CHAPTER 2

ALTERNATIVES

This chapter provides an overview of the alternatives still under consideration. Four alternatives were carried forward in the DEIS. Two of these alternatives, the No-Build and a modification of the DEIS Preferred Alternative/City West Alternative, are still under consideration and are discussed in this chapter.

What is a No-Build Alternative?

A No-Build Alternative is considered the baseline condition for comparing the other alternatives.

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**. None of the cooperating agency, local stakeholder or public comments received during the DEIS comment period changed why the other alternatives considered in the DEIS could not be carried forward as the Recommended Alternative.

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.

What is a Recommended Alternative?

The alternative that has been identified as best meeting the purpose and need for the project while minimizing social, environmental and economic impacts.

The Recommended Alternative expands the plaza in the city of Port Huron, relocates Pine Grove Avenue to the west, and makes improvements along the I-94/I-69 corridor. The Recommended Alternative was developed following comments received on the DEIS Preferred Alternative. The Recommended Alternative best addresses the reasons for improving the plaza/corridor when compared with all other potential alternatives. The No-Build Alternative is considered the baseline condition for which the Recommended Alternative is compared against.

2.1 No-Build Alternative Summary

The No-Build Alternative is considered the baseline condition for comparison to the Recommended Alternative. See **Chapter 2** of the **DEIS** for a full discussion of the effects of the No-Build Alternative.

MDOT and CBP would continue to maintain the existing plaza facilities. The existing welcome center will remain in its current location.

The No-Build Alternative would include continued maintenance and technology improvements as space allows, over the next 25 years. Accommodation of all required facilities for CBP would not be possible on the existing plaza and substantial gridlock would likely occur on the plaza as new facilities are introduced and the limited existing parking and queuing space is reduced. There would be no expansion of the existing plaza footprint.

Plaza Operations Entering the U.S.: The No-Build Alternative would not make any changes to the existing plaza configuration or the Blue Water Bridge. A delay analysis completed in September 2008, shows the current average crossing delays for both cars and commercial vehicles is 26 minutes. This delay results in car back-ups of 0.6 mile and truck back-ups to 1.3 miles. The existing plaza operations and lack of space to conduct current CBP processing requirements efficiently sometimes produce larger queues and lengthy delays (one to two hours). The delay analysis summary can be found in **Section 2.3**.

Future conditions at the plaza would worsen under the No-Build Alternative. According to the delay analysis future average crossing delays in 2030 would deteriorate to an average car delay of 32 minutes, resulting in a 1.7 mile back-up for passenger vehicles. Commercial vehicles in the future would experience an average of 23.7 minutes of delay and queues would extend 1.8 miles under the No-Build Alternative. Further discussion of this delay study is presented in **Section 2.3** of this chapter.

Truck Traffic Backup on Highway 402
Courtesy: Blue Water Bridge Canada

Plaza Operations Leaving the U.S.: Anticipated traffic growth would cause travelers to experience more severe delays and much larger queues into Canada and on the I-94/I-69 freeway. The steady increase in traffic would gradually increase the delays and queues at the plaza. The outbound plaza traffic queue is the spot that would trigger backups that would affect the entire I-94/I-69 corridor.

The high congestion and queues at the outbound plaza would extend onto I-94/I-69 lanes on a more regular basis. Eventually, this queue would reach the eastbound Water Street on-ramp, which would already be experiencing high congestion. Local traffic wishing to travel north on the M-25 connector would then be required to merge with stopped vehicles on the freeway. As a result, the backup would continue to grow until the entire roadway network is at a standstill.

Under the No-Build Alternative, The frequency of traffic backups along I-94/I-69 would continue to worsen.

Local Roads: Projected 2030 traffic volumes indicate that the current problems on the local roadways and intersections would worsen. This would result in long queues and delays at several intersections. The intersections identified to be at risk for high congestion (greater than 55 seconds delay) are the Hancock Street and M-25 connector intersection, the Hancock Street and Pine Grove Avenue intersection, the Pine Grove Avenue and 10th Avenue intersection, and the Water Street interchange.

I-94/I-69 Freeway: The No-Build Alternative would not include any improvements to the Black River Bridge or the I-94/I-69 corridor. An MDOT report on the condition of the bridge states that the deck surface has approximately 30 percent surface deficiency. This will require that the bridge deck be replaced within the next five years. Traffic operations with a bridge deck replacement would not change, meaning the existing eastbound traffic weave which occurs on the Black River Bridge would remain.

All freeway ramps would experience low (less than 48% of capacity) or moderate levels (48% to 88% of capacity) of congestion without factoring potential delay caused by traffic backups onto the I-94/I-69 freeway from the existing plaza.

No improvements to the current utility services are anticipated for the No-Build Alternative.

2.2 Process Followed to Develop Modifications to the DEIS Preferred Alternative

This section discusses the changes made to the Preferred Alternative following the issuance of the DEIS in September 2007. Comments received on both the DEIS and the Preferred Alternative indicated that the size of the proposed plaza was a concern for many in the local community. As a result, the plaza requirements and the overall size were re-analyzed by FHWA, MDOT, CBP and GSA. The resulting modifications have been incorporated into the Recommended Alternative, which is discussed in detail in **Section 2.3.**

DEIS Preferred Alternative: As illustrated in **Figure 2.2.1**, the DEIS identified the City West Alternative as the Preferred Alternative. **Chapter 2** of the **DEIS**, describes the proposed size of the plaza expansion as 65 acres.

The DEIS Preferred Alternative plaza size requirement was determined by the facility needs required by CBP as part of their Program of Requirements (POR). The size of Port Huron's Port of Entry (POE) was originally required by CBP to be between 60-80 acres to accommodate their required operations and security measures. This is what determined the size of the plaza presented in the DEIS.

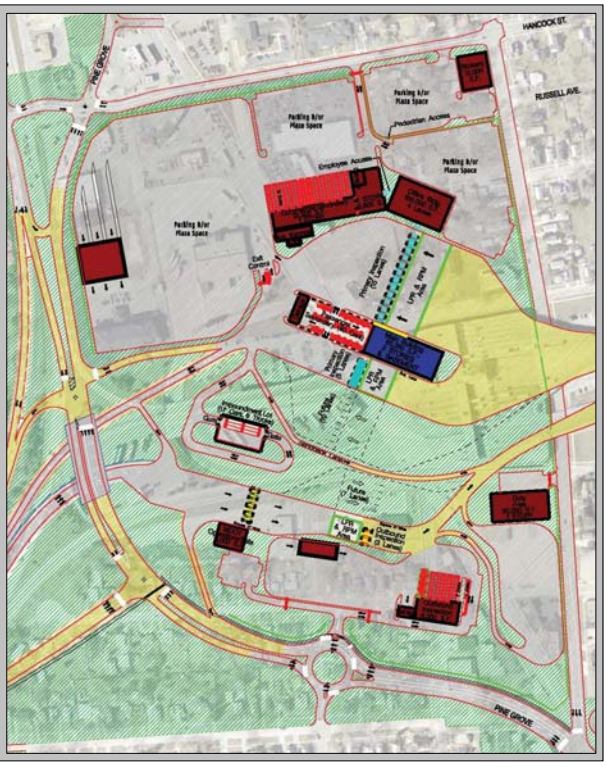
From December 2007 thru June 2008, a series of meetings were held with CBP and GSA. Representatives from CBP's Local Port, Field Operations, and Facility and Asset Management offices were consulted. MDOT and Federal Highway Administration (FHWA) staff also participated in these meetings. The purpose of the meetings was to confirm the POR requirements and seek ways to minimize the impacts of a future plaza expansion. Every space requirement of the Preferred Alternative was scrutinized to determine if a reduction of the overall plaza size was possible.

The Study Team prepared a number of revised plaza layouts in an attempt to decrease plaza size while maintaining optimal vehicle circulation, required facilities based on the POR, and

necessary security requirements. All future plaza configurations were also evaluated to make sure they could be

City West Alternative Features
(DEIS Preferred Alternative)

- Plaza down to grade/Pine Grove Avenue relocated
- Plaza Footprint ~ approx. 65 acres
- 20 Inspection Lanes (expandable to 30)
- Expanded secondary inspection facilities include:
    - o 12 docks
    - o 3 GRIT
    - o 100 parking spaces for trucks
- Expanded outbound inspection
- Expanded CBP/MDOT office space
- Relocated Duty Free
- Direct access to Port Huron/Fort Gratiot Township


HANCOCK ST.
PINE GROVE
RUSSELL AVE.
Parking &/or Plaza Space
Pedestrian Access
Employee Access
Duty Free
Gift Centers
Primary CBP Inspection Lanes
Secondary Inspection Lanes
Secondary Inspection Lanes
Outbound Lanes
Outbound Lanes
Secondary Inspection Lanes
Secondary Inspection Lanes
Secondary Inspection

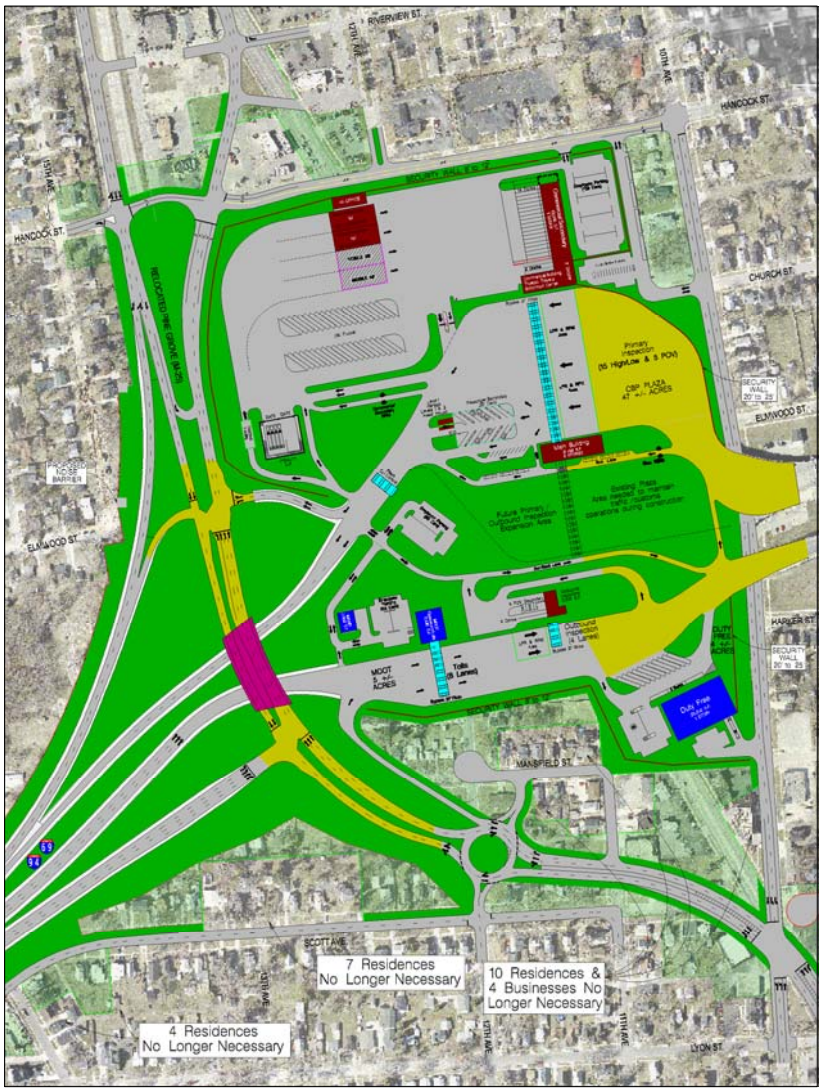


Figure 2.2.2 The Draft Recommended Alternative as released in June 2008

Specific changes of the draft Recommended Alternative included:

- Overall size of permanent CBP/MDOT plaza facilities was reduced from 65 to 56 acres.
- Reduction of permanent 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 space on the plaza was reduced from 57 acres to 46 acres.
- CBP was able to reduce the number of truck parking spaces on the new plaza 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 draft Recommended Alternative was released to the public June 12, 2008 utilizing local media sources and MDOT's project web-site. The alternative was presented at a June 12, 2008 joint city of Port Huron Council/St. Clair County Board of Commissioner/Port Huron Township Board meeting. Comments on the alternative were also received at MDOT's office in Port Huron during office hours held every first and third Friday of the month

Additional comments and concerns conveyed to the Study Team focused on the properties located south of the proposed plaza that were no longer necessary relocations as part of the revised plaza. These concerns focused on future quality of life for these remaining properties due to their proximity to the new plaza and the new relocated Pine Grove Avenue. See **Figure 2.2.3.**

After further analysis, the Blue Water Bridge Study Team determined these remaining properties, if left to remain in their current location would be:

- **Segregated** from other existing land uses and would result in the creation of its own defined area;
- **Separated** from adjacent properties and would result in the creation of a non-complimentary mixed land use; and
- **Isolated** from other residences and business in an area that becomes difficult to accommodate both vehicular and pedestrian movements.

Additionally, the areas south of the plaza and relocated Pine Grove Avenue will be utilized for maintenance of traffic and construction staging purposes during the construction phases. This area may also be utilized for stormwater detention areas. A decision of whether this property will be utilized for

stormwater drainage purposes will be made during the design phase of the project.

Figure 2.2.3 Pine Grove Relocations and Scott Avenue Properties

2.3 Description of the Recommended Alternative

What is a Recommended Alternative?

It is the alternative that has been identified as best meeting the purpose and need for the project while minimizing social, environmental and economic impacts.

This section describes the Recommended Alternative. Based on comments received on the DEIS (shown in **Chapter 7**), revisions to the City West (Preferred) Alternative were made to address the plaza size and layout, and reduce the social, economic, and environmental impacts. The resulting alternative is the Recommended Alternative.

Since the release of the DEIS, modifications were made to the Preferred Alternative. These changes, which are reflected in the Recommended Alternative, will be discussed in detail in

this chapter. The Study Team identified the Recommended Alternative after a long consultative process that included discussions with the cooperating agencies for the project, meetings with local officials and multiple public meetings. For a full discussion of the process followed to develop the Illustrative, Practical and Preferred Alternatives refer to **Chapter 2** of the **DEIS**.

2.3.1 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 for the plaza improvements.

Truck Inspection Booths

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

- The Recommended Alternative eliminates a major roadway running (Pine Grove Avenue) underneath the inspection area.

- All major roadway crossings are located west of the primary and secondary inspection points on the plaza. This enhances the security of the facility and reduces the vulnerabilities of the plaza to a terrorist incident that could shut the border crossing down for a long period of time.

Radiation Detection Portals

- The Recommended Alternative layout minimizes the ability of border runners to cross through the plaza without being inspected.

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. This is a substantial improvement over the indirect access provided by the No-Build Alternative and the other build alternatives discussed in the DEIS.

- 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. 10th Avenue would continue to provide north-south access on the east and the relocated Pine Grove Avenue would provide north-south access to the west.

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 Port Huron area when compared to the No-Build Alternative.

- 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.

2.3.2 Describe the Recommended Alternative

The Recommended Alternative, as illustrated in **Figure 2.3.1**, 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 permanent plaza area (CBP and MDOT operations occupied space) of the Recommended Alternative has been reduced in size since the release of the DEIS from 65 acres to 56 acres. CBP space has been reduced from 57 acres to 46 acres.

The Blue Water Bridge

The Recommended Alternative still requires the relocation of Pine Grove Avenue to the west between 10th Avenue and Riverview Street. Relocated Pine Grove Avenue would 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 following description of the Recommended Alternative includes all of the changes made to the inspection facilities since the DEIS and the release of the preliminary Recommended Alternative in June 2008:

The Plaza: The Recommended Alternative requires commercial vehicles crossing the Blue Water Bridge to remain in the right lane and passenger vehicles in the left lanes. Traffic entering the United States from Canada (see blue circle in **Figure 2.3.2**) will come off the Blue Water Bridge and come down to street level. By the time cars and trucks reach the primary inspection booths on the plaza, they are at street level.

Primary Inspection: All vehicles entering the United States are required to pass through primary inspection. See **Figure 2.3.2.** 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. Before the cars and trucks reach the inspection booths, they pass through radiation detection portals, which ensure that they are not bringing radioactive material into the United