

EXECUTIVE SUMMARY

This Final Environmental Impact Statement (FEIS) discusses the Recommended Alternative for improving the United States Inspection Facility at the Blue Water Bridge Plaza and the I-94/I-69 corridor in St. Clair County, Michigan. This project is commonly referred to as the Blue Water Bridge Plaza Study.

The Final EIS was prepared as a Condensed Final EIS. This approach avoids repetition of material from the Draft Environmental Impact Statement (DEIS) by incorporating, by reference, the DEIS resulting in a much shorter document than under the traditional FEIS approach. This document still provides the reader with a complete overview of the project and its impacts on the human and natural environments. This FEIS focuses on changes in the project's setting, impacts, technical analysis, and mitigation measures that have occurred since the DEIS was circulated.

What is the United States Plaza at the Blue Water Bridge?

The United States Plaza, which is owned by the Michigan Department of Transportation (MDOT), is the inspection facility for vehicles entering the United States. The Blue Water Bridge is a major border crossing for cars and trucks between the United States and Canada. The Blue Water Bridge consists of two bridge spans over the St. Clair River, one for traffic to Canada and one for traffic to the United States. The bridges are jointly owned by MDOT and Blue Water Bridge Canada (BWBC). Federal agencies operating on the plaza include the Bureau of Customs and Border Protection (CBP), the United States Department of Agriculture (USDA), and the United States Food and Drug Administration (FDA). These agencies are responsible for inspecting vehicles, goods, and people entering the United States. The inspection agencies rent facilities on the United States Plaza from MDOT through the General Services Administration (GSA), which provides buildings for the federal government.



**Existing United States Blue
Water Bridge Plaza**

MDOT collects tolls on the plaza from vehicles leaving the United States for Canada and the Michigan State Police operate a truck weigh scale on the plaza.

The existing Blue Water Bridge Plaza is approximately 18 acres including inspection facilities and parking. The existing plaza is elevated approximately 24 feet above street level to accommodate Pine Grove Avenue, which runs underneath.



Location of Blue Water Bridge Plaza

Where is the Blue Water Bridge Plaza Located?

The Blue Water Bridge Plaza Study Area is located in the city of Port Huron and Port Huron Township, in St. Clair County, Michigan. The Study Area begins at the western end of the Blue Water Bridge and ends at the I-94/I-69 interchange approximately 2.2 miles to the west. The Blue Water Bridge provides access to destinations across Michigan, 47 other states, Mexico, and Canada.

The Study Area includes the Black River Bridge, the Water Street/Lapeer connector interchange, the existing plaza area, and a potential location for a relocated welcome center and a plaza alternative in Port Huron Township.



Existing United States Plaza Looking West

What Improvements are Needed on the United States Plaza?

The Purpose of the Blue Water Bridge Plaza for the foreseeable future is to:

- Provide safe, efficient and secure movement of people and goods across the Canadian-U.S. border in the Port Huron area to support the economies of Michigan, Ontario, Canada, and the United States
- Support the mobility and security needs associated with national and civil defense.

A detailed list of reasons for improvements to the Blue Water Bridge plaza is located in **Section 1.5.1** in this **FEIS**.

The selected alternative must provide additional space for inspection booths, offices, docks to inspect and unload cargo, new security measures, and parking for cars and trucks

needing inspection. The need for additional space and facilities is supported by several key issues including:

- Security issues
- The introduction of new inspection technologies, procedures, and policies
- Limited existing space to accommodate increased number of border inspection agents
- Traffic conflicts and crash history
- Access between the plaza and adjacent circulatory local roads
- Traffic growth
- Traffic backups
- Existing infrastructure conditions of the I-94/I-69 corridor
- Upgrading the Michigan Welcome Center

Further details on the reasons for improvements are contained in **Chapter 1 Why Are Improvements Needed?** of this FEIS.

The proposed plaza expansion was designed in accordance with the United States Land Port of Entry Design Guide and CBP's Program of Requirements (POR). A POR, which is developed by CBP, outlines detailed infrastructure improvements specific to a given port of entry. The POR used to design the Blue Water Bridge Plaza Preferred Alternative referenced in the DEIS has since been modified by CBP resulting in additional justifications supporting the need of the project. Changes to border operational policies and CBP plaza design principles have required changes to the Blue Water Bridge Plaza layout.

The following provides a summary of changes to the Recommended Alternative based on the most recent POR:

Canada to U.S. Primary Inspection: The overall Primary Inspection Lanes (PIL) layout was modified between the DEIS and this FEIS to include five lanes specifically designated for passenger traffic and 15 lanes that can be utilized for either trucks or cars. These 15 dual-use lanes can accommodate either inspection by CBP officers, depending upon the mix and demand of incoming U.S. border traffic.

Main Administration Building: The relocation of CBP's main administration building in relation to the primary inspection booths has been modified. Within the DEIS, the PILs were separated by CBP's main administration building. The current POR states that a single line of PILs is desirable to allow a clear line of sight from the administration building and the head house to all of CBP's Primary Inspection Booths.

A proposed 100,000 sq. ft. office building identified within the DEIS is no longer required. CBP's primary administration space on the plaza has been reduced from a DEIS layout of 65,250 sq. ft. to a proposed FEIS layout of 20,307 sq. ft. This reduction of space in CBP's main administration building results from a revised analysis of future staffing needs and facility requirements, and addresses comments received on the DEIS.

Federal Agency Employee and Visitor Parking: Staff parking spaces on this FEIS plaza layout have been reduced from 582 spaces identified in the DEIS to 168 spaces. This reduction in parking is due to a combination of the reduction of onsite office and facility needs, refinements made to the plaza configuration and CBP's efforts to minimize the impacts of the plaza on the greater Port Huron community.

Passenger Secondary Inspection: A head house is proposed on the new plaza for passenger secondary inspection. The DEIS did not call for a head house as the non-commercial secondary inspection was located directly in front of the main building. This FEIS POR requires the head house and passenger secondary inspection to be located independent of the main administration building and directly in front of the Primary Inspection Booths. The head house functions as administrative and processing support for the passenger secondary vehicle inspection area and operates as an observation area for the primary inspection booths.

Commercial Secondary Inspection: Trucks sent to the secondary inspection area may be directed to a set of secondary radiation monitoring portals or they will be sent for Non-Intrusive Inspection (NII). Space for the secondary radiation detection portals is a new requirement for this FEIS plaza layout. The number of secondary loading docks increased from 12 docks

to 20 docks and the number of truck parking spaces decreased from 100 spaces within the DEIS to 36 spaces in this FEIS. The additional unloading docks also reduce the need for parking spaces.

The number of NIIs increased from three permanent to four (two permanent and two mobile NIIs) reflecting CBP's desire to increase the number of trucks that ultimately will be required to be inspected using NII technology.

Exit Control: The DEIS called for exit control from Commercial Secondary Inspection only with no exit control for vehicles exiting primary inspection. An exit control option was added to this FEIS plaza layout.

Outbound U.S. Traffic to Canada: The DEIS called for outbound inspection facilities that resembled a small port that occupied approximately 8 acres of land. The revised POR called for a much smaller facility that would operate on a more random basis and utilize some of the inbound facilities such as NII. Outbound inspection facilities were modified in this FEIS POR with four PILS compared to three PILS, a 1,239 sq. ft. building compared to a 6,000 sq. ft. building and a reduction of docks from five docks to two docks.

A full description of the POR can be found in **Section 1.6.1** in this FEIS.

What Alternatives were Considered for Improving the Plaza?

The alternatives development process included several steps. First, the Study Team developed initial concepts for a new plaza. These initial concepts were further developed into 19 Illustrative Alternatives Concepts. Based on engineering analysis and coordination with stakeholders, the Illustrative Alternatives Concepts were refined into six Illustrative Alternatives that were presented to the public.

The Study Team then evaluated and modified the Illustrative Alternatives based on public and agency comments. Two of the Illustrative Alternatives were eliminated as they did not adequately address the purpose and need for improvements

The No-Build Alternative has always been an option in case the benefits of improvements to the plaza do not outweigh the social, economic and environmental impacts.

to the plaza. The remaining Updated Alternatives were presented for further public and agency comments including review by CBP and were presented at an additional public meeting.

Based on further analysis, local stakeholder and public comment, the Study Team reduced the list of alternatives down to three Build Alternatives, referred to as the City East Alternative, the City West (Preferred) Alternative, and the Township Alternative, along with the No-Build Alternative. A full discussion of all Illustrative and Practical Alternatives and the reasons why they have been eliminated from further consideration can be found in **Chapter 2** of the **DEIS**.

The two alternatives presented in this FEIS are:

- The No-Build Alternative, which involves no expansion of the existing plaza or the I-94/I-69 corridor, and
- The Recommended Alternative, which incorporates design modifications from the DEIS City West (Preferred) Alternative.



Current Blue Water Bridge Plaza

This FEIS discusses the No-Build Alternative as a basis of comparison. This FEIS presents changes to the Recommended Alternative incorporating design modifications from the DEIS City West (Preferred) Alternative.

No-Build Alternative: The No-Build Alternative would not make any changes to the existing plaza configuration or ramps. MDOT and CBP would continue to maintain the existing plaza facilities and new technologies and procedures would be introduced on the existing plaza footprint as space allows. The existing welcome center will remain in its current location.

Key Reasons Why the Refined Preferred Alternative is the Recommended Alternative

The Recommended Alternative best addresses the reasons for plaza improvements and has specific advantages over the other alternatives with regards to security and community impacts.

Safety & Security: The Recommended Alternative meets all safety and security requirements of an international border crossing by:

- Eliminating a major roadway (Pine Grove Avenue) running beneath the inspection area.
- Locating all major roadway crossings west of the primary and secondary inspection points on the plaza, enhancing the security of the facility and reducing the vulnerabilities of the plaza.
- Minimizing the ability of border runners to cross through the plaza without being inspected as a result of the new layout.

Accommodates CBP Technologies: The Recommended Alternative includes all of the inspection facilities required by CBP as well as space for additional facilities which future traffic conditions and new technologies may require:

- The Recommended Alternative features a facility layout that is preferred by CBP and GSA based on the Program of Requirements (POR) discussed in **Chapter 1** of this **FEIS**.
- The Recommended Alternative provides CBP with the space and flexibility to implement both current and future technologies.

Improved Flow of Traffic: The Recommended Alternative best improves current and future traffic issues on the local roads surrounding the plaza.

- The Recommended Alternative improves upon the current geometric and operational deficiencies at the Pine Grove Avenue and 10th Avenue intersection. By modifying the 10th Avenue intersection from a six-legged intersection to a four-leg the number of potential vehicle conflict points will be dramatically decreased. A vehicle conflict point is any location where a vehicle needs to cross the path of another vehicle in the intersection. For instance a left-

turning vehicle needs to cross the path of an on-coming through vehicle to complete the movement.

- The intersection of Pine Grove Avenue and M-25 connector north of the plaza is eliminated, and now located south at the relocated Pine Grove Avenue.
- The Recommended Alternative is projected to reduce future congestion at the Hancock Street and M-25 connector intersection.

Local Access Enhancements: The Recommended Alternative will provide local access enhancements both from the plaza and from the I-94/I-69 corridor.

- The Recommended Alternative will provide direct access from the plaza to local destinations north and south of the plaza.
- The Recommended Alternative provides both east and west access to the I-94/I-69 corridor at a redesigned full access Lapeer connector interchange.
- The Recommended Alternative also provides better north-south local access around the new plaza than other alternatives.

Emergency Response: Emergency access to neighborhoods surrounding the plaza will be maintained with the Recommended Alternative.

- Emergency responders will still have two choices for north south access around the plaza with the Recommended Alternative. Emergency responders can utilize either 10th Avenue or the relocated Pine Grove Avenue as a north-south alternate route if one or the other became blocked by a traffic accident or other incident. Emergency access to the plaza would be through gated access from local streets.

Gateway Effect: The Recommended Alternative would provide a superior visual entrance to the city of Port Huron and the surrounding area.

- The Pine Grove Avenue boulevard design with direct access to either northbound or southbound Pine Grove Avenue will increase both visibility and access to the city of Port Huron. Opportunities to incorporate enhanced landscaping and signage are much greater under this alternative compared to other alternatives evaluated.

The Recommended Alternative: Revisions to the City West (Preferred) Alternative were made to address the overall plaza size and layout, and reduce the social, economic and environmental impacts. These changes are presented in this FEIS as the Recommended Alternative.

Specific changes of the Recommended Alternative include:

- Overall size of permanent CBP/MDOT plaza facilities was reduced from 65 to 56 acres even though CBP guidelines suggest an 80 acre plaza as the standard.
- Reduction of the right-of-way impacts within the city of Port Huron to the greatest extent possible bringing the total relocations down to 125 residences and 30 businesses.
- CBP operating space on the plaza was reduced from 57 acres to 46 acres.
- The number of truck parking spaces on the new plaza was reduced from 100 to 36.
- 100,000 sq. ft. of office space was removed from the plaza.
- CBP's proposed outbound inspection facilities were greatly reduced.
- Customs broker's offices were removed from the proposed plaza.
- Another modification to the plaza was a more efficient design of the duty free store parking area, which provides a better vehicle flow for entering and exiting traffic.



The Blue Water Bridge

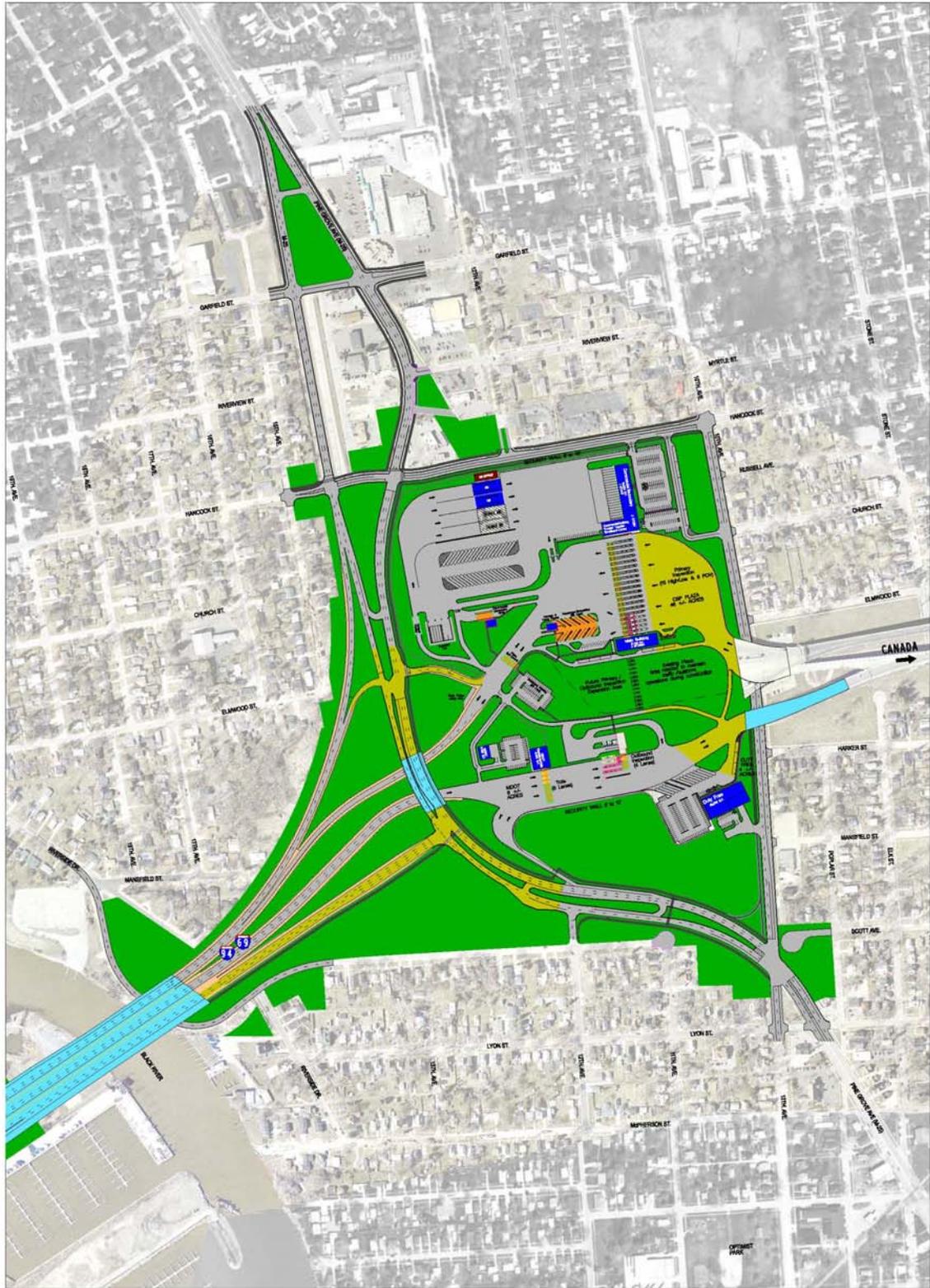
The Recommended Alternative, as illustrated in **Figure E.1.**, expands the existing plaza within the city of Port Huron and brings most of the elevated plaza down to street level. This alternative meets all plaza operational and traffic circulation needs through the year 2030.

The Recommended Alternative still requires the relocation of Pine Grove Avenue to the west between 10th Avenue and Riverview Street. Relocated Pine Grove Avenue will wrap around the south and west sides of the new plaza then split into separate northbound and southbound lanes near the

Hancock Street/M-25 connector intersection. The northbound lanes would turn back east and connect to the existing Pine Grove Avenue at approximately Riverview Street. The southbound lanes would follow the existing M-25 connector.

The Recommended Alternative provides 20 primary inspection booths for cars and trucks arriving from Canada. 15 of these booths will be able to accommodate both cars and trucks. (**Figure E.2**)

Recommended Alternative Blue Water Bridge Plaza Study



| LEGEND | |
|--|-------------------------------|
| | Widening of Obsolete Sections |
| | At Grade |
| | Impacted Parcels |



Figure E.1 Recommended Alternative in the city of Port Huron

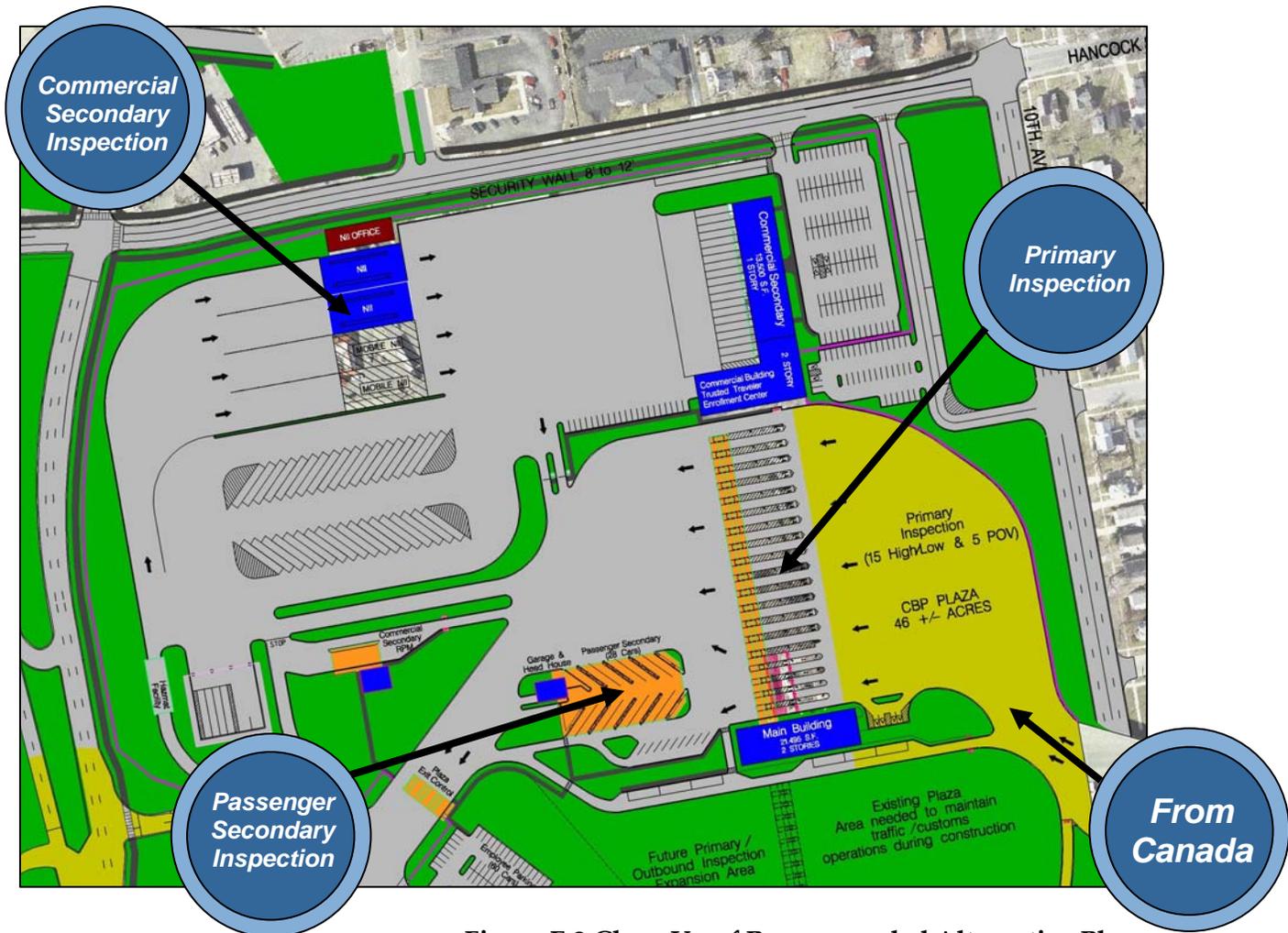


Figure E.2 Close-Up of Recommended Alternative Plaza

Trucks not cleared at the primary inspection booths are sent to the secondary truck inspection area (**Figure E.2**). The truck secondary inspection area contains 36 truck parking spaces to accommodate trucks sent to secondary inspection for document processing. Twenty docks for unloading trucks, and 35,600 square feet of office and unloading space are also included in this area.

The truck inspection area will include a special dock for livestock inspection that allows inspection officers to walk around the trailer on an elevated platform to view into a livestock trailer. No unloading of animals would occur on the plaza.

Up to four Non-Intrusive Inspection (NII) units will be utilized, which allow CBP officers to electronically scan the contents of vehicles.

Cars with passengers that are not cleared to enter the United States or require further processing are sent to the secondary inspection area (**Figure E.2**). The passenger secondary inspection area is located just downstream of the Primary Inspection Booths. The secondary inspection area for passenger vehicles includes space to inspect 28 cars and includes a head house building. The head house functions as administrative and processing support for the passenger secondary vehicle inspection area and operates as an observation area for the primary inspection booths. This building also would contain enclosed inspection garages and additional space for CBP officers to conduct border processing paperwork. There is also a parking area for cars that require further inspection.

Local and international traffic that has cleared customs has easy access to both the city of Port Huron and Fort Gratiot Township (located north of the plaza and the city of Port Huron). For visitors wishing to visit the city, a left hand turn at the signalized intersection will provide direct access to southbound Pine Grove Avenue (**Figure E.3**). For those interested in visiting Fort Gratiot and points north, a right hand turn at the signalized intersection will provide direct northern access to northern St. Clair County and the thumb region of Michigan.

Facilities will be provided to allow CBP to inspect cars and trucks leaving the United States. This area is called outbound inspection (**Figure E.4**). Eight toll lanes will precede outbound inspection facilities. Following the toll lanes, cars and trucks pass through the outbound inspection facilities which include four booths, two docks for unloading trucks and adequate truck and car parking spaces.

A new duty free store and parking would occupy approximately four acres and could only be accessed by drivers who have already cleared outbound inspection and the toll booths. Following the duty free store, all vehicles would take the bridge to Canada.

What is Outbound Inspection?

Outbound inspection booths and facilities allow CBP to enforce export control legislation and inspect certain individuals leaving the country. Currently, CBP conducts random exit control interviews by flagging down outbound vehicles after they pass through the toll booths.



Figure E.3 Primary Inspection Exit

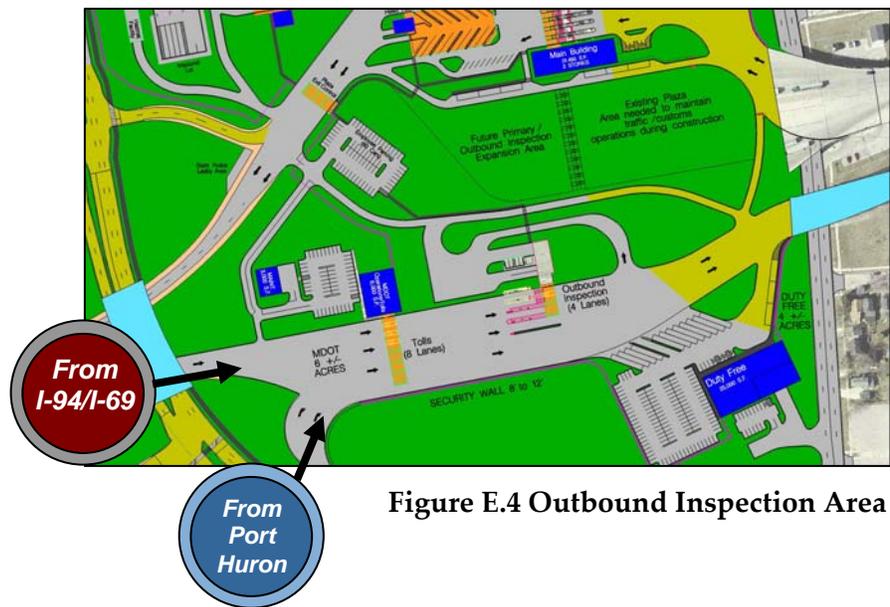


Figure E.4 Outbound Inspection Area

The plaza will also include parking for both MDOT and CBP plaza employees and visitors. The majority of CBP employee and visitor parking will be located in the northeast corner of the plaza. The proposed plaza will include separate secure lots for employees and visitors.

Improvements to the I-94/I-69 Corridor: The Recommended Alternative includes replacement and expansion of the Black River Bridge, the Water Street interchange and the Lapeer connector interchange. It also includes additional lanes on I-94/I-69, separation of eastbound border crossing traffic from local traffic, and a new Michigan Welcome Center in Port Huron Township. See **Figure E.5**.

Black River Bridge: The Recommended Alternative includes an expansion and replacement of the I-94/I-69 bridge over the Black River. The existing bridge is approximately 64-feet wide and has four travel lanes, two for eastbound traffic and two for westbound traffic along with narrow shoulders.

The new bridge will be approximately 200-feet wide and will consist of 12 spans. The new bridge will have nine travel lanes, three lanes for eastbound local traffic, three lanes for eastbound international traffic heading to Canada and three lanes for combined border crossing and local westbound traffic. The designated lanes for eastbound border crossing traffic will be barrier separated from the lanes for local traffic.

To reduce the potential for conflicts between border crossing traffic waiting to be inspected and local traffic, separate lanes for eastbound border and local traffic are provided between the Lapeer connector interchange and the plaza. The eastbound local M-25 connector traffic lanes will include three lanes connecting to relocated Pine Grove Avenue. At the intersection of the local lanes and relocated Pine Grove Avenue, traffic may turn left for northern destinations such as Fort Gratiot and northern St. Clair County, or right to access downtown Port Huron.

The new bridge will include 12-foot shoulders for emergency access/vehicle storage. The bridge will also have a 14-foot dual-direction non-motorized path. This path will be located on the south side of the bridge and will connect with the existing sidewalks along Water Street and the newly constructed non-motorized facilities along relocated Pine Grove Avenue.

I-94/I-69 Freeway Improvements: The Recommended Alternative includes resurfacing and expansion of 2.5 miles of

existing I-94/I-69. Much of the expansion includes an extension of the eastbound M-25 connector between the ramps to the existing plaza and the Lapeer connector. This will allow for the separation of local traffic from eastbound traffic crossing the border. Access from I-94/I-69 will be provided to the Water Street and the Lapeer connector interchanges.

Water Street Interchange: The Recommended Alternative includes the replacement of the existing interchange at Water Street including the Water Street Bridge over I-94/I-69. The replacement bridge will be two lanes wide, with one travel lane in each direction. Roundabouts are proposed for each end of the bridge at the freeway ramp intersections. The bridge will also accommodate pedestrian traffic by including one sidewalk, which will be a 10-foot sidewalk on the east side of the Water Street Bridge. For the visually impaired, a signalized pedestrian crossing can be provided.

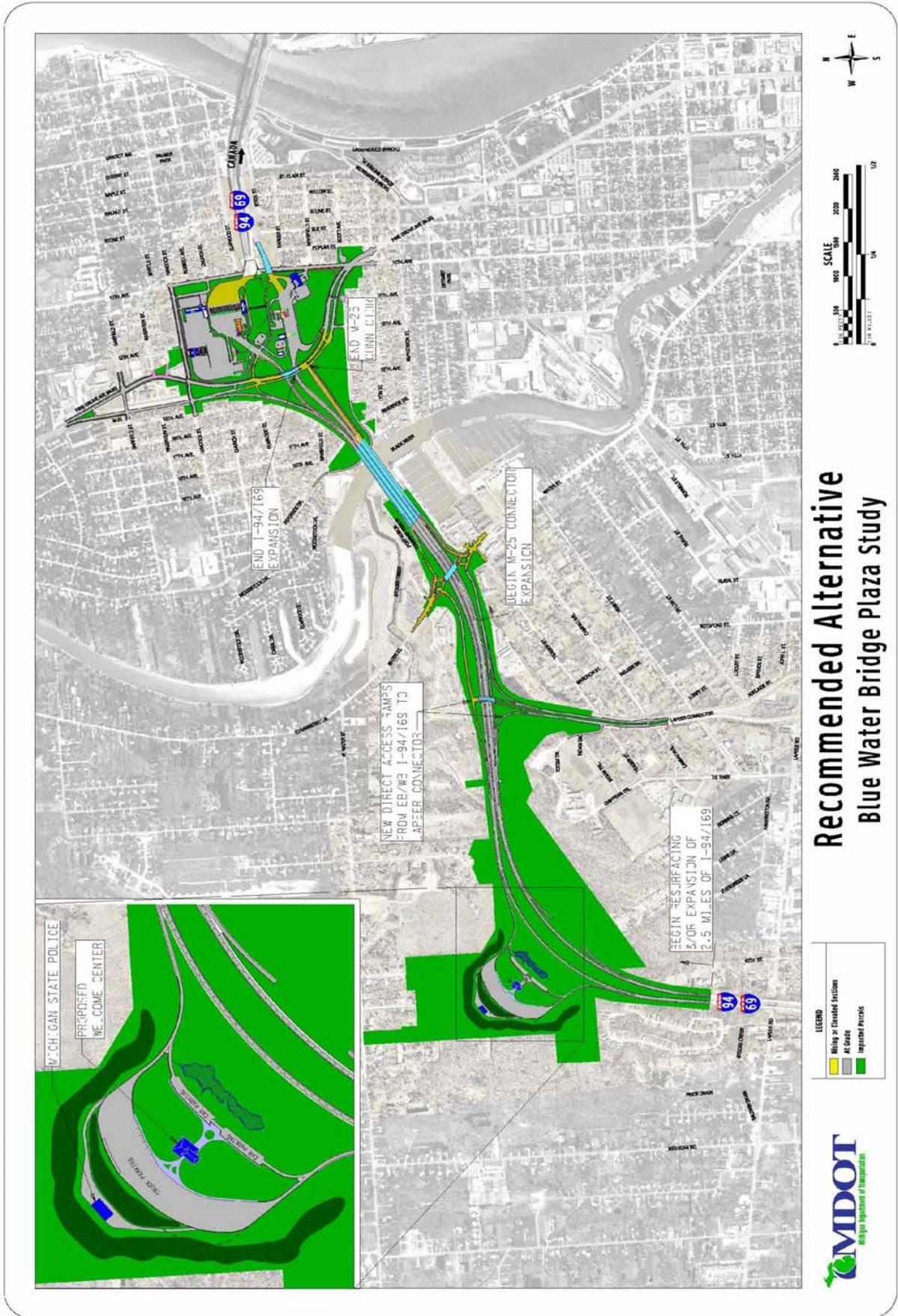


Figure E.5 Recommended Alternative and I-94/I-69 corridor

Lapeer Connector Connections: The Recommended Alternative will improve access for local traffic to the Lapeer connector. Currently, only traffic headed to I-94/I-69 east or from I-94/I-69 west can use the Lapeer connector. The Recommended Alternative provides access from all directions of I-94/I-69 as illustrated in **Figure E.6**.



Figure E.6 Lapeer connector interchange

New Michigan Welcome Center: The Michigan Welcome Center will be relocated to vacant land to the north of I-94/I-69 approximately one mile west of its current location. The Michigan Welcome Center layout has changed slightly since the DEIS. The new Michigan Welcome Center will consist of a modern building per MDOT's current design standards for welcome centers along with parking for up to 100 cars and 50 trucks. North of the truck parking area a Michigan State Police (MSP), Motor Carrier Inspection facility has been added. This facility will be used by MSP to assist in the enforcement of State of Michigan and Federal Motor Carrier regulations. The facility will include a weigh scale and a small inspection building. The new Michigan Welcome Center will encompass approximately 54 acres including the State Police facility.

Projected Travel Time Delays

In response to comments received on the DEIS, the Blue Water Bridge Study Team prepared a Travel Time Delay Study (see **Table E.1** for a Delay Analysis Summary). This analysis was

prepared to assess how the Recommended Alternative will perform compared to existing border crossing delays. The results show delay in the form of wait times and queue length at the existing plaza compared to the 2030 No-Build Alternative and the 2030 Recommended Alternative.

The 2030 No-Build results show that the existing plaza would experience greater delays and backups in 2030 than with existing traffic for commercial and passenger design hours.

The Recommended Alternative results show that all traffic in the passenger and commercial design hours can be adequately processed with minimal delay. The two scenarios modeled are based on the following factors:

- Proposed 2030 DHV forecast
- Average CBP processing times
- Fully staffed CBP booths
- A set booth configuration
- No downstream impact on booth operation

A full discussion of the Projected Travel Time Delays can be found in **Chapter 2, Section 2.3.4** of this **FEIS**.

Table E.1 Delay Analysis Summary

| Model Output | Passenger Peak | | Commercial Peak | |
|------------------------------------|------------------------|---------------------|--------------------------------|---------------------|
| | Future No-Build | Future Build | Future No-Build | Future Build |
| Vehicles Processed per hour | 814 | 1110 | 539 | 844 |
| Average delay* (min/veh) | 31.8 | 3.4 | 23.7 | 3.1 |
| Maximum Queue Cars | 1.7 miles | Within Plaza | Within Plaza | Within Plaza |
| Maximum Queue Trucks | 1.5 miles | Within Plaza | Beyond Study Area (>1.8 miles) | Within Plaza |

* Delay is the wait time required in addition to the time taken to drive the same distance at free flow speed. It does not include time spent in secondary inspection and only applies to primary inspection wait times.

Cost Estimate of the Recommended Alternative



Existing Blue Water Gateway
Business District

Since the release of the DEIS, the Study Team has refined the cost estimate for the Recommended Alternative to reflect the changes made to the Recommended Alternative and additional engineering analysis. The cost estimate is based on the engineering level developed during the environmental process. During the final design process, a final estimate will be prepared and distributed to construction contractors. The actual costs will depend upon the bidding process, which contractors and their suppliers will eventually bid on and determine the price of the selected alternative.

This estimate includes a 15% contingency to cover unknown elements that will arise during design. This cost estimate is based on 2008 average unit prices tracked by MDOT.

MDOT estimates the earliest construction could begin on either the corridor or plaza project is 2011. The cost estimates in **Table E.2** are shown in 2008 dollars. In order to obtain a more realistic picture of the anticipated construction costs, MDOT must inflate these cost estimates to the year construction is anticipated to begin.

The U.S. cost includes the bridge, plaza, interchange, associated property (including purchase of mineral rights) and relocation of utilities. The costs in 2008 dollars have been adjusted for inflation to translate the total costs to year of expenditure. This total cost assumes completion of the entire project in 2017.

A week-long Cost Estimate Review was conducted March 16-20, 2009 involving cost specialists from FHWA, MDOT and their consultants. During this review, the Recommended Alternative cost estimates were updated using the FHWA level-of-confidence approach. A similar approach is used for all major projects, such as the Blue Water Bridge Plaza, to determine the risks and opportunities associated with project elements (i.e., what is the likelihood that costs might change from those now estimated?). At the 70% confidence level, the updated cost estimate for the Recommended Alternative is calculated to be \$583.5 million. This cost includes the U.S. plaza, the I-94/I-69 corridor and local street improvements. It

is recognized that this Recommended Alternative cost estimate may vary as risks and opportunities are encountered. That is why this cost total is somewhat greater than the base cost expressed in **Tables 2.3.14** and **2.3.15**. Continued attention will be directed to the cost issue throughout implementation of the Blue Water Bridge Plaza project.

The Recommended Alternative has been included in SEMCOG's fiscally-constrained Regional Transportation Plan and will be added to its Transportation Improvement Program (TIP) for 2009 prior to the signing of the Record of Decision.

Table E.2 Construction Cost Estimates

| Cost Item | Corridor | Black River Bridge | Plaza | Total |
|---|-----------------|---------------------------|---------------|---------------|
| Roadway Items | \$13,940,000 | \$2,800,000 | \$46,020,000 | \$62,730,000 |
| Drainage | \$1,700,000 | \$580,000 | \$2,820,000 | \$5,100,000 |
| Maintaining Traffic | \$1,460,000 | \$300,000 | \$4,110,000 | \$5,870,000 |
| Bridge Costs | \$6,020,000 | \$28,500,000 | \$10,650,000 | \$45,170,000 |
| Pavement Markings/Signs/Signals | \$1,720,000 | \$530,000 | \$3,800,000 | \$6,050,000 |
| Buildings/Miscellaneous | \$12,450,000 | \$10,730,000 | \$102,360,000 | \$125,540,000 |
| Sub-Station Relocation | N/A | N/A | \$20,750,000 | \$20,750,000 |
| ROW | - | - | - | \$150,000,000 |
| CE Costs | \$3,690,000 | \$4,300,000 | \$16,160,000 | \$24,150,000 |
| Total | \$41,000,000 | \$47,700,000 | \$206,700,000 | \$445,400,000 |
| Source: Wilbur Smith Associates, 2008 2008 FEIS Total Cost Estimate = \$ 445,400,000 (includes Construction Engineering costs) 2007 DEIS Total Cost Estimate = \$ 433,000,000 | | | | |

Based on past inflationary trends, MDOT utilizes an annual inflation of 5% for major road and bridge construction projects to project future construction costs. Using this assumption, MDOT estimates the following Year of Expenditure Costs for the project in **Table E.3 below**.

Table E.3 Year of Expenditure Costs

| Year of Expenditure Cost Estimate: | Corridor | Black River Bridge | Plaza & Local Road | Total |
|---|-----------------|---------------------------|-------------------------------|----------------------|
| Construction Sub-total | \$43,179,000 | \$50,244,000 | \$225,635,000 | \$319,058,000 |
| Design/ROW/Misc. | | | | \$213,566,000 |
| Utility Relocations | | | | 20,750,000 |
| TOTAL | | | | \$553,374,000 |
| Environmental Clearance | | | | \$11,700,000 |
| Source: Wilbur Smith Associates, 2008 Environmental Clearance cost not included in \$553,374,000 estimate Assumes Design occurs FY 2009-2011 Assumes ROW occurs FY 2009-2012 Assumes Construction occurs FY 2011-2016 | | | | |

Funding/Implementation of Recommended Alternative

Following the issuance of the Record of Decision, MDOT will develop and submit to FHWA a financial plan for the project. This document will identify the detailed project costs and the proposed funding sources utilized to fund all phases of the project. The financial plan will be developed in compliance with FHWA’s guidelines for Mega Projects (defined as any project over \$500 million). The document will be available for public review once published, and will be updated annually in accordance with federal guidelines.

Funding for the design, ROW, and construction phases of the project will likely utilize funds from the following sources:

- Federal Aid SAFETEA LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users) Earmarks
- Federal Aid (Corridor and Border Improvement Program)
- Bonds backed by revenue from an updated GSA lease, an updated Duty Free lease, and BWB Toll Revenue

Any proposed toll increases on the U.S. side of the Blue Water Bridge will be completed in accordance with the existing toll agreement.

Public-Private Partnership (PPP) funding may be utilized to finance all or a portion of the plaza expansion project. During the financial plan development phase, MDOT and its

cooperating agency partners will make an assessment whether a public-private partnership can meet the following objectives:

- Maintain a safe and secure Blue Water Bridge crossing
- Conform with all CBP/GSA plaza requirements
- Ensure the efficient and integrated cross-border movement of people, goods, and services
- Minimize the use of public (state and federal) funds to the greatest extent possible
- Provide public transparency and accountability
- Protect the public interest

This evaluation is also being combined with legislative efforts to allow Michigan to enter into such agreements with private concessioners and to provide the underlying authority for the use of PPPs. It is expected that a resolution of this issue will be complete shortly after the Record of Decision.

How Will the Project Affect the Human Environment?

Land Use: Land uses within the Study Area include single family residential, multiple family residential, commercial, public facilities, and open space.

The No-Build Alternative would have few impacts on land use policies and decisions within the Study Area. Existing land uses would not be impacted because the plaza would maintain its current footprint and would not encroach upon the adjacent development. Commercial land uses around the Water Street interchange would be unaffected by a No-Build Alternative unless congestion of vehicles waiting to access the plaza increases to the point that it is impossible to access the interchange from I-94/I-69 on a regular basis.

The Recommended Alternative would impact existing residential and commercial development in the city of Port Huron. Residential areas both north and south of the existing plaza would be impacted along with the majority of the Blue Water Gateway Business Area. Businesses may be interested in relocating as close as possible to the new plaza which would potentially cause the conversion of homes immediately surrounding the plaza to business sites.



Homes in the Neighborhood Surrounding the Existing Plaza

Communities and Neighborhoods: The Recommended Alternative would also affect the neighborhoods surrounding the plaza. Changes in the Recommended Alternative have resulted in a reduction of relocations from the release of the DEIS. The Recommended Alternative will now relocate 125 residents instead of 129. The Recommended Alternative will also increase the perception of the plaza as a barrier dividing the community from north to south. No publicly owned community facilities will be relocated. The Recommended Alternative will require property from the Port Huron Area School District adjacent to the Lapeer connector interchange but would not affect school buildings or facilities. The First Free Methodist Church next to the existing plaza will need to be relocated under the Recommended Alternative. **Table E.4** at the end of this Executive Summary summarizes key project impacts.

Environmental Justice: Upon completing the environmental justice analysis, the Study Team determined there are no disproportionately high and adverse human health or environmental impacts on minorities and/or low-income populations. Impacts of the Recommended Alternative would be similar for all groups regardless of demographic or socioeconomic characteristics of the community.

Businesses, Taxes, Trade, and Jobs: Continued border congestion caused by the No-Build Alternative will cost the economies of Michigan, the United States and Ontario, Canada up to \$3.9 billion by 2030. The Recommended Alternative would substantially reduce these losses.

The Recommended Alternative relocates 30 businesses, the same amount that was provided in the DEIS. Additionally six commercial-zoned vacant properties within the city of Port Huron’s designated Blue Water Gateway Business Area will be eliminated.

The Recommended Alternative will maintain border traffic access to businesses remaining in the vicinity of the existing plaza by provided ramps between the plaza and the realigned Pine Grove Avenue. Travel times for cross-border traffic to access businesses in the vicinity of the plaza, along M-25, and

How Important is the Blue Water Bridge?

More than \$100 million of goods cross the Blue Water Bridge every day.

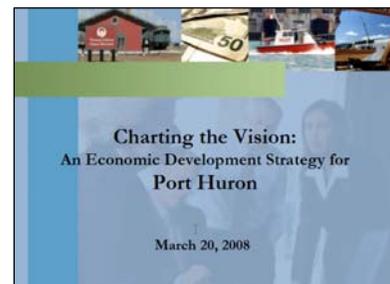
to downtown will improve during periods of high traffic volumes due to plaza improvements.

MDOT and the City recognize the importance of minimizing project related traffic impacts and will work with the local community to minimize disruptions to the greatest extent possible. During construction, traffic will be maintained using both part-width construction techniques and the use of detour routes. MDOT will make every effort to reach agreement with the City and County Road Commission engineering staffs on final goals and implementation strategies for project construction staging, prior to the beginning of construction. Preliminary planning goals for the project construction staging are:

- Provide two lanes of I-94/I-69 traffic in each direction
- All plaza operations will be maintained throughout construction with the aid of temporary connections
- Minimize Water Street and Lapeer connector ramp closures
- Maintain Water Street traffic over I-94/I-69 throughout construction
- Complete the upgraded Black River Bridge prior to beginning construction on the plaza
- Maintain two lanes of Pine Grove Avenue traffic in each direction
- Maintain access to businesses and minimize delay to thru traffic

The city of Port Huron would lose approximately 1.6 percent (\$12.9 million) of its existing property tax base if the Recommended Alternative is constructed. A possible result of the relocation of businesses could lead to the potential relocation of jobs outside of the community.

The Recommended Alternative would result in positive impacts on trade and commerce across the Blue Water Bridge through a reduction in travel times and congestion. Reduced congestion will lead to less uncertainty in border crossings, allowing firms that transport goods across the border to meet just-in-time delivery schedules with less warehouse inventory required.



Relocations: The DEIS stated that the Recommended Alternative would displace 129 residences and 30 businesses. As a result of feedback MDOT received regarding the size of the plaza and the number of relocations, the plaza footprint was reduced.

Relocation estimates are based on a worst-case scenario of acquiring all structures on parcels whose land is required for the Recommended Alternative. Most of the homes that may be relocated are owner occupied. Some multi-unit rental property relocations are required; a few of the relocations are single family home rentals. The Recommended Alternative will relocate 125 residences, and thirty businesses. MDOT will compensate homeowners who are relocated and assist with the relocation process. Replacement housing must be similar both in type and price range. No relocations will occur until it is shown that comparable housing is available (see the Conceptual Stage Relocation Plan in **Appendix A of this FEIS**).

Indirect and Cumulative Impacts: The Study Team identified potential indirect effects on land use, farmlands, traffic patterns, transboundary and wetlands. There are no significant indirect impacts on these elements from the Recommended Alternative.

The Recommended Alternative may encourage redevelopment of land north of Hancock Street as new or relocated businesses seek sites to serve both border crossing and local customers. This land has been previously developed.

Cumulative impacts for the Recommended Alternative associated with past, present, and future plaza development projects are from residential and business relocations and the effect on neighborhood stability in the vicinity of the existing plaza.

Aesthetic and Visual: The new plaza will have a dramatic effect on the visual quality of the area. Through meetings held with the city of Port Huron and St. Clair County officials, MDOT has committed to working with its federal, state and local

stakeholders to develop an Aesthetic Design Guide (ADG) for the project.

The ADG will identify aesthetic treatments to be considered for implementation during the design and construction phases. These recommendations will provide an overall design direction for both the corridor and plaza project areas to assure an overall continuity is achieved between these two work elements. The ADG will define an overall theme as well as specific community characteristics that can be incorporated in the corridor and plaza architectural elements to assure these infrastructure improvements reflect the Blue Water Community. See **Section 5.4** of this **FEIS** for more Aesthetic Design Guide details.

Cultural Resources: Although the layout of the Recommended Alternative has changed, this alternative will still acquire the block on which the National Register of Historic Places eligible, E.C. Williams House resides. The E. C. Williams House is eligible for the National Register of Historic Places and a Section 4(f) property. Based on the direct impact to the house, MDOT received concurrence from the State Historic Preservation Office (SHPO) March 15, 2007 that the Recommended Alternative will adversely affect this property. SHPO has concurred that relocating the house would be preferred to demolition. No archaeological resources are impacted by the Recommended Alternative.

Public Parks: There are three public parks located within or adjacent to the Study Area.

Neither Township Park No. 2 (the campground) nor Riverside Park will be impacted by the proposed project. Some minor property acquisition and impacts are anticipated with Township Park No. 1 for the construction of the proposed corridor improvements and interchange at Water Street under the Recommended Alternative.

MDOT coordinated with Port Huron Township officials and with the Township Parks and Recreation Commission regarding the potential impacts to Township Park No. 1. Meetings were held with the Township Supervisor and Parks and Recreation Commission to discuss the potential impacts to



Front View E.C. Williams House



Sign for Port Huron Township Park #1

What is Section 4(f)?

Section 4(f) of the Department of Transportation Act of 1966 states that no transportation project should be approved which requires the "use" of any publicly owned land from a public park, recreation area, wildlife and waterfowl refuge, or historic site unless there is no feasible or prudent alternative to the use of such land.

the park. The Township has concurred that the proposed project will have minimal effects on Township Park No. 1, and as a result, the potential impacts to Port Huron Township Park No. 1 have been determined by FHWA to be *de minimis* under Section 4(f). The No-Build Alternative will have no effect on Port Huron Township Park No. 1.

How Will the Project Affect the Natural Environment?

Air Quality: The project has the potential to improve air quality at a regional level, since the objective is to reduce backups and idling caused by existing delays for both in-bound U.S. and out-bound traffic at the current plaza. The Recommended Alternative will be better equipped to handle trucks that are part of the Free and Secure Trade (FAST) program. More trucks in the program will likely result in fewer trucks at other primary booths and less trucks in the secondary inspection area. Less vehicle queues are anticipated as the number of inspection booths are proposed to increase. Improvements to the plaza will be in conformity with the State Implementation Plan (SIP) for ozone and particulates and, in conformity with the regional Transportation Improvement Plan (TIP).

Noise: The Study Team measured existing noise levels in areas potentially affected by noise from a new plaza and used the FHWA's Traffic Noise Model (TNM) to forecast future noise levels for the alternatives. The design hour noise levels projected for the Recommended Alternative differ slightly from the City West Alternative as described in the DEIS. The changes in noise levels occurred as a result of more uniform treatment of traffic operations within the TNM model, as a response to concerns raised during the public comment period. None of these changes resulted in more properties being exposed to noise levels above FHWA's Noise Abatement Criteria (NAC).

The No-Build Alternative would have traffic noise levels that approach or exceed the NAC at 101 residences, six businesses, and in one township park.

The Recommended Alternative would cause 2030 design hour noise levels to approach or exceed the NAC at 59 residences

and three businesses including one hotel/motel, and at one township park. None of the noise receivers would be exposed to noise levels that “substantially exceed existing” noise levels.

Groundwater, Drainage and Surface Water Quality: No impacts are anticipated to groundwater resources. The Study Area does not contain any Sole Source Aquifers or Critical Aquifer Protection Areas.

The Recommended Alternative will increase the amount of stormwater drainage within the Study Area. Stormwater detention basins will be constructed to control the amount of water discharged to match the existing discharge quantities and preserve surface water quality. All stormwater run-off will be directed through buffer areas prior to discharging into any of the surrounding surface water features. This will help filter any sediments or pollutants contained in the stormwater run-off.

Floodplains: All of the Build Alternatives would involve construction within the 100-year floodplain. Efforts have been made to develop the alternatives to ensure that there will be no impacts to the floodplain which would cause additional flooding to properties in the surrounding area. Any impact to the 100-year floodplain will be offset by providing additional storage capacity for floodwaters. To ensure that all environmental and hydraulic impacts associated with the floodplain crossings of the project are minimized, further evaluation of crossing options will be conducted during the design phase.

Wetlands: None of the alternatives would have wetland impacts that would be considered significant. The Recommended Alternative would impact approximately 4.36 acres of wetlands. These wetlands have relative low value, function and floristic significance.

MDOT will restore previously existing wetlands or create new wetlands to replace those that would be impacted. Current policy dictates that forested wetlands will be replaced at a ratio of 2:1, while emergent, scrub/shrub, and open water wetlands will be replaced at a ratio of 1.5:1.



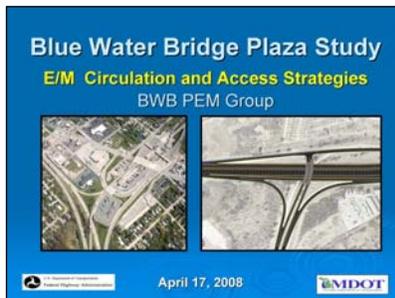
Scrub-shrub/forested wetland

Contaminated Sites: The Study Team identified 20 potentially contaminated sites. The No-Build Alternative would not affect any of these Recognized Environmental Conditions (RECs). Eighteen of these sites could be affected by construction as part of the reconstruction of the existing plaza under the Recommended Alternative. Impact to two sites would occur by reconstruction of the Water Street interchange.

How will the Study Team Mitigate or Reduce the Impacts to the Built and Natural Environments?

MDOT created the Project Enhancement and Mitigation (PEM) group to identify project mitigation and enhancement measures for the Blue Water Bridge Plaza Study. In efforts to eliminate, reduce, or control the negative effects of the project MDOT and FHWA will mitigate for the social, economic and environmental affects of the final alternative selected for design and construction. This will include traditional mitigation measures as well as providing economic development assistance.

Project Enhancement and Mitigation Measures: For the Blue Water Bridge Plaza Study, an interagency working group was formed to identify project mitigation and enhancement measures. This group, called the Project Enhancement and Mitigation Group (PEM), was made up of local, state, and federal officials. The PEM Group met monthly covering specific enhancement and mitigation topics which were identified as areas of concern through agency and public comments on the DEIS. In total, nine meetings were held with the PEM Group between February 2008 and November 2008.



MDOT commits to adding approximately **\$13.1 million** of project enhancements to the project design. These enhancements have been developed to address the direct and indirect impacts of the project in the areas of economic development, tourism, local circulation and access, emergency response and non-motorized mobility. As the owners, operators and tenants MDOT, FHWA, GSA and CBP all believe these enhancements will help reduce the overall impact of the project. MDOT believes these enhancements can help align Port Huron's existing assets, which will allow the community to leverage the long-term economic benefits this

large-scale project can generate. A full discussion of the Project Enhancement and Mitigation measures is located in **Chapter 5** of this FEIS.

What type of Economic Assistance will the Community Receive?

Economic Development Assistance: The Michigan Department of Transportation has incorporated several enhancements into the project that are designed to improve economic and community redevelopment opportunities within greater Port Huron. MDOT commits to continue coordination efforts with other state and federal agencies to bring additional resources to the greater Port Huron community.

In collaboration with the Greater Port Huron Chamber of Commerce, MDOT will fund an addition to the Chamber's office for the purposes of housing a local visitor center. This facility will be used to disseminate local tourism information and promote tourism and economic development opportunities which exist within the Port Huron community.

How Did the Study Team Coordinate with the Public and Stakeholders?

The Study Team conducted an extensive process of public and stakeholder coordination to obtain input, identify local concerns, revise proposed alternatives, and better understand the impacts of the alternatives on the natural and built environment. The Study Team, utilizing a Context Sensitive Solutions Approach, conducted an extensive process of public and stakeholder engagement to obtain input, identify local concerns, revise proposed alternatives, and better understand the impacts of the alternatives on the natural and built environment. The Study Team has held six public meetings, Community Involvement Workshops, over 40 local stakeholder meetings and eight Project Enhancement and Mitigation meetings. Newspapers, a project website, a toll free phone number, an e-mail list-serve, and newsletters were also used to provide information about the study and receive public input. The Study Team used public and stakeholder feedback to assist in the refinement of the Recommended Alternative. Additionally, since March 2, 2007, the Study



Public meeting

What is a Cooperative Agency?

An Agency that has special authority or expertise over the construction of a project. There is enhanced communication and cooperation between cooperating agencies and the agency proposing the project.

Team has held office hours in Port Huron on the first and third Friday of each month to address concerns and questions and provide answers on the project.

Five federal agencies are serving as cooperating agencies for this project and assisted the Study Team in the development and analysis of the alternatives. These agencies include: Customs and Border Protection (CBP), General Services Administration (GSA), the United States Army Corps of Engineers (USACE), the Environmental Protection Agency (EPA), and the United States Coast Guard (USCG). The Study Team also has worked with Blue Water Bridge Canada, who own and operate the Canadian side of the Blue Water Bridge, and other Canadian stakeholders in the development and evaluation of the alternatives.

The DEIS was signed on August 10, 2007. A public hearing for the Blue Water Bridge Plaza Study was held October 9, 2007. The public hearing provided an opportunity for the Study Team to share with the public information about the study and allowed the public to voice concerns and opinions regarding the Blue Water Bridge Plaza Study in Port Huron, Michigan. The hearing provided one-on-one interaction with Study Team members and an explanation of the study for the public through exhibits and presentations. A court reporter was also made available to all attendees. The public hearing took place during the 120-day public comment period for the Draft Environmental Impact Statement. Responses to comments received during the comment period can be found in **Chapter 7 of this FEIS**.

What Are the Next Steps For the Blue Water Bridge Plaza Study?

No sooner than 30 days after the publication of the final EIS notice in the Federal Register the FHWA will issue a Record of Decision, the next step in the U.S. environmental clearance process.

Design and Right-of-Way acquisition activities are anticipated to take approximately three years to complete. The earliest construction could begin is 2011 on the I-94/69 corridor.

Table E.4 Summary of Impacts

| <h1>Summary of Impacts</h1> | | No-Build | City West Alternative (Recommended Alternative) |
|---|---|----------|--|
| Potential Impacts: | | | |
| Social | Public Recreational Land Impacts | 0 | 1 |
| | Neighborhoods / Subdivision Impacts | 0 | 3 |
| | Community Facilities (Churches, Schools etc.) (#) | 0 | 1 Church, requires property from school district |
| Relocations | Estimated Residential Relocations (#) | 0 | 125 |
| | Estimated Commercial Relocations (#) | 0 | 30 |
| | Existing DTE Substation | No | Yes |
| River/Stream/Drain Crossings (#) | | 0 | 2 |
| Ecological Resources | Total Wetland Impacts (acres) | 0 | 4.36 |
| | Threatened and Endangered Species Impacts | 0 | 0 |
| Cultural Resources | Historic Buildings/Site Impacts (#) | 0 | 1 |
| | Archaeological Site Impacts (#) | 0 | 0 |
| Noise | Residences Impacted by noise levels that exceed noise abatement criteria | 101 | 59 |
| Potential Contaminated Site Impacts (# of Sites Impacted) | | 0 | 20 |
| Traffic Movement | Grade Separations (#) | 6 | 6 |
| | New or Modified Signalized Intersections/Roundabouts (#) | 0 | 8 |
| | Local Road Closures, Rerouting, or Cul de Sacs (#) | 0 | 11 |
| Right-of-Way | CBP plaza space (including existing plaza re-use) (acres) | 18 | 46 |
| | Total new right-of-way required (acres) - Includes: Plaza, new Pine Grove Avenue, Corridor and Welcome Center (Includes Engineering) | 0 | 129 |
| Cost | Construction Cost (\$2008 Millions) | \$0 | \$319 |
| | Right-of-Way Cost/Design/Misc (\$2008 Millions) | \$0 | \$214 |
| | Utility Relocations (\$2008 Millions) | \$0 | \$21 |
| | Total Estimated Cost (\$2008 Millions) | \$0 | \$554 |
| | Environmental Clearance (\$2008 Millions) | \$0 | \$12 |

Blue Water Bridge Plaza Study

