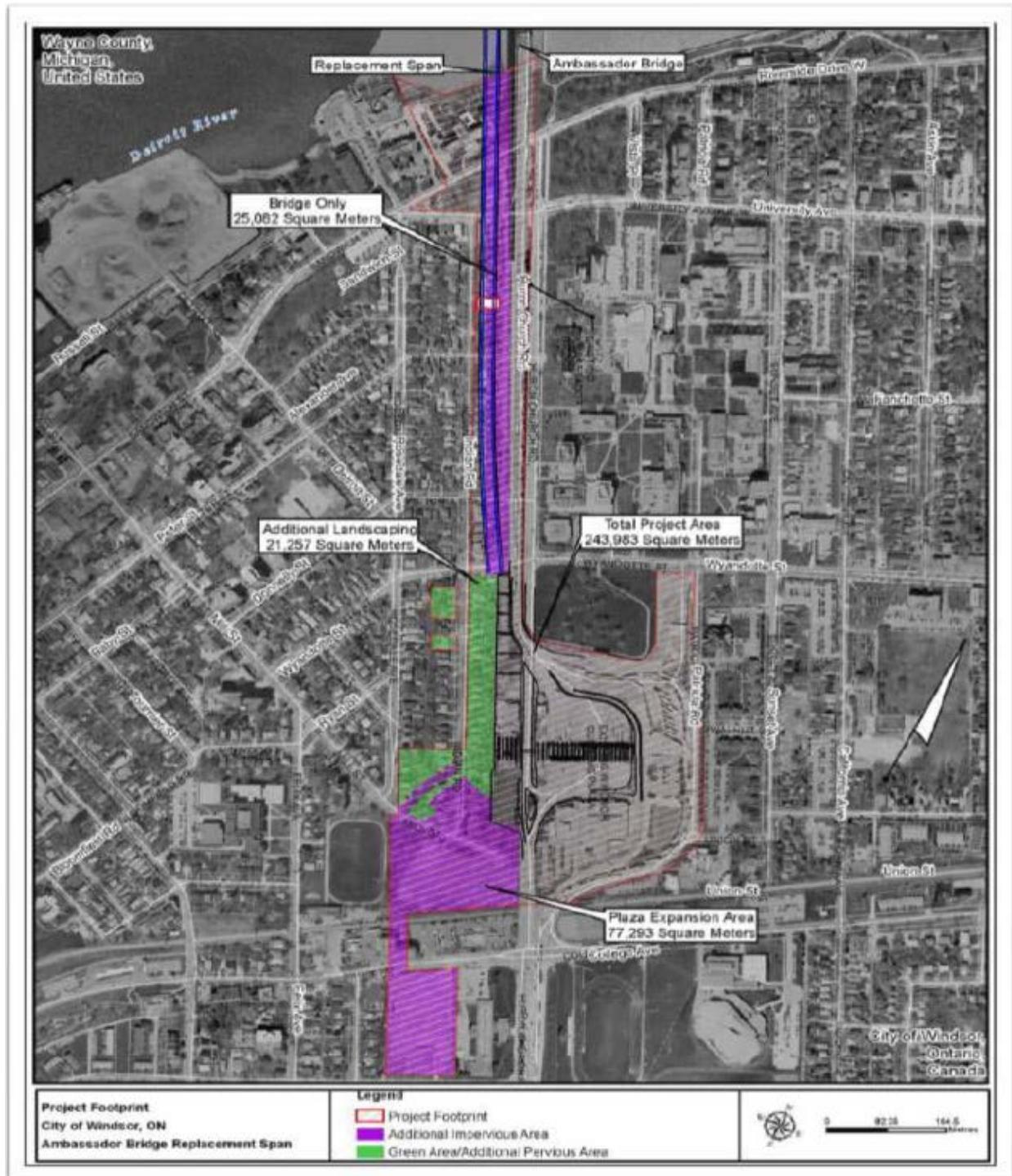
In accordance with paragraph 16(1)(e) of the Act, Transport Canada and the Windsor Port Authority determined that the assessment would also include: consideration of the purpose, need and benefits of the Project; a description of alternatives to the Project and an analysis of alternative means of carrying out the Project; and, information concerning potential socio-economic effects<sup>6</sup>.

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<sup>5</sup> As described in Sam Schwartz Engineering Peer Review prepared on behalf of the City of Windsor.

<sup>6</sup> As described in Table 1 of the Revised Federal Environmental Assessment Guidelines.

*Figure 4: Project Area and Components*



*Source: Ambassador Bridge Environmental Impact Statement*

### 3.2 Scope of the Assessment

The responsible and prescribed authorities, in consultation with the federal review team, established the scope of the environmental assessment to include the potential environmental effects, including cumulative effects, on the following components:

- Air quality and climate including potential transboundary effects
- Surface water and groundwater, including water levels and flows in the Detroit River, in relation to any construction activities that may take place from the water
- Surface and subsurface geology and soils
- Vegetation, vegetation communities and wetlands
- Fish and fish habitat
- Wildlife and wildlife habitat, including migratory birds
- Species at risk, including those species listed under the *Species at Risk Act*
- Noise and vibration
- Contaminated sites and waste management
- The effects of any change that the Project may cause within the natural environment, including: human health and socio-economic factors; physical and cultural heritage; current use of lands and resources for traditional purposes by Aboriginal peoples; and things of historical, archaeological, paleontological or architectural significance

The environmental effects of the Project on navigation are taken into consideration as part of the environmental assessment only when the effects are indirect, that is, resulting from a change in the environment affecting navigation. No such indirect environmental effects on navigation were identified during this assessment. Any measures necessary to mitigate direct effects will be included as conditions of a *Navigable Waters Protection Act* approval and a permit issued by the Windsor Port Authority pursuant to the *Port Authorities Operations Regulations* prior to construction of the new replacement bridge span.

### 3.3 Temporal and Spatial Boundaries

Temporal and spatial boundaries used in this environmental assessment were established for environmental and cumulative effects in relation to the construction and operation phases of the Project.

The environmental effects analysis for construction assumed Project construction phases 1 through 6 would be undertaken within the same twenty-four to thirty-six month timeframe to reflect a construction scenario with the highest amount of impacts. It is anticipated that construction will be complete in 2015.

Operation of the replacement bridge and expanded plaza facility are considered to operate indefinitely commencing in 2015. For the purpose of the environmental effects analysis, a

temporal boundary of 2025 was selected to reflect ongoing Project operations. Decommissioning was not proposed by the Proponent.

The spatial boundaries established for each environmental component encompass the geographic extent over which the Projects effects are expected to be measurable. These included the site study area (project footprint), local study area (areas adjacent to the project), and regional study area (Windsor-Essex region). Spatial boundaries were defined taking into account ecological, technical and social considerations.

The total project footprint, including existing infrastructure, is approximately 243 980 m<sup>2</sup> in size. The footprint of the new bridge is approximately 25 081 m<sup>2</sup> in size. The footprint of the expanded portion the plaza facility, excluding footprint of the existing plaza facility, is approximately 77 293 m<sup>2</sup> in size. The proposed green area along Indian Road is approximately 21 257 m<sup>2</sup> in size. The entire Project will create approximately 48 173 m<sup>2</sup> of impervious area and 21 257 m<sup>2</sup> of green area.

#### **4.0 Other Considerations**

Paragraph 16(1)(e) of the Act allows the responsible and prescribed authorities to include consideration of “any other matter relevant to the screening … that the Responsibility Authority may require to be considered.” Pursuant to paragraph 16(1)(e) of the Act, the responsible and prescribed authorities requested the Proponent consider<sup>7</sup>:

- the purpose of the Project, the need for the Project and the benefits of the Project;
- a description of alternatives to the Project, as well as an analysis of alternative means of carrying out the Project; and,
- in response to public comments received on the Federal Environmental Assessment Guidelines (August 2007), a consideration of ‘direct’ socio-economic effects.

In requesting this information from the Proponent, Transport Canada and the Windsor Port Authority referred to the Operational Policy Statement issued by the Canadian Environmental Assessment Agency. This document states that the ‘need for’ and ‘purpose of’ the Project should be established from the perspective of the Proponent and provide the context for the consideration of alternatives. It further states that ‘alternatives to’ should be established in relation to the Project need and purpose, and again, from the perspective of the Proponent. Analysis of the ‘alternatives to’ should serve to validate that the preferred alternative is a reasonable approach to meeting the need and purpose and is consistent with the aims of the Act.

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<sup>7</sup> The request to consider these factors in the assessment was included in order to help to establish the conditions under which certain effects may or may not be justified under the circumstances, should such a determination subsequently be required.

#### **4.1 Purpose, Benefit, and Need**

The Proponent has stated that the purpose and intended benefit of its Project is: to preserve and improve the Ambassador Bridge structure; to facilitate the movement of vehicles and ensure the continued free flow of goods between Canada and United States; to upgrade efficiency through the provisions of FAST/NEXUS lanes; and, to meet current highway standards.

The Proponent has identified that the need for the Project is based on the importance of the continued operation of the Ambassador Bridge corridor and flow of international trade between Canada and the United States. The new replacement bridge will allow the Ambassador Bridge corridor to retain, and more efficiently and safely service, the vehicles crossing the Ambassador Bridge.

Additional information about purpose, need and benefits can be found in the *Environmental Impact Statement* (Section 1.2).

#### **4.2 Alternatives To and Alternative Means**

A total of four alternatives to the Project were considered by the Proponent. These were examined in terms of their capacity to satisfy travel and freight transport demands and improve safety.

1. A “do nothing” scenario
2. Other corridor alternatives
3. A tunnel alternative
4. Alternative modes of transportation

However, these alternatives were deemed by the Canadian Transit Company to be less preferable than the proposed Project as they did not fully achieve the purpose and need of the Project. From the perspective of the Proponent, the construction of a replacement bridge provides all of the advantages of structural redundancy and improves efficiency while enhancing motorist safety.

Alternative means of carrying out the Project were also considered by the Proponent, including alternatives to the preferred alignment of the bridge and plaza facility configuration. Alignment alternatives included construction on the same centreline as the existing alignment, east of the existing alignment, and west of the existing alignment. The six-lane cable stayed replacement bridge on the western alignment was selected by the Proponent as the preferable alternative as it was found to provide the most benefits while having the least impact. In addition, the Proponent concluded that the westerly alignment moves 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.

Additional information about the consideration of alternatives to and alternative means can be found in the *Environmental Impact Statement* (Section 1.2).

#### 4.3 Direct Socio-economic Considerations

The *Canadian Environmental Assessment Act* defines ‘environmental effect’ to include, with respect to a project, any effect of any change that the project may cause in the environment on health and socio-economic conditions, physical and cultural heritage, the current use of lands and resources for traditional purposes by Aboriginal persons, or any structure, site or thing that is of historical, archaeological, paleontological or architectural significance. Consideration of these effects has been included in the environmental effects analysis in section 6.0 of this report.

In response to public comments received on the Federal Environmental Assessment Guidelines, including those received on behalf of the City of Windsor, the responsible and prescribed authorities also required the Proponent to consider direct socio-economic effects. The *Environmental Impact Statement* (Section 7.6) provides a description of anticipated effects on residential, commercial, industrial, and recreational land uses as a result of the construction and operation of the proposed Project and includes: changes to traffic patterns and increased traffic on Indian Road; changes to pedestrian access; changes to land uses and zoning; and, temporary interruptions to recreational fishing during construction of the replacement bridge over the Detroit River.

In addition, the following potential direct socio-economic effects were raised during the public participation period on the draft screening report:

- Economic changes for residential and business properties within the community of Sandwich;
- Additional changes to regional (international trade) and local traffic patterns;
- Land use planning changes in the community of Sandwich;
- Changes in the character and cohesion of adjacent communities;
- Changes in the historic value of the designated historical district of Old Sandwich Towne; and,
- Changes to municipal infrastructure including maintenance and capacity requirements.

In response to the comments received during the public participation period, the Proponent has committed to carrying out the following consultation activities during project planning and construction:

- Engage with the City of Windsor regarding local infrastructure and land use planning requirements, including development within the Historical District of Sandwich Towne, as required.
- Implement a Community Consultation Plan including a community advisory committee to improve the aesthetic nature of the Project and ensure maintenance of existing connectivity, particularly for pedestrians, between the community of Sandwich and the University of Windsor.

## **5.0 Assessment Approach**

The environmental assessment was conducted to determine whether the Project as proposed is likely to cause a significant adverse environmental effect. This included establishing existing environmental conditions, potential environmental interactions, adverse environmental effects, feasible environmental mitigation measures and determining the likelihood and significance of residual adverse environmental effects.

### **5.1 Overview of Existing Conditions**

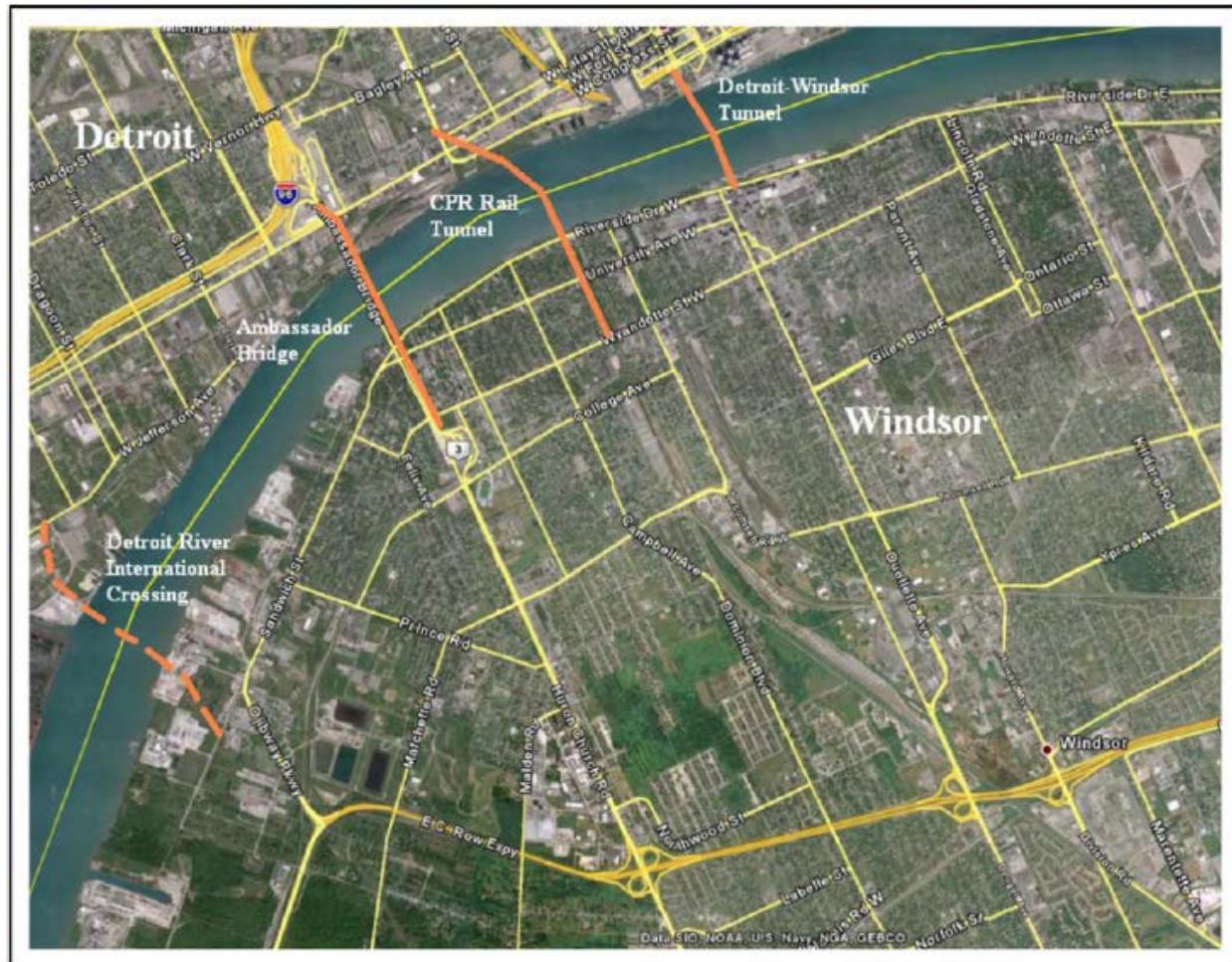
High volumes of traffic, including transport trucks, commonly access the Ambassador Bridge corridor from Ontario Provincial Highway 401, via Huron Church Road. Land adjacent to the existing Ambassador Bridge, plaza facility and along Huron Church Road is developed and used for residential, institutional, commercial and recreational purposes. These adjacent areas include Olde Sandwich Towne, which is one of the oldest settlement locations in Ontario with a cultural and architectural history that dates back to the 1700s. Also adjacent to the Project area is the University of Windsor, established in 1963.

The existing Ambassador Bridge is one of several border crossings located within the City of Windsor; an important gateway for cross border traffic and trade. Cross-border traffic results in increased vehicle emissions and noise localized along major corridors and routes, and in particular the existing Ambassador Bridge corridor. Regionally, reduced air quality events occur primarily as a result of transboundary contributions from the United States.

The Ambassador Bridge crosses the Detroit River which is part of the Great Lakes Seaway connecting Lake St. Clair to Lake Erie. The Detroit River is an important aquatic ecosystem, international shipping and recreational corridor, and a source of drinking water. Also important to the Project area is the presence of a breeding pair of peregrine falcons (*Falco peregrinus*) that have been nesting on the existing Ambassador Bridge since 2008.

Existing environmental conditions provided a baseline for the analysis of potential environmental effects. Detailed information on existing environmental conditions for each environmental factor can be found in the *Ambassador Bridge Enhancement Project Environmental Impact Statement* (Section 4.0).

Figure 5: Regional Map



## 5.2 Potential Project-Environment Interactions

Potential interactions between the construction and operation phase of the Project and the environment were identified. Although standard operational measures that would prevent interactions were considered at this stage, further analysis was undertaken in the assessment and additional mitigation measures were identified where interactions were likely to occur. Table 1 identifies potential Project-environment interactions that were assessed in the environmental effects analysis.

**Table 1: Summary of Potential Project-Environment Interactions**

<b>Project Phases</b>	Site Clearing	Relocation of Huron Church Rd	Plaza	Construct / Rehab Existing	Green Space	Main Span	Operation
Air Quality / Climate	•	•	•	•	•	•	•
Surface Water	•	•	•				•
Groundwater	•			•			
Detroit River water levels / flows							
Surface, Subsurface Geology / Soils	•	•	•	•	•	•	
Vegetation / Vegetation Communities	•		•	•	•		
Fish / fish habitat	•			•		•	•
Wildlife / habitat / migratory birds	•			•	•	•	•
Species at Risk				•		•	•
Noise / Vibration	•	•	•	•	•	•	•
Contaminated Sites / waste management	•	•	•	•	•	•	
<i>Effect of a change in the environment on:</i>							
Human health / socio-economic	•	•	•	•	•	•	•
Physical and cultural heritage	•			•		•	•
Current use of lands and resources by Aboriginal Peoples							
Things of historical, archaeological, paleontological or architectural significance	•		•	•	•	•	

### **5.3 Assessment of Environmental Effects**

Transport Canada and the Windsor Port Authority, in cooperation with other federal authorities, evaluated the Proponents' assessment of the Project's potential adverse environmental effects on the environmental components identified during the scoping stage of the assessment. The analysis of environmental effects was based on information and technical supporting documents prepared and provided by the Proponent, comments received during public consultation processes, and commitments made by the Proponent to implement mitigation monitoring and follow-up measures.

Mitigation measures were identified to reduce the overall impact of potential adverse environmental effects. Many of these measures are expected to be integrated into the project design or operational plans. The environmental effects remaining after the implementation of mitigation measures (i.e. the residual effects) were then evaluated taking into consideration criteria such as magnitude, duration, frequency, ecological context, geographic extent, and reversibility. A summary of the proposed mitigation and monitoring measures, and evaluation of the significance of residual adverse environmental effects is included in Appendix A.

A requirement for a follow-up program has been included in the assessment, to further monitor areas of the assessment where there may be some uncertainty about the magnitude of an environmental effect and the effectiveness of proposed mitigation measures (see Section 8.0).

## **6.0 Environmental Effects Analysis**

### **6.1 Air Quality and Climate**

Southern Ontario's climate is greatly influenced by the surrounding Great Lakes. The surrounding lakes cause increased precipitation throughout the year and moderate temperatures resulting in warmer temperatures in the winter, and cooler temperatures in the summer.

Existing baseline air quality conditions were determined by using air quality monitoring data collected from provincial and federal regulatory jurisdictions over a minimum five year period. Thirty-one pollutants of interest were analyzed using the 90th percentile concentrations to represent the background ambient air concentrations. Table 6.1 contains a list of all 31 pollutants that were analysed as part of the baseline air quality for the Project.

The baseline analysis revealed that the greatest existing air quality impacts occur around key intersection locations along Huron Church Road (within <150 metres) and decrease significantly with distance beyond that. Air quality monitoring results indicate that concentrations above the air quality criteria may occur at these locations for certain pollutants of interest ( $\text{NO}_x$ ,  $\text{PM}_{10}$  and  $\text{PM}_{2.5}$ ). The background concentrations for  $\text{PM}_{10}$  and  $\text{PM}_{2.5}$  represent 84% and 67% of the ambient air quality criterion. The remaining pollutants of interest are shown to be within provincial and federal air quality criteria.

**Table 2: Pollutants of Interest**

Group	Pollutants of Interest
Pollutants and Precursors	Carbon monoxide (CO), nitrogen oxides (NO <sub>x</sub> ) (include nitric oxide (NO) and nitrogen dioxide (NO <sub>2</sub> ) expressed and NO <sub>2</sub> ), sulphur dioxide (SO <sub>2</sub> ), particulate matter ≤ 10 microns ( $10^{-6}$ metres) in diameter (PM <sub>10</sub> ), particulate matter ≤ 2.5 microns ( $10^{-6}$ meters) in diameter (PM <sub>2.5</sub> ), volatile organic compounds expressed as non-methane hydrocarbons (NMHC)
Air Toxics	Benzene (C <sub>6</sub> H <sub>6</sub> ), acetaldehyde (CH <sub>3</sub> CHO), formaldehyde (H <sub>2</sub> CO), 1,3-butadiene (C <sub>2</sub> H <sub>4</sub> ), acrolein (C <sub>3</sub> H <sub>4</sub> O), benzo(a) pyrene, plus other polycyclic aromatic hydrocarbons (PAHs) listed below
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
Greenhouse Gases	Carbon dioxide (CO <sub>2</sub> ), nitrous oxide (N <sub>2</sub> O), methane (CH <sub>4</sub> )
Other	ground level ozone (O <sub>3</sub> )

The Revised Federal Environmental Assessment Guidelines established the future operating scenarios to be evaluated within the air quality assessment. These included:

- Current operation of existing Ambassador Bridge (recent 5-year period);
- Operation of existing Ambassador Bridge (recent 1-year period);
- Future (Do Nothing) operation of the existing Ambassador Bridge (year 2025);
- Operation of the existing Ambassador Bridge during construction of the Project (years 2013-2015);
- Operation of the replacement bridge at the completion of construction (years 2015, 2025); and
- Operation of the replacement bridge and the existing Ambassador Bridge<sup>8</sup> (year 2025).

Air quality effects during construction and operation of the Project were evaluated through the use of air dispersion modelling tools based on the *Air Dispersion Modeling Guide for Ontario*. Consistent with this guide, the U.S. Environmental Protection Agency CAL3QHCR model was used to evaluate vehicle emissions and road dust while the USEPA AERMOD model was used to evaluate construction activities. Emission vehicle factors used within the air dispersion model

<sup>8</sup> The *Environmental Impact Statement* notes that the American plaza facility, as currently configured, is unable to accommodate more than six lanes of international traffic as traffic lanes north of Fort Street in the City of Detroit are limited. Significant infrastructure modifications to the American plaza facility would require government approvals and a separate *National Environmental Policy Act* (NEPA) study in the United States. As a result, the Project will not be able to operate concurrently with existing Ambassador Bridge traffic operations.

were developed with MOBILE6.2C (a model developed by the U.S. Environmental Protection Agency and enhanced by Environment Canada), in combination with roadway fleet data and traffic data collected from the City of Windsor, the Proponent and the DRIC Project.

Based on modelled results<sup>9</sup>, environmental effects anticipated during the construction phase of the Project include the potential for an increase in PM<sub>10</sub> above the ambient air quality criterion during construction, mainly as a result of construction equipment emissions. Elevated amounts of dust in the site study area are also anticipated during construction. Idling and acceleration of vehicles related to traffic control lights and the potential for temporary detours may also be a contributor of elevated air quality impacts during construction. During operations, the air quality modelling results indicate that pollutants are anticipated to be within air quality criteria with the exception of PM<sub>10</sub>. Both the operational phase modelled for the year 2015 and the future operating scenarios of 2025 indicate that PM<sub>10</sub> will remain above the air quality criterion, in large part as a result of the baseline conditions accounting for 84% of the ambient air quality criterion.

Mitigation measures and monitoring measures will be implemented during the construction and operational phases of the Project. These will include:

- Best management practices for dust suppression and air emissions reduction from construction equipment during construction, including regular watering of stockpiles and water flushing entrances to construction zones.
- Review of the construction inventory prior to start of construction. Should a greater or lesser inventory of equipment (including barges) be required, the work hours may need to be adjusted accordingly. The contractor's most polluting heavy equipment (including barges) will be identified and used limited during smog advisories.
- Real-time air quality monitoring using Thermo Scientific SHARP model 5030 real-time monitors, during the construction phase and three years' post-construction for PM<sub>10</sub>, PM<sub>2.5</sub> and NO<sub>x</sub> (at minimum).
- A traffic management plan will be developed and implemented that includes construction haul routes, timing and equipment restrictions, alternative staging, delivery and other construction best management practices.
- Adaptive management strategies will be incorporated into an air quality follow-up program. For the construction phase, these may include reducing the extent of active work areas, improving training and awareness for operators. During operation, these may include a block queuing system and/or an anti-idling policy to ensure optimal traffic flow through the plaza facility.

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<sup>9</sup> Table 10 of the March 2013 *Environmental Impact Statement* provides a summary of maximum air quality concentration results.

Taking into account the application of the mitigation, monitoring, and follow-up measures Transport Canada and the Windsor Port Authority have concluded that the Project is not likely to cause a significant adverse environmental effect on air quality and climate. Additional information on air quality and climate can be found in the *Ambassador Bridge Enhancement Project Environmental Impact Statement* (Section 5.1).

## 6.2 Surface Water Quality and Quantity

The Detroit River is an international water body used for industrial, commercial, and recreational purposes and is the only water body within the site study area. Drainage from the existing four-lane Ambassador Bridge and from the plaza facility is directed to the City of Windsor municipal storm water collection system. Storm water from the system is treated and discharged into the Detroit River.

The Project will result in a permanent increase in storm water runoff and flow within the local study area as a result of the permanent increase in impervious surface area for the additional span and expansion of the plaza facility. During construction, an increase in the rate of storm water runoff is also anticipated as a result of the disturbance of soils and removal of vegetation.

Mitigation measures during the construction and operation phase of the Project will include development and implementation of an Erosion and Sediment Control Plan, a storm water management system, and best management practices for spills prevention and response.

Taking into account the application of the mitigation measures, Transport Canada and the Windsor Port Authority have concluded that the Project is not likely to cause a significant adverse environmental effect on surface water quality or quantity. Additional information on surface water can be found in the *Environmental Impact Statement* (Section 5.2).

## 6.3 Groundwater Quality and Quantity

Four aquifer systems are found in the regional study area of which three of these aquifer systems are present at the site of the Project. Recharge to all aquifers is mainly by infiltration of precipitation through the regional land surface. The water table in the area of the Project is estimated to be within 4 to 6 metres of the ground surface. Artesian groundwater conditions have been confirmed within the site study area.

During construction of tower and pier footings it is anticipated that artesian groundwater conditions may be encountered. In areas with artesian groundwater pressures, dewatering will be minimized by using controlled density drilling fluids for the installation of deep foundations. During operations of the Project groundwater aquifers will be allowed to return to pre-construction conditions except for localized changes in flow direction around the new foundation structures.

Taking into account the application of the mitigation measures, Transport Canada and the Windsor Port Authority have concluded that the Project is not likely to cause a significant

adverse environmental effect on groundwater quality or quantity. Additional information on ground water quality and quantity can be found in the *Environmental Impact Statement* (Section 5.3).

#### 6.4 Water levels and Flows in the Detroit River

The Detroit River flows approximately 51 km from Lake St. Clair to Lake Erie with an average flow of 5 182 m<sup>3</sup>/s. The ordinary high water mark elevation at the Ambassador Bridge is 175.4 metres above sea level. The watershed associated with the river drains more than 2 000 km<sup>2</sup>. The width of the Detroit River at the Ambassador Bridge is approximately 670 metres and the depth is approximately 18 metres.

No potential environmental effects have been identified that would result in a change to water levels or flows within the Detroit River. There will be no piers, cofferdams, pile driving, dredging, blasting, or any discharges of fill material into the Detroit River from the proposed Project. As a result, no changes in characteristics of the Detroit River as it relates to drainage patterns or natural ecological features of the river are anticipated. Storm water drainage from the new replacement bridge span and the plaza facility will be directed to the City of Windsor storm water system or a storm water facility constructed on site. Construction and operation of the six-lane new replacement bridge span will be designed to provide navigational clearances in accordance with U.S. and Canadian requirements.

Transport Canada and the Windsor Port Authority have concluded that the Project is not likely to cause a significant adverse environmental effect on water levels and flows in the Detroit River. Additional information on surface water quality and quantity can be found in the *Environmental Impact Statement* (Section 7.2).

#### 6.5 Surface and Subsurface Geology and Soils

Existing soil composition is primarily disturbed native soil amended with topsoil and historic fill materials characteristic of urban areas. Geology of the regional study area consists of 30- 40 metres thick unconsolidated deposits of predominantly glacial tills and lacustrine clays overlying marine sedimentary bedrock. No mineral mining sites are known within 2 kilometres of the site study area.

Site preparation, grading, and stockpiling will result in disturbance of the site study area geology and soils throughout the construction period. Mitigation measures will include, but not be limited to, the implementation of the Erosion and Sediment Control Plan. The plan will include best management practices such as re-vegetation of exposed soils.

Localized fracturing of the bedrock may occur during foundation construction. Grouting will be used if necessary in order to stabilize the soil and bedrock and control groundwater flows.

Taking into account the application of the mitigation measures, Transport Canada and the Windsor Port Authority have concluded that the Project is not likely to cause a significant

adverse environmental effect on surface and subsurface geology and soils. Additional information on surface and subsurface geology and soils can be found in the *Environmental Impact Statement* (Section 5.4).

## 6.6 Vegetation and Vegetation Communities, including Wetlands

There are a few areas of natural and semi-natural vegetation in the site study area due to the urban location of the Project. McKee Park is located alongside the Detroit River approximately 210 m west of the proposed new replacement bridge span and is the only semi-natural in the general vicinity of the Project. Most of the local study area is landscaped with ornamental plantings. Trees within the site study area represent a combination of native and non-native species. Only three native tree species were identified as Carolinian trees including tulip tree (*Liriodendron tulipifera*), red oak (*Quercus rubra*) and white oak (*Quercus alba*). No wetlands are located within the local study area; the closest wetland area is Turkey Creek wetland which is located over 7.5 kilometres from the Project.

The Project will result in the clearing and removal of vegetation within the project footprint including in the area of the permanent support tower and piers, the plaza facility expansion and in other construction and staging areas. Mitigation measures will include implementation of a Tree Preservation Plan to retain, wherever possible, mature trees adjacent to Indian Road. Protected areas will be delineated prior to construction and no activities will be permitted in these areas. Any required vegetation removal will occur outside the growing season (spring/summer), where possible, to avoid the loss of wildlife and wildlife habitat. Green space areas, located on the east side of Indian Road between Wyandotte Street and Mill Street will be re-planted using only native species.

Taking into account the application of the mitigation measures, Transport Canada and the Windsor Port Authority have concluded that the Project is not likely to cause a significant adverse environmental effect on vegetation, vegetation communities and wetlands. Additional information on vegetation, vegetation communities including wetlands can be found in the *Environmental Impact Statement* (Section 5.5).

## 6.7 Fish and Fish Habitat

As part of the Great Lakes system, the Detroit River is a major fish corridor providing an ecosystem for a diversity of fish and other aquatic species including aquatic species listed on Schedule 1 of the *Species at Risk Act*<sup>10</sup>. Lake Sturgeon spawning habitat is also located within

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<sup>10</sup> Several aquatic species at risk and their critical habitat as listed on Schedule 1 under the *Species at Risk Act* have been identified in this reach of the Detroit River including: Channel Darter (*Percina copelandi*), Northern Madtom (*Noturus stigmosus*), Silver Chub (*Macrhybopsis storeriana*), Spotted Sucker (*Minytrema melanops*), Eastern Pondmussel (*Ligumia nasuta*), Kidneyshell (*Ptychobranchus fasciolaris*), Mapleleaf (*Quadrula quadrula*), Northern Riffleshell (*Epioblasma torulosa rangiana*), Rainbow (*Villosa iris*), Rayed Bean (*Villosa fabalis*), Round Hickorynut (*Obovaria subrotunda*), Round Pigtoe (*Pleurobema sintoxia*), Salamander Mussel (*Simpsonaias ambigua*), Snuffbox (*Epioblasma triquetra*) (RDIMS# 9082625).

the project area in the restoration area adjacent to McKee Park and is considered a sensitive fish habitat location and a contributing component to the health of the Detroit River. The Detroit River is the only watercourse within the study area.

The Project is a cable-stayed new replacement bridge span and will not result in any permanent structures in the Detroit River, along its banks, or below the high water mark. There will be no piers, shoreline alterations, cofferdams, pile driving, dredging, blasting, or any discharges of fill material into the Detroit River. However, during construction, project material will be delivered to the site via barges on the Detroit River. Barge spuds (anchoring) may result in temporary and limited increases to localized turbidity in the Detroit River.

Mitigation measures for surface water quality and quantity will be implemented to ensure that unanticipated effects on fish and fish habitat in the Detroit River do not result from land based construction activities. These mitigation measures will include implementation of an Erosion and Sediment Control Plan as well a standard 30 metre setback for all construction, maintenance and fuelling and storage activities. An emergency spills response and prevention plan will be implemented during construction and operation to ensure that any accidental spills are properly contained and managed.

Taking into account the application of the mitigation measures, Transport Canada and the Windsor Port Authority have concluded that the Project is not likely to cause a significant adverse environmental effect on fish and fish habitat. Additional information on fish and fish habitat can be found can be found in the *Environmental Impact Statement* (Section 5.6).

## 6.8 Wildlife and Wildlife Habitat

The wildlife habitats within, and surrounding the project footprint are adjacent to highly developed urban areas including the existing Ambassador Bridge, the University of Windsor, commercial and residential areas. Limited wildlife habitat within the local study area includes McKee Park, other open spaces and vegetated banks along the Detroit River. Twenty-eight mammal species have been recorded in the region including species commonly found in similar urban areas such as mice, squirrels, skunks, opossum, raccoons, common birds, and other species tolerant of humans.

Construction activities such as vegetation clearing and grubbing, the creation of staging areas and elevated noise and vibration levels are likely to result in the permanent removal of local urban wildlife habitat and the displacement of wildlife within the project footprint, and have the potential to disturb, destroy or take migratory bird nests or eggs. Potentially disruptive activities, such as vegetation removal, will be avoided between May 1 and July 31 to the extent possible to mitigate potential effects and minimize harm to all wildlife including migratory birds that may be nesting in the Project area. If clearing or other activities that may have an impact on migratory birds are required between May 1 and July 31, non-intrusive searching methods will be conducted by a qualified avian biologist to determine if migratory bird breeding has started.

Taking into account the application of the mitigation measures, Transport Canada and the Windsor Port Authority have concluded that the Project is not likely to cause a significant adverse environmental effect on wildlife and wildlife habitat. Additional information on wildlife and wildlife habitat can be found can be found in the *Environmental Impact Statement* (Section 5.7).

## 6.9 Migratory Birds

More than 29 species of waterfowl, 17 species of raptors including the peregrine falcon and bald eagle, 31 species of shorebirds and 160 species of songbirds are found along or migrate through the Detroit River corridor. The area is a major corridor located in the middle of the Mississippi and Atlantic flyways. Approximately three million ducks, geese, swans, and coots migrate annually through this region. The Ontario Ministry of Natural Resources and the Michigan Department of Natural Resources recognize the Detroit River as having one of the highest diversities of avian species in the Great Lakes area. Over 300 bird species have been documented through numerous annual bird surveys, of which 150 to 160 are found to breed, nest or migrate throughout the Detroit River corridor. 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 anticipated that the construction and operation of the new replacement bridge span may result in some migratory bird collisions. The new replacement bridge span lighting will be designed to minimize collisions with migratory bird populations using the Detroit River as a flyway. This includes incorporating low intensity white strobe lights at the tops of the towers, and avoidance of red or yellow steady lights on the new replacement bridge span (which can disorient avian species). If coloured lighting is utilized to illuminate the cables, the Proponent will use lower intensity, lower wavelength lighting of blue, turquoise or green, pending final design criteria. The new replacement bridge span lighting will be focused in the downward direction to minimize the potential for night-time bird collisions with the bridge span.

Taking into account the application of the mitigation measures, Transport Canada and the Windsor Port Authority have concluded that the Project is not likely to cause a significant adverse environmental effect on migratory birds. Additional information on migratory birds can be found can be found in the *Environmental Impact Statement* (Section 5.7).

## 6.10 Species at Risk

In addition to aquatic species at risk identified in Section 6.7: *Fish and Fish Habitat*, a pair of peregrine falcons (*Falco peregrinus*) has been nesting on the existing Ambassador Bridge since 2008. The peregrine falcon is listed as threatened under Schedule 1 of the *Species at Risk Act* (2002). The peregrine falcon is also listed under the Ontario *Endangered Species Act* (2007) and is a Specially Protected Raptor under the Ontario *Fish and Wildlife Conservation Act* (1997), which prohibits hunting and trapping of the bird, and protects its nests and eggs.

Elevated noise and vibration levels during the construction phase of the Project as well as the close proximity of a number of people to the nest could displace and disrupt the peregrine falcons. The new replacement bridge span will be constructed approximately 6 metres from the existing Ambassador Bridge, with the nest located approximately 152 metres from the proposed tower pier location. Maintenance activities during the operation of the Project have the potential to disturb peregrine falcons if in close proximity to the nest, during nesting season.

A detailed Peregrine Falcon Management Plan will be implemented that includes environmental management practices, monitoring, and adaptive management strategies for the year round management of peregrine falcons in the project area. The plan will ensure that the peregrine falcons, including their annual brood, using the existing bridge are not adversely affected, disturbed, or discouraged from continued use of the nesting site and are not injured or killed. Two management zones around the nest site reflecting relative levels of peregrine activity have been identified. These spatial boundary management zones are defined as the restricted zone and the sensitive zone.

The restricted zone includes the nest site and extends 200 metres from the nest. The objective of the restricted zone is to minimize activities and limit excessive noise disturbances (10 dBA greater than ambient). No construction staging activities will occur within the restricted zone. If avoidance is not possible, the Proponent will ensure the duration of time spent on work activities that must be conducted during the nesting season will be minimized, by evaluating cost effective work shift alternatives. Activities that cause excessive noise disturbances (10 dBA greater than ambient), such as pile driving, will be limited in the restricted zone during the nesting season (approximately March 15 to July 31).

The sensitive zone is the area adjacent to the restricted zone and extends approximately 400 metres away from the nest. Human activities in this zone have less potential to cause noise disturbance because of the distance to the nest site. Activities will be minimized within the sensitive zone during the nesting season. For example, staging areas will be located outside of the sensitive zone wherever possible. Work associated with the plaza facility and roadway improvements are outside of the sensitive zone. The number of separate activities carried out within a short time period (i.e. one week) in the sensitive or restricted zone will be minimized during the nesting season. A qualified professional hired by the Proponent, in consultation with Ontario Ministry of Natural Resources and Environment Canada, will monitor the peregrine falcon behaviour during construction activities within or adjacent to the defined restricted and sensitive zones during the nesting season. If nest relocation is necessary, the chicks would need to be captured prior to the nest relocation. This would be proposed only as a last possible resort and only after any and all required permits were obtained. A nesting box/ledge will be located on the south-eastern side of the existing bridge in close proximity to the current nesting site to encourage a relocation of the peregrine falcons.

Measures will be taken by the Proponent to avoid or lessen any effects on the peregrine falcon and to monitor effects in a manner consistent with any applicable recovery strategy and action plans as required under subsection 79(2) of the *Species at Risk Act*.

Although the potential loss of nesting habitat for peregrine falcon was considered a potentially significant environmental effect, it was determined that this effect was of a low likelihood given the commitment to implement the above mitigation, monitoring and adaptive management strategies to ensure that these effects do not occur. Transport Canada and the Windsor Port Authority have concluded that the Project is not likely to cause a significant adverse environmental effect on species at risk. Additional information on species at risk can be found in the *Environmental Impact Statement* (Section 5.8).

#### 6.11 Noise

An assessment of noise was undertaken using the most recent applicable criteria for capital construction or alterations to provincial roads or highways in Ontario. These were developed by the Ontario Ministry of Transportation and are contained in the *Environmental Reference for Design: Noise Technical Requirements for Environmental Impact Study and Environmental Protection / Mitigation* (2006). Concerns have been expressed by local school boards with regards to noise levels on school property, and by local residents with regards to noise outside upper story bedroom windows and at heritage sites. These locations have also been treated as noise sensitive receptors as well as the ground level spaces specified in the Ontario Ministry of Transportation guideline documents.

Existing and future noise levels were modelled at 34 representative receptor locations adjacent to the project footprint in areas such as heritage sites, daycare facilities, schools, residential areas and a nursing home. Each of these receptor locations was considered representative of one or more receptors within the study area including more than 100 residential, institutional and heritage buildings. Noise levels were modeled under three different operating scenarios including: existing operations (baseline), future operations without the Project (no-build), and future operations with all traffic using the replacement bridge (the Project).

Existing (baseline) noise levels are presently above the Ontario Ministry of the Environment Provincial Objective of 55 dBA at most locations. Average daily noise levels range from 53–71 decibel A-weighting (dBA). Noise levels at the representative receptors near the plaza facility are generally dominated by truck traffic on Huron Church Road and other local roadways. Traffic using the bridge, particularly truck acceleration and braking, contribute to noise levels adjacent to the existing Ambassador Bridge.

Future operations (project no-build) noise levels are predicted to increase slightly (between 0–4 dBA at sensitive receptors) by the model year 2025. In comparison, the modelling for future operations with the Project (build) indicates noise level increases at 25 sensitive receptors ranging between 0–6 dBA. The implementation of roadside noise barriers as mitigation to reduce noise levels was also modelled as part the analysis. This modelling indicated that, for all

receptors, with the implementation of roadside noise barriers, no noise increases will exceed 3 dBA over the existing conditions. Noise differences of 3 dBA or less are generally considered to be not perceptible by the human ear.

Roadside noise barriers 3 metres in height will be installed along the west edge of the new replacement bridge span extending northwards from the existing noise barrier to a distance of approximately 120 metres north of Peter Street. The barrier will taper to 1.5 metres at this point but will maintain a height of 3 metres above the top of the road surface at the new replacement bridge span approach. A noise barrier of 5.5 metres in height will also be installed along the western extent of the plaza facility. Where possible, the noise barriers will be installed prior to construction to mitigate construction noise.

During construction, particularly during excavation, pile driving, and concrete pouring activities, noise levels are anticipated to increase. At any particular receptor the highest noise and vibration levels will likely occur when the nearest piers are being built. Pile driving activities are not expected to exceed a three month period at any given location.

Changes to local Traffic patterns on municipal roads in proximity to the Ambassador Bridge are not anticipated, with the exception of Indian Road and Huron Church Road. The closure of southbound lanes on Huron Church Road will reroute traffic to Indian Road, resulting in an increase from a daily average of 110 vehicles in 2010, to a pm hour peak of 772 vehicles. Although this will likely generate noise, it is anticipated that the installation of noise barriers as a component of the Project will block international traffic noise and mitigate the noise currently impacting this area.

Mitigation measures will include the development of a strategy for noise management as part of a Community Consultation Plan. This plan will be developed prior to construction and will include: measures to ensure that a Proponent representative will be accessible at all times; measures for coordinating with schools within 300 metres to create a mutually agreeable construction approach; and, signage and haul/delivery route designs to avoid residential neighbourhoods. In addition, best management practices will be implemented during construction to ensure that sound emissions from all construction equipment comply with *Noise Pollution Control Publication 115 of the Ontario Model Municipal Noise Control By-Law*. The most noise intensive construction activities will be limited to daytime hours to the greatest extent possible.

Taking into account the application of the mitigation measures, Transport Canada and the Windsor Port Authority have concluded that noise generated by the Project is not likely to cause a significant adverse environmental effect. Additional information on noise can be found in the *Environmental Impact Statement* (Section 5.9).

## 6.12 Vibration

Trucks traveling over the Ambassador Bridge can cause vibration in the bridge structure, particularly while passing over imperfections in the road surface. The measurements indicate that groundbourne vibration levels can be perceptible at distances up to approximately 40 metres 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.

Sound and vibration levels will be monitored during pile driving within 100 metres of the thirty-four identified sensitive receptors. If exceedances are found, reduced pile driving force and the construction of temporary noise barriers will be implemented.

A dynamic vibration study of the new replacement bridge span support structure will be undertaken for the Project to ensure that the piers and associated support structure will not radiate unacceptable levels of groundbourne vibration into the surrounding environment. To minimize the possibility of increased vibration levels, road upgrading will ensure a smooth road surface as possible. Expansion joints will be placed as far apart as feasible and will be constructed as close to flush as possible with the surface of the new replacement bridge span deck, minimizing the low frequency noise associated with traveling over the expansion joints during the operations phase.

Taking into account the application of the identified mitigation measures, Transport Canada and the Windsor Port Authority have concluded that vibrations caused by the Project are not likely to cause a significant adverse environmental effect.

Additional information on vibration can be found in the *Environmental Impact Statement* (Section 5.9).

## 6.13 Contaminated Sites and Waste Management

No areas of identified contaminated material have been found within the Project area nor are there any anticipated interactions between the Project and a contaminated site. Excess materials will, however, be generated during construction activities.

Mitigation measures will include best management practices for waste management such as: designated disposal areas for excess materials and non-contaminated materials will be reduced, reused or recycled to the greatest extent possible. Waste management procedures will be implemented during maintenance and operation of the Project to ensure proper management and disposal of waste in accordance with all regulatory requirements.

In the event contaminated materials (including soils or groundwater) are discovered, applicable procedures for dealing with these materials such as the Ontario Ministry of Environment's *Permit for Stockpiling of Contaminated Waste* will be adhered to. Immediate containment measures will

also be implemented to ensure that contaminants do not reach receiving water bodies either directly or indirectly.

Taking into account the application of the identified mitigation measures, Transport Canada and the Windsor Port Authority have concluded that the management of contaminated sites and waste for the Project is not likely to cause a significant adverse environmental effect.

Additional information can be found in the *Environmental Impact Statement* (Section 5.14).

#### 6.14 Human Health and Socio-economic Environment<sup>11</sup>

The existing Ambassador Bridge, as a tourist and trade gateway, is situated in an area that is a mix of residential, commercial, institutional and transportation land-uses. Residential areas within the community of Sandwich, McKee Park and institutional properties associated with the University of Windsor and Assumption University are situated immediately adjacent to the project footprint. Local area roads including Riverside Drive West and University Avenue West cross the project footprint and provide local connectivity for adjacent communities.

The Project will require changes to local traffic patterns including the redirection of non-international (local) traffic around the expanded plaza facility and the closure of the portion of Huron Church Road within the plaza facility. The Proponent may be required to obtain the necessary approvals from the City of Windsor and/or federal government in order to undertake changes to the local road network as well as the demolition of houses on residential properties.

The *Environmental Impact Statement* considered the potential effects of the Project on human health and the socio-economic environment that could be caused by Project-related air and noise emissions. In particular, during the public consultation process, concerns were raised related to potential effects on human health related to air emissions from traffic queuing and idling vehicles on the existing Ambassador Bridge. Mitigation for air quality will include the implementation of an air quality follow-up program that will monitor air quality during construction and the first three years of operations and evaluate block queuing and anti-idling policies as mitigation options. Mitigation measures for noise will include noise barriers and the development of a community consultation plan and traffic management plan that avoids using roads located within residential and heritage areas and includes detailed construction routes, site entrances and any traffic detours.

Taking into account the application of the mitigation measures, Transport Canada and the Windsor Port Authority have concluded that the environmental effects from the Project are not likely to cause a significant adverse environmental effect on human health or the socio-economic

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<sup>11</sup> Consistent with the definition of “environmental effect” in the Act, the environmental assessment included consideration of the effect of any change that the Project may cause in the environment on human health, and socio-economic factors, physical and cultural heritage, current use of lands and resources for traditional purposes by Aboriginal Peoples, and things of historical, archaeological, paleontological or architectural significance.

environment. Additional information can be found in the *Environmental Impact Statement* (Sections 5.10 and 5.13).

### 6.15 Physical and Cultural Heritage

Several designated historic structures, particularly in the community of Sandwich, provide unique visual elements largely associated with their age, architectural style and historic significance to the development of the community. A total of twenty-seven heritage sites are located within the regional and local study areas of the Project. These include Assumption University, Our Lady of Assumption Church, Assumption Park, and the Masson-Deck House.

No listed physical or cultural heritage sites have been identified within the project footprint and heritage sites will not be demolished or moved during construction of the Project. Mitigation measures, including hoarding to reduce the visual intrusion on the surrounding area and the development of haul routes that avoid residential and heritage areas, will be implemented during construction of the Project.

Transport Canada and the Windsor Port Authority have concluded that the environmental effects from the Project are not likely to cause a significant adverse environmental effect on physical or cultural heritage. Additional information on indirect environmental effects can be found in the *Environmental Impact Statement* (Section 5.11).

### 6.16 Current use of Lands and Resources for Traditional Purposes by Aboriginal Peoples

The site study area is highly urbanized and largely private property, and as a result it has been determined that there is no anticipated change to the current use of lands and resources for traditional purposes by Aboriginal peoples as a result of the Project. The Proponent has proposed to construct the replacement bridge without the placement of any piers within the bed of the Detroit River, an area of concern identified by Walpole Island First Nation during the early stages of the Proponent's public consultation.

Transport Canada and the Windsor Port Authority have concluded that the environmental effects from the Project are not likely to cause a significant adverse environmental effect on the current use of lands and resources for traditional purposes by Aboriginal peoples.

Additional information can be found in the *Environmental Impact Statement* (Section 5.16).

### 6.17 Things of Historical, Archaeological, Paleontological or Architectural Significance

A Stage I and II archaeological Assessment was completed by the Museum of Ontario - Archaeology for the Project area which included a review of the provincial database and the City of Windsor Archaeological Master Plan and indicated no registered archaeological sites exists within the local study area.

A subsequent Stage III archaeological assessment identified site AbHs-34 as a heritage resource located within the proposed footprint of the tower pier. Additional investigation will be required at this site as it is unlikely that archaeological site AbHs-34 can be avoided. Stage IV mitigation at this site will be employed prior to construction through consultation with the Ontario Ministry of Tourism, Culture, and Sport, Aboriginal communities, and other heritage stakeholders. Stage IV mitigation will be developed during final design and will likely include documenting and removing the archaeological site through excavation.

The Stage III archaeological assessment also identified site AbHs-30 within the local study area. The Walpole Island First Nation has expressed an interest in undertaking Stage IV mitigation in this site; however the proponent has indicated that the site will not be disturbed by construction activities. In the event that unanticipated construction activities are required in the vicinity of site AbHs-30, the proponent will consider Stage IV mitigation and consult with the Walpole Island First Nation, the Ontario Ministry of Tourism, Culture, and Sport, and other heritage stakeholders as appropriate.

Mitigation measures include construction monitoring by a licensed archaeologist. In the event that deeply buried archaeological deposits are found during construction activities, the Programs and Services Branch of the Cultural Programs Unit of the Ontario Ministry of Tourism, Culture, and Sport will be notified immediately.

Taking into account the application of the identified mitigation measures, Transport Canada and the Windsor Port Authority have concluded that the environmental effects from the Project are not likely to cause a significant adverse environmental effect on things of historical, archaeological, paleontological, or architectural significance.

Additional information can be found in the *Environmental Impact Statement* (Section 5.12).

## 6.18 Transboundary Effects

The Act requires consideration of any change that the Project may cause in the environment, whether any such change occurs within or outside Canada. Given that the Project is international in nature, and in close proximity to the international boundary with the United States, the potential for transboundary effects in relation to air quality and water quality were considered in the analysis of potential environmental effects. It was subsequently determined that after taking into account the appropriate mitigation measures; the residual effects are likely to be limited in geographical extent and would not likely cause any impacts on transboundary areas. An environmental assessment is required by the U.S. Coast Guard and will address potential effects occurring in the United States.

Taking into account the application of the mitigation measures identified for air and water quality, Transport Canada and the Windsor Port Authority have concluded that the environmental effects from the Project are not likely to cause a significant adverse environmental effect on

transboundary areas. Additional information on transboundary environmental effects can be found in the *Environmental Impact Statement* (Section 5.17).

## 6.19 Accidents and Malfunctions

Accidents and malfunctions that may result in unanticipated adverse environmental effects were considered in the environmental assessment and included:

- Hydrocarbon and other dangerous goods spills
- Traffic accidents
- Accidental sediment and storm water discharge
- Fires and explosions

Potential oil and other lubricant spills and releases could occur during the operation and refueling of heavy equipment during construction or during operations as a result of vehicle collisions. Any accidental release of deleterious substances into the Detroit River following a spill may degrade water quality and fish habitat and result in direct or indirect mortality of fish.

Although the transportation of dangerous goods across the existing Ambassador Bridge is not currently permitted in the U.S., a proposal to reduce restrictions and provide a corridor route through the City of Detroit is currently under consideration by American authorities. As a result, the environmental assessment included consideration of potential accidents involving dangerous goods in the analysis. In Canada, there are currently no restrictions for transport dangerous goods through the Ambassador Bridge corridor under the *Transportation of Dangerous Goods Act*.

Mitigation measures to avoid or minimize effects from spills include implementation of a spill prevention protocol and response plan, the development of a storm water management system, and restrictions on refueling and maintenance activities within a 30 metres proximity to the Detroit River. American authorities are also considering the use of escort vehicles as an additional measure to reduce the risk of accidents. In the event of an accident, emergency response agencies in both the U.S. and Canada may be contacted to assist in a response.

With the implementation of the spill response procedures and the storm water management system, designed in consultation with the City of Windsor and Environment Canada, Transport Canada and the Windsor Port Authority have concluded significant effects resulting from accidents and malfunctions are not likely to occur. Additional information on accidents and malfunctions can be found in the *Environmental Impact Statement* (Section 3.4)

## 6.20 Effects of the Environment on the Project

The Project will be engineered and constructed in accordance with applicable legislative standards that reflect such conditions as wind, snow, seismic, thermal and all other forces. Although unlikely, and depending on the timing of certain construction activities, ice jams in the Detroit River could prohibit the use of barges during construction at certain times of the year.

Severe and extreme weather events may result in delays in the construction of the Project, or reduce traffic operations for a limited period, however no other effects on the Project as a result of the environment are anticipated.

There is a history of salt mining in the regional study area that has contributed to some surface settlement; however the City of Windsor Official Plan indicates that there are no mineral mining sites within 2 kilometres of the site study area and the site specific geotechnical investigation concluded that no historic salt mining activity occurred within the site study area.

Transport Canada and the Windsor Port Authority have concluded that effects of the environment are not likely to cause significant adverse environmental effects on the Project. Additional information on effects of the environment on the Project can be found in the *Environmental Impact Statement* (Section 7.3.1.2 and 7.3.1.11).

## **7.0 Cumulative Effects Assessment**

### **7.1 Approach**

Section 6.0 of the *Environmental Impact Statement* includes the cumulative effects assessment, as prepared by the Proponent. As required by the Federal Environmental Assessment Guidelines, the cumulative effects assessment was scoped to focus on the identified residual environmental effects of the Project when considered in association with environmental issues of regional concern, and the effects of past, present, and reasonably foreseeable actions or projects that have been or will be carried out in the region.

The temporal and spatial boundaries for determining cumulative effects were established consistent with the Federal Environmental Assessment Guidelines. The analyses included present day conditions, the construction period of the Project, and the future operation phase of the Project to the year 2025. Spatial boundaries were defined as the Windsor-Essex region, within which the potential exists for any past, present, and reasonably foreseeable projects or activities to interact with the Project to create a cumulative effect.

The cumulative effects assessment considered the potential for the identified residual environmental effects on air quality, noise, migratory birds, human health and the socio-economic environment to act cumulatively with the potential environmental effects of past, present and future activities and projects that may overlap spatially and/or temporally with the Project. Specific consideration was given to the projects listed in section 7.2 of this report.

### **7.2 Past, Present, and Reasonably Foreseeable Future Projects**

Past, present and reasonably foreseeable future projects and activities were identified for consideration in the assessment of cumulative effects. These projects and activities included:

- the American portion of the Ambassador Bridge Enhancement Project;
- the DRIC project;
- the Windsor Central Riverfront Implementation Plan – Segment 4: Canal and Marina Project;
- the Windsor Family Aquatics Complex;
- the Malden Road Transportation, Public Safety, and Urban Design Improvement Project;
- the multi-use trail on Quality Way from Jefferson Boulevard to Lauzon Parkway; and,
- the commercial and residential land redevelopment in Olde Sandwich Towne.

### **7.3 Air Quality**

Existing air quality in the region is largely influenced by local and long-range (cross border) contaminants generated in existing upwind urban and industrial areas. The predominant wind directions in Windsor are from the west to southwest, which brings atmospheric contaminants from the Midwest United States, the heavily industrialized areas of the Detroit area and nearby communities. Predicted annual Project air emissions represent 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. The measures identified for mitigating and monitoring air quality, including the implementation of the follow-up program and traffic management plan, will further ensure that the Project is not likely to cause a significant contribution to regional air quality issues.

### **7.4 Noise**

Construction may result in temporary increases to noise in the regional study area. It is likely that construction vehicles for the Project using haul routes within the City of Windsor may increase the overall number of construction vehicles on these routes. It is anticipated that some construction traffic will originate from the United States and not require use of the regional road network in the City of Windsor. These impacts may interact with other projects in the study area, however, with the implementation of noise mitigation for the operational phase, these impacts are expected to be limited to the construction phase. The Proponent has committed to preparing and implementing a detailed traffic management plan to mitigate these effects, which will avoid using roads located within residential and heritage areas and include detailed construction routes, site entrances and any traffic detours.

### **7.5 Migratory Birds**

The Project has the potential to contribute to the regional loss of avian species through collisions with structures including with the DRIC project and the existing Ambassador Bridge. As collisions with the existing Ambassador Bridge are not known to result in the death of an inordinate number of birds, it is not anticipated that the construction of the Project will result in any significant increase in bird collisions. However, some increases are anticipated as a result of the increased height of the new replacement bridge span. Lighting strategies that reduce the potential for nocturnal bird collisions will be implemented as part of the Project.

## **7.6 Human Health and the Socio-economic Environment**

Cumulative effects related to human health and other socio-economic factors as a result of air emissions from traffic are of concern in the regional study area. The measures identified for mitigating and monitoring air quality, including the implementation of the follow-up program and traffic management plan, will further ensure that the Project is not likely to cause a significant contribution to regional air quality issues. The Proponent is also committed to developing and implementing a community consultation plan, to include a summary of planned public open houses and a public complaints resolution strategy. Regional planning requirements, including approvals from the City of Windsor, are expected to ensure that direct cumulative effects on human health and other socio-economic factors are considered.

## **7.7 Conclusion on Cumulative Environmental Effects**

Taking into account the implementation of the proposed mitigation, monitoring, and follow-up measures, Transport Canada and the Windsor Port Authority have concluded that significant adverse cumulative environmental effects related to the Project are unlikely to occur. Additional information on cumulative effects can be found in the *Environmental Impact Statement* (Section 6.0).

# **8.0 Monitoring and Follow-up**

## **8.1 Roles and Responsibilities for Monitoring and Follow-up**

Transport Canada and the Windsor Port Authority have overall responsibility to ensure that the mitigation measures they have taken into account in the determination of the significance of effects are implemented. The Canadian Transit Company, as the Proponent, is responsible for the implementation of mitigation measures, monitoring programs, and the conduct of required follow-up, as described in this screening report and its appendices. In addition, where federal regulatory processes exist for a specific environmental component, mitigation measures, monitoring, and follow-up requirements may be specified in the terms and conditions of the federal regulatory instruments.

Transport Canada will be responsible for the follow-up program and for arranging for the review of the results submitted by the Proponent on the follow-up program. As reports are submitted, Transport Canada, in consultation with the Windsor Port Authority, will determine if:

- the follow-up program as implemented is meeting the stated objectives;
- the effects are occurring as predicted and summarized in the screening report;
- the follow-up program requires amendment to adapt to changes in the Project or differences in the observed environmental effects; and,
- the Proponent is required to implement additional adaptive management measures to achieve acceptable environmental effects.

In conducting this review, Transport Canada may request expertise from expert federal authorities, including Environment Canada and Health Canada.

Specific details of the monitoring programs and management plans will be defined by the Proponent during the pre-construction period of project design. The Proponent is expected to conduct the necessary consultation with experts and stakeholders, prior to finalizing and submitting these documents to Transport Canada

Monitoring program and management plan details relevant to the federal environmental assessment scope will be submitted to Transport Canada for review and approval before Project construction activities that could adversely affect monitoring results commence.

Details on the monitoring programs, management plans, and follow-up program to be completed by the Proponent, are further described in the following sections.

## 8.2 Compliance Monitoring and Training Program

A Compliance Monitoring and Training Program will be developed by the Proponent to ensure the effective implementation of Project related mitigation and best management practices. This program will include:

- A comprehensive approach to compliance monitoring and reporting to ensure effective and efficient resolution to any compliance issues during construction. This will include the development of a daily log sheet consistent with mitigation requirements which will be provided to Transport Canada upon request and on a monthly basis.
- A comprehensive training program for staff and contractors to become familiar with required mitigation and Project environmental sensitivities.
- A plan to adhere to all relevant environmental legislation and regulations.
- A requirement for a quarterly Compliance Monitoring and Training Program report to be provided to Transport Canada.

A draft Compliance Monitoring and Training Program will be submitted to Transport Canada and the federal review team a minimum of six weeks prior to construction for review and approval.

As noted above, the Canadian Transit Company will be required to submit a Compliance Monitoring and Training Program report recording the status of the implementation of the mitigation measures outlined in Appendix A on quarterly basis during the construction period. This can be done using Appendix C: Example Environmental Assessment Monitoring Table, or another format acceptable to Transport Canada. Compliance Monitoring and Training Program quarterly reports will also include:

- A summary of environmental inspection activities, construction activities and site conditions.

- A list of implemented mitigation measures with an explanation of any changes or adjustments including any additional mitigation or adaptive management strategies.
- Photographs of key mitigation measures with a description, location as well as the date and time of the photograph.
- Photographs of any non-compliance issues with a description, location as well as the date and time of the photograph. The description should include information with regards to how the issue was resolved.

### 8.3 Construction Noise Management Plan

A construction noise management plan will be developed by the Proponent to include a strategy for noise management during construction and a communication process for noise complaints. It is expected that the Proponent will conduct the necessary consultation with experts and stakeholders to finalize the noise management plan, and will subsequently submit the plan to Transport Canada a minimum of six weeks prior to construction for review.

In addition, the Proponent has indicated it will also incorporate measures for noise avoidance and reduction in the development of the traffic management plan, which will incorporate hauls routes that avoid residential and heritage area roads.

### 8.4 Detailed Peregrine Falcon Management Plan

A detailed Peregrine Falcon Management Plan will be finalized in consultation with Transport Canada, the Windsor Port Authority, Environment Canada, and the Ontario Ministry of Natural Resources. The plan will ensure that the peregrine falcons, including their annual brood, using the existing bridge are not adversely affected, disturbed, or discouraged from continued use of the nesting site and are not injured or killed. This plan is expected to include the following components:

- A summary of any construction activities proposed during the breeding season within the restricted or sensitive zones.
- A summary of mitigation, monitoring and training required for construction work within the restricted and sensitive zones.

The Proponent will be required to report annually on the implementation of the detailed peregrine falcon management plan. This report is to be submitted to Transport Canada and Environment Canada on or before December 31<sup>st</sup> for each year of construction, and for the first year of operation. This monitoring report is to include:

- A summary of monitoring activities, construction activities and general site conditions.
- A list of implemented mitigation measures with an explanation of any changes or adjustments including any additional mitigation or adaptive management strategies.
- Photographs of key mitigation measures with a description and location, as well as the date and time of the photograph.

- Photographs of any non-compliance with a description and location, as well as the date and time of the photograph. The description will include information with regards to how the issue was resolved.

It is expected that the Proponent will conduct the necessary consultation with experts and stakeholders to finalize the detailed peregrine falcon management plan. The Proponent will submit the plan to Transport Canada a minimum of six weeks prior to construction for review.

## 8.5 Air Quality Follow-up Program

In addition to the monitoring programs identified during the environmental assessment process, Transport Canada requires the Proponent to implement an air quality follow-up program. This follow-up program has been required by Transport Canada and the Windsor Port Authority to:

- verify the prediction of environmental effects identified;
- determine the effectiveness of mitigation measures in order to modify or implement new measures where required;
- support the implementation of adaptive management measures to address previously unanticipated adverse environmental effects; and,
- provide information on environmental effects and mitigation that can be used to improve and/or support future environmental assessments, including cumulative effects assessments.

The description of the follow-up measures described in this section are provided at a general level of detail, and will be documented in greater detail in the follow-up program to be submitted by the Proponent. The follow-up program is expected to:

- establish the roles and responsibilities of participants for the program duration;
- establish thresholds that will trigger immediate reporting;
- identify reporting mechanisms in the event of exceedances;
- identify adaptive management options;
- describe a consultation process to determine the need for and timing of adaptive management measures; and
- include requirements for quarterly and annual summary monitoring reports, that will:
  - describe implemented mitigation measures including photographs of key mitigation;
  - describe all monitoring activities and the results of real-time monitoring data; and
  - discuss the implementation of any adaptive management measures including any proposed changes to the follow up program.

It is expected that the Proponent will conduct the necessary consultation with experts and stakeholders, including Transport Canada, Environment Canada, and the Canada Border Services Agency, to finalize the air quality follow-up program. The Proponent will submit the plan to Transport Canada a minimum of six weeks prior to construction for review.

Once finalized, the Proponent will be responsible for implementing the follow-up program requirements and reporting the results to Transport Canada during construction and for a period of three years after the Project has commenced operation. Environment Canada and the Canada Border Services Agency will provide advice, as requested, on the implementation and results of the program.

#### *Traffic Management Plan*

As part of the Proponent's commitment to air quality, it has committed to developing a traffic management plan for the Project, which will provide a comprehensive approach to managing general traffic and construction traffic (including barge traffic) during the construction phase of the Project. This plan will be submitted to Transport Canada and the Windsor Port Authority a minimum of six weeks prior to construction, and is expected to include:

- an analysis of anticipated traffic delays;
- a process to notify the public of any anticipated traffic delays;
- mapping of construction haul routes;
- design drawings for any proposed detours; and
- a plan for barge work.

It is expected that the Proponent will conduct the necessary consultation with experts and stakeholders, prior to finalizing the traffic management plan.

#### *Adaptive Management*

The Proponent will ensure that the principles of adaptive management are incorporated into the monitoring and compliance program and the follow-up program for air quality to ensure that the most effective mitigation is implemented and is responsive to unanticipated or accidental events or activities. The responsible and prescribed authorities may require, throughout the course of the Project, additional mitigation measures or modification of mitigation measures to address any unanticipated environmental effects.

In the event that modifications to the Project are proposed by the Proponent that were not assessed as part of this environmental assessment, a separate environmental assessment may be required.

#### *Reporting on the Follow-up Program*

During any month that an exceedance is measured, Transport Canada and the Windsor Port Authority will be notified within a timely manner and the quarterly mitigation monitoring report to Transport Canada will indicate what further management measures were taken and when they began. Otherwise, information during the follow-up program will be report to Transport Canada annually.

## **9.0 Public Consultation**

### **9.1 The Canadian Environmental Assessment Registry**

For the purpose of facilitating access to environmental assessment records and providing public notice in a timely manner; an internet site and project file were created for this environmental assessment. The Canadian Environmental Assessment Registry internet site<sup>12</sup> contains public notices, the Federal Environmental Assessment Guidelines, the Federal Public Participation Plan and the draft screening report. The environmental assessment file contains environmental assessment documentation and is maintained by Transport Canada to ensure public access to records.

### **9.2 Public Participation**

Given the level of public interest in border issues in the Windsor area, the responsible and prescribed authorities used their discretion to include, where it is considered appropriate, public participation in the screening of the Project under subsection 18(3) of the *Canadian Environmental Assessment Act*. In accordance with the federal public participation plan, opportunities for public participation were provided at key stages and throughout the environmental assessment process including the development of the Federal Environmental Assessment Guidelines and during the preparation of the screening report. For both, a 30 day public review process was provided and notifications were published in Windsor papers and posted on the Canadian Environmental Assessment Registry internet site.

As part of the public participation process for this environmental assessment, the responsible and prescribed authorities met with the City of Windsor, and consulted with City officials, during the development of the federal Environmental Assessment Guidelines and during the review of the draft screening report.

Approximately 50 public comments were received in response to the draft environmental assessment guidelines. Comments, including comments from the City of Windsor, requested that the responsible and prescribed authorities further consider:

- security of International trade and traffic;
- direct changes to socio-economic conditions for residents, communities, neighbourhoods, property values, municipal infrastructure and services, land use plans, businesses, local economy, historic features and human health;
- public interest and opinion;

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<sup>12</sup> The Registry number for this project is 06-01-21100 - <http://www.ceaa.gc.ca/050/details-eng.cfm?evaluation=21100>. The full *Environmental Impact Statement* (EIS) prepared by the proponent is also available on-line at: [http://www.ambassadorbridge.com/!Downloads/Updated\\_Screening\\_Report\\_20130306.pdf](http://www.ambassadorbridge.com/!Downloads/Updated_Screening_Report_20130306.pdf)

- transportation issues including local, regional, and international traffic patterns;
- changes to access and other impact on the University of Windsor;
- Project alternatives including alternative locations;
- benefits, need and purpose of the Project.
- pedestrian safety;
- air quality and human health;
- aesthetics; and
- impacts from trucks on Huron Church Road.

The responsible and prescribed authorities considered all input received from the City of Windsor, local residents and other community organizations, and incorporated this input into the Revised Environmental Assessment Guidelines to the extent possible. This included:

- The consideration of other factors under paragraph 16(1)(e) of the Act including direct socio-economic effects, purpose, need and benefits of the Project, and alternatives and alternative means to the Project.
- The assessment of human health impacts as a result of environmental effects of the Project.
- The inclusion of municipal infrastructure projects within the scope of the Project including the relocation of Huron Church Road.
- Further consultation with the City of Windsor and the Walpole Island First Nation.

The responsible and prescribed authorities provided an additional opportunity to comment during the environmental assessment, by making the draft screening report available for a 30-day review period ending on May 13, 2013. A total of 32 submissions were received on the draft screening from members of the public, interested stakeholders, organizations, and the City of Windsor. Key areas of public concern included:

- Project construction phases and key local infrastructure modifications required for the Project;
- opportunities for coordination and post environmental assessment approval and monitoring requirements;
- consideration for the need and alternatives to the Project under paragraph 16(1)(e) of the Act;
- increased air quality and human health effects in areas directly adjacent to the Project and along Huron Church Road;
- consideration of direct socio-economic effects under paragraph 16(1)(e) of the Act (including local property and land use impacts adjacent to the Project, residential and commercial properties in the community of Sandwich and the adjacent University of Windsor);
- a proposal to transport hazardous material and dangerous goods to the existing Ambassador Bridge through the Michigan road network; and

- interactions between the Project and existing rail operations at the site, including safety concerns related to the proposed new crossing of the Essex Terminal Railway line.

A summary of the changes, clarifications and updates that were incorporated into this report after consideration of public comments and discussions with key stakeholders including the City of Windsor, is provided in Table 3.

All public input was considered by the responsible and prescribed authorities prior to taking the decision under section 20 of the Act. Additional information, including comments and responses received during public consultation on the draft screening, can be found in Appendix B. Where appropriate, comments received during the consultation process may also be further considered during any future approval process including under the *International Bridges and Tunnels Act* and the *Navigable Waters Protection Act*.

**Table 3: Incorporation of Public Input into the Final Screening Report**

Section	Revisions
<i>Introduction</i>	<ul style="list-style-type: none"> <li>Differentiated between the DRIC project, including need and benefits, and the Ambassador Bridge Enhancement Project as proposed by the Proponent.</li> <li>Provided information on potential or likely planning approvals and municipal class environmental assessment requirements for local infrastructure modifications.</li> <li>Clarified opportunities for coordination with other environmental assessment jurisdictions.</li> </ul>
<i>Project Description</i>	<ul style="list-style-type: none"> <li>Expanded on Project phases (including proposed rehabilitation of the existing bridge, phased approach to construction, and operations such as standard Canada Border Services Agency operations and VACIS scanning).</li> <li>Clarified proposed construction implementation schedule.</li> <li>Clarified the use of travel demand forecasts and how these relate to general crossing/corridor capacity.</li> </ul>
<i>Other Considerations</i>	<ul style="list-style-type: none"> <li>Clarified consideration of direct socio-economic effects under paragraph 16(1)(e) of the <i>Canadian Environmental Assessment Act</i>.</li> <li>Clarified that the alternatives to and the alternative means are presented from the perspective of the Proponent.</li> </ul>
<i>Environmental Effects Analysis</i>	<ul style="list-style-type: none"> <li>Included details for a dynamic vibration assessment for operations</li> <li>Provided additional information on approach to limit the use of Jake brakes during operations to mitigate noise.</li> <li>Clarified anticipated increases in local traffic along Indian Road during operations (once section of Huron Church is closed).</li> <li>Clarified the use of ‘the build’ and ‘the do-nothing’ scenarios to comparatively assess future predictions for air quality and noise effects.</li> <li>Included details on the transportation of dangerous goods during operations, including response protocols and design elements for prevention of accidents and spills.</li> <li>Clarified the requirement for detailed environmental management planning during the detail design stage, including for construction noise management.</li> <li>Identified McKee Park as sensitive fish spawning habitat adjacent to the Project.</li> <li>Incorporated Environment Canada’s recommendations for updated text for migratory bird nesting avoidance and air quality monitoring timing.</li> </ul>
<i>Follow-up and Monitoring Programs</i>	<ul style="list-style-type: none"> <li>Clarified requirement for a construction noise environmental management plan that includes determining the zone of influence, providing a scope for monitoring, and establishing precautionary limits.</li> </ul>
<i>Consultation</i>	<ul style="list-style-type: none"> <li>Provided information on the proposed community advisory committee for detailed design elements and public open houses.</li> <li>Updated information related to Proponent consultation with Walpole Island First Nation and included a commitment to additional/continued collaboration between the Proponent and Walpole Island First Nation subsequent to the environmental assessment.</li> </ul>
<i>Commitments for Further Work</i>	<ul style="list-style-type: none"> <li>Clarified potential requirements for detailed design to ensure consistency with the requirements of the <i>Railway Safety Act</i> and the <i>Canadian Transportation Act</i>, as required.</li> </ul>

### 9.3 Aboriginal Consultation

As part of the public consultation process on the draft screening report, Transport Canada contacted eight Aboriginal groups within the regional study area to determine whether the Project would result in any unidentified Project impacts on established or potential treaty or Aboriginal rights, or the current use of lands and resources for traditional purposes. To date, no known current use in the Project area has been identified. Walpole Island First Nation is the only Aboriginal group to date that has expressed an interest in the Project.

Aboriginal groups and agencies located in proximity to the study area were also contacted by the Proponent in order to provide an opportunity to comment on the Project proposal. These groups included the CanAm Indian Friendship Centre of Windsor, Walpole Island Friendship Centre, Aamjiwnaang First Nation, Caldwell First Nation, Walpole Island First Nation, Wyandotte Nation, Detroit River Wyandot's, and The Wyandot of Anderonon Nation.

In response to an expressed interest in the Project from Walpole Island First Nation, environmental assessment consultations were initiated at the beginning of the process during the development of the Federal Environmental Assessment Guidelines and Public Participation Plan. The Public Participation Plan included a commitment to meet with representatives of the Walpole Island First Nation during the environmental assessment process, to provide information on the Project, and to address any specific issues or concerns. Environmental assessment consultations with Walpole Island First Nation have resulted in:

- The identification of Walpole Island First Nation's interests in the Project, in particular an interest in archaeological and historic resources, natural features and land use.
- A commitment from the Proponent to facilitate Walpole Island First Nation participation in required archaeological excavations as part of a Stage IV Archaeological Assessment.
- The development of a relationship between the Proponent and the Walpole Island First Nation, and the establishment of a process to engage the Walpole Island First Nation (including a review of environmental assessment documentation).
- A commitment from the Proponent to continue consultation and collaboration related to the Project throughout detailed design, construction, and operation of the Project.

The Proponent and Walpole Island First Nation continue to engage in discussions related to potential benefits and opportunities for Walpole Island First Nation. Transport Canada and the Windsor Port Authority are aware of this process and understand that an agreement may be negotiated between Walpole Island First Nation and the proponent to provide work opportunities and an Aboriginal centre in the Project area. Transport Canada and the Windsor Port Authority will continue to track this process.

Subsequent to the environmental assessment, Transport Canada and the Windsor Port Authority will determine specific requirements for approvals under the *Navigable Waters Protection Act*, the *International Bridges and Tunnels Act* and completion of water lot lease agreements. Additional consultation with regards to these processes may be undertaken with Walpole Island

First Nation and other interested Aboriginal groups at that time and as required. Transport Canada and the Windsor Port Authority remain committed to meaningful Aboriginal consultation in accordance with the Government of Canada's guidelines for federal officials to fulfill the duty to consult.

#### 9.4 Proponent Public Information Sessions

The Canadian Transit Company held a series of public information sessions and open houses to discuss and review the Project with the public in 2007. At each session there was a presentation about the Project, and representatives from the Project's consulting team and the Ambassador Bridge were available to respond to any comments or concerns from the public.

Topics covered by the comments and concerns included, but were not limited to, the design and construction process, the DRIC project, local roads, traffic levels, funding, and the replacement bridge and plaza facility details. Comments and concerns raised during the public information sessions were considered during the refinement of the recommended Project plan.

Comments and concerns raised by the public were recorded and can be found in the *Environmental Impact Statement* (Appendix O).

#### 9.5 Post Environmental Assessment Community Consultation Plan

The Proponent has committed to ongoing consultation with the general public, adjacent communities and other key stakeholders involved with the Project. A community consultation plan will be developed by the Proponent for post environmental assessment consultation activities and will include a summary of planned public open houses, a public complaints resolution strategy, and a detailed approach for incorporating recommendations of a community advisory committee. The community advisory committee will:

- assist in the development of detail design elements of the green buffer space, buffer features, landscaping, pedestrian and trail connections to retain community continuity, noise wall aesthetics, and lighting along the west side of the Project area;
- include representatives from the Olde Sandwich Towne Business Improvement Association, the City of Windsor planning department, community leaders, and Walpole Island First Nation who are interested in participating; and,
- result in features such as artistic, community and/or historical elements.

The Proponent will work with the community advisory committee to incorporate recommendations into a final detail design. The responsible and prescribed authorities will determine participation, as appropriate, during future permitting and approval processes.

The Proponent has indicated that a community consultation plan will be developed and implemented during the Project design phase. A summary of consultation activities will be submitted to Transport Canada a minimum of six weeks prior to the start of construction.

## **10.0 Commitments for Further Work**

Throughout the *Environmental Impact Statement* and federal screening report, references are made to plans and programs that will be further developed during the design phase of the Project. Transport Canada will review the following documents to ensure the federal environmental assessment commitments are met.

- Air Quality Follow-up Program
- Traffic Management Plan
- Storm water Management System Plan and facility design
- Construction Noise Management Plan
- Erosion and Sediment Control Plan
- Tree Preservation Plan
- Detailed Peregrine Falcon Management Plan
- Community Consultation Plan, including a Community Advisory Committee
- Dynamic Vibration Study for Project operation
- Compliance Monitoring and Training Program
- Stage IV Archaeological Assessment (copy of Ontario Ministry of Tourism, Culture and Sports' Archaeological report review letter for site AbHs-34 will be provided to Transport Canada prior to construction)
- A plan for the completion of nest surveys for Migratory Birds.

A minimum of 6 weeks is to be provided to facilitate federal review of each of these documents. To ensure adequate time is provided for review, it is recommended that the Proponent provide Transport Canada with a work plan outlining when each of these documents will be prepared and circulated for review.

In addition to the environmental assessment commitments, the Proponent is responsible for ensuring that, as required, federal approvals for the Project are obtained in accordance with the following prior to construction:

- *Navigable Waters Protection Act*
- *International Bridges and Tunnels Act*
- *Railway Safety Act* and the *Canadian Transportation Act*
- A lease for the use of federal water lots from the Windsor Port Authority and a permit to construct, consistent with the *Port Authorities Operations Regulations*.

## **11.0 Environmental Assessment Decisions**

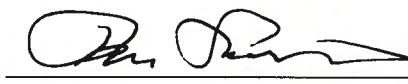
### **11.1 Transport Canada**

After taking into consideration the screening report, public comments and taking into account the implementation of mitigation and monitoring measures, Transport Canada has determined that the Project is not likely to cause significant adverse environmental effects in accordance with paragraph 20(1)(a) of the *Canadian Environmental Assessment Act*. As such, Transport Canada may exercise any power duty or function that would permit the Project to be carried out in whole or in part.

The Canadian Transit Company (the Proponent) has read this environmental assessment screening report and accepts responsibility for the implementation of the mitigation, monitoring, and follow-up programs identified. The Canadian Transit Company will provide written confirmation on the implementation of these measures to Transport Canada and the Windsor Port Authority, according to frequencies prescribed in this report. Furthermore, the Canadian Transit Company agrees to provide Transport Canada and the Windsor Port Authority access to Project area, upon request, to confirm that the mitigation measures and related follow-up programs have been implemented.

These environmental assessment mitigation, monitoring and follow-up commitments will also be incorporated into future approvals, as appropriate.

Mr. Dan Stamper  
President  
Canadian Transit Company

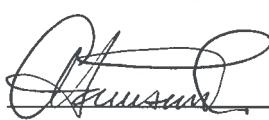


Date: 2/7/14

**Execution of this Canadian Environmental Assessment Screening Report by the CTC is done on a without prejudice basis to its legal position that the IBTA does not apply to the Ambassador Bridge.**

The Canadian Environmental Assessment Act Decision is recommended:

Ms. Cathy Hainsworth  
Manager, Environmental Assessment  
Transport Canada



Date: 02/11/14

The recommended Canadian Environmental Assessment Act Decision is approved:

Mr. Alec Simpson  
Senior Director, Environmental Management  
Transport Canada



Date: 02/12/14

## 11.2 Windsor Port Authority

After taking into consideration the screening report, public comments and taking into account the implementation of mitigation and monitoring measures, the Windsor Port Authority has determined that the Project is not likely to cause significant adverse environmental effects in accordance with paragraph 20(1)(a) of the *Canadian Environmental Assessment Act*. As such, the Windsor Port Authority may exercise any power duty or function that would permit the Project to be carried out in whole or in part.

The Canadian Transit Company (the Proponent) has read this environmental assessment screening report and accepts responsibility for the implementation of the mitigation, monitoring, and follow-up programs identified. The Canadian Transit Company will provide written confirmation on the implementation of these measures to Transport Canada and the Windsor Port Authority, according to frequencies prescribed in this report. Furthermore, the Canadian Transit Company agrees to provide Transport Canada and the Windsor Port Authority access to Project area, upon request, to confirm that the mitigation measures and related follow-up programs have been implemented.

These environmental assessment mitigation, monitoring and follow-up commitments will also be incorporated into future approvals, as appropriate.

Mr. Dan Stamper  
President  
Canadian Transit Company

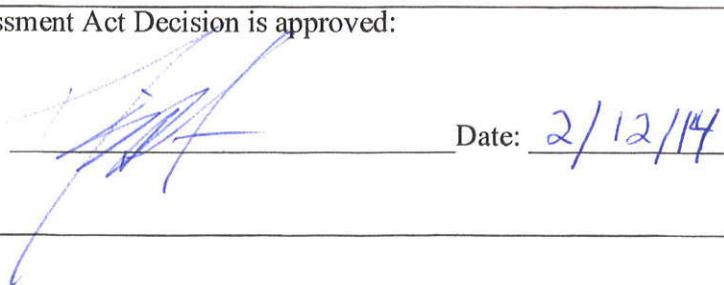


Date: 2/7/14

Execution of this Canadian Environmental Assessment Screening Report by the CTC is done on a without prejudice basis to its legal position that the IBTA does not apply to the Ambassador Bridge.

The Canadian Environmental Assessment Act Decision is approved:

Mr. David Cree  
President  
Windsor Port Authority



Date: 2/12/14

## **12.0 Key References**

*Ambassador Bridge Enhancement Project Environmental Impact Statement* (March 2013)

*Canada Border Services Agency Ambassador Bridge Plaza Master Plan Study Report* (July 2010)

*Federal Review Comment/Response Table: Ambassador Bridge Enhancement Project Draft Environmental Impact Statement* (April 2011)

*Federal Public Participation Plan for the Environmental Assessment Screening under the Canadian Environmental Assessment Act* (February 2007)

*Revised Federal Environmental Assessment Guidelines under the Canadian Environmental Assessment Act for the Ambassador Bridge Enhancement Project* (August 2007)

*Technical Memorandum - Responses to Environment Canada Comments on the Environmental Impact Statement and Peregrine Falcon Management Plan* (December 2012)

*Technical Memorandum - Response to Federal Review Team Comments on the Environmental Impact Statement* (November 2012)

*Technical Memorandum: Ambassador Bridge Enhancement Project Environmental Impact Statement Clarification* (August 2012)

## Appendix A: Significance of Effects Analysis

Potentially Affected Environmental Components	Description of Mitigation and Follow-up (as applicable)	Residual Environmental Effect Characteristics							
		Duration/Frequency	Magnitude	Geographic Extent	Reversibility	Ecological Context	Significance	Likelihood	Follow-up/Monitoring
Air Quality and Climate	<p><i>Construction</i></p> <ul style="list-style-type: none"> <li>Best management practices for dust suppression during construction will be implemented based on the Ontario Ministry of the Environment Technical Bulletin <a href="#">Review of Approaches to Manage Industrial Fugitive Dust Sources</a> (2004). These will include, but not be limited to: periodic watering of unpaved (non-vegetated) areas and stockpiles; limiting speed of vehicular travel and covering loaded haul trucks with tarpaulins; use of water sprays during the loading and unloading of materials; use of calcium chloride and road sweeping; and sweeping and/or water flushing of the entrances to the construction zones and daily removal of excess soils from roads.</li> <li>Best management practices for air emissions during construction will be implemented based on <i>Best Practices for the Reduction of Air Emissions from Construction and Demolition Activities</i> developed by Environment Canada (2005). These include vehicle maintenance, asphalt concrete paving, and traffic marking operations guidelines and recommendations. Best management practices will also include, but not be limited to: <ul style="list-style-type: none"> <li>A review of the construction inventory will be conducted prior to the start of construction. Should a greater or lesser inventory of equipment (including barges) be used, the work hours may need to be adjusted accordingly;</li> <li>The contractor's most polluting heavy equipment (including barges) will be identified and use limited during smog advisories; and,</li> <li>Idling of heavy equipment will be monitored and limited in keeping with the City of Windsor idling by-law which limits idling for more than five minutes in a sixty minute period unless exceptions apply.</li> </ul> </li> </ul> <p><i>Operation</i></p> <ul style="list-style-type: none"> <li>Road sweeping practices in accordance with maintenance standards will be employed to reduce silt loading on the area road network during the operations phase of the Project.</li> </ul> <p><i>Follow-up:</i></p> <ul style="list-style-type: none"> <li>An Air Quality Follow-up Program is required for review and approval by the responsible and prescribed authorities in consultation with expert federal authorities prior to construction. This program will include: <ul style="list-style-type: none"> <li>Mitigation such as best management practices for dust suppression and air emissions during construction, traffic/staging strategies, as well as alternative mitigation in the event of unanticipated air quality exceedances. Alternative mitigation will include timing and equipment restrictions, alternative staging and delivery and other construction best management practices.</li> <li>Air quality monitoring during construction and three years' post-construction, using Thermo Scientific SHARP model 5030 real-time monitors. One will be configured for PM<sub>2.5</sub> and the other for PM<sub>10</sub>. The</li> </ul> </li> </ul>	ST/C	M	L	R	D	N	H	F/M

Potentially Affected Environmental Components	Description of Mitigation and Follow-up (as applicable)	Residual Environmental Effect Characteristics							
		Duration/Frequency	Magnitude	Geographic Extent	Reversibility	Ecological Context	Significance	Likelihood	Follow-up/Monitoring
	<p>SHARP 5030 monitors will combine light scattering photometry and beta radiation attenuation for continuous measurement of either PM<sub>2.5</sub> or PM<sub>10</sub>. Digital filtering will be used to continuously mass calibrate the nephelometric measurements.</p> <ul style="list-style-type: none"> <li>- additional mitigation, such as a block queuing system, and/or an anti-idling policy to ensure optimal traffic flow through the plaza facility</li> </ul>								
Surface Water and Ground Water Quality and Quantity	<p><i>Construction</i></p> <ul style="list-style-type: none"> <li>• An Erosion and Sediment Control Plan will be reviewed and approved by the responsible and prescribed authorities in consultation with expert federal authorities prior to construction to address onsite drainage, construction staging and seasonal timing. The Plan will include, but not be limited to, a maintenance and repair schedule and best management practice control measures used during construction for minimizing erosion and sedimentation such as:           <ul style="list-style-type: none"> <li>- Silt fencing, straw bales and inlet protection and other methods used to block sediment as required;</li> <li>- Exposed soils will be stabilized through re-vegetation or other comparable methods, within 60 days of work completion;</li> <li>- Unprotected surfaces will be stabilized through seeding and mulching and by use of dust suppression techniques such as watering; and</li> <li>- The Plan will also include best management practices for water discharge during any groundwater pumping activities. Groundwater will be tested and treated to reduce pollutants to acceptable levels when required.</li> </ul> </li> <li>• Best management practices will be implemented to reduce the potential for spills, debris and materials/equipment from entering the surface water, watercourses or groundwater. This includes: a 30 metre setback from watercourses/drains for all maintenance, fuelling and storage activities; and, the installation of emergency response spill kits.</li> <li>• In areas with artesian groundwater pressures, dewatering will be minimized by using controlled density drilling fluids for the installation of deep foundations (e.g. drilled shafts or caissons).</li> </ul> <p><i>Operation</i></p> <ul style="list-style-type: none"> <li>• A Storm Water Management Plan and facility design will be developed to manage run-off from the replacement bridge and plaza facility during operations.           <ul style="list-style-type: none"> <li>- The storm water management system will be sized to treat the new pavement and increased traffic volume and include measures to reduce the impact of de-icing materials on the aquatic ecosystem. Existing storm water treatment will be integrated into the new facility design.</li> <li>- Storm water will be treated at an "Enhanced" protection (Enhanced protection corresponds to the end-of-pipe storage volumes required for the long-term average removal of 80% of suspended solids) as described in the Ontario Ministry of the Environment's <i>Storm water Management Planning and Design Manual</i> (2003).</li> </ul> </li> </ul>	ST/S	L	L	R	U	N	M	M

Potentially Affected Environmental Components	Description of Mitigation and Follow-up (as applicable)	Residual Environmental Effect Characteristics							
		Duration/Frequency	Magnitude	Geographic Extent	Reversibility	Ecological Context	Significance	Likelihood	Follow-up/Monitoring
	<ul style="list-style-type: none"> <li>Prior to discharge, storm water will be treated to reduce pollutant levels consistent with both the Ontario Ministry of the Environment <i>Water Management, Policies, Guidelines: Provincial Water Quality Objectives</i> (1994) and applicable Canadian Environmental Quality Guidelines published by the Canadian Council of Ministers of the Environment.</li> </ul> <p>Best management practices will be implemented to reduce the potential for spills, debris and materials/equipment from entering the surface water, watercourses or groundwater. This includes: a 30 metre setback from watercourses/drains for all maintenance, fuelling and storage activities; and, the installation of emergency response spill kits.</p>								
Water levels/flows in the Detroit River	<p><i>Construction</i></p> <ul style="list-style-type: none"> <li>Barge operations will be in compliance with marine safety, pollution, and spill control requirements established to protect the aquatic ecosystem such as the <i>Vessel Pollution and Dangerous Chemicals Regulations</i> (2012) and the <i>Environmental Response Arrangement Regulations</i> (2008).</li> </ul> <p><i>Operation</i></p> <ul style="list-style-type: none"> <li>No changes to water levels and flows are expected to occur during operation; therefore no mitigation has been identified.</li> </ul>	ST/S	L	L	R	D	N	L	-
Surface, Subsurface Geology and Soil	<p><i>Construction</i></p> <ul style="list-style-type: none"> <li>Localized fracturing of the bedrock may occur during foundation construction. Grouting will be used if necessary in order to stabilize the soil and bedrock and control groundwater flows.</li> <li>Preparation and implementation of the Erosion and Sediment Control Plan and associated best management practices.</li> </ul> <p><i>Operation</i></p> <ul style="list-style-type: none"> <li>No changes to surface, subsurface geology or soils are expected to occur during operation; therefore no mitigation has been identified.</li> </ul>	ST/S	L	S	R	D	N	L	-
Vegetation, Vegetation Communities and Wetlands	<p><i>Construction</i></p> <ul style="list-style-type: none"> <li>A Tree Preservation Plan will be prepared and implemented to retain mature trees that provide wildlife habitat adjacent to Indian Road wherever possible. Protected areas will be delineated prior to construction and no activities will be permitted in these areas.</li> <li>Native vegetation will be re-planted around the plaza facility.</li> <li>Any required vegetation removal will occur outside the growing season (spring/summer) to avoid the loss of wildlife and wildlife habitat wherever possible.</li> <li>Any excess areas cleared during construction will be replanted once construction is complete using native species.</li> </ul>	ST/O	L	S	R	D	N	H	-

Potentially Affected Environmental Components	Description of Mitigation and Follow-up (as applicable)	Residual Environmental Effect Characteristics						
		Duration/Frequency	Magnitude	Geographic Extent	Reversibility	Ecological Context	Significance	Likelihood
	<i>Operation</i>							
	<ul style="list-style-type: none"> <li>No changes to vegetation, vegetation communities or wetlands are expected to occur during operation; therefore no mitigation has been identified.</li> </ul>							
Fish and Fish Habitat	<i>Construction</i>	ST/S	L	L	R	U	N	M
	<ul style="list-style-type: none"> <li>Environmental effects on fish and fish habitat will be avoided through project design. Dredging, in-water blasting, in-water pile driving, pier construction and the placement of shore protection in or along the Detroit River are not proposed.</li> <li>The implementation of an Erosion and Sediment Control Plan to address onsite drainage issues, construction staging and seasonal timing will ensure storm water discharges into watercourses meet all applicable provincial guidelines and requirements.</li> </ul>							
	<i>Operation</i>	LT/S	L	L	R	U	N	M
	<ul style="list-style-type: none"> <li>A storm water management facility will be developed to treat storm water runoff from additional impervious area as a result of the replacement bridge and expanded portion of the plaza facility during operations.</li> </ul>							
Wildlife and Wildlife Habitat including Migratory Birds	<i>Construction</i>	ST/O	L	S	R	D	N	H
	<ul style="list-style-type: none"> <li>Vegetation removal will be avoided between May 1 and July 31 to the extent possible to minimize harm to all wildlife including migratory birds.             <ul style="list-style-type: none"> <li>If clearing or other activities that may have an impact on migratory birds are required between May 1 and July 31, non-intrusive searching methods will be conducted by a qualified avian biologist to determine if migratory bird breeding has started a nest survey will be conducted by a qualified avian biologist within 2 days of the proposed activity.</li> <li>The nest survey will identify and locate active nests. Should it be determined that the breeding season has started and that migratory bird breeding is in progress and migratory bird nests are identified in locations where Project works or activities may result in their disturbance or destruction, a mitigation plan will be developed in consultation with Environment Canada.</li> </ul> </li> </ul>							
	<i>Operation</i>							
	<ul style="list-style-type: none"> <li>New replacement bridge span lighting will be designed to minimize impacts on migratory bird populations using the Detroit River as a flyway. This will include:             <ul style="list-style-type: none"> <li>Low intensity white strobe lights (one flash every three seconds) at the tops of the towers pending any change needed based on final design criteria and final consultation with the State Historic Preservation Office in the United States.</li> <li>No red or yellow steady lights on the new replacement bridge span, which can disorient avian species; if coloured lighting is utilized to illuminate the cables, the Canadian Transit Company will use</li> </ul> </li> </ul>	LT/C	L	S	R	D	N	H

Potentially Affected Environmental Components	Description of Mitigation and Follow-up (as applicable)	Residual Environmental Effect Characteristics							
		Duration/Frequency	Magnitude	Geographic Extent	Reversibility	Ecological Context	Significance	Likelihood	
	<p>lower intensity, lower wavelength lighting of blue, turquoise or green, pending final design criteria.</p> <ul style="list-style-type: none"> <li>New replacement bridge span lighting (shield lights) will be focussed in the downward direction to minimize the potential for night-time bird collisions with the new replacement bridge span.</li> </ul>								
Species at Risk	<p><b>Construction</b></p> <ul style="list-style-type: none"> <li>A Detailed Peregrine Falcon Management Plan will be implemented that includes environmental management practices, timing restrictions, monitoring, and adaptive management strategies. The plan will ensure that the peregrine falcons, including their annual brood, using the existing bridge are not adversely affected, disturbed, discouraged from continued use of the nesting site and are not injured/killed.</li> <li>Where feasible, construction activities will be limited within the defined restricted and sensitive zones during the nesting season from March 15 to July 31 and beyond (i.e., as late as mid-August), as required. A qualified professional hired by the Canadian Transit Company will monitor the peregrine falcon behaviour during construction activities within or adjacent to the defined restricted and sensitive zones during the nesting season and also will determine when the birds fledge the nest and when construction activities may resume.</li> <li>If construction cannot be avoided in the restricted and sensitive zones during the nesting season, installation of a curtain or other visual barrier that blocks the line of site between the nest and construction activities will be put in place.</li> <li>If nest relocation is necessary, the chicks would need to be captured prior to the nest relocation. This would be proposed only as a last possible resort and only after consultation with Environment Canada and the Ontario Ministry of Natural Resources and any and all required permits are obtained.</li> <li>A nesting box/ledge will be located on the south-eastern side of the existing bridge in close proximity to the current nesting site to encourage potential relocation of the peregrine falcons.</li> <li>The Proponent will continue to consult with Environment Canada and the Ontario Ministry of Natural Resources on management of the Peregrine Falcons present within the study area.</li> </ul> <p><b>Operation</b></p> <ul style="list-style-type: none"> <li>Operational activities, including maintenance, may disturb the peregrine falcons nesting on the existing bridge. However, given the peregrine falcons are successfully nesting at this location, this effect is considered unlikely to occur and no additional mitigation for the operational phase of the Project was identified.</li> </ul>	ST/R	H	S	I	D	S	L	M
Noise	<p><b>Construction</b></p> <ul style="list-style-type: none"> <li>A Construction Noise Management Plan detailing a strategy for noise management will be incorporated into a Community Consultation Plan. The Plan will be developed prior to construction and will include determining the zone of influence, providing a scope for monitoring, and establishing precautionary limits. Additional measures will be identified to ensure that: <ul style="list-style-type: none"> <li>A Canadian Transit Company representative will be accessible at all times and appointed as the</li> </ul> </li> </ul>	ST/R	M	L	R	D	N	H	M

Potentially Affected Environmental Components	Description of Mitigation and Follow-up (as applicable)	Residual Environmental Effect Characteristics							
		Duration/ Frequency	Magnitude	Geographic Extent	Reversibility	Ecological Context	Significance	Likelihood	Follow-up/ Monitoring
	<p>community contact to address noise related complaints or concerns and conduct any necessary field work related to noise during construction, when necessary;</p> <ul style="list-style-type: none"> <li>- Coordination will occur with schools within 300 m of the Project, with an objective of creating a mutually agreeable construction system to reduce the impact of noise on schools, especially during exams.</li> <li>- Haul routes will be designed to avoid residential neighbourhoods; and</li> <li>- Signage will be installed to notify trucks that engine braking is prohibited according to City of Windsor By-laws prior to construction.</li> </ul> <ul style="list-style-type: none"> <li>• Best management practices will be implemented during construction to ensure that sound emissions from all construction equipment comply with Noise Pollution Control Publication 115 of the Ontario Model Municipal Noise Control By-Law (1978). This will include, but not be limited to: ensuring that factory recommended mufflers are maintained on all construction equipment; and vehicle back-up alarms are limited through design of construction haul routes.</li> <li>• The most noise intensive construction activities will be limited to daytime hours to the greatest extent possible. Time restrictions set out in the City of Windsor's Noise By-law 6716 will be respected including prohibitions for the operation of any equipment in connection with construction from 8 p.m. to 6 a.m. in residential areas.</li> <li>• Sound and vibration levels will be monitored during pile driving within 100 metres of the 34 identified sensitive receptors. Typical noise sensitive receptors include: private residences, townhouses, multiple unit buildings with outdoor living spaces, and hospitals, nursing homes educational facilities and daycare centers where there are outdoor living spaces. If exceedances are noted to cause a nuisance, mitigation measures such as reduced driving force and/or temporary noise barriers will be implemented.</li> <li>• Pile driving and/or other unusually loud activities will not occur prior to 7 a.m. or after 8 p.m. Vibration monitoring will be conducted when pile driving is taking place within 100 metres of a sensitive receptor, including heritage buildings. If exceedances are found, reduced pile driving force and the construction of temporary noise barriers will be implemented.</li> </ul>								
	<p><i>Operation</i></p> <ul style="list-style-type: none"> <li>• A permanent noise barrier 3 metres in height will be installed as soon as practical during the construction schedule (as the wall will be mounted on the new replacement bridge span) along the west edge of the new replacement bridge span extending northwards from the existing noise barrier to a distance of approximately 120 metres north of Peter Street. The barrier will taper to 1.5 metres at this point but will maintain a height of 3 metres above the top of the road surface at the new replacement bridge span approach.</li> <li>• A permanent noise barrier 5.5 metres in height will also be installed along the western extent of the plaza facility.</li> <li>• Jake break usage for truck breaking will be discouraged on the new replacement bridge span. The</li> </ul>	LT/C	M	L	R	D	N	H	-

Potentially Affected Environmental Components	Description of Mitigation and Follow-up (as applicable)	Residual Environmental Effect Characteristics							
		Duration/Frequency	Magnitude	Geographic Extent	Reversibility	Ecological Context	Significance	Likelihood	Follow-up/Monitoring
	Proponent will work cooperatively with the City of Windsor in eliminating the use of jake brakes without compromising safety								
Vibration	<p><i>Construction</i></p> <ul style="list-style-type: none"> <li>Vibration will be perceptible during construction, particularly during pile driving activities, but are not expected to cause cosmetic or structural damage to buildings.</li> <li>Vibration monitoring will be conducted when pile driving is taking place within 100 metres of a sensitive receptor, including heritage buildings. If excesses are found, Proponent will reduce pile driving force.</li> </ul> <p><i>Operation</i></p> <ul style="list-style-type: none"> <li>A dynamic vibration study of the new replacement bridge span support structure for the operational phase of the Project will be undertaken when sufficient detail is available to ensure that the piers and associated support structure will not radiate significant levels of ground borne vibration into the surrounding environment.</li> <li>To minimize the possibility of increased vibration levels, the road upgrading will ensure a smooth road surface, other than requirements for deck drainage to prevent hydroplaning, with few imperfections. Expansion joints will be placed as far apart as feasible and will be constructed as close to flush with the surface of the new replacement bridge span deck as possible while still allowing snow removal activities without damaging the joint, minimizing the low frequency noise associated with traveling over the expansion joints during the operations phase.</li> </ul>	ST/S	L	L	R	D	N	M	-
Contaminated Sites and Waste Management	<p><i>Construction</i></p> <ul style="list-style-type: none"> <li>Designated disposal areas for excess materials will be identified and used during construction.</li> <li>Non-contaminated materials will be reduced, reused or recycled to the greatest extent possible.</li> <li>In the event contaminated materials (including soils or groundwater) are discovered, applicable procedures for dealing with these contaminated materials such as the Ontario Ministry of Environment's Permit for Stockpiling of Contaminated Waste will be adhered to. Immediate measures will be implemented prior to the arrival of authorities to ensure that contaminants do not reach receiving water bodies either directly or indirectly.</li> </ul> <p><i>Operation</i></p> <ul style="list-style-type: none"> <li>No changes to contaminated sites or waste management are expected to occur during operation; therefore no mitigation has been identified.</li> </ul>	ST/R	L	L	R	D	N	M	-
Human Health	<p><i>Construction</i></p> <ul style="list-style-type: none"> <li>Mitigation for air quality and noise including emissions reduction, dust suppression, staging practices, and sound barriers will be implemented to mitigate indirect effects on human health.</li> <li>A Community Consultation Plan will be implemented and include a communication process to manage any disruption effects experienced by residents during construction.</li> </ul>	ST/S	L	L	R	D	N	L	-

Potentially Affected Environmental Components	Description of Mitigation and Follow-up (as applicable)	Residual Environmental Effect Characteristics						
		Duration/Frequency	Magnitude	Geographic Extent	Reversibility	Ecological Context	Significance	Likelihood
	<ul style="list-style-type: none"> <li>The Community Consultation Plan will include a detailed Traffic Management Plan that will describe how using roads located within residential and heritage areas will be avoided and include detailed construction routes, site entrances and any traffic detours.</li> <li>Canadian Transit Company offices are located onsite and an individual within those offices will be appointed as the community contact to address any questions, concerns or complaints by business owners.</li> <li>Efforts will be made during the construction phase to ensure access is maintained to operating businesses.</li> <li>Temporary fencing and other protective measures will be used to mitigate the visual intrusion of construction.</li> </ul>							
	<i>Operation</i>	LT/S	L	L	R	D	N	L
	<ul style="list-style-type: none"> <li>The air quality follow-up program requires implementation of air quality monitoring for three years' post-construction will use Thermo Scientific SHARP model 5030 real-time monitors. Should the results indicated additional mitigation is required, measures such as a block queuing system, and/or an anti-idling policy to ensure optimal traffic flow through the plaza facility, will be implemented.</li> <li>A permanent noise barrier will be installed along the west edge of the new replacement bridge span extending northwards from the existing noise barrier. A permanent noise barrier will also be installed along the western extent of the plaza facility.</li> <li>Jake break usage for truck breaking will be discouraged on the new replacement bridge span. The Proponent will work cooperatively with the City of Windsor in eliminating the use of jake brakes without compromising safety.</li> </ul>							
Physical and Cultural Heritage	<i>Construction and Operation</i>	-	-	-	-	-	-	-
	<ul style="list-style-type: none"> <li>Mitigation for noise, vibration and air quality will be implemented to reduce indirect effects on cultural resources, including Assumption Church and Assumption College.</li> <li>The construction of fences (hoarding) will be undertaken to reduce the visual intrusion on the surrounding area.</li> <li>Haul routes used for construction will be designed to avoid residential and heritage areas.</li> </ul>							
Current use of lands/resources for traditional purposes by Aboriginal Peoples	<i>Construction and Operation</i>	-	-	-	-	-	-	-
	<ul style="list-style-type: none"> <li>The Project will not result in any piers or other permanent structures in the waters of the Detroit River, an area of concern identified by Walpole Island First Nation.</li> <li>The Proponent is committed to continued consultation and collaboration with the Walpole Island First Nation throughout the Project.</li> </ul>							

Potentially Affected Environmental Components	Description of Mitigation and Follow-up (as applicable)	Residual Environmental Effect Characteristics							
		Duration/ Frequency	Magnitude	Geographic Extent	Reversibility	Ecological Context	Significance	Likelihood	Follow-up/ Monitoring
Things of Historical, Archaeological, Paleontological or Architectural Significance	<b>Construction</b>	ST/S	M	S	I	U/D	N	H	-
	<ul style="list-style-type: none"> <li>Known archaeological sites will be avoided to the extent possible. However Site abHs-34 will undergo a Stage 4: Mitigation of Development Impacts of the Archaeological Assessment Process. This will likely include documenting and removing the archaeological site through excavation. Documentation could include measurements, maps, drawings, and photographs. Artefacts may be placed at the Museum of Ontario Archaeology.</li> <li>In the event that construction is also required at Site abHs-30, further consideration for Stage 4: Mitigation will be given and Proponent will consult the Ontario Ministry of Tourism, Culture and Sport and the Walpole Island First Nation.</li> <li>Archaeological artefacts including the majority of the 714 artefacts identified at the abHs-34 site in the areas of the proposed foundation construction are Aboriginal in nature and may be of interest to Aboriginal groups. The Proponent has committed to continued consultation with interested Aboriginal throughout the Archaeological process.</li> <li>Strategies will be reviewed with the Ontario Ministry of Tourism, Culture and Sport, Aboriginal Groups and other heritage stakeholders and be directed by a Licensed Archaeologist during the Stage 4 analysis.</li> <li>A licensed archaeologist will be at the Project site when soil disturbing activities are taking place. The Proponent, working with a licensed Archaeologist will ensure that: <ul style="list-style-type: none"> <li>In the event that human skeletal remains are encountered during construction, all construction and soil disturbance will cease immediately. The Proponent will promptly contact the Ontario Ministry of Tourism, Culture and Sport, the Registrar or Deputy Registrar of the Cemeteries Regulation Unit of the Ministry of Consumer and Business Services, and interested Aboriginal Groups; and</li> <li>If any deeply buried archaeological deposits are found during construction activities, construction activities will cease and the Programs and Services Branch of the Cultural Programs Unit of the Ontario Ministry of Tourism, Culture and Sport will be notified immediately.</li> </ul> </li> </ul>								
	<b>Operation</b>	-	-	-	-	-	-	-	
	<ul style="list-style-type: none"> <li>No environmental effects resulting from the Project, either beneficial or deleterious to the environment, are expected to adversely affect things of historical, archaeological, paleontological or architectural significance during the operation of the Project. No mitigation has been identified.</li> </ul>								
Navigation	<b>Construction and Operation</b>	-	-	-	-	-	-	-	
	<ul style="list-style-type: none"> <li>No environmental effects resulting from the Project, either beneficial or deleterious to the environment, are expected to adversely affect navigation.</li> <li>Any approvals or permits required under the <i>Navigable Waters Protection Act</i> or the <i>Navigation Protection Act</i> will be obtained prior to construction of the new replacement bridge span. This includes any approvals</li> </ul>								

Potentially Affected Environmental Components	Description of Mitigation and Follow-up (as applicable)	Residual Environmental Effect Characteristics						
		Duration/Frequency	Magnitude	Geographic Extent	Reversibility	Ecological Context	Significance	Likelihood
	<ul style="list-style-type: none"> <li>or permits required for the use of barges during construction.</li> <li>All relevant pollution control requirements will be adhered to including those under the <i>Canada Shipping Act</i> (2001), the <i>International Regulations for Preventing Collisions at Sea</i> (1972) referred to as the COLREGs, and the <i>St. Clair and Detroit River Navigation Safety Regulations</i> (1984) (SOR/84-335).</li> </ul>							
Accidents and Malfunctions	<ul style="list-style-type: none"> <li>A Spills Prevention and Contingency Plan will identify the type of potential spills, including motor vehicle spills that may occur and will provide procedures to respond to emergencies. The plan will include: roles and responsibilities and standard procedures for responding to oil spills on land and in the Detroit River, chemical spills and gaseous releases; spill response equipment and training; and provisions for updates and review procedures.</li> <li>In the event of larger spills such as major accidents, emergency response procedures will be employed immediately to reduce the potential for spills and materials/equipment entering water and will include provisions for the released material at outfall locations such as turbidity barriers for containment, and inflatable bag plugs for closing of storm drain inlets. Additionally, the Ontario Ministry of Environment's Spill Action Centre will be contacted immediately.</li> <li>The Proponent will comply with the <i>Ontario Environmental Protection Act</i> (1990), and the <i>Ontario Water Resources Act</i> (1990) regarding spill requirements.</li> </ul>	ST/S	H	S/L/R	I/R	D	S	L

Table Key: Characteristics of Residual effects<sup>13</sup>

Duration	(ST) Short-term: Effects are measurable for <2 years (MT) Medium-term: Effects are measurable for 2 to 20 years (LT) Long-term: Effects are measurable for >20 years (P) Permanent: Effects are permanent	Reversibility	(R) Reversible (I) Irreversible
Frequency	(O) Occurs once (S) Occurs sporadically at irregular intervals (R) Occurs on a regular basis and at regular intervals (C) Continuous	Ecological Context	(U) Undisturbed: Area relatively or not adversely affected by human activity (D) Developed: Area has been substantially previously disturbed by human development or human development is still present
Magnitude	(L) Low: Minimal or no impairment of environmental component (M) Moderate : Measureable change in environmental component (H) High: Serious impairment to environmental component	Significance	(N) Not Significant (S) Significant
Geographic Extent	(S) Site Study Area: Effects restricted to the Project site (i.e., project footprint) (L)Local Study Area : Effects extend beyond the project footprint but remain localized (R) Regional Study Area: Effects extend to the watershed/regional level	Likelihood	(L) Low probability of occurrence (M) Medium probability of occurrence (H) High probability of occurrence

<sup>13</sup> Based on professional judgement

## Appendix B: Summary of Responses to Public Input on the Draft Screening Report

### Section 1: Comments from the General Public

No	Comment	CTC Response	Action
1-1	The EA documentation states that the project is to start in spring of 2013. As this date has passed, an updated timeline for the start of the construction and operation phases of the project should be provided.	<p>The beginning of the project date cited in the EA includes the initiation of the development of the necessary mitigation plans, consultations and preliminary design and permitting where appropriate. The CTC has already begun this effort and is working on the consultation and mitigation plans, as well as coordinating and partnering with the CBSA to develop the SOR for the long term master plan of the consolidated plaza shown in the CBSA Plan included in Appendix B that needs to be constructed regardless of the ultimate disposition of the Ambassador Bridge Enhancement Project. Should the project be delayed in the future, an updated timeline will be provided with appropriate re-evaluation of any impacts and mitigation.</p> <p>Construction of the project is expected to take place in phases as they are approved by the appropriate authorities. Based on the current anticipated approvals and requirements, the CTC first expects to undertake construction in the following manner;</p> <ol style="list-style-type: none"> <li>1. Clearing of the site to include the removal of the vacant homes owned by the CTC.</li> <li>2. Relocate Huron Church Road to the west of the proposed plaza.</li> <li>3. Upon completion and approval of the master plan for the plaza by the CBSA, construct the expansion of the plaza as shown in the EIS to allow the offsite secondary inspections to be relocated to the planned onsite location and avoid the comingling of local and international traffic</li> <li>4. Rehabilitate the existing approach spans to the existing suspension bridge. This will require the construction of the approaches to the new cable stayed structure adjacent to the existing bridge to allow traffic to continue its unimpeded flow through the facility.</li> <li>5. Construct the buffer and green space adjacent to the proposed structure.</li> <li>6. The final phase includes the construction of the new span across the river.</li> </ol> <p>Approvals with the City of Windsor regarding the road alignment and zoning requirements have not been initiated and will be done where required during the design phase of the project once federal approval has been obtained. Municipal Class EAs are undertaken under the Ontario <i>Environmental Assessment Act</i>. The provincial EA process has not been triggered by the project and the improvements within the City limits have not been initiated by the City of Windsor. Therefore, a municipal class EA is not required.</p>	<p>Clarification has been added to the final screening report on the scope of the Project, as well as a requirement to develop detailed environmental management plans prior to construction.</p> <p>Text has been added to indicate a potential future requirement for the project, or parts of the project such as the relocation of Huron Church Road, to undergo a provincial Class EA process, as required.</p>
1-2	It was noted that technical environmental studies were conducted more than four years ago to support the development of the environmental assessment documentation and may not reflect current existing conditions and changes in the environment.	Many of the studies began four years ago but have been updated throughout the process as we have received comments from the various federal entities and as the project and existing conditions have changed. The studies within the EIS that were not part of a special study detailed in an appendix were all updated in May 2012. The air quality study was last updated in April 2012. The storm water management plan was last updated in May 2012. The contamination screening was last updated in January 2011. The noise study was last updated in April, 2011. While the archaeological study and heritage resource study are older (2007-2008), the results of these analyses are not expected to change over time given the nature of what is being studied. The traffic analysis was completed in March 2012. The reports have been in review with the federal agencies since 2012.	Acknowledged.

No	Comment	CTC Response	Action
1-3	Concern was raised that the extension of the plaza and re-routing of traffic will result in direct air quality and noise effects on the commercial property directly adjacent to the proposed staff parking lot and connecting access road (plaza). In particular, proposed noise barriers may result in decreased air flow and affect indoor air quality at adjacent commercial property and will not be effective in reducing noise.	<p>In general terms, our study indicates that free flowing traffic Conditions have a minimal impact on air quality - when stop/go / queuing traffic occurs, air quality impacts are greater. With the introduction of FAST lanes by the Ambassador Bridge Enhancement Project, less queuing and idling is expected. The air quality analysis included an assessment of impacts related to the relocation of Huron Church Road.</p> <p>Analysis shows the noise walls to be extremely effective in reducing noise as shown in Table VIII beginning on Page 27 of Appendix J. Construction of noise walls at this height, less than that of a typical one story residence, have not been shown to negatively affect air flow such that indoor air quality could be affected at adjacent properties. The noise study did not include the local traffic on the relocated Huron Church Road. However, the majority of traffic noise within the neighborhoods surrounding the project is due to traffic on the bridge and plaza and not from local roads. A 5.5m tall noise wall is proposed to muffle the noise from the plaza which is expected to more than compensate for any local traffic noise on the re-routed Huron Church Road. Further, due to the extensive number of driveways that will be provided along the re-routed Huron Church Road, the construction of a noise barrier in this location would not be possible or beneficial regardless.</p>	Acknowledged.
1-4	Concern was raised that air quality modeling was not conducted properly and baseline data was gathered during holiday periods when low traffic volumes can be expected.	Details of the air quality study can be found in Appendix D of the EIS and Section 6.1 of the DSR. The predicted results align well with air quality modelling conducted along Huron Church. Baseline traffic data was not collected during holiday periods. For ambient monitoring data, the background concentration of 42 ug/m <sup>3</sup> for PM <sub>10</sub> is the 90 <sup>th</sup> percentile background concentration from the MOE Interim Guideline. The future traffic volumes on the Ambassador Bridge used for the air quality assessment were based on projected future travel demands developed independent of the Ambassador Bridge Enhancement Project under the Detroit River International Crossing Study.	Acknowledged.
1-5	Although no permanent structures in the water will minimize or eliminate impacts on fish and their habitat, spawning ponds at McKee Park should be considered in the assessment as an important component of the health of the Detroit River. The screening describes the closest located wetland as 7.5 km. However, one commenter asked to make the proponent aware of wetland located only 4.75 km away in the area of Huron Church and the E.C. Row Expressway.	Impacts to fish and fish habitat are discussed in the EIS in Sections 4.7, 5.6, 5.8, and 7.2 as well as Section 6.6 of the DSR. The spawning ponds within McKee Park were considered as part of the Detroit River, as they are connected. 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. No impacts to wetlands are anticipated. All runoff from the bridge will be piped off and into a storm water facility or the City sewer system where it will be treated before reaching the Detroit River. Therefore, any wetland system 4.75 km away will not be impacted.	The final screening report has been amended to identify McKee Park as sensitive fish habitat located adjacent to the Project area.
1-6	Concern was raised regarding the petroleum coke piles along the Detroit River and potential cumulative effects on air quality.	In April 2013, the Michigan Department of Environmental Quality completed an evaluation and determined that the coke piles do not pose a significant public health risk for inhalation exposure. The report also states that ambient air monitors in Detroit haven't shown unusual elevations of fine particulate matter in the wind direction of the piles. Regarding toxicity, the report notes that petroleum coke dust isn't regulated as a carcinogenic. No cumulative impacts on air quality are expected from the coke piles. It has been noted that the petcoke piles have decreased in size and	Based on the information provided, the environmental effects of the Ambassador Bridge Enhancement Project are not likely to overlap spatially or temporally with the any environmental effects that may result

No	Comment	CTC Response	Action
		will no longer be stored in this area. Further, as discussed in the EIS, the project is not expected to cause significant air quality impacts.	from the coke piles.
1-7	Concern was raised regarding the completeness of archaeological work and regarding whether top soil on Indian Road properties was removed without proper assessment.	<p>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, all within the original plaza footprint and on the west side of Huron Church Road. The City of Windsor reviewed plans and issued building permits to facilitate this construction. During some of the earliest stages of construction, concern was raised that there may be archaeological resources impacted by the plaza expansion. Immediately work on the site was halted and a licensed archaeologist was called to the site to conduct a detailed investigation of the soil disturbing activities and the potential impacts to cultural resources. Individuals who had raised the concerns were consulted and permitted to observe the site with the licensed archaeologist. Concurrence was achieved that no archaeological resources had been affected.</p> <p>No soil on the properties along Indian Road has been removed to date.</p> <p>Subsequent efforts, as part of the Ambassador Bridge Enhancement Project (ABEP) included Stage I, II, and III investigations for the entire corridor prior to any soil disturbing activities (Appendix M of the EIS). The Stage I investigation included a background or pre-survey phase of an assessment. The Stage II investigation included actual field examination, and involved either surface survey or test pitting. The Stage III investigation included those field activities conducted when archaeological remains were encountered during a Stage II survey. The purpose of Stage III 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. A Stage IV investigation was found to be necessary and will occur for one site that could not be avoided (AbHs-34). The Stage IV investigation 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. Stage IV mitigation will be employed at the site prior to construction and through consultation with the Ministry of Culture, First Nations, and other heritage stakeholders. Stage IV mitigation will be developed during final design but will likely involve documenting and removing the archaeological site through excavation. Documentation could include measurements, maps, drawings, and photographs. During the construction of the Project, a licensed archaeologist selected in concurrence with the First Nations, will be onsite to observe activities and ensure that no previously unknown archaeological resources will be adversely affected. Should deeply buried archaeological deposits be found during construction activities, the Programs and Services Branch of the Cultural Programs Unit of the Ontario Ministry of Culture will be notified immediately. Details of the archaeology investigations can be found in Section 7.7 and Appendix M of the EIS and 6.11 of the DSR.</p>	Acknowledged.
1-8	Comments included a question as to whether a truck bypass connection to EC Row Expressway is linked to or a component of the proposed project. The commenter notes that the CTC has a plan to use the Essex Terminal Railway corridor to connect to Ojibway	The Ambassador Bridge Enhancement project extends only though the south end of the Windsor plaza as shown at numerous locations in the EIS and DSR. The CTC has no plans to construct a connection to EC Row Expressway.	Acknowledged.

No	Comment	CTC Response	Action
	Parkway and have obtained property to realize this plan.		
1-9	It was noted that the operation of the Essex Terminal Rail line is not identified as a factor in the Traffic Analysis Report. Clarification is requested on the effect of rail traffic at the proposed new rail crossing on the level of service of this road (traffic stoppage), the operation of the plaza, the proposed new bridge itself and air quality.	Given the close proximity of the proposed crossing to the current crossing, they will essentially function concurrently. Therefore, traffic stoppages will be the same or similar to what they are today. Traffic stoppages from train crossings will not change as a result of the project. Currently, all northbound Huron Church Road (HCR) Traffic proceeds thru the middle of the existing plaza, over the railway and down HCR toward the freeway or expressway system. This route will not be significantly changed as a result of the project. The southbound HCR will simply be shifted to the west about 130 metres and continue to function as it currently functions. That is, an "at grade" crossing of the railway currently exists and will be retained, it will simply be shifted away from the center of the plaza as desired by the CBSA to prevent the unsecure comingling of local and international traffic. Currently, southbound traffic uses Patricia Rd/Union St passing to the east of the plaza. This route has an "at grade" crossing of the Windsor Essex Railway which will be retained and continue to function exactly as it does today. The relocation of the HCR to the west of the plaza simply allows for an alternative crossing of the southbound traffic. Given that the traffic flow, pattern and wait times are not materially changed and on average, three trains cross the corridor daily and require about 10 minutes to pass through the area, no adjustments to the air quality and noise modeling was deemed appropriate. The current intersection at HCR and College becomes a four way stop with all lights flashing red. While the train is crossing relocated Huron Church Road and the gates are down, this signal will remain green for east and westbound traffic on College. The CTC will work closely with the CBSA, the Essex Terminal Railway, the City of Windsor and TC during final design.	Clarification has been added to the Cumulative Effects section of the final screening report to include the Essex Terminal Railway operations in the analysis for air quality and noise.
1-10	Concerns raised that x-ray machines in operation in the plaza will result in gamma radiation escaping into the community and that nuclear radiation detectors are not in operation to facilitate the crossing of contaminated waste.	The use of the Vehicle and Cargo Inspection Service (VACIS) is a requirement of the CBSA. This technology is deemed safe and secure by the CBSA and is part of their initiative to stop dangerous goods from entering Canada and to better protect Canadians. The VACIS system is currently used in the Windsor Plaza and will continue to be used there once the ABEP is constructed.	Additional clarification regarding proposed CBSA operations has been added to the final screening report.
1-11	Related to engagement with the public, several comments were received, including: whether there will be another open house offered by the CTC; how public complaints and concerns will be addressed by the CTC; and whether air quality monitoring results will be shared with the community.	As stated in the EIS (Sections 5.9, 5.19 and 7.5) and DSR (Section 8.0) a Community Consultation Plan will be developed during the design phase of this project. A CTC representative will be accessible at all times and appointed as the community contact to address any questions, concerns or complaints during construction. As part of the Noise Management Plan, CTC will retain an expert to address noise related complaints or concerns and conduct any necessary field work related to noise during construction, when necessary. In addition, the CTC will have results of the air quality analyses at this location for the public to review. The Community Consultation Plan will also include at least one public meeting prior to construction and a public website with project information and information on how to comment on the Project.  Appendix D of the EIS contains the Proposed Air Monitoring Concept for the ABEP that includes information on the frequency and scheduling of air quality monitoring. Results of the air quality monitoring will be available with the CTC representative appointed to the construction of the project. In addition, the results will be provided to Transport Canada and will be available through the Canadian Environmental Assessment Registry (CEAR).	Clarification has been added to the final screening report regarding the commitment to further public consultation, and the establishment of a community advisory committee. Transport Canada may be contacted at any time through the Canadian Environmental Assessment Registry with concerns related to the EA decision and to request additional information.

No	Comment	CTC Response	Action
1-12	Concerns raised about the Peregrine Falcons nesting on the existing Ambassador Bridge.	The CTC is equally concerned with the pair of nesting peregrine falcons on the bridge. A peregrine falcon management plan was developed in conjunction with the Ontario Ministry of the Environment. The OME has approved the management plan which includes provisions to have an experienced monitoring team for the peregrine falcon nest and other nesting birds to determine if construction or other elements of the project are affecting the nest and to determine when the birds flee the nest. Behavioral studies will be conducted to monitor activity and behavior in or directly adjacent to the construction site during the breeding season. The Peregrine Falcon management plan can be found in Appendix P of the EIS.	Acknowledged.
1-13	"Table 5.1: Potential Environmental Interactions with the Project": In my opinion almost every category would have an impact on the fragile structure of the old Assumption Church: = "Physical and cultural heritage"!! Installation of the piles WILL have an impact on the structural stability of the church. (See cracks above altar in wall.)"	During construction, dynamic vibration monitoring will be conducted to ensure the damage threshold is not exceeded.	Additional details have been included in the final screening report to describe the CTC's commitment to complete a Dynamic Vibration Study during detailed design.

## Section 2: Comments from the City of Windsor

No	Comment	CTC Response	TC/WPA Response
2-1	From the June 12, 2013 letter from D. Estrin on behalf of the City of Windsor, the Responsible and Prescribed Authorities will respond to the comments related to the significance of Economic, Social, Traffic and Environmental impacts within the City of Windsor, the examination of alternatives and alternative means, considerations and assessment of key public concerns, consideration of the City of Windsor as a jurisdiction for co-ordination of the environmental assessment.		<p>At key stages in the process, TC and the WPA have met with and consulted with the City of Windsor on issues related to the environmental assessment. TC and the WPA appreciate the work undertaken by the City to contribute expertise and technical knowledge to the environmental assessment.</p> <p>With respect to EA coordination with other jurisdictions, TC and the WPA have consulted with the Ontario Ministry of Environment throughout the EA to identify opportunities for provincial EA coordination. To date no opportunities have been identified and the Ontario Ministry of Environment has indicated that an EA is not required for this project by</p>

No	Comment	CTC Response	TC/WPA Response
			<p>the province of Ontario.</p> <p>The potential for a municipal class EA requirement has been identified by the City of Windsor and the Ontario Ministry of Environment for the purposes of road work associated with the expansion of the plaza area and the relocation of Huron Church Road. This process has not been initiated to date however; text has been added to the screening report to indicate this potential requirement.</p> <p>TC and the WPA are open to discussions with the City Windsor, as requested, during any municipal class EA or other planning processes that may be required for the project, or parts of the project such as the relocation of Huron Church Road.</p> <p>Additional information with regards to coordination activities, consultation processes with the City of Windsor, and potential municipal approval requirements have been included in the revised screening report.</p> <p>The screening report has been revised to clarify consideration of direct socio-economic effects considered under paragraph 16(1)(e) of CEAA, including economic, social, and traffic impacts. It has also been revised to clarify that the alternatives and alternative means for the project have been described from the perspective of the proponent.</p> <p>TC and the WPA have considered all public input before making a decision under section 20 of CEAA.</p>
2-2	From the Novus Environmental Peer Review, please respond to the comments related to the air quality assessment, including: exceedances of Ontario and	<p>Details of the air quality study can be found in Section 7.1 and Appendix D of the EIS and Section 6.1 of the DSR.</p> <p>Table 11 on page 42 of 56 of the air quality report contained in Appendix D of the EIS summarizes the maximum air quality concentration results for all of the studied pollutants. As shown in this table, there were PM10 exceedances in the background concentrations, during the construction and</p>	<p>PM<sub>10</sub> exceedances, in particular effects along Huron Church Road south of the project, are anticipated as a result of the project.</p> <p>Clarification has been included in the</p>

No	Comment	CTC Response	TC/WPA Response
	CCME Canadian Ambient Air Quality Standards; background concentrations for PM2.5; air quality impacts along Huron Church Road; the use of the 90th percentile background concentrations for PM2.5, PM10 and NOx; modelling for particulate emissions as a result of “creeping” conditions and frequent stops, particularly from heavy duty diesel vehicles in areas near the Windsor customs booths and along Huron Church Road; modelling predictions for the year 2035; and, the combined effects analysis for future scenarios.	<p>during the operation scenarios. All other pollutants are within compliance for all scenarios (construction and all operation scenarios). For the PM10 exceedances, there is no difference between the build and the do nothing scenario. That is, as shown in Table 11, the maximum air quality concentration for PM10 is 63 for the 2025 do nothing scenario and 63 for both 2025 future operating scenarios A and B. Further, these exceedances in the future 2025 operating scenarios primarily occur well outside the limits, along Huron Church Road south of the existing and proposed plaza as shown in Figures A13-11 and A13-12 found in Appendix 13 to the Air Quality Report found in Appendix D of the EIS. The future primary operating scenario also showed an exceedance of PM10 between Wyandotte Street and the plaza as shown in Figure A13-11, however, the extent and the intensity of the exceedance is reduced from that present today as shown in Figure A13-7. Figure A13-9 in Appendix 13 of the Air Quality Report contained in Appendix D of the EIS suggests a potential increase in PM10 with exceedances during the construction years in the vicinity of the project. As such, rigorous and comprehensive mitigation measures will be implemented as described in Table 14 in Section 5.19 of the DSR. The effectiveness of this mitigation will be confirmed through a comprehensive compliance monitoring and adaptive management plan as discussed in the EIS.</p> <p>The exceedances south of the plaza on Huron Church Road continue almost to the E.C. Row Expressway. As shown in Figure A13-10, there are more areas of exceedances of PM10 predicted to occur in the future (2025) No-Build scenario than either of the future build scenarios, indicating air quality is expected to improve with the proposed project.</p> <p>Regarding the background concentrations for PM2.5, the correct value is 20 as shown in Table 11 on page 42 of 56 and in Table A2-8 of Appendix 2 of the report contained in Appendix J of the EIS. There is a typo in Table A2-16 incorrectly identifying this value as 24. This value was mistakenly retained in this one table when the study was updated from the original version completed in 2010 to the 2012 values. As shown in Table A2-8, the value of 20 is confirmed by physically monitoring between 2002 and 2009 showing a steady reduction of the background concentrations to about 15 in 2009. Nevertheless, a value of 20 was conservatively used in the assessment of impacts. This applies to all scenarios studied. The predicted concentrations of PM2.5 are expected to be the same for the future No-Build scenario and each of the future Build scenarios. The Canadian Council of Ministers of the Environment (CCME), Canada-wide standard (CWS) for PM2.5 is 30<math>\mu\text{g}/\text{m}^3</math>, a number greater than the 27 <math>\mu\text{g}/\text{m}^3</math> predicted by the proposed project.</p> <p>The use of the 90<sup>th</sup> percentile is directed in Table 1 on page 18 of the August 2007 “Revised Federal Environmental Assessment Guidelines under the Canadian Environmental Assessment Act for the Ambassador Bridge Enhancement Project”. The use of this 90<sup>th</sup> percentile is appropriate and customary for projects like the ABEP. This standard is identical to that used in the air quality report prepared and approved for the Detroit River International Crossing (DRIC) study. For ambient monitoring data, the background concentration of 42 ug/m<sup>3</sup> for PM10 is the 90th percentile background concentration from the MOE Interim Guideline. The background concentration used in the air quality assessment is the same for the build and no build scenario.</p> <p>As directed in Table 1 on page 18 and 19 of the August 2007 “Revised Federal Environmental Assessment Guidelines under the Canadian Environmental Assessment Act for the Ambassador Bridge Enhancement Project, Mobile 6/6.2C with US EPA emission factors and CALQ3HCR was used to assess the potential air quality impacts. In order to conservatively estimate the air quality impacts, the vehicles were coded into the modeling at the slowest rate of speed (2.5mph or 4kph)</p>	<p>revised screening report to provide context and describe the similarities between the anticipated air quality impacts for the “build” and for the “no build” project scenarios, in particular, for effects along Huron Church Road.</p> <p>TC and the WPA acknowledge the CTC’s commitment to ensure that no exceedances above the “operation” or “no build” alternative occur during construction and have included this commitment in the air quality follow-up section.</p> <p>Additional mitigation, including changes to construction timing and staging, may be required to meet this commitment. The screening report reflects the CTC’s commitment to real-time monitoring to be used on site to establish current conditions in an efficient manner and to allow the CTC to respond to any exceedances as soon as possible. The screening report also reflects the CTC’s commitment to continue real time monitoring for three years of operation.</p>

No	Comment	CTC Response	TC/WPA Response
		<p>allowable under the software that was used. In addition, none of the advantageous effects resulting from the introduction of FAST lanes on the bridge were included in the modeling assessment. Since the processing of FAST trucks takes roughly half the time for that of non-FAST vehicles, a significant overall reduction in idling, "creeping" and frequent stopping is anticipated once the facility is enhanced to provide full FAST capability instead of the limited FAST capability currently present only in the plaza. Developed in 1978, the air quality software analysis model used for this project is the same one that has been used for all projects constructed in Canada in the last several decades. This model has been the standard used throughout North American for over 40 years for transportation projects. It is also the same model used in the recently approved DRIC/NITC project. The analysis included emission factors representative for vehicle speeds of 4.0 kph. This is the slowest speed recognized by the Mobile6.2 model. The MOVES model was only recently approved by USEPA and few projects have been completed using this model. The use of the MOVES model is beyond the scope of this project.</p> <p>The August 2007 “Revised Federal Environmental Assessment Guidelines under the Canadian Environmental Assessment Act for the Ambassador Bridge Enhancement Project” states on Page 18 in Table 1 that the emissions scenarios should include the project completion year and 10 years later. In general terms, the analysis shows that total vehicular particulate emissions are reduced over time. As older, less efficient vehicles that were manufactured under previous less restrictive air quality emission standards are retired, they are replaced with lower emitting vehicles manufactured under today's more restrictive emission standards. The projected growth rate in traffic volumes is slower than the effects of the trend toward lower emitting vehicles resulting in an overall improvement in air quality near the project. As such, the modeling of years beyond 2025 are not expected to result in greater emission levels.</p> <p>The combined effects analysis is discussed in Section 6.3.2 of the Air Quality Study found in Appendix D of the EIS. This analysis was conducted in accordance with the August 2007 “Revised Federal Environmental Assessment Guidelines under the Canadian Environmental Assessment Act for the Ambassador Bridge Enhancement Project and the project work plan. 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. In addition, one future build scenario included traffic on both the proposed bridge and existing Ambassador Bridge in order to provide a worst case scenario as described in Appendix D of the EIS. Figure 1 of the Air Quality Assessment includes a flow diagram of the project which identifies the creation of the work plan and study area, identification of sensitive receptors, and identification of modeled scenarios. Per the EA Guidelines, the air quality assessment should consider “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.” As previously stated, the use of this 90<sup>th</sup> percentile is conservative and appropriate for projects like the ABEP, which was done for this analysis. Frequency histograms for NO<sub>x</sub>, PM<sub>10</sub> and PM2.5 are located in Appendix 15 of the Air Quality Assessment found in Appendix D of the EIS.</p> <p>Note that comments from the City's traffic expert suggest that the existing bridge has a capacity of up to 27 Million vehicles annually. The projected demand at the Ambassador bridge is less than 16 Million vehicles in 2025 based on the Travel Demand Forecasts prepared under the Detroit River</p>	

No	Comment	CTC Response	TC/WPA Response
		<p>International Crossing (DRIC) study. As such, very little difference in air quality impacts will occur between the build and the do-nothing scenario.</p> <p>A substantial mitigation plan has been developed for the construction of the system including a monitoring plan and best management practices to ensure that no exceedances above the operation or no build alternative occur during construction.</p>	
2-3	<p>From the Valcoustics Canada Peer Review, please respond to the comments related to the noise impact analysis, including: noise mitigation for pile driving activities; sound levels in excess of the MOE noise guidelines; potential amplification of vibration in nearby structures; the use of 2010 daily traffic volumes to predict noise to 2025; potential noise impacts as a result of future traffic queuing; noise resulting from grooved concrete; the use of the RLS-90 for acoustic modelling; sampling of existing conditions; engine brake use; discussions on the significance of the predictions; and, significance of exceedances at 33 of 34 sensitive receptors.</p>	<p>Details of the noise study can be found in Appendix J of the EIS and Section 6.9 of the DSR. CTC has committed to retain an expert to address noise related complaints or concerns and to conduct any necessary field work related to noise during construction, when necessary. Once construction details and drawings are finalized a construction noise and vibration assessment shall be undertaken to determine the zone of influence, provide a scope for monitoring, and establish precautionary limits. The construction activity with the greatest potential noise emissions is pile driving. Additional appropriate mitigation will be determined at that time which may include jacketing around pile drivers, vibratory pile driving or adjustment of hammer force, for example. The proposed activities would be conducted in the context of the community consultation plan as a post EA requirement.</p> <p>The ENVA (Environmental Noise and Vibration Assessment) utilizes guidelines for road widenings published by the Ontario Ministry of Transportation, Noise Environmental Standards and Practices User Guide which are applicable for the operational phase of this proposal. The MTO Guidelines were utilized on this study as they specifically relate to transportation projects. MOE Guidelines do not apply to new or the expansion of major road or rail transportation sources. They apply to the assessment of noise from industrial facilities under Section 9 of the Environmental Protection Act, or to the development of new noise sensitive uses such as residential developments near industry or transportation corridors.</p> <p>The project has been designed to include noise mitigation features such that the predicted future sound levels at the considered receptors do not increase under the Build scenario versus the No Build scenario. In fact, as shown in Table VIII beginning on page 27 of Appendix J; 26 of the 34 receptors studied actually show noise level reductions in 2025, some by as much as 13%, due to the mitigating effects of the noise walls proposed by the project. The remaining 8 receptors experience no change since they are outside the area where noise walls could be constructed. The overall noise levels in the vicinity of the project drop dramatically under the build alternative since new noise walls will be constructed as part of the enhancement project.</p> <p>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 ground-borne vibration into the surrounding environment.</p> <p>The ENVA utilizes guidelines for road widenings published by the Ontario Ministry of Transportation Noise Environmental Standards and Practices User Guide, which requires the use of road traffic data 10 years post construction (2025). Based on discussions with Paul Bouliane at the City of Windsor, traffic on surrounding roadways has remained fairly consistent over the last number of years, and that trend is expected to continue into the foreseeable future because the area is mature in terms of development. Based on these discussions, growth was not assumed for surrounding roadways.</p> <p>It has been HGC's experience, based on extensive monitoring along expressways in urban areas,</p>	<p>Additional details regarding the CTC's commitment to a dynamic vibration study for effects during operations have been included in the final screening. The screening has been revised to clarify that the commitment to study the bridge support structure is for this to be undertaken when sufficient detail is available to ensure that the piers and associated support structure will not radiate significant levels of ground-borne vibration into the surrounding environment.</p> <p>The revised screening has been amended to include additional details regarding the CTC's commitment to a construction noise and vibration environmental management plan to determine the zone of influence, provide a scope for monitoring, and establish precautionary limits.</p> <p>Additional information regarding the CTC's approach to limiting the use of jake brakes to the extent possible has been included in the revised screening report.</p> <p>Clarification has also been included with regards to current and anticipated levels of local traffic on Indian Road (110 vehicles average daily will likely increase to approximately 772 PM peak hourly). These values are based on figures 2.1 and 2.3 of Appendix Q – Traffic Analysis.</p> <p>As a result of the proposed</p>

No	Comment	CTC Response	TC/WPA Response
		<p>that when traffic is heavily congested (queuing) sound levels decrease. We concur that different road surfaces cause different sound level emissions, however, the noise walls proposed for the project will mitigate the existing noise levels such that an overall improvement is anticipated as shown in Table VIII beginning on Page 27 of the noise study contained in Appendix J of the EIS.</p> <p>RLS90 was implemented to address the complex terrain and built form in the area. The difference between RLS90 and the North American Models like TNM is well understood. A comparison of predicted sound levels between TNM and RLS-90 was completed during the modeling and the results indicated a variation of no greater than +/- 2 dBA. The issue of truck source height was accounted for in the modeling. Trucks were modeled with a source height of 2.4m above the road surface equivalent to the source height in MTO's STAMSON.</p> <p>Measurements in the field were conducted to only assist with calibrating the acoustical model of the bridge to be representative of both the existing (no build) and future scenarios. More extensive monitoring would not provide additional information for that purpose.</p> <p>The City of Windsor has a bylaw prohibiting the use of engine brakes. CTC will continue to do its best to encourage people to not use jake brakes. The City of Windsor is responsible for enforcing the prohibition of jake braking and CTC does not have the authority to levy fines or other measures to prevent the use of engine braking. CTC is willing to work cooperatively with the City of Windsor in eliminating the use of jake brakes without compromising safety. In any case, the noise walls that will be installed as part of this project will serve to reduce overall noise levels as shown in the noise study in Appendix J.</p> <p>The noise study did not include the local traffic on the relocated Huron Church Road. However, the majority of traffic noise within the neighborhoods surrounding the project is due to traffic on the bridge and plaza and not from local roads. A 5.5m tall noise wall is proposed to muffle the noise from the plaza which is expected to more than compensate for any local traffic noise on the re-routed Huron Church Road. Further, due to the extensive number of driveways that will be provided along the re-routed Huron Church Road, the construction of a noise barrier in this location would not be possible or beneficial regardless.</p>	<p>realignment of Huron Church Road and modifications to Indian Road, TC understands that traffic modeling indicates that traffic levels are anticipated to increase along the modified Indian Road. TC further understands that this increase is anticipated to be most pronounced during the peak afternoon commuting. While noise is expected to result from this increase in traffic, the screening report has been revised to reflect the CTC's prediction that the implementation of noise barriers adjacent to the plaza is expected to reduce noise from the bridge facilities and is expected to maintain overall noise at an acceptable level.</p>
2-4	From the Sam Schwartz Engineering Peer Review, please respond to the comments related to the traffic analysis, which formed the basis for the modelling of noise and air quality impacts, in particular: the potential for long back-ups of vehicles on the Ambassador Bridge and approach roads; consideration of total vehicle capacity in predicting effects; extent of traffic impacts on Huron Church Road and other city streets; the use of 2025 traffic volumes instead of 2035; and, the calculation of customs processing	Traffic volumes used in the Ambassador Bridge Enhancement Project are from the Travel Demand Forecasts prepared and approved under the Detroit River International Crossing (DRIC) study. The 2005 Travel Demand Forecast prepared and used for the DRIC project included a comprehensive prediction of future border crossing needs in the region. These projections were prepared based on the total needs of the region without constraints from the existing infrastructure. That is, these forecasts included an estimate of the unconstrained demand across the river and the "No-Build" alternative represents an upper bound of the potential traffic demand at the Ambassador Bridge in the coming years. While the actual traffic volumes since their baseline projection of 2005 have proven to overestimate the traffic by a wide margin, it is not unreasonable to assume conservative traffic projections for a major project such as the ABEP. As such, the impacts for the ABEP are conservatively based on the total travel demand forecasts for the region based on the proven conservatism of the 2005 DRIC Travel Demand Forecasts for the Ambassador Bridge which was based on the total needs of the region without reduction for the infrastructure planned and in place. The unconstrained traffic volumes, assuming no reduction for the construction of the DRIC facility, were used in assessing all impacts from the ABEP. Factors used to determine the growth rate in the traffic volumes in that study are described in chapter 5 of the Travel Demand Forecasts from	<p>Additional information has been included in the final screening describing the use of traffic demand modeling to predict traffic levels at the crossing to the year 2025. Information related to the volume analysis provided by Sam Schwartz Engineering has also been included in the revised screening as it relates to the capacity of the corridor.</p> <p>The analysis undertaken by Sam Schwartz engineering indicated that the total capacity of the bridge crossing is likely over 27 million vehicles annually. Studies undertaken by TC to determine the</p>

No	Comment	CTC Response	TC/WPA Response
	<p>times and use of those calculations in modelling. Also pertaining to Sam Schwartz Engineering Peer Review, please clarify whether the DRIC traffic projections were used to establish the need and alternatives for the project.</p>	<p>September 2005 prepared for the DRIC study include population growth projections of Ontario and Michigan, the US-Canada exchange rate, the Windsor casino attendance, Canadian and US GDP, international trade values, automotive and metal demand, machinery and equipment demand, forestry, agriculture, and other commodities. These travel demand forecasts at the Ambassador Bridge are not constrained by infrastructure limitations. Therefore, they represent the upper bound of traffic volumes that will occur at the Ambassador Bridge. In 2025, the total demand to cross the Ambassador Bridge was projected to be 15,220,000 vehicles as shown in Exhibit 5-23 of that report. The actual traffic growth experienced at the Ambassador Bridge since these forecasts were developed, are roughly 65% of that predicted under the DRIC Study. That is, the actual volumes experienced are 35% lower in 2012 than that predicted by the DRIC Travel Demand Forecast in the same year. Nevertheless, these extremely conservative volumes are used to assess environmental and other impacts related to the Ambassador Bridge Enhancement Project in the required study years. Regardless of these shortcomings in the DRIC study, their traffic volumes were conservatively used for the assessment of impacts. Given the long term nature of the project, some conservatism in the analysis is appropriate and not unwarranted.</p> <p>With the addition of the FAST lanes, E-Manifest and ACE programs, overall queuing is expected to decrease dramatically on the proposed bridge. However, the new bridge will accommodate additional queuing space for customs processing.</p> <p>The traffic Peer Reviewer suggested that the existing bridge has a capacity of 27 Million vehicles annually. With the demand to cross the structure at less than 16 Million vehicles as shown in the approved DRIC travel demand forecasts, the cause of any backups on the bridge or approach roadway cannot properly be attributed to the Ambassador Bridge. That is, the lanes across the river do not cause backups and there will be no difference between the build and do nothing alternatives since the bridge is not a "bottleneck" and does not reach its capacity in 2025 or even 2035 for that matter.</p> <p>The total vehicle capacity is not germane and was not considered in assessing impacts. The total unconstrained travel demand across the river was used to assess impacts of the Ambassador Bridge Enhancement Project. As noted above, the City's traffic Peer Reviewer calculated a capacity of the existing Ambassador Bridge of 27 Million vehicles while the DRIC study determined a total demand of less than 16 Million vehicles. Based on those calculations, additional general purpose lanes, let alone special purpose lanes, will result in no increase in traffic volumes since the total travel demand at the crossing is less than the 27 Million vehicles that the Peer Reviewer himself states is the capacity of the existing bridge. This is also why there is no increase in impacts associated with the build alternative over the do nothing alternative.</p> <p>2025 traffic volumes were used in assessing impacts as required by Table 1 of the August 2007 "<i>Revised Federal Environmental Assessment Guidelines under the Canadian Environmental Assessment Act for the Ambassador Bridge Enhancement Project</i>". Future years could be used but they would have no effect on the difference between the build and do nothing alternative.</p> <p>For traffic noise, a worst case scenario would assume the maximum amount of free flowing traffic at the highest speed (considered level of service C) as opposed to constant queuing on the bridge. Therefore, the assumption of constant queuing on the bridge and plaza were not used for the traffic noise study. Appropriate idling speeds and queuing were used in the air quality study as described in the response above related to air quality.</p>	<p>unconstrained regional travel demand indicate that total traffic demand over the course of the planning horizon will likely be substantially less than the volume capacity examined in the review analysis. The CTC analysis has established 16.47 million vehicle crossings per year as the unconstrained traffic demand prediction for the Ambassador Bridge crossing for both the "no build" and "build" project scenarios. Clarification has been included in the revised screening to describe the "build" and "do nothing" traffic scenarios, as they relate to the prediction of environmental effects including air quality and noise impacts.</p> <p>Clarification with regards to the need and alternatives to the Project, from the proponent's perspective, has been included in the revised screening.</p> <p>The final screening further identifies and differentiates the DRIC project and the needs and purpose established for it.</p>

No	Comment	CTC Response	TC/WPA Response
		The DRIC traffic projections and forecasts were not used for determining purpose and need for the Ambassador Bridge Enhancement Project (ABEP). The purpose and need for the ABEP is as described on pages 3 and 4 of the DSR and include ensuring the continued free flow of goods, the introduction of efficiencies related to FAST/NEXUS lanes, upgrading to current geometric standards and preserving the existing historic structure. Traffic projections, forecasts or demand volumes are not a consideration in the purpose and need for the project and have no effect on these four items.	
2-5	In relation to Thom Hunt's letter dated June 10, 2013, and understanding that some discussion may need to take place between the CTC and the City of Windsor with regards to land use planning requirements, please provide clarification on how the CTC intends to approach potential impacts on community and neighbourhood characteristics, existing and planned land use, cultural resources and heritage areas and features.	<p>Consideration of the City's Zoning By-Law and Official Plan was conducted and information and analysis is included in Sections 4.10, 4.11, 4.12, 6.2.3, 5.10, 5.11, 5.13 and 7.6 of the EIS; Appendix K, L, and N; and other issue specific sections (e.g., noise, air quality, cultural and heritage resources, etc.) of the EIS and DSR. The analysis of socioeconomic effects was done in accordance with Table 1 of the August 2007 "Revised Federal Environmental Assessment Guidelines under the Canadian Environmental Assessment Act for the Ambassador Bridge Enhancement Project".</p> <p>During the design phase and construction phase, the CTC will engage the Olde Sandwich Towne Business Improvement Association as well as City planning staff and selected community leaders to establish an advisory committee to work together with the CTC in the development of the green buffer space, buffer features, landscaping, pedestrian and trail connections retaining community continuity, lighting and other elements of the buffer located on the west side of the ABEP. Transport Canada will retain a seat on the advisory committee to provide leadership, oversight and guidance. Additionally, the WIFN will be invited to be a member of the advisory committee. While this committee will have broad authority in the introduction of community enhancement elements, CTC will retain the final decision making authority to fund any recommended concepts. The CTC will consult with this committee to develop aesthetically pleasing architectural features on the west face of the proposed noise walls adjacent to the plaza. This could include a competition or other engagement of local artists to develop an artistic theme, mural or paintings on the face of the walls to complement and memorialize the community's past, present and future.</p> <p>The purpose of the advisory committee is to ensure that community input is included in the proposed features of the project. The advisory committee members will be selected as those individuals who have a pulse on the desires of the community and can opine on behalf of the citizenry. Input from the committee will be used as recommendations for the CTC. The CTC is committed to implementing any and all feasible recommendations of the advisory committee.</p>	<p>The revised screening includes additional information with regards to direct socio-economic considerations under paragraph 16(1)(e) of CEAA.</p> <p>The revised screening report also includes a description of potential municipal planning and class EA requirements identified by the City of Windsor that may be required for the project or parts of the project such as the relocation of Huron Church Road.</p> <p>The proponent's commitment to develop a community consultation/advisory committee has been included in the screening as a commitment for further work. If it is appropriate at the time, TC will consider participation during the post-EA regulatory processes.</p>
2-6	From Mario Sonego's letter dated June 7, 2013, please respond to the comments related to: potential for spills of toxic materials and other accidents and malfunctions related to the transportation of dangerous goods, taking into consideration a recent proposal to transport hazardous materials across the Ambassador Bridge; proposed storm water management and potential impacts	The transport of hazardous materials between the existing structure and proposed structure will not change as a result of the Ambassador Bridge Enhancement Project. That is, those materials currently being carried on the existing Ambassador Bridge will continue to cross on the proposed bridge. The ABEP is not expected to have any impact on the application of the laws governing hazardous materials transport, or the enforcement of current laws by the agencies that hold this responsibility. Currently hazardous materials, such as explosive gases and corrosive liquids, are not allowed to cross the Ambassador Bridge unless an escort is used. Rather, these are transported by a ferry operated by Canadian Maritime Transport Limited. The Hazardous Materials Routing Synopsis Report for Wayne County developed by the Michigan Department of Transportation (MDOT), dated December 2012, points out that explosive materials could result in an explosive-caused fire or a toxic release that could trap occupants and they may not survive. It should be noted that this is true on the existing Ambassador Bridge as well as the ferry currently used. The MDOT	<p>After consultation with TC's Transportation of Dangerous Goods Directorate, clarification has been included in the revised screening to reflect the potential for accidents and malfunctions associated with the transportation of dangerous goods and operational mitigation and protocols that would be in place to prevent and/or respond to any unforeseen accidents.</p> <p>The Transportation of Dangerous</p>

No	Comment	CTC Response	TC/WPA Response
	<p>on access to and the capacity of the City of Windsor's storm water system, with particular consideration of the 2.7 m diameter storm sewer located within the plaza footprint; and, removal of suspended solids and contaminants from storm water run-off.</p>	<p>felt the use of escorts reduced this risk and indicated that "A request for escorts (accompanying vehicles) for shipments on NRHM routes has been analyzed. Based on the research, it has been determined that vehicular escorts provide an acceptable alternative to restricting certain hazardous materials through the use of protective measures. The requirement for escorts – as an additional means to reduce risk – was recommended as a viable approach based on key variables, including the length of the route, speed of traffic and control of the traffic." It is also important to note the fact that the Michigan DOT Hazardous Materials Routing Synopsis Report identified the existing Ambassador Bridge as having one of the lowest number of incidents at 1.40 crashes per <math>10^6</math> miles versus the Detroit Windsor Tunnel that had a crash rate over three times higher at 4.92 crashes per <math>10^6</math> miles.</p> <p>The Ambassador bridge command center continuously monitors the facility in real time through its cctv camera network and will immediately notify the proper authorities on the location and severity of all accidents. The command center will also immediately dispatch traffic management personal to assess the situation and control the scene until the emergency responders arrive. The precise traffic control measures and methodologies are based on the location and severity of the lane blockages and impediments. The command center also controls the ingress and egress of all of the traffic and can restrict access to the bridge while the accident is being resolved and can assist emergency responders by creating an unrestricting path to and from the accident location.</p> <p>While the ABEP does not suggest any changes in policy related to the transport of hazardous materials, the proposed structure will have better, more accessible ways to deal with any materials in the unlikely event of a spill. All runoff will be collected and sent to a stormwater treatment facility and or designated spill containment areas for the project allowing for quicker and easier clean-up and less chance of contamination reaching other areas of the environment or the Detroit River. The addition of shoulders on the proposed bridge will allow emergency response vehicles to access an accident even if there are long queues on the bridge.</p> <p>CTC does not have the authority to track the contents of all trucks that cross the border, nor is it within their jurisdiction. A discussion of documented spills is discussed in Section 7.3.1.7 of the EIS. Of these, the spills either did not have an environmental impact, the environmental impact was not known or not documented or the spill was successfully cleaned up. Further discussion of the potential effects of accidents, hazardous material spills, erosion, sediment and stormwater discharge, fire and explosion, and disturbance of archaeological features is included in Sections 3.4 and 3.6 of the EIS.</p> <p>The Spills Prevention and Contingency Plan in Appendix C contains the 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. All pollutants and runoff will be collected in a system located on the bridge and carried to the treatment system.</p> <p>In the unlikely event of larger spills, such as major accidents during operation, the appropriate emergency response procedures will be utilized to minimize potential environmental effects including provisions for containment at outfall locations such as turbidity barrier for containment at the outfall location and inflatable bag plugs for closing off storm drain outlets. Standard procedure for any spill is specifically outlined in Appendix C. Emergency response and contingency planning are accepted and effective means to limit the severity of environmental effects. These plans and</p>	<p>Goods Act continues to apply to the movement of dangerous goods through Windsor, including through the project area.</p> <p>The CTC is required to establish the preferred design option for storm water management prior to the construction of the bridge, bridge approaches or the expansion of the plaza footprint. The preferred design option will be submitted to TC for review by the federal review team, as required, to ensure the EA commitments are met.</p> <p>Storm water management implemented during the early stages of the project will be consistent with the requirements established for the project as a whole and reflect future design and capacity requirements. In the event that agreement cannot be reached with municipal officials for additional storm water quantities resulting from the construction of the project (the preferred approach), TC understands that alternative on-site approaches will be applied.</p>

No	Comment	CTC Response	TC/WPA Response
		<p>procedures will be implemented in accordance with the Spills Prevention and Contingency Plan and supported through training programs.</p> <p>Further, as mentioned within the EIS, in the event of a major spill or accident, the existing Ambassador Bridge would be available as a redundant resource if the proposed bridge needed to be shut down. This would provide multiple benefits including providing enhanced access to the incident scene for emergency vehicles when necessary.</p> <p>While we appreciate the desire to see the final stormwater management design detail, we have not yet completed final design of those facilities at this time. Section 3.4 of the EIS describes the two alternatives that will be considered during final design for stormwater. In addition specific details are described in Appendix E of the EIS pertaining to Draft Erosion and Sediment Control and Stormwater Management Plan. Appendix E discusses extensively the design measures during construction including the Ontario Provincial Standards for Roads and Public Works prepared by the Ontario Ministry of Transportation and Municipal Engineers Association. We feel that there are no significant challenges that would preclude the ultimate design and construction of stormwater management facilities fully compliant with the criteria identified and therefore it appears reasonable that the detail of such facilities not be developed at this time. A system designed to meet the applicable criteria is presumed to adequately address the potential for impacts and there would be numerous stormwater facility alternative designs that could achieve that. The details of the stormwater facility will be determined during final design in conjunction with Transport Canada, the federal review team and the City of Windsor.</p> <p>Utility coordination was recognized as potentially needed in Table 1 within Section 3.2 of the EIS. Utility coordination was slated to occur during the design phase of the project. Preliminary assessments of the availability of infrastructure was conducted and it was determined that there were practical solutions with access easements and authorities available to maintain continuity of service provision and the ability to efficiently and effectively maintain the City's infrastructure. We understand that City currently has access to the sanitary sewer system and the City's access to this system will remain throughout construction and operation of the ABEP.</p>	

### Section 3: Comments from Walpole Island First Nation

No	Comment	CTC Response	TC/WPA Response
3-1	Walpole Island First Nation (WIFN) has indicated that it is engaged with the CTC in the WIFN Consultation and Accommodation Protocol (WIFN CAP) and that the CTC will provide reasonable resources necessary for a thorough review of the project. WIFN is also of the understanding that the CTC is willing to address any current and future concerns that WIFN may have along with	CTC is currently undergoing consultation with the Walpole Island First Nation. The consultation is expected to be a collaboration between the WIFN and CTC so that we may work together towards a mutually beneficial result. The CTC is anticipating input and recommendations from the WIFN that CTC will use moving forward. The consultation with WIFN will be completed as Post EA commitment. The CTC is willing to address any current and future concerns that WIFN may have along with mitigation and accommodation of potential impacts as a result of the project. We agree with the approach suggested by the commenter. Though not required, the CTC plans to have WIFN members or consultants on site during excavation of archaeological site AbHs-34 in order to provide input and/or assistance. In addition, the WIFN will be invited to be a member of the advisory committee discussed in the response to comment 4. Information regarding First Nations can be found in the EIS in Sections 5.16 and 7.10 in addition to Sections 6.11, 9.1 and 9.3 of the	Clarification has been included in the revised screening regarding the collaborative process between the WIFN and CTC.

	mitigation and accommodation of potential impacts as a result of the project going forward. This includes the full review of the EIS and meetings and discussions, and developments of a memorandum of understand/Impacts Benefits Agreement.	DSR.	
3-2	From D. R. Poulton and Associates, on behalf of Walpole Island First Nation, comments on the Stage 1, 2, and 3 Archaeological Assessment Reports including changes to standard procedures for archaeological assessments in Ontario, the identification of potential first nation artefacts and sites including possible unregistered burial sites, further consultation with the Ministry of Sport Culture and Tourism and Walpole Island First Nation and further work anticipated as part Stage 4 mitigation including recommendations for AbHs-30 and AbHs-34.	<p>AbHs-30 will be avoided through the current engineering plans but particular concern will be paid to soil disturbing activities in this area during construction.</p> <p>Observation by WIFN approved monitors will occur. An external observer approved by WIFN, archaeologist Rosemarie Denunzio was present for portions of the earlier Stage 2 archaeological assessment in May – June 2007.</p> <p>Any future Stage 3 or 4 archaeological fieldwork which might be conducted at any of the archaeological sites to be potentially impacted by the Ambassador Bridge Enhancement Project would follow the Ministry's 2011 standards and Guidelines as well as existing or developing protocols regarding Aboriginal Engagement.</p> <p>Future archaeological fieldwork associated with the proposed project should include a re-examination of all available historical data concerning the 18<sup>th</sup> century Huron village and First Nation's consultation.</p> <p>Committed to provide WIFN with copies of reports and all relevant correspondence from the Ministry regarding the Ambassador Bridge Enhancement Project archaeological assessments.</p>	Clarification has been included in the revised screening report to identify Walpole Island First Nation's interest in archaeological issues related to the project. Contingency measures have also been included in the event that unanticipated impacts to Site AbHs-30 would not be avoided during construction as proposed by the proponent.
3-3	From Walpole Island First Nation consultants, comments on the environmental effects analysis including identification of wildlife species and sensitive vegetation including species at risk, the location of McKee Park, effective management of interactions with peregrine falcons, the timing of breeding bird surveys and migratory bird flight patterns.	<p>The management plan for the peregrine falcons will be carried out regardless of any changes to the species status.</p> <p>If clearing or other activities that may have an impact on migratory birds are required between May 1<sup>st</sup> and July 31<sup>st</sup>, non intrusive searching methods will be conducted by an qualified avian biologist to determine if migratory bird breeding has started.</p>	Consistent with Environment Canada's recommendations, the revised screening report has been updated to reflect mitigation to avoid disturbance of breeding birds within the project area.

#### Section 4: Comments from the Essex Terminal Rail Railway

No	Comment	CTC Response	TC/WPA Response
4-1	The proposed extension of Indian Road to intersect College Avenue, and the partial closure of Huron Church Road, will require a new, second, at-grade crossing with	Agree, the CTC, in collaboration with the CBSA, is prepared to conduct all necessary studies, coordination and consultation in compliance with the Railway Safety Act during the design phase of the project. While the plaza master plan was developed by the CBSA and its consultant and included some coordination with the Essex Terminal Railway, the CTC is prepared to meet with the railway and the appropriate authorities to finalize a design that meets the standards and	Clarification has been included in the revised screening report to identify potential design requirements for rail crossings within the project area under the <i>Railway Safety Act</i> and the

No	Comment	CTC Response	TC/WPA Response
	ETR's existing line. This would be subject to compliance with the Railway Safety Act and include the requirement for a railway safety assessment. All necessary studies, agreements, regulatory compliance details, and consultation with the ETR will be required as part of this process. Given the close proximity to the ETR and potential effects of the interaction with operation of the ETR railway, any development should be undertaken consistent with appropriate development standards such as CN's development restrictions.	requirements of the Essex Terminal Railway, TC and the CTA	<i>Canadian Transportation Act.</i>

## Section 5: Comments from Environment Canada

No	Comment	CTC Response	TC/WPA Response
5-1	Section 6.1 on page 17; the text in bullet 3 be amended as follows:  Real-time air quality monitoring utilizing Thermo Scientific SHARP model 5030 real-time monitors during the construction phase and three years post-construction (i.e. operation) for PM10, PM <sub>2.5</sub> and NO <sub>x</sub> (at minimum).	CTC does not object to the suggested text updates.	The revised screening report has been updated to include the recommended text.
5-2	Section 6.7 (page 22): Construction activities such as vegetation clearing and grubbing, the creation of staging areas and elevated noise and vibration levels are likely to result in the permanent removal of local urban wildlife habitat and the displacement of wildlife within the project footprint, <u>and have the potential to disturb, destroy or take migratory bird nests or eggs.</u>  Potentially disruptive activities, such as vegetation removal, will be avoided between May 1 and July 31	CTC does not object to the suggested text updates.	The revised screening report has been updated to include the recommended text.

	<p>to the extent possible to mitigate potential effects and minimize harm to all wildlife including migratory birds that may be nesting in the project area. If clearing or other activities that may have an impact on migratory birds are required between May 1 and July 31, <u>non-intrusive searching methods will be conducted by a qualified avian biologist to determine if migratory bird breeding has started, a nest survey will be conducted by a qualified avian biologist.</u></p>	
5-3	<p>Table 6.2 (page 35): If clearing or other activities that may have an impact on migratory birds are required between May 1 and July 31, <u>non-intrusive searching methods will be conducted by a qualified avian biologist to determine if migratory bird breeding has started, a nest survey will be conducted by a qualified avian biologist</u>, within 2 days of the proposed activity. The nest survey will identify and locate active nests. <u>Should migratory bird nests</u> <u>Should it be determined that the breeding season has started and that migratory bird breeding is in progress</u> be identified in locations where project works or activities may result in their disturbance or destruction, a mitigation plan will be developed in consultation with Environment Canada.</p>	<p>CTC does not object to the suggested text updates.</p> <p>The revised screening report has been updated to include the recommended text.</p>

## Appendix C: Example Environmental Assessment Monitoring Table

Mitigation and Monitoring Measures Implemented by the Proponent During Project Construction					
Project Phases/ Activities	Environmental Components	Mitigation and/or Monitoring Measure	Measure Implemented	Photos or document No.	Description
			Yes <input type="checkbox"/> No <input type="checkbox"/>		
			Yes <input type="checkbox"/> No <input type="checkbox"/>		
			Yes <input type="checkbox"/> No <input type="checkbox"/>		
			Yes <input type="checkbox"/> No <input type="checkbox"/>		
			Yes <input type="checkbox"/> No <input type="checkbox"/>		
			Yes <input type="checkbox"/> No <input type="checkbox"/>		
			Yes <input type="checkbox"/> No <input type="checkbox"/>		
			Yes <input type="checkbox"/> No <input type="checkbox"/>		

Whereas section 6 of the *International Bridges and Tunnels Act* (the Act) provides that no person shall construct or alter an international bridge or tunnel without the approval of the Governor in Council;

Whereas paragraph 23(1)(b) of the Act provides that no person shall, without the approval of the Governor in Council, operate an international bridge or tunnel;

Whereas the Ambassador Bridge is an 87-year old four-lane international bridge that spans the Detroit River between Windsor, Ontario and Detroit, Michigan;

Whereas the Canadian portion of the Ambassador Bridge is owned and operated by the Canadian Transit Company;

Whereas the Canadian Transit Company, pursuant to subsections 7(1) and 24(1) of the Act, submitted an application to the Minister of Transport for approval of

(a) the proposed construction and operation of a new six-lane international bridge immediately west of the Ambassador Bridge; and

(b) the proposed alteration of the Canadian border services facilities of the Ambassador Bridge that will also serve the new bridge;

Whereas the Canadian Transit Company proposes that, once the new six-lane international bridge is constructed and open to traffic, the Ambassador Bridge be closed to traffic and used in limited circumstances and for system redundancy;

Whereas once the new six-lane international bridge is constructed and open to traffic, the Ambassador Bridge will not be required in order to meet traffic demand or for system redundancy;

Attendu que l'article 6 de la *Loi sur les ponts et tunnels internationaux* (la Loi) prévoit que nul ne peut, sans l'agrément du gouverneur en conseil, construire ou modifier un pont ou un tunnel international;

Attendu que le paragraphe 23(1) de la Loi prévoit que nul ne peut, sans l'agrément du gouverneur en conseil, exploiter un pont ou un tunnel international;

Attendu que le pont Ambassador Bridge est un pont international à quatre voies ayant 87 ans qui enjambe la rivière Détroit entre la ville de Windsor, en Ontario, et la ville de Détroit, dans l'État du Michigan;

Attendu que l'entreprise Canadian Transit Company est la propriétaire et l'exploitante de la partie canadienne du pont Ambassador Bridge;

Attendu que la Canadian Transit Company, en vertu des paragraphes 7(1) et 24(1) de la Loi, a transmis une demande au ministre des Transports en vue de l'obtention de l'agrément :

a) du projet de construction et d'exploitation d'un nouveau pont international à six voies immédiatement à l'ouest du pont Ambassador Bridge;

b) du projet de modification des installations canadiennes de services frontaliers du pont Ambassador Bridge qui desserviront également le nouveau pont;

Attendu que l'entreprise Canadian Transit Company propose que, une fois le nouveau pont international à six voies construit et ouvert à la circulation, le pont Ambassador Bridge soit fermé à la circulation et utilisé dans des circonstances limitées et pour assurer la redondance du système;

Attendu qu'une fois le nouveau pont international à six voies construit et ouvert à la circulation, il ne sera pas nécessaire de conserver le pont Ambassador Bridge afin de répondre à la demande de trafic et d'assurer la redondance du système;

Whereas a bridge that is not required and is underutilized could create risks, including risks related to safety, security and the environment;

And whereas the Governor in Council considers it appropriate to approve the proposed construction and operation of the new bridge and the proposed alteration of the Canadian border services facilities of the Ambassador Bridge, subject to the terms and conditions set out in the attached schedule, which are established to, among other things, mitigate the safety and security risks and the impacts on the local community and the environment that could be caused by that construction, operation and alteration;

Therefore, His Excellency the Governor General in Council, on the recommendation of the Minister of Transport, pursuant to subsections 8(1) and 25(1) of the *International Bridges and Tunnels Act*, approves

(a) the proposed construction and operation by the Canadian Transit Company of a new six-lane international bridge immediately west of the Ambassador Bridge, subject to the terms and conditions set out in the attached schedule, which include the demolition of the Ambassador Bridge other than the border services facilities; and

(b) the proposed alteration by the Canadian Transit Company of the Canadian border services facilities of the Ambassador Bridge that will also serve the new bridge, subject to the terms and conditions set out in the attached schedule.

Attendu qu'un pont qui n'est pas nécessaire et qui est sous-utilisé peut entraîner des risques, y compris en matière de sûreté, de sécurité et d'environnement;

Attendu que le gouverneur en conseil estime qu'il est indiqué d'agréer le projet de construction et l'exploitation du nouveau pont et le projet de modification des installations canadiennes de services frontaliers du pont Ambassador Bridge, sous réserve des conditions énoncées dans l'annexe ci-jointe, établies notamment afin d'atténuer les risques en matière de sûreté et de sécurité et les répercussions sur la collectivité locale et sur l'environnement que cette construction, exploitation et modification pourraient causer,

À ces causes, sur recommandation du ministre des Transports et en vertu des paragraphes 8(1) et 25(1) de la *Loi sur les ponts et tunnels internationaux*, Son Excellence le Gouverneur général en conseil agrée :

a) le projet de construction et d'exploitation par la Canadian Transit Company d'un nouveau pont international à six voies immédiatement à l'ouest du pont Ambassador Bridge, sous réserve des conditions énoncées dans l'annexe ci-jointe, y compris la destruction du pont Ambassador Bridge, à l'exception des installations de services frontaliers;

b) le projet de modification par la Canadian Transit Company des installations canadiennes de services frontaliers du pont Ambassador Bridge qui desserviront également le nouveau pont, sous réserve des conditions énoncées dans l'annexe ci-jointe.

# SCHEDULE

## Definitions

- 1 The following definitions apply in this Schedule.

**Ambassador Bridge** means the existing four-lane international bridge that spans the Detroit River between Windsor, Ontario, and Detroit, Michigan. (*pont Ambassador Bridge*)

**Canadian border services facilities** means the border services facilities of the Ambassador Bridge in Windsor, Ontario, that will also serve the Replacement bridge. (*installations canadiennes de services frontaliers*)

**Canadian border services facilities work** means the work proposed by the Canadian Transit Company to alter the Canadian border services facilities, as described in the Canadian Transit Company's application and documents relating to it. (*travaux relatifs aux installations canadiennes de services frontaliers*)

**Replacement bridge** means a new six-lane international bridge immediately west of the Ambassador Bridge, as described in the Canadian Transit Company's application and documents relating to it. (*pont de remplacement*)

## Alteration of the Canadian Border Services Facilities

- 2 The approval of the Canadian border services facilities work is subject to the terms and conditions set out in sections 3 to 12.
- 3 The Canadian border services facilities work shall be performed within the footprint of the conceptual drawing for that work submitted to the Canada Border Services Agency in June 2016 by the Canadian Transit Company and approved by that Agency by letter dated July 11, 2016 to the Canadian Transit Company.
- 4 The Canadian border services facilities work shall be performed in compliance with the statement of requirements entitled *Ambassador Bridge January 2014 Approved*, attached to the Canada Border Services Agency's letter dated January 31, 2014 to the Canadian Transit Company.
- 5 The final plans for the Canadian border services facilities work shall be substantially consistent with the conceptual drawing submitted to the Canada Border Services Agency in June 2016 by the Canadian Transit Company and approved by that Agency by letter dated July 11, 2016 to the Canadian Transit Company.
- 6 The Canadian Transit Company shall, in performing the Canadian border services facilities work, implement and comply with all mitigation, monitoring and follow-up measures described in the *Environmental Assessment Screening Report* dated January 23, 2014 and prepared

pursuant to the *Canadian Environmental Assessment Act* by Transport Canada and the Windsor Port Authority.

- 7 The Canadian Transit Company shall establish a process to ensure that the Walpole Island First Nation is consulted on the performance of the Canadian border services facilities work, including on the design, the Archeological Stage IV issues and the benefits and opportunities that the work may present for the Walpole Island First Nation.
- 8 The Canadian Transit Company shall, prior to the completion of the Canadian border services facilities work, acquire the portion of Huron Church Road between College Avenue and Wyandotte Street in Windsor, Ontario, and, unless a written agreement addressing the issue of the relocation of that portion of Huron Church Road and its public utilities before the completion of the Canadian border services facilities work is concluded with the City of Windsor, shall also
  - (a) keep open for public use and maintain, at its own cost, that portion of Huron Church Road until it closes;
  - (b) relocate or cause to be relocated, at its own cost, that portion of Huron Church Road and any and all of its public utilities to a location that is immediately adjacent to the west side of the Canadian border services facilities, as expanded by the performance of the Canadian border services facilities work, as illustrated on page 8 of the Canadian Transit Company's application to Transport Canada dated February 27, 2014 and in Appendix A to the Canadian Transit Company's letter to Transport Canada dated August 21, 2014;
  - (c) provide all proper easements necessary for the purpose of and as a result of the relocation of any and all of the public utilities referred to in paragraph (b);
  - (d) open and keep open for public use the relocated road referred to in paragraph (b); and
  - (e) maintain, at its own cost, the relocated road referred to in paragraph (b).
- 9 The design and construction of the relocated road and the public utilities referred to in paragraph 8(b) shall be similar to the portion of Huron Church Road and its public utilities between College Avenue and Wyandotte Street and shall meet standards, specifications and requirements that are not less stringent than those that apply to the design and construction of similarly situated roads and public utilities in the City of Windsor.
- 10 Upon the opening for public use of the relocated portion of Huron Church Road, the Canadian Transit Company shall close or cause to be closed the portion of Huron Church Road between College Avenue and Wyandotte Street.
- 11 Unless a written agreement addressing the issue of the response time for the City of Windsor Emergency Response Teams to serve the community as a result of the Canadian border services facilities work is concluded with the City of Windsor, the Canadian Transit Company shall, at its own cost and prior to the commencement of that work, cause Fire Hall Number 4, located at 2600 College Avenue, to be relocated to a location in Windsor, Ontario, that is within the boundaries described as follows:

Commencing at the intersection of Prince Road and Peter Street;

Thence in a general northeasterly direction along Peter Street to the intersection of Peter Street and Mill Street;

Thence in a general southeasterly direction along Mill Street to the intersection of Mill Street and Felix Avenue;

Thence in a general southeasterly direction along Felix Avenue to the intersection of Felix Avenue and Millen Street;

Thence in a general southwesterly direction along Millen Street to the intersection of Millen Street and Brock Street;

Thence in a general southeasterly direction along Brock Street to the intersection of Brock Street and Well Street;

Thence in a general southwesterly direction along Well Street to the intersection of Well Street and Prince Road;

Thence in a general northwesterly direction along Prince Road to the point of commencement.

12 Unless a written agreement addressing the issue of road infrastructure impacts resulting from the Canadian border services facilities work is concluded with the City of Windsor, the Canadian Transit Company shall, at its own cost,

(a) ensure that any municipal road infrastructure in Windsor, Ontario, used for the performance of the Canadian border services facilities work is kept clean and free from any dirt and debris that results from the performance of the work; and

(b) carry out or cause to be carried out, following the performance of the Canadian border services facilities work, the rehabilitation or restoration of the following road infrastructure in Windsor, Ontario:

(i) College Avenue from Felix Avenue to Huron Church Road,

(ii) Felix Avenue from College Avenue to Mill Street,

(iii) the intersection of College Street and Huron Church Road, and

(iv) any other municipal road infrastructure that was damaged as a result of that work.

## Construction and Operation of the Replacement Bridge

13 The approval of the proposed construction and operation of the Replacement bridge is subject to the terms and conditions set out in sections 14 to 28.

14 The Canadian Transit Company shall commence the construction of the Replacement bridge no later than five years after the Governor in Council approved its construction.

- 15 The Canadian Transit Company shall complete the Canadian border services facilities work prior to the Replacement bridge opening to traffic.
- 16 The Canadian Transit Company shall not construct the Replacement bridge according to standards that are less stringent than the standards set out in the *Canadian Highway Bridge Design Code*.
- 17 The Canadian Transit Company shall, in carrying out the construction of the Replacement bridge, implement and comply with all mitigation, monitoring and follow-up measures described in the *Environmental Assessment Screening Report* dated January 23, 2014 and prepared pursuant to the *Canadian Environmental Assessment Act* by Transport Canada and the Windsor Port Authority.
- 18 The Canadian Transit Company shall establish a process to ensure that the Walpole Island First Nation is consulted on the construction of the Replacement bridge, including on the design, the Archeological Stage IV issues and the benefits and opportunities that the construction may present for the Walpole Island First Nation.
- 19 The Canadian Transit Company shall, at least 30 days prior to the commencement of the construction of the Replacement bridge, provide the Minister with a security risk assessment that

  - (a) identifies the security risks associated with the construction of the Replacement bridge;
  - (b) indicates the consequences associated with and the likelihood of the security risks materializing;
  - (c) identifies the measures to be taken to mitigate the security risks; and
  - (d) describes the methodology used to prepare the risk assessment.
- 20 The Canadian Transit Company shall, at least 30 days prior to the day on which the Replacement bridge opens to traffic, provide the Minister with a letter from an independent and qualified engineering firm certifying that the Replacement bridge was constructed in compliance with section 16 and in accordance with sound engineering principles and that it is safe for public use.
- 21 The Canadian Transit Company shall, at least 30 days prior to the day on which the Replacement bridge opens to traffic, provide the Minister with a security risk assessment that

  - (a) identifies the security risks associated with the operation of the Replacement bridge;
  - (b) indicates the consequences associated with and the likelihood of the security risks materializing;
  - (c) identifies the measures to be taken to mitigate the security risks; and
  - (d) describes the methodology used to prepare the risk assessment.

- 22** The Canadian Transit Company shall demolish or cause to be demolished the Ambassador Bridge other than the border services facilities. The demolition must be completed within five years from the day on which the Replacement bridge opens to traffic.
- 23** The Canadian Transit Company shall, prior to the commencement of the construction of the Replacement bridge, provide the Minister with a list of all permits and authorizations required in Canada and the United States for the demolition of the Ambassador Bridge other than the border services facilities.
- 24** Subject to section 25, the Canadian Transit Company, prior to the commencement of the construction of the Replacement bridge, shall obtain or cause to be obtained all permits and authorizations required in Canada and the United States for the demolition of the Ambassador Bridge other than the border services facilities, and shall provide a copy of each permit and authorization to the Minister.
- 25** If, for reasons that are beyond the control of the Canadian Transit Company or any person that can demolish the Ambassador Bridge other than the border services facilities, permits or authorizations referred to in section 24 cannot be obtained prior to the commencement of the construction of the Replacement bridge, the Canadian Transit Company shall provide the Minister with
- (a) a list of those permits or authorizations;
  - (b) the reasons why such permits or authorizations cannot be obtained prior to the commencement of the construction of the Replacement bridge;
  - (c) a written declaration certifying that all conditions required for the issuance of those permits or authorizations can and will be met to enable the demolition; and
  - (d) the approximate date on which the conditions referred to in paragraph (c) will be met and the approximate date on which permits or authorization are expected to be obtained.
- 26** The Canadian Transit Company shall, prior to commencement of the construction of the Replacement bridge, provide the Minister with
- (a) a time and cost estimate for the demolition of the Ambassador Bridge other than the border services facilities, from an independent and qualified engineering firm that can certify the engineering work related to the demolition; and
  - (b) a written declaration certifying that the Canadian Transit Company or any person that can demolish the Ambassador Bridge has or will have the necessary funds to demolish the Ambassador Bridge other than the border services facilities, based on the cost estimate referred to in paragraph (a). The written declaration shall be supported by evidence demonstrating that such funds are or will be available.
- 27** Unless otherwise agreed to in writing with the City of Windsor, the Canadian Transit Company shall

- (a) acquire, in Windsor, Ontario,
  - (i) the properties that are within the boundaries confined by the future location of the Replacement bridge to the East, Wyandotte Street to the South, Indian Road to the West and University Avenue West to the North,
  - (ii) the properties that are within the boundaries confined by the future location of the Replacement bridge to the East, Riverside Drive to the North, University Avenue to the South and the intersection of Riverside Drive and University Avenue to the West, and
  - (iii) the property located at 2856 Riverside Drive West;
- (b) demolish all buildings on the properties described in paragraph (a); and
- (c) develop and maintain those properties, at its own cost, as public parkland.

28 Unless a written agreement addressing the issue of road infrastructure impacts resulting from the construction of the Replacement bridge is concluded with the City of Windsor, the Canadian Transit Company shall, at its own cost,

- (a) ensure that any municipal road infrastructure in Windsor, Ontario, used for the construction of Replacement bridge is kept clean and free from any dirt and debris that results from the construction; and
- (b) carry out or cause to be carried out, following the construction of the Replacement bridge, the rehabilitation or restoration of the following road infrastructure in Windsor, Ontario:
  - (i) University Avenue, Peter Street, Donnelly Street and Wyandotte Street and associated sidewalks between Huron Church Road and Indian Road,
  - (ii) College Avenue from Felix Avenue to Huron Church Road,
  - (iii) Felix Avenue from College Avenue to Mill Street,
  - (iv) the intersection of College Street and Huron Church Road, and
  - (v) any other municipal road infrastructure that was damaged as a result of that construction.

Navigation Protection Program  
100 South Front Street, 1st Floor  
Sarnia Ontario N7T 2M4

Your file

Our file  
8200-00-6052

**REGISTERED MAIL**

**SEP 28 2017**

Canadian Transit Company  
780 Huron Church Road  
Windsor, ON N9C 2K2

Attention: Dan Stamper

**RE: Notice to the Minister under the *Navigation Protection Act* for review of the Bridge, located on Detroit River, Ambassador Bridge, City of Windsor, County of Essex, in the Province of Ontario**

Our assessment of your work has determined that it is not likely to substantially interfere with navigation.

Therefore your work is permitted under section 9(1) – Construction of the *Navigation Protection Act* (NPA) and you may proceed per the attached plan(s) in accordance with the following terms and conditions:

1. All vessels navigating the waterway must be allowed access through or around the work site at all times during construction and must be assisted as necessary.
2. The Minister or his representatives must be allowed unimpeded access to any site related to the project for inspection and/or monitoring purposes.
3. The Owner must notify the Canadian Coast Guard Vessel Traffic Centre NOTSHIP desk at (613) 925-0666 at least 24 hours in advance of commencement and upon completion of the project.
4. The Owner must provide a traffic management plan concerning the plan for barge work to the Ontario Region NPP Office for review prior to the use of any barges.
5. The use of barges shall not impede commercial or pleasure craft vessel traffic.
6. The Owner must provide the bridge lighting plan the Ontario Region NPP Office for review prior to the commencement of any over water construction.
7. The Owner must submit a Notice of Works to the Ontario Region NPP Office and receive authorization under the *Navigation Protection Act* for the removal of the existing bridge prior to the commencement of its removal.
8. The Owner must provide Confirmation of Compliance in writing to the Ontario Region NPP Office upon commencement of construction indicating that the imposed terms and conditions and relevant legislative requirements are being met. The Confirmation of

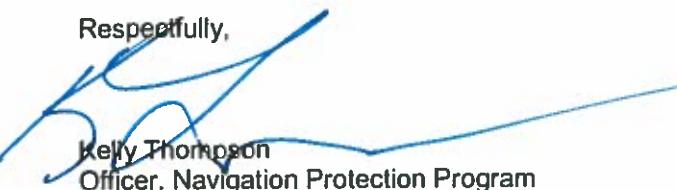
Compliance letter is also to include photos showing construction of the main span over the river and use of barges.

9. The Owner must provide Confirmation of Compliance in writing to the Ontario Region NPP Office upon completion of construction indicating that the imposed terms and conditions and relevant legislative requirements have been met. The Confirmation of Compliance letter is also to include photos showing the completed structure.

Please note that permission relates only to the effect of your work on navigation under the NPA. It is the owner's responsibility to comply with any other applicable laws and regulations.

**Should you have any questions, please do not hesitate to contact our office in Sarnia by phone at (519) 383-1863, by fax at (519) 383-1989 or by e-mail at NPPONT-PPNONT@tc.gc.ca.**

Respectfully,



Kelly Thompson  
Officer, Navigation Protection Program  
Programs Group  
Transport Canada  
Ontario Region

KT/rc

cc: Scott Korpi, American Consulting Professionals – via e-mail

Enclosure

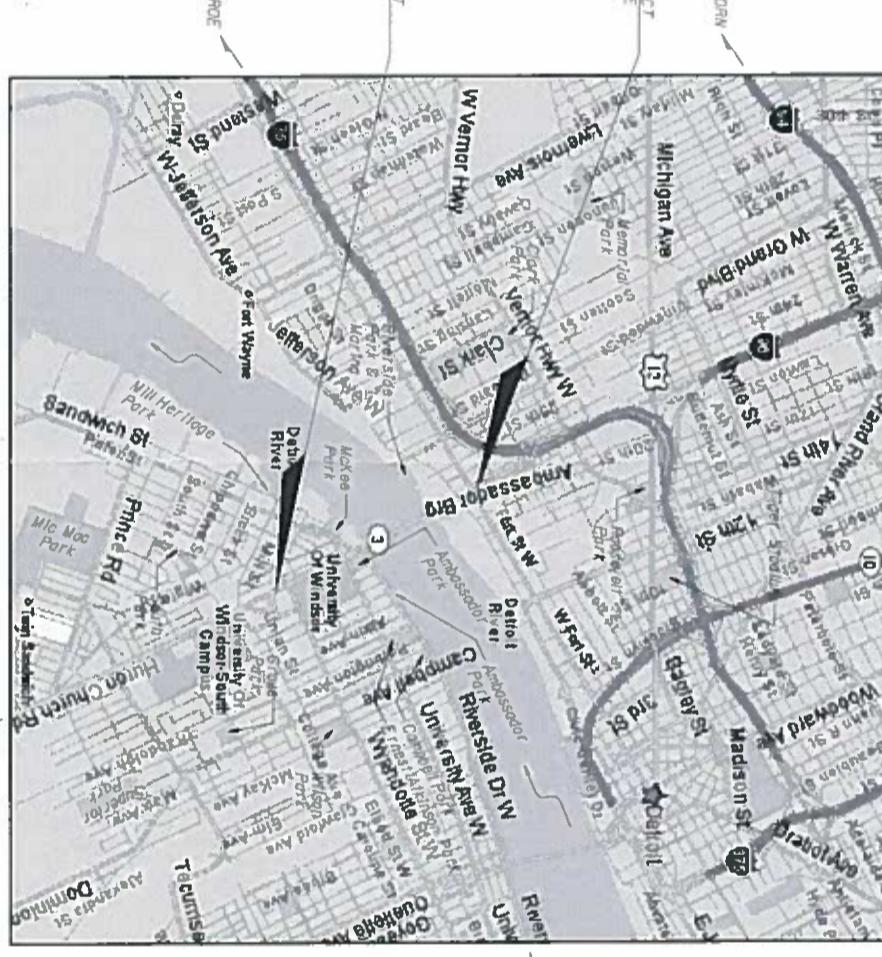
CITY OF DETROIT, MICHIGAN, UNITED STATES  
CITY OF WINDSOR, ONTARIO, CANADA

CONTRACT PLANS

DETROIT INTERNATIONAL BRIDGE COMPANY  
CANADIAN TRANSIT COMPANY

INDEX OF PLANS

SHEET NO.	SHEET DESCRIPTION
1 OF 8	KEY SHEET
2 OF 8	AMBASSADOR BRIDGE ENHANCEMENT PROJECT
3 OF 8	PLAN AND ELEVATION II OF 3
4 OF 8	PLAN AND ELEVATION (2 OF 3)
5 OF 8	PLAN AND ELEVATION (3 OF 3)
6 OF 8	TIPTICAL SECTION
7 OF 8	TOWER PIERS 5 & 6
8 OF 8	PIER DETAILS



NPP - PPN  
SEP 27 2017  
TRANSPORT

American Consulting Professionals of Michigan

NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION.

PLANS PREPARED BY:

REVIEWED / EXAMINED  
By/for: Patricia Havelka  
Navigation Protection Program/  
Protección de la navegación

Page 1 of 5  
APR 19 2016

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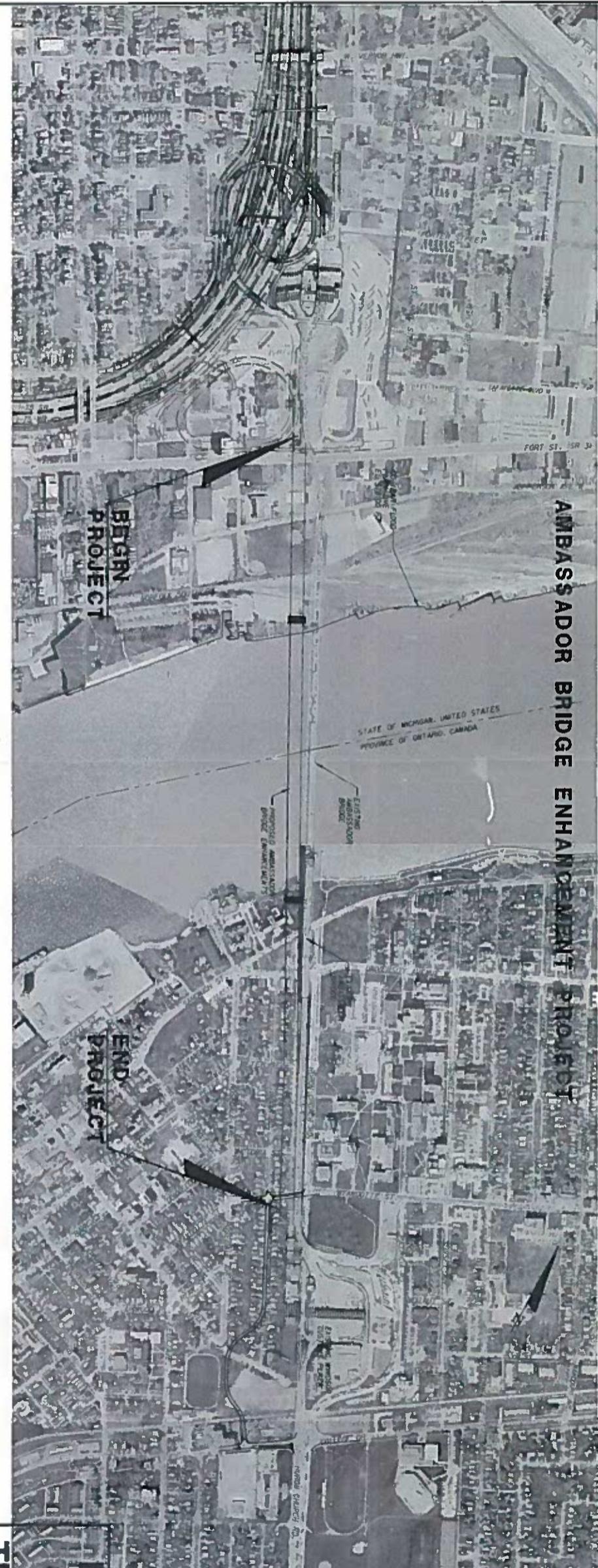
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NAVIGATION PROTECTION  
PROGRAM

APPLICANT: DETROIT INTERNATIONAL BRIDGE COMPANY
BRIDGE NO.: XXXXX
ROUTE: XX
WATERWAY: DETROIT RIVER
MILE #: 19.5
MUNICIPALITIES: DETROIT, MICHIGAN - WAYNE COUNTY WINDSOR, ONTARIO - ESSEX COUNTY
DATE: MARCH 23, 2016

SHEET NO.  
1 OF 8

AMBASSADOR BRIDGE ENHANCEMENT PROJECT



SEP 27 2017

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**Reviewed / Examined**

Page 2 of 5

**APR 19 2016**

By/par: TANIA HAVELKÁ

Navigation Protection Program /

Programme de protection de la navigation

 American  
Express

AMERICAN  
ASSOCIATION  
OF  
BUREAUS

**PROPOSED BRIDGE OVER DETROIT R.  
DETROIT, MICHIGAN - WAYNE COUNTY  
WINDSOR, ONTARIO - ESSEX COUNTY**

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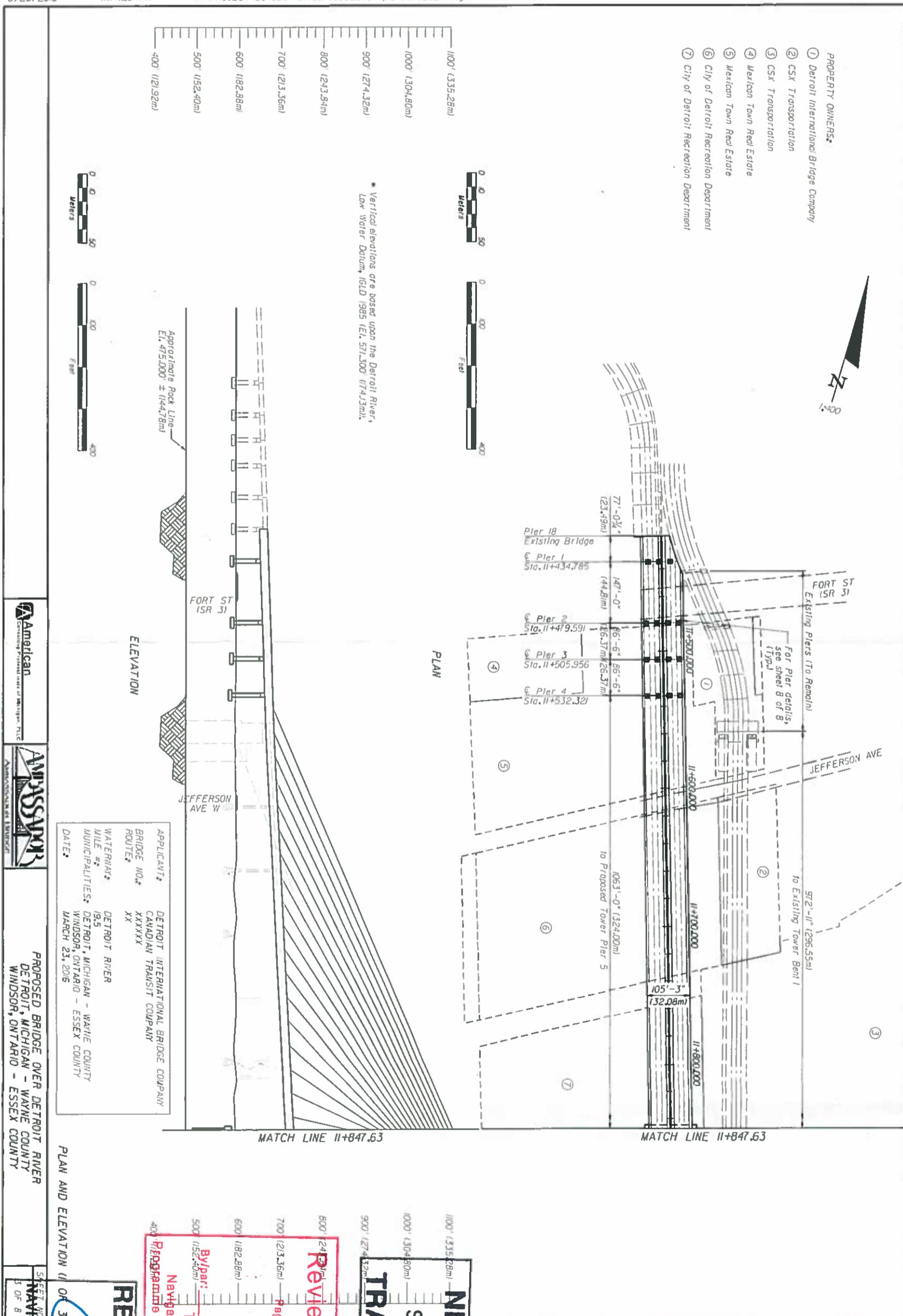
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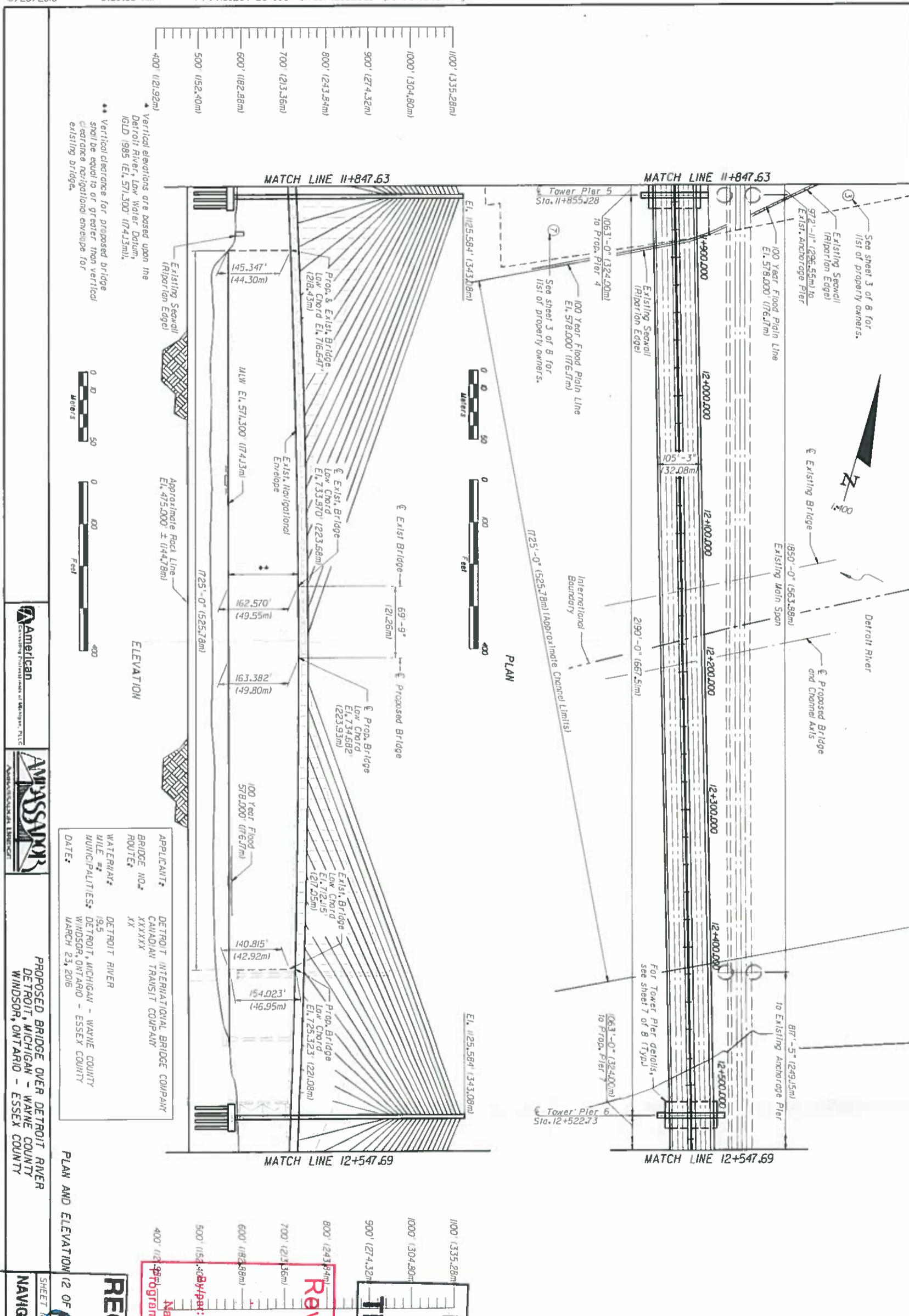
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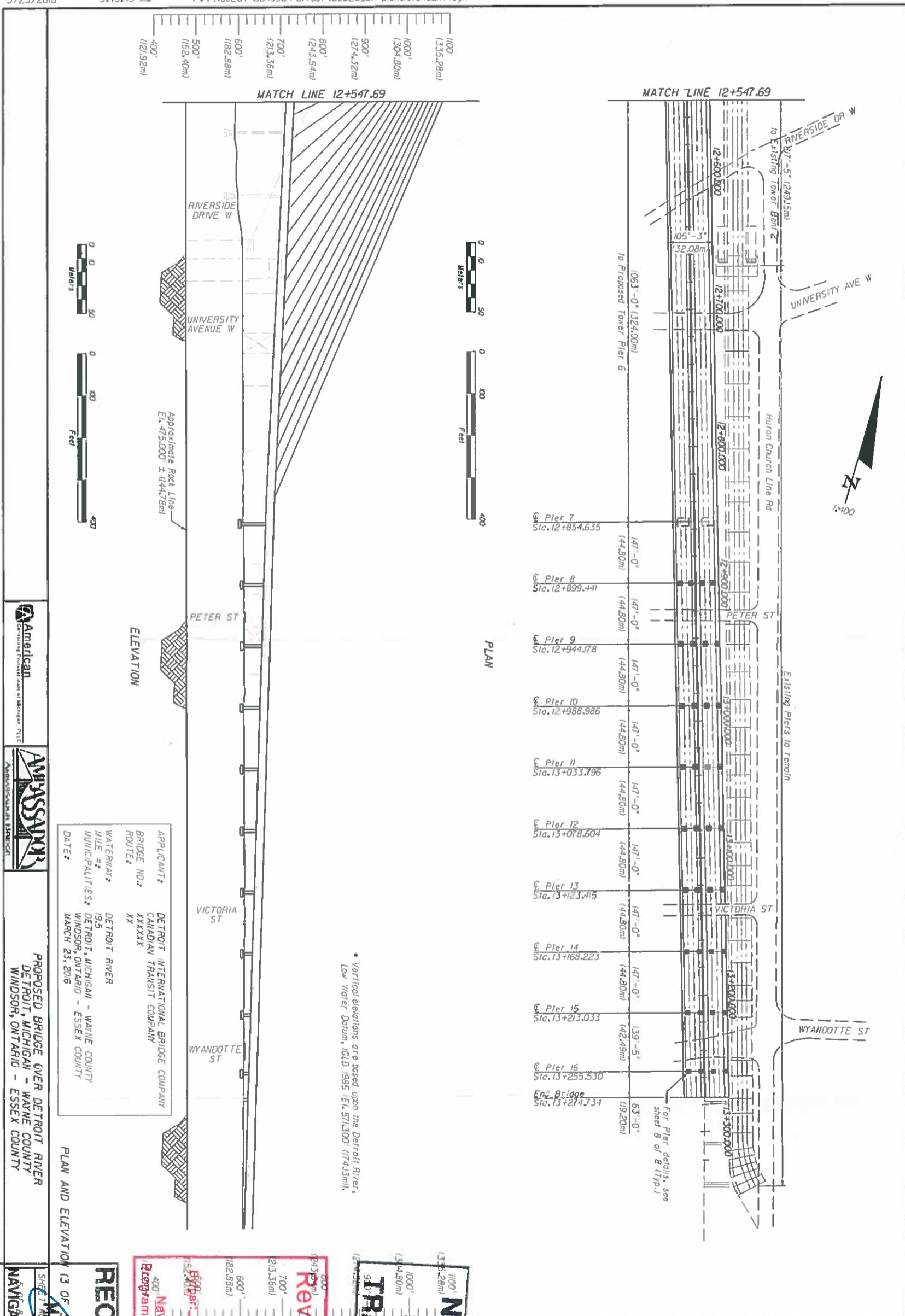




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**NAVIGATION PROTECTION PROGRAM**

