Final

ENVIRONMENTAL IMPACT STATEMENT

For the Proposed Modernization of the Bridge of the Americas Land Port of Entry El Paso, Texas

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December 2024

COVER SHEET

Responsible Agency: U.S. General Services Administration (GSA), Greater Southwest Region (Region 7)

Title: Environmental Impact Statement (EIS) for the proposed Modernization of the Bridge of the Americas (BOTA) Land Port of Entry (LPOE), El Paso, Texas

On November 6, 2021, Congress passed the Bipartisan Infrastructure Law (BIL), also known as the Infrastructure Investment and Jobs Act (IIJA). On November 15, 2021, the President signed Executive Order (EO) 14052 "Implementation of the Infrastructure Investment and Jobs Act." Finally on December 13, 2021, the President signed EO 14508 "Transforming Federal Customer Experience and Service Delivery to Rebuild Trust in Government." On February 25, 2022, President Biden and the GSA announced the list of major (LPOE projects funded by the BIL. This included the BOTA LPOE in El Paso, Texas.

The GSA proposes to satisfy the purpose and need for action by modernizing the BOTA LPOE to bring infrastructure in line with current CBP land port design standards (i.e., CBP Land Port of Entry Design Standard) and operational requirements while addressing existing deficiencies identified with the ongoing port operations.

The GSA has prepared this Final EIS which documents the purpose and need for action, alternatives developed to implement the proposed action, the existing environment that could be affected by implementing the proposal, the potential impacts resulting from each of the alternatives carried forward for detailed analysis, and lists the proposed best management practices (BMPs) and/or mitigation measures that would be implemented as part of each alternative in an effort to minimize or eliminate altogether any potential adverse impacts. This Final EIS analyzes the impacts of implementing two (2) action alternatives and the no action alternative:

- No Action
- Viable Action Alternative 1a – Multi-Level Modernization (High/Low Booths) Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (8 acres TxDOT) and Additional Land Acquisition to the East (13 acres – TxDOT)
- Viable Action Alternative 4 – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (8 acres - TxDOT) and Elimination of All Commercial Cargo Operations

As demonstrated in the EIS, GSA's data collection and analysis as presented in this Final EIS, demonstrates that there are likely existing environmental justice impacts and impacts to children occurring disproportionately in the vicinity of the BOTA LPOE. These largely relate to traffic (primarily commercial truck traffic) and the resulting effect on both local and regional air quality and increases in noise. Furthermore, GSA's data collection and analysis indicates that should the No Action Alternative or Action Alternative 1a be chosen for implementation, these existing conditions would likely degrade further over time. GSA's data collection and analysis for Action Alternative 4 results in no furtherance of any existing disproportionate impacts to these communities of concern and represents a likely positive move in correcting these conditions over time.

THE GSA HAS SELECTED <u>VIABLE ACTION ALTERNATIVE 4</u> AS ITS PREFERRED ALTERNATIVE. GSA BELIEVES THIS ALTERNTIVE WOULD BEST FULFILL ITS STATUTORY MISSION AND RESPONSIBILITIES, GIVING CONSIDERATION TO ECONOMIC, ENVIRONMENTAL, TECHNICAL, AND OTHER FACTORS.

The GSA solicited comments from interested persons/parties and stakeholders on the Draft EIS during an extended 45-day comment period. The public and stakeholders were notified of the availability of the Draft

EIS through publication of a Notice of Availability (NOA) in the Federal Register, as well as multiple other channels of communication, including the local newspaper and email communications. Comments received during the comment period were considered in preparation of this Final EIS and have been made part of the Administrative Record.

EXECUTIVE SUMMARY

On November 6, 2021, Congress passed the Bipartisan Infrastructure Law (BIL), also known as the Infrastructure Investment and Jobs Act (IIJA). On November 15, 2021, the President signed Executive Order (EO) 14052 "Implementation of the Infrastructure Investment and Jobs Act." Finally on December 13, 2021, the President signed EO 14508 "Transforming Federal Customer Experience and Service Delivery to Rebuild Trust in Government." On February 25, 2022, President Biden and the General Services Administration (GSA) announced the list of major Land Port of Entry (LPOE) projects funded by the BIL. This included the Bridge of the Americas (BOTA) LPOE in El Paso, Texas.

This Environmental Impact Statement (EIS) has been prepared in accordance with Section 102 of the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [USC] 4321 to 4370d), as implemented by the regulations promulgated by the Council on Environmental Quality (CEQ) (40 Code of Federal Regulations [CFR] §1500-1508). The principal objectives of NEPA are to ensure the careful consideration of environmental aspects of proposed actions in federal decision-making processes and to make environmental information available to decision makers and the public before decisions are made and actions are taken. Additionally, this EIS has been prepared in accordance with GSA NEPA guidelines (GSA Order ADM 1095.1F and the Public Buildings Service [PBS] NEPA Desk Guide, both dated October 1999) and serves as a mechanism for compliance with the National Historic Preservation Act (NHPA) of 1966 (as amended) and other relevant laws and/or regulations.

PURPOSE AND NEED

The purpose of the proposed action is for the GSA to support CBP's mission by bringing the BOTA LPOE operations in line with current CBP land port design standards (i.e., CBP Land Port of Entry Design Standard [CBP 2023]) and operational requirements while addressing existing deficiencies identified with the ongoing port operations. In order to bring the BOTA LPOE in line with CBP's design standards and operational requirements, action is needed to satisfy the following overriding needs:

- Improve the capacity and functionality of the LPOE to meet future public demand, while maintaining the capability to meet border security initiatives.
- Ensure the safety and security for the employees and the travelling public.
- Improve traffic congestion and safety for travelers and citizens of the City of El Paso.

The existing BOTA LPOE must remain open and operational well into the future to allow CBP to continue to meet its mission requirements on the southern border, and more in particular, in the El Paso, Texas area. As a result of new/updated PORs (discussed earlier in Section 1.2), the BOTA LPOE, as it currently exists, does not comply with the new/updated standards. As mentioned, the standard is used to develop planning and programming criteria for inclusion in PORs, direct execution of design and engineering documentation, inform construction and construction administration stages, and establish project close-out and post-occupancy roles and responsibilities. In order to satisfy new/updated PORs at the port, new/updated square footage requirements would be necessary. These new square footages are presented later in Section 2.0 as the operational requirements associated with each viable alternative carried forward for detailed study.

In an effort to satisfy the purpose and need for the proposed action, several goals/guidelines were developed by the GSA to compare and contrast alternative ways of fulfilling the objectives of the proposed action. Those specific goals/guidelines include:

(1) Comply with the CBP Land Port of Entry Design Standard (CBP 2023) and associated new/updated POR requirements.
(2) Comply with GSA's Facilities Standards for the Public Buildings Service (P100) (GSA 2024).

(3) Support the growth needs of the CBP, other tenant agencies, and the needs of the local community.
(4) Provide for increased CBP and tenant efficiencies.
(5) Improve vehicular and pedestrian traffic flow and processing times.
(6) Improve the safety of workers and the traveling public.
(7) Provide any improvements consistent with the goals of stakeholders (when possible).
(8) Minimize disruption to CBP and other tenant agencies' operations and activities throughout any improvements.
(9) Minimize the impact to the environment and the local community.
(10) Provide any improvements in a cost-effective manner.

PROPOSED ACTION AND ALTERNATIVES

The GSA proposes to satisfy the purpose and need for action by renovating/updating the BOTA LPOE to bring infrastructure in line with current CBP land port design standards (i.e., CBP Land Port of Entry Design Standard [CBP 2023]) and operational requirements while addressing existing deficiencies identified with the ongoing port operations. As part of initial planning for the proposed modernization of the port, GSA and its stakeholder partners developed four (4) "Possible" Action Alternatives to satisfy the purpose and need for the project:

- Possible Action Alternative 1 – Multi-Level Modernization Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition (12 acres – 8 TxDOT, 4 El Paso County) to the East

- Possible Action Alternative 2 – Multi-Level Modernization Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition (14 acres – 5 TxDOT, 9 El Paso County) to the East

- Possible Action Alternative 3 – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (8 acres TxDOT) and Elimination of Commercial Cargo Operations

- Possible Action Alternative 4 – Multi-Level Modernization with the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Significant Land Acquisition (36 acres – 12 TxDOT, 24 El Paso County) to the East for Commercial Cargo Operations

The four (4) "Possible" Action Alternatives listed above were further evaluated by internal agency stakeholders and resulted in the following "Viable" Action Alternatives:

- Viable Action Alternative 1 (originally Possible Action Alternative 1) – Multi-Level Modernization Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 12 acres – 8 TxDOT, 4 El Paso County)

- Viable Action Alternative 1a – Multi-Level Modernization (High/Low Booths) Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 12 acres – TxDOT)

- Viable Action Alternative 2 (originally Possible Action Alternative 2) – Multi-Level Modernization Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 14 acres – 5 TxDOT, 9 El Paso County)

- Viable Action Alternative 3 (originally Possible Action Alternative 4) – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Significant Land Acquisition to the East for Commercial Cargo Operations (Approximately 36 acres – 12 TxDOT, 24 El Paso County)

These "Viable" alternatives were finally subject to a two-tiered evaluation formulated to concentrate on the purpose and need for the proposed action – renovating/updating the BOTA LPOE to bring infrastructure in line with current CBP land port design standards and operational requirements while addressing existing deficiencies identified with the ongoing port operations:

- Tier 1 evaluated whether or not the various alternatives would fully meet the purpose and need selection guidelines.
- Tier 2 evaluated whether or not the various alternatives would result in adverse environmental impacts.

As a result of this evaluation, Tier 2 took into consideration two final Action Alternatives, as they fully satisfied all the Tier 1 criteria (i.e., the purpose and need for action). These final two Action Alternatives were carried forward for detailed analysis in the EIS. The No Action Alternative did not satisfy the Tier 1 criteria; however, pursuant to NEPA, the No Action Alternative was carried forward as the baseline to which potential impacts of the Action Alternatives could be measured. The following alternatives were carried forward:

- No Action
- Viable Action Alternative 1a – Multi-Level Modernization (High/Low Booths) Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (8 acres TxDOT) and Additional Land Acquisition to the East (13 acres – TxDOT) with Potential to Eliminate All Commercial Cargo Operations in the Future.
- Viable Action Alternative 4 – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (8 acres - TxDOT) and Elimination of All Commercial Cargo Operations

Viable Action Alternative 1a and 4 are described briefly below.

Viable Action Alternative 1a – Multi-Level Modernization (High/Low Booths) Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 12 acres – TxDOT) with Potential to Eliminate All Commercial Cargo Operations in the Future

This alternative is considered to be a compact and land-efficient design/site layout. This alternative has a multi-level design, with the majority of port operations located on the existing site, with FMCSA inspections co-located with TxDOT to the east and the kennel and auxiliary training facility located on the east site as well. This alternative would also include acquisition of a small amount of land at the perimeter of the existing site, primarily within the TxDOT ROW as well as additional TxDOT land to the east for the kennel and auxiliary training facility. There would be a total of 12.4 acres acquired from TxDOT. Viable Action Alternative 1a includes the following characteristics (Figure ES-1):

- Highly compact plan
- Minimal land acquisition (12.4-acre acquisition from TxDOT)
- POV and commercial primary and secondary on existing (west) site
- Ancillary facilities only on new (east) site
- Efficient operations and circulation
- Interconnected CBP operations buildings
- Lower-level staff and visitor parking

- Lower-level pedestrian processing
- Ground level POV primary and secondary
- Ground level commercial secondary and NII
- Upper-level commercial primary and administration
- High-low inspection booths incorporated at commercial primary for operational flexibility
- Below-grade stormwater detention/retention vaults
- Option for future elimination of commercial cargo operations moving north and south

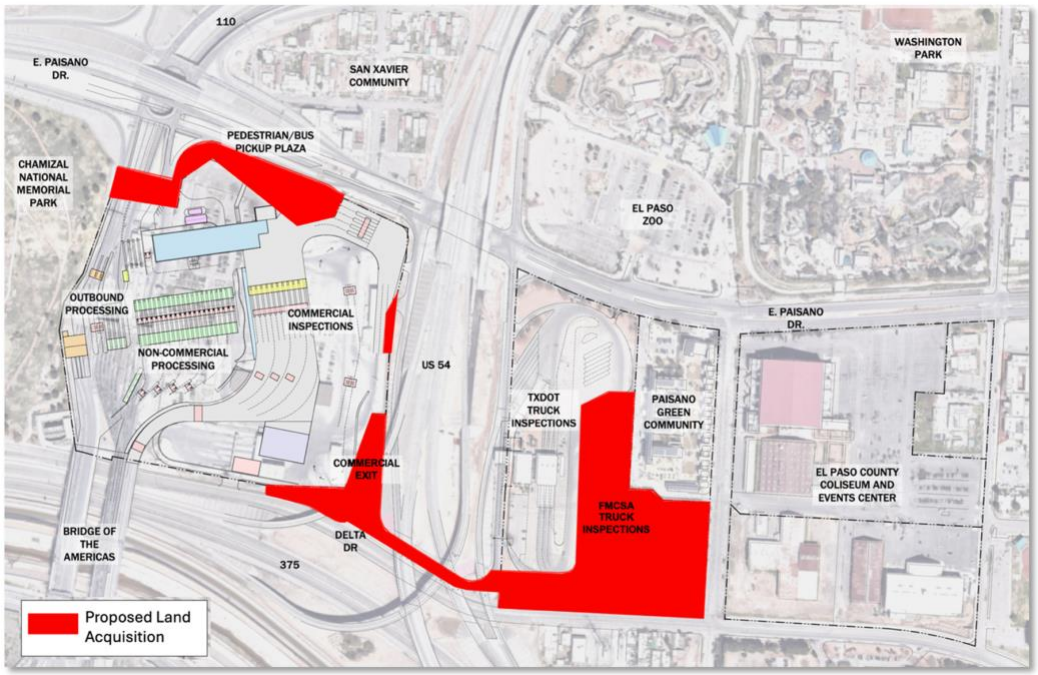

Figure ES-1. Viable Action Alternative 1a General Site Design/Layout and Land Acquisition.

Viable Action Alternative 4 – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (Approximately 4 acres – TxDOT) and Elimination of All Commercial Cargo Operations

Similar to Viable Action Alternative 1a, this alternative is considered to be a compact and land-efficient design/site layout with the existing site utilized for POV, bus, and pedestrian traffic. As part of this alternative, there would no longer be commercial cargo operations at the port (both northbound and southbound), instead, the number of POV lances would substantially increase. Similar to the previous alternative, this alternative would include acquisition of a small amount of land at the perimeter of the existing site, primarily within the TxDOT ROW. Viable Action Alternative 4 includes the following characteristics (Figure ES-2):

- Minimal land acquisition (4.4-acre acquisition from TxDOT)
- With all lanes in alignment along a transverse axis, this alternative would offer operational adaptability to reassign inbound lanes to outbound inspections as required.
- The central location of the main building supports resource efficiency and improves operations and officer response time. The location and density afford opportunities for clear vistas, increased potential for supervision and oversight across port environments.
- No land acquisition east of US-54 is required or proposed. Land acquisition needs are minimal and limited to those areas at the existing site perimeter in TxDOT right-of-way.

- Provides expansion capacity below grade for parking, support space, and pedestrian processing. Provides expansion potential vertically at second level or higher for administration or support agency office space.

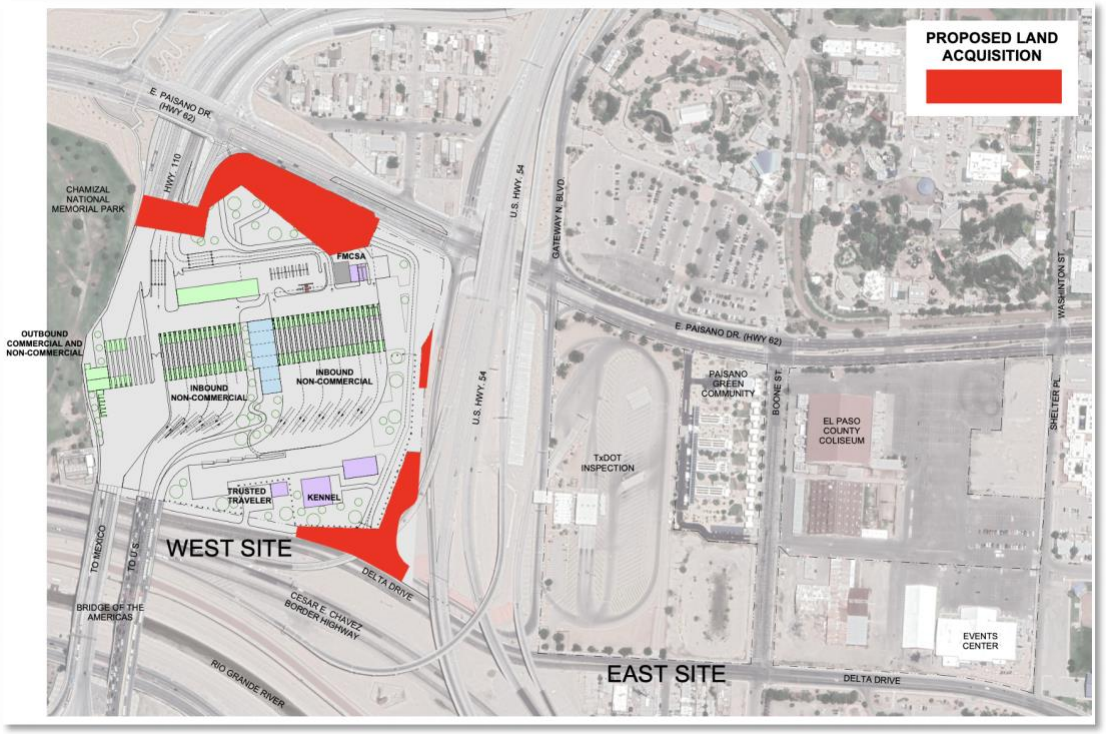

Figure ES-2. Viable Action Alternative 4 General Site Design/Layout and Land Acquisition.

EXISTING ENVIRONMENT

In accordance with CEQ regulations (§1500.4 and §1501.7), issues addressed or important issues relating to the proposed action were identified through scoping. Issues studied in detail in this EIS were determined through stakeholder and public scoping meetings. Issues studied in detail include:

- Hazardous Materials, Waste, and/or Site Contamination
- Public Services, Infrastructure, and Utilities
- Surface Waters, Drainage, and Floodplains
- Land Use and Zoning (including Visual and Aesthetics)
- Cultural and Historic Resources
- Socioeconomics (including Environmental Justice and Protection of Children)
- Noise and Vibration
- Traffic (Vehicular and Pedestrian), Transportation, and Parking
- Air Quality (including Greenhouse Gas Emissions)

ENVIRONMENTAL CONSEQUENCES

Significance criteria were defined as a means of estimating or measuring the degree of potential environmental impact. The significance of impacts was determined systematically by assessing the magnitude (how much) and duration (how long) of a potential impact (Table ES-1):

Table ES-1. Environmental Impact Significance Criteria.

Criteria	Magnitude
Significant	Substantial impact or change to a resource that is easily defined, noticeable and measurable, or which exceeds regulatory standards.
Moderate	Noticeable change in a resource occurs but the integrity of the resource remains intact.
Minor	Change in a resource occurs but no substantial impact results.
Negligible	The impact is at the lowest level of detection, barely measurable but with perceptible consequences.
None	The impact is below the threshold of detection with no perceptible consequences.
Duration	
Permanent	Impact would last indefinitely.
Long-Term	Impact would likely last the lifetime of the project.
Short-Term	Impact would last for a short period or portion of the project.

The following table (Table ES-2) provides a summary of the environmental consequences associated with implementing the proposed action through the selection of each Action Alternative or selecting the No Action Alternative.

Table ES-2. Alternatives Comparison Matrix Summary.

Environmental Attributes (Threshold Criteria)	No Action Impact (Magnitude and Duration)	Alternative 1a Impact (Magnitude and Duration)	Alternative 4 Impact (Magnitude and Duration)
Hazardous Materials, Waste, and/or Site Contamination			
Results in significant hazardous materials and/or waste generated, transported, and/or disposed of as a result of construction and/or operational activities? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Existing hazardous materials, waste, or site contamination issues present and if so, have been investigated/ remediated to appropriate standards for future use of the site? Any anticipated impacts?	No, None	No, None	No, None
Public Services, Infrastructure, and Utilities			
Results in significant demand on existing public services, infrastructure, and/or utilities? Any anticipated impacts?	No, None	No, None	No, None
Results in significant disruption to existing public services, infrastructure, and/or utilities? Any anticipated impacts?	No, None	No, Potential - Negligible/Minor Short-Term Negative[1]	No, Potential – Negligible/Minor Short-Term Negative[1]
Allows GSA and the public to realize the energy efficiency benefits associated with modernization of the port and sustainable building/infrastructure design (see Section 1.6.3.5). Any anticipated impacts?	No, Negligible/Minor Long-Term Negative	Yes – Minor/Moderate Long-term Beneficial Impacts and Negligible/Minor Short Term Adverse Impacts[1]	Yes – Minor/Moderate Long-term Beneficial Impacts and Negligible/Minor Short Term Adverse Impacts[1]

1 - Based on environmental commitments associated with implementation (see Sections 2.6.2.6 and 2.6.3.6).

Table ES-2 (cont.). Alternatives Comparison Matrix Summary.

Environmental Attributes (Threshold Criteria)	No Action Impact (Magnitude and Duration)	Alternative 1a Impact (Magnitude and Duration)	Alternative 4 Impact (Magnitude and Duration)
Surface Waters, Drainage, and Floodplains			
Results in significant impacts to surface water features including wetlands and/or waters of the U.S? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Results in significant stormwater run-off in excess of that regulated by federal, state, and/or local code/ordinance? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Results in development within the defined 100-year flood zone? Facility is a designated Critical Action Facility? Any anticipated impacts?	No, None	No, None [2]	No, None [2]
Land Use and Zoning (including Visual and Aesthetics)			
Results in conflict with existing and/or planned land use of the site? Any anticipated impacts?	No, None	No, None	No, None
Results in conflict with existing and/or planned land use of the immediate surrounding area? Any anticipated impacts?	No, None	No, None	No, None
Would be in conflict with prevailing zoning designations? Any anticipated impacts?	No, None	No, None	No, None
Results in visual/aesthetic impacts not consistent with surrounding land use? Results in a perceived visual impact to residents, visitors, or others in the area? Any anticipated impacts?	No, None	Yes, Minor Short-Term Negative (construction), Minor-Moderate Long-Term Beneficial (new facilities), Minor-Moderate Short/Long-Term Negative (continued truck traffic)[3]	Yes, Minor Short-Term Negative (construction), Minor-Moderate Long-Term Beneficial (new facilities), Moderate Long-Term Beneficial (immediate elimination of truck traffic)[4]
Cultural Resources			
Results in significant effects to archaeological resources (buried historic resources)? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Result in significant effects to historic districts and/or architectural properties (built historic resources)? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Results in significant effects to Tribal religious or cultural resources? Any anticipated impacts?	No, None	No, None	No, None

1 - Based on environmental commitments associated with implementation (see Sections 2.6.2.6 and 2.6.3.6).
2 – See Appendix G for CBP Critical Action Facility designation.
3 – Should the future option to eliminate commercial traffic at the BOTA LPOE be implemented, the visual impact would be eliminated at BOTA and likely shift to one or more of the other nearby ports.
4 – The current negative visual impact of commercial traffic at and around the BOTA LPOE would be immediately eliminated, however, that moderate impact would likely shift to one or more of the other nearby ports.

Table ES-2 (cont.). Alternatives Comparison Matrix Summary.

Environmental Attributes (Threshold Criteria)	No Action Impact (Magnitude and Duration)	Alternative 1a Impact (Magnitude and Duration)	Alternative 4 Impact (Magnitude and Duration)
Environmental Justice and Protection of Children			
Result in disproportionate and adverse effect on a low-income, people of color population, Tribes, or persons with disabilities? Any anticipated impacts?	Yes, Long-Term Minor-Moderate Adverse	Yes, Short-Term Minor-Moderate Adverse[1], Short-Term Minor Beneficial, Long-Term Moderate-Significant Adverse or Long-term Moderate-Significant Beneficial[2], Long-Term Minor Beneficial	No, Short-Term Minor-Moderate Adverse[1], Short-Term Minor Beneficial, Long-term Moderate-Significant Beneficial, Long-Term Minor Beneficial
Results in disproportionately high and adverse environmental health and safety risk to children? Any anticipated impacts?	Yes, Long-Term Minor-Moderate Adverse	Yes, Short-Term Minor-Moderate Adverse[1], Long-Term Moderate-Significant Adverse or Long-term Moderate-Significant Beneficial[2]	No, Short-Term Minor-Moderate Adverse[1], Long-term Moderate-Significant Beneficial
Socioeconomics			
Result in significant change to area population and housing? Any anticipated impacts?	No, None	No, Short-Term Negligible, Long-Term Negligible	No, Short-Term Negligible, Long-Term Negligible
Results in significant change in area employment, unemployment, and/or income? Any anticipated impacts?	No, None	No, Short-Term Minor Beneficial, Long-Term Minor Beneficial	No, Short-Term Minor Beneficial, Long-Term Minor Beneficial
Results in significant change to area businesses/ revenue as a result of purchasing, rentals, etc? Any anticipated impacts?	No, None	No, Short-Term Minor Beneficial, Long-Term Minor Beneficial	No, Short-Term Minor Beneficial, Long-Term Minor Beneficial
Results in a significant change to community services? Any anticipated impacts?	No, None	No, Short-Term Minor Adverse	No, Short-Term Minor Adverse
Results in a significant change to perceived quality of life? Any anticipated impacts?	No, Long-term moderate adverse	Yes, Short-Term Minor to Moderate Adverse, Long-Term Moderate to Significant Adverse *(Future No Trucks)* No, Short-Term Minor to Moderate Adverse, Long-Term Minor Adverse and Moderate Beneficial	No, Short-Term Minor to Moderate Adverse, Long-Term Minor Adverse and Minor to Moderate Beneficial

1 - Based on implementation of the mitigation/protective measures described in Section 2.6.2.6 and 2.6.3.6.
2 – Long-term moderate-significant adverse effect from southbound trucks idling at the BOTA LPOE would be eliminated should the future removal of all commercial cargo traffic be implemented under the Alternative 1a (Future No Trucks) option. This would be considered to be a long-term moderate-significant beneficial effect.

Table ES-2 (cont.). Alternatives Comparison Matrix Summary.

Environmental Attributes (Threshold Criteria)	No Action Impact (Magnitude and Duration)	Alternative 1a Impact (Magnitude and Duration)	Alternative 4 Impact (Magnitude and Duration)
Noise			
Would be in conflict with prevailing local noise ordinances? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Results in unacceptable short-/long-term noise levels to workers or port personnel? Any anticipated impacts?	No, None[1]	Yes, Short-Term Negligible Adverse Construction[1]	Yes, Short-Term Negligible Adverse Construction[1]
Results in unacceptable short-/long-term noise levels to visitors or pedestrian travelers? Any anticipated impacts?	No, None[1]	Yes, Short-Term Negligible Adverse Construction[1]	Yes, Short-Term Negligible Adverse Construction[1]
Results in unacceptable short-/long-term noise levels to nearby sensitive receptors? Any anticipated impacts?	Yes, Long-Term Minor to Moderate Adverse (Truck Idling)	Yes, Short-Term Negligible Adverse (Construction) Yes, Long-Term Minor to Moderate Adverse Truck Idling Yes, Long-Term Moderate to Significant Beneficial (Future No Truck Option)[2]	Yes, Short-Term Negligible Adverse Construction[1] Yes Long-Term Moderate to Significant Beneficial (Immediate Elimination of Truck Traffic)
Results in vibrations that could affect nearby sensitive receptors? Any anticipated impacts?	No, None	No, None[1]	No, None[1]

1 - Based on implementation of the mitigation/protective measures described in Section 2.6.2.6 and 2.6.3.6.
2 – Long-term minor to moderate adverse impact from southbound trucks idling would be eliminated should the future removal of all commercial cargo traffic be implemented. This is considered to be a long-term moderate to significant beneficial impact.

Table ES-2 (cont.). Alternatives Comparison Matrix Summary.

Environmental Attributes (Threshold Criteria)	No Action Impact (Magnitude and Duration)	Alternative 1a Impact (Magnitude and Duration)	Alternative 4 Impact (Magnitude and Duration)
Traffic (Vehicular and Pedestrian), Transportation and Parking			
Would result in a change in vehicular traffic congestion, delays, or safety risks on roadways? Any anticipated impacts?	No, None (no construction) Yes, Minor-Moderate (approaching significant) Long-Term Adverse (SB truck traffic, increased traffic over time w/ no improvements)	Yes, Negligible-Minor Short-Term Adverse (Construction)[1] Yes, Moderate-Significant Long-Term Adverse Operations (SB truck traffic)[2]	Yes, Negligible-Minor Short-Term Adverse (Construction)[1] Yes, Moderate to Significant Long-Term Beneficial (elimination of truck traffic)
Would result in change in the LOS on roadways? Any anticipated impacts?	No, Minor-Moderate Long-Term Negative	Yes, Minor-Moderate Long-Term Adverse Operations (Alt 1a without truck traffic)	No, Minor-Moderate Long-Term Beneficial
Would result in change in the operating capacity of the LPOEs? Any anticipated impacts?	No, Minor-Moderate Long-Term Negative	No, Minor-Moderate Long-Term Beneficial	No, Minor-Moderate Long-Term Beneficial
Would result in change in pedestrian and bicycle activity? Any anticipated impacts?	No, None	No, Minor- Long-Term Beneficial	No, Minor- Long-Term Beneficial
Air Quality			
Results in a short-term increase above de minimis standards or causes an exceedance or violation of prevailing NAAQS? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Results in a long-term increase above de minimis standards or causes an exceedance or violation of prevailing NAAQS? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Results in short- or long-term public/community health or other related environmental impact?	Yes, Long-Term Moderate-Significant Adverse Impact	Yes, Long-Term Moderate-Significant Adverse Impact (Truck Traffic) Yes, Long-Term Moderate-Significant Beneficial Impact (elimination of truck traffic future option)[2]	Yes, Long-Term Moderate-Significant Beneficial Impact (immediate elimination of truck traffic)
Results in short- or long-term impacts as a result of Regional NOx and/or VOC increases? Any anticipated Impacts?	Yes, Long-Term Negligible to Minor Adverse	Yes, Long-Term Negligible to Minor Beneficial	Yes, Long-Term Negligible to Minor Beneficial
Results in GHG emissions above established standards? Any anticipated impacts?	No, None	No, None	No, None

1 - Based on implementation of the mitigation/protective measures described in Section 2.6.2.6 and 2.6.3.6.
2 – Long-term moderate to significant adverse impact from cargo trucks would be eliminated should the future removal of all commercial cargo traffic be implemented. This is considered to be a long-term moderate to significant beneficial impact.

As demonstrated in the EIS, GSA's data collection and analysis as presented in this Final EIS, demonstrates that there are likely existing environmental justice impacts and impacts to children occurring disproportionately in the vicinity of the BOTA LPOE. These largely relate to traffic (primarily commercial truck traffic) and the resulting effect on both local and regional air quality and increases in noise. Furthermore, GSA's data collection and analysis indicates that should the No Action Alternative or Action Alternative 1a be chosen for implementation, these existing conditions would likely degrade further over time. GSA's data collection and analysis for Action Alternative 4 results in no furtherance of any existing disproportionate impacts to these communities of concern and represents a likely positive move in correcting these conditions over time.

THE GSA HAS SELECTED VIABLE ACTION ALTERNATIVE 4 AS ITS PREFERRED ALTERNATIVE. GSA BELIEVES THIS ALTERNATIVE WOULD BEST FULFILL ITS STATUTORY MISSION AND RESPONSIBILITIES, GIVING CONSIDERATION TO ECONOMIC, ENVIRONMENTAL, TECHNICAL, AND OTHER FACTORS.

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SECTION 1.0
PURPOSE AND NEED

On November 6, 2021, Congress passed the Bipartisan Infrastructure Law (BIL), also known as the Infrastructure Investment and Jobs Act (IIJA). On November 15, 2021, the President signed Executive Order (EO) 14052 "Implementation of the Infrastructure Investment and Jobs Act." Finally on December 13, 2021, the President signed EO 14508 "Transforming Federal Customer Experience and Service Delivery to Rebuild Trust in Government." On February 25, 2022, President Biden and the General Services Administration (GSA) announced the list of major Land Port of Entry (LPOE) projects funded by the BIL. This included the Bridge of the Americas (BOTA) LPOE in El Paso, Texas.

This Environmental Impact Statement (EIS) has been prepared in accordance with Section 102 of the National Environmental Policy Act (NEPA) of 1969 (42 United States Code [USC] 4321 to 4370d), as implemented by the regulations promulgated by the Council on Environmental Quality (CEQ) (40 Code of Federal Regulations [CFR] §1500-1508). The principal objectives of NEPA are to ensure the careful consideration of environmental aspects of proposed actions in federal decision-making processes and to make environmental information available to decision makers and the public before decisions are made and actions are taken. Additionally, this EIS has been prepared in accordance with GSA NEPA guidelines (GSA Order ADM 1095.1F and the Public Buildings Service [PBS] NEPA Desk Guide, both dated October 1999) and serves as a mechanism for compliance with the National Historic Preservation Act (NHPA) of 1966 (as amended) and other relevant laws and/or regulations. Preparation of this EIS is consistent with the 1983 La Paz Agreement between the U.S. and Mexico which is a pact to protect, conserve, and improve the environment of the border region of both countries. In accordance with CEQ regulations (§1502.13), this section of the EIS briefly specifies the underlying purpose and need to which the GSA is responding in proposing the alternatives for implementing the proposed action. The Notice of Intent (NOI) prepared for the EIS and published in the Federal Register, can be found in Appendix A.

1.1 INTRODUCTION

GSA's mission includes the custody and control of federal buildings, including U.S. LPOEs. As part of this mission, GSA designs, constructs, manages, maintains, and retains custody and control of 122 of the 167 U.S. LPOEs, including the BOTA LPOE in El Paso, Texas. The port processes toll-free inbound and outbound commercial vehicles, non-commercial vehicles (privately-owned vehicles [POVs]), and pedestrian traffic crossing the U.S.-Mexico border, between El Paso, Texas and Juarez, Mexico. The port is operated by the U.S. Department of Homeland Security's (DHS) Customs and Border Protection (CBP).

Within DHS, CBP was created as the single agency responsible for managing, securing, and controlling the Nation's borders to prevent terrorists and their weapons from entering the U.S. CBP unifies and integrates the work, formerly performed by the following three agencies: The United States Customs Service, the Immigration and Naturalization Service, and the Animal and Plant Health Inspection Service (APHIS). CBP's priority mission is homeland security, with responsibilities for improving security at and between U.S. ports of entry (POEs), as well as extending the zone of security beyond the physical borders of the U.S. While carrying out its mission, CBP facilitates legitimate trade and travel through the Nation's borders in an effective and efficient manner. CBP provides security and facilitation of international trade and travel at POEs using traditional and innovative approaches. Traditional methods include screening individuals, comprehensive examinations of suspect baggage and cargo, and an intensified effort to protect American agriculture from the introduction of infectious plants, animals, pests, and disease. Innovative approaches include the use of non-intrusive inspection technology (NII), license plate readers (LPR), and radiation portal monitors (RPM) to enhance inspection efficiency and efficacy.

1.2 CBP LAND PORT OF ENTRY DESIGN STANDARD

The CBP Land Port of Entry Design Standard (CBP 2023) applies to all LPOEs in the U.S. A LPOE is defined as the facility that provides controlled entry into, or departure from, the U.S. for persons and cargo arriving as commercial, non-commercial, pedestrian, or rail traffic. A LPOE houses CBP and other federal inspection service (FIS) agencies responsible for the enforcement of federal laws pertaining to immigration, drugs, agriculture, wildlife, smuggling, and commerce. The CBP LPOE Design Standard, henceforth referred to as the Standard, provides its users with the following:

- Standardized procedures for the planning, programming, budget formulation, design, and construction of new LPOEs or renovations, additions, or alterations to an existing LPOE.
- Technical requirements and criteria for the construction of CBP spaces at the LPOEs.
- Parameters and adjacency guidelines for proper programming and layouts of the LPOEs.
- Applicable authorities that govern the planning and execution of LPOE construction and alterations projects.

The Standard applies to the planning, programming, and construction projects for a LPOE and serves as the primary reference for architect/engineering (A/E) consultants, government agencies, facility operators, transportation lines, and all CBP personnel involved with an LPOE. The use of this Standard, as well as early involvement of stakeholders in the facility development process, ensures a LPOE design that most appropriately reflects the scope of the anticipated operations.

The Standard further identifies the LPOE project stakeholders and applicable codes and regulations, defines operations, describes design concepts, categorizes spaces, and provides specific technical criteria on building materials and systems. The Standard is used to develop planning and programming criteria for inclusion in programs of requirements (PORs), direct execution of design and engineering documentation, inform construction and construction administration stages, and establish project close-out and post-occupancy roles and responsibilities.

1.3 DESCRIPTION OF THE BOTA LPOE

The four bridges spanning the Rio Grande River and Loop 375 are collectively known as the BOTA, connecting the border cities of Ciudad, Juarez in Mexico and El Paso, Texas. The bridges were constructed from 1996 to 1998 and are owned by the International Boundary and Water Commission (IBWC). The BOTA LPOE was originally constructed in 1967 and is one of several crossings in the El Paso area – Paso del Norte (POV and pedestrian traffic), Good Neighbor Bridge/Stanton Street POE (POV traffic), Ysleta (POV, commercial, and pedestrian), Santa Teresa (POV, commercial, and pedestrian), and Tornillo (POV, commercial, and pedestrian). The Burlington Northern Santa Fe (BNSF) and Union Pacific bridges provide rail crossings only.

The port sits on approximately 28 acres of fully developed property surrounded on three sides by an extensive highway system. The port is bordered to the north by E. Paisano Drive/U.S. Highway 62 East, a busy two-way street, U.S. Highway 54/Patriot Highway borders the port to the east, Delta Drive/Loop 375 borders it to the south, and Interstate Highway (I) 110 is on the northwest side of the Port which is a connector to I-10 and is the primary entry and exit from the port. Chamizal National Memorial borders the site to the west. The LPOE is landlocked on all four (4) sides of the port (Figure 1-1 and 1-2). Currently there are seven (7) agencies housed at the port - CBP, Food and Drug Administration (FDA), Federal Motor Carrier Safety Administration (FMCSA), Immigration and Customs Enforcement (ICE), U.S. Department of Agriculture (USDA), U.S. Fish and Wildlife Service/Fish and Wildlife Service (USFWS/FWS) and the Texas Alcohol and Beverage Commission (TABC). According to CBP (CBP 2024), there are approximately 325 CBP employees at the port on a daily basis and a total of approximately 350 total federal employees. An additional 95 contract employees (custodial, maintenance, etc.) are also at the port for a total daily workforce of approximately 445 employees. CBP has also stated (CBP 2024) that a 15 percent

growth factor be applied based upon current CBP staffing allocation vs workload staffing modeling which would mean total federal workforce of 445 to 470 employees at the port daily. There are approximately 60 government-owned vehicles (GOVs) and approximately 470 employee/privately-owned vehicles (POVs) in the vicinity of the port on a daily basis (total of 530 vehicles). As mentioned earlier, the port processes toll-free inbound and outbound commercial, non-commercial (POV), and pedestrian traffic, 24-hours a day, seven days a week. As a result, the volume of traffic has historically been fairly heavy (although fluctuating) with many travelers and commercial vehicles choosing to enter and exit through this port in lieu of paying a toll at other nearby ports. Table 1-1 below shows the yearly northbound traffic at the port over the last 12 years. The estimated 2024 daily traffic by time is listed below in Table 1-2 and average northbound wait times are provided in Table 1-3.

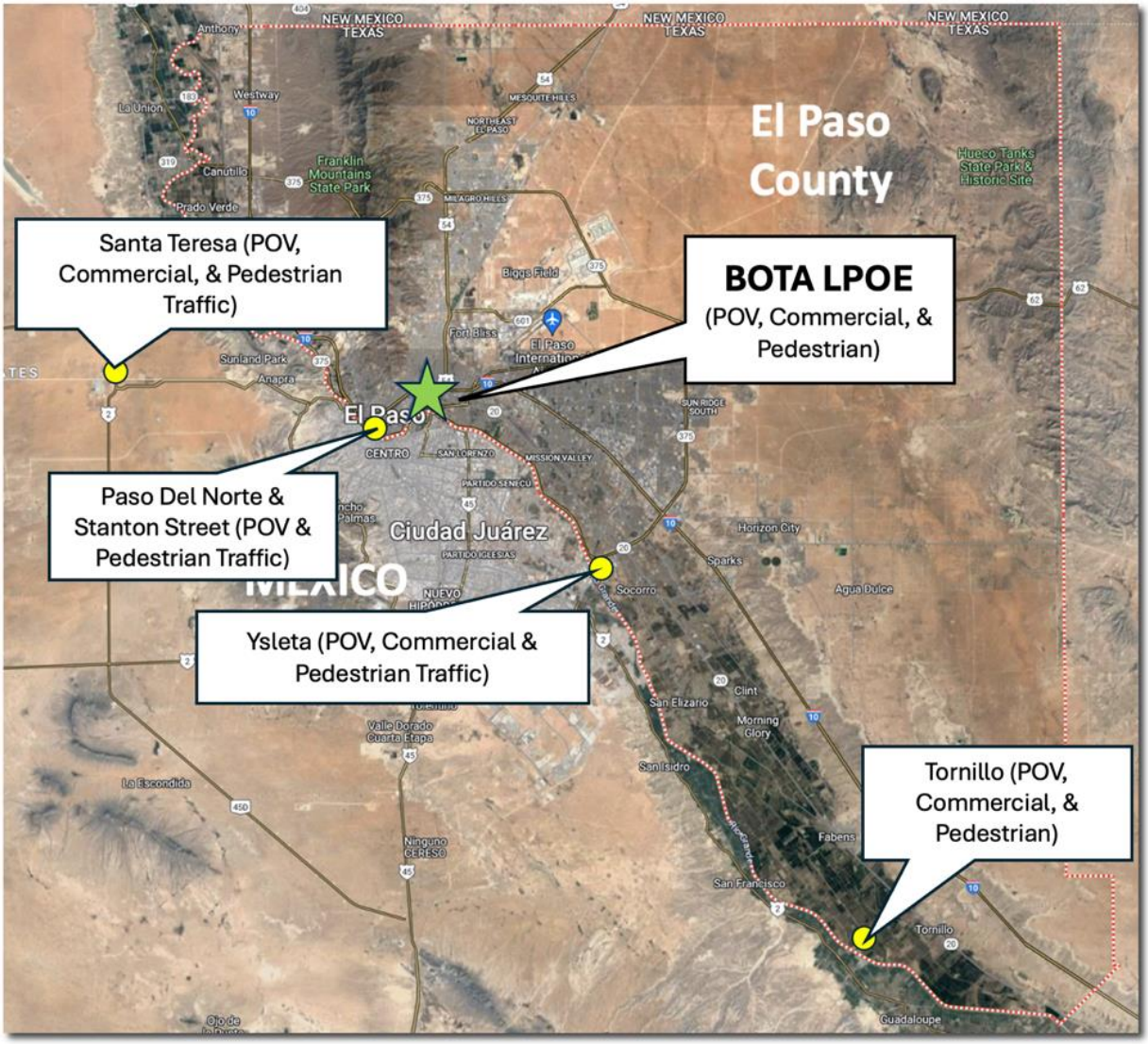


Figure 1-1. General Location of the BOTA LPOE and Other Nearby Ports of Entry.

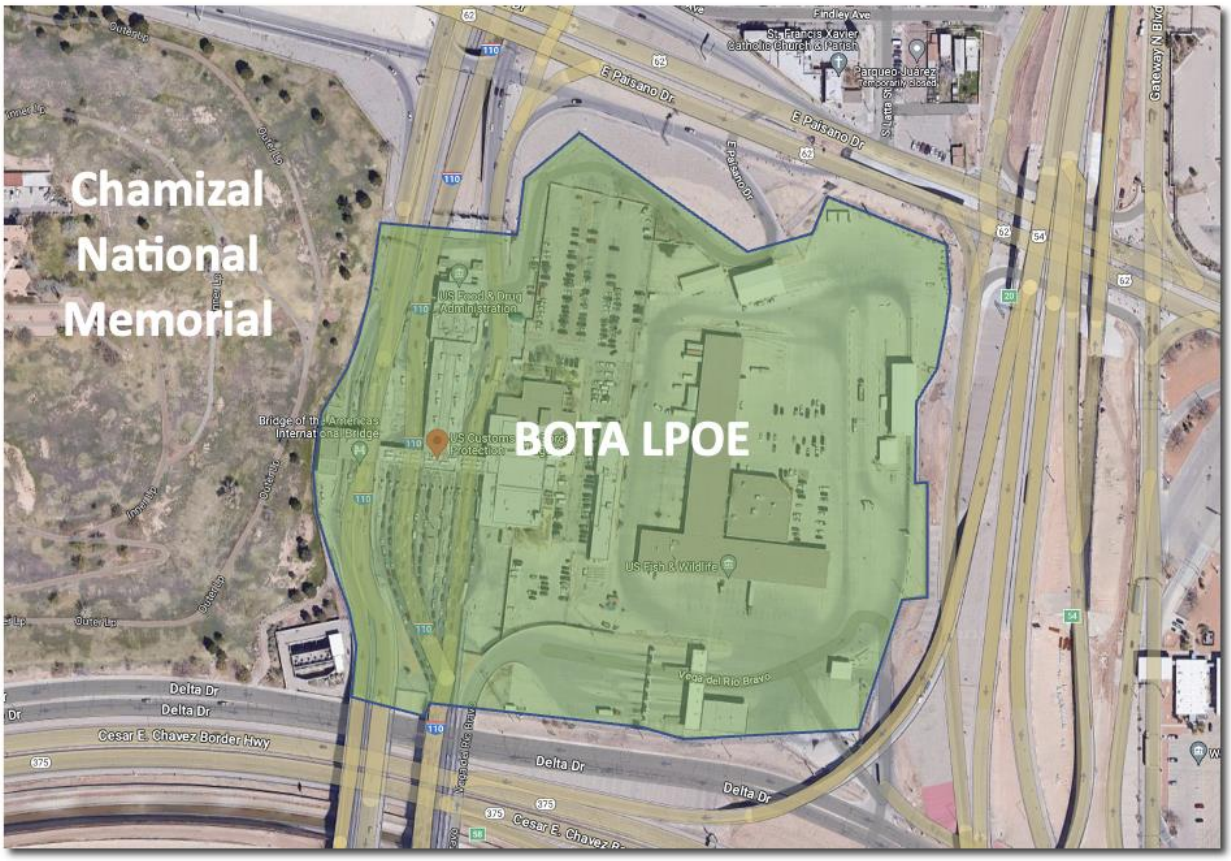


Figure 1-2. BOTA LPOE.

Table 1-1. Yearly Northbound BOTA Traffic.

Year	Trucks	Buses	POVs	Pedestrians
2023	89,772	7,230	3,901,938	1,132,592
2022	161,405	6,557	4,191,354	912,603
2021[1]	183,073	4,579	3,122,666	639,547
2020[1]	170,784	4,163	2,442,470	675,057
2019	212,186	8,911	3,121,079	1,671,345
2018	270,843	7,239	4,090,774	1,275,643
2017	269,885	7,197	3,883,830	1,030,474
2016	269,992	7,585	3,922,437	1,019,901
2015	496,802	9,722	3,859,726	939,519
2014	313,070	9,883	3,819,682	888,355
2013	315,043	9,855	3,588,494	891,230
2012	314,730	10,192	3,281,025	879,409

Source: EPMPO 2024. 1 – likely COVID-influenced.

Table 1-2. North/Southbound Daily BOTA Traffic, 2022 and 2024 Averages Over 10 Weekdays.

Hour	2022 NB POV	2024 NB POV	2022 NB Truck	2024 NB Truck	2022 SB POV	2024 SB POV	2022 SB Truck	2024 SB Truck
Midnight-1am	100	203	0	0	172	ND	0	0
1am-2am	70	138	0	0	72	ND	0	0
2am-3am	111	160	0	0	43	ND	0	0
3am-4am	180	233	0	0	25	ND	0	0
4am-5am	430	294	0	0	40	ND	0	0
5am-6am	401	292	0	0	111	ND	0	0
6am-7am	812	608	30	25	332	ND	0	0
7am-8am	830	569	21	47	834	ND	0	1
8am-9am	810	601	28	82	1143	ND	3	2
9am-10am	801	551	34	100	1031	ND	8	7
10am-11am	755	508	34	87	1121	ND	9	23
11am-noon	749	428	34	67	1006	ND	23	21
noon-1pm	753	470	40	72	1075	ND	32	30
1pm-2pm	701	428	61	73	1140	ND	47	54
2pm-3pm	609	429	37	11	1437	ND	36	65
3pm-4pm	573	441	0	0	1740	ND	28	81
4-pm-5pm	635	424	0	0	1710	ND	23	98
5pm-6pm	581	433	0	0	1776	ND	40	97
6pm-7pm	621	408	0	0	1651	ND	29	95
7pm-8pm	531	400	0	0	1574	ND	27	90
8pm-9pm	492	399	0	0	1198	ND	18	66
9pm-10pm	334	372	0	0	837	ND	12	50
10pm-11pm	212	289	0	0	852	ND	19	37
11-midnight	180	234	0	0	516	ND	4	32
TOTAL	**12274**	**9311**	**319**	**563**	**21436**	**ND**	**358**	**852**

ND – No Data

Source: EPMPO 2024a.

Table 1-3. 2022 Average BOTA Queuing/Wait Times (Minutes).

Average Commercial Vehicle Wait Times	Average Commercial Vehicle Express Lane Wait Times	Average Passenger Vehicle Wait Times	Average Passenger Vehicle Wait Times on DCL Lane
4.9	3.2	26.5	0.0

EPMPO 2024a (Averages obtained by EPMPO from CBP 2022 data). DCL – Dedicated Commuter Lane.

The site includes two main areas - one for passenger traffic and another for commercial traffic. The POV traffic area includes 14 booths and the main building processes pedestrian traffic. The commercial/truck area has six booths and a large cargo processing loading building. The port has a total of 16 buildings and four structures. A rail inspection facility owned by Union Pacific with a CBP lease is associated with the port. This building is located in a different area but it is staffed by BOTA personnel. The buildings/structures, as well as the associated square footage (SF) are included in Table 1-4 and the overall building grouping by functional area are shown in Figure 1-3.

Table 1-4. Buildings, Structures, and Associated Infrastructure Comprising the Port.

GSA Building Number	Building Name	Square Footage
TX0951	Building A Admin.	27,323
TX0952	Building B Import Spec.	9,582
TX0954	Building D Cargo	74,260
TX0955	Southbound Inspection	2,208
TX0961	Building C Headhouse	10,247
TX14987	Site Improvements	1,176120
TX15228	Vehicle and Cargo Inspection System (VACIS)	4,485
TX15368	VACIS Modular Control Building	900
TX15370	CBP Modular Building	978
TX15372	Fast Lane Exit Booth	28
TX15373	Building K Primary/Secondary Inspection	22,224
TX15374	Building S Truck Exit Booth	4,875
TX15375	Primary Commercial Empty Truck Inspection	5,640
TX15376	Single Lane Truck Exit Booth	1,545
TX15377	Exterior Bulk Storage	800
TX15378	Drivers Shade Structure	250
TX15380	USDA Building	5,000
TX15381	Visitors Modular Building Structure	100
TX15431	West TABC Small Building	400
TX15432	East TABC Small Building	400
TX15433	Permanent Truck Scales	2,500
TX18227	Rail Inspection Facility UP Lease CIP	1,664

Source: CBP 2017.

1.4 PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of the proposed action is for the GSA to support CBP's mission by bringing the BOTA LPOE operations in line with current CBP land port design standards (i.e., CBP Land Port of Entry Design Standard [CBP 2023]) and operational requirements while addressing existing deficiencies identified with the ongoing port operations. In order to bring the BOTA LPOE in line with CBP's design standards and operational requirements, action is needed to satisfy the following overriding needs:

- Improve the capacity and functionality of the LPOE to meet future public demand, while maintaining the capability to meet border security initiatives.
- Ensure the safety and security for the employees and the travelling public.
- Improve traffic congestion and safety for travelers and citizens of the City of El Paso.

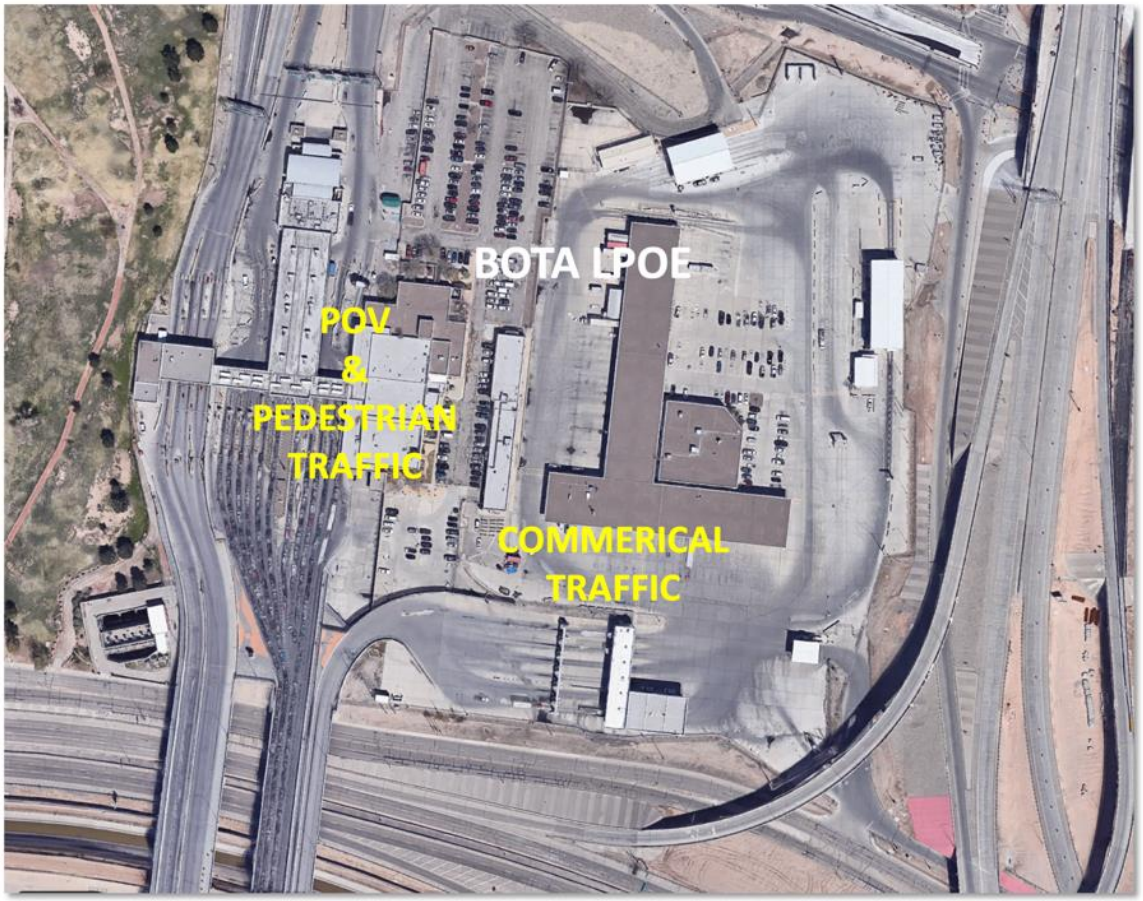


Figure 1-3. Main Port Functional Areas.

The existing BOTA LPOE must remain open and operational well into the future to allow CBP to continue to meet its mission requirements on the southern border, and more in particular, in the El Paso, Texas area. As a result of new/updated PORs (discussed earlier in Section 1.2), the BOTA LPOE, as it currently exists, does not comply with the new/updated standards. As mentioned, the standard is used to develop planning and programming criteria for inclusion in PORs, direct execution of design and engineering documentation, inform construction and construction administration stages, and establish project close-out and post-occupancy roles and responsibilities. In order to satisfy new/updated PORs at the port, new/updated square footage requirements would be necessary. These new square footages are presented later in Section 2.0 as the operational requirements associated with each viable alternative carried forward for detailed study.

In an effort to satisfy the purpose and need for the proposed action, several goals/guidelines were developed by the GSA to compare and contrast alternative ways of fulfilling the objectives of the proposed action. Those specific goals/guidelines include:

(1) Comply with the CBP Land Port of Entry Design Standard (CBP 2023) and associated new/updated POR requirements.
(2) Comply with GSA's Facilities Standards for the Public Buildings Service (P100) (GSA 2024).
(3) Support the growth needs of the CBP, other tenant agencies, and the needs of the local community.
(4) Provide for increased CBP and tenant efficiencies.
(5) Improve vehicular and pedestrian traffic flow and processing times.

(6) Improve the safety of workers and the traveling public.
(7) Provide any improvements consistent with the goals of stakeholders (when possible).
(8) Minimize disruption to CBP and other tenant agencies' operations and activities throughout any improvements.
(9) Minimize the impact to the environment and the local community.
(10) Provide any improvements in a cost-effective manner.

1.5 PUBLIC INVOLVEMENT, SCOPING, AND AGENCY COORDINATION

The NEPA process provides several opportunities for the public to get involved in the project. During these times, interested and potentially affected parties (i.e., the public and stakeholders) may express their concerns and provide their views regarding:

- The project and its possible impacts on the natural and man/made environment,
- What should be addressed in the analysis (i.e., important issues relevant to the proposal) and evaluation of the proposed action as implemented through selection of a given alternative; and
- The adequacy of the NEPA analysis and documentation of potential impacts in the EIS.

Public participation with respect to decision-making on the proposed action is guided by GSA's implementing procedures for compliance with NEPA (GSA Order ADM 1095.1F, Environmental Considerations in Decision Making). In accordance with GSA NEPA guidance, scoping and public involvement for this EIS included multiple meetings/presentations, communications, and workshops with stakeholders, agencies that have an inherent interest in the proposed improvements, and the public. As mentioned earlier, the BOTA LPOE houses several federal and state agencies who have been collectively referred to as "internal stakeholders." Additional stakeholder groups referred to as "external stakeholders" have also been engaged throughout the planning process. These groups represent state, county, and city entities as well as Mexican government entities, trade organizations, and local community groups. Details regarding these outreach efforts are included in Appendix B. Table 1-5 lists the planning/scoping meetings that have taken place with stakeholders and other parties. Additionally, as part of stakeholder involvement and participation, a Memorandum of Agreement (MOA) has been entered into between the GSA and CBP and USIBWC (Appendix B).

Internal Stakeholders

- Customs and Border Protection (CBP)
- Food and Drug Administration (FDA)
- Federal Motor Carrier Safety Administration (FMCSA)
- General Services Administration (GSA)
- Immigration and Customs Enforcement (ICE)
- Texas Alcohol and Beverage Commission (TABC)
- U.S. Department of Agriculture (USDA)
- U.S. Fish and Wildlife Service/Fish and Wildlife Service (USFWS/FWS)

External Stakeholders

United States

- U.S. Department of State (DOS)
- International Boundary and Water Commission U.S. Section (USIBWC)
- Texas Department of Public Safety (TXDPS)
- Texas Department of Transportation (TXDOT)
- El Paso County
- City of El Paso
- U.S. Environmental Protection Agency (USEPA)
- El Paso Metropolitan Planning Organization (EPMPO)
- Various Community/Neighborhood Groups
- National Parks Service (NPS) Chamizal National Memorial

Table 1-5. Planning and Scoping Meetings.

Meeting Type	Date	Participants	Purpose
Congresswoman Escobar Round table	8/15/22	External Stakeholders - GSA, Congresswoman Escobar, Staff, El Paso Local Governments, and public groups	Congresswoman round table with outside stakeholders
Enhanced Feasibility Study (EFS)Kick-off Meeting	11/7/22	Internal Stakeholders GSA, FDA, USIBWC, CBP, USDA, AE TEAM	On site meeting with Internal Stakeholders
Agency Interview Meetings	11/14/22	CBP, FMCSA, TABC, USFW	Information gathering with agencies on site.
EFS Community Engagement #1	11/28/22	External Stakeholders	Kick off meeting to provide information on study and schedule
El Paso Chamber of Commerce - Mobility Coalition Meeting	2/22/23	External Stakeholders	Provided Status
Viable Alternative Workshop	2/28/23	Internal Stakeholders	Develop Viable Alternatives
BBBXG Conference	3/28/23	US/Mex Reps	Provided overview of the BOTA project.
EFS Community Engagement #2 - Submission 3	4/4/23	External Stakeholders	Present Viable Alternatives
TXDOT 1-10/I-110/US 54 Transportation Resiliency Study and BOTA study	4/20/23	TXDOT/GSA	Coordinate TXDOT and GSA Studies at BOTA
Meeting with El Paso County Judge	5/11/23	El Paso County Judge and Staff	Provided Status
Meeting with El Paso County Commissioner Pct. #2	5/16/23	El Paso County Commissioner Pct. #2 and Staff	Provided Status
Meeting with Neighborhood Assoc. Leaders	5/23/23	Neighborhood Association Leaders	Provided Status
TXDOT Paisano Dr and Montana Corridor Study	5/24/23	TXDOT	Provided Status
Meeting with El Paso County Sport Commission and Rhinos Hockey Leaders	6/1/23	El Paso County Sports Commission and Rhinos Hockey Leaders	Provided Status
EFS Community Engagement #3	6/6/23	External Stakeholders	Provided Status
US-MX Joint Advisory Committee on Air Quality	6/15/23	External Stakeholders	Provided overview of the BOTA project.
Meeting with San Juan Neighborhood Assoc.	6/29/23	San Juan Neighborhood, Washington Park and Delta	Provided Status
Congresswoman Escobar - CBP/GSA Tour of BOTA	7/8/23	Infrastructure Coordinator for White House	Tour of BOTA
TXDOT 1-10/I-110/US 54 Transportation Resiliency Study Design Charrette	7/24 & 28/2023	El Paso Stakeholders	Provided overview of the BOTA project and coordinate possible TXDOT upgrades at BOTA
Binational Border Infrastructure Roundtable	8/10/23	External Stakeholders	Provided overview of the BOTA project.
EFS Community Engagement #4	8/17/23	External Stakeholders	Provided Status
Congresswoman Escobar - Community Meeting	10/27/23	Federal, State and local agencies in US and Mexico	Discuss possible removal of commercial traffic at BOTA
Ciudad Juarez Customs Brokers Meetings	11/14/23	Brokers and trade from Mexico	Provided overview of the BOTA project.
NEPA Public Meeting #1	12/13/23	External Stakeholders	NEPA EIS public meeting
Congresswoman Escobar - Community Meeting	1/22/24	External Stakeholders	Community Meeting About Future of Commercial Traffic
El Paso Chamber of Commerce - Mobility Coalition Meeting	1/22/24	External Stakeholders	Provided Status
NEPA Public Meeting #2	06/26/24	External Stakeholders	NEPA EIS public meeting

Table 1-5 (cont.). Planning and Scoping Meetings.

Meeting Type	Date	Participants	Purpose
Meeting with Familias Unidas Del Chamizal	7/3/24	External Stakeholders - Familias Unidas Del Chamizal Board Members	Discussed clarifications on the remaining alternatives
Congresswoman Escobar - Communitty Meeting	7/18/24	Federal, State and local agencies in US and Mexico	Discussed possible removal of commercial traffic at BOTA
El Paso Association of Contractors	7/24/24	El Paso Construction Contractors and Suppliers	Provided project status update. Announced the DB Acquisition timeline, PLA and LEC requirements.
Meeting with CBP and US Consulate	7/29/24	CBP Trade and US Consulate	Discussed possible removal of commercial traffic at BOTA
Meeting with Chamizal National Park Superintendent	8/1/24	GSA EP Team and Gerardo Gonzalez newly hired superintendent.	Provided project status update and discussed possible removal of commercial traffic at BOTA
Meeting with El Paso County Bi-National Affairs and Economic Development	8/9/24	GSA Partida and Hart, EP County Mariana Barraza, Roberto Ransom, Fernando Hernandez	Provided project status update and discussed possible removal of commercial traffic at BOTA. Discussed Tornillo LPOE future.
Meeting with Texas Senator and EP Delegations	10/17/24	State Representatives, Congresswoman Escobar's office.	NEPA EIS public meeting to go over Draft EIS preferred Alternative #4
NEPA Public Meeting #3	10/17/24	External Stakeholders	NEPA EIS public meeting to go over Draft EIS preferred Alternative #4
US-MX Joint Advisory Committee on Air Quality	10/24/24	External Stakeholders	Provided overview of the BOTA project.
Meeting with local CBP Acting Port Director A. Gomez	11/18/24	CBP	Provided briefing of the BOTA project to new acting CBP port director.
Meeting with TECMA Group Allan Russell	12/4/24	GSA, Congresswoman Escobar's office., TECMA	NEPA EIS public meeting to go over Draft EIS preferred Alternative #4

Mexico

- Administración de Avaluos de Bienes
- Instituto de Administración de Avaluos de Bienes Nacionales (INDAABIN)
- Instituto Nacional de Migración (INAMI)
- Secretaria de Comunicaciones y Transportes (SCT)
- International Boundary and Water Commission Mexico Section (MIBWC)
- Ministry of Foreign Affairs
- IBWC (Mexico)
- Sedona Armed Forces
- National Migration Institute
- Ministry of Infrastructure, Communications, and Transportation
- National Customs Agency
- Ministry of Finance and Public Lending

- Ministry of Agriculture and Rural Development
- Ministry of the Environment and Natural Resources
- State of Chihuahua

Additionally, as part of the overall scoping process, GSA has coordinated with a variety of elected officials, individuals, groups and/or organizations that were able to provide certain "local area knowledge" to the project:

- Congresswoman Veronica Escobar
- County Judge Ricardo Samaniego
- Mayor Oscar Leeser
- El Paso County Commissioner David Stout
- El Paso Metropolitan Planning Organization (EPMPO)
- City of El Paso Bridges Steering Committee
- Familias Unidas del Chamizal
- Washington Delta Neighborhood Association
- San Juan Neighborhood Association
- San Javier Neighborhood
- University of Texas at El Paso (UTEP) BOTA Air Quality Assessment Project
- U.S.-Mexico Joint Advisory Committee on Air Quality (JAC)

As shown above in Table 1-5, there have been several community engagement meetings where the public was afforded the opportunity to learn about the proposed project and ask/submit questions and/or comments. Details pertaining to the meetings, as well as any comments received, and GSA responses (as necessary) are also included in Appendix B. As part of the overall project planning, two (2) public meetings were held as the proposed project relates specifically to the NEPA process. Notices for both meetings were published in the El Paso Times (print and online publications) and were also provided on GSA's BOTA project website. The public notices (including the affidavits of publication) as well as the online versions (including web addresses) and the public meeting presentation are included in Appendix B. Copies of all comments received as well as GSA's responses (as warranted) are also included in Appendix B. As part of the meetings, the public was informed as to where they could review and provide input/comment on the Draft EIS. Additionally, as part of the overall NEPA process, the following agencies were informed of the availability of the Draft EIS for review/comment and/or coordination through publication of the NOA in the Federal Register on September 20, 2024 and through individual email notifications as warranted. Any comments received on the Draft EIS, as well as any necessary GSA responses are included in the Final EIS.

- Federal Emergency Management Agency (FEMA)
- USFWS
- U.S. Army Corps of Engineers (USACE)
- U.S. Environmental Protection Agency (USEPA)
- Occupational Safety and Health Administration (OSHA)
- Housing and Urban Development (HUD)
- Texas Parks and Wildlife Department (TPWD)
- Texas Commission on Environmental Quality (TCEQ)
- Texas Historical Commission (THC)
- Texas Health and Human Services (HHS)

Communication was also conducted with the following tribal entities: Apache Tribe of Oklahoma, Comanche Nation, Fort Sill Apache Tribe, Mescalero Apache Tribe, Tonkawa Tribe of Oklahoma, White Mountain Apache Tribe, Wichita and Affiliated Tribes, and the Ysleta Del Sur Pueblo of Texas. The communications, any questions/comments provided by the agencies and tribal entities, and any necessary GSA responses are also included in Appendix B.

1.6 SCOPE OF THIS EIS

This EIS documents and discloses the environmental impacts that could result should the GSA provide the proposed improvements at the BOTA LPOE. Data presented in this EIS (and therefore the analysis) are based on appropriate field investigations, research, previous studies/investigations, and reports developed as part of the planning process as well as other secondary and tertiary sources developed as part of the NEPA process (see Section 1.6.1 below). These studies/investigations and reports are detailed (as appropriate) throughout the EIS. Issues included for detailed analysis in this document were determined through "scoping." As defined in the CEQ regulations (§1508.25), the scope consists of the range of actions, alternatives, and impacts to be considered in a NEPA document.

As just mentioned in Section 1.5, as part of the overall planning process for the proposed improvements at the BOTA LPOE, the GSA conducted a series of internal and external agency stakeholder scoping meetings/workshops. Several public information meetings were also conducted for the public and other interested parties. The meetings detailed specifics regarding the proposed action and those alternatives developed to implement the proposed action. Input was also sought regarding specific issues that may be associated with implementation of the proposed action through selection of various alternatives. Details regarding the scoping meetings are contained in Appendix B. Issues associated with the proposed action are discussed shortly in Section 1.6.2.

1.6.1 Background, Consultation, and Relevant Studies, Surveys, and/or Documents

A variety of related and/or supporting studies and investigations have been conducted as part of past and current planning efforts. Those studies and/or investigations relevant to the preparation of this EIS are identified below. Reference to these reports/studies is made in the relevant sections of the EIS and results incorporated as warranted. The completed reports are on file with the GSA. Those related and/or supporting efforts include:

- August 2008 Department of Homeland Security (DHS) Evaluation of Buildings & Structures at the Land Ports of Entry in Texas (DHS 2008)
- U.S. CBP Office of Field Operations Historic Context 1960-Present (CBP 2013).
- October 2013 Final Cultural Resources Inventory of Bridge of the Americas Land Port of Entry, City of El Paso, El Paso County, Texas (CBP 2013a)
- September 2017 Facilities Condition Assessment Report, Bridge of the Americas LPOE (CBP 2017)
- November 2018 Final Feasibility Study, Bridge of the Americas LPOE, El Paso, Texas (GSA 2018a)
- March 2000 Geotechnical Study BOTA Headhouse Relocation, El Paso, Texas (GSA 2000)
- November 2023 Enhanced Feasibility Study, Bipartisan Infrastructure Legislation, Bridge of the Americas Modernization, El Paso, Texas. Submittal 6/100% Report (GSA 2023)
- July 2022 Geotechnical Engineering Report, Bridge of the Americas Land Port of Entry Z-Portal Addition, El Paso, Texas (GSA 2022a)

1.6.2 Issues Studied in Detail

In accordance with CEQ regulations (§1500.4 and §1501.7), issues to be addressed or important issues relating to this proposed action are identified through scoping. As mentioned above, issues studied in detail in this EIS were determined through stakeholder and public scoping/informational meetings. It is important to note that the issues identified for analysis as a result of these meetings could be altered by the public involvement process conducted as the project progresses. Issues studied in detail in this EIS include:

- Hazardous Materials, Waste, and/or Site Contamination
- Public Services, Infrastructure, and Utilities

- Surface Waters, Drainage, and Floodplains
- Land Use and Zoning (including Visual and Aesthetics)
- Cultural and Historic Resources
- Socioeconomics (including Environmental Justice and Protection of Children)
- Noise and Vibration
- Traffic (Vehicular and Pedestrian), Transportation, and Parking
- Air Quality (including Greenhouse Gas Emissions)

1.6.2.1 Hazardous Materials, Waste, and/or Site Contamination

Concerns over the improper handling and disposal of solid and hazardous wastes that posed a continuing threat to the environment and a danger to human health led to the enactment of the Resource Conservation and Recovery Act (RCRA) of 1976. The RCRA replaced the Solid Waste Disposal Act and authorized the USEPA to provide for cradle-to-grave management of hazardous waste and set a framework for the management of non-hazardous municipal solid waste. Under RCRA, a waste is defined as hazardous if it is ignitable, corrosive, reactive, toxic, or listed by the USEPA as being hazardous. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 and the Superfund Amendments and Reauthorization Act (SARA) of 1986 authorize the USEPA to respond to spills and other releases of hazardous substances to the environment. It also authorizes the National Oil and Hazardous Substances Pollution Contingency Plan. Title III of SARA authorizes the Emergency Planning and Community Right-to-Know Act (EPCRA), which requires facility operators with hazardous substances to prepare comprehensive emergency plans and to report accidental releases. Executive Order (EO) 12856 (Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements, August 1993) requires federal agencies to comply with the provisions of EPCRA.

Title I of the Toxic Substances Control Act (TSCA) established requirements and authorities to identify and control toxic chemical hazards to human health and the environment. The TSCA authorized the USEPA to gather information on chemical risks, require companies to test chemicals for toxic effects, and regulate chemicals with unreasonable risk. The TSCA also singled out polychlorinated biphenyls (PCBs) for regulation and as a result are being phased out. The TSCA and its regulations govern the manufacture, processing, distribution, use, marking, storage, disposal, cleanup, and release reporting requirements for numerous chemicals like PCBs. PCBs are persistent when released into the environment and accumulate in the tissues of living organisms. They have been shown to cause adverse health effects on laboratory animals and may cause adverse health effects in humans.

1.6.2.2 Public Services, Infrastructure, and Utilities

Public services include local government service (i.e., City of El Paso and the El Paso Independent School District [EPISD]) such as police, fire, emergency services, and public schools. Infrastructure includes publicly provided (City of El Paso) and maintained infrastructure elements and utilities such as roads, sidewalks, storm sewers, sanitary sewers, water lines, etc. Privately provided utilities generally include gas, electricity, and communication lines. Impacts to public services, infrastructure, and utilities can often occur as a result of a proposed action and can manifest in the form of unacceptable changes in the level of service or availability of services to other consumers of those resources or services within the general vicinity of the proposed action.

1.6.2.3 Surface Waters, Drainage, and Floodplains

The Federal Water Pollution Control Act (FWPCA), as amended by the Clean Water Act (CWA) of 1977, was enacted to protect water resources. The Water Pollution Prevention and Control Act (33 USC 26), also known as the CWA Amendments, set the national policy objective to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” The FWPCA provides the authority to establish water quality standards, control discharges into surface and subsurface waters (including groundwater),

develop waste treatment management plans and practices, and issue permits for discharges (Section 402) and for dredged or fill material (Section 404). A National Pollutant Discharge Elimination System (NPDES) or the state equivalent (i.e., Texas Pollutant Discharge Elimination System [TPDES]) permit under Section 402 of the CWA is required for discharges into navigable waters; a Section 404 permit is required for the placement of dredged or fill material in navigable waters; and a Section 10 permit under the Rivers and Harbors Act of 1899 is required for obstruction or alteration of navigable waters. "Navigable waters" have been very broadly defined in USEPA regulations (40 CFR §230) and encompass most bodies of water (including wetlands) and their tributaries. The USEPA is charged with the overall responsibility for Section 402 permits; the U.S. Army Corps of Engineers (USACE) has responsibility for Section 404 permits; and the U.S. Coast Guard has responsibility for Section 10 permits.

Stormwater runoff in urban and developing areas is one of the leading sources of water pollution in the U.S. In recognition of this issue, Congress enacted Section 438 (Stormwater Runoff Requirements for Federal Development Projects) of the Energy Independence and Security Act (EISA) of 2007, instructing Federal agencies to "use site planning, design, construction, and maintenance strategies for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to temperature, rate, volume, and duration of stormwater flow" for any project with a footprint that exceeds 5,000 square feet (sf). EO 13514 (October 5, 2009) on Federal Leadership in Environmental, Energy, and Economic Performance directs all Federal agencies to "lead by example" to address a wide range of environmental issues, including stormwater runoff. The EO required the USEPA, in coordination with other Federal agencies, to develop guidance for compliance with the EISA. As a result, the USEPA, Office of Water (and other agencies) coordinated the development of the Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the EISA (last revised December 1, 2008). The guidance provides a step-by-step framework to help Federal agencies maintain pre-development site hydrology by retaining rainfall on-site through infiltration, evaporation/transpiration, and re-use to the same extent as occurred prior to development.

A 100-year flood (intermediate regional flood) is defined as a flood level that occurs with an average frequency of once in 100 years at a designated location, although it may occur any year, even two years in a row. FEMA is responsible for implementation and management of the National Flood Insurance Program under 44 CFR; however, local government is responsible for administration of the floodplain within its respective borders. FEMA regulates the impact of vertical development on surface water elevation and flood limits within the floodplain.

EO 11988 (Floodplain Management) (May 24, 1977) requires Federal agencies to avoid, to the extent possible, the short- and long-term adverse impacts associated with the occupancy and modification of floodplains. Federal agencies are to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. In accomplishing this objective, "each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by floodplains in carrying out its responsibilities." This includes actions that include Federally assisted or financed construction and improvements. GSA PBS 1095.8A is GSA's most recent guidance and policy for implementing the requirements of EO 11988. This order establishes policy and assigns responsibility within the GSA concerning GSA actions that may affect floodplains by issuing the PBS Floodplain Management Desk Guide, November 2023.

Implementing a proposed action could result in the disturbance of localized surface water features and/or floodplains. Water features could receive silt from, or have drainage patterns affected by, ground-disturbing activities. Localized water features could also contain federally or state-listed protected species or support important riparian habitat. Additional impacts could result from an increase in stormwater runoff flow as a result of increased impervious surfaces or the contribution of additional impervious surfaces within the micro-watershed.

1.6.2.4 Land Use and Zoning (including Visual and Aesthetics)

As with other resources, land is not available in unlimited quantities. Because of this, land use must be properly planned and controlled. The CEQ regulations recognize this need for the rational management of land resources and have provided for a specific consideration of the relationship of a changed pattern in land uses, which requires knowledge and understanding of existing and projected land capabilities and land use patterns. Land use patterns are natural or imposed configurations resulting from spatial arrangement of the different uses of land at a particular time. Land use patterns typically evolve as a result of: (1) changing economic considerations inherent in the concept of highest and best use of land, (2) imposing legal restrictions (zoning) on the uses of land, and (3) changing (zoning variances) existing legal restrictions. The critical consideration is the extent to which any changes in land use patterns resulting from implementation of a proposed action are compatible with existing adjacent uses and are in conformity with approved or proposed zoning and land use plans. Land use and zoning (including visual and aesthetics associated with development) is regulated by the City of El Paso through its Unified Development Code and associated ordinances.

GSA has a series of policy guides that address a variety of planning issues for federal facilities, including site security, site selection, project planning, and facility design standards. This includes GSA's mandatory facilities standard mentioned previously, Facility Design Standard P100, which applies to the design and construction of new federal facilities (as well as major repairs and alterations of existing buildings) (GSA 2018), the Whole Building Design Guide (GSA 2022), and the LPOE Design Guide, which applies to LPOE design specifically. In addition, GSA has programs in place related to community planning to help create federal facilities that are consistent with good neighbor principles and that support positive community development and neighborhood urban design goals. Key principles of GSA's Urban Development/Good Neighbor Program (GSA 2020) include:

- Locate new owned and leased federal facilities in places that support public plans.
- Design new facilities to create outstanding federal workplaces and support neighborhood urban design goals.
- Renovate existing federal properties to improve their public spaces, create positive first impressions, and encourage stakeholders to improve neighborhood conditions.
- Manage federal properties to encourage public use and openness.
- Participate in neighborhood physical and management improvement efforts around federal properties.

1.6.2.5 Cultural and Historic Resources

The National Historic Preservation Act (NHPA) of 1966 (16 USC 470 et seq., as amended), the Archeological and Historic Preservation Act (AHPA) of 1974 (16 USC 469a et seq.), and the Archeological Resources Protection Act (ARPA) of 1979 (16 USC 470aa-470ll) are designed to ensure adequate consideration of the values of historic properties in carrying out federal activities and to attempt to identify and mitigate impacts to significant historic properties. The NHPA is the principal authority used to protect historic properties; federal agencies must determine the effect of their actions on cultural resources and take certain steps to ensure that these resources are located, identified, evaluated, and protected. The 36 CFR §800 defines the responsibilities of the state, the federal government, and the Advisory Council on Historic Preservation (ACHP) in protecting historic properties identified in a project area. The 36 CFR §60 establishes the National Register of Historic Places (NRHP) and defines the criteria for evaluating eligibility of cultural resources for listing on the NRHP. The ARPA of 1979 protects archeological resources on federal lands. Unauthorized excavation, removal, damage, alteration, or defacement of archeological resources on public lands is prohibited. In this EA, historic properties refer to properties eligible or potentially eligible for inclusion in the NRHP.

Legal mandates pertaining to Native American cultural resources and religious freedom include the NHPA, Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 (25 USC 3001 et seq., 43

CFR 10), NEPA, ARPA, American Indian Religious Freedom Act (AIRFA) of 1978, as amended (42 USC 1996-1996a), and EO 13007 (Indian Sacred Sites, May 1996).

Cultural resources are nonrenewable resources whose value may be diminished by physical disturbances. These resources include buildings, structures, objects, landscapes, and archeological sites, as well as places of importance to a culture or community for reasons of history, religion, or science. The archeological sites may include both prehistoric and historic sites, e.g., campsites, resource use or acquisition areas, house sites, and trash deposits that may exist. An impact would be significant to cultural and/or archeological resources if project activities result in:

- physical destruction of or damage to all or part of the property.
- alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material reduction, and provision of handicapped access, that is not consistent with the Secretary of the Interior's standards for the treatment of historic properties (36 CFR §68) and applicable guidelines.
- removal of the property from its historic location.
- change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance.
- introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features.
- neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization.
- transfer, lease, or sale of property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

1.6.2.6 Socioeconomics (Including Environmental Justice and Protection of Children)

Socioeconomic and economic analyses generally include detailed investigations of the prevailing population, income, employment, and housing conditions of a grouping of individuals, community or city, or an area of interest. The socioeconomic conditions of a region of influence (ROI) could be affected by changes in the rate of population growth, changes in the demographic characteristics of a ROI, or changes in employment within the ROI caused by implementing a proposed action. The economic conditions of a group or entity could also be affected by increasing or decreasing revenue sources, like removing potential taxable land from the tax base. These potential effects can become especially noticeable in areas where the prevailing tax base or other source of revenue is already limited.

In addition to these characteristics, populations of special concern (i.e., minority and low-income populations and children) can also be negatively impacted by a proposed action. The following EOs pertain to this important populations:

- **EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations**, directs federal agencies to consider whether impacts on human health or the environment (including social and economic aspects) would be disproportionately high and adverse for minority and low-income populations, and would outweigh impacts on the general population or other comparison group.

- **EO 13990, Protecting Public Health and the Environment and Restoring Science to Address the Climate Crisis** directs federal agencies to prioritize both environmental justice and employment. EO 13990 supports the national goal of improving public health and the environment by ensuring access to clean air and water, limiting exposure to dangerous chemicals and

pesticides, and holding polluters accountable, including those who disproportionately harm people of color and low-income people.

- **EO 14030, Climate-Related Financial Risk**, outlines the government approach to mitigating climate-related financial risks and ensuring financial security for workers, families, and businesses who may be disproportionately affected by climate change. The EO advises federal agencies to assess their government programs, assets, and liabilities, and to identify causes of and address disparate impacts on disadvantaged communities and communities of color.

- **EO 13045, Protection of Children from Environmental Health Risks and Safety Risks**, places a high priority on the identification and assessment of environmental health and safety risks that may disproportionately affect children. The EO requires that each agency "shall ensure that its policies, programs, activities, and standards address disproportionate risks to children." It considers that physiological and social development of children makes them more sensitive than adults to adverse health and safety risks and recognizes that children in minority and low-income populations are more likely to be exposed to and have increased health and safety risks from environmental contamination than the general population.

The definitions of minority, low-income, and minority or low-income populations are presented below.

- **Minority –** Individual(s) who are members of the following population groups as designated by the U.S. Census Bureau (USCB) are considered minority: Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, as well as Hispanic or Latino of any race.

- **Low-Income –** The USCB uses a set of income thresholds that vary by family size and composition to determine who is in poverty (i.e., classified as low-income). If a family's total income is less than the family's threshold, then that family and every individual in it is considered in poverty. The official poverty thresholds do not vary geographically but are updated for inflation using the Consumer Price Index. The official poverty definition uses income before taxes and does not include capital gains or noncash benefits (such as public housing, Medicaid, and food stamps).

- **Minority or Low-Income Population –** Includes populations where either: (a) the total number of minority or low-income individuals of the affected area exceeds 50 percent of the overall population in the same area, or (b) the total number of minority or low-income individuals within the affected area is meaningfully greater (e.g., 120 percent greater) than the minority or low-income population percentage in an appropriate comparison unit of geographic analysis (CEQ 1998). A minority population also exists if there is more than one minority group present and the minority percentage, as calculated by aggregating all minority persons, meets one of the above-stated thresholds. In identifying minority or low-income populations, agencies may consider as a community either a group of individuals living in geographic proximity to one another, or a geographically dispersed/transient set of individuals (such as migrant workers or Native Americans), where either type of group experiences common conditions of environmental exposure or effect. The selection of the appropriate unit of geographic analysis may be a governing body's jurisdiction, a neighborhood, census tract, or other similar unit that is to be chosen so as not to artificially dilute or inflate the affected minority population. A meaningfully greater minority or low-income population within a geographic unit affected by a federal action is determined by comparing the minority or low-income composition of the geographic unit to the minority or low-income composition of the general population. Similar to selecting the appropriate unit of geographic analysis, a comparison population should be selected so as to not artificially dilute or inflate the affected minority populations. For this EA, the comparison population is the total population of El Paso County.

1.6.2.7 Noise and Vibration

Acoustical noise is defined as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or is otherwise intrusive. Human response to noise varies according to the type and characteristics of the noise sources, distance between source and receiver, receiver sensitivity, and time of day. Sound is a physical phenomenon consisting of minute vibrations, which travel through a medium, such as air, and are sensed by the human ear. The ear senses these vibrations as changes in pressure, and as a result sound levels are most commonly referred to as “sound pressure levels.”

Sound levels are expressed in units of decibels. The term decibel (dB) implies a logarithmic ratio of the measured pressure to a reference pressure. This reference pressure refers to a pressure that is just barely detectable by the human ear. The human ear responds differently to sounds at different frequencies. This is demonstrated by the fact that we hear higher pitched sounds more easily than lower ones of the same magnitudes. To compensate for the different "loudness" levels as perceived by humans, a standard weighting curve is applied to measured sound levels. This weighting curve represents the human ear’s sensitivity and is labeled "A" weighting. The units of magnitude of the sound level are therefore written as dBA ("A" weighted decibels). All sound levels analyzed in this EA are A-weighted unless otherwise noted.

- **Day-Night Average Sound Level**. In this EA, the day-night average sound level (DNL) is used to describe noise. The DNL is a cumulative metric that accounts for the total sound energy occurring over a 24-hour period, with nighttime noise weighted more heavily to reflect community sensitivity to noise during nighttime hours. Noise levels in excess of DNL 65 dBA are normally unacceptable for noise-sensitive land uses such as residences, schools, and hospitals. Studies of community annoyance to numerous types of environmental noise show that DNL correlates well with percentages of groups of persons highly annoyed.

- **Time Averaged Sound Level.** This metric represents a continuous sound level having the same acoustic energy and time interval as the actual fluctuating sound event.

- **Maximum Sound Level.** The highest A-weighted sound level measured during a single event in which the sound level changes value as time goes on (e.g., an aircraft overflight) is called the maximum A-weighted sound level or maximum sound level (L_{max}).

- **Speech Interference.** Speech interference associated with construction noise is a cause of annoyance to individuals. The disruption of routine activities such as listening or telephone use gives rise to frustration and irritation. The quality of speech communication is also important in classrooms, offices, and industrial settings and can cause fatigue and vocal strain to those who attempt to communicate over the noise. Research has shown that the use of the sound exposure level (SEL) metric will measure speech interference successfully and that an SEL exceeding 65 dBA will begin to interfere with speech communication.

- **Noise Annoyance.** Noise annoyance is defined by the USEPA as any negative subjective reaction on the part of an individual or group. As noted in the discussion of DNL above, community annoyance is best measured by that metric. Because the USEPA Levels Document identified DNL 55 dBA as “…requisite to protect public health and welfare with an adequate margin of safety,” it is commonly assumed that 55 dBA should be adopted as a criterion for community noise analysis. From a noise exposure perspective, that would be an ideal selection. However, financial and technical resources are generally not available to achieve that goal. Most agencies have identified DNL 65 dBA as a criterion which protects those most impacted by noise and which can often be achieved on a practical basis (Federal Interagency Committee on Noise [FICON]). Although DNL 65 dBA is widely used as a benchmark for evaluating potential significant noise impact, and is often an acceptable compromise, it is not a statutory limit and it is appropriate to consider other thresholds for particular cases.

- **Hearing Loss.** Noise-induced hearing loss is probably the best defined of the potential effects of human exposure to excessive noise. Federal workplace standards for protection from hearing loss allow a time-average level of 90 dBA over an 8-hour work period, or 85 dBA averaged over a 16-hour period. Even the most protective criterion suggests a time-average sound level of 70 dBA over a 24-hour period. Since it is unlikely that receivers will remain exposed to this level for 24 hours per day for extended periods, there is little possibility of hearing loss below DNL 75 dBA.

The Occupational Health and Safety Act (OSHA's) noise standard (29 CFR 1910.95) established workplace standards for noise. The minimum requirement states that constant noise exposure must not exceed 90 dBA over an 8-hour period. The highest allowable sound level to which workers can be constantly exposed is 115 dBA; exposure to this level must not exceed 15 minutes within an 8-hour period. The standards limit instantaneous exposure, such as impact noise, to 140 dBA. If noise levels exceed these standards, employers are required to provide hearing protection equipment that reduces sound levels to acceptable limits (OSHA 2023).

The Noise Control Act of 1972 (PL 92-574) directs federal agencies to comply with applicable federal, state, interstate, and local noise control regulations. In 1981, the USEPA provided information on negative effects of noise and identified indoor and outdoor noise limits that protect public health and welfare. In addition, sound quality criteria promulgated by the USEPA and the U.S. Department of Housing and Urban Development (HUD) have identified noise levels to protect public health and welfare with an adequate margin of safety. These levels are considered acceptable guidelines for assessing noise conditions in an environmental setting. Average acceptable day-night sound pressure levels fall in a range between 50 dBA in quiet suburban areas and 70 dBA in very noisy urban areas (USEPA 1981). Table 1-6 presents sounds encountered in daily life, their dBA levels, and how they affect hearing. For example, a whisper is usually 30 dBA and is considered to be very quiet, an air conditioning unit is considered an intrusive noise at 60 dBA, and the sound of a refrigerator at 55 dBA is considered at the level of ambient sound levels. Noise levels can become annoying at 80 dBA and very annoying at 90 dBA (USEPA 1981).

The two most common types of noise are point sources and line sources. Point source noise is usually associated with a source that remains generally in one place for extended periods of time, for example most construction activities. Line source noise is generated by moving objects along a linear corridor, for example highway traffic noise. Noise generated by point and line sources have the potential to impact sensitive noise receptors, such as residences, hospitals, and schools. Persistent and escalating sources of sound are often considered annoyances and can interfere with normal activities, such as sleeping or conversation, such that these sounds could disrupt or diminish quality of life.

Potential noise levels at sensitive receptor locations resulting from stationary sources are usually evaluated for construction and normal operations by identifying sound levels from dominant noise-producing equipment, summing (using a logarithmic scale) anticipated equipment noise contributions, and applying fundamental noise attenuation principles. The standard reduction for point source noise is 6 dB per doubling of distance from the source.

The City of El Paso Code of Ordinances, Title 9 (Health and Safety), Chapter 9.40 (Noise), establishes decibel measurement criteria, designated noise zones, exterior noise standards, and additional noise standards within the City of El Paso. The BOTA LPOE is currently designated as being within Noise Zone III. Noise Zone III establishes allowable exterior noise levels as follows. These designated noise limits are increased by 5 (five) dB(A) for impulse or simple tone noises:

- 10pm to 7am – 65 dB(A) – 70 dB(A) impulse
- 7am to 10pm – 70 dB(A) – 75 dB(A) impulse

Table 1-6. Common Sound Levels.

Sound Level (dBA)	Effect	Outdoor	Indoor
30	Very Quiet	Rustling Leaves	Soft Whisper (15 ft)
40	Quiet	Quiet Residential Area	Library
55	Ambient	Rainfall/Light Auto Traffic (100 ft)	Refrigerator
60	Intrusive	Normal Conversation	Air Conditioning Unit (20 ft)
70	Telephone Use Difficult	Freeway Traffic	Noisy Restaurant/TV Audio
80	Annoying	Downtown (Large City)	Alarm Clock (2 ft)/Ringing Phone
90	Very Annoying	Tractor/Bulldozer/Excavator	Garbage Disposal
100	Very Annoying	Garbage Truck/Motorcycle	Subway Train
110	Strained Vocal Effort	Pile Driver	Power Saw (3 ft)
120	Maximum Vocal Effort	Jet Takeoff (200 ft)/Auto Horn (3 ft)	Rock Concert
140	Painfully Loud	Carrier Deck Jet Operations	N/A

dBA - "A" weighted decibels.
NA - Not Applicable.
Source: USEPA 1981.

The code further outlines standards to ensure that noise levels on any property do not exceed:

(1) The noise standard for a cumulative period of more than thirty minutes in any hour; or
(2) The noise standard plus five dB(A) for a cumulative period of more than fifteen minutes in any hour; or
(3) The noise standard plus ten dB(A) for a cumulative period of more than five minutes in any hour; or
(4) The noise standard plus fifteen dB(A) for a cumulative period of more than one minute in any hour; or
(5) The noise standard plus twenty dB(A) for any period of time.

Noise sensitive zones have been established throughout the city that include schools, hospitals (or similar healthcare institutions), churches, and libraries. The ordinance prohibits exceeding the standards listed above and/or creating such noise levels that unreasonably interfere with the usage of these facilities or unreasonably disturbs occupants. The City code also addresses vibration, prohibiting ground vibration that is perceptible without instruments at any point on any property or adjoining property. The code allows for several exemptions from the provisions of the ordinance. One pertains specifically to noise and/or vibration from construction-related activities:

- Noise sources associated with, or vibration created by, construction repair, remodeling, or grading of any real property. provided the activities do not take place between the hours of 8pm and 9am on weekdays and Saturdays, or at any time on Sunday or a holiday and provided the noise level created by such activities does not exceed the noise standard of 65 dB(A) plus the limits specified earlier as measured on residential property and any vibration created does not endanger the public health, welfare, and/or safety.

1.6.2.8 Traffic (Vehicular and Pedestrian), Transportation, and Parking

The effects of an increase in vehicles or increased traffic flow in a given area as well as a need for increased parking can have an effect on existing homes and/or businesses in a particular area as well as those that visit the area. Increases in traffic or changes in traffic patterns can also negatively impact pedestrian traffic flow in a given area. Increases in pedestrian traffic flow as a result of a new or changed use can also be an issue when it comes to overall safety for the traveling public and employees at a particular facility. It is important that the local road network (existing or planned) can handle any potential added capacity and

that appropriate measures are taken to account for pedestrian traffic and vehicle parking. Construction or renovation of a new facility can also result in temporary traffic delays and/or traffic reroutes (both vehicular and pedestrian) in the area which can also result in vehicle/pedestrian conflicts and overall safety concerns.

1.6.2.9 Air Quality (including Greenhouse Gas Emissions)

The Clean Air Act (CAA) (42 USC 7401-7671q), as amended, provides the framework for federal, state, tribal, and local rules and regulations to protect air quality. The CAA gives the USEPA the responsibility to establish the primary and secondary National Ambient Air Quality Standards (NAAQS) (40 CFR §50) that set safe concentration levels for six criteria pollutants: particulate matter measuring less than 10 microns in diameter (PM_{10}), sulfur dioxide (SO_2), carbon monoxide (CO), nitrous oxides (NO_X), ozone (O_3), and lead (Pb). Primary NAAQS are established to protect public health, and secondary standards provide protection for the public welfare, which includes wildlife, climate, transportation, and economic values (Table 1-7). Additionally, the USEPA also has responsibility for ensuring that air quality standards are met to control pollutant emissions from mobile (i.e., vehicles) and stationary (i.e., factories) sources.

The NAAQS represent the maximum levels of background pollutants that are considered safe, with an adequate margin of safety to protect public health and welfare. Short-term standards (1-, 8-, and 24-hour periods) have been established for pollutants contributing to acute health effects, while long-term standards (annual averages) have been established for pollutants contributing to chronic health effects. Each state has the authority to adopt standards stricter than those established under the federal program; however, the TCEQ accepts the federal standards for the El Paso-Las Cruces-Alamogordo Interstate Air Quality Region.

Areas that violate NAAQS are designated as nonattainment areas, and areas that comply with air quality standards are designated attainment areas for the relevant pollutants. Attainment/maintenance areas are areas that have previously been designated nonattainment, and have subsequently been redesignated to attainment, for a probationary period, due to complying with the NAAQS. Attainment/maintenance status is achieved through the development and implementation of maintenance plans for criteria pollutants of interest. The CAA contains the legislation that mandates the general conformity rule to ensure that federal actions in nonattainment and attainment/maintenance areas do not interfere with a state's timely attainment of the NAAQS. The CAA also requires that federal agencies demonstrate that their actions conducted in nonattainment and attainment/maintenance areas conform to the purposes of the State Implementation Plan (SIP).

The general conformity rule divides the air conformity process into two distinct areas: applicability analysis and conformity determination. The applicability analysis process requires federal agencies to determine if their proposed action(s) would increase emissions of criteria pollutants above the threshold levels (40 CFR §93.153). These threshold rates vary depending on severity of nonattainment and geographic location (Table 1-8 and 1-9). De minimis emissions are total direct and indirect emissions of a criteria pollutant that are caused by a federal action in a nonattainment or attainment/maintenance area in less than these threshold rates**.** An action is subject to the general conformity rule if the emissions are deemed regionally significant, even if the emissions are *de minimis*. Regionally significant emissions are defined as the total direct and indirect emissions of a federal action for any criteria pollutant that represents 10 percent or more of a nonattainment or maintenance area's emission inventory for that pollutant. Implementing a proposed action could impact local and regional air quality as a result of ground-disturbing activities, demolition (including vehicular traffic), construction (including vehicular traffic), and operations once complete (potential for increases in traffic).

Greenhouse gas (GHG) emissions released into the atmosphere as a result of human-induced fossil fuel combustion are widely believed to be contributing to changes in global climate. GHGs, which include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), water vapor, and several trace gasses, trap radiant heat reflected from the earth in the atmosphere, causing the earth's average surface temperature to rise. The predominant GHGs are CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and sulfur

hexafluoride. In the U.S., anthropogenic GHG emissions come primarily from burning fossil fuels. Although GHG levels have varied for millennia (along with corresponding variations in climate conditions), increases driven by human activity have been widely believed to have contributed significantly to recent climatic changes.

Table 1-7. National Ambient Air Quality Primary and Secondary Standards.

Air Pollutant	Averaging Time	Primary NAAQS[1]	Secondary NAAQS[2]
CO	1-hour 8-hour	35 ppm 9 ppm	None None
NO2	1-hour Annual	0.10 ppm 0.053 ppm	None 0.053 ppm
SO_2	3-hour 1-hour	- 0.075 ppm	0.50 ppm None
PM_{10}	24-hour	150 µg/m^3	150 µg/m^3
$PM_{2.5}$	Annual 24-hour	12.0 µg/m^3 35 µg/m^3	15.0 µg/m^3 35 µg/m^3
O_3	8-hour	0.070 ppm	0.070 ppm
Pb	Rolling 3-month average	0.15 µg/m^3	0.15 µg/m^3

1 - Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly.
2 - Secondary standards set limits to protect public welfare, including protection against decreased visibility, and damage to animals, crops, vegetation, and buildings.
3 - Scheduled to be revoked one year after the effective date of final designations for the 0.075 ppm standard.
ppm parts per million.
µg/m^3 micrograms per cubic meter.
Source: USEPA 2023.

Table 1-8. Applicability Thresholds for Criteria Pollutants in Nonattainment Areas.

Criteria Pollutants/NAA Status	TPY
O_3 (VOCs or NO_x)	
Serious NAAs	50
Severe NAAs	25
Extreme NAAs	10
Other O_3 NAAs outside an O_3 transport region	100
Other ozone NAAs inside an O_3 transport region	
NOx	100
VOC	50
CO	
All NAAs	100
SO_2 or NO_x	
All NAAs	100
PM_{10}	
Moderate NAAs	100
Serious NAAs	70
$PM_{2.5}$	
Direct Emissions	100
SO_2	100
NOx (moderate NAAs – Serious NAAs)	100-70
VOC or ammonia (if determined to be a significant precursor)	100
Pb	
All NAAs	25

NAA - nonattainment areas, TPY - tons per year, VOC - volatile organic compound.
Source: USEPA 2023a.

Table 1-9. Applicability Thresholds for Attainment/Maintenance Areas.

Criteria Pollutants	TPY
O_3 (NO_x, SO_2 or NO_2)	
All maintenance areas	100
O_3 (VOCs)	
Maintenance areas inside an O_3 transport region	50
Maintenance areas outside an O_3 transport region	100
CO	
All maintenance areas	100
PM_{10}	
All maintenance areas	100
$PM_{2.5}$	
Direct Emissions	100
SO_2	100
NOx (unless determined not to be significant)	100
VOC or ammonia (if determined to be a significant precursor)	100
Pb	
All maintenance areas	25

TPY - tons per year, VOC - volatile organic compounds.
Source: 40 CFR §93.153.

GHGs are regulated under the CAA. New sources or modifications to existing sources that have the potential to increase GHG emissions by more than 100,000 tons CO_2 equivalent per year may be subject to New Source Review or Prevention of Significant Deterioration requirements, as well as Title V requirements for operational permits, provided they are also otherwise subject to these requirements. Additionally, the USEPA Mandatory Greenhouse Gas Reporting Rule (40 CFR 98) requires sources in specific industrial sectors to report their GHG emissions, if they emit more than 25,000 metric tons CO_2 equivalent per year. Several EOs also require federal agencies to estimate and report their GHG emissions and set goals to reduce these emissions. These EOs include:

- EO 13990, Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis
- EO 14008, Tackling the Climate Crisis at Home and Abroad
- EO 14030, Climate-Related Financial Risk

GHGs are gasses that trap heat in the atmosphere by absorbing outgoing infrared radiation (USEPA 2023b). GHG emissions occur from both natural processes as well as human activities. Water vapor is the most important and abundant GHG in the atmosphere; however, human activities produce only a small amount of the total atmospheric water vapor. The most common GHGs emitted from natural processes and human activities include CO_2, CH_4, and N_2O. The main source of GHGs from human activities is the combustion of fossil fuels such as oil, coal, and natural gas. Other examples of GHGs created and emitted primarily through human activities include fluorinated gasses (e.g., perfluorocarbons) and sulfur hexafluoride. The main sources of these man-made GHGs are refrigerants and electrical transformers.

Numerous studies document the recent trend of rising atmospheric concentrations of CO_2. The longest continuous record of atmospheric carbon dioxide monitoring extends back to 1958 (Keeling 1960 and Scripps 2023). These data show that atmospheric CO_2 levels have risen an average of 1.5 parts per million (ppm) per year over the last 60 years, with the growth rate accelerating from around 1 ppm per year in the 1960s to 2 ppm per year in the 2000s (NOAA 2023). The global atmospheric CO_2 concentration has now passed 400 ppm, a level that last occurred about 3 million years ago when both global average temperature and sea level were significantly higher than today (USGCRP 2017). Rising atmospheric concentrations of CO_2 and other GHGs have been identified as the primary driver behind significant changes to global climate patterns. Observed changes to global climate include rising average temperatures, shrinking glaciers and sea ice, rising sea levels, increased drought and wildfires, increased flooding and other severe weather events, thawing permafrost, a lengthened growing season, and shifts in plant and animal ranges.

International and national organizations independently confirm these findings and predict that these trends are likely to continue into the foreseeable future unless action is taken to reduce global GHG emissions (IPCC 2018 and USGCRP 2017).

Each GHG has been assigned a global warming potential (GWP) by the USEPA (USEPA 2023b). The GWP is the ability of a gas or aerosol to trap heat in the atmosphere. The GWP rating system is standardized to CO_2, which is given a value of one. For example, CH_4 has a GWP of 25, which means that it has a global warming effect 25 times greater than CO_2 on an equal-mass basis. To simplify GHG analyses, total GHG emissions from a source are often expressed as a CO_2 equivalent, which is calculated by multiplying the emissions of each GHG by its GWP and adding the results together to produce a single, combined emission rate representing all GHGs. While CH_4 and N_2O have much higher GWPs than CO_2, CO_2 is emitted in such large quantities that it is the predominant contributor to global CO_2 equivalent emissions from both natural processes and human activities.

1.6.3 Issues Eliminated from Detailed Study

CEQ regulations (§1501.7) state that the lead agency shall identify and eliminate from detailed study the issues which are not important or which have been covered by prior environmental review, narrowing the discussion of these issues in the document to a brief presentation of why they would not have a dramatic effect on the human environment. In accordance with §1501.7, issues eliminated from detailed study include:

- Geology and Soils
- Vegetation and Wildlife
- Asbestos
- Lead-Based Paint
- Energy Efficiency

1.6.3.1 Geology and Soils

The surficial geology of the Rio Grande Valley region is described as being composed of Pleistocene-aged sediments of the Santa Fe Group (Hall 1994). These sediments compose a complex series of muds, sands, and gravels representing lacustrine fluvial and alluvial fan deposits. Although there appears to be some debate as to when the Rio Grande became a through-flowing system, some estimates establish this event as early as 2.25 million years ago (Gustavson 1991).

The USDA soils map for the area is shown below in Figure 1-4. A detailed description of the prevailing soil unit (Mg) and the USDA-Natural Resources Conservation Service (NRCS) designation of “no prime farmland” is included in Appendix C. Given the highly disturbed and urbanized/developed nature of where the improvements are proposed (i.e., the existing port, immediately adjacent TxDOT right-of-way (ROW), and land east of the port (i.e., east site), there is little probability that any original soil characteristics remain. The disturbed nature of the soils and the urban environment preclude designation of any prime farmland soils within the area. Although both action alternatives would include significant soil excavation, ground-disturbing activities would not be occurring on soils that would qualify under the Federal Register definition of prime farmlands, and therefore no adverse impacts to soils would be expected. As part of implementing either action alternative, prior to construction activities, and in accordance with the NPDES, TCEQ TPDES, and City requirements (construction sites greater than 5 acres [Phase I] and between 1 and 5 acres [Phase II]), a Stormwater Pollution Prevention Plan (SWPPP) would be developed and implemented for construction activities. A notice of intent (NOI) would be filed with the TCEQ at least 48 hours in advance of construction activities. The SWPPP would be maintained on site and would provide measures to eliminate or reduce any potential impacts to surface water quality in the project area (i.e., implementation of BMPs) as a result of ground-disturbing activities and potential soil erosion. As such, this issue has been eliminated from detailed study in this EIS.

Source: USDA-NRCS 2024.

Figure 1-4. Soil Unit (Mg) Comprising the Port and adjacent Properties.

1.6.3.2 Vegetation and Wildlife

Biological resources play an integral role in the natural environment. The CEQ (1993) recognizes that biological resources, and from them biodiversity, are "...not a series of unconnected elements, and that the richness of the mix of elements and the connections between those elements are what sustains the system as a whole." The Endangered Species Act (ESA) of 1973 (PL 93-205), as amended, was enacted to provide a program of preservation for endangered and/or threatened species and to provide protection for ecosystems upon which these species depend for their survival. The U.S. Fish and Wildlife Service (USFWS) is responsible for implementing the ESA within the U.S. and its territories. The USFWS and the Texas Parks and Wildlife Department (TPWD) maintain protected species lists (endangered, threatened, proposed candidate, or species of concern) for species that occur or could potentially occur within El Paso County. If protected species occur within the area, implementing the proposed action could potentially affect these species and their habitat.

As demonstrated earlier, the BOTA LPOE sits on approximately 28 acres of fully developed property surrounded on three sides by an extensive highway system. The port is bordered to the north by East Paisano Drive/U.S. Highway 62 East, a busy two-way street, U.S. Highway 54/Patriot Highway borders the port to the east, Delta Drive/Loop 375 borders it to the south, and Interstate Highway (I) 110 is on the northwest side of the port which is a connector to I-10 and is the primary entry and exit from the port. The LPOE is landlocked on all four (4) sides. The Chamizal National Memorial that borders the site to the west is also highly disturbed and of an urbanized/developed nature. The Memorial consists only of ornamental grasses and sparse trees that are maintained on a regular basis. Figure 1-5 shows an example of the prevailing vegetation at the Memorial. The area is not considered to be ecologically important, but it does provide suitable habitat to some common local wildlife species including possibly some migratory birds. The area to the east of the port, across Highway 54, is also largely developed, previously disturbed and devoid of vegetation/suitable habitat.

Figure 1-5. Example of the Vegetation Present at the Chamizal National Memorial.

As mentioned above, the USFWS and TPWD online databases of Rare, Threatened, and Endangered Species of Texas were consulted with regards to potential impacts to protected species as a result of the proposed project. The El Paso County list was downloaded and reviewed (Table 1-10). Based on review, and the habitat requirements for listed protected species in El Paso County, there is no suitable habitat for listed protected species at the BOTA LPOE or the area immediately east of the port across Highway 54, and therefore there would be no potential for impacts to these species.

Even though no impacts would be anticipated from implementing the proposed action, to further ensure no harmful effects to listed protected species, in accordance with TPWD prior guidance, any open trenches or excavation areas would be covered overnight and/or inspected every morning to ensure no errant/transient wildlife species have been trapped. For soil stabilization and/or revegetation of disturbed areas, erosion and seed/mulch stabilization materials that avoid possible entanglement hazards to wildlife species would be utilized when possible. The use of plastic mesh matting erosion control blankets would be avoided when possible to further ensure minimal entanglement hazards to any errant/transient wildlife. Should any protected species be encountered that would not readily leave the work area, a biologist (with appropriate authorization from the TPWD Wildlife Permits Office) would translocated the animal to the closest suitable habitat outside the active work area(s), generally within 100 to 200 yards and not greater than a mile from the capture site, however, consultation would likely take place with the TPWD given the highly developed nature of the areas around the port.

In an effort to ensure no impacts to migratory bird species, any vegetation clearing that would be necessary would occur outside of the general bird nesting season (i.e., March 15 through September 15) if possible. If disturbance within the areas must be scheduled during the nesting season, prior to any ground-disturbing or clearing (and within 5 days of any planned clearing), a qualified biologist would survey the area for active nests. If active nests are observed, a 100-foot radius buffer of would be left until the eggs have hatched

and the young have fledged. The buffer could vary based on species and TPWD/USFWS recommendations.

Table 1-10. List of Protected Species in El Paso County and Their Habitat Requirements.

Taxon	Scientific Name	Common Name	Protected Status	Habitat Requirements	Potential Suitable Habitat at BOTA and the Eastern Site (Alternative 1a)	Potential Suitable Habitat at BOTA (Alternative 4)
Bird	Strix occidentalis lucida	Mexican spotted owl	FT, ST	Remote, shaded canyons of coniferous mountain woodlands (pine and fir)	No	No
Bird	Empidonax traillii extimus	Southwestern willow flycatcher	FE, SE	Thickets of willow, cottonwood, mesquite, and other species along desert streams	No	No
Bird	Coccyzus americanus	Yellow-billed Cuckoo	FT	Breeds in riparian habitat and associated drainages; springs, developed wells, and earthen ponds supporting mesic vegetation; deciduous woodlands with cottonwoods and willows; dense understory foliage is important for nest site selection; nests in willow, mesquite, cottonwood, and hackberry; forages in similar riparian woodlands; breeding season mid-May-late Sept.	No	No
Bird	Calidris canutus rufa	rufa red knot	FT, ST	Primarily seacoasts on tidal flats and beaches, herbaceous wetland, and Tidal flat/shore. Bolivar Flats in Galveston County, sandy beaches Mustang Island, few on outer coastal and barrier beaches, tidal mudflats and salt marshes.	No	No
Birds	Athene cunicularia	burrowing owl	FE	Flat, open habitat with sparse vegetation, short grass, and bare soil such as prairies, grasslands, dessert and sagebrush steppe environments	No	No
Bird	Falco femoralis septentrionalis	Northern Aplomado Falcon	FE, SE	Open country, especially savanna and open woodland, and sometimes in very barren areas; grassy plains and valleys with scattered mesquite, yucca, and cactus; nests in old stick nests of other bird species	No	No

FE – Federally Endangered, FT – Federally Threatened, SE - State Endangered, ST - State Threatened.

Table 1-10 (cont.). List of Protected Species in El Paso County and Their Habitat Requirements.

Taxon	Scientific Name	Common Name	Protected Status	Habitat Requirements	Potential Suitable Habitat at BOTA and the Eastern Site (Alternative 1a)	Potential Suitable Habitat at BOTA (Alternative 4)
Bird	Falco peregrinus	peregrine falcon	ST	Year-round resident and local breeder in west Texas, nests in tall cliff eyries; also, migrant across state from more northern breeding areas in US and Canada, winters along coast and farther south; occupies wide range of habitats during migration, including urban, concentrations along coast and barrier islands; low-altitude migrant, stopovers at leading landscape edges such as lake shores, coastlines, and barrier islands.	No	No
Bird	Plegadis chihi	white-faced ibis	ST	Prefers freshwater marshes, sloughs, and irrigated rice fields, but will attend brackish and saltwater habitats; currently confined to near-coastal rookeries in so-called hog-wallow prairies. Nests in marshes, in low trees, on the ground in bulrushes or reeds, or on floating mats.	No	No
Bird	Coccyzus americanus occidentalis	western yellow-billed cuckoo	FT	Breeds in riparian habitat and associated drainages; springs, developed wells, and earthen ponds supporting mesic vegetation; deciduous woodlands with cottonwoods and willows; dense understory foliage is important for nest site selection; nests in willow, mesquite, cottonwood, and hackberry; forages in similar riparian woodlands; breeding season mid-May-late Sept.	No	No
Mammal	Canis lupus baileyi	Mexican wolf	FE, SE	Temperate forests, mountains, tundra, taiga, grasslands and deserts.	No	No
Plant	Escobaria sneedii var. sneedii	Sneed's pincushion cactus	FE, SE	Xeric limestone outcrops on rocky, usually steep slopes in desert mountains, in the Chihuahuan Desert succulent shrublands or grasslands; flowering April-September (peak usually in April, sometimes opportunistically after summer rains; fruiting August - November	No	No
Plant	Coryphantha sneedii var. sneedii	Sneed pincushion cactus	FE, SE	Cracks in limestone in areas of broken terrain and steep slopes usually in Chihuahuan desert scrub	No	No

FE – Federally Endangered, FT – Federally Threatened, SE - State Endangered, ST - State

Table 1-10 (cont.). List of Protected Species in El Paso County and Their Habitat Requirements.

Taxon	Scientific Name	Common Name	Protected Status	Habitat Requirements	Potential Suitable Habitat at BOTA and the Eastern Site (Alternative 1a)	Potential Suitable Habitat at BOTA (Alternative 4)
Fish	Macrhybopsis aestivalis	speckled chub	ST	Found throughout the Rio Grande and lower Pecos River but occurs most frequently between the Río Conchos confluence and the Pecos River. Flowing water over coarse sand and fine gravel substrates in streams; typically found in raceways and runs.	No	No

FE – Federally Endangered, FT – Federally Threatened, SE - State Endangered, ST - State Threatened.

1.6.3.3 Asbestos

The USEPA and the Occupational Safety and Health Administration (OSHA) regulate asbestos-containing materials (ACM) and ACM abatement. The State of Texas also has regulations pertaining to ACM abatement. Emissions of asbestos fibers into the ambient air are regulated in accordance with Section 112 of the CAA, which established the National Emissions Standards for Hazardous Air Pollutants (NESHAP). The NESHAP addresses the demolition or renovation of buildings containing ACM. TSCA Title II provides a statutory framework for "Asbestos Hazard Emergency Response," which applies only to schools. The Texas Department of Health administers the state's asbestos abatement regulation. These regulations cover demolition activities and are more stringent than the NESHAP program. The current GSA practice is to manage or abate ACM in active facilities and abate ACM per regulatory requirements prior to facility demolition (GSA Order PBS 1000.1A, Asbestos Management). Abatement of ACMs occurs when there is a potential for asbestos fiber releases that would affect the environment or human health.

As documented in past asbestos inspections conducted at the port (GSA 1995 and 2007 and DHHS 2016, 2016a, and 2017), there is known ACM present at the port and it is currently being managed in place in accordance with GSA policy. The reports are on file with the GSA. Although ACM is present, this issue has been eliminated from detailed study because in accordance with Order PBS 1000.1A, prior to any demolition activities, ACM inspections would be conducted by a qualified, license inspector and all discovered ACM abated in accordance with USEPA, OSHA, and State of Texas regulations.

1.6.3.4 Lead-Based Paint

Lead is a heavy, ductile metal that is commonly found in organic compounds, oxides, and salts, or as metal. Human exposure to lead has been determined to be an adverse health risk by agencies such as Housing and Urban Development (HUD), OSHA, and the USEPA. Sources of exposures to lead are through paint, dust, and soil. Currently, the USEPA has specific guidelines for the cleanup of lead in soils based on the characteristics of individual sites. The State of Texas (Texas Health and Human Services) has the authority to implement these guidelines. If a waste is classified as hazardous, disposal must take place in accordance with USEPA and state hazardous waste rules.

In an effort to minimize the threat to human health and the environment as a result of lead-based paint (LBP), the Residential Lead-Based Paint Hazard Reduction Act (Title X) was passed in 1992. Title X required HUD to promulgate regulations addressing LBP inspection and abatement activities and amended Section 403 of the TSCA requiring the USEPA to identify LBP hazard levels for paint, dust, and soil. The HUD regulations were promulgated in 1999 and went into effect in September 2000. Title X requires that

LBP surveys be conducted for those facilities deemed to be high-priority. High priority facilities consist of facilities or portions of facilities frequented by children under the age of seven, including military family housing, transient lodging facilities, day care centers, elementary schools, and playgrounds. Though these guidelines are not enforced on private housing projects or projects involving other building types (such as LPOEs), they are a well-recognized reference for making buildings lead-safe, and GSA utilizes them as a resource in any buildings or demolition/construction project that involves potential LBP. The TSCA Title IV (Lead Exposure Reduction) directs federal agencies to conduct a comprehensive program to promote safe, effective, and affordable monitoring, detection, and abatement of lead-based paint and other lead exposure hazards. Further, any federal agency having jurisdiction over a property or facility must comply with all federal, state, interstate, and local requirements concerning LBP.

No LBP surveys or sampling has been conducted at the port and due to the age of several buildings/structures, there is a potential for the presence of LBP. Although this potential does exist, this issue has been eliminated from detailed study because in accordance with GSA policy, prior to any demolition activities, LBP inspections would be conducted by a qualified and licensed inspector and all discovered LBP abated in accordance with USEPA and State of Texas regulations.

1.6.3.5 Energy Efficiency

The benefits of energy efficiency, and particularly energy efficient buildings are extensive – lower utility costs, improved air quality, reduced greenhouse gasses, energy security, and deferred infrastructure costs. As the landlord for the Federal civilian government, the GSA PBS acquires space on behalf of the Federal government through new construction and leasing, and acts as a caretaker for Federal properties across the country.

The GSA is a leader in sustainable building design. As such, all facilities are designed, built, and operated in accordance with PBS P100 (GSA Facility Standards) and prevailing energy conservation requirements (PBS Q100), both ensuring compliance with:

- **Energy Policy Act (EPACT) of 2005** - directs Federal agencies to implement renewable energy (RE) projects to obtain at least 7.5 percent of their electricity from RE sources by Fiscal Year (FY) 2013. Federal agencies can receive double credit toward this goal for RE produced on-site.

- **Energy Independence and Security Act (EISA) of 2007** – requires that all existing and new Federal buildings lead by example. Existing buildings must reduce energy consumption 30 percent by 2015, compared with 2003 levels, through building upgrades and efficient appliances. New buildings must achieve efficiencies of 30 percent better than the American Society of Heating, Refrigerant, and Air Conditioning Engineers (ASHRAE) code and the International Energy Conservation Code (IECC).

- **EO 13423 of 2007 (Strengthening Federal Environmental, Energy, and Transportation Management)** - indicates the head of each agency shall "ensure that (i) at least half of the statutorily required RE consumed by the agency in a FY comes from new renewable sources, and (ii) to the extent feasible, the agency implements RE generation projects on agency property for agency use."

- **EO 13514 of 2009 (Federal Leadership in Environmental, Energy, and Economic Performance)** - makes reduction of greenhouse gasses a priority for Federal agencies and states agencies must "Increase RE and RE generation on agency property."

Developed by the U.S. Green Building Council (USGBC), Leadership in Energy and Environmental Design (LEED) is a third-party certification program and the nationally accepted benchmark for the design, construction, and operation of high-performance green buildings. As stated, the proposed improvements (site and structure[s]) would adhere to the guidelines provided in P100. This document requires compliance with the Guiding Principles for Sustainable Federal Buildings and Gold level certification through LEED

version 4.1 BD+C from the U.S. Green Building Council. Compliance with the LEED criteria is a multi-disciplinary design team effort and a commitment by the government to prioritize environmental and efficiency decisions early in the process. Gold Level compliance would require a very energy efficient building - both envelope and equipment. Furthermore, a high level of energy efficiency combined with on-site renewable energy generation, would allow for the facility to achieve a stated goal of being an energy Net-Zero ready facility. Even though renewables would not be feasible immediately, the buildings/structures and site would be designed to a Net-Zero Ready condition with a post-occupancy renewable energy future phase.

LEED criteria would include a 25 percent reduction in the volume of stormwater runoff from the 2-year 24-hour design storm and removal of 80 percent of the average annual post development total suspended solids for 90 percent of the average rainfall. Development would include retention or detention of 100 percent of the runoff from all properties. Water management is a high priority goal for both the region and the LEED compliance goals. Federal water policy EISA Section 438 identifies stormwater runoff as a leading source of water pollution in the U.S. Site strategies for water use and run-off, as well as efficient water use within the building would be addressed throughout the project. As a property adjacent to the Rio Grande River, site hydrology and run-off quality are critical to the river ecosystem. Selection of landscape material, water retention and percolation would be made in concert with the traffic activity goals. Within the buildings, selection of low-flow fixtures and equipment that allows recycled process water would be addressed to achieve the water use requirements.

GSA's facilities development goals are designed to promote energy efficiency and provide building/facilities design that are resilient, durable, maintainable, efficient, and flexible. Both action alternatives broadly support these and other operational excellence goals. While LEED Gold is the minimum standard, GSA would determine the specific sustainability goals for this project as the design process progresses and is committed to creating long-lasting, durable, sustainable, climate-resilient facilities. All new GSA construction projects utilize the 2019 version of ASHRAE Standard 90.1. As part of implementing the project, GSA would set an energy target reduction at least 30 percent below the energy model baseline. The proposed modernization effort would utilize the 2016 Guiding Principle #2 to set an energy target. GSA requires that all project types above prospectus use Architecture 2030's 2030 Challenge to set an energy target per specific fossil fuel reductions compared to the 2003 CBECS data. Along with GSA's sustainability goals, customer agencies' sustainability goals and targets would also be integrated into the project. There are several specific design features associated with this alternative that support GSA's sustainability, durability, and resilience goals including:

- The density of land use would reduce the need for significant land consumption and for large amounts of concrete paving.
- Use of low embodied carbon concrete, steel, asphalt, and glass as required by P100.
- Use of environmentally preferable asphalt.
- Photovoltaic panels on all building roofs and canopies would provide a great deal of on-site renewable energy.
- The sunken garden would provide landscaping and introduce natural daylight into the lower-level pedestrian/bus passenger processing hall.
- Additional opportunities to plant trees within the port would also be provided for a cooling effect.
- Use of native plants, shade trees and xeriscaping and P100-compliant irrigation systems.
- The flexibility for future use is operational adaptations; a central tenet of sustainable development is designing buildings that can adapt and endure, buildings that do not need to be demolished and oft rebuilt.

Additional strategies that could be easily incorporated as the building/facility design progresses includes high-performance building envelopes, natural ventilation, and bird-safe designs to name a few. As a result of these design, construction, and operational commitments inherent in the proposed improvements, energy efficiency is not considered to be an issue for this proposal and has therefore been eliminated from detailed study.

1.7 DOCUMENT ORGANIZATION

This document follows the format established in the CEQ regulations (40 CFR §1500-1508) and consists of the following sections:

Section 1.0 – Purpose and Need: presents a description of the purpose and need for the proposed action, CBP LPOE design standards, description of the BOTA LPOE, public involvement and agency coordination, scope of the EA, and the document organization.

Section 2.0 – Proposed Action and Alternatives: presents the description of the proposed action and the alternatives developed by the GSA to implement the proposed action. This section also describes the process used to objectively identify the reasonable alternatives carried forward for detailed analysis, as well as the reasoning for elimination of several alternatives. A comparative summary of the alternatives and how they do or do not meet the selection guidelines identified early in the process is also included as well as a summary of the expected environmental consequences associated with each alternative.

Section 3.0 – Existing Environment: presents the existing baseline environment or present condition of the area(s) potentially affected by the alternatives identified to implement the proposed action. Each environmental resource potentially impacted by the implementation of the proposed action is discussed.

Section 4.0 – Environmental Consequences: provides the scientific and/or analytical basis for comparing the alternatives and describes the probable consequences of each alternative on relevant environmental resources.

Section 5.0 – List of Preparers: provides a list of the document preparers and contributors.

Section 6.0 – References: provides a list of references used in the preparation of this EIS.

Section 7.0 – Acronyms and Abbreviations: provides a list of applicable acronyms and abbreviations used throughout the text.

SECTION 2.0
PROPOSED ACTION AND ALTERNATIVES

This section of the EIS describes the proposed action and the alternatives developed by GSA to satisfy the purpose and need for action described in Section 1.0. This section also describes the process GSA used to objectively identify the reasonable alternatives carried forward for detailed analysis, as well as the reasoning for elimination of any alternatives. A comparative summary of the alternatives and how they do or do not meet the selection guidelines identified early in the process (see Section 1.4) is also included.

2.1 PROPOSED ACTION

The GSA proposes to satisfy the purpose and need for action by renovating/updating the BOTA LPOE to bring infrastructure in line with current CBP land port design standards (i.e., CBP Land Port of Entry Design Standard [CBP 2023]) and operational requirements while addressing existing deficiencies identified with the ongoing port operations.

2.2 ALTERNATIVES EVALUATION PROCESS

The purpose and need for the proposed action has been examined and documented earlier in Section 1.4. The following analysis of alternatives was conducted as part of the planning process in an effort to determine which alternative(s) best satisfies the purpose and need statement. Alternatives that did not substantially satisfy the purpose and need were not carried forward for detailed analysis in this EIS.

The alternatives evaluation utilized a two-tiered evaluation formulated to concentrate on the purpose and need for the proposed action – renovating/updating the BOTA LPOE to bring infrastructure in line with current CBP land port design standards and operational requirements while addressing existing deficiencies identified with the ongoing port operations. As the alternative evaluation proceeded through each tier, the alternatives that did not satisfy all the criteria were eliminated from further consideration. Those alternatives that did fully satisfy the criteria continued to be subject to the next set of tier criteria. The following briefly describes the specific evaluation criteria used at each of the two tiers.

- Tier 1 evaluated whether or not the various alternatives would fully meet the purpose and need selection guidelines.
- Tier 2 evaluated whether or not the various alternatives would result in adverse environmental impacts.

2.3 POSSIBLE ACTION ALTERNATIVES DEVELOPED TO IMPLEMENT THE PROPOSED ACTION

As part of initial planning for the proposed modernization of the port, GSA and its stakeholder partners developed four (4) alternatives to satisfy the purpose and need. These alternatives were documented in the 2023 Enhanced Feasibility Study (GSA 2023):

- Possible Action Alternative 1 – Multi-Level Modernization Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition (12 acres – 8 TxDOT, 4 El Paso County) to the East

- Possible Action Alternative 2 – Multi-Level Modernization Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition (14 acres – 5 TxDOT, 9 El Paso County) to the East

- Possible Action Alternative 3 – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (8 acres TxDOT) and Elimination of Commercial Cargo Operations

- Possible Action Alternative 4 – Multi-Level Modernization with the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Significant Land Acquisition (36 acres – 12 TxDOT, 24 El Paso County) to the East for Commercial Cargo Operations

The Possible Action Alternatives initially developed are discussed briefly below.

2.3.1 Possible Action Alternative 1 – Multi-Level Modernization Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 12 acres – 8 TxDOT, 4 El Paso County)

This alternative was described in the 2023 Feasibility Study as a multi-level design, with the majority of port operations located on the existing site, with FMCSA inspections co-located with TxDOT to the east. This alternative would include acquisition of a small amount of land at the perimeter of the existing site, primarily within the TxDOT right-of-way (ROW) (Figure 2-1 and 2-2).

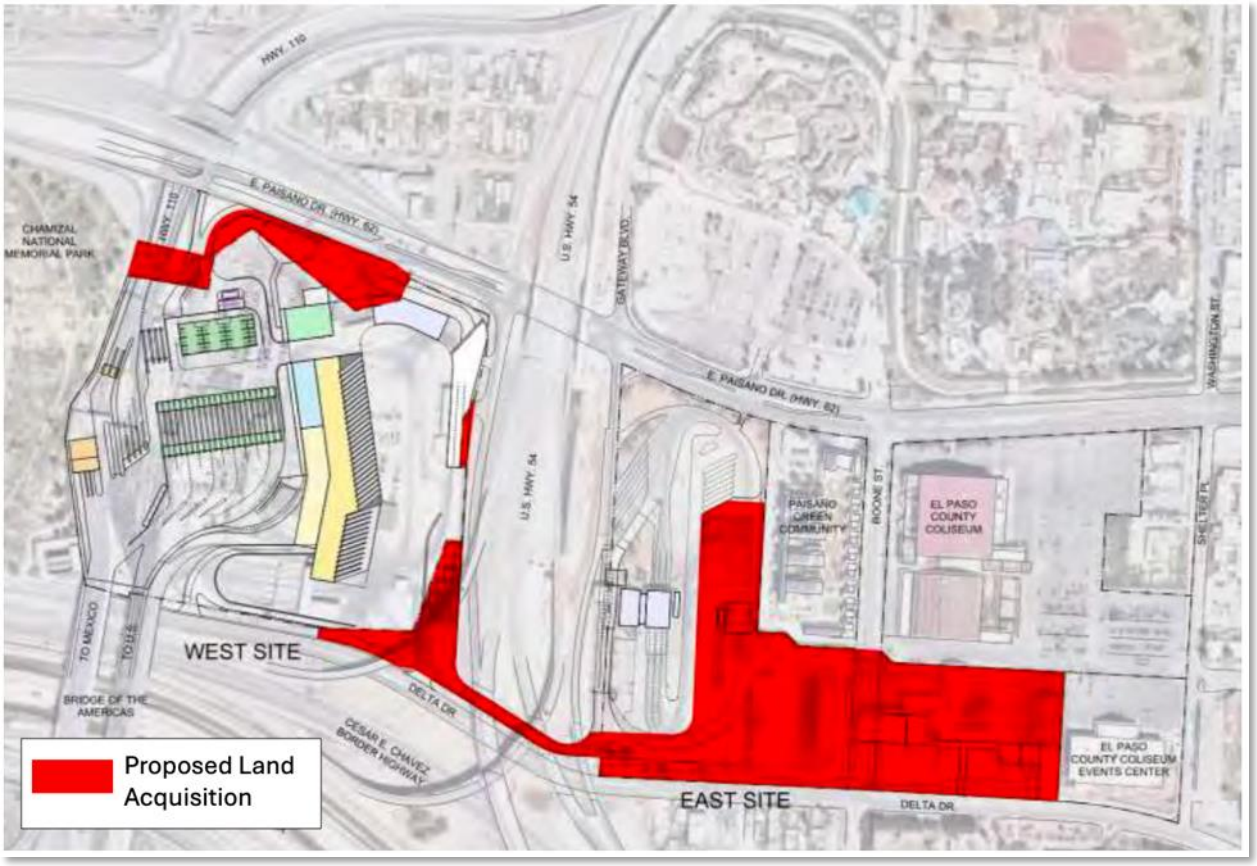


Figure 2-1. Possible Action Alternative 1 Site Design/Layout and Land Acquisition.

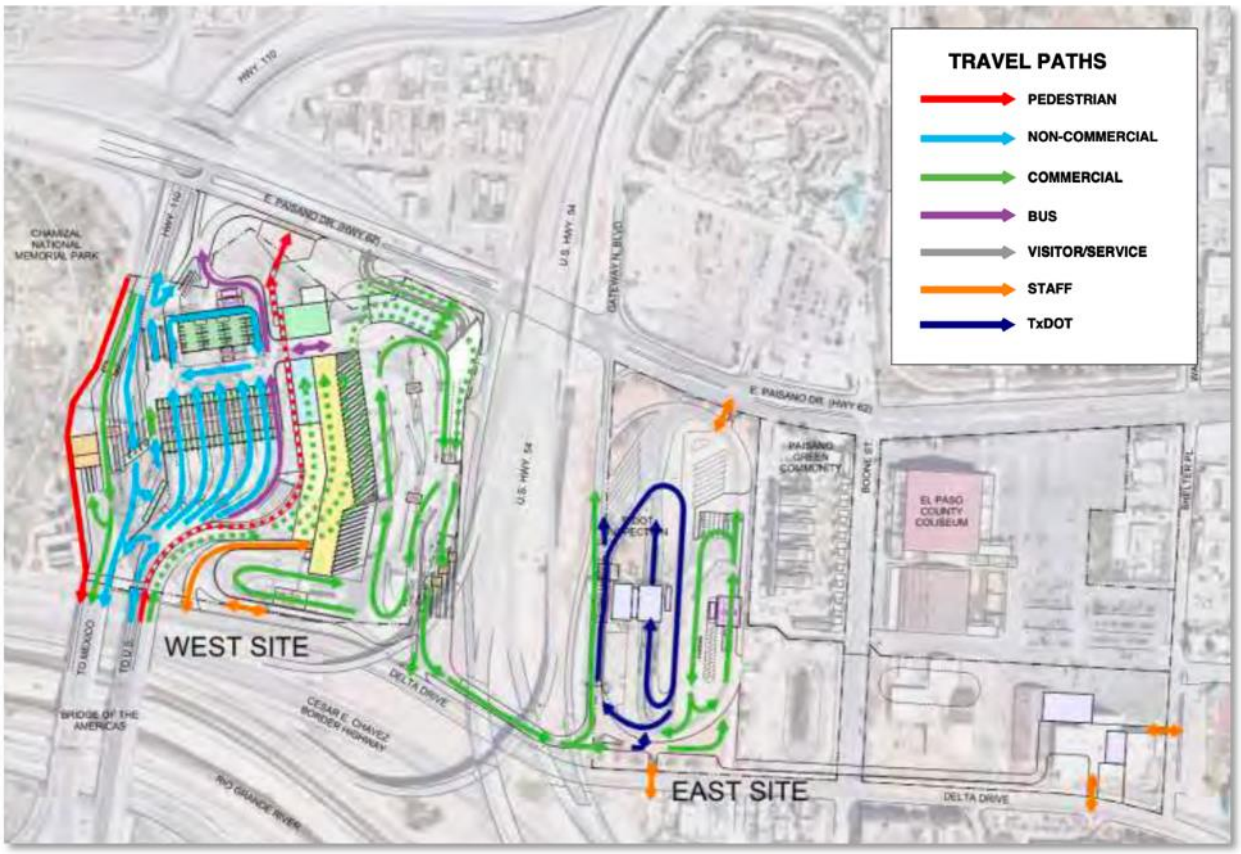


Figure 2-2. Possible Action Alternative 1 Traffic Flow.

2.3.2 Possible Action Alternative 2 – Multi-Level Modernization Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 14 acres – 5 TxDOT, 9 El Paso County)

This alternative is also considered a multi-level design with POV, pedestrian, bus and commercial traffic primarily located at the existing site. However, commercial secondary inspections and FMCSA truck inspections would be located at a new site to the east. This alternative would also include land acquisition at the perimeter of the existing site (primarily within the TxDOT ROW), but also land to the east owned by the County for commercial secondary and FMCSA truck inspections (Figure 2-3 and 2-4).

2.3.3 Possible Action Alternative 3 – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (Approximately 4 acres – TxDOT) and Elimination of Commercial Cargo Operations

This alternative is also considered a multi-level design with the existing site utilized for POV, bus, and pedestrian traffic. As part of this alternative, there would no longer be commercial cargo operations at the port, instead, the number of POV lances would substantially increase. Similar to Possible Action Alternative 1, this alternative would include acquisition of a small amount of land at the perimeter of the existing site, primarily within the TxDOT ROW (Figure 2-5 and 2-6).

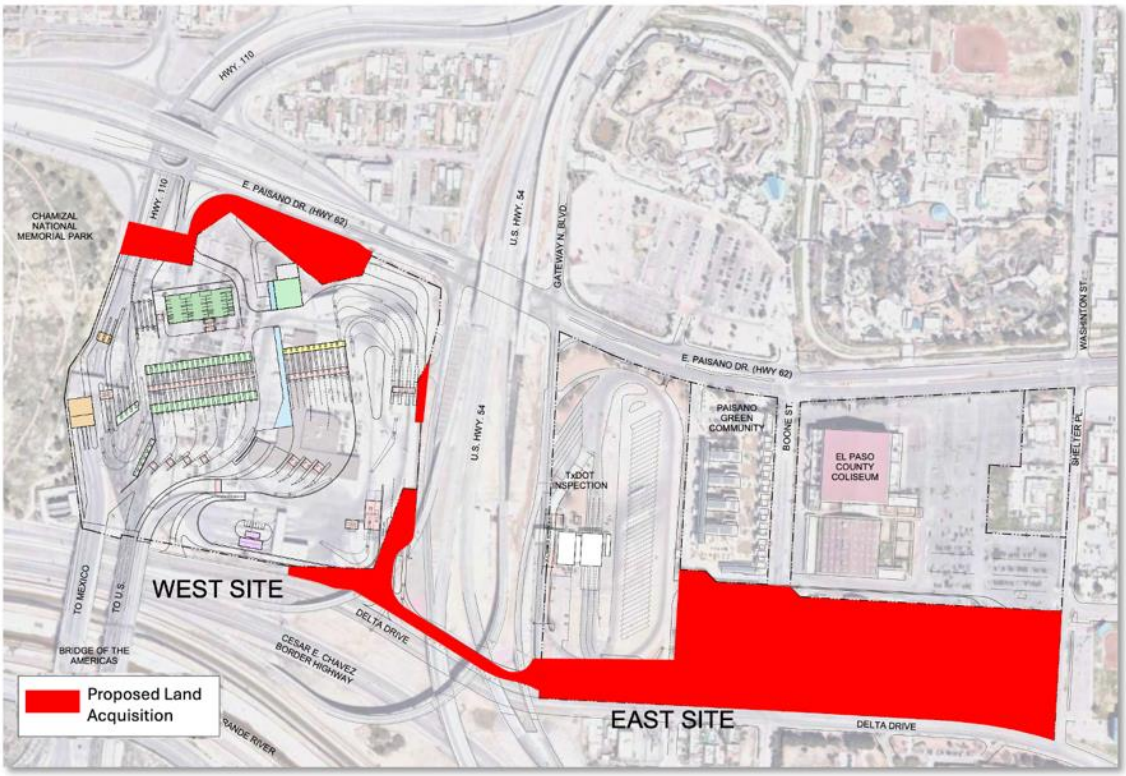


Figure 2-3. Possible Action Alternative 2 Site Design/Layout and Land Acquisition.

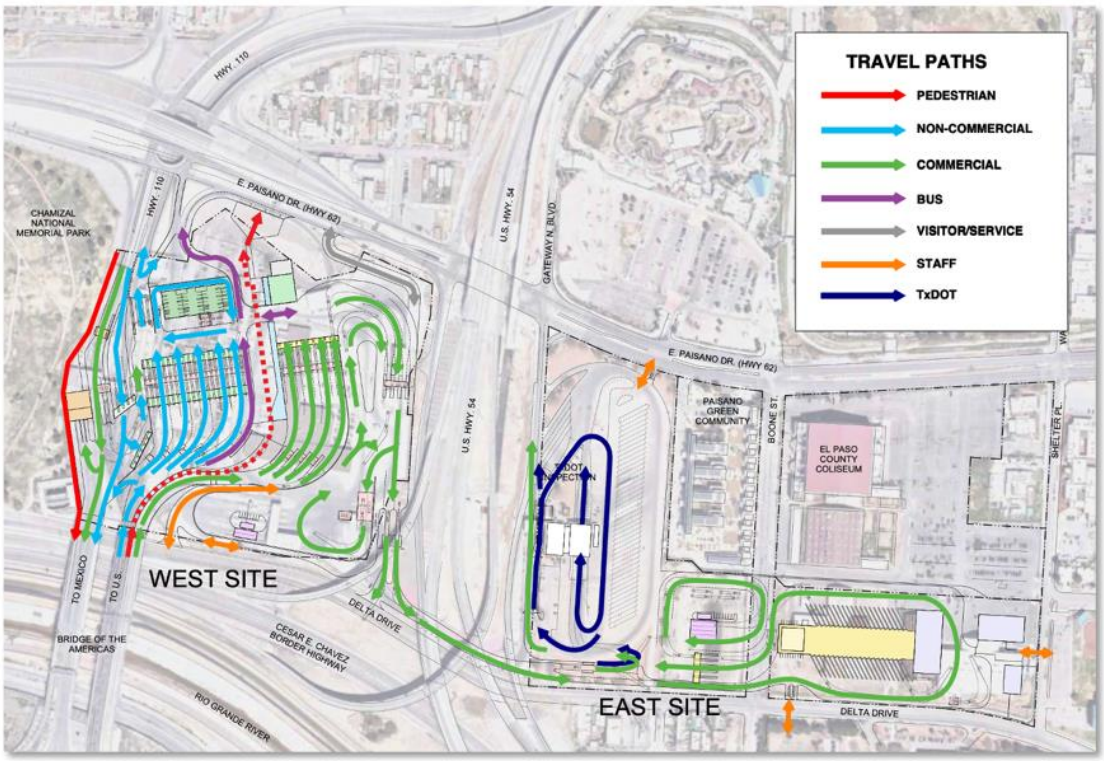


Figure 2-4. Possible Action Alternative 2 Traffic Flow.

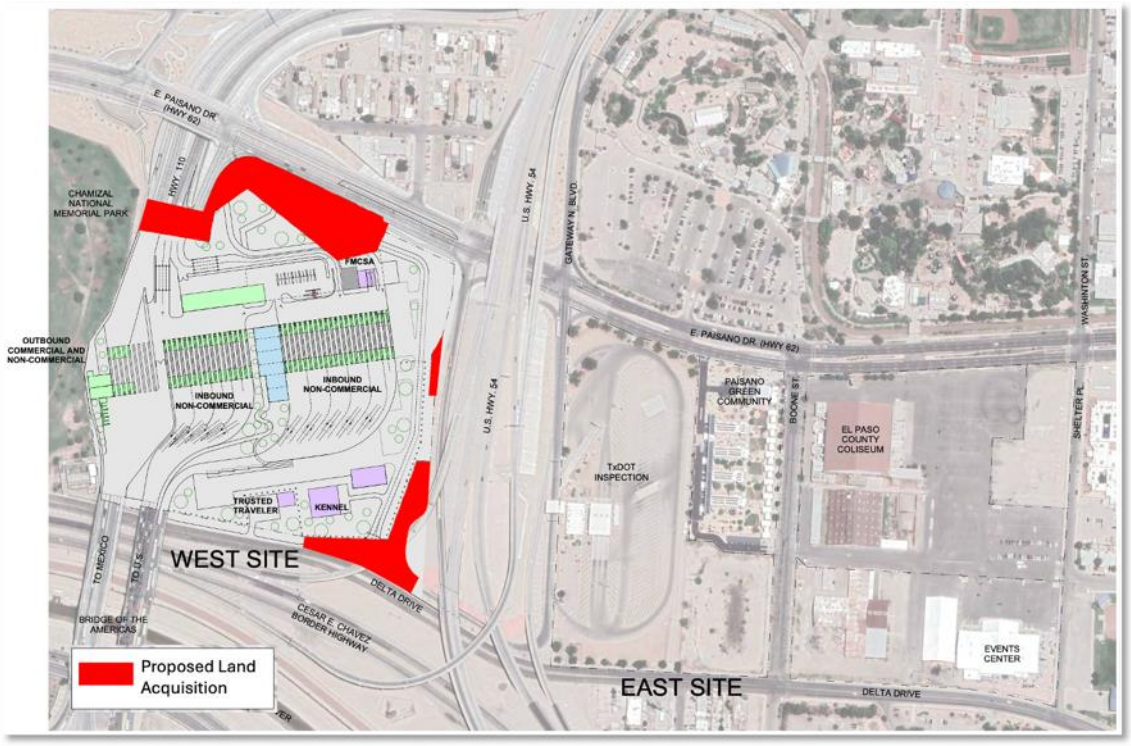


Figure 2-5. Possible Action Alternative 3 Site Design/Layout and Land Acquisition.

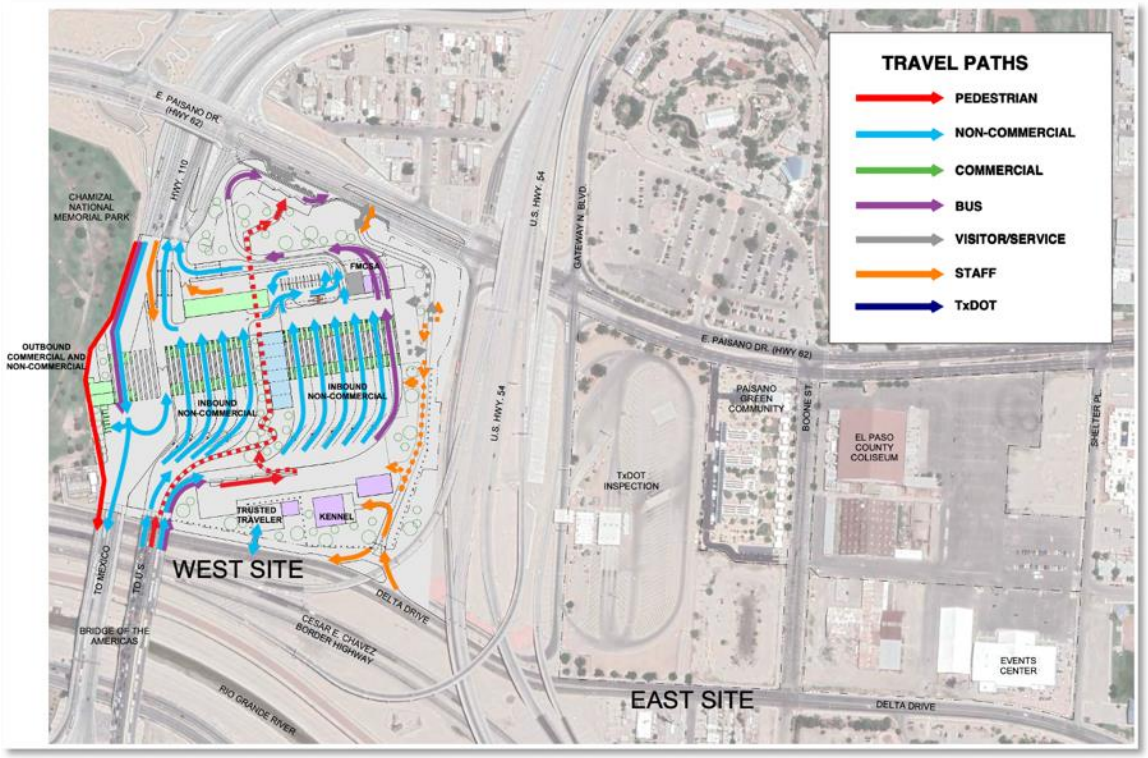


Figure 2-6. Possible Action Alternative 3 Traffic Flow.

2.3.4 Possible Action Alternative 4 – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Significant Land Acquisition to the East for Commercial Cargo Operations (Approximately 36 acres – 12 TxDOT, 24 El Paso County)

This alternative is also considered a multi-level design with POV, bus, and pedestrian inspections occurring at the existing site. All commercial cargo operations would be moved to a new site to the east. This alternative is similar to all the others in that it would include acquisition of a small amount of TxDOT land primarily at the perimeter of the existing site. This alternative would also be similar to Possible Action Alternatives 1 and 2 in that it would include acquisition of County land to the east, however, the amount of land would be substantially larger (approximately 24 acres). All commercial cargo operations would relocate to a new site further to the east., bus and commercial traffic primarily located at the existing site. However, commercial secondary inspections and FMCSA truck inspections would be located at a new site to the east. This alternative would also include land acquisition at the perimeter of the existing site (primarily within the TxDOT ROW), but also land to the east owned by the County for commercial secondary and FMCSA truck inspections (Figure 2-7 and 2-8).

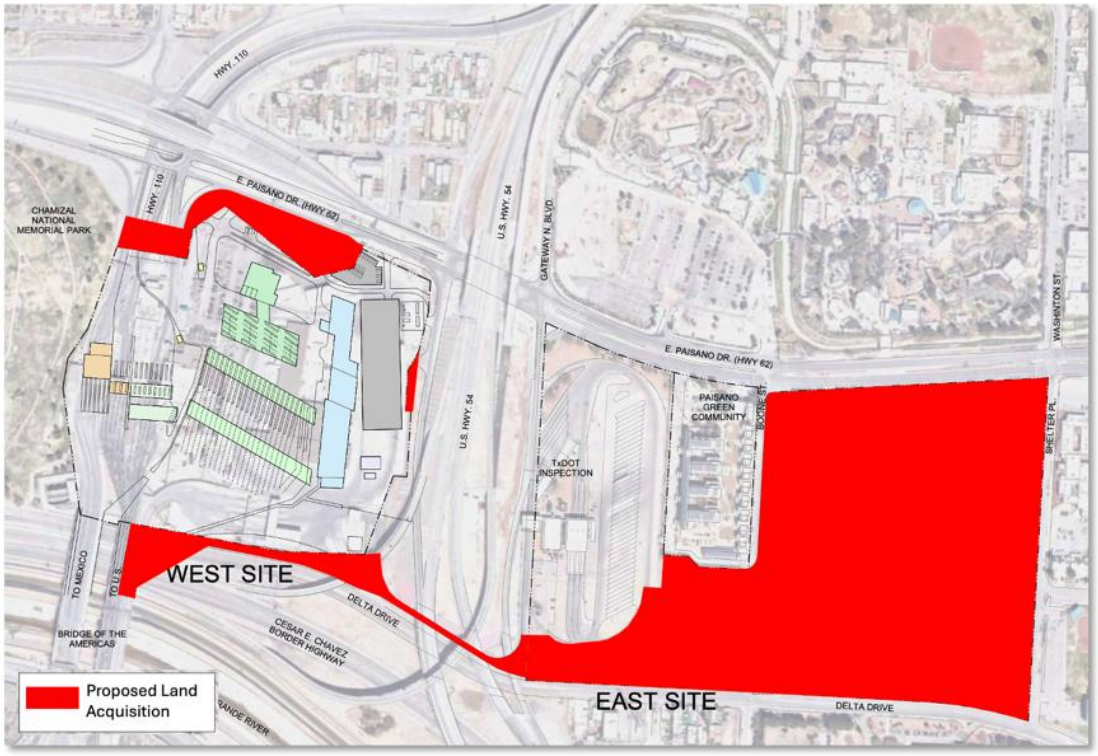


Figure 2-7. Possible Action Alternative 4 Site Design/Layout and Land Acquisition.

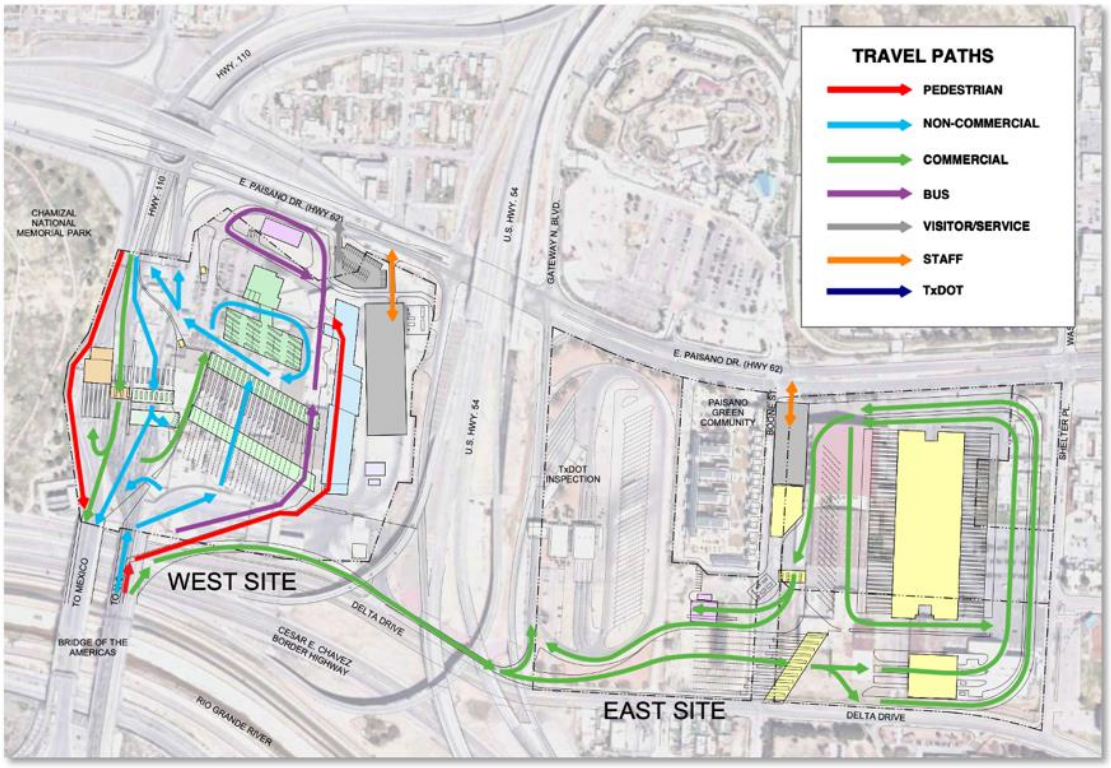


Figure 2-8. Possible Action Alternative 4 Traffic Flow.

2.4 VIABLE ACTION ALTERNATIVES DEVELOPED TO IMPLEMENT THE PROPOSED ACTION

The four (4) Possible Action Alternatives listed above were further evaluated by internal agency stakeholders. The evaluation included open discussion and comment on the advantages, disadvantages, and practicality of the various Possible Action Alternatives. A structured decision-making process was then employed using an evaluation matrix where certain project-specific evaluation criteria were developed and weighted by importance where each alternative was scored with a value from 1 to 5. Sums were then adjusted by an established criteria weight and totaled. The evaluation matrix with results is shown below in Table 2-1. The top three alternatives (Possible Action Alternative 1, 2, and 4) were then selected to be identified as Viable Alternatives for further development. Possible Action Alternative 3 (the lowest scoring alternative) was initially eliminated by the agency stakeholders because the removal of all commercial cargo operations was deemed not viable at the time. As such, Possible Action Alternative 4 was renamed Viable Action Alternative 3. Possible Action Alternative 3 that was initially deemed not viable, was later deemed viable and was renamed Viable Action Alternative 4. A derivative of Possible Action Alternative 1 was also developed that includes high/low booths and it was named Viable Action Alternative 1a. The Viable Action Alternatives further developed are presented below.

Table 2-1. Evaluation Matrix Resulting from Further Possible Action Alternative Development.

Factor	Importance Factor	Alt. 1 Raw	Alt 1 Weighted	Alt. 2 Raw	Alt. 2 Weighted	Alt. 3 Raw	Alt. 3 Weighted	Alt 4 Raw	Alt. 4 Weighted
Supportive of CBP Mission	5	5	25	5	25	3	15	5	25
Throughput Volume	3	4	12	4	12	5	15	4	12
Wait Time	4	4	16	4	16	5	20	4	16
Staffing Efficiency	5	4	20	4	20	3	15	3	15
Circulation/Traffic Flow/Safety	5	4	20	4	20	3	15	3	15
Flexibility/Adaptability/Change Potential	4	5	20	5	20	2	8	3	12
Expansion/Growth Potential	3	0	0	0	0	0	0	0	0
Security/Threat Management	5	5	25	4	20	2	10	2	10
Drainage/Retention	3	0	0	0	0	0	0	0	0
Minimize Land Acquisition	3	4	12	3	9	5	15	1	3
Minimize Neighborhood Impacts	3	4	12	4	12	5	15	1	3
Minimize Environmental Impacts	4	4	16	4	16	4	16	4	16
Traveler Experience	3	5	15	5	15	4	12	4	12
Existing Agencies Accommodations	4	5	20	5	20	3	12	4	16
Accommodates Operational Phasing	4	4	16	4	16	4	16	3	12
Minimize Bi-National/Trade Impacts	4	5	20	5	20	1	4	5	20
Staff/Officer Experience	45	4	16	5	20	4	16	4	16
TOTAL	4	66	265	65	261	53	204	50	203

2.4.1 Viable Action Alternative 1 (originally Possible Action Alternative 1) – Multi-Level Modernization Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 12 acres – 8 TxDOT, 4 El Paso County)

This alternative was described in the 2023 Feasibility Study as a multi-level design, with the majority of port operations located on the existing site, with FMCSA inspections co-located with TxDOT to the east. This alternative would include acquisition of a small amount of land at the perimeter of the existing site, primarily within the TxDOT ROW (see Figure 2-1 and 2-2). Viable Action Alternative 1 is a compact and land-efficient design/site layout. All core port processing activities would be located on the existing (west) site. Only ancillary/support facilities (FMCSA, kennel, Trusted Traveler administration, other) would be located at the new (east) site. The design/layout offers staffing and operations efficiencies, safety and response time, and other benefits associated with reducing separations and distances within the port. Viable Action Alternative 1 additionally offers future growth potential associated with a lower density initial development of the new (east) site. As part of the design/layout, FMCSA commercial truck inspections would be co-located with TxDOT on property currently owned by the state agency. Viable Action Alternative 1 includes the following characteristics:

- Highly compact plan
- Minimal land acquisition (Land acquisition from TxDOT and County of El Paso, including removal of Event Center and Agricultural Barns)
- POV and commercial primary and secondary on existing (west) site
- Ancillary facilities only on new (east) site
- Efficient operations and circulation
- Interconnected CBP operations buildings
- Lower-level staff and visitor parking

- Lower-level pedestrian processing
- Ground level POV primary and secondary
- Ground level commercial secondary, non-intrusive inspections (NII)
- Upper-level commercial primary and administration
- Below-grade stormwater detention/retention vaults

2.4.2 Viable Action Alternative 1a – Multi-Level Modernization (High/Low Booths) Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 12 acres – TxDOT) with Potential to Eliminate all Commercial Cargo Operations in the Future

This alternative is similar to Viable Action Alternative 1 in terms of site design/layout and functionality. The largest difference between this alternative and Viable Action Alternative 1 is that it does not call for acquisition of any County land, which would result in no future growth potential to the east (Figure 2-9 and 2-10). This alternative also has a multi-level design, with the majority of port operations located on the existing site, with FMCSA inspections co-located with TxDOT to the east and the kennel and auxiliary training facility located on the east site as well. This alternative would also include acquisition of a small amount of land at the perimeter of the existing site, primarily within the TxDOT ROW as well as additional TxDOT land to the east for the kennel and auxiliary training facility. Viable Action Alternative 1a includes the following characteristics:

- Highly compact plan
- Minimal land acquisition (Land acquisition from TxDOT)
- POV and commercial primary and secondary on existing (west) site
- Ancillary facilities only on new (east) site
- Efficient operations and circulation
- Interconnected CBP operations buildings
- Lower-level staff and visitor parking
- Lower-level pedestrian processing
- Ground level POV primary and secondary
- Ground level commercial secondary and NII
- Upper-level commercial primary and administration
- High-low inspection booths incorporated at commercial primary for operational flexibility
- Below-grade stormwater detention/retention vaults
- Option for future elimination of commercial cargo operations

2.4.3 Viable Action Alternative 2 (originally Possible Action Alternative 2) – Multi-Level Modernization Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 14 acres – 5 TxDOT, 9 El Paso County)

This alternative is also considered a multi-level design with POV, pedestrian, bus and commercial traffic primarily located at the existing site. However, commercial secondary inspections and FMCSA truck inspections would be located at a new site to the east. This alternative would also include land acquisition at the perimeter of the existing site (primarily within the TxDOT ROW), but also land to the east owned by the County for commercial secondary and FMCSA truck inspections (see Figure 2-3 and 2-4). Viable Action Alternative 2 is a compact and efficient design/layout where only commercial secondary and ancillary facilities would be located at the new east site. The layout would offer many of the efficiency and operational advantages outlined in Viable Action Alternative 1 above, minus those associated with a proximate

commercial secondary. Because the new (east) site would be substantially developed in initial phases with commercial secondary and ancillary facilities, the new land would offer less future development potential.

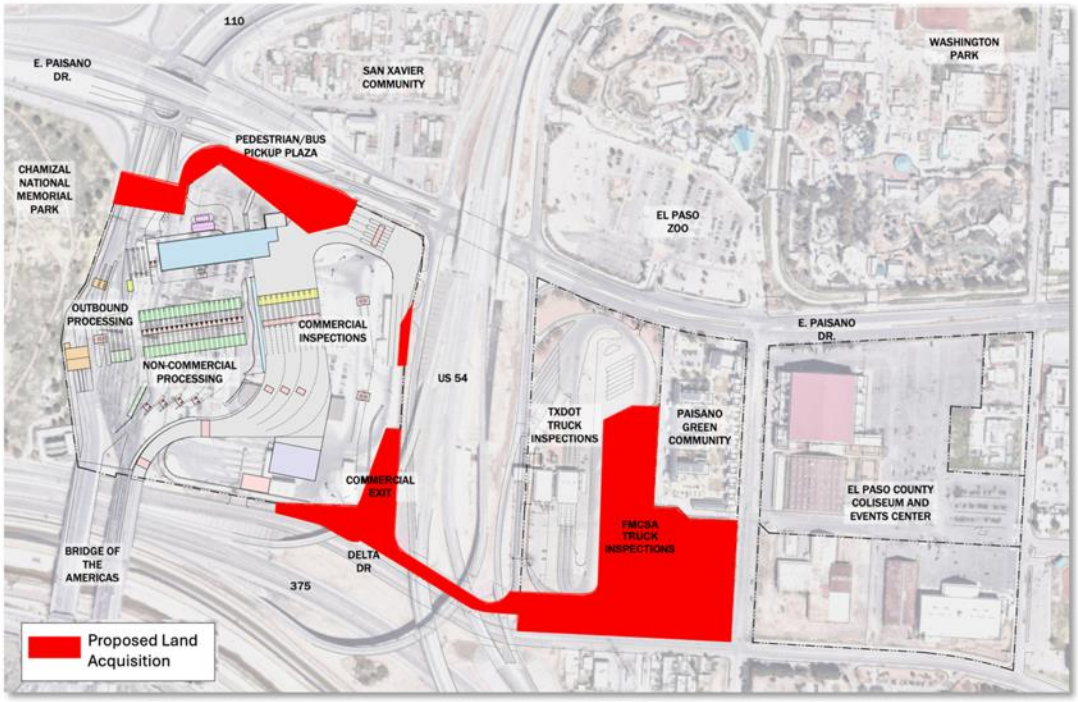


Figure 2-9. Viable Action Alternative 1a Site Design/Layout and Land Acquisition.

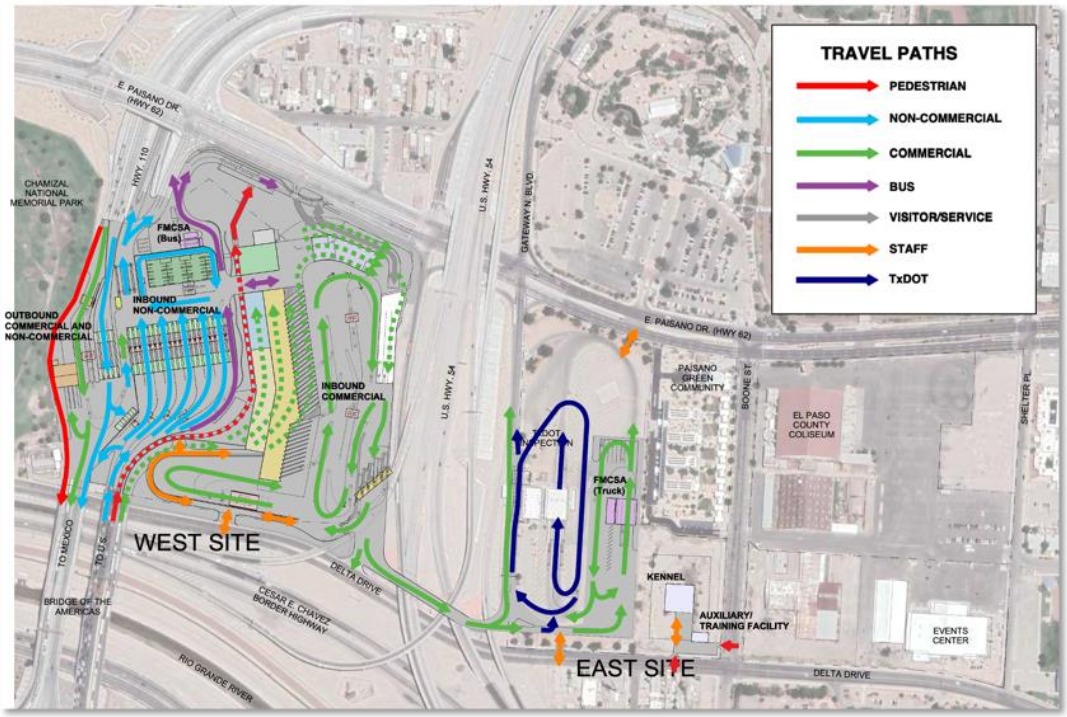


Figure 2-10. Viable Action Alternative 1a Traffic Flow.

Viable Alternative 2 includes the following distinguishing characteristics:

- Compact plan
- Moderate land acquisition required
- POV and commercial primary on existing (west) site
- Commercial secondary and ancillary facilities on new (east) site
- Efficient operations and circulation
- Interconnected CBP operations buildings (except for commercial secondary)
- Lower-level staff and visitor parking
- Lower-level pedestrian processing
- Ground level POV primary and secondary, ground level commercial primary and NII
- Upper-level administration
- Below-grade stormwater detention/retention vaults

2.4.4 Viable Action Alternative 3 (originally Possible Action Alternative 4) – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Significant Land Acquisition to the East for Commercial Cargo Operations (Approximately 36 acres – 12 TxDOT, 24 El Paso County)

This alternative is also considered a multi-level design with POV, bus, and pedestrian inspections occurring at the existing site. All commercial cargo operations would be moved to a new site to the east. This alternative is similar to all the others in that it would include acquisition of a small amount of TxDOT land primarily at the perimeter of the existing site. This alternative would also be similar to Possible Action Alternatives 1 and 2 in that it would include acquisition of County land to the east, however, the amount of land would be substantially larger (approximately 24 acres). All commercial cargo operations would relocate to a new site further to the east., bus and commercial traffic primarily located at the existing site. However, commercial secondary inspections and FMCSA truck inspections would be located at a new site to the east. This alternative would also include land acquisition at the perimeter of the existing site (primarily within the TxDOT ROW), but also land to the east owned by the County for commercial secondary and FMCSA truck inspections (see Figure 2-7 and 2-8). Viable Action Alternative 3 was initially developed and eventually carried forward as a viable action alternative as an alternative way to avoid acquisition of a particular tract of County property that has substantial cultural and community value. Nevertheless, the cost and community impacts of new land acquisition required for this alternative would remain considerable, as well as the potential impact on project scheduling as a result of the time required to acquire the land. Potential benefits associated with a larger footprint for the port are an advantage of this alternative that must be weighed against the challenges associated with the many factors and impacts of land acquisition. Alternative 3 includes the following distinguishing characteristics:

- Distributed, primarily single level plan
- Substantial land acquisition required
- Potential future flexibility associated with less density

2.4.5 Viable Action Alternative 4 (originally Possible Action Alternative 3) – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (Approximately 4 acres – TxDOT) and Immediate Elimination of All Commercial Cargo Operations

This alternative is also considered a multi-level design with the existing site utilized for POV, bus, and pedestrian traffic. As part of this alternative, there would no longer be commercial cargo operations at the port, instead, the number of POV lances would substantially increase. Similar to Possible Action Alternative

1, this alternative would include acquisition of a small amount of land at the perimeter of the existing site, primarily within the TxDOT ROW (see Figure 2-5 and 2-6). Alternative 4 includes the following distinguishing characteristics:

- With all lanes in alignment along a transverse axis, this alternative would offer operational adaptability to reassign inbound lanes to outbound inspections as required.
- The central location of the main building supports resource efficiency and improves operations and officer response time. The location and density afford opportunities for clear vistas, increased potential for supervision and oversight across port environments.
- No land acquisition east of US-54 is required or proposed. Land acquisition needs are minimal and limited to those areas at the existing site perimeter in TxDOT right-of-way.
- Provides expansion capacity below grade for parking, support space, and pedestrian processing. Provides expansion potential vertically at second level or higher for administration or support agency office space.

2.5 ALTERNATIVES ELIMINATED FROM DETAILED STUDY

The following three viable action alternatives did not fully satisfy the Tier 1 alternatives selection criteria developed by the stakeholders (see Section 1.4) and have therefore been eliminated from detailed study. The three alternatives are listed below in Table 2-2 as their elimination relates to the Tier 1 alternatives selection criteria.

Table 2-2. Viable Action Alternatives Eliminated from Detailed Study.

Purpose and Need Criteria	Viable Action Alternative 1 Fully Satisfies the Purpose and Need Criteria (Yes/No)?	Viable Action Alternative 2 Fully Satisfies the Purpose and Need Criteria (Yes/No)?	Viable Action Alternative 3 Fully Satisfies the Purpose and Need Criteria (Yes/No)?
Comply with the CBP Land Port of Entry Design Standard (CBP 2023) and associated new/updated POR requirements.	Yes	Yes	Yes
Comply with GSA's Facilities Standards for the Public Buildings Service (P100) (GSA 2018).	Yes	Yes	Yes
Support the growth needs of the CBP, other tenant agencies, and the needs of the local community.	Yes	Yes	Yes
Provide for increased CBP and tenant efficiencies.	Yes	Yes	Yes
Improve vehicular and pedestrian traffic flow and processing times.	Yes	Yes	Yes
Improve the safety of workers and the traveling public.	Yes	Yes	Yes
Provide any improvements consistent with the goals of stakeholders and the community (when possible).[1]	Stakeholders - Yes Community - No	Stakeholders - Yes Community - No	Stakeholders - Yes Community - No
Minimize disruption to CBP and other tenant agencies' operations and activities throughout any improvements.	Yes	Yes	Yes
Minimize the impact to the environment and the local community.			
Provide any improvements in a cost-effective manner.[2]	No	No	No

1 – The proposed acquisition of County land was considered to not be consistent with local community goals and/or needs
2 – In addition to 1 above, the amount of land proposed for acquisition proved to be too costly.

2.6 ALTERNATIVES CARRIED FORWARD FOR DETAILED STUDY

As mentioned earlier in Section 2.2 (Alternatives Evaluation Process), the alternatives evaluation utilized a two-tiered evaluation formulated to concentrate on the purpose and need for the proposed action – renovating/updating the BOTA LPOE to bring infrastructure in line with current CBP land port design standards and operational requirements while addressing existing deficiencies identified with the ongoing port operations:

- Tier 1 evaluated whether or not the various alternatives would fully meet the purpose and need selection guidelines.
- Tier 2 evaluated whether or not the various alternatives would result in adverse environmental impacts.

Sections 2.3 (Possible Action Alternatives Developed to Implement the Proposed Action), 2.4 (Viable Action Alternatives Developed to Implement the Proposed Action), and 2.5 (Alternatives Eliminated from Detailed Study) complete Tier 1 of the alternatives evaluation process. Tier 2 took into consideration two action alternatives, as they fully satisfied all the Tier 1 criteria (i.e., the purpose and need for action). The no action alternative does not satisfy the Tier 1 criteria; however, pursuant to NEPA, the no action alternative has been carried forward as the baseline to which potential impacts of the action alternatives can be measured. The following alternatives have been carried forward:

- No Action
- Viable Action Alternative 1a – Multi-Level Modernization (High/Low Booths) Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (8 acres TxDOT) and Additional Land Acquisition to the East (13 acres – TxDOT) with Potential to Eliminate All Commercial Cargo Operations in the Future.
- Viable Action Alternative 4 – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (8 acres - TxDOT) and Elimination of All Commercial Cargo Operations

2.6.1 No Action

As mentioned above, the no action alternative does not satisfy the Tier 1 criteria; however, pursuant to NEPA, the no action alternative has been carried forward as the baseline to which potential impacts of the action alternatives can be measured.

Under the no action alternative, the GSA would not satisfy the purpose and need for action by renovating/updating the BOTA LPOE to bring infrastructure in line with current CBP land port design standards (i.e., CBP Land Port of Entry Design Standard [CBP 2023]) and operational requirements while addressing existing deficiencies identified with the ongoing port operations. More specifically, this alternative:

(1) Would not allow for compliance with the CBP Land Port of Entry Design Standard (CBP 2023) and associated new/updated POR requirements.
(2) Would not allow for compliance with GSA's Facilities Standards for the Public Buildings Service (P100) (GSA 2024).
(3) Would not support the growth needs of the CBP, other tenant agencies, and the needs of the local community.
(4) Would not provide for increased CBP and tenant efficiencies.
(5) Would not improve vehicular and pedestrian traffic flow and processing times.
(6) Would not improve the safety of workers and the traveling public.
(7) Would not allow for improvements consistent with the goals of stakeholders and the community (when possible).

As mentioned earlier in Section 1.3, the port was constructed in 1967 and much of the facility has reached the end of its life cycle. Most of the buildings and infrastructure are operating beyond capacity. Building fire and life safety codes have changed so much that the facility is generally non-compliant with the most current codes and standards including CBP design standards (CBP 20223). Since this facility operates as a toll-free port of entry, an increase in truck and vehicular traffic over the years has created significant congestion so that the site is currently unable to support this increased volume of traffic in an effective and efficient manner.

Under the no action alternative, none of these issues would be rectified. There would be no demolition or construction in an effort to modernize the port. The only future modifications would relate to minor facility repairs, space alterations/reconfigurations, and general facility maintenance on an on-going basis. Operations at the port would generally remain consistent with existing operations (including current traffic volumes moving both north into the US and south into Mexico) however capacity and efficiencies would likely degrade over time due to projected increases in traffic volumes (see Section 1.3) and continued operational inefficiencies. Community concerns that pertain mainly to pedestrian safety and potentially degraded local air quality would also remain.

2.6.2 Viable Action Alternative 1a – Multi-Level Modernization (High/Low Booths) Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 13 acres – TxDOT) with Potential to Eliminate All Commercial Cargo Operations in the Future

2.6.2.1 Overview

As mentioned earlier, this alternative is considered to be a compact and land-efficient design/site layout. This alternative has a multi-level design, with the majority of port operations located on the existing site, with FMCSA inspections co-located with TxDOT to the east and the kennel and auxiliary training facility located on the east site as well. This alternative would also include acquisition of a small amount of land at the perimeter of the existing site, primarily within the TxDOT ROW as well as additional TxDOT land to the east for the kennel and auxiliary training facility. There would be a total of 12.4 acres acquired from TxDOT. Viable Action Alternative 1a includes the following characteristics:

- Highly compact plan
- Minimal land acquisition (12.4-acre acquisition from TxDOT)
- POV and commercial primary and secondary on existing (west) site
- Ancillary facilities only on new (east) site
- Efficient operations and circulation
- Interconnected CBP operations buildings
- Lower-level staff and visitor parking
- Lower-level pedestrian processing
- Ground level POV primary and secondary
- Ground level commercial secondary and NII
- Upper-level commercial primary and administration
- High-low inspection booths incorporated at commercial primary for operational flexibility
- Below-grade stormwater detention/retention vaults
- Option for future elimination of commercial cargo operations moving north and south

2.6.2.2 Land Acquisition

As part of this alternative, 12.4 acres of land would be acquired from TxDOT. The land would be around the perimeter of the existing site, primarily within the TxDOT ROW and land further to the east to Boone Street. Figure 2-11 shows the land that would be acquired as part of implementing this alternative.

2.6.2.3 Space/Programming Requirements

As mentioned earlier in Section 1.2, the CBP Land Port of Entry Design Standard (CBP 2023) applies to all LPOEs in the U.S. The Standard provides its users with the following:

- Standardized procedures for the planning, programming, budget formulation, design, and construction of new LPOEs or renovations, additions, or alterations to an existing LPOE.
- Technical requirements and criteria for the construction of CBP spaces at the LPOEs.
- Parameters and adjacency guidelines for proper programming and layouts of the LPOEs.
- Applicable authorities that govern the planning and execution of LPOE construction and alterations projects.

The Standard applies to the planning, programming, and construction projects for a LPOE and serves as the primary reference for architect/engineering (A/E) consultants, government agencies, facility operators, transportation lines, and all CBP personnel involved with an LPOE. The use of this Standard, as well as early involvement of stakeholders in the facility development process, ensures a LPOE design that most appropriately reflects the scope of the anticipated operations.

The Standard further identifies the LPOE project stakeholders and applicable codes and regulations, defines operations, describes design concepts, categorizes spaces, and provides specific technical criteria on building materials and systems. The Standard is used to develop planning and programming criteria for inclusion in PORs, direct execution of design and engineering documentation, inform construction and construction administration stages, and establish project close-out and post-occupancy roles and responsibilities. The space requirements associated with this alternative are provided below in Table 2-3.

2.6.2.4 Design/Site Layout

As mentioned earlier, this alternative is considered to be a compact and land-efficient design/site layout. It is a multi-level design, with the majority of port operations located on the existing site, with FMCSA inspections co-located with TxDOT to the east and the kennel and auxiliary training facility located on the east site as well. The overall multi-level design and site layout are shown below in Figures 2-12 through 2-15.

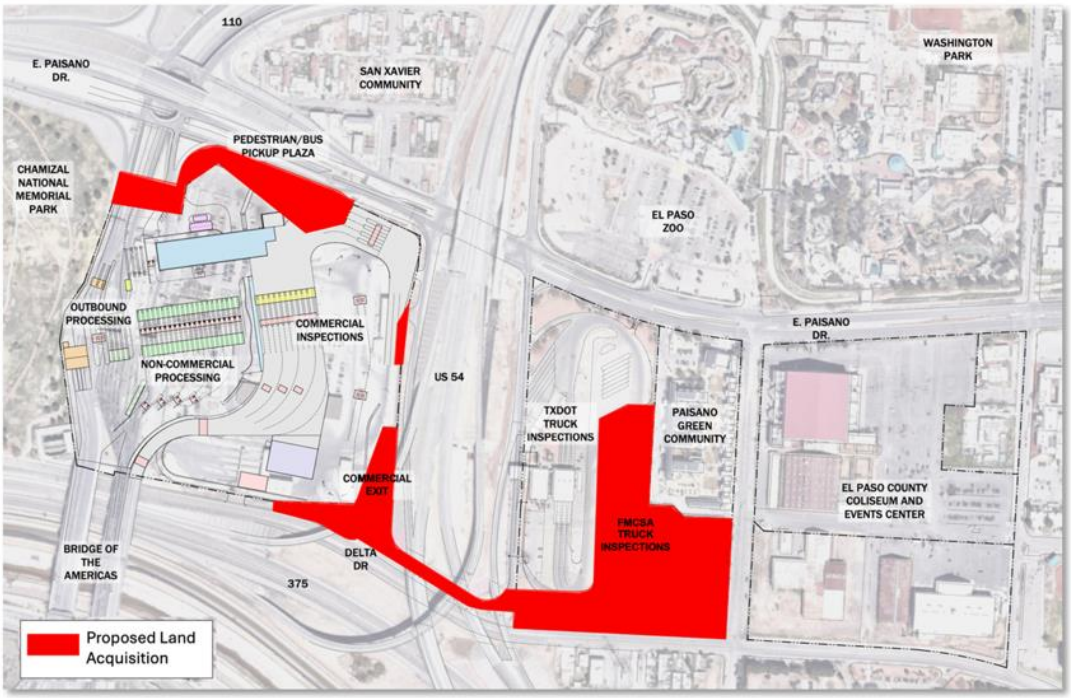


Figure 2-11. Viable Action Alternative 1a Site Design/Layout and Land Acquisition.

Table 2-3. POR Space Requirements Associated with Viable Action Alternative 1a.

Calculated Space Summary	2023	Viable Action Alternative 1a	Delta (%)
Number of Non-Commercial Primary Lanes *(Standard and Hi-Low)*	20	20	0%
Number of Non-Commercial Secondary Lanes	17	42	60%
Number of Non-Commercial Screened/Enclosed Secondary Bays	3	3	0%
Number of Commercial Primary Lanes: *(Hi-Low Booths)*	10	10	0%
Number of Commercial Docks/Bays	40	40	0%
Description			
Main Building			
Administration, Canine Support & Training	11,306	12,284	9%
Pedestrian/Bus Passenger Processing Space	16,738	17,810	6%
Violator Enforcement Processing Spaces	8,169	8,985	10%
Fines, Penalties & Forfeitures; CBP Agriculture Inspection Spaces & AntiTerrorism Contraband Enf.Team	2,063	2,250	9%
CBP Agriculture Inspection Spaces	2,056	2,056	0%
CBP - Staff Support and Service Spaces	9,325	10,031	8%
Anti-Terrorism Contraband Enforcement Team	2,575	2,575	0%
Trusted Traveler (NEXUS/SENTRI/FAST) Enrollment co-located	0	0	
Building Support Space	4,918	4,918	
Total Main Building	**57,149**	**60,909**	7%
Non-Commercial Vehicular Inspection			
Primary Inspection	31,320	30,784	-2%
Secondary Inspection	20,336	22,096	9%
Hard Secondary Inspection	2,769	3,018	9%
Enclosed Parking	0	0	
Administration	6,544	7,068	8%
Violator Enforcement Areas	2,481	2,596	5%
Building Support Space	1,365	1,372	1%
Total Non-Com Inspection & Headhouse	**64,815**	**66,934**	3%
Commercial Vehicular Inspection			
Primary Commercial Inspection	9,500	12,190	28%
Secondary Commercial Inspection	133,104	138,425	4%
Commercial Inspection Lot	36,481	23,387	-36%
Staging Area	3,000	3,007	0%
Commercial Inspection Commercial Building (Warehouse, Trade, Entry, Cargo, Admin)	14,453	14,658	1%
Anti-Terrorism Contraband Enforcement Team	2,475	2,485	0%
Violator Processing Area	919	919	0%
CBP Agricultural Inspection Space	950	1,040	9%
Staff Support	4,143	4,174	1%
Building Support Space	2,426	2,448	1%
Total Commercial Vehicular Processing	**207,450**	**202,733**	-2%
Outbound Inspection			
Primary & Secondary Outbound Inspections	12,980	18,520	43%
Outbound Inspection Administration Space	575	575	0%
Total Canine	0	0	
Total Pedestrian/Bus Passenger Processing	600	600	0%
Total Violator Processing & Enforcement Spaces	1,094	1,090	0%
Total Staff Support	80	80	0%
Total Staff Services	675	675	0%
Building Support Space	303	303	0%
Total Outbound Inspection	**16,306**	**21,843**	34%
Canine Enforcement Spaces & Kennels			
Canine Enforcement & Kennel Spaces	8,191	9,191	12%
Building Support Space	1,063	1,063	0%
Total Kennel Facilities	**9,254**	**10,254**	11%
Trusted Traveler			
Trusted Traveler Enrollment Center	2,188	2,269	4%
Building Support Space	705	731	4%
Total Trusted Traveler Space	**2,893**	**3,000**	4%

Table 2-3 (cont'd). POR Space Requirements Associated with Viable Action Alternative 1a.

Calculated Space Summary	2023	Viable Action Alternative 1a	Delta (%)
Description			
FAMU-UAC			
FAMU-UAC Center	10,019	10,442	4%
Staff & Building Support	1,332	1,385	4%
Total FAMU-UAC Center Space	**11,351**	**11,807**	4%
Canopy and Booth Space			
Primary Inspection (Primary Non-Comm. Inspection Booth, Hi-Low Inspection Booth, Primary Non-Comm. Canopy)	30,720	30,184	-2%
Secondary Inspection (Non-Commercial Inspection Lanes)	20,336	22,096	9%
Bus Plaza Canopy (Primary Inspection, Non Commercial)	600	600	0%
Primary Commercial Inspection	9,500	12,190	28%
Fixed NII Control Booth (Super Booth)	64	64	0%
Commercial Lot Exit Control Booth Canopy & Commercial Lot Exit Control Booth (Comm.Insp.Lot)	3,930	4,660	19%
Primary Outbound Commercial Inspection	2,850	2,772	-3%
Primary Non-Commercial Booth (Outbound)	4,144	4,971	20%
Secondary Non Commercial Canopy (Outbound)	3,000	3,000	0%
FMCSA Truck & Bus Inspection Canopy Space	9,230	9,189	0%
Total Canopy and Booth Space	**84,374**	**89,726**	6%
Other Onsite Buildings			
Permanent NII Building Space	600	600	0%
Narcotics Storage Vault	1,000	812	-19%
Bulk Cargo Bins	400	404	1%
HAZMAT Inspection Area (Hazardous Materials Containment Area)	1,000	1,000	0%
GOV Enclosed Parking	0	0	
Sallyport	1,200	2,413	**101%**
Total Other Onsite Facility Space	**4,200**	**5,229**	25%
Other Onsite Features			
Stormwater Detention	0	0	
Total Other Onsite Features' Space	**1,600**	**1,600**	
Parking & Hard Surface Area			
Visitor Parking	14,000	30,860	**120%**
CBP Staff Parking	192,850	194,648	1%
GOV Parking (not enclosed)	7,350	178,200	**2324%**
Commercial Vehicle Staging Area	30,000	30,000	0%
Truck Inspection - Staging (Parking) lot	3,000	3,000	0%
Total Area	**247,200**	**436,708**	77%
Other Agencies			
Immigrations and Custom Enforcement	0	0	
Food & Drug Administration	738	802	9%
US Department of Agriculture	4,569	4,574	0%
Federal Motor Carrier Safety Administration	4,225	3,750	-13%
US Fish & Wildlife Service	1,500	1,543	3%
Texas Alcohol Beverage Commission	1,050	1,050	0%
General Services Administration	0	0	
Total Area	**12,082**	**11,719**	-3%
Small Port Prototype			
Non-Commercial Inbound Inspection Booth and Canopy	0	0	0
Operational Support	0	0	0
Public Area	0	0	0
Document Processing	0	0	0
Enforcement	0	0	0
Support Areas	0	0	0
Staff Services	0	0	0
Building Support	0	0	0
Relief Officer's Quarters (Optional)	0	0	0
Non-Commercial Secondary Inspection Garage (Add-on Module)	0	0	0
Outbound Inspection Booth and Canopy	0	0	0
Impoundment Lot (Optional)	0	0	0
Commercial Inspection Area (Add-on Module)	0	0	0
Government Enclosed Parking (Add-on Module)	0	0	0
Bus Queuing Area (Add-on Module)	0	0	0
NII Inspection Area (Add-on Module)	0	0	0
Total Area	**0**	**0**	**0**
Total Area of Canopy, Booth and Buildings	**391,730**	**400,801**	

Figure 2-12. Viable Action Alternative 1a - West Site Lower Level.

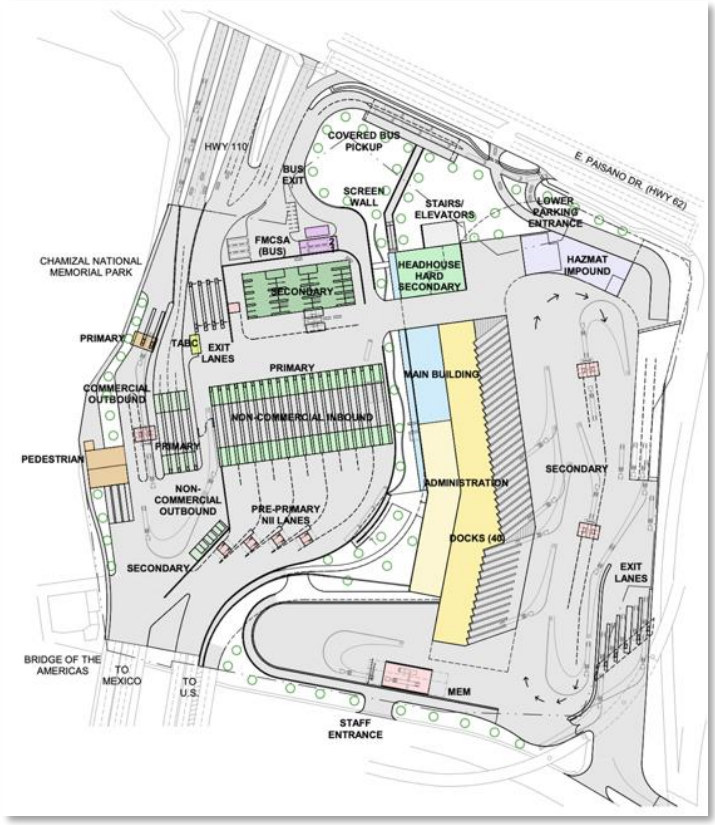


Figure 2-13. Viable Action Alternative 1a - West Site Ground Level.

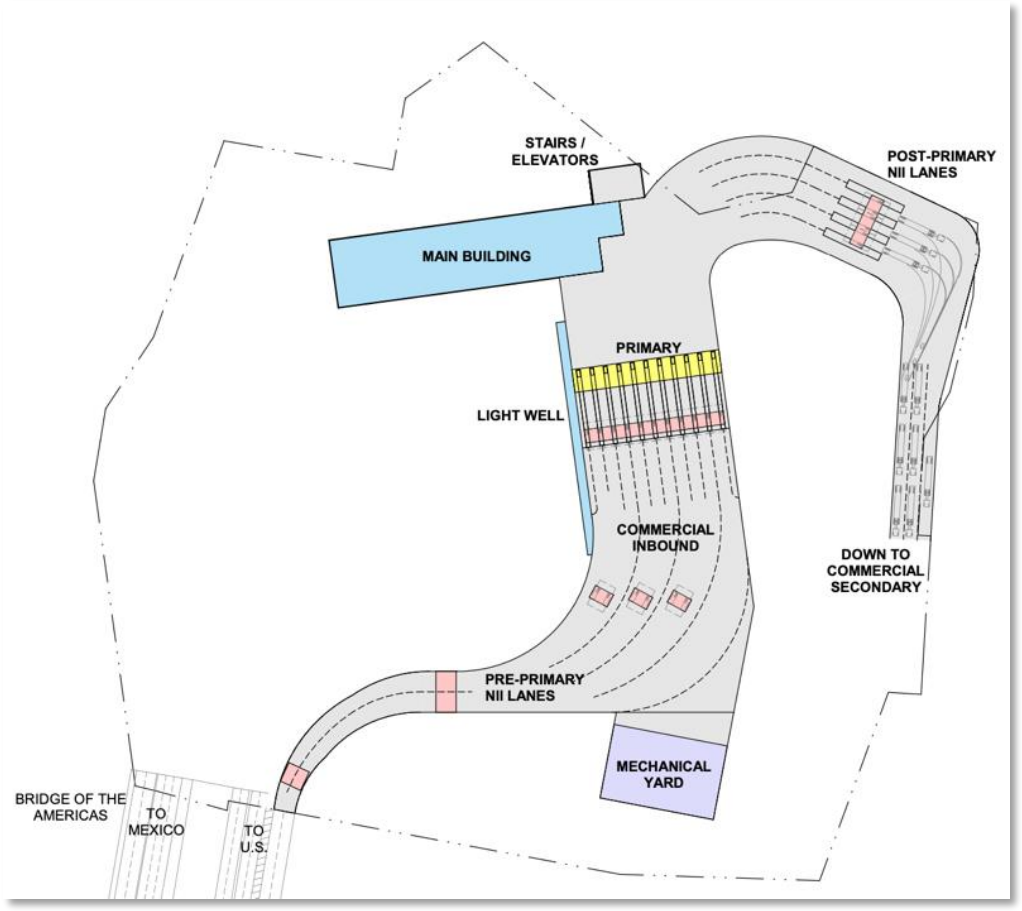


Figure 2-14. Viable Action Alternative 1a - West Site Upper Level.

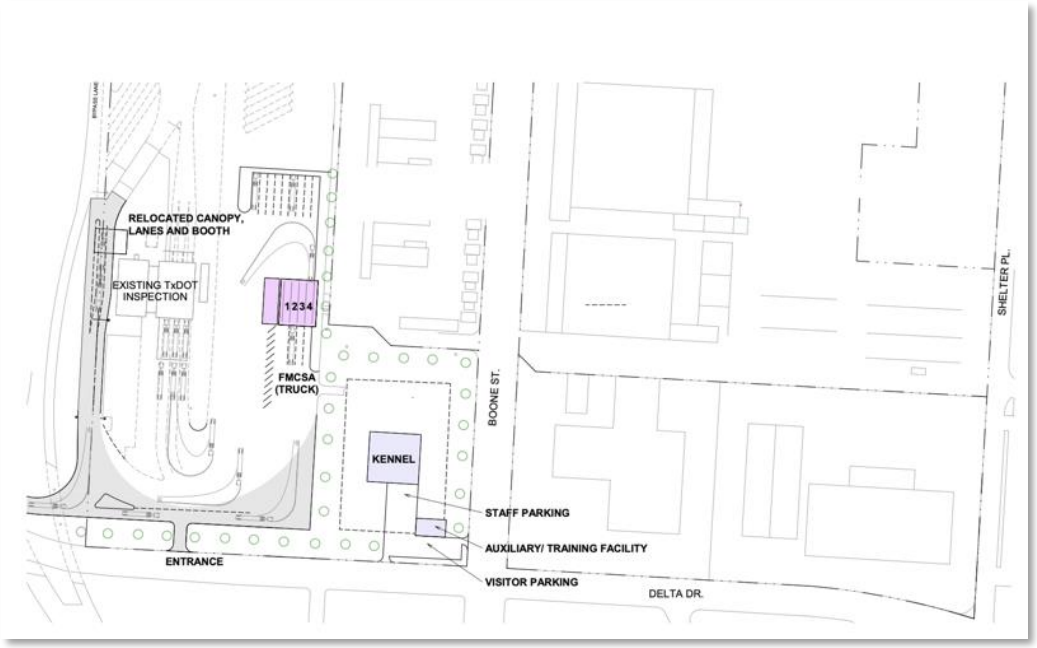


Figure 2-15. Viable Action Alternative 1a - East Site Ground Level.

2.6.2.5 Traffic Flow, Roads and Parking

With this design/site layout, inbound traffic capacity would be increased by the addition of six primary POV lanes and four additional commercial lanes. The new POV primary booth would be just east of the existing booth, mainly occupying the existing building location. The addition of the six lanes would allow more processing booths for inbound traffic with the traffic flow following the existing route as they get inspected by CBP. Once cleared, all vehicles would be directed towards the western part of the port where there are four exit lanes of traffic that would allow connection to I-110 and East Paisano Dr. (Hwy 62). If required to go to secondary inspection, there would be 42 dock locations where POVs could be inspected just north of the primary inspection. Minor modifications to the Paisano Drive (Hwy 62) access point would also be provided.

The new primary commercial booth for commercial traffic would be located on an upper level with three pre-primary NII screening lanes, ten primary inspection lanes that continue to three post-primary NII screening lanes before heading to the commercial secondary inspection at the ground level. There would be NII lanes both before and after the primary inspection areas. The ground level would be focused mainly on secondary inspection with 40 available docks. The exit would remain unchanged towards Delta Drive moving to the FMCSA inspection first and then the TXDPS inspection. Bus traffic would use the eastern lane to be inspected and would continue through just east of the POV secondary inspection, through FMCSA bus inspections, then to the northern pedestrian plaza, where they could pick up any passengers and exit along East Paisano Drive (Hwy 62). Pedestrian traffic flow would enter the main building and be inspected in the lower level. Once processed they would continue north following an exclusive pedestrian path to a plaza. The plaza would have a dedicated pick-up/drop-off area along the eastbound direction of East Paisano Drive. Outbound (south) traffic flow would be slightly modified but would remain with four lanes for POVs and two lanes for commercial vehicles just west of the inbound facility. A dedicated U-turn lane would be accessible after the outbound primary inspection for any commercial or POVs that needs to go back to the US. Parking capacity for employees, visitors, and government vehicles would be increased by the addition of the lower-level location. Staff would have access to the lower level via Delta Drive while visitors would have access through East Paisano Drive. Figure 2-16 below shows the proposed traffic flow associated with this alternative. Table 2-4 shows the number of inspection lanes/spaces that would result with the proposed reconfiguration. Table 2-5 shows the number of inspection lands/spaces should the previously mentioned future non-commercial cargo operations option be implemented.

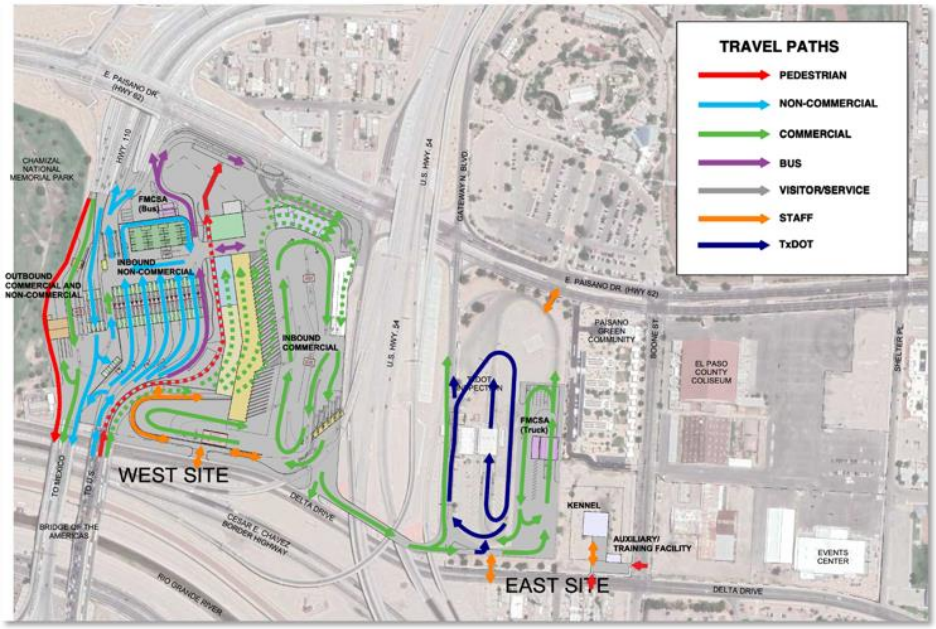


Figure 2-16. Viable Action Alternative 1a Traffic Flow.

Table 2-4. Number of Inspection Lanes/Spaces Associated with Viable Action Alternative 1a.

Inspection Lanes/Spaces	No. of Lanes/Spaces
Outbound Non-Commercial Primary	3
Outbound Non-Commercial Secondary	6
Outbound Commercial Primary	2
Outbound Commercial Secondary	3
Outbound Bus Primary	1
Outbound Bus Secondary	*
Inbound Non-Commercial Primary	20
Inbound Non-Commercial Secondary	42
Inbound Bus Primary	2*
Inbound Bus Secondary	**
Inbound Commercial Primary	10
Inbound Commercial Secondary	40

**Shared with inbound non-commercial primary*
***Secondary bus inspections routed to Commercial Secondary*

Table 2-5. Number of Inspection Lanes/Spaces Associated with Viable Action Alternative 1a Should the Future Non-Commercial Cargo Operations Option be Implemented.

Inspection Lanes/Spaces	No. of Lanes
Outbound Non-Commercial Primary	12
Outbound Non-Commercial Secondary	10
Outbound Bus Primary	1
Outbound Bus Secondary	**
Inbound Non-Commercial Primary	22*
Inbound Non-Commercial Secondary	48
Inbound Bus Primary	4
Inbound Bus Secondary	**

**14 FAST Lanes + 8 Standard Lanes*
***To be determined*

2.6.2.6 Demolition/Construction

Prior to construction activities, and in accordance with the NPDES, TCEQ TPDES, and City requirements (construction sites greater than 5 acres [Phase I] and between 1 and 5 acres [Phase II]), a Stormwater Pollution Prevention Plan (SWPPP) would be developed and implemented for construction activities. A notice of intent (NOI) would be filed with the TCEQ at least 48 hours in advance of construction activities. The SWPPP would be maintained on site and would provide measures to eliminate or reduce any potential impacts to surface water quality in the project area (i.e., implementation of BMPs). Additionally, a 24-hour spill response program conducted in conjunction with the El Paso Fire Department would be implemented. All nearby and/or adjacent businesses, residents, etc. would be notified of the planned demolition/construction (anticipated days, hours of operation, road closures, detours, utility disruptions, etc.). The contractor would ensure site safety and security by the installation/placement of temporary fencing around all work sites. The fencing would remain in place until construction is completed. All construction staging including materials storage/stockpiling and equipment storage would be within the fenced areas.

As mentioned earlier in Section 3.1, based on a REC identified as part of a Phase I ESA conducted for the proposed land acquisition and modernization effort, GSA conducted limited Phase II investigations. According to the assessment, based on visual and field-screening evidence during drilling and the analytical results of the samples, it appears that no impact to the shallow subsurface soil exists in the areas investigated. However, an area of impact to the soil vapor appears to be present. As a result, GSA is currently conducting additional Phase II investigations, the results of which will be provided in the Final EIS. Should the additional investigations result in the identification of soil and/or groundwater contamination, the GSA would coordinate with the TCEQ to ensure that any and all appropriate mitigative/corrective measures be implemented to fully provide for the safety and protection of construction workers, port staff, the travelling public, and the environment.

There are known asbestos-containing materials (ACM) present at the port and it is currently being managed in place in accordance with GSA policy (GSA Order PBS 1000.1A, Asbestos Management). In accordance with this policy, prior to any demolition activities, ACM inspections would be conducted by a qualified, license inspector and all discovered ACM abated in accordance with U.S. Environmental Protection Agency (USEPA), Occupational Safety and Health Administration (OSHA), and State of Texas regulations. No LBP surveys or sampling has been conducted at the port and due to the age of several buildings/structures, there is a potential for the presence of LBP. Although this potential does exist, this issue has been eliminated from detailed study because in accordance with GSA policy, prior to any demolition activities, LBP inspections would be conducted by a qualified and licensed inspector and all discovered LBP abated in accordance with USEPA and State of Texas regulations.

To ensure no impacts to listed protected species, in accordance with TPWD prior guidance, any open trenches or excavation areas would be covered overnight and/or inspected every morning to ensure no wildlife species have been trapped. For soil stabilization and/or revegetation of disturbed areas, erosion and seed/mulch stabilization materials that avoid possible entanglement hazards to wildlife species would be utilized when possible. The use of plastic mesh matting erosion control blankets would be avoided when possible to further ensure minimal entanglement hazards to any wildlife. Should any protected species be encountered that would not readily leave the work area, a biologist (with appropriate authorization from the TPWD Wildlife Permits Office) would translocated the animal to the closest suitable habitat outside the active work area(s), generally within 100 to 200 yards and not greater than a mile from the capture site. In an effort to ensure no impacts to migratory bird species, any vegetation clearing that would be necessary would occur outside of the general bird nesting season (i.e., March 15 through September 15) if possible. If disturbance within the areas must be scheduled during the nesting season, prior to any ground-disturbing or clearing (and within 5 days of any planned clearing), a qualified biologist would survey the area for active nests. If active nests are observed, a 100-foot radius buffer of vegetation would be left until the eggs have hatched and the young have fledged. The buffer could vary based on species and TPWD/USFWS recommendations.

Construction activities could result in short-term interruptions to local utilities. However, any planned disruptions would be coordinated with the local utility provider to minimize any potential impacts to their nearby customers. Construction activities could also require temporary lane closures and/or traffic/ pedestrian rerouting (including potential bus routes and bus stops) which would be closely coordinated with TXDOT and the City of El Paso/Sun Metro. Any required temporary closures or reroutes would be implemented in accordance with prevailing TXDOT and City regulations with regards to signage and permit requirements. Construction activities would typically occur 10 hours per day (7:00 a.m. to 5:00 p.m., or the equivalent), five days per week (Monday through Friday). Should any signage or other features be necessary in the USIBWC ROW, coordination would be conducted with the USIBWC as necessary. All activities would be conducted in accordance with the City of El Paso Noise Ordinance (Title 9 [Health and Safety], Chapter 9.40 [Noise]) as necessary/required and as they relate specifically to Noise Zone III. The contractor would ensure that all equipment used throughout the duration of the demolition/construction, is in good repair, with appropriate exhaust/muffler systems. Demolition/construction workers would also wear hearing protection as necessary and deemed appropriate. Additionally, when demolition/construction activities are planned to occur within 300 feet of pedestrian traffic (or other area deemed noise sensitive by

port personnel), acoustical sound barriers/fencing would be utilized to ensure that noise levels are within prevailing standards.

It is anticipated that construction activities would require anywhere from 50 to 100 workers (with an estimated 35 to 50 private vehicles traveling to and from the site daily). When possible, equipment, materials, and labor would be from local sources, and all workers would travel to and from the site via existing roadways. Appendix D contains an estimated list of equipment that would be utilized during overall project implementation. It is important to note that these are only estimates based on similar previous efforts and have been included primarily for the purposes of air quality analysis. Types of equipment and usage estimates tend to be on the "high" side as changes would surely occur at the time demolition/construction activities commence.

The contractor, in accordance with all applicable laws and regulations, would conduct all substantial equipment maintenance at an off-site location. On-site equipment repairs (within the established storage or staging area) would be limited to routine daily maintenance and repairs. Any generated wastes would be recycled or disposed of according to all applicable regulations. Although equipment would generally not be utilized consistently over the entire project duration (i.e., all equipment running all the time), for analysis purposes, it is assumed that the equipment would be operated approximately 10 hours a day and five days a week over the duration of each demolition/construction phase. The contractor would comply with all applicable federal, state, and/or local air pollution control requirements, including using water or other chemicals (applied daily or as needed to exposed soils, stockpiles, etc.) and covering all open-bodied haul trucks to control dust. Additionally, any potential increases in PM emissions would be minimized by using fugitive dust control measures contained in standard specifications (as appropriate). The Texas Emissions Reduction Plan (TERP) provides financial incentives to reduce emissions from vehicles and equipment. As part of all proposed modernization efforts, the GSA encourages construction contractors to use this and other local and federal incentive programs to the fullest extent possible to minimize diesel emissions. All construction debris would be recycled or disposed of at an approved landfill in accordance with all applicable federal, state, and local laws and regulations. Similarly, any hazardous wastes generated during the construction (including oils, lubricants, fuels, solvents, asbestos, lead-based paint, Polychlorinated Biphenyl [PCB] containing materials, mercury, etc.) would be disposed of in accordance with all federal, state, and local regulations. The contractor would be required to adhere to all federal guidelines pertaining to solid waste disposal, including (but not limited to) EO 13514 (Federal Leadership in Environmental, Energy, and Economic Performance) and EO 13423 (Strengthening Federal Environmental, Energy, and Transportation Management). Should safety or security issues arise, they would be addressed immediately with local GSA officials or other designated on-site personnel. The contractor would adhere to all federal, state, and local laws and regulations to ensure the safety of all on-site personnel and to protect the welfare of others (including adjacent property, infrastructure, etc.) in the vicinity of the demolition/construction activities.

This alternative would not require a substantial amount of fill for construction due to the relatively flat topography of the site and surrounding area, however, a significant amount of cut would be generated for the underground parking and the large detention/retention vaults that would be included as part of this alternative. As part of site and building/facility design and construction, a full geotechnical investigation would be performed. Should any cut material require off site transportation and disposal, all activities would be conducted in accordance with prevailing City ordinances as well as state and federal regulations.

According to a cultural resources assessment (CRA) conducted as part of the overall planning for the proposed modernization effort, much of an established area of potential effect (APE) for the cultural study has a low probability for intact archaeological resources (including the areas where ground-disturbance/excavation would occur as part of this alternative). However, in the unlikely event that archaeological remains were to be discovered, the contractor would employ the procedures outlined in the CRA (i.e., Inadvertent Discovery Plan, Appendix E) to ensure no impacts. Additionally, as part of over design, the GSA would coordinate with the Texas SHPO to ensure no impacts to nearby historic

resources/districts (i.e., Chamizal National Memorial and the El Paso County Water Improvement District No. 1).

The port and large portions of the areas to the immediate east are in an area described as an "Area with Reduced Flood Risk due to Levee (Zone X)." The nearby Rio Grande is designated as "Zone A – Area Without Base Flood Elevation (BFE)." The port and the area to the east are considered to be in the 100-year floodplain protected by a levee. Under 500- or 100-year flood conditions, should the levee fail or be overtopped, these areas could be inundated. As a result, as a part of the overall port design and layout, flood-resistant and risk mitigation measures would be employed (per GSA P100 Facility Standards) to ensure no potential impacts should the nearby levee fail or be overtopped under a 500- or 100-year flood event.

2.6.2.7 Utilities and Energy Efficiency

Implementing this alternative would require construction/installation of new utilities throughout the property. Existing connection points/hubs would likely be utilized with only the utility routes and sizes changing throughout the site. Prior to activities involving utilities, coordination would be conducted with the City of El Paso and private utility providers to ensure minimal disruption to existing services in the area.

The design of the facility would be in compliance with Section 438 (Stormwater Runoff Requirements for Federal Development Projects) of the EISA, instructing federal agencies to "use site planning, design, construction, and maintenance strategies for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to temperature, rate, volume, and duration of stormwater flow" for any project with a footprint that exceeds 5,000 square sf. Additionally, EO 13514 directs all federal agencies to "lead by example" to address a wide range of environmental issues, including stormwater runoff. The EO required the USEPA, in coordination with other federal agencies, to develop guidance for compliance with the EISA. As a result, the USEPA coordinated the development of the Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the EISA. The guidance provides a step-by-step framework to help federal agencies maintain pre-development site hydrology by retaining rainfall on-site through infiltration, evaporation/transpiration, and re-use to the same extent as occurred prior to development.

LEED criteria would include a 25 percent reduction in the volume of stormwater runoff from the 2-year 24-hour design storm and removal of 80 percent of the average annual post development total suspended solids for 90 percent of the average rainfall. Development would include retention or detention of 100 percent of the runoff from all properties. GSA's facilities development goals are designed to promote energy efficiency and provide building/facilities design that are resilient, durable, maintainable, efficient, and flexible. This action alternative broadly supports these and other operational excellence goals. While LEED Gold is the minimum standard, GSA would determine the specific sustainability goals for this project as the design process progresses and is committed to creating long-lasting, durable, sustainable, climate-resilient facilities. All new GSA construction projects utilize the 2019 version of ASHRAE Standard 90.1. As part of implementing this alternative, GSA would set an energy target reduction at least 30 percent below the energy model baseline. The proposed modernization effort would utilize the 2016 Guiding Principle #2 to set an energy target. GSA requires that all project types above prospectus use Architecture 2030's 2030 Challenge to set an energy target per specific fossil fuel reductions compared to the 2003 CBECS data. Along with GSA's sustainability goals, customer agencies' sustainability goals and targets would also be integrated as part of this alternative. There are several specific design features associated with this alternative that support GSA's sustainability, durability, and resilience goals including:

- The density of land use would reduce the need for significant land consumption and for large amounts of concrete paving.
- Use of low embodied carbon concrete, steel, glass, and asphalt as required by P100.
- Use of environmentally preferable asphalt.

- Photovoltaic panels on all building roofs and canopies would provide a great deal of on-site renewable energy.
- The sunken garden would provide landscaping and introduce natural daylight into the lower-level pedestrian/bus passenger processing hall.
- Additional opportunities to plant trees within the port would also be provided for a cooling effect.
- Use of native plants, shade trees and xeriscaping and P100-compliant irrigation systems.
- The flexibility for future use is particularly significant; a central tenet of sustainable development is designing buildings that can adapt and endure, buildings that do not need to be demolished and oft rebuilt.

Additional strategies that could be easily incorporated as the building/facility design progresses includes high-performance building envelopes, natural ventilation, and bird-safe designs to name a few.

2.6.2.8 Scheduling and Phasing

The primary objective for phasing construction activities would be to minimize disruption of existing port operations, transit, etc. Modernization activities associated with this alternative would be expected to begin in early 2026 and be completed early 2029 (3 years) (GSA 2023). This alternative would allow CBP to maintain continuous POV operations during construction, although the number of inbound and outbound POV inspection lanes would likely be reduced temporarily at times. The construction phasing plan would add a strategic third phase in an effort to prioritize construction activities and restore port operations to 100 percent as soon as possible. This includes the diversion of all commercial traffic to other ports for the duration of new construction. Each phase is described as follows. Table 2-6 shows the inspection lanes/spaces operational by phase.

- Phase 1 – The existing main building 'A' would remain partially operational, along with the headhouse, POV secondary inspection, screened hard secondary, and most POV primary booths and lanes. Outbound POV and pedestrian traffic would be diverted to POV commercial primary booths and lanes for processing. All other existing outbound and inbound areas would be demolished. Priority Phase 1 elements would be completed during this phase. Temporary outbound facilities would be required. Figures 2-17 through 2-19 detail proposed Phase 1 activities.

- Phase 2 - Phase 1 priority construction elements would become operational. Inbound pedestrians would travel through a temporary lower-level pathway for processing in temporary facilities, then proceed to the bus plaza via escalators and stairs. Temporary outbound POV lanes would remain operational, and newly constructed outbound facilities would become operational to serve outbound pedestrians. The upper-level flyover would become operational for inbound POV processing. Temporary POV secondary facilities would be provided at the flyover exit. Previous commercial lanes and booths would be used to process exiting POV traffic. Priority Phase 2 elements would be completed during this phase. Temporary inbound bus passenger processing, outbound processing and inbound POV secondary facilities would be required. Figures 2-20 through 2-22 detail Phase 2 activities.

- Phase 3 - Phase 2 priority construction elements would become operational. The temporary inbound pedestrian pathway to the bus plaza would remain operational. The upper-level flyover would be closed for NII installation. The POV pre-primary/primary lanes and booths would become operational to inbound POV traffic. Outbound POV traffic would divert east, using four inbound POV primary lanes. The outbound POV commercial secondary would also become operational. Temporary outbound processing facilities would be required. Figures 2-23 and 2-24 detail Phase 3 activities.

As mentioned earlier, Action Alternative 1a includes an option that would allow commercial cargo operations to be removed from the port. The phasing for that option, should it be implemented, is shown below in Figures 2-25 through 2-27.

Table 2-6 Inspection Lanes Operational by Phase.

Operational Inspection Lanes/Spaces by Construction Phase					
Inspection Lanes/Spaces	Current	Phase 1	Phase 2	Phase 3	Final
Outbound Non-Commercial Primary	4	2	2	4	4
Outbound Non-Commercial Secondary	0	6	6	6	6
Outbound Commercial Primary	1	0	0	0	2
Outbound Commercial Secondary	2	0	0	0	3
Outbound Bus Primary	*	*	*	*	*
Outbound Bus Secondary	**	**	**	**	**
Inbound Non-Commercial Primary	14	11	10	14	20
Inbound Non-Commercial Secondary	12	12	12	42	42
Inbound Bus Primary	***	1	1	2	2
Inbound Bus Secondary	**	**	**	**	**
Inbound Commercial Primary	6	0	0	0	0
Inbound Commercial Secondary	64	0	0	0	40

* One lane shared with Outbound Non-Commercial
** Diverted to Commercial Secondary
*** Shared with Inbound Non-Commercial

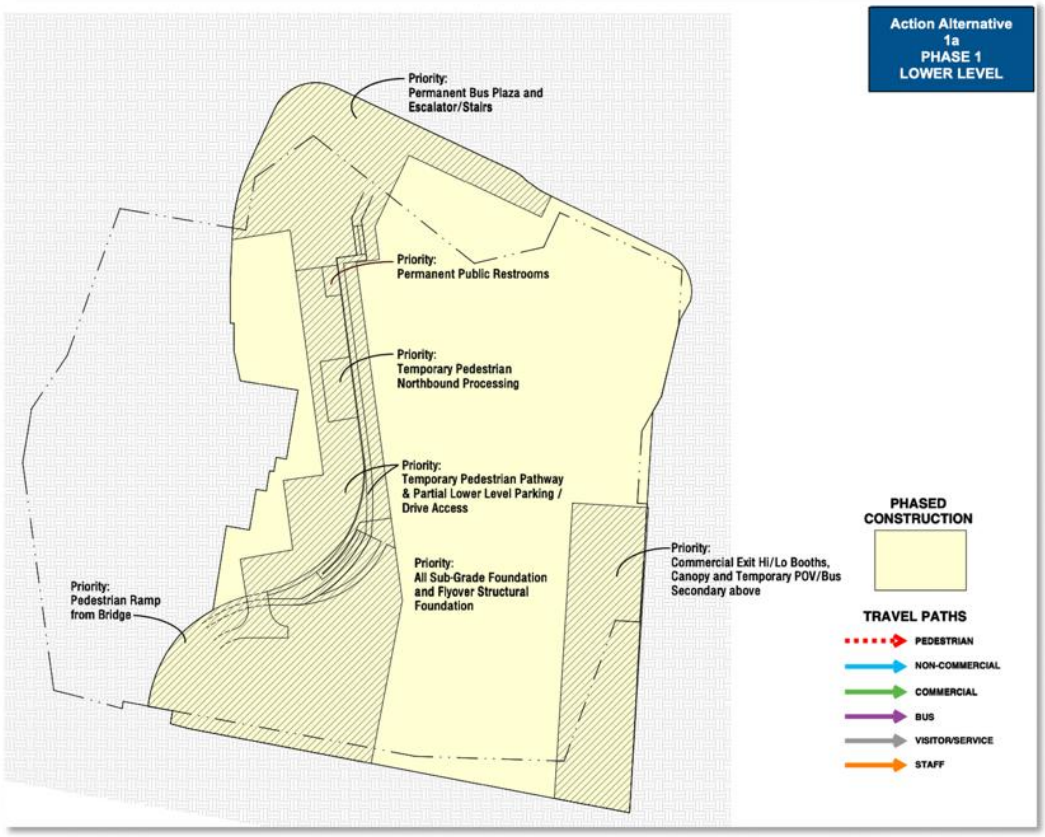


Figure 2-17. Viable Action Alternative 1a – Phase 1 Lower Level.

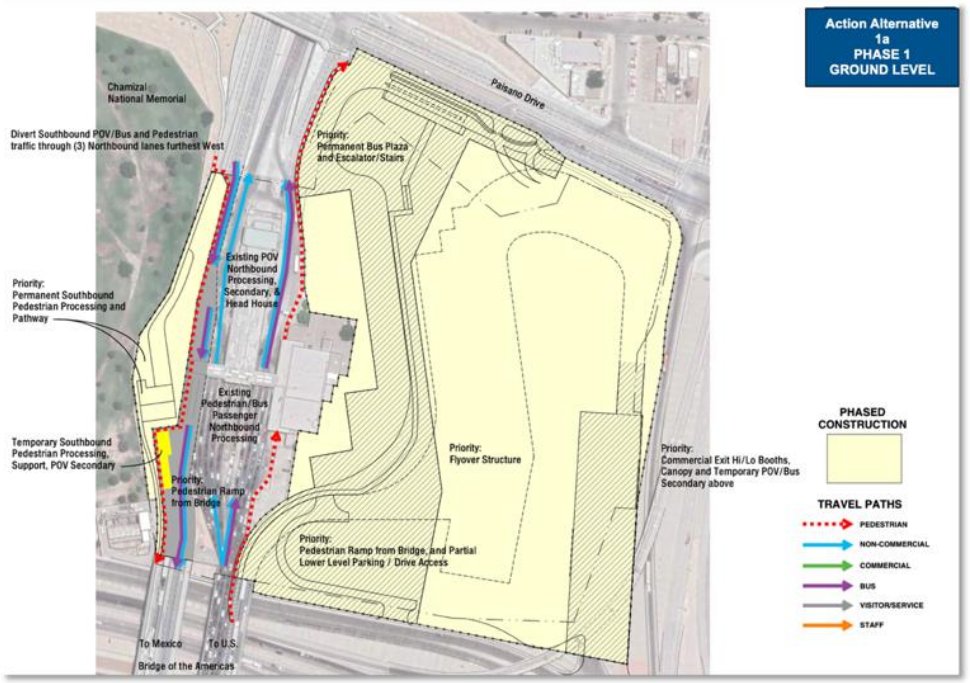


Figure 2-18. Viable Action Alternative 1a – Phase 1 Ground Level.

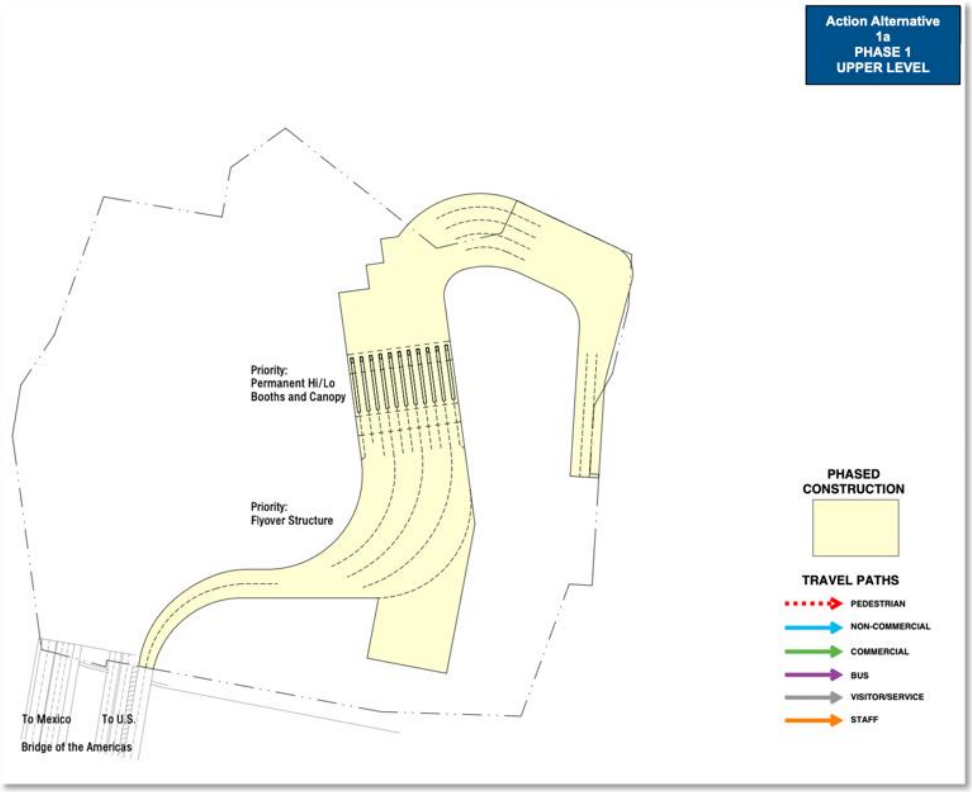


Figure 2-19. Viable Action Alternative 1a – Phase 1 Upper Level.

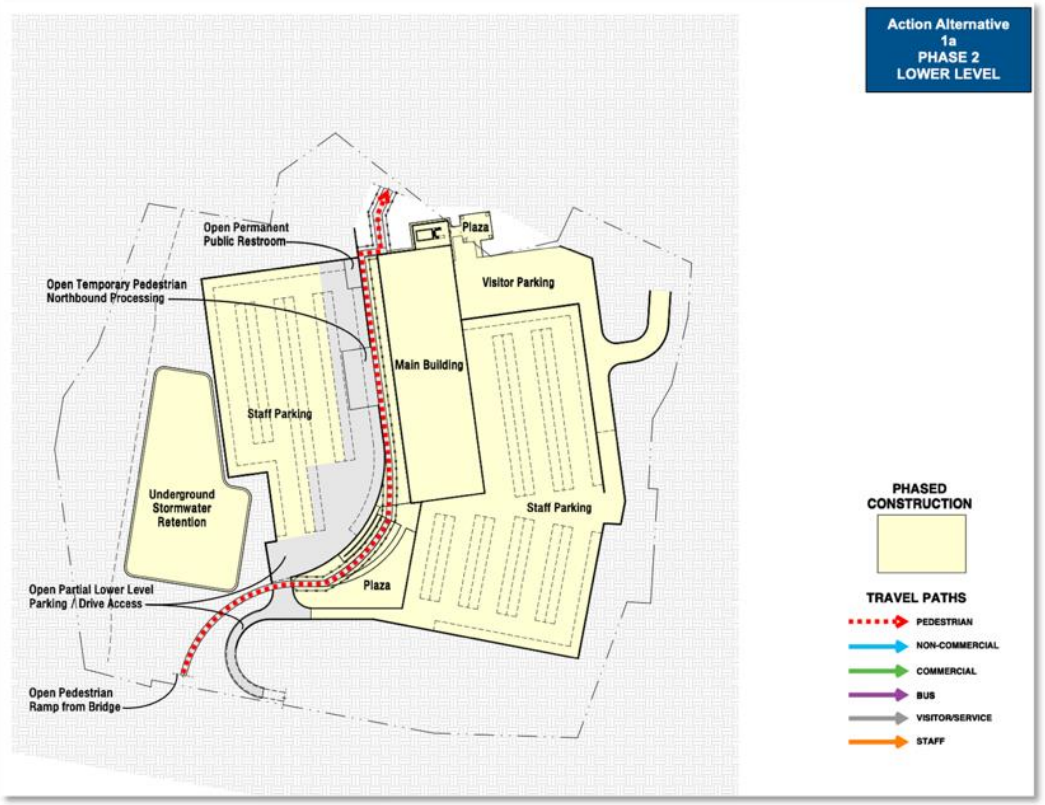


Figure 2-20. Viable Action Alternative 1a – Phase 2 Lower Level.

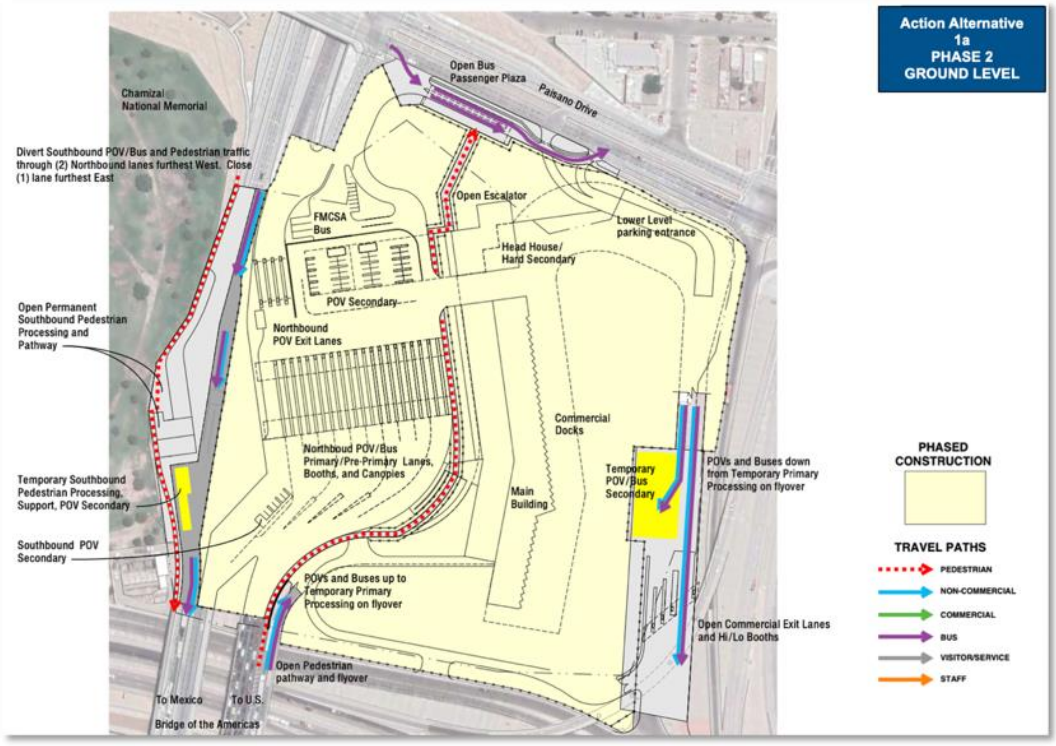


Figure 2-21. Viable Action Alternative 1a – Phase 2 Ground Level.

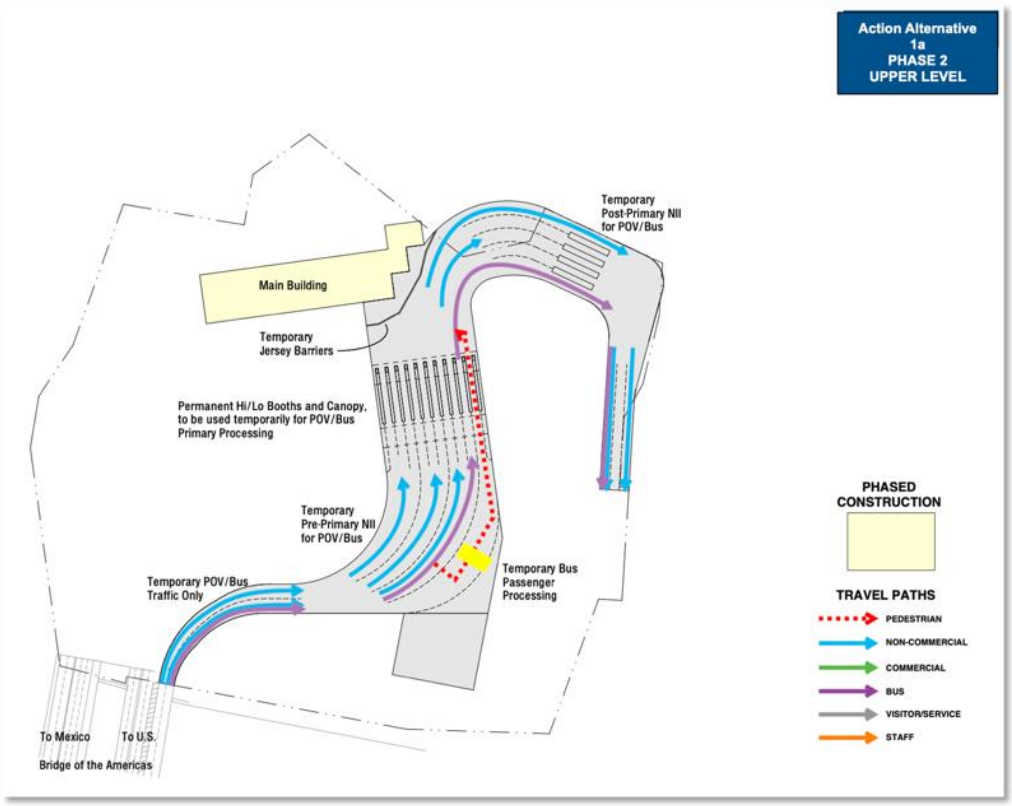


Figure 2-22. Viable Action Alternative 1a – Phase 2 Upper Level.

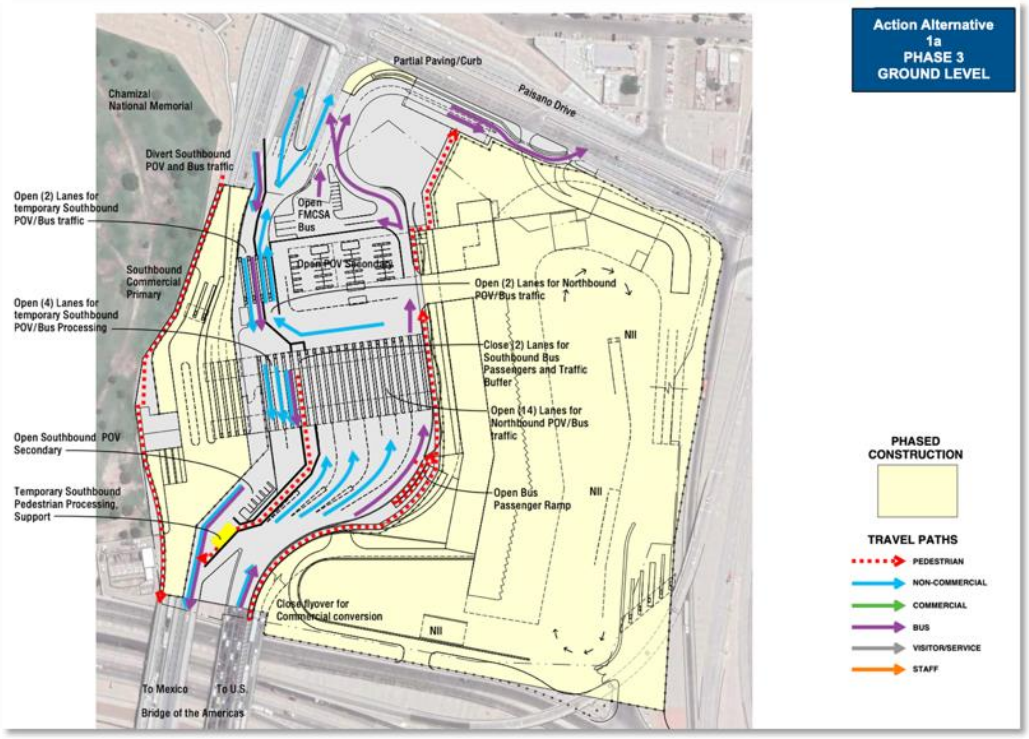


Figure 2-23. Viable Action Alternative 1a – Phase 3 Ground Level.

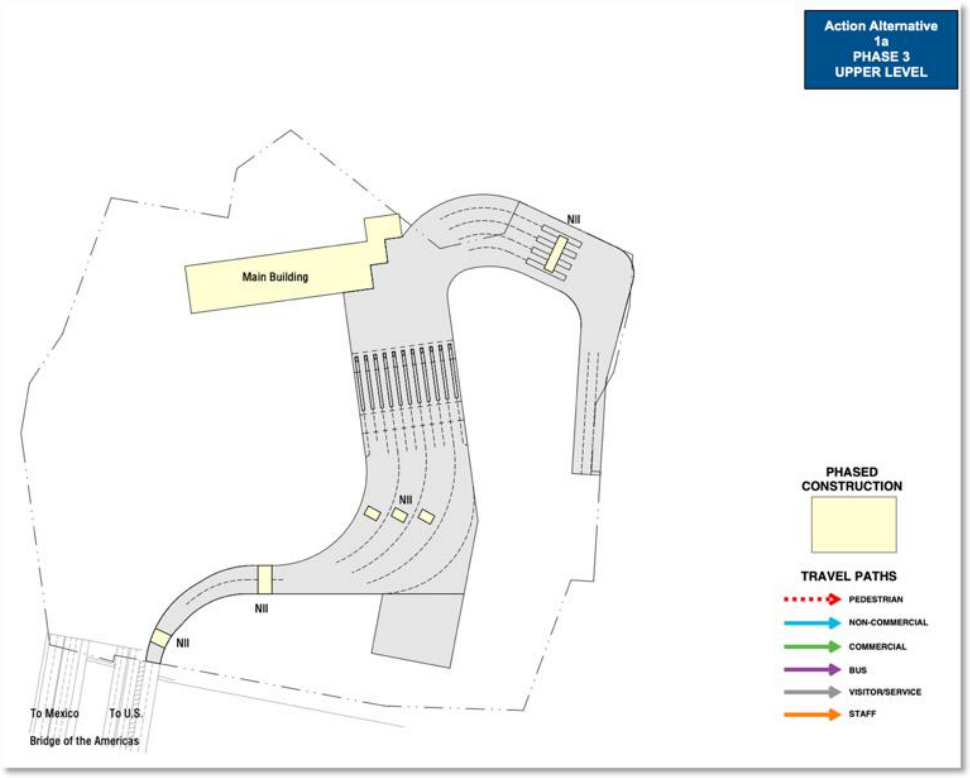


Figure 2-24. Viable Action Alternative 1a – Phase 3 Upper Level.

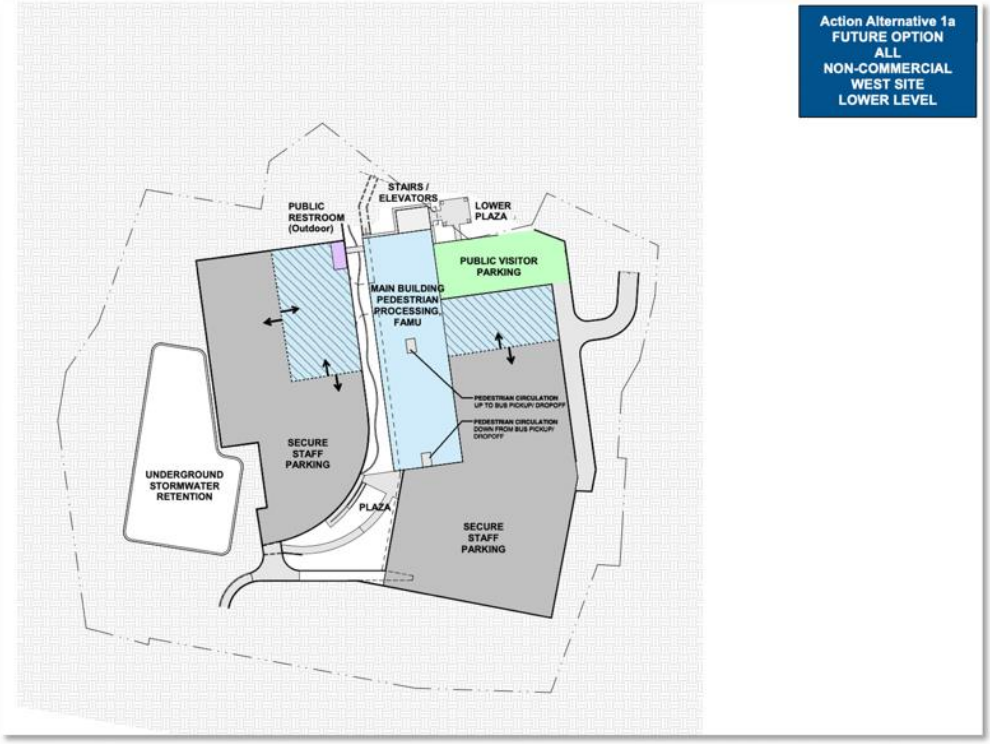


Figure 2-25. Viable Action Alternative 1a – Non-Commercial Option, West Site, Lower Level.

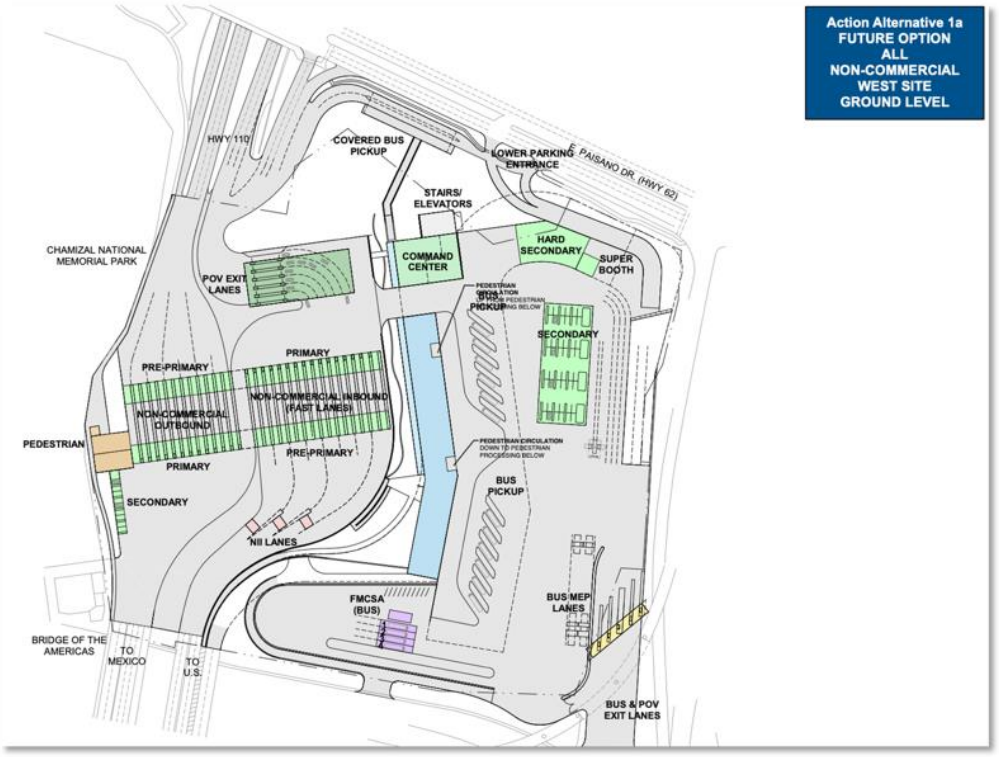


Figure 2-26. Viable Action Alternative 1a – Non-Commercial Option, West Site, Ground Level.

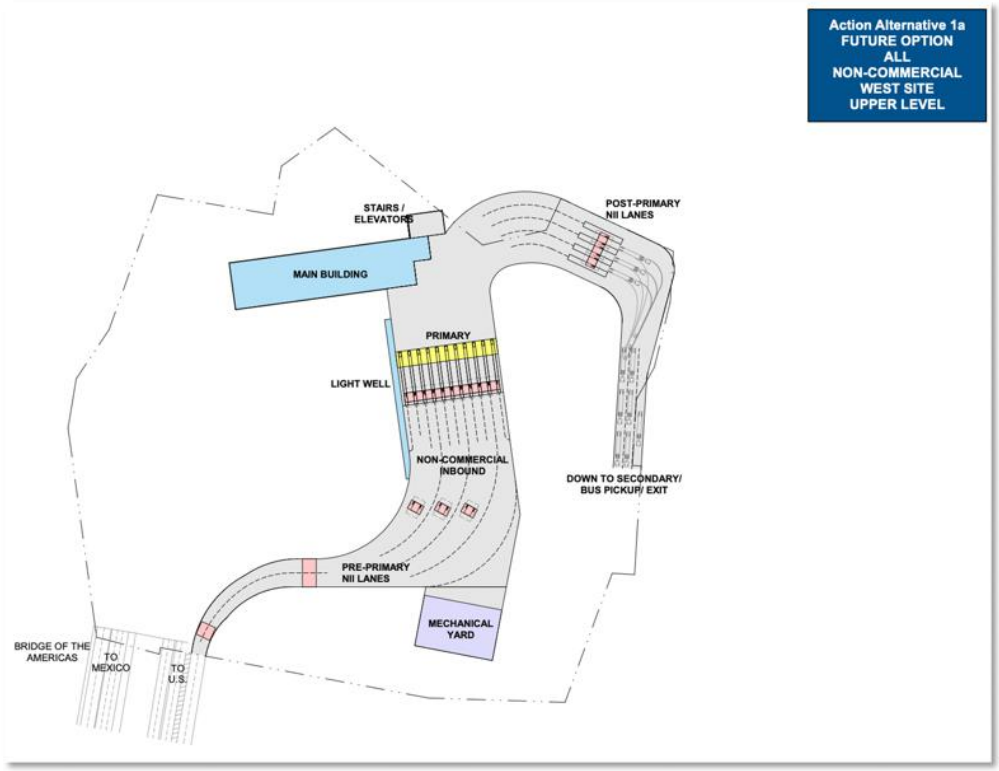


Figure 2-27. Viable Action Alternative 1a – Non-Commercial Option, West Site, Upper Level.

2.6.2.9 Operations

As mentioned earlier in Section 2.6.2.1, this alternative is considered to be a compact and land-efficient design/sight layout that focuses on developing operational efficiency and maximum flexibility through all aspects of port operations. These efficiencies would be realized by agency personnel staffing the port as well as the travelling public. Other than the newly realized operational efficiencies that would be associated with this alternative, day-to-day operations would largely remain the same. Several key operational efficiencies noted earlier that would be realized as part of this alternative include:

- More efficient circulation
- Interconnected CBP operations buildings
- Implementation of high-low inspection booths for operational flexibility
- Option for future elimination of commercial cargo operations moving north and south

As mentioned earlier in Section 1.3 and 1.4, traffic increases would be expected over the coming years and into the future. Although no immediate staffing level increases are currently anticipated, future programmed staffing would ensure continued operational efficiencies with regards to projected increases in traffic. Based on current CBP staffing allocation vs workload staffing modeling, CBP estimates a 15 percent employee growth rate over the coming years which would mean anywhere from an estimated 445 to 470 federal workforce at the port on a daily basis. The same estimated growth factor would result in an estimated 600 government and/or employee/private vehicles in the port vicinity daily with daily vehicle round trips (CBP 2024).

It should also be noted, that through the Chamizal Treaty of 1963 (Article 10, Minutes 214, 219, 290, and 300), operation and maintenance (O&M) of the bridge itself has been paid for by fees that were previously assessed in the 1990s on each commercial vehicle that utilized the bridge. The fees were collected by the El Paso Foreign Trade Association (EPFTA) and distributed to the USIBWC for on-gong O&M activities associated only with the bridge. As part of the agreement between the US and Mexico, all parties agreed to revisit the O&M funding agreement in the 25th year (August 2024). All parties involved are currently working on a new agreement that would provide O&M funding well past 2024. Should future commercial cargo operations be eliminated as part of this alternative, the option for these fees to be collected again would no longer be available and a new source of O&M funding would need to be secured.

2.6.3 Viable Action Alternative 4 – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (Approximately 4 acres – TxDOT) and Elimination of All Commercial Cargo Operations

2.6.3.1 Overview

Similar to Viable Action Alternative 1a, this alternative is considered to be a compact and land-efficient design/site layout with the existing site utilized for POV, bus, and pedestrian traffic. As part of this alternative, there would no longer be commercial cargo operations at the port (both northbound and southbound), instead, the number of POV lances would substantially increase. Similar to the previous alternative, this alternative would include acquisition of a small amount of land at the perimeter of the existing site, primarily within the TxDOT ROW. Alternative 4 includes the following characteristics:

- Minimal land acquisition (4.4-acre acquisition from TxDOT)
- With all lanes in alignment along a transverse axis, this alternative would offer operational adaptability to reassign inbound lanes to outbound inspections as required.
- The central location of the main building supports resource efficiency and improves operations and officer response time. The location and density afford opportunities for clear vistas, increased potential for supervision and oversight across port environments.
- No land acquisition east of US-54 is required or proposed. Land acquisition needs are minimal and limited to those areas at the existing site perimeter in TxDOT right-of-way.
- Provides expansion capacity below grade for parking, support space, and pedestrian processing. Provides expansion potential vertically at second level or higher for administration or support agency office space.

2.6.3.2 Land Acquisition

As part of this alternative, 4.4 acres of land would be acquired from TxDOT. The land would be around the perimeter of the existing site, primarily within the TxDOT ROW. No additional land acquisition would be required. Figure 2-28 shows the land that would be acquired as part of implementing this alternative.

2.6.3.3 Space/Programming Requirements

As mentioned earlier, the CBP Land Port of Entry Design Standard (CBP 2023) applies to all LPOEs in the U.S. The Standard provides its users with the following:

- Standardized procedures for the planning, programming, budget formulation, design, and construction of new LPOEs or renovations, additions, or alterations to an existing LPOE.
- Technical requirements and criteria for the construction of CBP spaces at the LPOEs.
- Parameters and adjacency guidelines for proper programming and layouts of the LPOEs.
- Applicable authorities that govern the planning and execution of LPOE construction and alterations projects.

The Standard applies to the planning, programming, and construction projects for a LPOE and serves as the primary reference for architect/engineering (A/E) consultants, government agencies, facility operators, transportation lines, and all CBP personnel involved with an LPOE. The use of this Standard, as well as early involvement of stakeholders in the facility development process, ensures a LPOE design that most appropriately reflects the scope of the anticipated operations. The Standard further identifies the LPOE project stakeholders and applicable codes and regulations, defines operations, describes design concepts, categorizes spaces, and provides specific technical criteria on building materials and systems. The Standard is used to develop planning and programming criteria for inclusion in PORs, direct execution of

design and engineering documentation, inform construction and construction administration stages, and establish project close-out and post-occupancy roles and responsibilities. The space requirements associated with this alternative are provided below in Table 2-7.

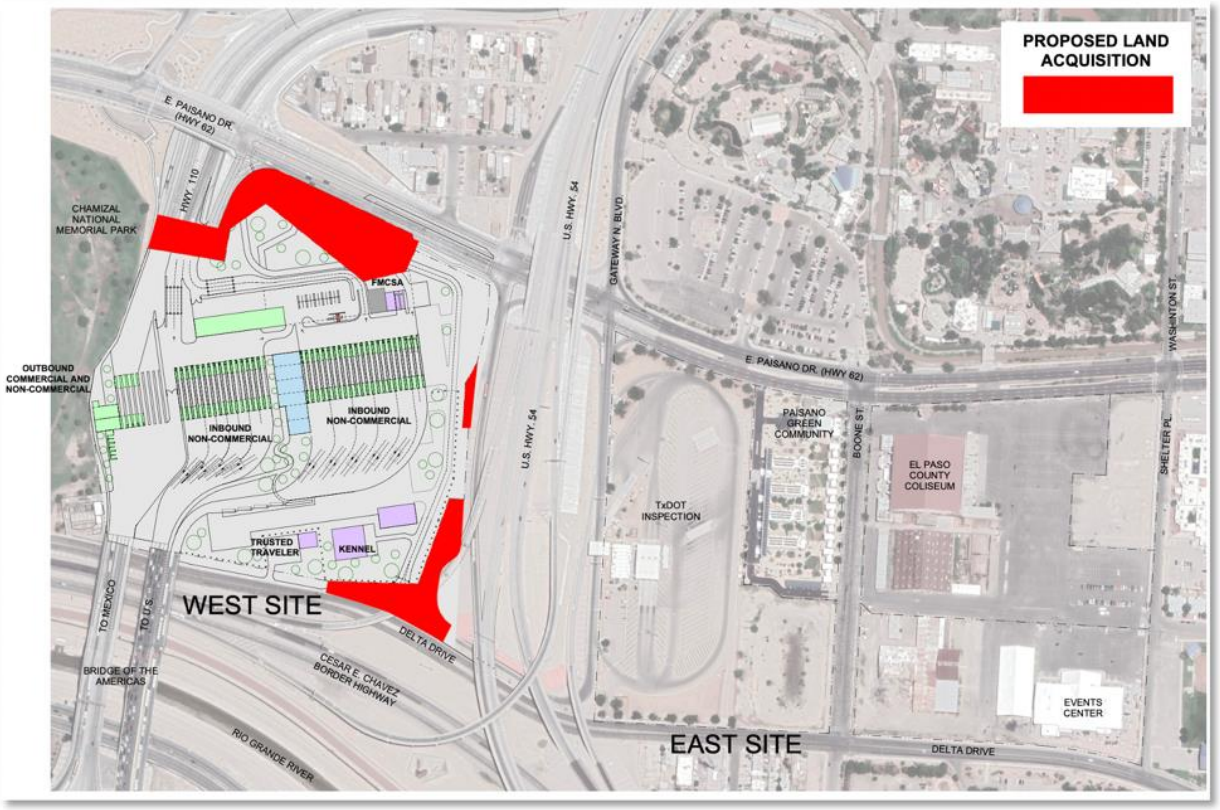


Figure 2-28. Viable Action Alternative 4 Land Acquisition.

2.6.3.4 Design/Site Layout

As part of Viable Action Alternative 4, all processing activities would occur on the existing site, including FMCSA bus, kennel, and Trusted Traveler administration. As mentioned, there would no longer be commercial cargo operations at the port. All POV inspection lanes and booths would be aligned across the site on a general east- west axis. This axis would be bisected by the main building and pedestrian/bus processing along a central spine that connects the inbound bridge lanes with a new pick-up plaza along East Paisano Drive. Inbound pedestrians would descend from the bridge into an open-air, landscaped, sunken garden and enter the main building below grade. Bus passengers would arrive at the bus drop-off area and descend a ramp to join the pedestrian path in the sunken garden to the main building for processing. The pedestrian and bus traveler experience would be enhanced by separating the pathway from vehicular traffic. Once cleared, all would exit the main building from the north, ascend via escalator and exit onto a pedestrian/bus passenger pickup plaza. The new pick-up plaza on East Paisano Drive would provide a covered, dedicated off-street pickup location for international buses to collect their passengers and for private vehicles to pick up northbound pedestrians. Buses would be routed through NII lanes to the far east side of the port for CBP inspections and FMCSA inspections before exiting and collecting passengers at the Paisano pickup plaza. Outbound vehicle, bus, and pedestrian processing would remain relatively similar to other alternatives. There would be four POV inspection lanes (with space and infrastructure for four additional future lanes), six secondary inspection bays and a small building to house pedestrian processing and outbound support functions. The overall multi-level design and site layout associated with this alternative are shown below in Figures 2-29 through 2-31.

Table 2-7. POR Space Requirements Associated with Viable Action Alternative 4.

Calculated Space Summary	Viable Alternative 4
Number of Non-Commercial Primary Lanes *(Inbound)*	37
Number of Non-Commercial Secondary Lanes (Inbound)	20
Number of Non-Commercial Screened/Enclosed Secondary Bays	3
Number of Commercial Primary Lanes: *(Hi-Low Booths)*	0
Number of Commercial Docks/Bays	0
Description	**Net Square Feet**
Main Building	
Administration, Canine Support & Training	11,306
Pedestrian/Bus Passenger Processing Space	16,738
Violator Enforcement Processing Spaces	8,169
Fines, Penalties&Forfeitures; CBP Agriculture Inspection Spaces & AntiTerrorism Contraband Enf.Team	2,063
CBP Agriculture Inspection Spaces	2,056
CBP - Staff Support and Service Spaces	9,325
Anti-Terrorism Contraband Enforcement Team	2,575
Trusted Traveler (NEXUS/SENTRI/FAST) Enrollment co-located	0
Building Support Space	4,918
Total Main Building	**57,149**
Non-Commercial Vehicular Inspection	
Primary Inspection	N/A
Secondary Inspection	N/A
Hard Secondary Inspection	2,769
Enclosed Parking	0
Administration	6,544
Violator Enforcement Areas	2,481
Building Support Space	1,365
Total Non-Com Inspection & Headhouse	**13,159**
Commercial Vehicular Inspection	
Primary Commercial Inspection	0
Secondary Commercial Inspection	0
Commercial Inspection Lot	0
Staging Area	0
Commercial Inspection Commercial Building (Warehouse, Trade, Entry, Cargo, Admin)	0
Anti-Terrorism Contraband Enforcement Team	0
Violator Processing Area	0
CBP Agricultural Inspection Space	0
Staff Support	0
Building Support Space	0
Total Commercial Vehicular Processing	**0**
Outbound Inspection	
Primary & Secondary Outbound Inspections	12,980
Outbound Inspection Administration Space	575
Total Canine	0
Total Pedestrian/Bus Passenger Processing	600
Total Violator Processing & Enforcement Spaces	1,094
Total Staff Support	80
Total Staff Services	675
Building Support Space	303
Total Outbound Inspection	**16,306**
Canine Enforcement Spaces & Kennels	
Canine Enforcement & Kennel Spaces	8,191
Building Support Space	1,063
Total Kennel Facilities	**9,254**
Trusted Traveler	
Trusted Traveler Enrollment Center	2,188
Building Support Space	705
Total Trusted Traveler Space	**2,893**
FAMU-UAC	
FAMU-UAC Center	10,019

Table 2-7 (con't). POR Space Requirements Associated with Viable Action Alternative 4.

Description	Net Square Feet
Staff & Building Support	1,332
Total FAMU-UAC Center Space	**11,351**
Canopy and Booth Space	
Primary Inspection (Primary Non-Comm. Inspection Booth, Hi-Low Inspection Booth, Primary Non-Comm. Canopy)	30,720
Secondary Inspection (Non-Commercial Inspection Lanes)	20,336
Bus Plaza Canopy (Primary Inspection, Non Commercial)	600
Primary Commercial Inspection	0
Fixed NII Control Booth (Super Booth)	64
Commercial Lot Exit Control Booth Canopy & Commercial Lot Exit Control Booth (Comm.Insp.Lot)	0
Primary Outbound Commercial Inspection	0
Primary Non-Commercial Booth (Outbound)	4,144
Secondary Non Commercial Canopy (Outbound)	3,000
FMCSA Truck & Bus Inspection Canopy Space	9,230
Total Canopy and Booth Space	**68,094**
Other Onsite Buildings	
Permanent NII Building Space	600
Narcotics Storage Vault	1,000
Bulk Cargo Bins	400
HAZMAT Inspection Area (Hazardous Materials Containment Area)	1,000
GOV Enclosed Parking	0
Sallyport	1,200
Total Other Onsite Facility Space	**4,200**
Other Onsite Features	
Stormwater Detention	0
Total Other Onsite Features' Space	**1,600**
Parking & Hard Surface Area	
Visitor Parking	14,000
CBP Staff Parking	192,850
GOV Parking (not enclosed)	7,350
Commercial Vehicle Staging Area	0
Truck Inspection - Staging (Parking) lot	0
Total Area	**214,200**
Other Agencies	
Immigrations and Custom Enforcement	0
Food & Drug Administration	738
US Department of Agriculture	4,569
Federal Motor Carrier Safety Administration	4,225
US Fish & Wildlife Service	1,500
Texas Alcohol Beverage Commission	1,050
General Services Administration	0
Total Area	**12,082**
Small Port Prototype	
Non-Commercial Inbound Inspection Booth and Canopy	0
Operational Support	0
Public Area	0
Document Processing	0
Enforcement	0
Support Areas	0
Staff Services	0
Building Support	0
Relief Officer's Quarters (Optional)	0
Non-Commercial Secondary Inspection Garage (Add-on Module)	0
Outbound Inspection Booth and Canopy	0
Impoundment Lot (Optional)	0
Commercial Inspection Area (Add-on Module)	0
Government Enclosed Parking (Add-on Module)	0
Bus Queuing Area (Add-on Module)	0
NII Inspection Area (Add-on Module)	0
Total Area	**0**
Total Area of Canopy, Booth and Buildings	**132,624**

2.6.3.5 Traffic Flow, Roads and Parking

With this design/site layout, inbound pedestrians would descend from the bridge into an open-air, landscaped sunken garden and enter the main building below grade. Bus passengers would arrive at the bus drop-off area and descend a ramp to join the pedestrian path in the sunken garden to the main building for processing. As with the previous alternative, the pedestrian and bus traveler experience would be enhanced by separating the pathway from vehicular traffic. Once cleared, all would exit the main building from the north, ascend via escalator and exit onto a pedestrian/bus passenger pickup plaza. The new pick-up plaza on East Paisano Drive would provide covered, dedicated off-street pickup for international buses to collect their passengers and for private vehicles to pick up northbound pedestrians. Buses would be routed through NII lanes to the far east side of the port for CBP and FMCSA inspections before exiting and collecting passengers at the Paisano pickup plaza. All POV inspection lanes and booths would be aligned across the site on a general east-west axis. This axis would be bisected by the main building and pedestrian/bus processing along a central spine that connects the inbound bridge lanes with a new pick-up plaza along East Paisano Drive. Outbound vehicle, bus and pedestrian processing would remain relatively similar to the previous alternative. There would be four non-commercial vehicle inspection lanes (with space and infrastructure for four additional future lanes), six secondary inspection bays, and a small building to house pedestrian processing and outbound support functions. With all lanes in alignment along a transverse axis, this alternative would provide operational adaptability to reassign inbound lanes to outbound inspections as required. Figure 2-32 shows the proposed traffic flow associated with this alternative.

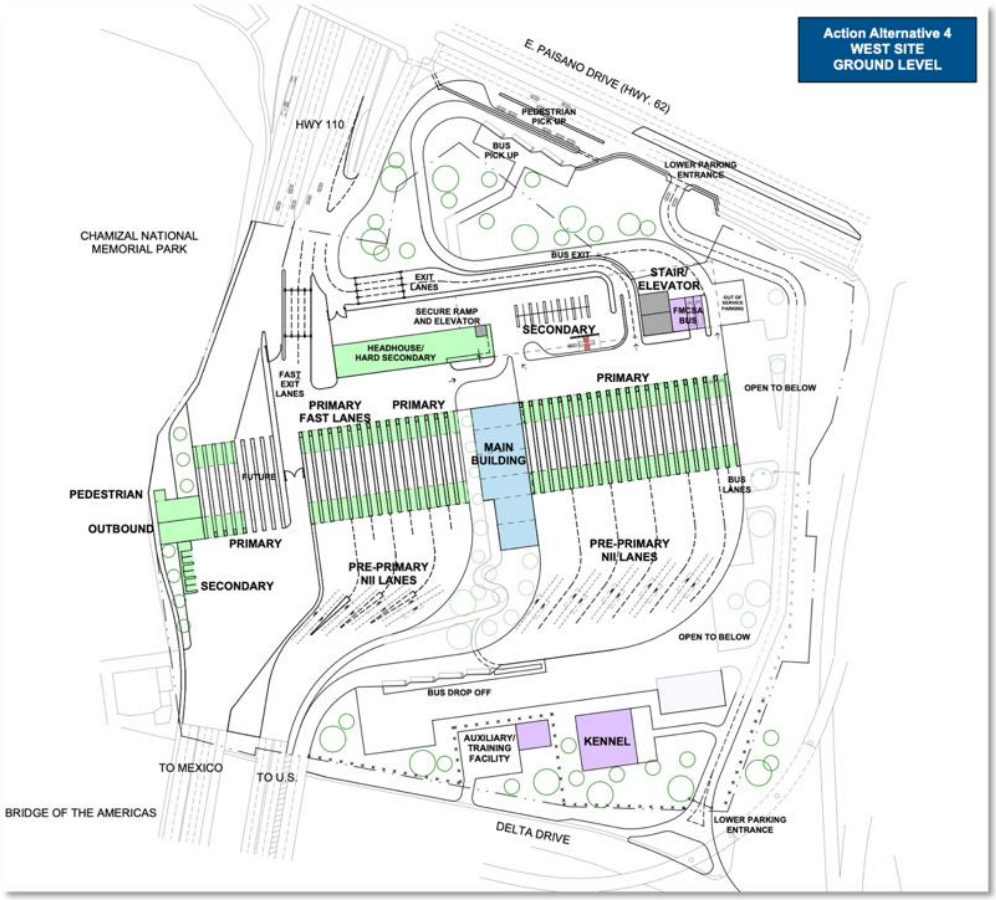


Figure 2-30. Viable Action Alternative 4 – West Site, Ground Level.

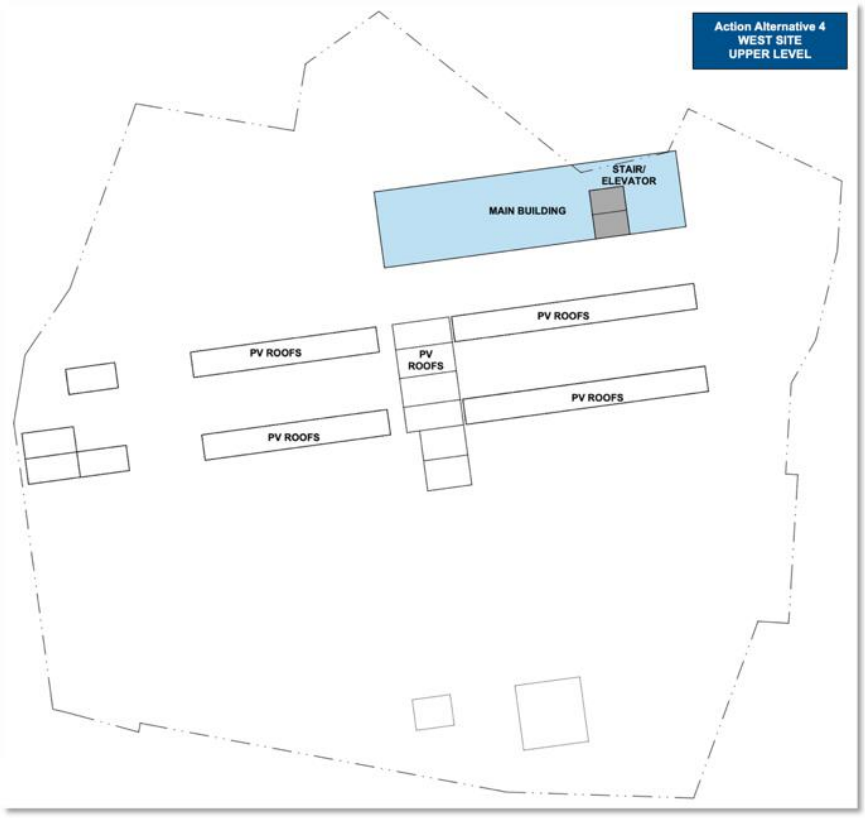


Figure 2-31. Viable Action Alternative 4 – West Site, Upper Level.

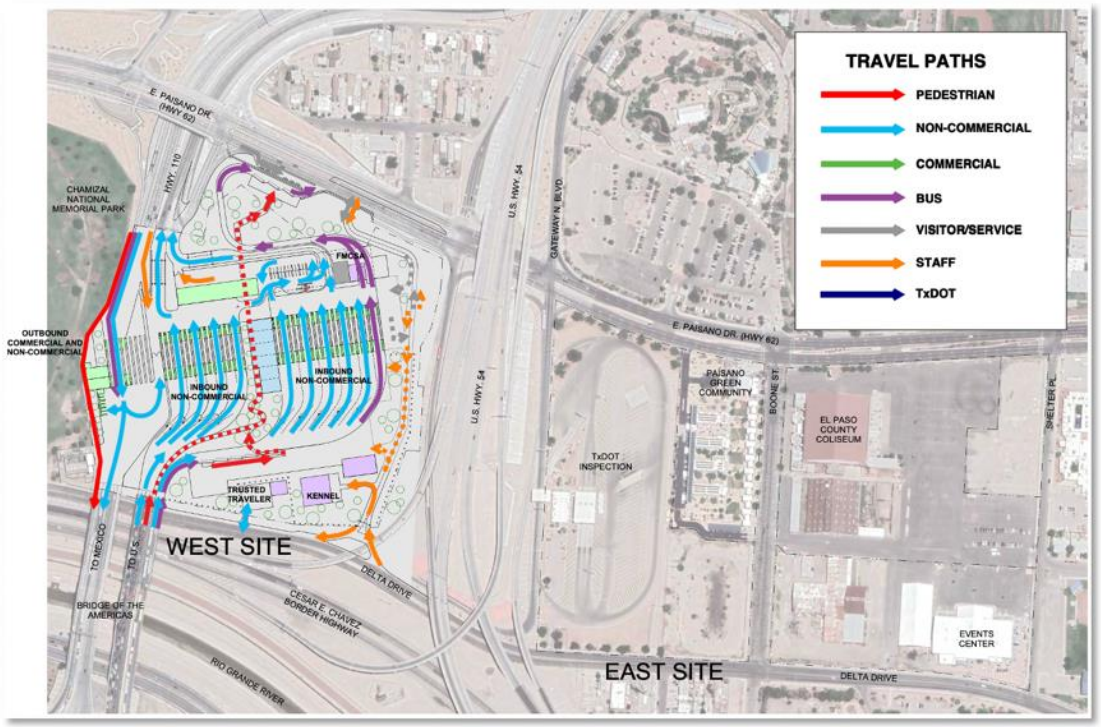


Figure 2-32. Viable Action Alternative 4 Traffic Flow.

2.6.3.6 Demolition/Construction

Similar to the previous alternative, prior to construction activities, and in accordance with the NPDES, TCEQ TPDES, and City requirements (construction sites greater than 5 acres [Phase I] and between 1 and 5 acres [Phase II]), a SWPPP would be developed and implemented for construction activities. A notice of intent (NOI) would be filed with the TCEQ at least 48 hours in advance of construction activities. The SWPPP would be maintained on site and would provide measures to eliminate or reduce any potential impacts to surface water quality in the project area (i.e., implementation of BMPs). Additionally, a 24-hour spill response program conducted in conjunction with the El Paso Fire Department would be implemented. All nearby and/or adjacent businesses, residents, etc. would be notified of the planned demolition/construction (anticipated days, hours of operation, road closures, detours, utility disruptions, etc.). The contractor would ensure site safety and security by the installation/placement of temporary fencing around all work sites. The fencing would remain in place until construction is completed. All construction staging including materials storage/stockpiling and equipment storage would be within the fenced areas.

As mentioned earlier in Section 3.1, based on a REC identified as part of a Phase I ESA conducted for the proposed land acquisition and modernization effort, GSA conducted limited Phase II investigations. According to the assessment, based on visual and field-screening evidence during drilling and the analytical results of the samples, it appears that no impact to the shallow subsurface soil exists in the areas investigated. However, an area of impact to the soil vapor appears to be present. As a result, GSA is currently conducting additional Phase II investigations, the results of which will be provided in the Final EIS. Should the additional investigations result in the identification of soil and/or groundwater contamination, the GSA would coordinate with the TCEQ to ensure that any and all appropriate mitigative/corrective measures be implemented to fully provide for the safety and protection of construction workers, port staff, the travelling public, and the environment.

There are known ACM present at the port and it is currently being managed in place in accordance with GSA policy (GSA Order PBS 1000.1A, Asbestos Management). In accordance with this policy, prior to any demolition activities, ACM inspections would be conducted by a qualified, license inspector and all discovered ACM abated in accordance with USEPA, OSHA, and State of Texas regulations. No LBP surveys or sampling has been conducted at the port and due to the age of several buildings/structures, there is a potential for the presence of LBP. Although this potential does exist, this issue has been eliminated from detailed study because in accordance with GSA policy, prior to any demolition activities, LBP inspections would be conducted by a qualified and licensed inspector and all discovered LBP abated in accordance with USEPA and State of Texas regulations.

To ensure no impacts to listed protected species, in accordance with TPWD prior guidance, any open trenches or excavation areas would be covered overnight and/or inspected every morning to ensure no wildlife species have been trapped. For soil stabilization and/or revegetation of disturbed areas, erosion and seed/mulch stabilization materials that avoid possible entanglement hazards to wildlife species would be utilized when possible. The use of plastic mesh matting erosion control blankets would be avoided when possible to further ensure minimal entanglement hazards to any wildlife. Should any protected species be encountered that would not readily leave the work area, a biologist (with appropriate authorization from the TPWD Wildlife Permits Office) would translocated the animal to the closest suitable habitat outside the active work area(s), generally within 100 to 200 yards and not greater than a mile from the capture site.

In an effort to ensure no impacts to migratory bird species, any vegetation clearing that would be necessary would occur outside of the general bird nesting season (i.e., March 15 through September 15) if possible. If disturbance within the areas must be scheduled during the nesting season, prior to any ground-disturbing or clearing (and within 5 days of any planned clearing), a qualified biologist would survey the area for active nests. If active nests are observed, a 100-foot radius buffer of vegetation would be left until the eggs have hatched and the young have fledged. The buffer could vary based on species and TPWD/USFWS recommendations.

Construction activities could result in short-term interruptions to local utilities. However, any planned disruptions would be coordinated with the local utility provider to minimize any potential impacts to their nearby customers. Construction activities could also require temporary lane closures and/or traffic/ pedestrian rerouting (including potential bus routes and bus stops) which would be closely coordinated with TXDOT and the City of El Paso/Sun Metro. Any required temporary closures or reroutes would be implemented in accordance with prevailing TXDOT and City regulations with regards to signage and permit requirements. Construction activities would typically occur 10 hours per day (7:00 a.m. to 5:00 p.m., or the equivalent), five days per week (Monday through Friday). Should any signage or other features be necessary in the USIBWC ROW, coordination would be conducted with the USIBWC as necessary. All activities would be conducted in accordance with the City of El Paso Noise Ordinance (Title 9 [Health and Safety], Chapter 9.40 [Noise]) as necessary/required and as they relate specifically to Noise Zone III. The contractor would ensure that all equipment used throughout the duration of the demolition/construction, is in good repair, with appropriate exhaust/muffler systems. Demolition/construction workers would also wear hearing protection as necessary and deemed appropriate. Additionally, when demolition/construction activities are planned to occur within 300 feet of pedestrian traffic (or other area deemed noise sensitive by port personnel), acoustical sound barriers/fencing would be utilized to ensure that noise levels are within prevailing standards.

It is anticipated that construction activities would require anywhere from 50 to 100 workers (with an estimated 35 to 50 private vehicles traveling to and from the site daily). When possible, equipment, materials, and labor would be from local sources, and all workers would travel to and from the site via existing roadways. Appendix E contains an estimated list of equipment that would be utilized during overall project implementation. It is important to note that these are only estimates based on similar previous efforts and have been included primarily for the purposes of air quality analysis. Types of equipment and usage estimates tend to be on the “high” side as changes would surely occur at the time demolition/construction activities commence.

The contractor, in accordance with all applicable laws and regulations, would conduct all substantial equipment maintenance at an off-site location. On-site equipment repairs (within the established storage or staging area) would be limited to routine daily maintenance and repairs. Any generated wastes would be recycled or disposed of according to all applicable regulations. Although equipment would generally not be utilized consistently over the entire project duration (i.e., all equipment running all the time), for analysis purposes, it is assumed that the equipment would be operated approximately 10 hours a day and five days a week over the duration of each demolition/construction phase. The contractor would comply with all applicable federal, state, and/or local air pollution control requirements, including using water or other chemicals (applied daily or as needed to exposed soils, stockpiles, etc.) and covering all open-bodied haul trucks to control dust. Additionally, any potential increases in PM emissions would be minimized by using fugitive dust control measures contained in standard specifications (as appropriate). The TERP provides financial incentives to reduce emissions from vehicles and equipment. As part of all proposed modernization efforts, the GSA encourages construction contractors to use this and other local and federal incentive programs to the fullest extent possible to minimize diesel emissions. All construction debris would be recycled or disposed of at an approved landfill in accordance with all applicable federal, state, and local laws and regulations. Similarly, any hazardous wastes generated during the construction (including oils, lubricants, fuels, solvents, asbestos, lead-based paint, Polychlorinated Biphenyl [PCB] containing materials, mercury, etc.) would be disposed of in accordance with all federal, state, and local regulations. The contractor would be required to adhere to all federal guidelines pertaining to solid waste disposal, including (but not limited to) EO 13514 (Federal Leadership in Environmental, Energy, and Economic Performance) and EO 13423 (Strengthening Federal Environmental, Energy, and Transportation Management). Should safety or security issues arise, they would be addressed immediately with local GSA officials or other designated on-site personnel. The contractor would adhere to all federal, state, and local laws and regulations to ensure the safety of all on-site personnel and to protect the welfare of others (including adjacent property, infrastructure, etc.) in the vicinity of the demolition/construction activities.

This alternative would not require a substantial amount of fill for construction due to the relatively flat topography of the site and surrounding area, however, a significant amount of cut would be generated for the underground parking and the large detention/retention vaults that would be included as part of this alternative. As part of site and building/facility design and construction, a full geotechnical investigation would be performed. Should any cut material require off site transportation and disposal, all activities would be conducted in accordance with prevailing City ordinances as well as state and federal regulations.

According to a cultural resources assessment (CRA) conducted as part of the overall planning for the proposed modernization effort, much of an established area of potential effect (APE) for the cultural study has a low probability for intact archaeological resources (including the areas where ground-disturbance/excavation would occur as part of this alternative). However, in the unlikely event that archaeological remains were to be discovered, the contractor would employ the procedures outlined in the CRA (i.e., Inadvertent Discovery Plan, see Appendix E) to ensure no impacts. Additionally, as part of over design, the GSA would coordinate with the Texas SHPO to ensure no impacts to nearby historic resources/districts (i.e., Chamizal National Memorial and the El Paso County Water Improvement District No. 1).

The port and large portions of the areas to the immediate east are in an area described as an "Area with Reduced Flood Risk due to Levee (Zone X)." The nearby Rio Grande is designated as "Zone A – Area Without Base Flood Elevation (BFE)." The port and the area to the east are considered to be in the 100-year floodplain protected by a levee. Under 500- or 100-year flood conditions, should the levee fail or be overtopped, these areas could be inundated. As a result, as a part of the overall port design and layout, flood-resistant and risk mitigation measures would be employed (per GSA P100 Facility Standards) to ensure no potential impacts should the nearby levee fail or be overtopped under a 500- or 100-year flood event.

2.6.3.7 Utilities and Energy Efficiency

Similar to Viable Action Alternative 1a, implementing this alternative would require construction/installation of new utilities throughout the property. Existing connection points/hubs would likely be utilized with only the utility routes and sizes changing throughout the site. Prior to activities involving utilities, coordination would be conducted with the City of El Paso and private utility providers to ensure minimal disruption to existing services in the area.

The design of the facility would be in compliance with Section 438 (Stormwater Runoff Requirements for Federal Development Projects) of the EISA, instructing federal agencies to "use site planning, design, construction, and maintenance strategies for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to temperature, rate, volume, and duration of stormwater flow" for any project with a footprint that exceeds 5,000 square sf. Additionally, EO 13514 directs all federal agencies to "lead by example" to address a wide range of environmental issues, including stormwater runoff. The EO required the USEPA, in coordination with other federal agencies, to develop guidance for compliance with the EISA. As a result, the USEPA coordinated the development of the Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the EISA. The guidance provides a step-by-step framework to help federal agencies maintain pre-development site hydrology by retaining rainfall on-site through infiltration, evaporation/transpiration, and re-use to the same extent as occurred prior to development.

LEED criteria would include a 25 percent reduction in the volume of stormwater runoff from the 2-year 24-hour design storm and removal of 80 percent of the average annual post development total suspended solids for 90 percent of the average rainfall. Development would include retention or detention of 100 percent of the runoff from all properties. GSA's facilities development goals are designed to promote energy efficiency and provide building/facilities design that are resilient, durable, maintainable, efficient, and flexible. This action alternative broadly supports these and other operational excellence goals. While LEED Gold is the minimum standard, GSA would determine the specific sustainability goals for this project as the

design process progresses and is committed to creating long-lasting, durable, sustainable, climate-resilient facilities. All new GSA construction projects utilize the 2019 version of ASHRAE Standard 90.1. As part of implementing this alternative, GSA would set an energy target reduction at least 30 percent below the energy model baseline. The proposed modernization effort would utilize the 2016 Guiding Principle #2 to set an energy target. GSA requires that all project types above prospectus use Architecture 2030's 2030 Challenge to set an energy target per specific fossil fuel reductions compared to the 2003 CBECS data. Along with GSA's sustainability goals, customer agencies' sustainability goals and targets would also be integrated as part of this alternative. There are several specific design features associated with this alternative that support GSA's sustainability, durability, and resilience goals including:

- The density of land use would reduce the need for significant land consumption and for large amounts of concrete paving.
- Use of low embodied carbon concrete and steel as required by P100.
- Use of environmentally preferable asphalt.
- Photovoltaic panels on all building roofs and canopies would provide a great deal of on-site renewable energy.
- The sunken garden would provide landscaping and introduce natural daylight into the lower-level pedestrian/bus passenger processing hall.
- Additional opportunities to plant trees within the port would also be provided for a cooling effect.
- Use of native plants, shade trees and xeriscaping and P100-compliant irrigation systems.
- The flexibility for future use is particularly significant; a central tenet of sustainable development is designing buildings that can adapt and endure, buildings that do not need to be demolished and oft rebuilt.

Additional strategies that could be easily incorporated as the building/facility design progresses includes high-performance building envelopes, natural ventilation, and bird-safe designs to name a few.

2.6.3.8 Scheduling and Phasing

The primary objective for phasing construction activities would be to minimize disruption of existing port operations, transit, etc. while maintaining continuous port operations. Modernization activities associated with this alternative would be expected to begin in early 2026 and be completed late 2028 to early 2029 (2 ½ to 3 years) (GSA 2023). Similar to the previous alternative, this alternative would allow CBP to maintain continuous POV, bus, and pedestrian operations during construction, although the number of inbound and outbound POV inspection lanes would likely be reduced temporarily at times. This alternative includes three (3) phases designed to prioritize construction activities and restore port operations to 100 percent as soon as possible. The construction associated with each phase is described below. Table 2-8 shows the inspection lanes/spaces operational by phase. Figures 2-33 through 2-41 show the phased implementation.

Phase 1

- All Commercial Cargo Operations Stop
- Eastern Bank of Non-Commercial Pre-Primary and Primary Inspection Lanes
- Non-Commercial Secondary Inspection Area
- Main Building
- Eastern Half of Headhouse
- Pedestrian/Bus Passenger Ramps down to Sunken Garden
- East Paisano Drive Pickup Plaza
- FMCSA Bus Inspections/Support Building
- Below-Grade Staff and Visitor Parking
- Outbound Building
- Kennel
- Trusted Traveler Facility

- Central Plant/Utility Yard

Phase 2

- Western Bank of Non-Commercial Pre-Primary and Primary Inspection Lanes
- Western Half of Headhouse/Hard Secondary
- Non-Commercial Exit Lanes
- Partial Underground Stormwater Retention Area

Phase 3

- Partial Underground Stormwater Retention Area
- Outbound Non-Commercial Primary and Secondary Inspection

2.6.3.9 Operations

As mentioned earlier in Section 2.6.3.1, this alternative is considered to be a compact and land-efficient design/sight layout that focuses on developing operational efficiency and maximum flexibility through all aspects of port operations. These efficiencies would be realized by agency personnel staffing the port as well as the travelling public. Other than the newly realized operational efficiencies that would be associated with this alternative, day-to-day operations would largely remain the same. Several key operational efficiencies noted earlier that would be realized as part of this alternative include:

- Highly compact plan
- Minimal land acquisition (8-acre acquisition from TxDOT largely within existing adjacent ROW)

Table 2-8 Inspection Lanes Operational by Phase.

Operational Inspection Lanes/Spaces by Construction Phase					
Inspection Lanes/Spaces	Current	Phase 1	Phase 2	Phase 3	Final
Outbound Non-Commercial Primary	4	2	2	3	4
Outbound Non-Commercial Secondary	0	6	6	6	6
Outbound Commercial Primary	1	N/A	N/A	N/A	N/A
Outbound Commercial Secondary	2	N/A	N/A	N/A	N/A
Outbound Bus Primary	*	*	*	*	*
Outbound Bus Secondary	**	**	**	**	**
Inbound Non-Commercial Primary	14	11	19	27	35
Inbound Non-Commercial Secondary	12	12	20	20	20
Inbound Bus Primary	***	1	2	2	2
Inbound Bus Secondary	**	**	**	1	**
Inbound Commercial Primary	6	N/A	N/A	N/A	N/A
Inbound Commercial Secondary	64	N/A	N/A	N/A	N/A

* One lane shared with Outbound Non-Commercial
** Shared with Non-Commercial Secondary or FMCSA
*** Shared with Inbound Non-Commercial

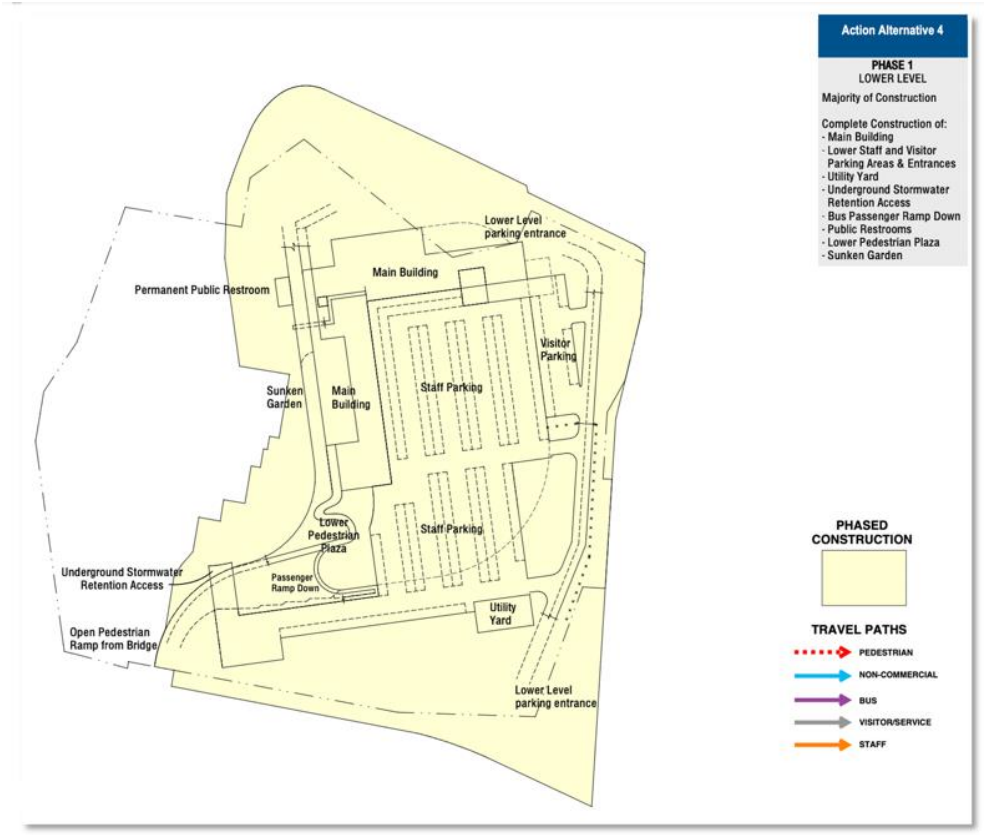


Figure 2-33. Viable Action Alternative 4 – Phase 1 Lower Level.

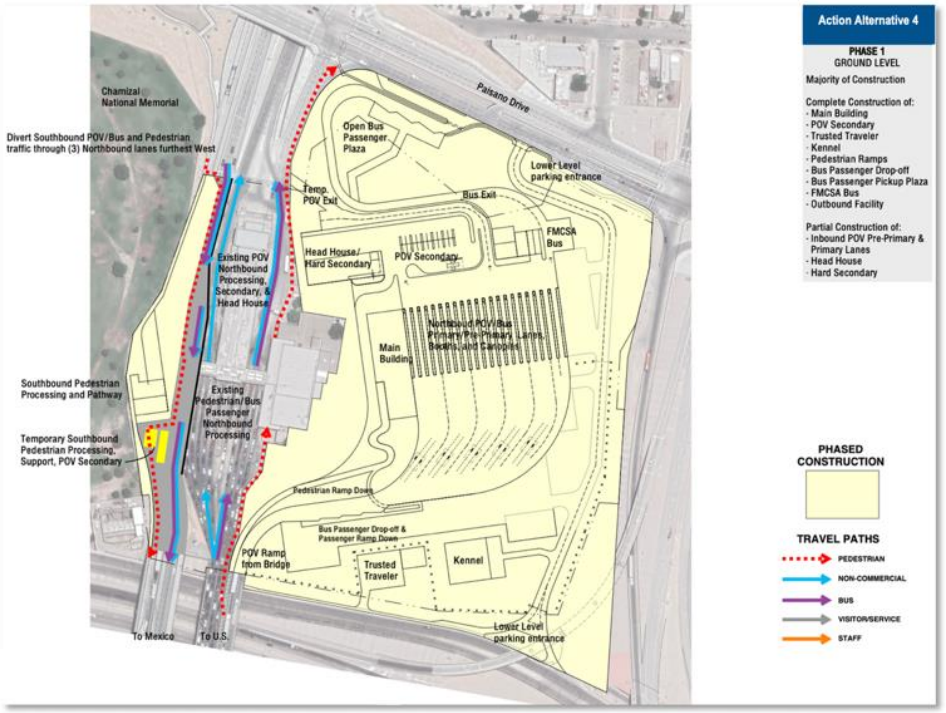


Figure 2-34. Viable Action Alternative 4 – Phase 1 Ground Level.

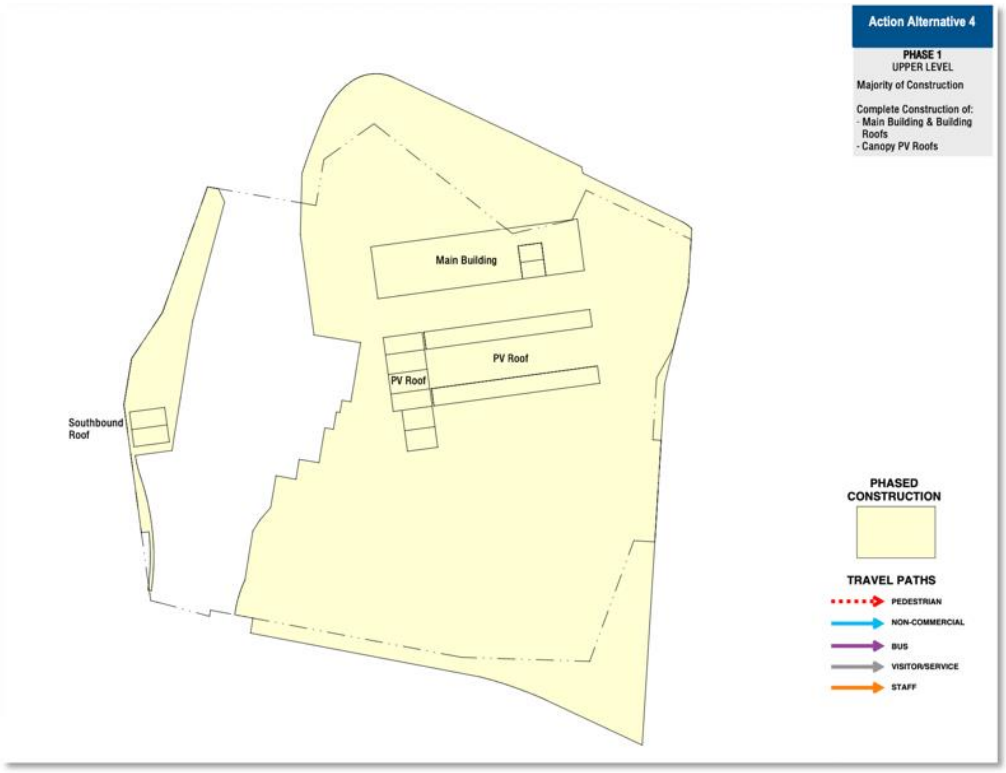


Figure 2-35. Viable Action Alternative 4 – Phase 1 Upper Level.

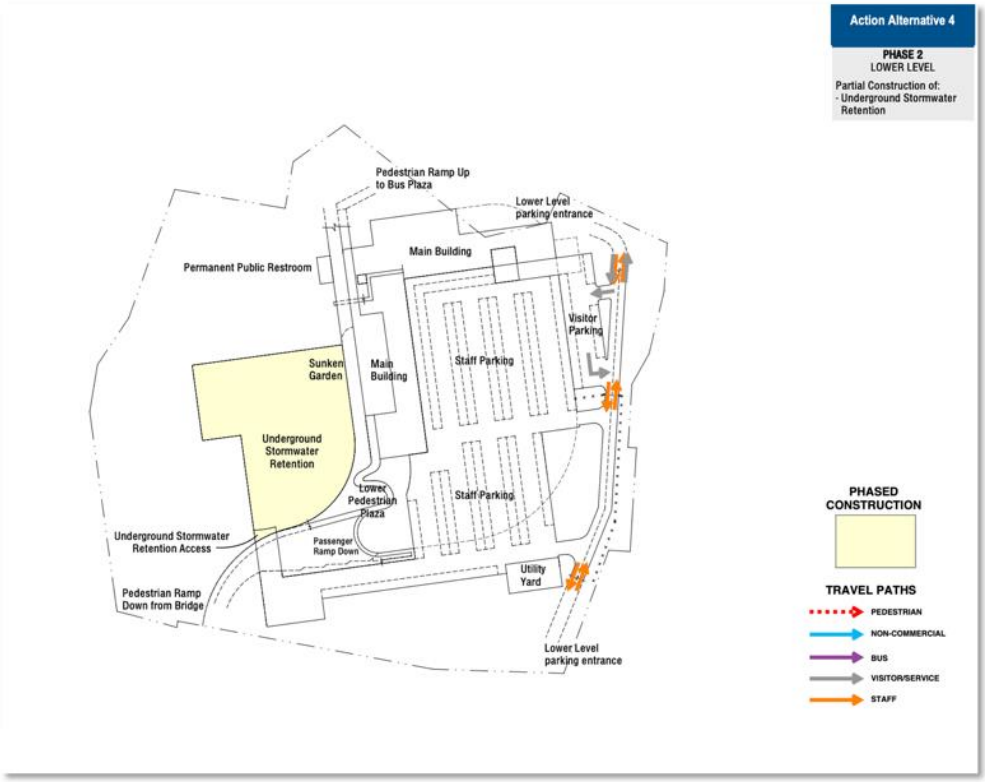


Figure 2-36. Viable Action Alternative 4 – Phase 2 Lower Level.

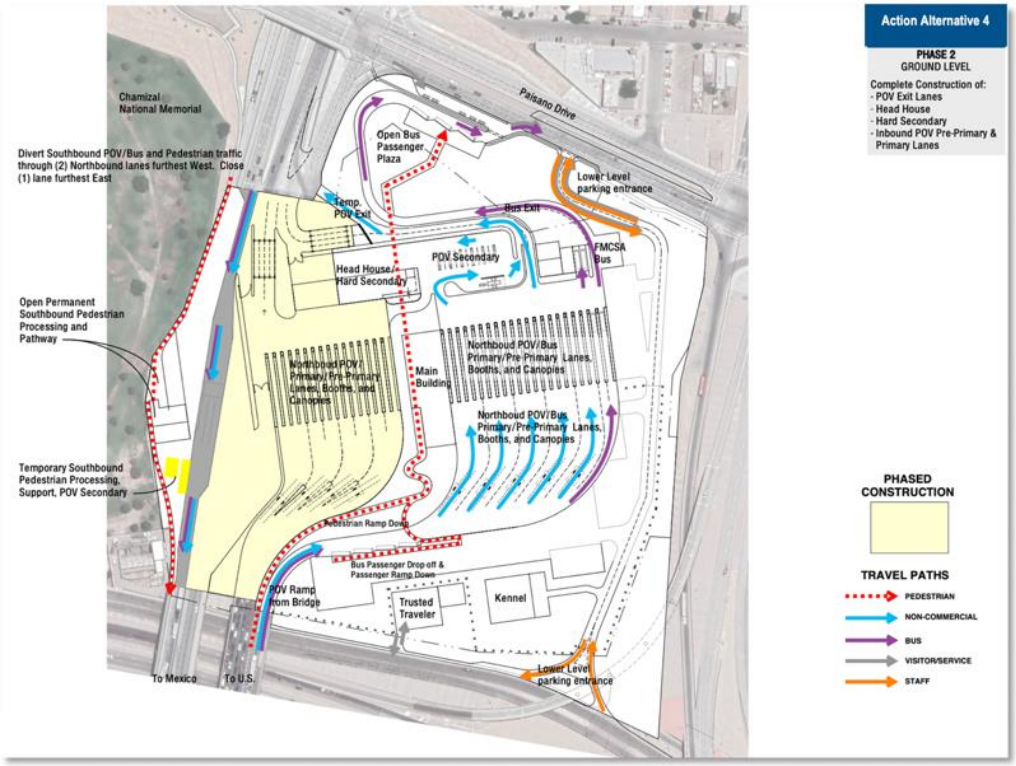


Figure 2-37. Viable Action Alternative 4 – Phase 2 Ground Level.

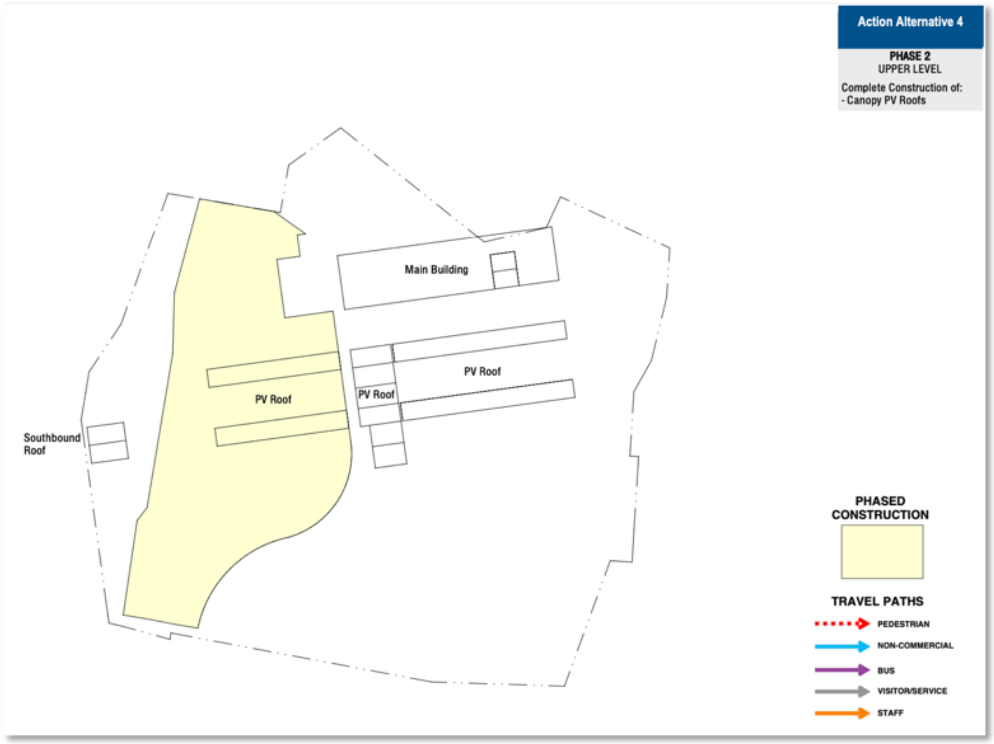


Figure 2-38. Viable Action Alternative 4 – Phase 2 Upper Level.

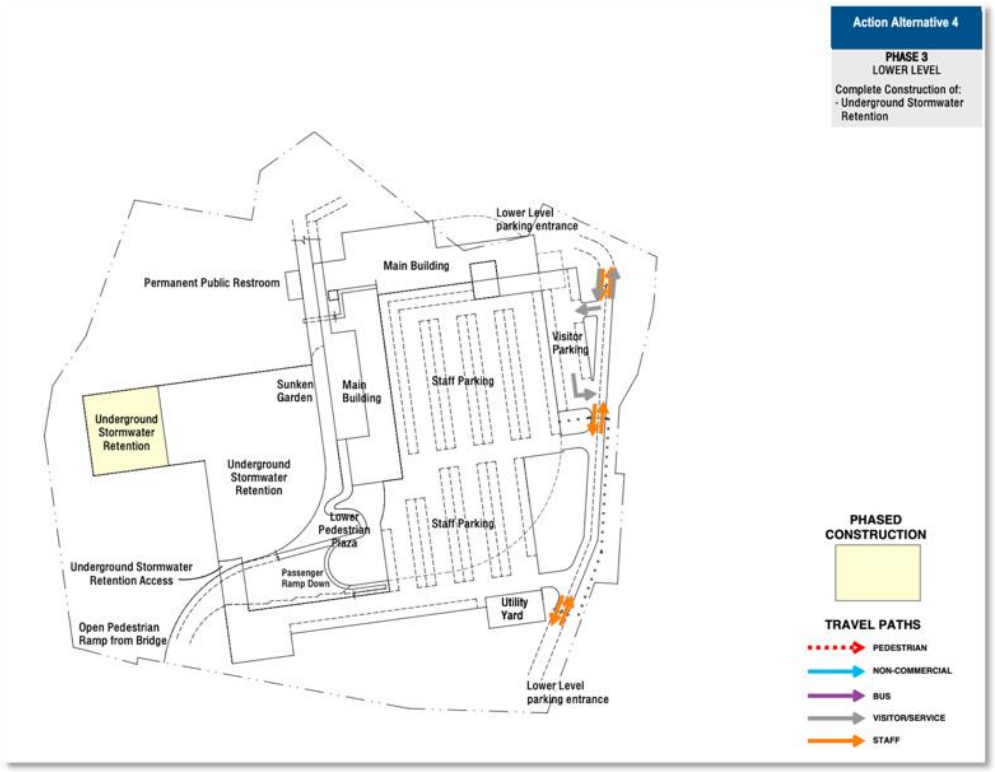


Figure 2-39. Viable Action Alternative 4 – Phase 3 Lower Level.

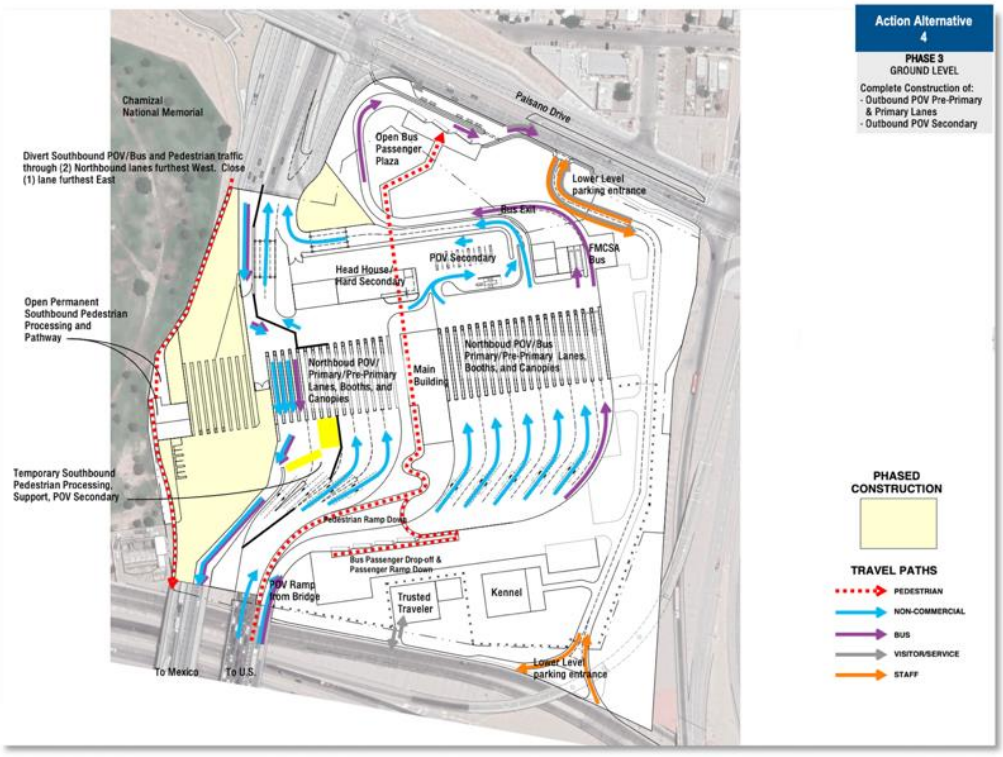


Figure 2-40. Viable Action Alternative 4 – Phase 3 Ground Level.

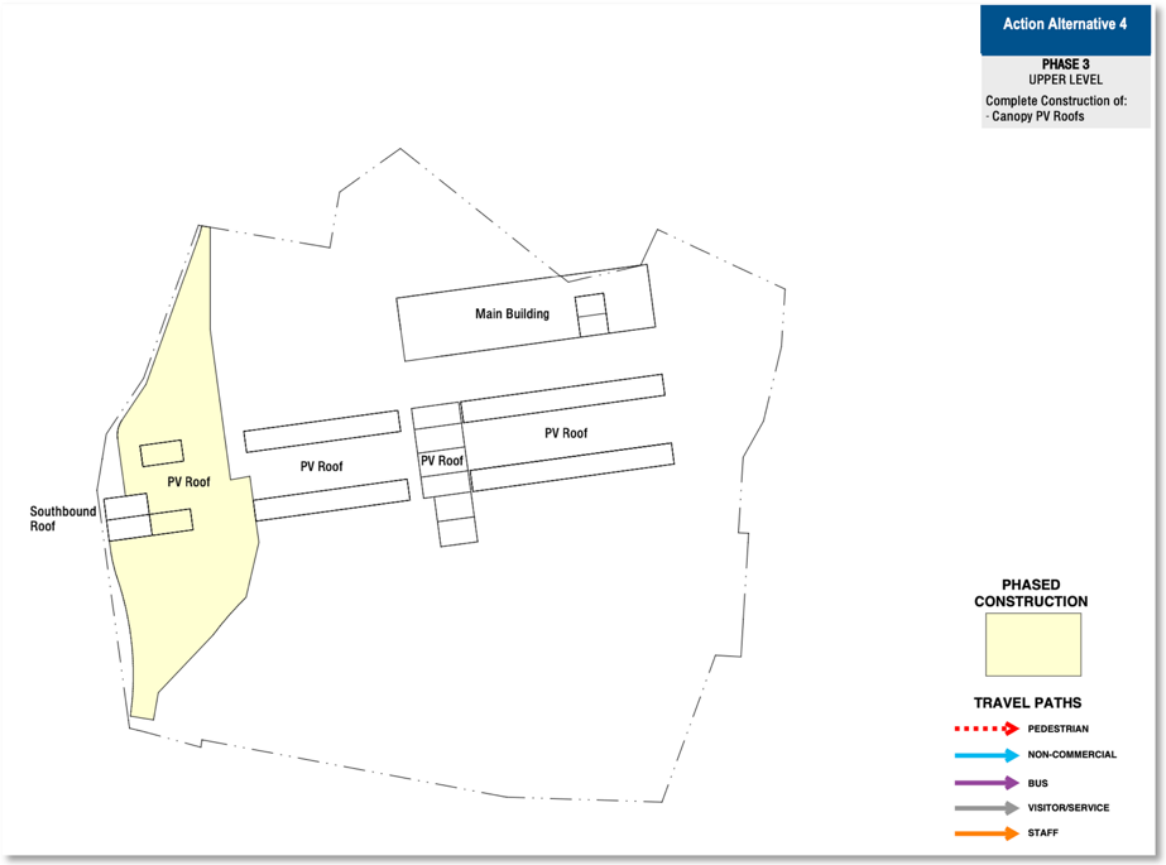


Figure 2-41. Viable Action Alternative 4 – Phase 3 Upper Level.

- POV, bus, and pedestrian traffic all on the existing (west) site
- Elimination of all commercial cargo operations
- Efficient operations and circulation
- Interconnected CBP operations buildings
- Lower-level staff and visitor parking
- Lower-level pedestrian processing
- Below-grade stormwater detention/retention vaults

As mentioned earlier in Section 1.3 and 1.4, traffic increases would be expected over the coming years and into the future. Although no immediate staffing level increases are currently anticipated, future programmed staffing would ensure continued operational efficiencies with regards to projected increases in traffic. Based on current CBP staffing allocation vs workload staffing modeling, CBP estimates a 15 percent employee growth rate over the coming years which would mean anywhere from an estimated 445 to 470 federal workforce at the port on a daily basis. The same estimated growth factor would result in an estimated 600 government and/or employee/private vehicles in the port vicinity daily with daily vehicle round trips (CBP 2024).

Similar to the previous alternative, it should also be noted, that through the Chamizal Treaty of 1963 (Article 10, Minutes 214, 219, 290, and 300), O&M of the bridge itself has been paid for by fees that were previously assessed in the 1990s on each commercial vehicle that utilized the bridge. The fees were collected by the EPFTA and distributed to the USIBWC for on-gong O&M activities associated only with the bridge. As part of the agreement between the US and Mexico, all parties agreed to revisit the O&M funding agreement in the 25th year (August 2024). All parties involved are currently working on a new agreement that would

provide O&M funding well past 2024. Should future commercial cargo operations be eliminated as part of this alternative, the option for these fees to be collected again would no longer be available and a new source of O&M funding would need to be secured.

2.7 COMPARISON OF THE ALTERNATIVES

Table 2-9 provides a summary comparison of the alternatives as they relate to the purpose and need criteria developed by GSA and the stakeholders as presented earlier in Section 1.4. As presented below, the terms "impacts," "effects," and "consequences" are used interchangeably. According to CEQ NEPA regulations (40 CFR 1500-1508), direct and indirect effects are defined as:

- **Direct effects –** Effects, which are caused by the action and occur at the same time and place (1508.1[g][1]). In other words, direct impacts are those that are caused directly and immediately from project-related activities, such as ground-disturbing activities associated with razing the existing buildings/facilities and infrastructure at the port and those associated with installation of new utilities, construction of new buildings/facilities and infrastructure, etc. Most direct effects are confined to the project footprint, but some may extend beyond the project boundary (e.g., noise, air, socioeconomic, etc.).

- **Indirect effects –** Effects, which are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems (1508.1[g][2]). Indirect effects are spatially removed from project-related activities and/or occur later in time but are reasonably certain to occur. For example, soil erosion could lead to adverse impacts on water quality, such as causing turbidity and sedimentation in streams during rain events. These types of impacts tend to be diffuse, resource-specific, and less amenable to quantification or mapping than direct effects.

Impacts may be either adverse or beneficial. For the purposes of this EIS, the following definitions are used in the impacts analyses:

- **Adverse impacts** – Those impacts which, based on prevailing regulatory standards, limits, or other measures, or in lieu of such regulatory standards, in the judgment of an expert resource area analyst, are regarded by the regulatory agency and/or the general population as having a negative and harmful effect on the analyzed resource area.

- **Beneficial impacts** – Those impacts which, based on prevailing regulatory standards, limits, or other measures, or in lieu of such regulatory standards, in the judgment of an expert resource area analyst, are regarded by the regulatory agency and/or the general population as having a positive or supportive effect on the analyzed resource area.

As described earlier in Section 1.0, the CEQ definition of significantly is framed in terms of "context" and "intensity:"

- **Context** - means the geographic, social, and environmental contexts within which the project may have effects (either short- or long-term in nature). The regulations refer to: (1) society as a whole, defined as including all human society and the society of the nation, (2) the affected region, (3) affected interests, such as those of a community, Indian tribe, or other group, and (4) the immediate locality.

- **Intensity** - is the severity of the potential impact considered in context. The regulations direct agencies to consider: (1) both beneficial and adverse impacts, (2) impacts on human health and safety, and (3) impacts on an area's unique characteristics, such as historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, and ecologically critical areas.

Significance criteria have been defined as a means of estimating or measuring the degree of potential environmental impact. The significance of impacts was determined systematically by assessing the magnitude (how much) and duration (how long) of a potential impact. Table 2-10 shows the criteria.

Table 2-11 provides a summary of the anticipated environmental consequences associated with implementing the proposed action through the selection of each action alternative or selecting the no action alternative.

Table 2-9. Summary Comparison of Alternatives and Purpose and Need Guidelines.

Purpose and Need Guidelines	No Action Alternative	Action Alternative 1a	Action Alternative 4
Comply with the CBP Land Port of Entry Design Standard (CBP 2023) and associated new/updated POR requirements.	No	Yes	Yes
Comply with GSA's Facilities Standards for the Public Buildings Service (P100) (GSA 2018).	No	Yes	Yes
Support the growth needs of the CBP, other tenant agencies, and the needs of the local community.	No	Yes	Yes
Provide for increased CBP and tenant efficiencies.	No	Yes	Yes
Improve vehicular and pedestrian traffic flow and processing times.	No	Yes	Yes
Improve the safety of workers and the traveling public.	No	Yes	Yes
Provide the improvements consistent with the goals of stakeholders (when possible).	No	Yes (partial – community)	Yes
Minimize disruption to CBP and other tenant agencies' operations and activities throughout any improvements.	Yes	Yes	Yes
Minimize the impact to the environment and the local community.	Yes	Yes	Yes
Provide the improvements in a cost-effective manner.	--	Yes	Yes

Table 2-10. Environmental Impact Significance Criteria.

Criteria	Magnitude
Significant	Substantial impact or change to a resource that is easily defined, noticeable and measurable, or which exceeds regulatory standards.
Moderate	Noticeable change in a resource occurs but the integrity of the resource remains intact.
Minor	Change in a resource occurs but no substantial impact results.
Negligible	The impact is at the lowest level of detection, barely measurable but with perceptible consequences.
None	The impact is below the threshold of detection with no perceptible consequences.
Criteria	**Duration**
Permanent	Impact would last indefinitely.
Long-Term	Impact would likely last the lifetime of the project.
Short-Term	Impact would last for a short period or portion of the project.

Table 2-11. Alternatives Comparison Matrix Summary.

Environmental Attributes (Threshold Criteria)	No Action Impact (Magnitude and Duration)	Alternative 1a Impact (Magnitude and Duration)	Alternative 4 Impact (Magnitude and Duration)
Hazardous Materials, Waste, and/or Site Contamination			
Results in significant hazardous materials and/or waste generated, transported, and/or disposed of as a result of construction and/or operational activities? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Existing hazardous materials, waste, or site contamination issues present and if so, have been investigated/ remediated to appropriate standards for future use of the site? Any anticipated impacts?	No, None	No, None	No, None
Public Services, Infrastructure, and Utilities			
Results in significant strain/demand on existing public services, infrastructure, and/or utilities? Any anticipated impacts?	No, None	No, None	No, None
Results in significant disruption to existing public services, infrastructure, and/or utilities? Any anticipated impacts?	No, None	No, Potential - Negligible/Minor Short-Term Negative[1]	No, Potential – Negligible/Minor Short-Term Negative[1]
Allows GSA and the public to realize the energy efficiency benefits associated with modernization of the port and sustainable building/infrastructure design (see Section 1.6.3.5). Any anticipated impacts?	No, Negligible/Minor Long-Term Negative	Yes – Minor/Moderate Long-term Beneficial Impacts and Negligible/Minor Short Term Adverse Impacts[1]	Yes – Minor/Moderate Long-term Beneficial Impacts and Negligible/Minor Short Term Adverse Impacts[1]

1 - Based on environmental commitments associated with implementation (see Sections 2.6.2.6 and 2.6.3.6).

Table 2-11 (cont.). Alternatives Comparison Matrix Summary.

Environmental Attributes (Threshold Criteria)	No Action Impact (Magnitude and Duration)	Alternative 1a Impact (Magnitude and Duration)	Alternative 4 Impact (Magnitude and Duration)
Surface Waters, Drainage, and Floodplains			
Results in significant impacts to surface water features including wetlands and/or waters of the U.S? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Results in significant stormwater run-off in excess of that regulated by federal, state, and/or local code/ordinance? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Results in development within the defined 100-year flood zone? Facility is a designated Critical Action Facility? Any anticipated impacts?	No, None	No, None [2]	No, None [2]
Land Use and Zoning (including Visual and Aesthetics)			
Results in conflict with existing and/or planned land use of the site? Any anticipated impacts?	No, None	No, None	No, None
Results in conflict with existing and/or planned land use of the immediate surrounding area? Any anticipated impacts?	No, None	No, None	No, None
Would be in conflict with prevailing zoning designations? Any anticipated impacts?	No, None	No, None	No, None
Results in visual/aesthetic impacts not consistent with surrounding land use? Results in a perceived visual impact to residents, visitors, or others in the area? Any anticipated impacts?	No, None	Yes, Minor Short-Term Negative (construction), Minor-Moderate Long-Term Beneficial (new facilities), Minor-Moderate Short/Long-Term Negative (continued truck traffic)[3]	Yes, Minor Short-Term Negative (construction), Minor-Moderate Long-Term Beneficial (new facilities), Moderate Long-Term Beneficial (immediate elimination of truck traffic)[4]
Cultural Resources			
Results in significant effects to archaeological resources (buried historic resources)? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Result in significant effects to historic districts and/or architectural properties (built historic resources)? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Results in significant effects to Tribal religious or cultural resources? Any anticipated impacts?	No, None	No, None	No, None

1 - Based on environmental commitments associated with implementation (see Sections 2.6.2.6 and 2.6.3.6).
2 – See Appendix G for CBP Critical Action Facility designation.
3 – Should the future option to eliminate commercial traffic at the BOTA LPOE be implemented, the visual impact would be eliminated at BOTA and likely shift to one or more of the other nearby ports.
4 – The current negative visual impact of commercial traffic at and around the BOTA LPOE would be immediately eliminated, however, that moderate impact would likely shift to one or more of the other nearby ports.

Table 2-11 (cont.). Alternatives Comparison Matrix Summary.

Environmental Attributes (Threshold Criteria)	No Action Impact (Magnitude and Duration)	Alternative 1a Impact (Magnitude and Duration)	Alternative 4 Impact (Magnitude and Duration)
Environmental Justice and Protection of Children			
Result in disproportionate and adverse effect on a low-income, people of color population, Tribes, or persons with disabilities? Any anticipated impacts?	Yes, Long-Term Minor-Moderate Adverse	Yes, Short-Term Minor-Moderate Adverse[1], Short-Term Minor Beneficial, Long-Term Moderate-Significant Adverse or Long-term Moderate-Significant Beneficial[2], Long-Term Minor Beneficial	No, Short-Term Minor-Moderate Adverse[1], Short-Term Minor Beneficial, Long-term Moderate-Significant Beneficial, Long-Term Minor Beneficial
Results in disproportionately high and adverse environmental health and safety risk to children? Any anticipated impacts?	Yes, Long-Term Minor-Moderate Adverse	Yes, Short-Term Minor-Moderate Adverse[1], Long-Term Moderate-Significant Adverse or Long-term Moderate-Significant Beneficial[2]	No, Short-Term Minor-Moderate Adverse[1], Long-term Moderate-Significant Beneficial
Socioeconomics			
Result in significant change to area population and housing? Any anticipated impacts?	No, None	No, Short-Term Negligible, Long-Term Negligible	No, Short-Term Negligible, Long-Term Negligible
Results in significant change in area employment, unemployment, and/or income? Any anticipated impacts?	No, None	No, Short-Term Minor Beneficial, Long-Term Minor Beneficial	No, Short-Term Minor Beneficial, Long-Term Minor Beneficial
Results in significant change to area businesses/ revenue as a result of purchasing, rentals, etc? Any anticipated impacts?	No, None	No, Short-Term Minor Beneficial, Long-Term Minor Beneficial	No, Short-Term Minor Beneficial, Long-Term Minor Beneficial
Results in a significant change to community services? Any anticipated impacts?	No, None	No, Short-Term Minor Adverse	No, Short-Term Minor Adverse
Results in a significant change to perceived quality of life? Any anticipated impacts?	No, Long-term moderate adverse	Yes, Short-Term Minor to Moderate Adverse, Long-Term Moderate to Significant Adverse (Future No Trucks) No, Short-Term Minor to Moderate Adverse, Long-Term Minor Adverse and Moderate Beneficial	No, Short-Term Minor to Moderate Adverse, Long-Term Minor Adverse and Minor to Moderate Beneficial

1 - Based on implementation of the mitigation/protective measures described in Section 2.6.2.6 and 2.6.3.6.
2 – Long-term moderate-significant adverse effect from southbound trucks idling at the BOTA LPOE would be eliminated should the future removal of all commercial cargo traffic be implemented under the Alternative 1a (Future No Trucks) option. This would be considered to be a long-term moderate-significant beneficial effect.

Table 2-11 (cont.). Alternatives Comparison Matrix Summary.

Environmental Attributes (Threshold Criteria)	No Action Impact (Magnitude and Duration)	Alternative 1a Impact (Magnitude and Duration)	Alternative 4 Impact (Magnitude and Duration)
Noise			
Would be in conflict with prevailing local noise ordinances? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Results in unacceptable short-/long-term noise levels to workers or port personnel? Any anticipated impacts?	No, None[1]	Yes, Short-Term Negligible Adverse Construction[1]	Yes, Short-Term Negligible Adverse Construction[1]
Results in unacceptable short-/long-term noise levels to visitors or pedestrian travelers? Any anticipated impacts?	No, None[1]	Yes, Short-Term Negligible Adverse Construction[1]	Yes, Short-Term Negligible Adverse Construction[1]
Results in unacceptable short-/long-term noise levels to nearby sensitive receptors? Any anticipated impacts?	Yes, Long-Term Minor to Moderate Adverse (Truck Idling)	Yes, Short-Term Negligible Adverse (Construction) Yes, Long-Term Minor to Moderate Adverse Truck Idling Yes, Long-Term Moderate to Significant Beneficial (Future No Truck Option) [2]	Yes, Short-Term Negligible Adverse Construction[1] Yes Long-Term Moderate to Significant Beneficial (Immediate Elimination of Truck Traffic)
Results in vibrations that could affect nearby sensitive receptors? Any anticipated impacts?	No, None	No, None[1]	No, None[1]

1 - Based on implementation of the mitigation/protective measures described in Section 2.6.2.6 and 2.6.3.6.
2 – Long-term minor to moderate adverse impact from southbound trucks idling would be eliminated should the future removal of all commercial cargo traffic be implemented. This is considered to be a long-term moderate to significant beneficial impact.

Table 2-11 (cont.). Alternatives Comparison Matrix Summary.

Environmental Attributes (Threshold Criteria)	No Action Impact (Magnitude and Duration)	Alternative 1a Impact (Magnitude and Duration)	Alternative 4 Impact (Magnitude and Duration)
Traffic (Vehicular and Pedestrian), Transportation and Parking			
Would result in a change in vehicular traffic congestion, delays, or safety risks on roadways? Any anticipated impacts?	No, None (no construction) Yes, Minor-Moderate (approaching significant) Long-Term Adverse (SB truck traffic, increased traffic over time w/ no improvements)	Yes, Negligible-Minor Short-Term Adverse (Construction)[1] Yes, Moderate-Significant Long-Term Adverse Operations (SB truck traffic)[2]	Yes, Negligible-Minor Short-Term Adverse (Construction)[1] Yes, Moderate to Significant Long-Term Beneficial (elimination of truck traffic)
Would result in change in the LOS on roadways? Any anticipated impacts?	No, Minor-Moderate Long-Term Negative	Yes, Minor-Moderate Long-Term Adverse Operations (Alt 1a without truck traffic)	No, Minor-Moderate Long-Term Beneficial
Would result in change in the operating capacity of the LPOEs? Any anticipated impacts?	No, Minor-Moderate Long-Term Negative	No, Minor-Moderate Long-Term Beneficial	No, Minor-Moderate Long-Term Beneficial
Would result in change in pedestrian and bicycle activity? Any anticipated impacts?	No, None	No, Minor- Long-Term Beneficial	No, Minor- Long-Term Beneficial
Air Quality			
Results in a short-term increase above de minimis standards or causes an exceedance or violation of prevailing NAAQS? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Results in a long-term increase above de minimis standards or causes an exceedance or violation of prevailing NAAQS? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Results in short- or long-term public/community health or other related environmental impact?	Yes, Long-Term Moderate-Significant Adverse Impact	Yes, Long-Term Moderate-Significant Adverse Impact (Truck Traffic) Yes, Long-Term Moderate-Significant Beneficial Impact (elimination of truck traffic future option)[2]	Yes, Long-Term Moderate-Significant Beneficial Impact (immediate elimination of truck traffic)
Results in short- or long-term impacts as a result of Regional NOx and/or VOC increases? Any anticipated Impacts?	Yes, Long-Term Negligible to Minor Adverse	Yes, Long-Term Negligible to Minor Beneficial	Yes, Long-Term Negligible to Minor Beneficial
Results in GHG emissions above established standards? Any anticipated impacts?	No, None	No, None	No, None

1 - Based on implementation of the mitigation/protective measures described in Section 2.6.2.6 and 2.6.3.6.
2 – Long-term moderate to significant adverse impact from cargo trucks would be eliminated should the future removal of all commercial cargo traffic be implemented. This is considered to be a long-term moderate to significant beneficial impact.

SECTION 3.0
AFFECTED ENVIRONMENT

This section of the EIS describes the existing environmental condition of the resources that could be impacted should the GSA implement the proposed port improvements through selection of one of the alternatives described earlier in Section 2.6. For select resources, the affected environment is defined as any area where ground-disturbing activities would occur as a result of the proposed modernization of the port – either as part of action alternative 1a or 4 (i.e., the BOTA LPOE and immediate surrounding areas. These areas are shown below in Figure 3-1 and 3-2. Where it pertains to other resources or issues, larger regions of influence (ROI) have been established (as appropriate) to better assess the overall potential impact to the community or area as a whole. Examples include socioeconomics (including environmental justice and protection of children), traffic, and air quality.

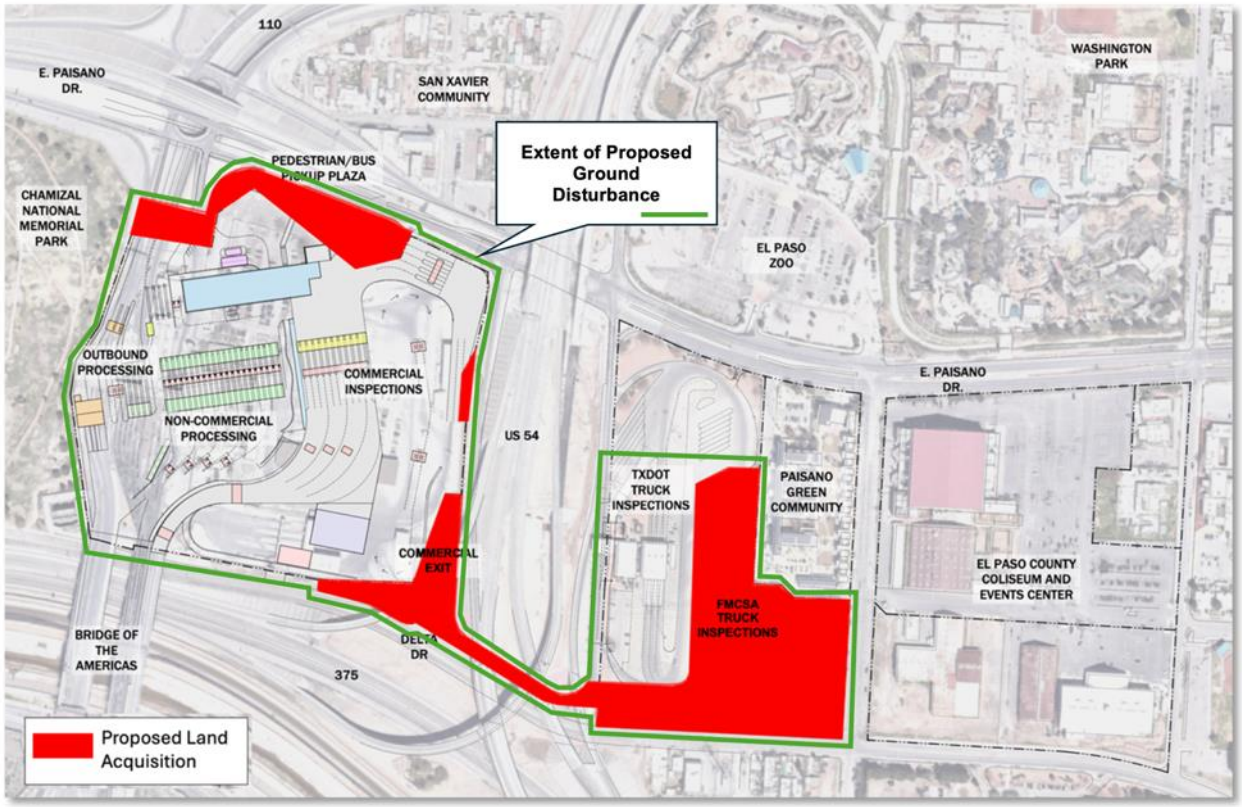


Figure 3-1. Extent of Ground-Disturbance Associated with Action Alternative 1a.

As stated earlier, in accordance with CEQ regulations (§1500.4 and §1501.7), issues to be addressed or important issues relating to this proposed action have been identified through stakeholder and public scoping/informational meetings. It is important to note that the issues identified for analysis as a result of these meetings could be altered by the public involvement process conducted as the NEPA process progresses. Issues studied in detail include:

- Hazardous Materials, Waste, and/or Site Contamination
- Public Services, Infrastructure, and Utilities
- Surface Waters, Drainage, and Floodplains
- Land Use and Zoning (including Visual and Aesthetics)
- Cultural and Historic Resources
- Socioeconomics (including Environmental Justice and Protection of Children)

- Noise and Vibration
- Traffic (Vehicular and Pedestrian), Transportation, and Parking
- Air Quality (including Greenhouse Gas Emissions)

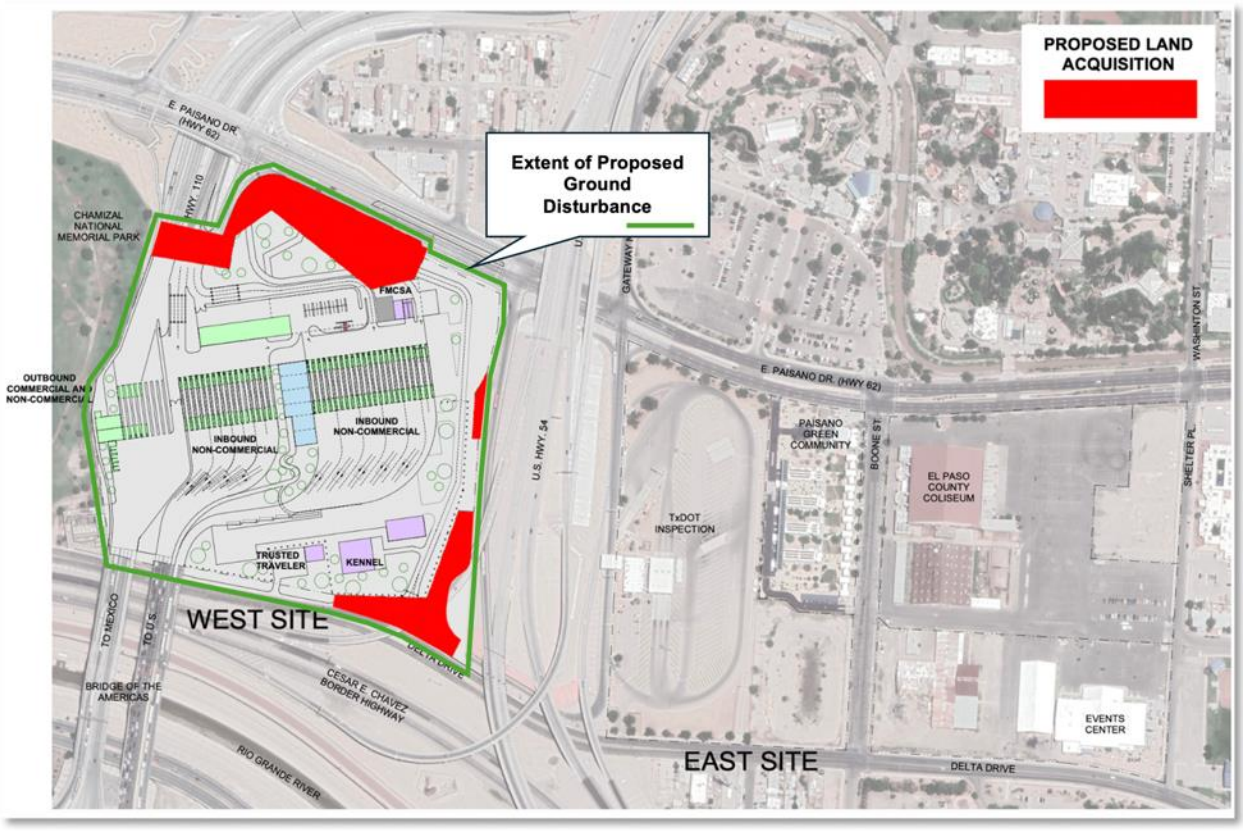


Figure 3-2. Extent of Ground-Disturbance Associated with Action Alternative 4.

3.1 Hazardous Materials, Waste, and/or Site Contamination

As mentioned earlier in Section 1.6.2.1, concerns over the past improper handling and disposal of solid and hazardous wastes that pose threat to the environment and a danger to human health can often be an issue with property acquisition, ground-disturbing and construction activities, and ongoing operations of a given facility. Because ground-disturbing activities would only occur at the BOTA LPOE should either of the Action Alternatives be implemented, hazardous materials, waste, and/or site contamination investigations were only conducted at and around the BOTA LPOE.

In an effort to define the baseline characteristics at and immediately around the BOTA LPOE as it relates specifically to hazardous materials, waste, and/or site contamination, a Phase I Environmental Site Assessment (ESA) was conducted (GSA 2023a). The report is included as Appendix F. The purpose of the Phase I ESA was to identify recognized environmental conditions (RECs) (i.e., the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property due to a release to the environment) in accordance with the scope of American Society for Testing and Materials (ASTM) Practice E 1527-13.

The Phase I ESA was conducted in general accordance with ASTM Standard Practice E 1527-13, consistent with a level of care and skill ordinarily practiced by an environmental consulting professional currently providing similar services under similar circumstances. The scope of the assessment included an evaluation of the following:

- Physical setting characteristics of the property through a review of referenced sources such as topographic maps and geologic, soils and hydrologic reports.
- Usage of the property, adjoining properties and surrounding area through a review of referenced sources such as land title records, fire insurance maps, city directories, aerial photographs, prior reports, and interviews.
- Observations and interviews regarding current property usage and conditions including the use, treatment, storage, disposal or generation of hazardous substances, petroleum products, hazardous wastes, nonhazardous solid wastes and wastewater.
- Usage of adjoining and surrounding area properties and the likely impact of known or suspected releases of hazardous substances or petroleum products from those properties on the property.
- Information in referenced environmental agency databases and records.

The results of the Phase I ESA revealed the evidence of one REC and one de minimis condition in connection with the property. A de minimis condition is defined by the ASTM standard as a property condition that does not pose a threat to human health or the environment that is notable but does not warrant further action:

- The fire insurance maps and city directories indicate the northernmost TxDOT property immediately north of the port boundary previously contained a filling station which operated from at least 1954 to 1965 and possibly from 1953 to 1969 when the port was built. The former operation of this facility constitutes a REC to the site.
- The ongoing use and storage of household chemicals, paint, and fuel constitute a de minimis condition to the site.

The location of the former filling station is shown below in Figure 3-3. It should be noted that the location is in the TxDOT ROW proposed for acquisition as part of either action alternative.

Based on the REC identified as part of the Phase I ESA (GSA 2023a), GSA conducted a limited Phase II ESA in an effort to ensure that the former operation of the filling station has not impacted the port or the property that would be acquired as part of both action alternatives carried forward for detailed analysis (see Appendix F). The limited Phase II ESA consisted of the installation and sampling of six (6) direct-push soil borings and two shallow soil vapor borings at locations appropriate to determine the presence of appropriate components in the subsurface soil and vapor from potential sources identified in the Phase I ESA (Figure 3-4).

The limited Phase II ESA was conducted to evaluate the subsurface soil and soil vapor of this portion of the property with respect to VOCs including chlorinated solvents as well as BTEX and TPH. Six soil borings (SB-1 through SB-6) were located in a grid pattern on this area of the TxDOT ROW and two additional 5-foot soil vapor borings (SV-1 and SV-2) were also installed. Soil samples collected had no detectable BTEX and VOCs and acceptable TPH and PAH levels. However, one vapor sample slightly exceeded USEPA Commercial Vapor Intrusion Screening Levels (VISLs) for benzene. The second sample recorded TCE, PCE, and cis-1,-2-Dichloroethylene levels which exceeded the standards to an even greater degree (Table 3-1 and 3-2).

According to the assessment, based on visual and field-screening evidence during drilling and the analytical results of the samples, it appears that no impact to the shallow subsurface soil exists in the areas investigated. However, an area of impact to the soil vapor appeared to be present. As a result, GSA conducted additional Phase II soil and vapor investigations. As part of these additional investigations, three more soil vapor samples were collected. All results were below USEPA standards (see Appendix F). Based on visual and field-screening evidence during drilling and the analytical results of the samples, it appears there has been no impact to the shallow subsurface soil on the northern portion of the site or in the deeper areas closer to groundwater on the southern portion of the site, the two areas investigated. An area of impact to the soil vapor appears to be present on the northern, more highly-elevated portion of the TXDOT property. However, no such impact appears to be present on the southern portion of the site closer to the areas of the BOTA property slated for excavation.

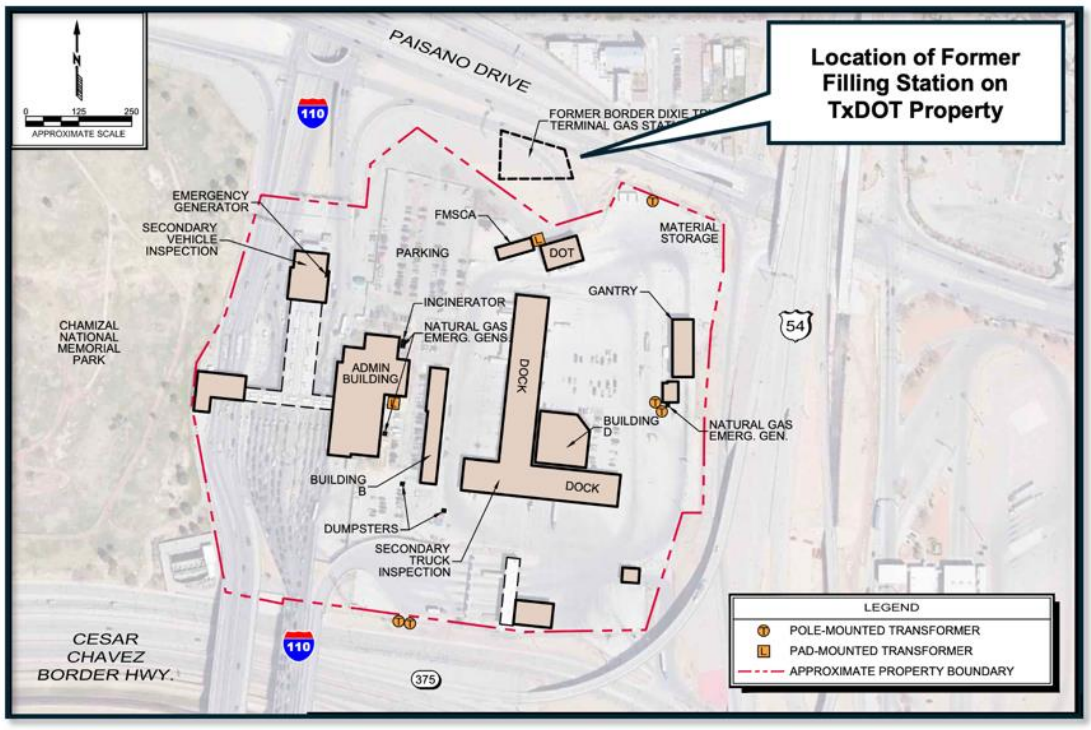


Figure 3-3. Location of Former Filling Station Immediately North of the Port in the TxDOT ROW.

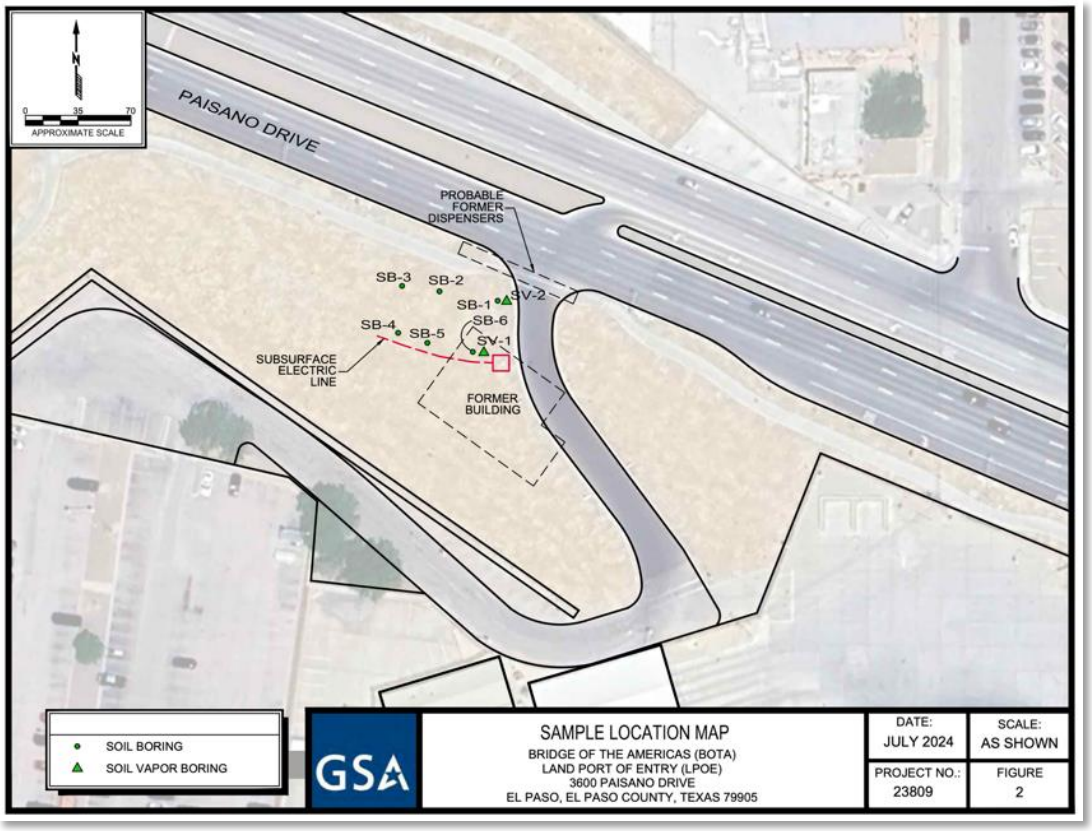


Figure 3-4. Location of Limited Phase II ESA Soil Borings.

Table 3-1. Limited Phase II ESA Soil Vapor Sample Analytical Results.

Sample ID	Sample Depth	Sample Date	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE	TCE	PCE	Other VOCs
SV-1	5'	07/16/24	**61**	44	8.0	26.5	ND	ND	ND	Various[1]
SV-2	5'	07/16/24	18	5.5	ND	0.94	ND	**380**	**1,500**	Various[2]

- N/D – Non-Detect.
- Results listed in µg/m^3 (parts per million; ppm) with reporting limits shown on the laboratory reports.
- Analyses were conducted using USEPA Method TO-15 by Eurofins Air Toxics.

1 Other listed non-J-flagged VOCs consist of MEK (51 ppm), MIK (5.6 ppm), Carbon Disulfide (38 ppm), Cyclohexane (53 ppm), Heptane (78 ppm), Hexane (180 ppm), and Styrene (5.2 ppm). All these levels are below EPA VISL Commercial Sub-Slab $^{10-6}$ Target Concentrations.

2 Other listed non-J-flagged VOCs consist of 1,1-Dichloroethylene (48 ppm), MEK (37 ppm), (5.6 ppm), Carbon Disulfide (28 ppm), cis-1,-2-Dichloroethylene (690 ppm), Cyclohexane (34 ppm), Heptane (29 ppm), and Hexane (88 ppm). All these levels are below USEPA VISL Commercial Sub-slab $^{10-6}$ Target Concentrations **with the exception of cis-1,-2-Dichloroethylene (690 ppm vs. 584 ppm).**

- Compounds exceeding USEPA VISL Target Levels in **boldface.**

Table 3-2. USEPA VISL Soil Gas Concentrations and Exceedances.

USEPA VISL Commercial Target Sub-Slab and Exterior Soil Gas Concentrations at:	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE	TCE	PCE	Other VOCs
TCR =1E-6[1] (µg/m^3)	**52.4**	**73,000**	**164**	**1,460**	**1,570**	**29.2**	**584**	**Various**
TCR =1E-5[1] (µg/m^3)	**438**	**73,000**	**164**	**1,460**	**1,570**	**29.2**	**584**	**Various**

- See Table 3-1 Notes.

3.2 Public Services, Infrastructure, and Utilities

3.2.1 Emergency Services and Schools

As noted earlier in Section 1.6.2.2, public services include local government services (i.e., City of El Paso and the El Paso Independent School District [EPISD]) such as police, fire, emergency services, public transportation, and public schools. Infrastructure includes publicly provided (City of El Paso) and maintained infrastructure elements and utilities such as roads, sidewalks, storm sewers, sanitary sewers, water lines, etc. Privately provided utilities generally include gas, electricity, and communication lines. Impacts to public services, infrastructure, and utilities can often occur as a result of a proposed action and can manifest in the form of unacceptable changes in the level of service or availability of services to other consumers of those resources or services within the general vicinity of the proposed action.

The closest police station is the headquarters located approximately 1.3 miles northwest of the port (Figure 3-5). The second closest is the Central Regional Command located approximately 2 miles to the west. There are 35 fire stations in the City of El Paso, several in the vicinity of the port. Fire Station 9 is the closest being approximately 1.2 miles to the west. Station 5 is approximately 1.3 miles to the northeast, and finally Station 10 is approximately 1.6 miles to the northwest. All are within the Central District (see Figure 3-5).

Sun Metro provides public transit in El Paso and is a department within the City. All transit agencies are required to develop and implement a Transit Asset Management (TAM) plan that serves as a guide for operations and maintains capital assets in its efforts to provide public transportation and receives federal financial assistance under 49 USC Chapter 53 as a recipient or subrecipient. The City of El Paso's TAM plan – Sun Metro Transit Asset Management Plan FY 2023-2026 (City of El Paso 2022) is intended to assist Sun Metro in maintaining all their assets in a state of good repair (SoGR) in the performance of operating the transit system. Sun Metro has an extensive transit network that covers over 75 percent of the city. The network consists of over 50 bus routes and a streetcar line. BRIO is the City's Bus Rapid Transit (BRT) network. BRIO routes serve as the backbone of the Sun Metro transit network. Collectively, BRIO routes serve every transit center and connect to more than 85 percent of the regular routes. The

seven transit centers serve as connection points for riders. The closest transit center is the Robert E. McKee 5-Points Transit Center, approximately 1.5 miles northwest of the port (see Figure 3-5). There are two primary routes in the vicinity of the port and dozens of bus stops within walking distance. The two primary bus routes are Route 24 (Delta Via Second Ward) and Route 65 (Hacienda Via Carolina). The routes are graphically depicted below in Figure 3-6 and a representative example of the bus stops in the vicinity of the port were depicted previously (see Figure 3-5) (City of El Paso 2022a).

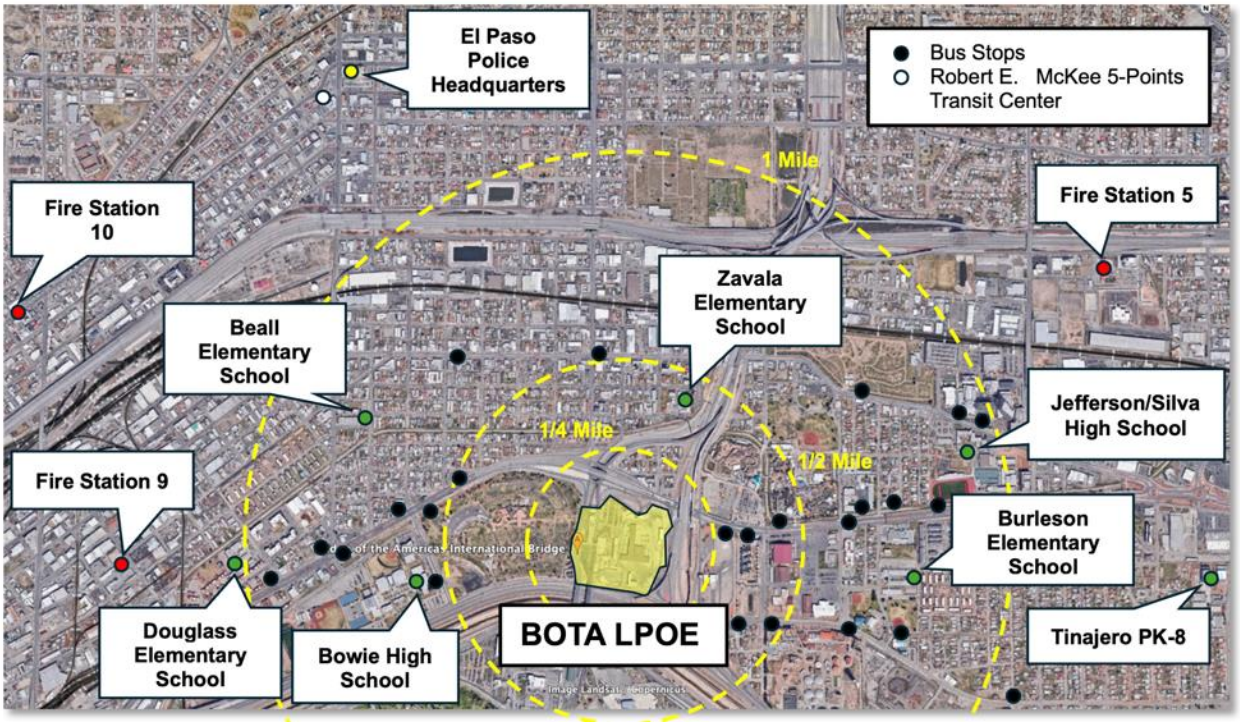


Figure 3-5. Location of Emergency Services, Schools, and Public Transit Facilities.

There are several EPISD schools in the vicinity of the port (see Figure 3-5) and several bus routes that pass nearby. Zavala Elementary School and Bowie High School are the closest at approximately .5 miles to the north and west respectively. Jefferson/Silva High School is the second closest at approximately .75 miles to the northeast. Burleson Elementary is the third closest at approximately .7 miles to the east. Tinajero PK-8 is further to the east approximately 1.4 miles from the port. There are two additional schools to the west of the port, Beall Elementary, approximately .75 miles to the northwest and Douglass Elementary right at a mile to the west. There are at least two daycare centers within a mile, including Rayito De Sol Daycare & Learning and the Project Vida Early Childhood Education Center. It should be noted, there are no schools within a mile of the Ysleta, Tornillo, or Santa Teresa LPOEs (where commercial traffic would likely go should Alternative 1a (future no commercial traffic) or 4 (immediately no commercial traffic) be chosen for eventual implementation.

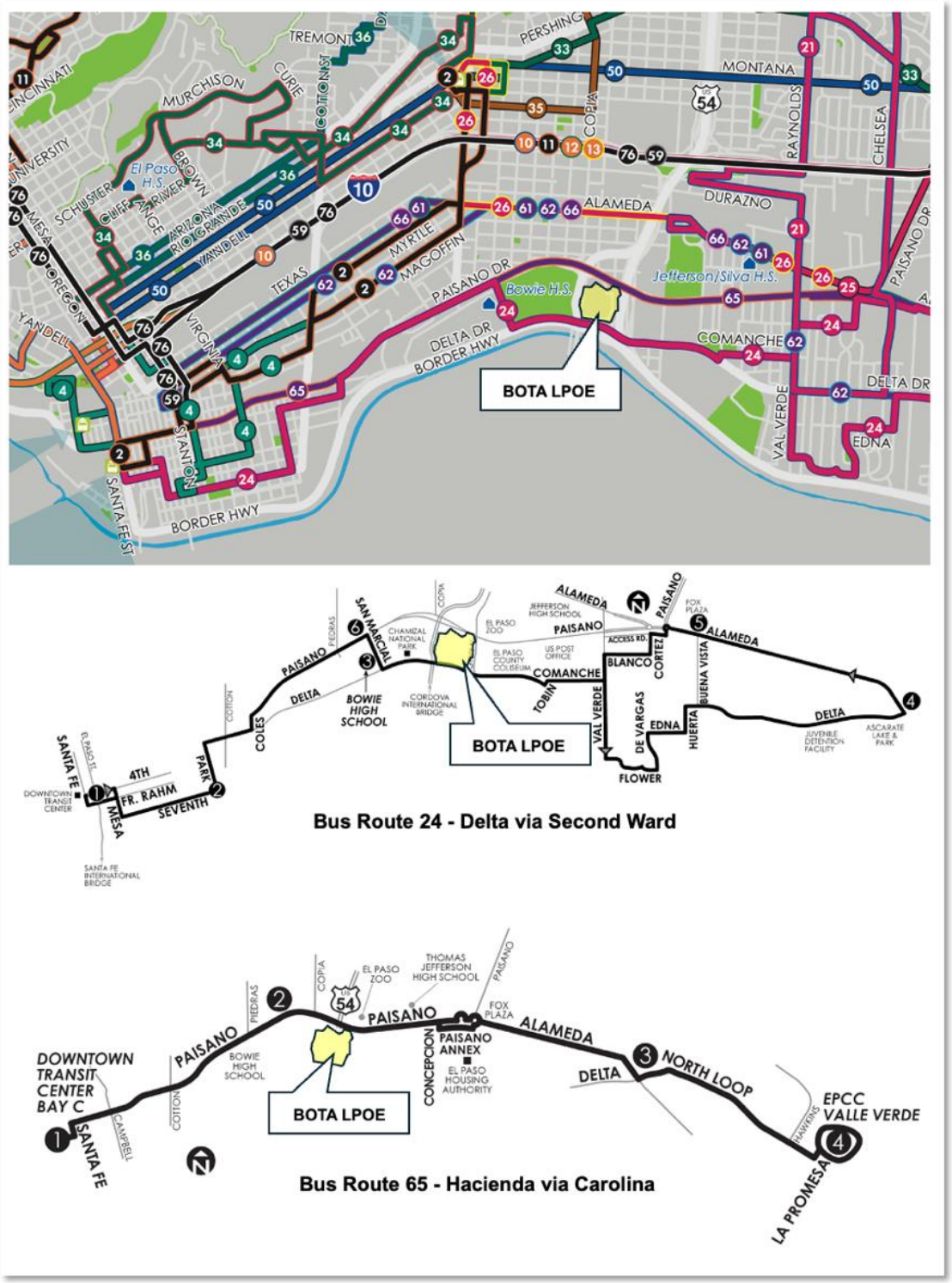


Figure 3-6. Bus Routes in the Vicinity of the Port.

3.2.2 Infrastructure and Utilities

The electrical distribution system at the port is a modular design where groups of buildings on the site are served by transformers located near the buildings. Three phase primary overhead electrical lines are routed from the east side of the port along US Highway 54 and branch off on the northeast side of the site to a pole immediately inside the fence near the FMCSA inspection canopy. The primary overhead lines on the east side of the port follow Delta Drive to the south side and transition underground at a pole just outside the fence near the surveillance tower on the southwest side. The main building, FMCSA building, NII building, and the commercial outbound booths all have utility transformers and meters. The El Paso Electric Company provides electrical service for the area. Natural gas is present at the site and enters the port on the eastern boundary near the truck X-ray building. The Texas Gas Service provides natural gas for the area. Water is provided to the port by the City of El Paso via a 12-inch line located in the Delta Drive easement to the southeast. This line is reduced to an 8-inch line and then to a 6-inch line on the northern and eastern boundary along Cesar Chavez Memorial Highway. Potable and fire protection water are provided by a common water distribution system. Fire hydrants are located throughout the site. The sanitary sewer system at the port is an underground gravity sewer system that discharges to the nearby City of El Paso Wastewater Treatment Plant (WWTP). Stormwater is collected via sheet drainage and a series of storm drains/catch basins (GSA 2023).

3.3 Surface Waters, Drainage, and Floodplains

As mentioned earlier in Section 1.6.2.3, implementing a proposed action could result in the disturbance of localized surface water features, create drainage issues, and/or affect the prevailing floodplain. Water features could receive silt from, or have drainage patterns affected by, ground-disturbing activities. Localized water features could also contain federally or state-listed protected species or support important riparian habitat. Additional impacts could result from an increased stormwater runoff flow as a result of increased impervious surfaces or the contribution of additional impervious surfaces within the micro-watershed.

3.3.1 Surface Waters and Drainage

The only surface water feature in the immediate area of the port is the Rio Grande River which is located approximately 500 feet south of the port southernmost boundary and across Delta Drive and the Cesar E. Chavez Border Highway (375) (Figure 3-7). This portion of the river is considered to be in the Upper Rio Grande Sub-Basin which extends from the Texas-New Mexico state line downstream to the International Amistad Dam, a length of approximately 650 miles and includes five reiver segments 2314, 2308, 2317, 2306, and 2305.

During the irrigation season, the water in the river is used for agriculture by New Mexico, Texas, and Mexico. The City of El Paso also uses the river to provide half of its drinking water supply. El Paso and Juarez have a combined population near 3 million and lands surrounding the cities are used primarily for agriculture. This use has reduced the quantity and the quality in the river significantly. Water in the river downstream of these cities is primarily composed of agricultural runoff, wastewater effluent, and raw or partially treated sewage. Because of this, the upper Rio Grande downstream of El Paso/Juarez is very high in salts and bacteria (IBWC 2005).

Segment 2308 is the portion of the river south of the port and extends from the International Dam downstream to the Riverside Diversion Dam (approximately 15 miles). According to the TCEQ, the designated uses for this segment are low aquatic life use, non-contact recreation, general use (public water supply), and fish consumption. The segment is listed as meeting all of its primary standards with a concern for phosphorus (IBWC 2005). The TCEQ 2002 Texas Water Quality Inventory (TCEQ 2002) lists ammonia and phosphorus as a concern in this segment.

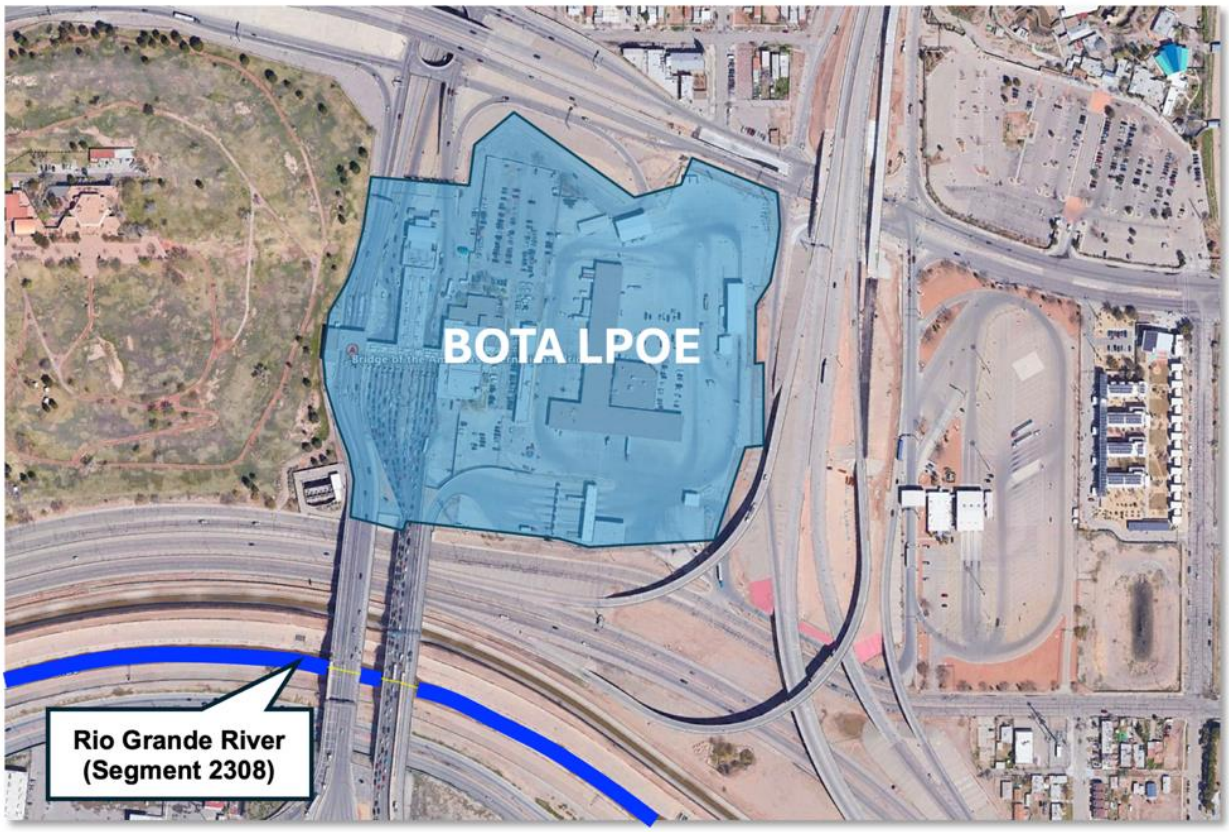


Figure 3-7. Location of the Nearby Rio Grande River.

This segment of the Rio Grande is considered Riverine habitat and is classified by the USFWS National Wetlands Inventory (NWI) as R4SBCx and is defined as follows:

- System Riverine (R): The riverine system includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.

- Subsystem Intermittent (4) : This subsystem includes channels that contain flowing water only part of the year. When the water is not flowing, it may remain in isolated pools or surface water may be absent.

- Class Streambed (SB) : Includes all wetlands contained within the intermittent subsystem of the riverine system and all channels of the estuarine system or of the tidal subsystem of the riverine system that are completely dewatered at low tide.

- Water Regime Seasonally Flooded (C) : Surface water is present for extended periods especially early in the growing season but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface.

- Special Modifier Excavated (x) : This modifier is used to identify wetland basins or channels that were excavated by humans.

3.3.2 Floodplains

As mentioned earlier, a 100-year flood (intermediate regional flood) is defined as a flood level that occurs with an average frequency of once in 100 years at a designated location, although it may occur any year, even two years in a row. FEMA is responsible for implementation and management of the National Flood Insurance Program under 44 CFR; however, the local government is responsible for administration of the floodplain within its respective borders. FEMA regulates the impact of vertical development on surface water elevation and flood limits within the floodplain.

EO 11988 (Floodplain Management) (May 24, 1977) requires Federal agencies to avoid, to the extent possible, the short- and long-term adverse impacts associated with the occupancy and modification of floodplains. Federal agencies are to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. In accomplishing this objective, "each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by floodplains in carrying out its responsibilities." This includes actions that include Federally assisted or financed construction and improvements. GSA PBS 1095.8A is GSA's most recent guidance and policy for implementing the requirements of EO 11988. This order establishes policy and assigns responsibility within the GSA concerning GSA actions that may affect floodplains by issuing the PBS Floodplain Management Desk Guide, November 2023.

According to FEMA, National Flood Insurance Program, Flood Insurance Rate Mapping (FIRM) dated July 8, 2020 (Map Number 48141C0389F) (Figure 3-8) the port (and portions of the area to the immediate east where improvements would be made under one action alternative) is in an area largely described as an Area with Reduced Flood Risk due to Levee (Zone X). The nearby Rio Grande is designated as Zone A – Area Without Base Flood Elevation (BFE). The port and the area to the east are considered to be in the 100-year floodplain, protected by a levee. Under 500- or 100-year flood conditions, should the levee fail, these areas could be inundated.

It should be noted that this FIRM is preliminary in nature. FEMA's release of preliminary flood hazard maps, or FIRMs, is an important step in the mapping lifecycle for an area and its community. The preliminary mapping provides community officials, the public, and other stakeholders with their first view of the current flood hazards, which include changes that may have occurred in the flood risks throughout the community, or county, since the last flood hazard map was published. The map is preliminary in nature because the nearby levee is considered provisionally accredited by FEMA. There is a 1-mile portion of the levee from Zaragoza to Riverside that is a part of this levee system and it has not been accredited. The USIBWC has an ongoing levee design for the 1-mile segment. Once design and construction are complete and all appropriate documentation and coordination conducted with FEMA, the entire levee reach (which includes BOTA and the area to the immediate east) would be accredited (USIBWC 2024).

In accordance with its Floodplain Management Desk Guide (November 2023), GSA must consider alternative locations or mitigation methods if a potential property for purchase or lease, or construction as in this case, is located in: (1) a 1-percent-annual-chance floodplain; or (2) a 0.2-percent-annual-chance floodplain and is a "critical action." The GSA definition of critical actions is as follows:

A critical action is any activity for which even a slight chance of flooding would be too great. Examples of actions that may be critical actions include, but are not limited to:

- Storage of national strategic and critical material
- Storage of irreplaceable records
- Acquisition of health facilities for client agencies
- Childcare facilities
- Public benefit conveyances for schools, prisons, and some other institutional uses
- Site acquisition and construction of new courthouses

- Storage of volatile, toxic, or water-reactive materials
- Construction or operation of hospitals and schools
- Construction or operation of utilities and emergency services that would be inoperative if flooded

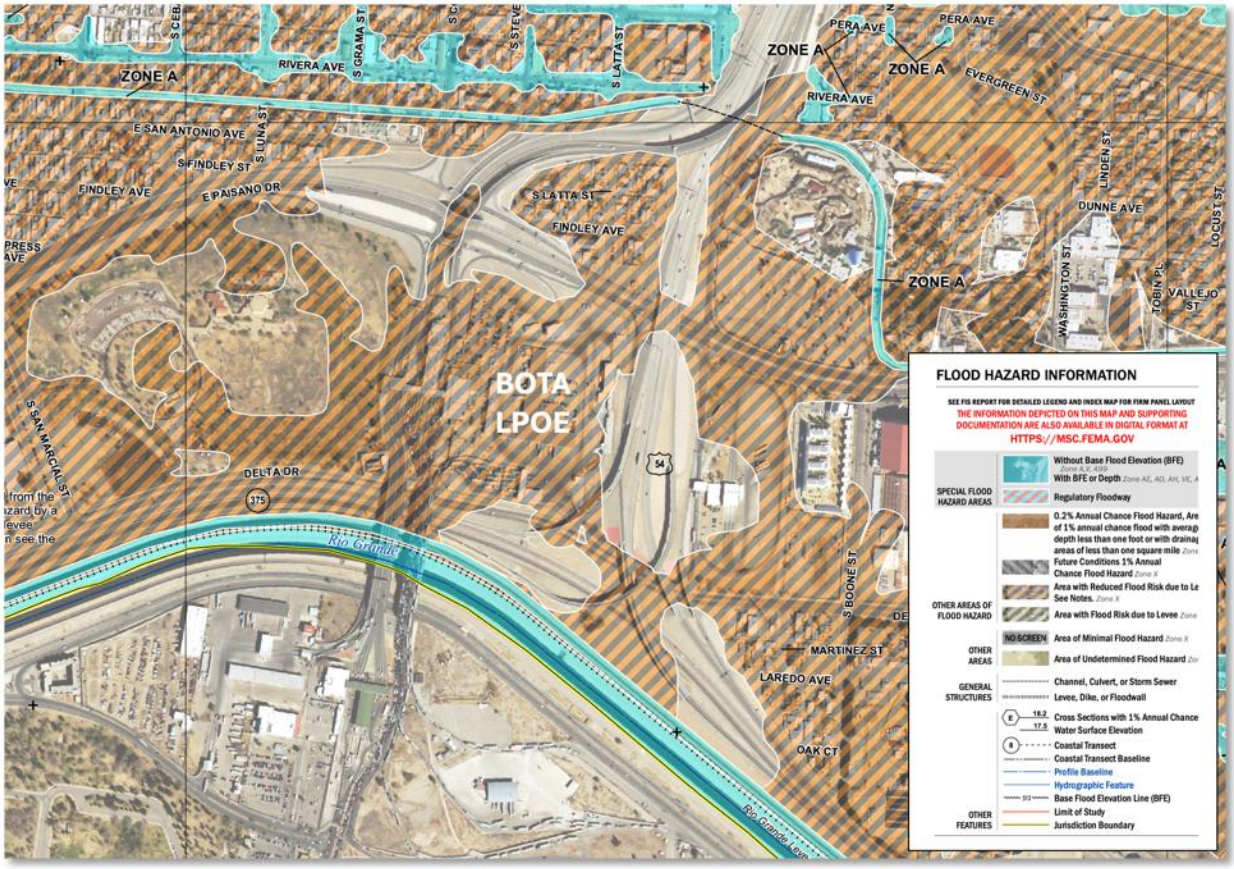


Figure 3-8. FEMA Flood Hazard Mapping.

Additional considerations for critical actions include:

- If flooded, would the proposed action create an added dimension or consequence to the hazard?
- If the action involves structures or facilities such as hospitals, nursing homes, prisons, and schools, would occupants of these structures or facilities be sufficiently mobile and have available transport capability to avoid loss of life and injury given the flood warning lead times available?
- Would essential or irreplaceable resources, utilities, or other functions be damaged beyond repair, destroyed, or otherwise made unavailable?
- Would the damage or disruption from a local flooding event lead to regional or national catastrophic impacts (e.g., a port being closed for a period following a storm event, which has an impact on transportation of goods nationally)?
- Would damage or disruption to a given facility or infrastructure component have potential for cascading damage or disruption to other facilities and infrastructure classes, some of which may already be stressed by flood conditions (e.g., electricity outage due to substation damage resulting in wastewater treatment facility shutdown or gasoline pump outage)?

The GSA sent a letter to CBP requesting a determination from their agency as to whether or not they consider the BOTA LPOE a Critical Action Facility or Non-Critical Action Facility. CBP has determined that it does not consider the BOTA LPOE to be a Critical Action Facility. The letter is included in Appendix G.

3.4 Land Use and Zoning (including Visual/Aesthetics)

As mentioned earlier in Section 1.6.2.4, the CEQ regulations recognize the need for the rational management of land resources and have provided for a specific consideration of the relationship of a changed pattern in land uses, which requires knowledge and understanding of existing and projected land capabilities and land use patterns. Land use patterns are natural or imposed configurations resulting from spatial arrangement of the different uses of land at a particular time. Land use patterns typically evolve as a result of: (1) changing economic considerations inherent in the concept of highest and best use of land, (2) imposing legal restrictions (zoning) on the uses of land, and (3) changing (zoning variances) existing legal restrictions. The critical consideration is the extent to which any changes in land use patterns resulting from implementation of a proposed action are compatible with existing/proposed adjacent uses and are in conformity with approved or proposed zoning and land use plans. Land use and zoning (including visual and aesthetics associated with development) is regulated by the City of El Paso through its Unified Development Code and associated ordinances.

GSA has a series of policy guides that address a variety of planning issues for federal facilities, including site security, site selection, project planning, and facility design standards. This includes GSA's mandatory facilities standard mentioned previously, Facility Design Standard P100, which applies to the design and construction of new federal facilities (as well as major repairs and alterations of existing buildings), the Whole Building Design Guide (GSA 2022), and the LPOE Design Guide, which applies to LPOE design specifically. In addition, GSA has programs in place related to community planning to help create federal facilities that are consistent with good neighbor principles and that support positive community development and neighborhood urban design goals. Key principles of GSA's Urban Development/Good Neighbor Program (GSA 2020) include:

- Locate new owned and leased federal facilities in places that support public plans.
- Design new facilities to create outstanding federal workplaces and support neighborhood urban design goals.
- Renovate existing federal properties to improve their public spaces, create positive first impressions, and encourage stakeholders to improve neighborhood conditions.
- Manage federal properties to encourage public use and openness.
- Participate in neighborhood physical and management improvement efforts around federal properties.

Plan El Paso (City of El Paso 2012), the City of El Paso's Comprehensive Plan, provides the basis for El Paso's regulations and policies that guide its physical and economic development. Plan El Paso establishes priorities for public action and direction for complementary private decisions. The plan provides a flexible framework that can be updated, revised, and improved upon over time to stay relevant to the issues the City must confront as well as the ambitions the City chooses to pursue. The plan serves as a tool to evaluate new development proposals and direct capital improvements and to guide public policy in a manner that ensures that El Paso continues to be the community that its citizens desire it to be.

3.4.1 Existing Land Uses

The general land uses surrounding the BOTA LPOE are shown below in Figure 3-9. The generalized land uses surrounding the Ysleta, Tornillo, and Santa Teresa LPOEs (the ports most likely to receive commercial traffic should Alternative 1a [with the future option to eliminate commercial traffic] or 4 be implemented) are shown in Figures 3-10, 3-11, and 3-12 (respectively). As demonstrated, the BOTA LPOE has the densest population residential population within a 1-mile radius, followed by Ysleta, Tornillo, and Santa Teresa. The closest residential properties near the BOTA LPOE are just under a quarter of a mile in comparison to more than a half mile from the Ysleta LPOE, over a mile from the Tornillo LPOE, and approximately 4 miles from the Santa Teresa LPOE.

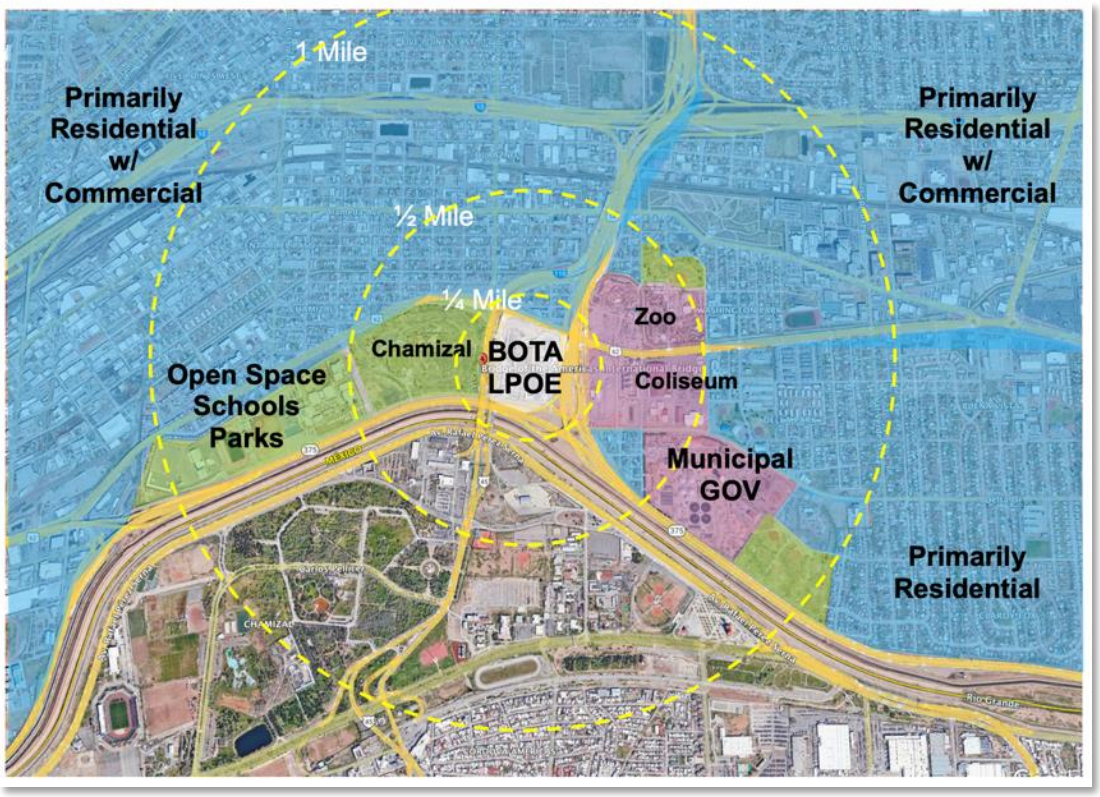


Figure 3-9. General Land Use Surrounding the BOTA LPOE.

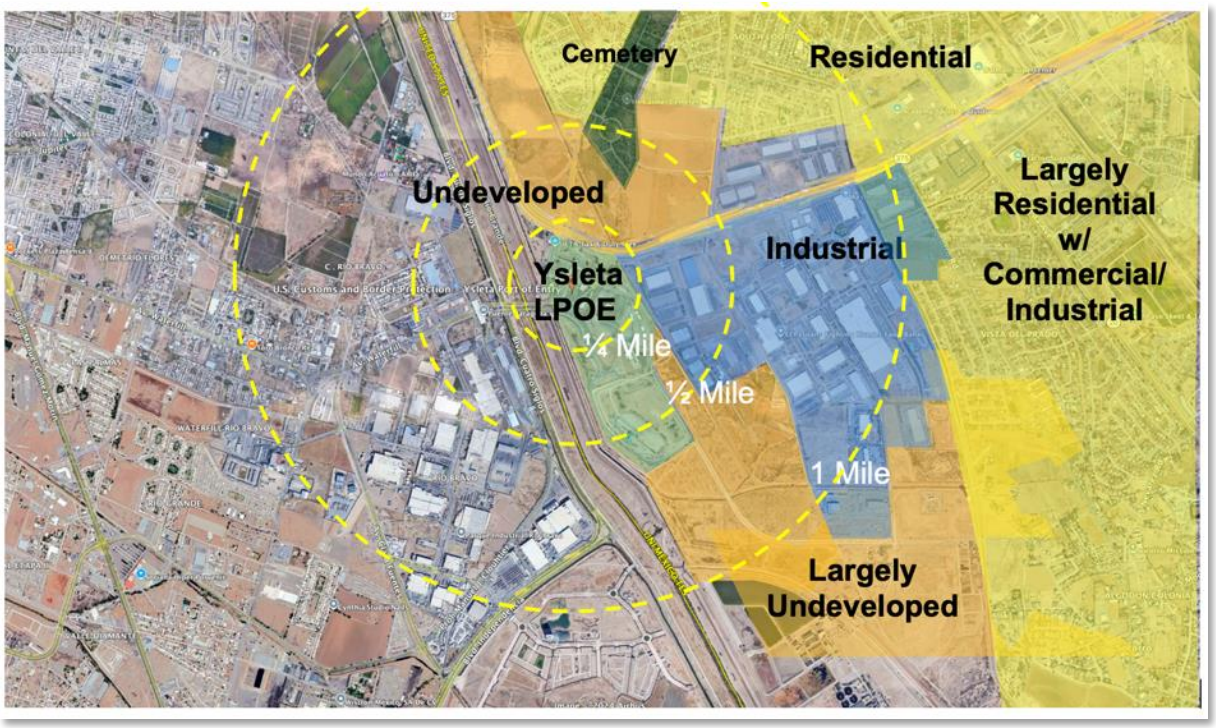


Figure 3-10. General Land Use Surrounding the Ysleta LPOE.

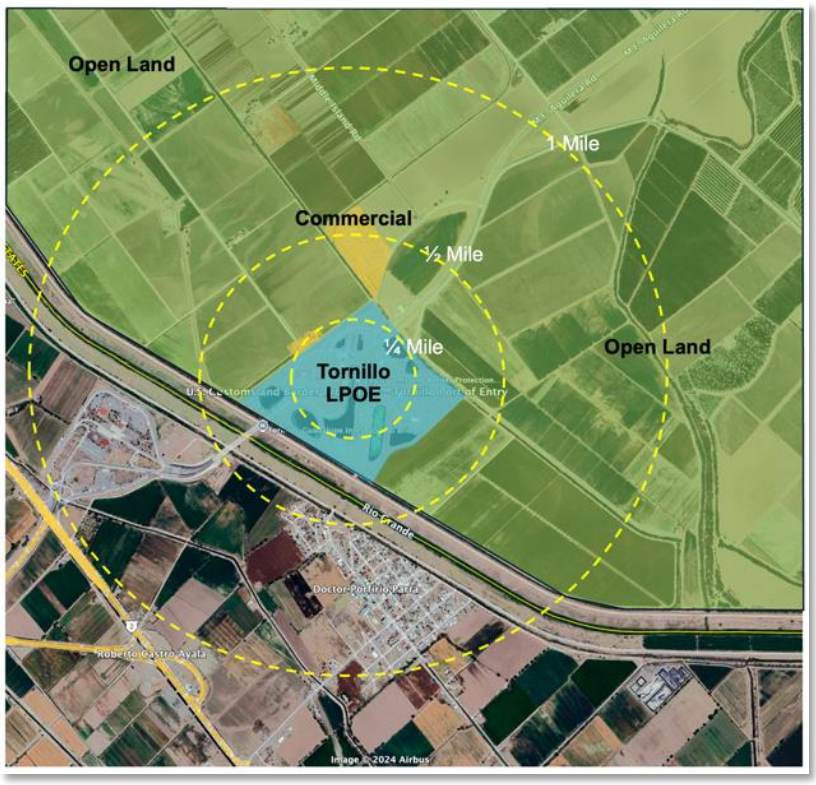


Figure 3-11. General Land Use Surrounding the Tornillo LPOE.

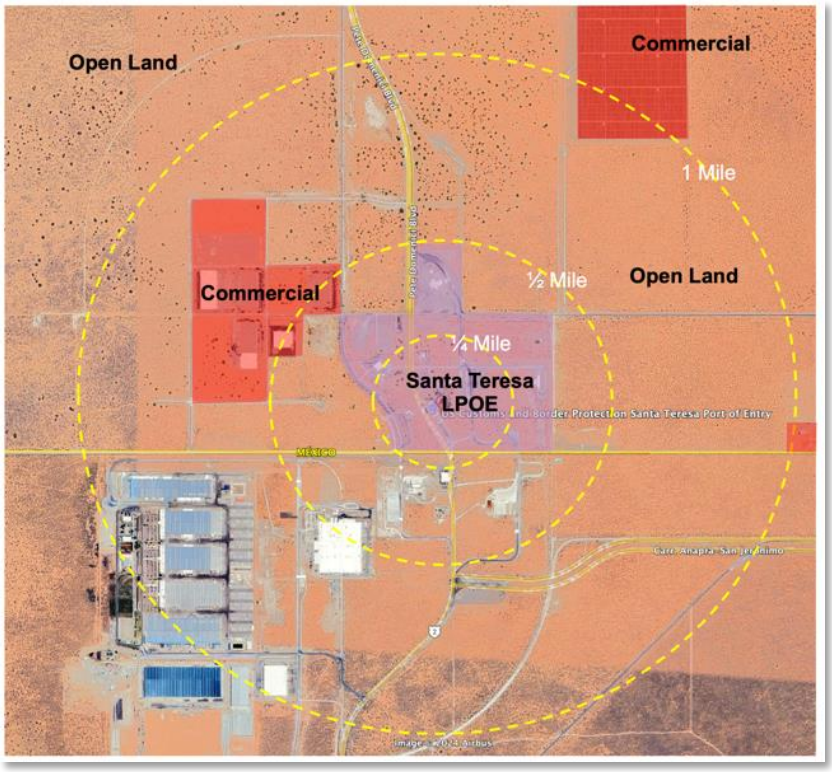


Figure 3-12. General Land Use Surrounding the Santa Teresa LPOE.

Specific to BOTA, according to the City's Comprehensive Plan, the port itself is located in the Civic Uses land use classification (City of El Paso 2012). As mentioned earlier in Section 1.3, the port sits on approximately 28 acres of fully developed property surrounded on three sides by an extensive highway system. The port is bordered to the north by E. Paisano Drive/U.S. Highway 62 East, a busy two-way street, U.S. Highway 54/Patriot Highway borders the port to the east, Delta Drive/Loop 375 borders it to the south, and Interstate Highway (I) 110 is on the northwest side of the Port which is a connector to I-10 and is the primary entry and exit from the port. Beyond the surrounding roads/highways, the Chamizal National Memorial borders the site to the west, residential, commercial and the El Paso Zoo and Botanical Gardens are to the north/northeast, and civic (i.e., TxDOT commercial vehicle inspection facility, El Paso County Coliseum and related/similar facilities, Delta Park, etc.), and residential uses can be found to the east of the port (as well as some industrial uses further to the east).

It is the policy of the City and County to provide financial and other incentives to selected private businesses that make or will make a measurable difference in achieving economic growth and development, expanding and diversifying the tax base, and creating new quality jobs within the City/County. Nearby "financial incentive areas" include (Figure 3-13):

- Federal Empowerment Zones,
- Tax Incremental Reinvestment Zones (TIRZ), and
- Incentive Areas.

3.4.2 Proposed Land Uses

As part of overall planning and guiding for the future physical and economic growth of El Paso, the City, in conjunction with the EPMPO, has established detailed planned land use and zoning designations and criteria. As shown below in Figure 3-14 below, the port itself and the areas immediately east/southeast (south of Paisano Drive) would be located in the Industrial and/or Railyards (G7) land use category with Traditional Neighborhood – Walkable (G2) and Preserve (O1) further to the east/southeast . The Chamizal National Memorial to the immediate west would also be in the Preserve (O1) land use category, and lands to the north/northeast would include additional Traditional Neighborhood – Walkable (G2) and Preserve (O1) uses.

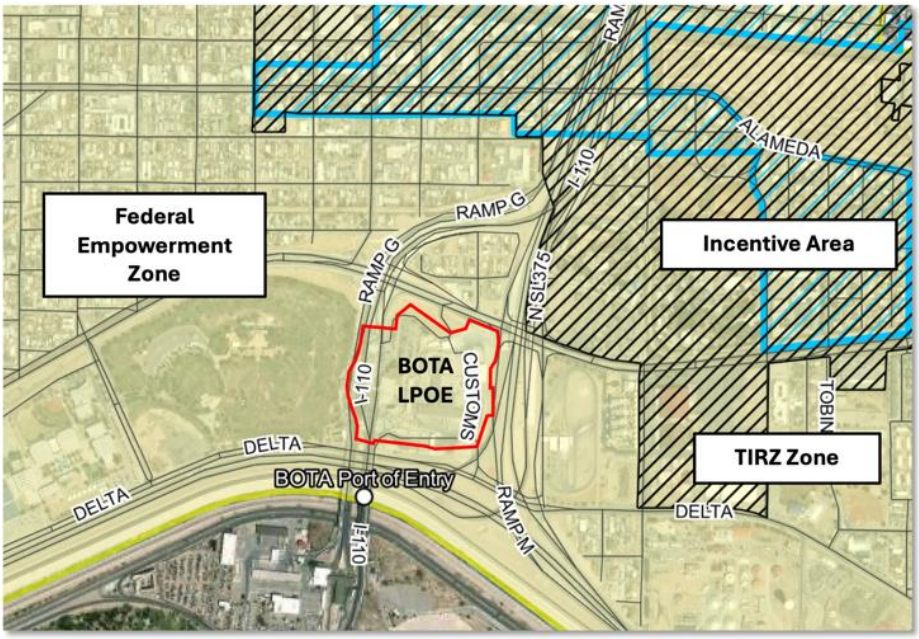


Figure 3-13. Financial Development Incentive Areas Near the Port.

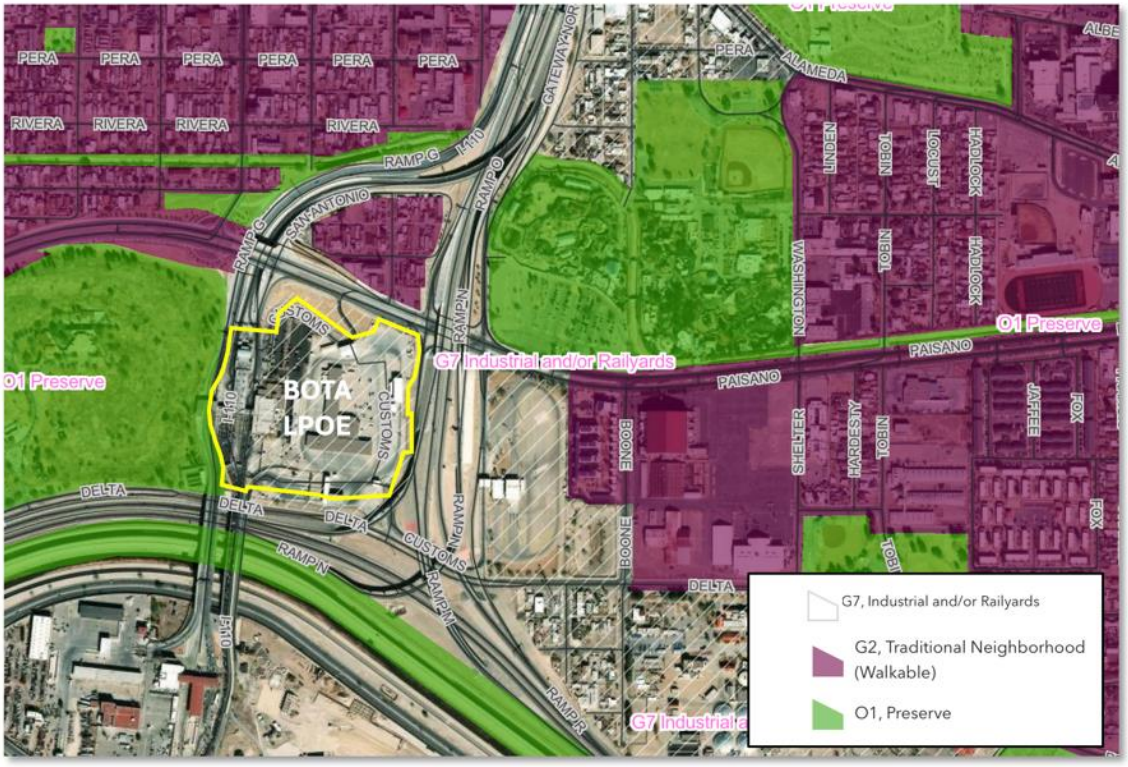


Figure 3-14. Planned Land Use in the Vicinity of the Port.

3.4.3 Zoning

As mentioned above, land use and zoning (including visual and aesthetics associated with development) is regulated by the City of El Paso through its Unified Development Code and associated ordinances (Title 20 – Zoning). The zoning regulations and districts were established in accordance with the prevailing comprehensive plan for the purpose of promoting health, safety, morals and the general welfare of the city. They have been designed to lessen the congestion in the streets; to secure safety from fire, panic and other dangers; to provide adequate light and air; to prevent the overcrowding of land; to avoid undue concentration of population; to facilitate the adequate provision of transportation, water, sewerage, schools, parks, and other public requirements. They have been made with reasonable consideration, among other things, for the character of the district and its peculiar suitability for particular uses, and with a view to conserving the value of buildings and encouraging the most appropriate use of the land throughout the city.

As shown in Figure 3-15 below, the port and the majority of the surrounding adjacent lands are located largely in the A2 and A3 (Medium Density Residential) zoning classification (including the area to the immediate east of the port). A small portion of the port towards the northeast corner is classified C4 – Commercial District. Commercial District (C1) and A3SP (El Paso Zoo and Botanical Gardens) zoning classifications can be found to the north across East Paisano Drive while General Mixed-Use District (GMU) and additional Commercial District classifications are to the immediate east. Additional Medium Density Residential District (A3) as well as Commercial District (C4C and C1SP), Special Development District (SD), and Light Industrial District (M1) classifications are south across Delta Drive. The zoning classifications are described by the City as follows:

- Medium Density Residential Districts, Apartment District (A2 and A3) - Medium densities of dwelling units supported by higher intensity land uses located at the periphery of single-family neighborhoods providing that the overall character and architectural integrity of the neighborhood

is preserved. Permit building types designed for transition from areas of low-density residential neighborhoods to other residential areas, and certain non-residential uses and support facilities.

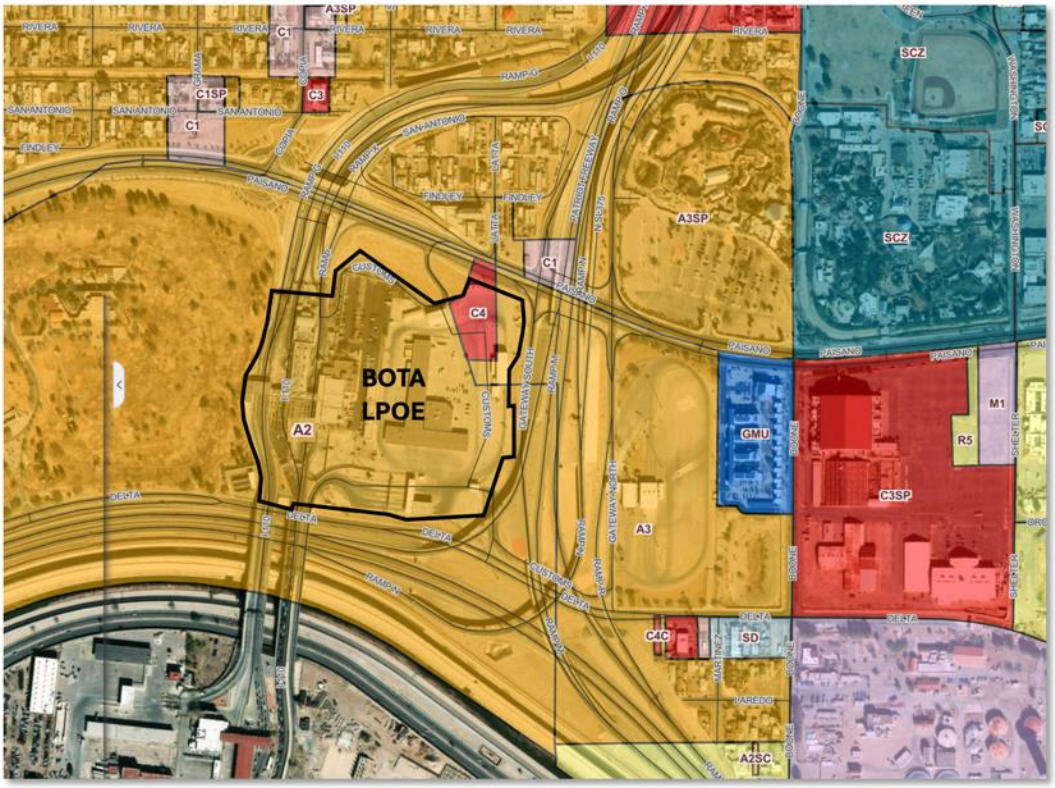


Figure 3-15. Zoning in the Vicinity of the Port.

- Regional Commercial District, Commercial District (C4 and C4C) - Commercial uses intended to serve the entire City to permit heavy commercial uses characterized by automotive and light warehousing. Provide a transition from general business areas to industrial and manufacturing uses, and to accommodate major locations of commerce, service and employment activities. Within the Central Business District, more intensive commercial uses are allowed, the predominant of which are retail trade and service uses, providing less restrictive height and area regulations.

- Neighborhood Commercial District, Commercial (C1 and C1SP) - Provides compatible neighborhood convenience goods and services that serve day-to-day needs. Permits locations for business and professional offices and retail category uses within adjacent residential areas of medium and high densities.

- General Mixed-Use District (GMU) - Large-scale developments that are able to function as individual neighborhoods, as small-scale developments requiring flexibility because of unique design characteristics, or as transitional areas between dissimilar land uses.

- Special Development District (SD) - Mixed-use projects, integrated in design, in certain older residential areas where there is a desire to permit a variety of nonresidential uses while maintaining the established residential appearance and landscaping of the area. Designed to ensure compatibility with existing uses in the district; to permit the production, exhibit or sale of goods and the providing of services to the public in such older residential areas; to protect the traffic capacity of streets serving such older residential areas; to encourage flexibility by prescribing general performance standards for such older residential areas; and to protect the environment of adjacent

areas. Older areas of the city are deemed these areas where development has existed for at least twenty-five years.

- Industrial and Manufacturing District, Light Industrial District (M1) - Light-intensity industries involving manufacturing, assembling, distribution and warehousing while supporting commercial uses and to preserve a light industrial nature particularly with regard to noise, smoke, odors, dust, vibrations and other noxious conditions.

3.5 Cultural and Historic Resources

As mentioned earlier in Section 1.6.2.5, cultural resources are nonrenewable resources whose value may be diminished by physical disturbances. These resources include buildings, structures, objects, landscapes, and archeological sites, as well as places of importance to a culture or community for reasons of history, religion, or science. The archeological sites may include both prehistoric and historic sites, e.g., campsites, resource use or acquisition areas, house sites, and trash deposits that may exist. An impact would be considered significant to cultural and/or archeological resources if a proposed project activities result in:

- physical destruction of or damage to all or part of the property.
- alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material reduction, and provision of handicapped access, that is not consistent with the Secretary of the Interior's standards for the treatment of historic properties (36 CFR §68) and applicable guidelines.
- removal of the property from its historic location.
- change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance.
- introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features.
- neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization.
- transfer, lease, or sale of property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

As part of overall planning for the proposed modernization of the BOTA LPOE, a cultural resources assessment (CRA) was conducted (see Appendix E). The CRA consisted of background research on the history and prehistory of the area, in addition to an architectural inventory and evaluation and archaeological desktop study.

As part of the effort an area of potential effect (APE) was established. The APE represented the greatest possible geographic extent of potential impacts related to the proposed modernization efforts, buffered by an additional 250 feet. The APE was originally established based on both the possible and viable action alternatives developed as part of the overall planning effort. The primary objective of the CRA was to assess the NRHP eligibility of the buildings and structures constructed prior to 1980 that are located within the designated APE. In three instances involving neighborhoods, resources outside of the APE were inventoried and evaluated. Extending outside the APE allowed the neighborhood to be evaluated as a whole in addition to the resources located within the APE individually. Additionally, two National Register

properties and one National Register District were identified as being partially within the APE: the Chamizal National Memorial and the Franklin Canal and El Paso County Water Improvement District No. 1. Portions of these resources are included within the APE (Figure 3-16).

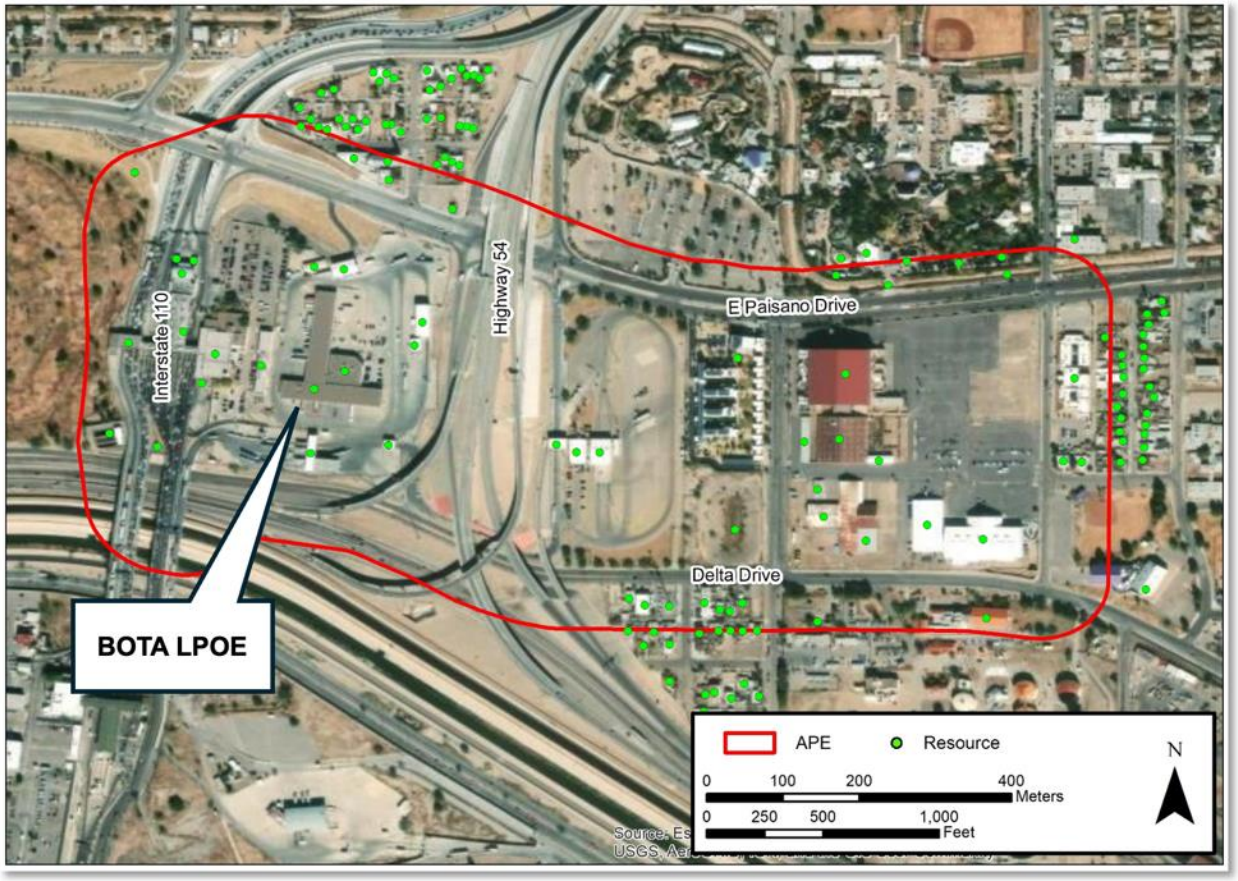


Figure 3-16. Cultural Resources APE.

3.5.1 Archaeological Desktop Study

As part of the CRA effort, the Texas Archaeological Site Atlas was consulted to identify any previously recorded archaeological sites and surveys within one mile of the APE. The results are shown below in Table 3-3). Details can be found in Appendix E.

Table 3-3. Previously Recorded Sites and Historic Resources within One Mile of the APE.

Site Number	Site Type	Description	NRHP Eligibility
41EP565	Historic	Chamizal National Memorial	Listed
41EP4673	Historic	Franklin Canal	Listed
41EP5490	Historic	Transcontinental telephone cable system corridor	Undetermined
N/A	Historic	El Camino Real de Tierra Adentro National Historic Trail Auto Route	N/A
N/A	Historic	El Paso County Water Improvement District No. 1	Listed

Review of available historic aerial photography as well as recent photography revealed/confirmed that a majority of the APE has been widely disturbed over the years through construction activities related to the expansion and upgrades to the port, construction and expansion of the surrounding interstates and highways; the demolition of neighborhoods for the construction of the TxDOT inspection facility, nearby

retention pond, and housing complex; and the demolition of Washington Park for the construction of the El Paso Zoo and Botanical Gardens.

Following this examination, much of the APE has been recommended as having low probability for intact archaeological resources. The parking lot area directly east of the livestock barns and the southern half of the El Paso County Coliseum are recommended as having some potential for intact archaeological resources, but as stated earlier, these areas were associated with previous possible and viable action alternatives developed as part of the overall initial planning effort and are no longer relevant to the viable action alternatives carried forward for detailed analysis and consideration (i.e., Viable Action Alternative 1a and 4).

3.5.2 Architectural Evaluation

As part of the CRA effort, an architectural evaluation was also conducted. Buildings, structures, objects, sites, and districts over 50 years of age (which in the CRA included resources built prior to 1980, as 45 years is being used as the divide) may be eligible for inclusion in the NRHP based on four criteria presented in 36 CFR§60.4 (A–D). These four criteria are applied following the identification of relevant historic themes or patterns. In brief, a resource may possess significance for:

(A) its association with events that have made a significant contribution to the broad patterns of history; or
(B) its association with the lives of persons significant in our past; or
(C) its illustration of a type, period, or method of construction, or for its aesthetic values, or its representation of the work of a master, or if it represents a significant and distinguishable entity whose components may lack individual distinction; or
(D) its ability or potential to yield information important in prehistory or history (36 CFR§60.4 [A–D]).

Not only must a resource possess significance in order to be eligible for inclusion in the NRHP; it must also maintain a certain level of integrity. The NRHP defines seven aspects of integrity: (1) location, (2) setting, (3) design, (4) materials, (5) workmanship, (6) feeling, and (7) association. Although not all seven aspects of integrity must be present for the resource to be eligible, the resource must retain, overall, the defining features and characteristics that were present during the property's period of significance.

Within the framework of the NRHP, level of significance is defined as the geographic magnitude or scope of a property's historical significance and can be at the national, state, or local level. Resources surveyed as part of this study have been treated as two distinct categories in this document: resources that are 50 years of age or older and resources that are less than 50 years of age. The distinction is necessary because National Register evaluation criteria are applied differently to these properties, depending on whether or not their major significance arises from events occurring in the last 50 years.

Many resources do not meet the 50-year requirement as stipulated by the NRHP. Therefore, resources less than 50 years of age must be evaluated under 36 CFR§60.4 (Criteria Consideration G: Properties That Have Achieved Significance in the Last Fifty Years). This criterion requires that such resources be "exceptionally important" to qualify for listing. In addition to being of exceptional importance, resources less than 50 years in age must also meet one of the criteria for resources 50 years old or older (i.e., A, B, C, or D) and retain their integrity. Determining a property's level of importance, however, can be challenging. The advantage to a resource that is 50 years or older is that sufficient time has elapsed to evaluate the property's historical significance (is it a trend or does it have long-range implications?), and it can be compared to similar resources elsewhere when considering both significance and integrity at the broader, national level. Buildings listed under this criterion consideration include the launch pad at Cape Canaveral and the Chrysler Building in New York; these buildings represent the "extraordinary importance of an event," the significance of which was evident before those buildings reached 50 years of age.

A total of 148 resources were identified within the APE or in the neighborhoods associated with the APE. Of those 148 resources, 99 were constructed in 1980 or earlier. Of the 148 resources evaluated, six resources retained sufficient integrity and were recommended eligible for inclusion in the NRHP. These resources were evaluated under the standard NRHP Criteria A–D. These resources are the following (Figure 3-13):

- El Paso County Coliseum
- Coliseum Livestock Barns
- 250 Washington Street (Father Yermo High School)
- 519 S Latta Street (Saint Francis Xavier Catholic Church; Note: 519 S Latta Street consists of three resources numbers, one for each building; however, only one THC Historic Resource Form was completed for the complex)

According to the CRA, a number of resources are of undetermined recommendation as additional research would be needed on the resource to determine individual significance. These resources include several of the residences in the Neighborhood South of Delta Drive, the Hardesty Place Neighborhood, and the Saint Francis Xavier Neighborhood. Resources within the County Facility parcel also require additional research. Two of these areas/clusters of resources warrant future investigations to determine if a recommendation for a historic district would be warranted. These areas are the following (see Figure 3-17):

- Hardesty Place Neighborhood
- County Facility

In addition to the resources located within the APE, a visual reconnaissance of the Haskell R. Street Wastewater Treatment Plant was conducted. It was recommended in the CRA that this Plant be evaluated as a complex. In addition, it is possible that individual buildings within the complex might hold individual significance, in particular, the pump house constructed in 1943.

3.5.3 Consultation

As mentioned previously (Section 1.5), as part of overall planning for the proposed modernization project, GSA has conducted consultation with the Texas SHPO and appropriate Tribal entities (see Appendix B). Based on the initial consultation:

- No port buildings have been determined eligible for listing in the NRHP.
- There are no known buried cultural resources. A 2013 CBP sponsored pedestrian survey of the port found it to be built over with structures and pavement. Only a few very small, landscaped areas were extant but identified as disturbed.
- A portion of the port is located within the boundaries of the El Paso County Water Improvement District No 1.

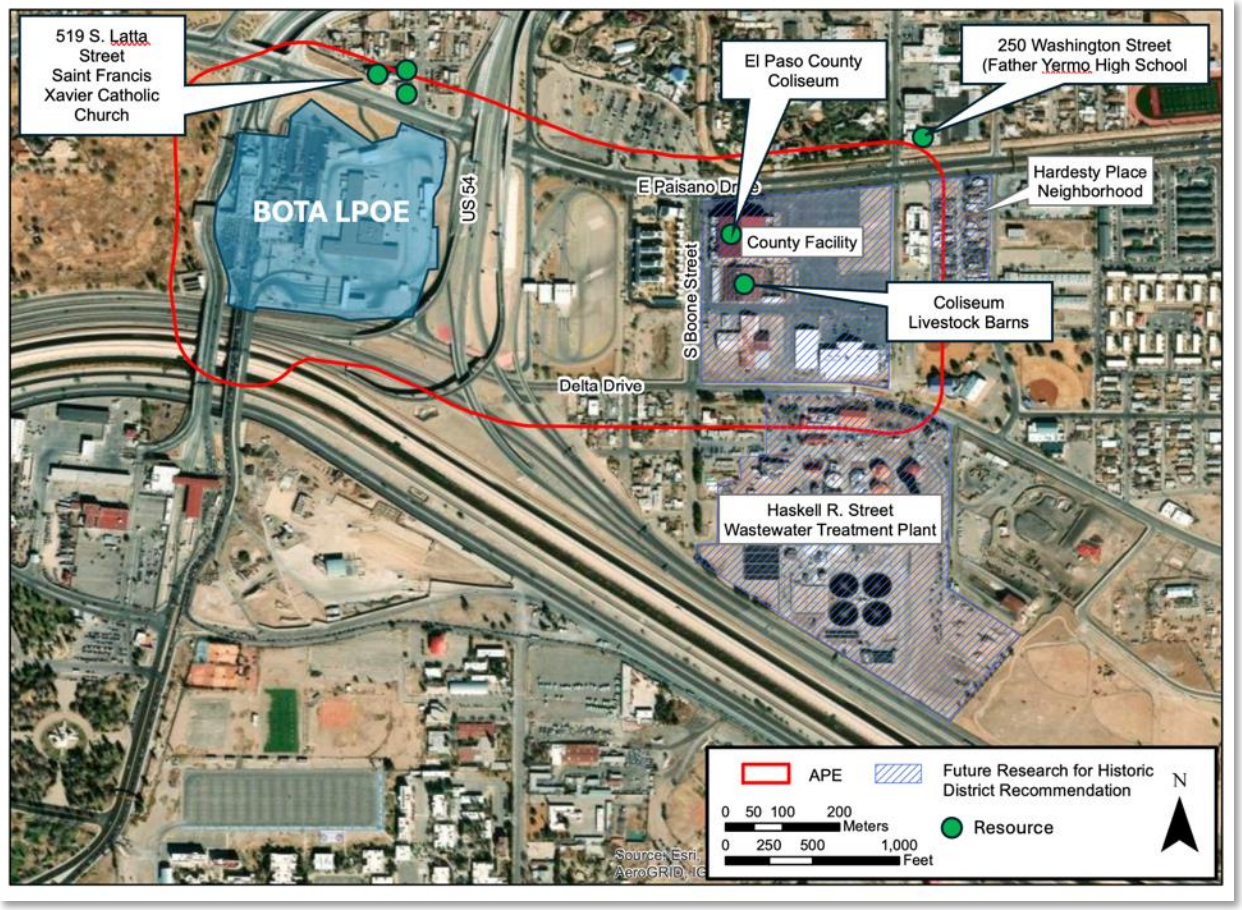


Figure 3-17. Cultural Resources Recommended as Eligible for Inclusion in the NRHP.

3.6 Socioeconomics (Including Environmental Justice and Protection of Children)

3.6.1 Environmental Justice

This section describes the baseline conditions for communities with potential environmental justice concerns and population of children in the project area and potential disproportionate effects that could result from implementing the Proposed Action, including Alternatives 1a and 4 as discussed in Chapter 2.0. Communities with environmental justice concerns often include communities of color, low-income communities, indigenous communities, and Tribal communities (40 CFR Section 1500.2[d]). In evaluating environmental justice under NEPA, agencies must recognize the interconnected cultural, social, occupational, historical, or economic factors that may amplify the natural and physical environmental effects of the proposed agency action (CEQ 1998). CEQ's NEPA implementing regulations at 40 CFR Section 1508.1(k) defines environmental justice as follows:

> Environmental justice means the just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation, or disability, in agency decision making and other Federal activities that affect human health and the environment so that people:
>
> (1) Are fully protected from disproportionate and adverse human health and environmental effects (including risks) and hazards, including those related to climate change, the cumulative impacts

of environmental and other burdens, and the legacy of racism or other structural or systemic barriers; and

(2) Have equitable access to a healthy, sustainable, and resilient environment in which to live, play, work, learn, grow, worship, and engage in cultural and subsistence practices.

Per scoping comments received from USEPA dated February 23, 2024, this analysis uses USEPA's EJScreen model. The EJScreen model serves as a screening-level tool to identify areas that may have a higher susceptibility to environmental justice effects because of their demographic composition and existing exposure to contaminants or proximity to facilities. The model uses environmental indicators to quantify susceptibility to exposure, including data related to proximity to ozone and other air toxins, lead paint, traffic, and underground storage tanks (USTs). EJScreen uses demographic data from the U.S. Census Bureau's American Community Survey (ACS) 2022 5-year estimates.

3.6.1.1 Region of Influence

The region of influence (ROI) for environmental justice and child populations focuses on the BOTA LPOE; the LPOEs in Santa Teresa, Tornillo, and Ysleta; and immediate surrounding areas. Potential impacts with the greatest intensity and longest duration (e.g., air quality, noise, traffic, changes in economic activity) would occur near the LPOEs where changes could be implemented under Alternatives 1a or 4; therefore, environmental justice and protection of children considerations are analyzed within a respective 2-mile radius of the BOTA LPOE and Santa Teresa, Tornillo, and Ysleta LPOEs. Information is also presented for Doña Ana County, New Mexico; El Paso County, Texas; and the states of New Mexico and Texas for comparison purposes.

3.6.1.2 Existing Conditions

The definitions of people of color, low-income, and people of color or low-income populations are presented below.

- **People of color** – Individual(s) who are members of the following population groups as designated in the U.S. Census: Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, some other race, two or more races, as well as Hispanic or Latino of any race. In EJScreen, USEPA defines "people of color" as people who list their racial status as a race other than white alone and/or list their ethnicity as Hispanic or Latino; that is, all people other than non-Hispanic white-alone individuals. The word "alone" in this case indicates that a person is of a single race, not multiracial (USEPA 2024a).

- **Low-income** – The USCB uses a set of income thresholds that vary by family size and composition to determine who is in poverty (i.e., classified as 'low-income'). If a family's total income is less than the family's threshold, then that family and every individual in it is considered in poverty. The official poverty thresholds do not vary geographically but are updated for inflation using the Consumer Price Index. The official poverty definition uses money income before taxes and does not include capital gains or noncash benefits (such as public housing, Medicaid, and food stamps) (USCB 2023). The USCB defines the poverty level for 2022 as an annual income of $14,880 or less for an individual and $29,678 or less for a family household of four people including two related children under 18 years of age (USCB 2022a).

- **People of color or low-income population** – Populations where either: (a) the total number of people of color or low-income individuals of the affected area exceeds 50 percent of the overall population in the same area, or (b) the total number of people of color or low-income individuals within the affected area is meaningfully greater than the people of color or low-income population percentage in the general population or other appropriate comparison unit of geographic analysis (CEQ 1997, USEPA 2016). A people of color population also exists if there is more than one people of color group present and the people of color percentage, as calculated by aggregating all people of color persons, meets one of the above-stated thresholds. In identifying people of color or low-

income populations, agencies may consider as a community either a group of individuals living in geographic proximity to one another, or a geographically dispersed/transient set of individuals (such as migrant workers or Native Americans), where either type of group experiences common conditions of environmental exposure or effect. The selection of the appropriate unit of geographic analysis may be a governing body's jurisdiction, a neighborhood, census tract, census block group, or other similar unit that is to be chosen so as not to artificially dilute or inflate the affected people of color or low-income population (CEQ 1997, USEPA 2016).

- **Meaningfully greater** – A meaningfully greater people of color or low-income population within a geographic unit affected by a federal action is determined by comparing the people of color or low-income composition of the affected geographic unit to the people of color or low-income composition of the general population or other appropriate geographic comparison unit (e.g., county, state, or region) referred to as the reference community. Similar to selecting the appropriate unit of geographic analysis for the affected area, a reference community should be selected so as to not artificially dilute or inflate the affected people of color or low-income populations. The meaningfully greater analysis requires the use of a reasonable, subjective threshold, such as 20 percent greater than (or, 120 percent of) the reference community (USEPA 2016).

The analysis of people of color and low-income populations uses data from EJScreen and the USCB for the affected geographic units (i.e., census tracts and block groups) that represent, as closely as possible, the potentially affected areas. A census tract is a subdivision of a county; it is a geographic area for which the USCB provides consistent sample data and it is comprised of smaller census block groups. Census tracts generally contain a population between 1,200 and 8,000 people. A census block group is the smallest geographic area for which the U.S. Census Bureau provides consistent sample data, and generally contains a population between 600 and 3,000 individuals (USCB 2022b). EJScreen uses census block groups as the basic geographic unit (USEPA 2024a). Census data for people of color and low-income populations are available at the block group level; however, data for children are currently available only for census tracts and larger areas. For this analysis, the affected areas include the census tracts and block groups within the LPOE ROIs, and the reference communities are Doña Ana County, NM and El Paso County, TX. People of color and low-income populations are identified where these populations either exceed 50 percent of the affected area, or, for the meaningfully greater analysis, are 120 percent or more of the reference community.

In addition to providing people of color and low-income population data, EJScreen calculates Environmental Justice Indexes (EJ Indexes) and Supplemental Indexes for a defined geographic area. The EJ Index screens for 13 environmental burden indicators in combination with a demographic index that includes 2 socioeconomic indicators of people of color and low income. The Supplemental Index screens for the 13 environmental burden indicators in combination with a supplemental demographic index that includes 5 socioeconomic and health indicators of low income, limited English speaking, less than high school education, persons with disabilities, and low life expectancy (USEPA 2024a). The 13 environmental burden indicators are Particulate Matter 2.5, Ozone, Nitrogen Dioxide, Diesel Particulate Matter, Toxic Releases to Air, Traffic Proximity and Volume, Lead Paint, Superfund Site Proximity, Risk Management Plan (RMP) Facility Proximity, Hazardous Waste Proximity, Underground Storage Tank (UST) and Leaking UST, Wastewater Discharge, and Drinking Water Non-Compliance (USEPA 2024a). USEPA typically considers a project to be in an area of potential environmental justice concern when an EJScreen EJ Index or Supplemental Index for the affected geographic area shows 1 or more of the 13 indices that exceed the 80th percentile in the nation and/or state (USEPA 2024a). EJScreen uses the 80th percentile as screening level to indicate areas that may merit closer attention. Block groups in the 80th percentile or above have index values well above the national or state mean or median for the given indicator. A relatively high percentile means the value is relatively uncommon. A percentile is a relative value. For a place at the 80th percentile nationwide, that means that 20 percent of the U.S. population has a higher value and 80 percent has a lower value (USEPA 2024a).

EJ Screen also provides Health Indicators, Climate Indicators, and Critical Service Gap Indicators. The Health Indicators are Asthma, Cancer, Heart Disease, Low Life Expectancy, and Persons with Disabilities.

The Climate Indicators are Flood Risk and Wildfire Risk. The Critical Service Gap Indicators are Lack of Broadband Internet Access, Food Desert, Housing Burden, Lack of Health Insurance, and Transportation Access Burden. The 80th percentile also is used as the screening level for these indicators to indicate areas of potential environmental justice concern.

EJScreen also has tools to identify community landmarks (schools, hospitals, places of worship, parks, prisons, public housing, and subsidized housing) and Tribal lands and Indigenous areas. EJScreen was used to identify these landmarks and areas within the LPOE ROIs.

BOTA LPOE

Table 3-4 summarizes the percentage of people of color and low-income populations within 2-miles of the BOTA LPOE. The table also lists data for El Paso County and the State of Texas for comparison purposes.

Table 3-4. People of Color and Low-Income Population within the BOTA LPOE ROI.

Population Group	2-Mile ROI Pop.	2-Mile Total (%)	El Paso County Pop.	El Paso County Total (%)	Texas Pop.	Texas Total (%)
Non-People of Color (White alone)	2,611	4.9	96,994	11.2	11,732,834	40.1
Black or African American alone	395	0.7	24,578	2.8	3,449,557	11.8
Hispanic or Latino (of any race)	49,134	92.1	716,538	82.9	11,665,280	39.9
American Indian or Alaska Native alone	180	0.3	2,197	0.3	49,329	0.2
Asian alone	77	0.1	9,597	1.1	1,487,200	5.1
Native Hawaiian and Other Pacific Islander alone	208	0.4	1,238	0.1	23,212	0.1
Other People of Color [a]	754	1.4	12,690	1.5	835,930	2.9
Total People of Color	**50,748**	**95.1**	**766,838**	**88.8**	**17,510,508**	**59.9**
Total Population	**53,359**	**100**	**863,832**	**100**	**29,243,342**	**100**
Low Income [b]	**20,109**	**38.5**	**165,778**	**19.5**	**3,990,326**	**13.9**

USCB 2024a, 2024b.
[a] Other People of Color = Some Other Race alone and Two or More Races.
[b] Individuals whose income in the past 12 months was below the poverty level. This is based on the population for whom poverty status is determined, and for the BOTA LPOE ROI this population is 52,253; for El Paso County it is 849,872; and for Texas it is 28,615,931 (USCB 2024b).

The people of color population percentage of El Paso County is approximately 89 percent, and a meaningfully greater people of color population percentage relative to the general population of the county would exceed the 50 percent threshold defined by CEQ; therefore, the lower threshold of 50 percent is used to identify areas with meaningfully greater people of color populations within the BOTA LPOE ROI. The BOTA LPOE ROI contains aggregate and individual people of color populations that meet the environmental justice criteria. The total people of color population residing within the BOTA LPOE ROI is 50,748, or 95.1 percent of the total population; therefore, the overall composition of the ROI is predominantly people of color. Of the people of color populations in the BOTA LPOE ROI, they are

predominantly Hispanic or Latino (92.1 percent). Figure 3-18 displays the block groups identified as meeting the criteria for environmental justice, people of color populations in the BOTA LPOE ROI, as well as the percent of people of color populations within each block group. All of the block groups in the BOTA LPOE ROI meet the criteria for environmental justice, people of color populations.

Low-income populations also were evaluated using the absolute 50 percent and the relative 120 percent or greater criteria for potentially affected block groups in the BOTA LPOE ROI. If an area's percentage of low-income individuals met the 50 percent criterion or was more than 120 percent of the total low-income population within El Paso County (i.e., 23.4 percent), then the area was identified as having a low-income population. The total low-income population residing within the BOTA LPOE ROI is 20,109, or 38.5 percent of the total population; therefore, the percentage of low-income populations in the ROI exceeds the 120 percent criteria threshold. Figure 3-19 displays the block groups identified as meeting the criteria for environmental justice low-income populations surrounding the BOTA LPOE, as well as the percent of low-income individuals within each block group. Of the 67 block groups within the BOTA LPOE ROI, 45 block groups have low-income populations that meet the environmental justice criteria.

Using the EJScreen EJ Index and Supplemental Index, the BOTA LPOE ROI meets or exceeds the 80th national percentile threshold for Particulate Matter 2.5, Ozone, Nitrogen Dioxide, Diesel Particulate Matter, Toxic Releases to Air, Traffic Proximity and Volume, Lead Paint, RMP Facility Proximity, Hazardous Waste Proximity, and UST and Leaking UST in both indexes. In both the EJ Index and Supplemental Index, the BOTA LPOE ROI is in the 95th national percentile or higher for Ozone, Nitrogen Dioxide, Traffic Proximity, Lead Paint, and RMP Facility Proximity. In the Supplemental Index, the BOTA LPOE ROI is also in the 95th percentile for diesel particulate matter (USEPA 2024b).

The EJ Screen Health, Climate, and Critical Service Gap indicators show the BOTA LPOE ROI exceeds the 80th national percentile for Heart Disease, Persons with Disabilities, Lack of Broadband Internet Access, and Lack of Health Insurance (USEPA 2024b).

EJScreen shows that 32 percent of households in the BOTA LPOE ROI are limited-English households, meaning that all members of those households 14 years old and over have at least some difficulty with English (USEPA 2024a, 2024b). Thirty-seven percent of the ROI population has less than a high school education, meaning that people aged 25 or older do not have a high school diploma (USEPA 2024a, 2024b).

Residential areas in the ROI nearest to the BOTA LPOE are located about 1,000 feet to the north, 1,200 feet to the northwest, 1,700 feet to the east (the Paisano Green Community), 1,800 feet to the southeast, and 3,000 feet to the east of the BOTA LPOE. EJScreen identified community landmarks including hospitals, parks, places of worship, public housing, schools, and subsidized housing within the BOTA LPOE ROI. EJScreen reports 6 hospitals, 22 schools, and 26 places of worship in the ROI. The nearest community landmarks and their approximate distance from the BOTA LPOE are listed in Table 3-5. EJScreen did not identify any Tribal land or Indigenous areas in or adjacent to the BOTA LPOE ROI (USEPA 2024c).

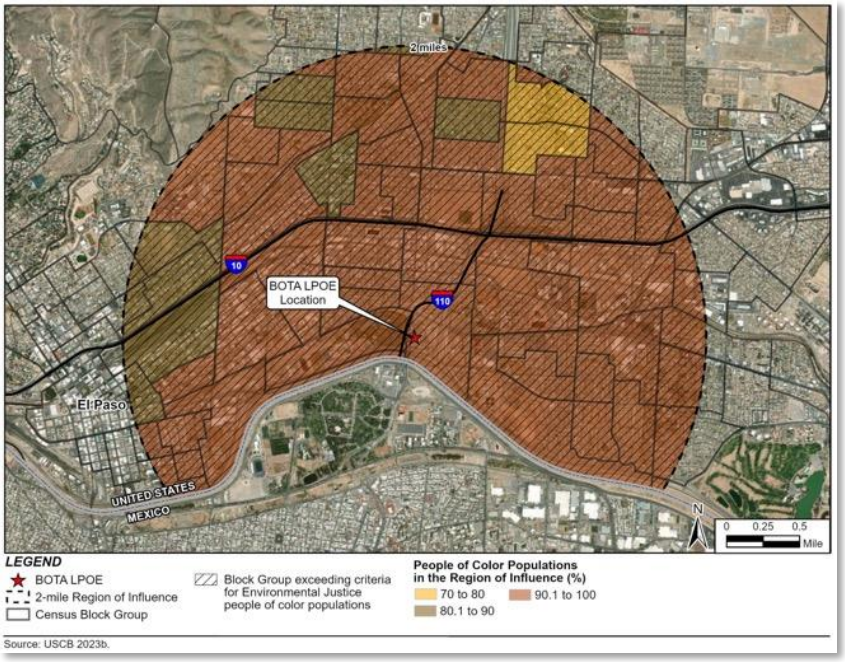


Figure 3-18. People of Color Populations in the BOTA LPOE ROI.

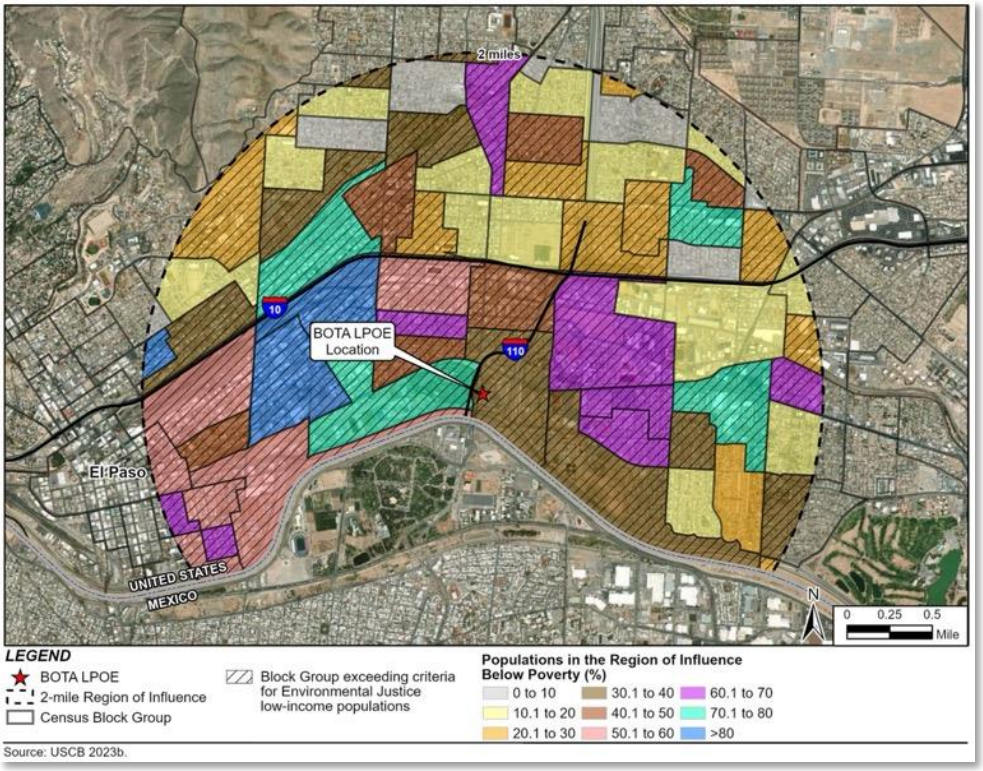


Figure 3-19. Low-Income Populations in the BOTA LPOE ROI.

Table 3-5. Community Landmarks within the BOTA LPOE ROI.

Community Landmark Type	Community Landmark	Direction from BOTA LPOE	Distance (feet)[a]
Daycare Center	Project Vida Early Childhood Education Center	North	2,000
Daycare Center	Rayito De Sol Daycare & Learning Center	Northwest	5,000
Hospital	Medical Center of the Americas	Northeast	4,900
Park	Chamizal National Memorial	West	400
Park	El Paso Zoo	Northeast	1,400
Places of Worship	Salvation Army of El Paso County	West	3,100
Places of Worship	St. Francis Xavier Catholic Church	North	900
Public Housing	Chelsea Pooley Guillen Father Pinto Affordable Housing [b]	East	6,700
Schools	Rayito De Sol Daycare & Learning	Northwest	5,000
Schools	Zavala Elementary School	Northeast	1,700
Subsidized Housing	Paisano Green Community [c]	East	1,700

USEPA 2024c.
a Distances are approximate.
b The Chelsea Pooley Guillen Father Pinto Affordable Housing consists of apartments and single-family homes managed by the Housing Authority of the City of El Paso and available for rent by low-income individuals.
c The Paisano Green Community, a subsidized apartment complex developed by the Housing Authority of the City of El Paso and funded through the American Reinvestment and Recovery Act, was built in 2012 for very low-income senior citizens (HUD User 2014).

Santa Teresa LPOE

Table 3-6 summarizes the percentage of people of color and low-income populations within 5-miles of the Santa Teresa LPOE site. For the Santa Teresa LPOE site, the area of analysis was expanded from 2 miles to 5 miles because the 2-mile radius was too sparsely populated to generate an EJScreen report. The table also lists data for Doña Ana County and the state of New Mexico for comparison purposes.

The people of color population percentage of Doña Ana County is approximately 74 percent, and a meaningfully greater people of color population percentage relative to the general population of the county would exceed the 50 percent threshold defined by CEQ; therefore, the lower threshold of 50 percent is used to identify areas with meaningfully greater people of color populations within the Santa Teresa LPOE ROI. The Santa Teresa LPOE ROI contains aggregate and individual people of color populations that meet the environmental justice criteria. The total people of color population residing within the Santa Teresa LPOE ROI is 9,356, or 89.4 percent of the total population; therefore, the overall composition of the ROI is predominantly people of color. Of the people of color populations in the Santa Teresa LPOE ROI, they are predominantly Hispanic or Latino (87.6 percent). Figure 3-20 displays the block groups identified as meeting the criteria for environmental justice people of color populations in the Santa Teresa LPOE ROI, as well as the percent of people of color populations within each block group. All of the block groups in the Santa Teresa LPOE ROI meet the criteria for environmental justice people of color populations.

Low-income populations also were evaluated using the absolute 50 percent and the relative 120 percent or greater criteria for potentially affected block groups within the Santa Teresa LPOE ROI. If an area's

percentage of low-income individuals met the 50 percent criterion, or was more than 120 percent of the total low-income population within Doña Ana County (i.e., 27.3 percent), then the area was identified as having a low-income population. The total low-income population residing within the Santa Teresa LPOE ROI is 2,657, or 25.9 percent of the total population; therefore, the percentage of low-income populations for the ROI as a whole does not exceed the 120 percent criteria threshold; however, some of the individual block groups do. Figure 3-21 displays the block groups identified as meeting the criteria for environmental justice low-income populations surrounding the Santa Teresa LPOE, as well as the percent of low-income individuals within each block group. Of the 4 block groups within the Santa Teresa LPOE ROI, 2 block groups have low-income populations that meet the environmental justice criteria.

Table 3-6. People of Color and Low-Income Population within the Santa Teresa LPOE ROI.

Population Group	2-Mile ROI Pop.	2-Mile Total (%)	Dona Ana County Pop.	Dona Ana County Total (%)	Texas Pop.	Texas Total (%)
Non-People of Color (White alone)	1,109	10.6	57,567	26.2	752,424	35.6
Black or African American alone	42	0.4	3,444	1.6	37,996	1.8
Hispanic or Latino (of any race)	9,172	87.6	151,592	68.9	1,051,626	49.8
American Indian or Alaska Native alone	0	0.0	1,552	0.7	178,608	8.5
Asian alone	0	0.0	2,305	1.0	32,214	1.5
Native Hawaiian and Other Pacific Islander alone	0	0.0	149	0.1	1,117	0.1
Other People of Color [a]	142	1.4	3,261	1.5	58,478	2.8
Total People of Color	**9,356**	**89.4**	**162,303**	**73.8**	**1,360,039**	**64.4**
Total Population	**10,465**	**100**	**219,870**	**100**	**2,112,463**	**100**
Low Income [b]	**2,657**	**25.9**	**48,732**	**22.8**	**378,651**	**18.3**

USCB 2024a, 2024b.
[a] Other People of Color = Some Other Race alone and Two or More Races.
[b] Individuals whose income in the past 12 months was below the poverty level. This is based on the population for whom poverty status is determined, and for the Santa Teresa LPOE ROI this population is 10,252; for Doña Ana County it is 214,116; and for New Mexico it is 2,070,966 (USCB 2024b).

Using the EJScreen EJ Index and Supplemental Index, the Santa Teresa LPOE ROI meets or exceeds the 80th national percentile threshold for Ozone, Nitrogen Dioxide, RMP Facility Proximity, and Drinking Water Non-Compliance in both indexes. In both the EJ Index and Supplemental Index, the Santa Teresa LPOE ROI is in the 95th national percentile or higher for Ozone and Drinking Water Non-Compliance (USEPA 2024d). The EJScreen Health, Climate, and Critical Service Gap indicators show the Santa Teresa LPOE ROI exceeds the 80th national percentile for Asthma, Lack of Broadband Internet Access, and Lack of Health Insurance (USEPA 2024d). EJScreen shows that 31 percent of households in the Santa Teresa LPOE ROI are limited-English households, meaning that all members of those households 14 years old and over have at least some difficulty with English (USEPA 2024a, 2024d). Twenty-four percent of the ROI population has less than a high school education, meaning that people aged 25 or older do not have a high school diploma (USEPA 2024a, 2024d).

The area immediately around the Santa Teresa LPOE ROI is sparsely populated. Residential areas in the ROI nearest to the Santa Teresa LPOE are located about four miles to the northeast in the community of Santa Teresa. The only community landmarks EJScreen identified in the Santa Teresa LPOE ROI are parks (State Trust Land). EJScreen reports no hospitals, schools, or places of worship in the ROI. EJScreen did not identify any Tribal land or Indigenous areas in or adjacent to the Santa Teresa ROI (USEPA 2024e).

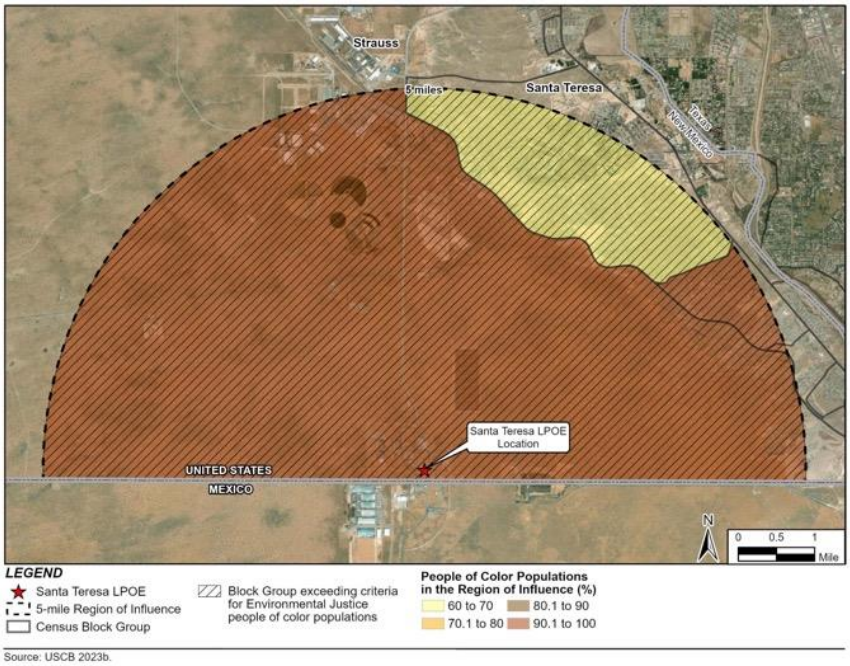


Figure 3-20. People of Color Populations in the Santa Teresa LPOE ROI.

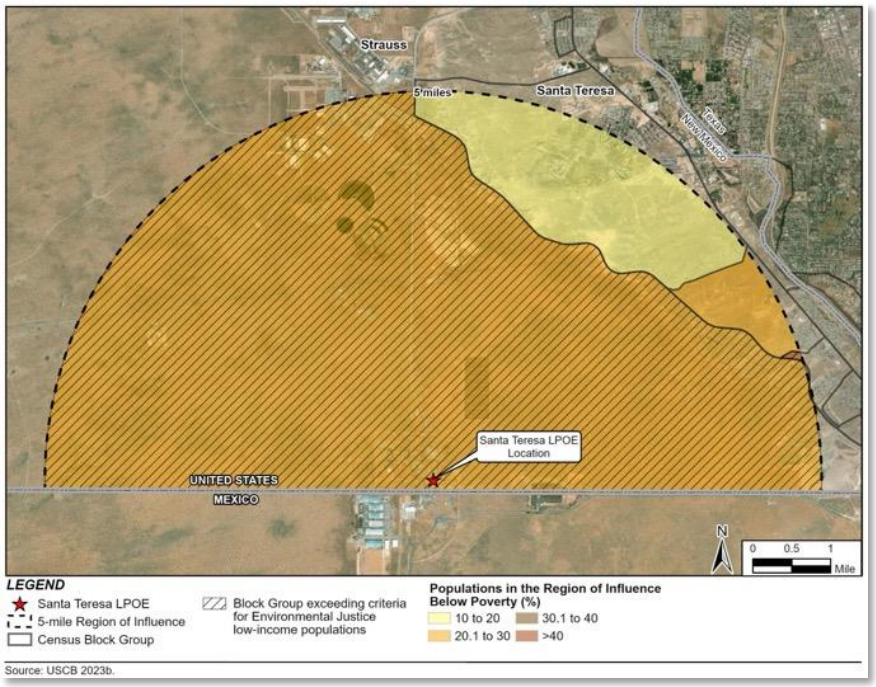


Figure 3-21. Low-Income Populations in the Santa Teresa LPOE ROI.

Tornillo LPOE

Table 3-7 summarizes the percentage of people of color and low-income populations within 2-miles of the Tornillo LPOE site. The table also lists data for El Paso County and the state of Texas for comparison purposes.

Table 3-7. People of Color and Low-Income Population within the Tornillo LPOE ROI.

Population Group	2-Mile ROI Pop.	2-Mile Total (%)	El Paso County Pop.	El Paso County Total (%)	Texas Pop.	Texas Total (%)
Non-People of Color (White alone)	1	0.1	96,994	11.2	11,732,834	40.1
Black or African American alone	0	0.0	24,578	2.8	3,449,557	11.8
Hispanic or Latino (of any race)	1,492	99.9	716,538	82.9	11,665,280	39.9
American Indian or Alaska Native alone	0	0.0	2,197	0.3	49,329	0.2
Asian alone	0	0.0	9,597	1.1	1,487,200	5.1
Native Hawaiian and Other Pacific Islander alone	0	0.0	1,238	0.1	23,212	0.1
Other People of Color [a]	1	0.1	12,690	1.5	835,930	2.9
Total People of Color	**1,493**	**99.9**	**766,838**	**88.8**	**17,510,508**	**59.9**
Total Population	**1,494**	**100**	**863,832**	**100**	**29,243,342**	**100**
Low Income [b]	**281**	**18.9**	**165,778**	**19.5**	**3,990,326**	**13.9**

USCB 2024a, 2024b.
[a] Other People of Color = Some Other Race alone and Two or More Races.
[b] Individuals whose income in the past 12 months was below the poverty level. This is based on the population for whom poverty status is determined, and for the BOTA LPOE ROI this population is 52,253; for El Paso County it is 849,872; and for Texas it is 28,615,931 (USCB 2024b).

The people of color population percentage of El Paso County is approximately 89 percent, and a meaningfully greater people of color population percentage relative to the general population of the county would exceed the 50 percent threshold defined by CEQ; therefore, the lower threshold of 50 percent is used to identify areas with meaningfully greater people of color populations within the Tornillo LPOE ROI. The ROI contains aggregate and individual people of color populations that meet the environmental justice criteria. The total people of color population residing within the Tornillo LPOE ROI is 1,493, or 99.9 percent of the total population; therefore, the overall composition of the ROI is predominantly people of color. Of the people of color populations in the Tornillo LPOE ROI, they are almost all Hispanic or Latino (99.9 percent). Figure 3-22 displays the block groups identified as meeting the criteria for environmental justice people of color populations in the Tornillo LPOE ROI, as well as the percent people of color populations within each block group. All of the block groups in the Tornillo LPOE ROI meet the criteria for environmental justice, people of color populations.

Low-income populations also were evaluated using the absolute 50 percent and the relative 120 percent or greater criteria for potentially affected block groups within the Tornillo LPOE ROI. If an area's percentage

of low-income individuals met the 50 percent criterion, or was more than 120 percent of the total low-income population within El Paso County (i.e., 23.4 percent), then the area was identified as having a low-income population. The total low-income population residing within the Tornillo LPOE ROI is 281, or 18.9 percent of the total population; therefore, the percentage of low-income populations in the ROI as a whole does not exceed the 120 percent criteria threshold; however, some of the individual block groups do. Figure 3-23 displays the block groups identified as meeting the criteria for environmental justice low-income populations surrounding the Tornillo LPOE, as well as the percent of low-income individuals within each block group. Of the 2 block groups within the Tornillo LPOE ROI, 1 block group has low-income populations that meet the environmental justice criteria.

Using the EJScreen EJ Index and Supplemental Index, the Tornillo LPOE ROI meets or exceeds the 80th national percentile threshold for Ozone and Wastewater Discharge in both indexes. The Supplemental Index also exceeds the 80th national percentile threshold for Nitrogen Dioxide and Lead Paint. In both the EJ Index and Supplemental Index, the ROI is in the 95th national percentile or higher for Ozone (USEPA 2024f). The EJScreen Health, Climate, and Critical Service Gap indicators show the Tornillo LPOE ROI exceeds the 80th national percentile for Heart Disease, Persons with Disabilities, and Lack of Health Insurance (USEPA 2024f).

EJScreen shows that 48 percent of households in the Tornillo LPOE ROI are limited-English households, meaning that all members of those households 14 years old and over have at least some difficulty with English (USEPA 2024a, 2024f). Fifty-five percent of the ROI population has less than a high school education, meaning that people aged 25 or older do not have a high school diploma (USEPA 2024a, 2024f). The area around Tornillo LPOE is sparsely populated agricultural land. Two residences border the Tornillo LPOE property to the northwest, about 900 feet from the Tornillo LPOE. The only community landmark EJScreen identified in the Tornillo LPOE ROI is parkland (State Trust Land). EJScreen reports no hospitals, schools, or places of worship in the ROI. EJScreen did not identify any Tribal land or Indigenous areas in or adjacent to the Tornillo LPOE ROI (USEPA 2024g).

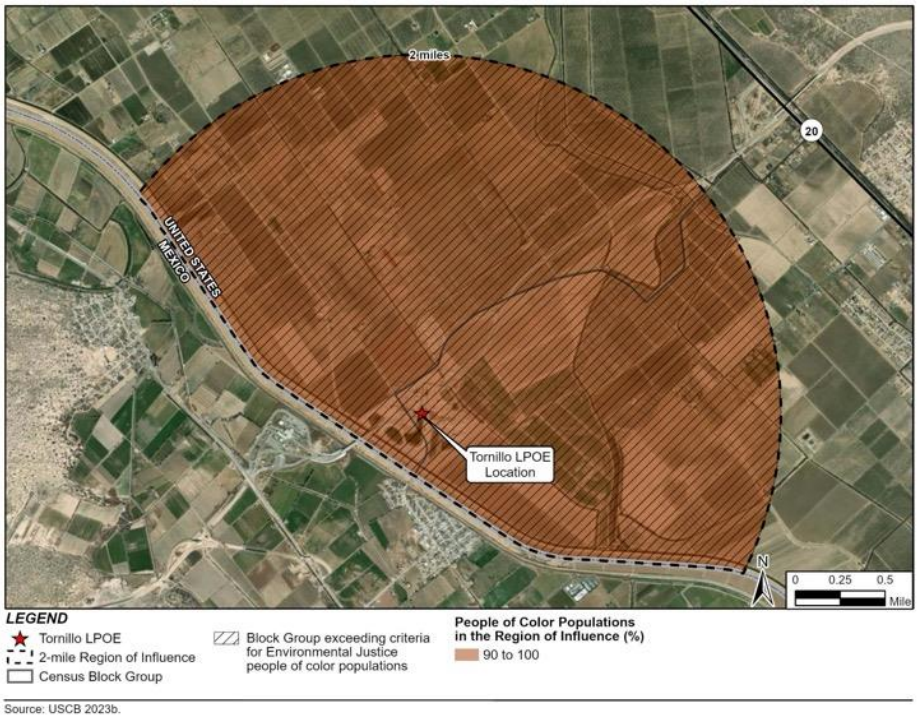


Figure 3-22. People of Color Populations in the Tornillo LPOE ROI.

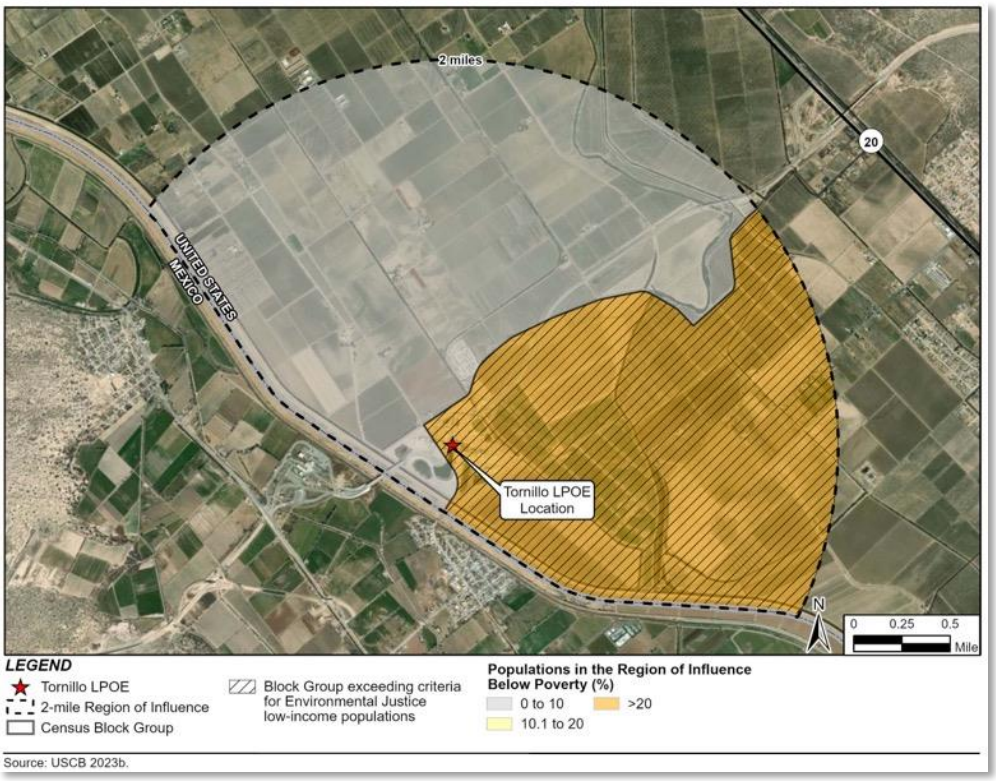


Figure 3-23. Low-Income Populations in the Tornillo LPOE ROI.

Ysleta LPOE

Table 3-8 summarizes the percentage of people of color and low-income populations within 2-miles of the Ysleta LPOE site. The table also lists data for El Paso County and the state of Texas for comparison purposes.

The people of color population percentage of El Paso County is approximately 89 percent, and a meaningfully greater people of color population percentage relative to the general population of the county would exceed the 50 percent threshold defined by CEQ; therefore, the lower threshold of 50 percent is used to identify areas with meaningfully greater people of color populations within the Ysleta LPOE ROI. The ROI contains aggregate and individual people of color populations that meet the environmental justice criteria. The total people of color population residing within the Ysleta LPOE ROI is 26,480, or 96.4 percent of the total population; therefore, the overall composition of the ROI is predominantly people of color. Of the people of color populations in the Ysleta LPOE ROI, they are predominantly Hispanic or Latino (95.1 percent). Figure 3-24 displays the block groups identified as meeting the criteria for environmental justice, people of color populations in the Ysleta LPOE ROI, as well as the percent of people of color populations within each block group. All of the block groups in the Ysleta LPOE ROI meet the criteria for environmental justice, people of color populations.

Low-income populations also were evaluated using the absolute 50 percent and the relative 120 percent or greater criteria for potentially affected block groups with the Ysleta LPOE ROI. If an area's percentage of low-income individuals met the 50 percent criterion, or was more than 120 percent of the total low-income population within El Paso County (i.e., 23.4 percent), then the area was identified as having a low-income population. The total low-income population residing within the Ysleta LPOE ROI is 6,013, or 21.9 percent of the total population; therefore, the percentage of low-income populations for the ROI as a whole does not exceed the 120 percent criteria threshold; however, some of the individual block groups do. Figure 3-

25 displays the block groups identified as meeting the criteria for environmental justice low-income populations surrounding the Ysleta LPOE, as well as the percent of low-income individuals within each block group. Of the 18 block groups within the Ysleta LPOE ROI, 8 block groups have low-income populations that meet the environmental justice criteria.

Table 3-8. People of Color and Low-Income Population within the Ysleta LPOE ROI.

Population Group	2-Mile ROI Pop.	2-Mile Total (%)	El Paso County Pop.	El Paso County Total (%)	Texas Pop.	Texas Total (%)
Non-People of Color (White alone)	977	3.6	96,994	11.2	11,732,834	40.1
Black or African American alone	67	0.2	24,578	2.8	3,449,557	11.8
Hispanic or Latino (of any race)	26,099	95.1	716,538	82.9	11,665,280	39.9
American Indian or Alaska Native alone	188	0.7	2,197	0.3	49,329	0.2
Asian alone	107	0.4	9,597	1.1	1,487,200	5.1
Native Hawaiian and Other Pacific Islander alone	0	0.0	1,238	0.1	23,212	0.1
Other People of Color [a]	19	0.1	12,690	1.5	835,930	2.9
Total People of Color	**26,480**	**96.4**	**766,838**	**88.8**	**17,510,508**	**59.9**
Total Population	**27,457**	**100**	**863,832**	**100**	**29,243,342**	**100**
Low Income [b]	**27,430**	**21.9**	**165,778**	**19.5**	**3,990,326**	**13.9**

USCB 2024a, 2024b.
[a] Other People of Color = Some Other Race alone and Two or More Races.
[b] Individuals whose income in the past 12 months was below the poverty level. This is based on the population for whom poverty status is determined, and for the BOTA LPOE ROI this population is 52,253; for El Paso County it is 849,872; and for Texas it is 28,615,931 (USCB 2024b).

Using the EJScreen EJ Index and Supplemental Index, the Ysleta LPOE ROI meets or exceeds the 80th national percentile threshold for Ozone, Nitrogen Dioxide, Traffic Proximity and Volume, RMP Facility Proximity, UST and Leaking UST, and Wastewater Discharge in both indexes. In addition, the EJ Index exceeds the 80th national percentile threshold for Lead Paint, and the Supplemental Index exceeds the 80th national percentile threshold for Diesel Particulate Matter. In both the EJ Index and Supplemental Index, the Ysleta LPOE ROI is in the 95th national percentile or higher for Ozone and Nitrogen Dioxide, and in the Supplemental Index it also is in the 95th percentile for RMP Facility Proximity (USEPA 2024h).

The EJScreen Health, Climate, and Critical Service Gap indicators show the Ysleta LPOE ROI exceeds the 80th national percentile for Persons with Disabilities, Lack of Broadband Internet Access, and Lack of Health Insurance (USEPA 2024h).

EJScreen shows that 32 percent of households in the Ysleta LPOE ROI are limited-English households, meaning that all members of those households 14 years old and over have at least some difficulty with English (USEPA 2024a, 2024h). Thirty-one percent of the ROI population has less than a high school education, meaning that people aged 25 or older do not have a high school diploma (USEPA 2024a, 2024h).

Residential areas in the ROI nearest to the Ysleta LPOE are located about 2,800 feet to the north, 3,600 feet to the northeast, and 6,300 feet to the east of the Ysleta LPOE. EJScreen identified community landmarks including parks, places of worship, public housing, schools, and subsidized housing within the Ysleta LPOE ROI. EJScreen reports 6 schools and 5 places of worship in the ROI. The nearest community landmarks and their approximate distance from the Ysleta LPOE are listed in Table 3-9. EJScreen identified American Indian Reservation land and Off-Reservation Trust Land in the ROI, about 5,200 feet northeast of the Ysleta LPOE (USEPA 2024i).

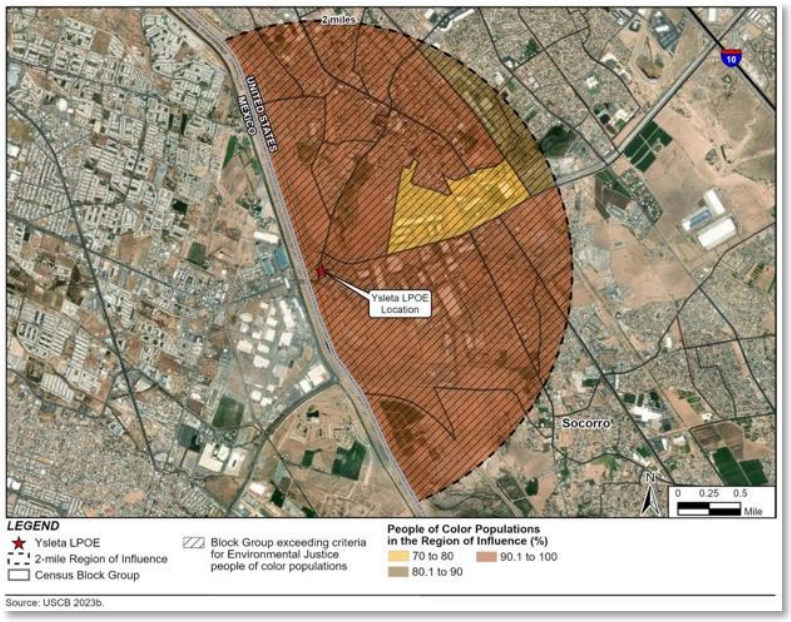


Figure 3-24. People of Color Populations in the Ysleta LPOE ROI.

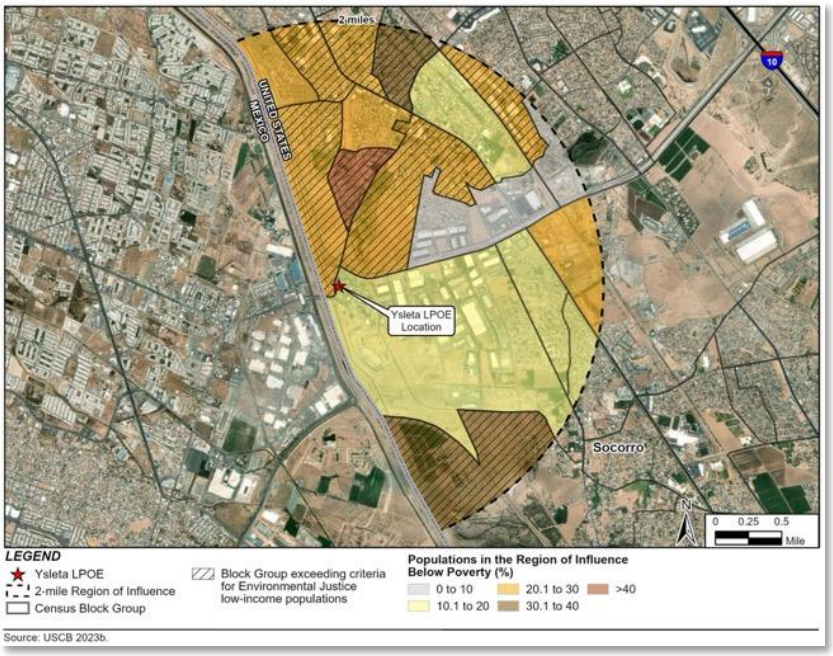


Figure 3-25. Low-Income Populations in the Ysleta LPOE ROI.

Table 3-9. Community Landmarks within the Ysleta LPOE ROI.

Community Landmark Type	Community Landmark	Direction from BOTA LPOE	Distance (feet)[a]
Park	Capistrano Park	North	4,300
Places of Worship	Our Lady of Mount Carmel Church	Northeast	5,100
Public Housing	Eisenhower Scattered Sites Hart Baird, City of El Paso Housing Authority	East	5,400
Schools	Capistrano Elementary School	North	6,000
Schools	Mini Me's Child Center	East	6,800
Schools	Playskool Day Care Center	Northeast	4,500
Schools	Presa Elementary School	Northeast	7,700
Subsidized Housing	Kennedy Communities	Northeast	4,800
Tribal Land	Ysleta del Sur Pueblo	Northeast	5,200

USEPA 2024i.
[a] Distances are approximate.

3.6.2 Protection of Children's Health and Safety

In compliance with EO 13045 and the Memorandum Addressing Children's Health through Reviews Conducted Pursuant to the National Environmental Policy Act and Section 309 of the Clean Air Act, the number and distribution of children (i.e., individuals up to age 19) in the ROI are assessed to determine whether the alternatives would expose them to environmental health and safety risks.

BOTA LPOE

Table 3-10 lists the population of children within 2 miles of the BOTA LPOE. El Paso County and Texas are provided for comparison purposes. EJScreen identified hospitals, housing, schools, and places of worship in the BOTA LPOE ROI. The nearest residential neighborhood is about 1,000 feet to the north of the BOTA LPOE. Community Landmarks within the BOTA LPOE ROI (see Table 3-5); Section 3.7 (Noise and Vibration) and Section 3.9 (Air Quality and Greenhouse Gas Emissions), also discuss locations of air pollutant- and noise-sensitive receptors, to include locations where children might be present within the vicinity of the BOTA LPOE. Figure 3-26 shows the percent population of children in the census tracts within the BOTA LPOE ROI (data was not available at the block group level).

Table 3-10. Child Population in the BOTA LPOE ROI.

Location	Children, Up to Age 19 (Pop.)	Children, Up to Age 19 (%)
2-Mile ROI	15,958	25.6
El Paso County	256,482	29.7
Texas	8,253,343	28.2

USCB 2022i.

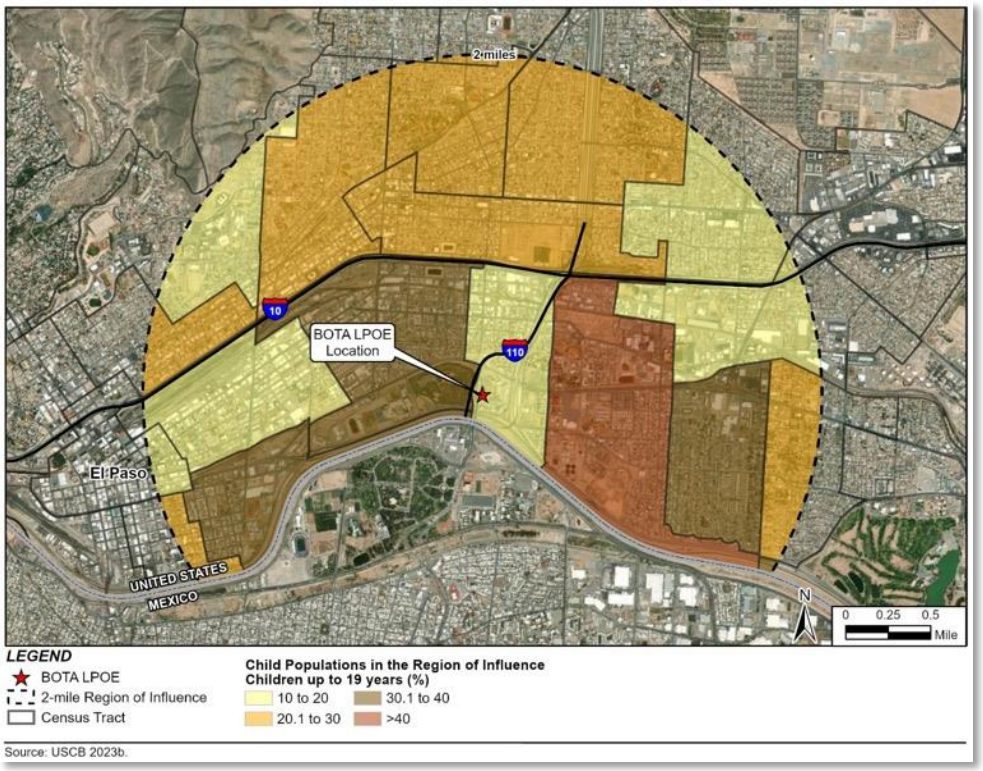


Figure 3-26. Child Populations in the BOTA LPOE ROI.

Santa Teresa LPOE

Table 3-11 lists the population of children within 5 miles of the Santa Teresa LPOE. Doña Ana County and New Mexico are provided for comparison purposes. The area immediately around the Santa Teresa LPOE ROI is sparsely populated. EJScreen did not identify any hospitals, schools, or places of worship in the ROI. The nearest residential neighborhood to the Santa Teresa LPOE is about four miles to the northeast in the community of Santa Teresa. Section 3.7 (Noise) and Section 3.9 (Air Quality and Greenhouse Gas Emissions), also discuss locations of air pollutant- and noise-sensitive receptors, to include locations where children might be present within the vicinity of the Santa Teresa LPOE. Figure 3-27 shows the percent population of children in the census tracts within the Santa Teresa LPOE ROI (data was not available at the block group level).

Table 3-11. Child Population in the Santa Teresa LPOE ROI.

Location	Children, Up to Age 19 (Pop.)	Children, Up to Age 19 (%)
5-Mile ROI	5,379	32.4
Doña Ana County	61,477	28.0
New Mexico	532,725	25.2

USCB 2022i.

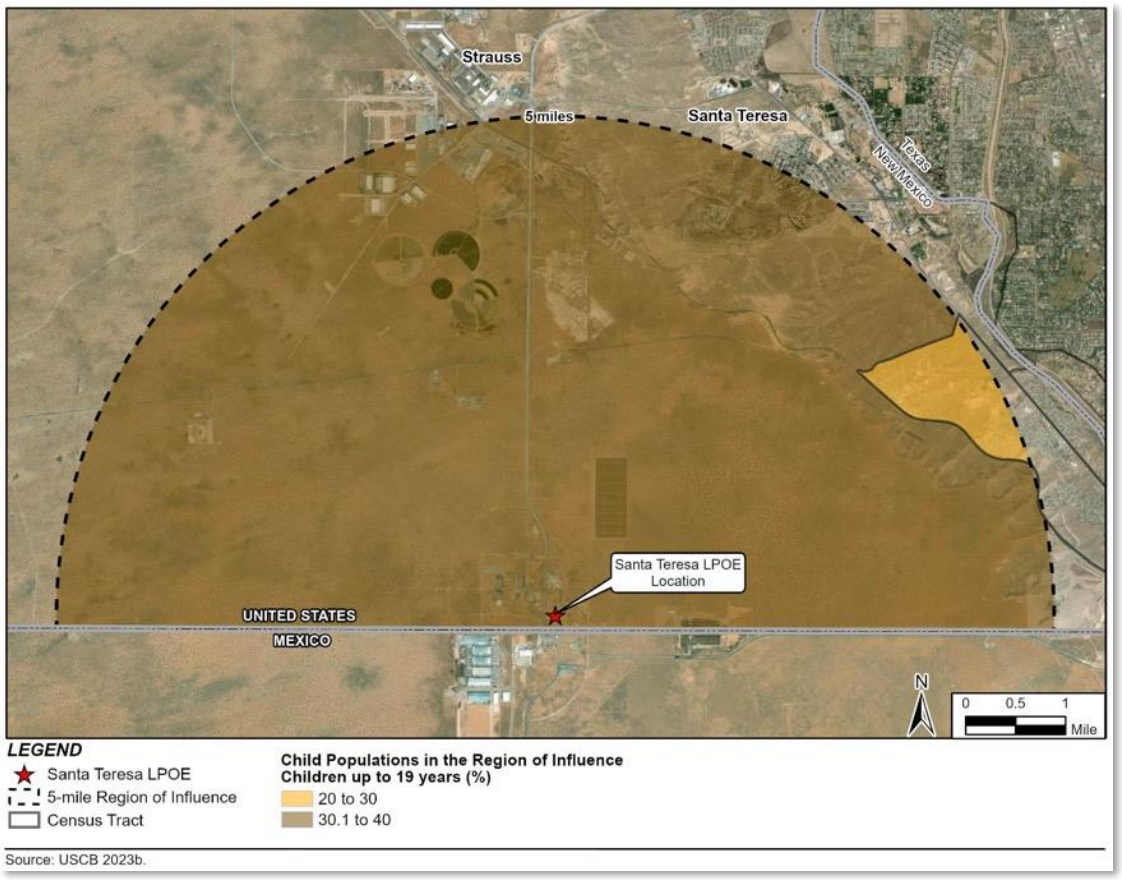


Figure 3-27. Child Populations in the Santa Teresa LPOE ROI.

Tornillo LPOE

Table 3-12 lists the population of children within 2 miles of the Tornillo LPOE. El Paso County and Texas are provided for comparison purposes. The Tornillo LPOE ROI is sparsely populated. The nearest residences are two homes about 900 feet northwest of the Tornillo LPOE. EJScreen did not identify any hospitals, schools, or places of worship in the ROI. Section 3.7 (Noise) and Section 3.9 (Air Quality and Greenhouse Gas Emissions), also discuss locations of air pollutant- and noise-sensitive receptors, to include locations where children might be present within the vicinity of the Tornillo LPOE. Figure 3-24 shows the percent population of children in the census tracts within the Tornillo LPOE ROI (data was not available at the block group level).

Table 3-12. Child Population in the Tornillo LPOE ROI.

Location	Children, Up to Age 19 (Pop.)	Children, Up to Age 19 (%)
2-Mile ROI	898	19.1
El Paso County	256,482	29.7
Texas	8,253,343	28.2

USCB 2022i.

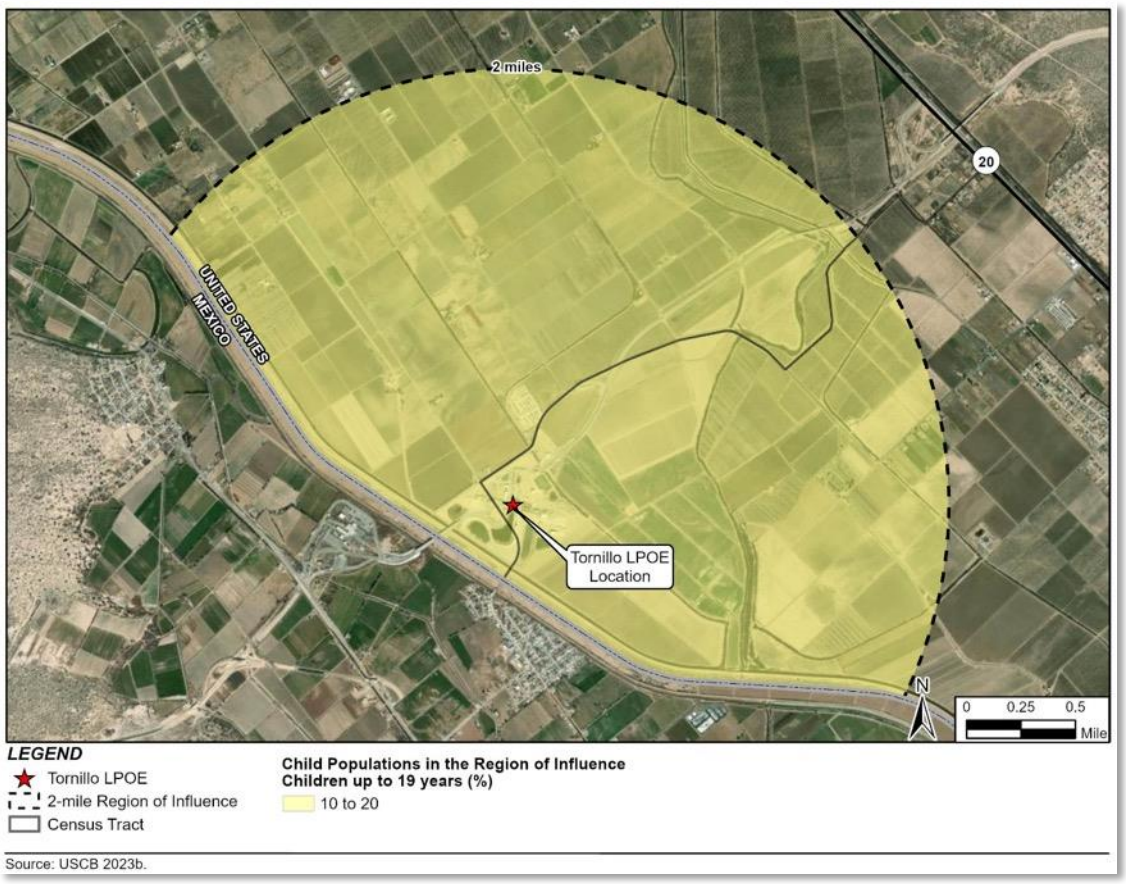


Figure 3-28. Child Populations in the Tornillo LPOE ROI.

Ysleta LPOE

Table 3-13 lists the population of children within 2 miles of the Ysleta LPOE. El Paso County and Texas are provided for comparison purposes. EJScreen identified hospitals, housing, schools, and places of worship in the Ysleta LPOE ROI. The nearest residential neighborhood is about 2,800 feet to the north of the Ysleta LPOE. The previous Table 3-9, Community Landmarks within the Ysleta LPOE ROI; Section 3.7 (Noise) and Section 3.9 (Air Quality and Greenhouse Gas Emissions), also discuss locations of air pollutant- and noise-sensitive receptors, to include locations where children might be present within the vicinity of the Ysleta LPOE. Figure 3-29 shows the percent population of children in the census tracts within the Ysleta LPOE ROI (data was not available at the block group level).

Table 3-13. Child Population in the Ysleta LPOE ROI.

Location	Children, Up to Age 19 (Pop.)	Children, Up to Age 19 (%)
2-Mile ROI	11,211	27.6
El Paso County	256,482	29.7
Texas	8,253,343	28.2

USCB 2022i.

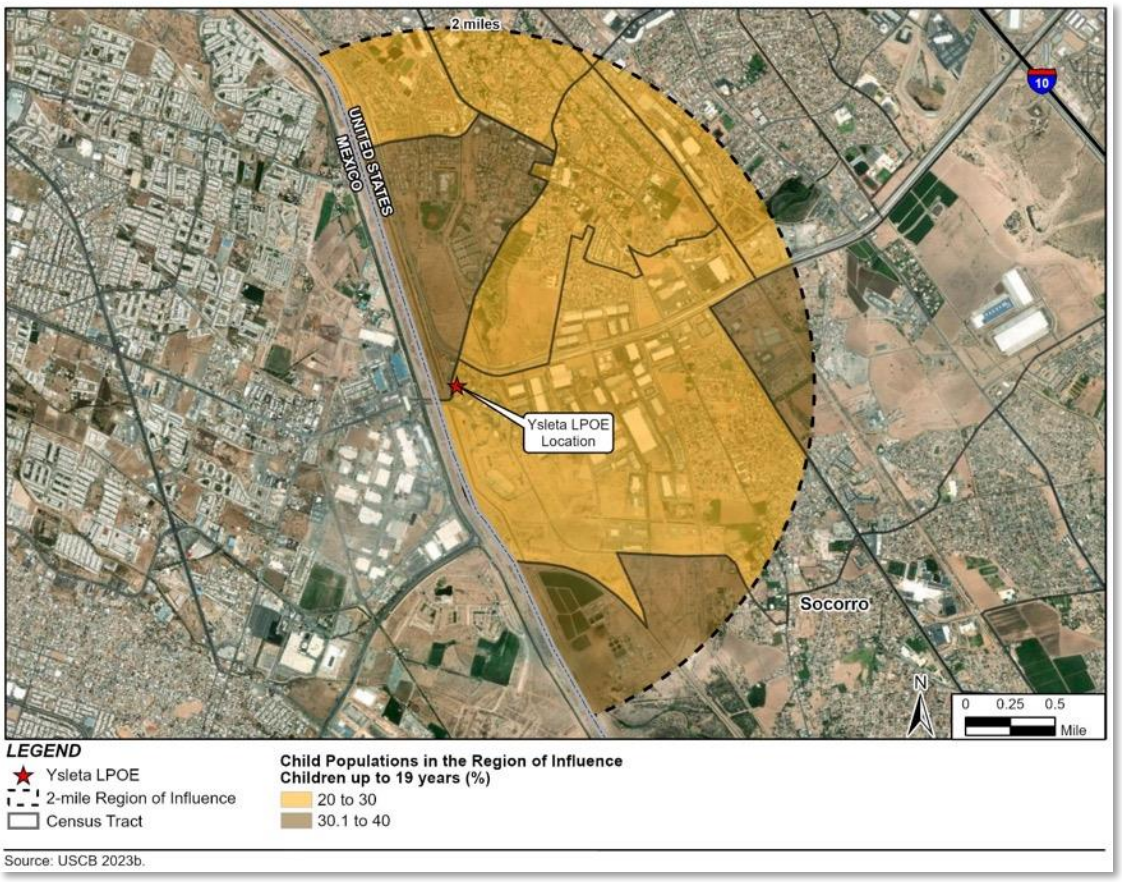


Figure 3-29. Child Populations in the Ysleta LPOE ROI.

3.6.3 Socioeconomics

As mentioned earlier in Section 1.6.2.6, socioeconomic and economic analyses generally include detailed investigations of the prevailing population, income, employment, and housing conditions of a grouping of individuals, community or city, or an area of interest. The socioeconomic conditions of a ROI could be affected by changes in the rate of population growth, changes in the demographic characteristics of a ROI, or changes in employment within the ROI caused by implementing a proposed action. The economic conditions of a group or entity could also be affected by increasing or decreasing revenue sources, like removing potential taxable land from the tax base or from removing commercial cargo traffic from the area. These potential effects can become especially noticeable in areas where the prevailing tax base or other source of revenue is already limited. The data supporting this presentation were collected from standard sources, including federal agencies such as the USCB, Bureau of Labor Statistics, and Bureau of Economic Analysis; state agencies such as the Texas Demographic Center and the University of New Mexico Geospatial and Population Studies; and local agencies such as city and county governments.

3.6.3.1 Region of Influence

Because potential effects with greatest intensity would likely occur in El Paso County for the BOTA, Tornillo, and Ysleta LPOEs, and in Doña Ana County, New Mexico for the Santa Teresa LPOE, these counties are defined as the ROIs, or the areas analyzed for socioeconomic effects. Socioeconomic effects would be felt most by individuals, residents, and workers in El Paso County, especially residents in the City of El Paso and town of Tornillo, in areas adjacent to the BOTA, Tornillo, and Ysleta LPOEs; and by individuals, residents, and workers in Doña Ana County, especially residents in the town of Santa Teresa, in areas

adjacent to the Santa Teresa LPOE. For the BOTA, Tornillo, and Ysleta LPOEs, data are presented for El Paso County and compared to the state of Texas overall, and described for the City of El Paso and town of Tornillo as appropriate or where data is available. Ysleta is an area within the City of El Paso and is included in the data presented for the city. For the Santa Teresa LPOE, data are presented for Doña Ana County and compared to the state of New Mexico overall, and described for the town of Santa Teresa as appropriate or where data is available. The most recent and best available data are presented throughout the section.

Due to the close interconnectedness of population, housing, and labor conditions, and the geographic location in the El Paso County ROI for the BOTA, Tornillo, and Ysleta LPOEs, this section discusses the general affected environment of these three LPOEs together for each socioeconomic component. Where there are differences among the sites requiring distinction among the locations, these are highlighted in the text as appropriate. The affected environment for the Santa Teresa LPOE, which is in the Doña Ana County ROI, is discussed separately.

3.6.3.2 BOTA, Tornillo and Ysleta LPOEs

Population

Past and current population data and future population projections are listed in Table 3-14. The population of the City of El Paso was relatively stable, with a slight decline from 2017 to 2022. The populations of Tornillo, El Paso County, and Texas all increased from 2017 to 2022. The town of Tornillo saw the highest percentage increase at about 38 percent. El Paso County grew by about 4 percent, and the state of Texas grew by about 7 percent. From 2030 to 2050, the population of El Paso County is projected to grow by 5 percent, and the population of Texas is projected to grow by 23 percent.

Table 3-14. Population Growth City of El Paso, Town of Tornillo, El Paso County, and Texas.

Metric	City of El Paso	Town of Tornillo	El Paso County	Texas
Historical and Current Population				
2017	678,266	1,120	834,825	27,419,612
2022	677,181	1,548	863,832	29,243,342
Change (2017 – 2023)	-1,085	428	29,007	1,823,730
Percentage Change (2017 – 2023)	-0.2%	38.2%	3.5%	6.7%
Projected Population [a]				
2030	N/A[b]	N/A	909,933	32,912,882
2040	N/A	N/A	942,242	36,807,213
2050	N/A	N/A	953,007	40,645,784
Change (2030 – 2050)	N/A	N/A	43,074	7,732,902
Percentage Change (2030 – 2050)	N/A	N/A	4.7%	23.5%

Sources: TDC 2022; USCB 2017a, 2022a.
[a] Population projections are based on the 2020 Decennial Census and are not consistent with the 2017 and 2022 American Community Survey Census estimates. Projections assume the migration rates between 2010 – 2020, which is recommended for near-term planning purposes (TDC 2022).
[b] N/A = Not available.

Housing

A housing unit refers to a house, an apartment, a mobile home or trailer, a group of rooms, or a single room occupied as a separate living quarters, or, if vacant, intended for occupancy as separate living quarters (USCB 2024). Both occupied and vacant housing units are included in the total housing unit inventory. A housing unit is classified as occupied if it is the usual place of residence of a person or group of people at the time of the census; conversely, a housing unit is classified as vacant if it is not the usual place of residence of a person or group of people at the time of the census (USCB 2024).

The homeowner vacancy rate is the proportion of the homeowner inventory that is vacant and available for sale, and the rental vacancy rate is the proportion of the rental inventory that is vacant and available for rent (USCB 2024).

The total housing units, occupied housing units, rental vacancy rates, and homeowner vacancy rates for City of El Paso, Tornillo, El Paso County, and Texas are listed in Table 3-15. The homeowner vacancy rates are low for all locations, indicating a tight housing market for home buyers with not many units available for sale. Rental vacancy rates are similar for all locations except for Tornillo. Tornillo has a relatively small inventory of vacant units (30 total), with 11 units vacant and available for rent, which is a high proportion of the total (about 37 percent) (USCB 2022b).

Table 3-15. Housing Characteristics City of El Paso, Town of Tornillo, El Paso County, and Texas.

Location	Total Housing Units	Occupied Housing Units	Rental Vacancy Rate	Homeowner Vacancy Rate
City of El Paso	260,240	239,624	7.4%	1.1%
Town of Tornillo	463	433	37.9%	0.0%
El Paso County	317,665	292,580	7.6%	1.2%
Texas	11,654,971	10,490,553	7.4%	1.2%

Sources: USCB 2022c.

Labor, Employment, and Earnings

Labor force and employment statistics are presented for the City of El Paso, El Paso County, and Texas. The Bureau of Economic Analysis and Bureau of Labor Statistics do not provide data for the town of Tornillo.

Labor Force

The size of the civilian labor force is measured as the sum of those currently employed and unemployed. People are classified as unemployed if they do not have a job, have actively looked for work in the prior four weeks, and are currently available for work (BLS 2024a). Labor force data is listed in Table 3-16. From 2010 to 2022, the El Paso City and County labor force grew by about 8 percent. The state of Texas labor force grew at a higher rate of 19.7 percent.

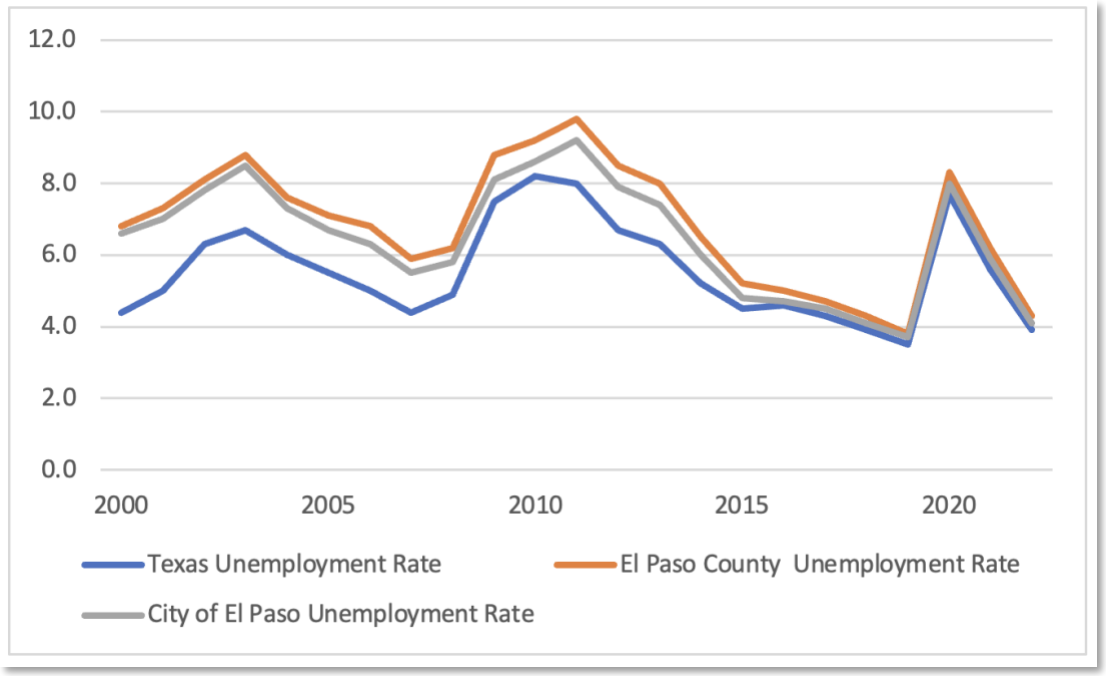
Table 3-16. Civilian Labor Force City of El Paso, El Paso County and Texas.

Location	2010	2020	2022	Percent Change (2010-2022)
City of El Paso	283,259	300,413	308,305	8.8%
El Paso County	341,489	361,398	370,182	8.4%
Texas	12,260,100	13,941,490	14,672,312	19.7%

Sources: BLS 2024b.

Unemployment

The unemployment rate is calculated based on the number of unemployed persons divided by the labor force. Figure 3-30 shows the annual unemployment rates for the City of El Paso, El Paso County, and Texas from 2000 to 2022. As of 2000, the unemployment rate in the city and county were about 2 percent higher than the state of Texas. Unemployment rates lowered until 2007, then rose to highs of about 8 to 10 percent in 2011 during the recession that began in 2008. Rates decreased to around 4 percent in 2019 for the city, county, and state, then rose sharply in 2020 because of the COVID-19 pandemic, but decreased to post-pandemic rates of about 4 percent in 2022.



Sources: BLS 2024b.

Figure 3-30. Annual Unemployment Rates City of El Paso, El Paso County, and Texas.

Employment by Industry

Employment data by industry for El Paso County is listed in Table 3-17. From 2010 to 2022, employment in all of the industries grew except for mining and state and local government. The leading industries in the county as of 2022 were government and government enterprises (including federal civilian, military, and state and local government), healthcare and social assistance, retail trade, accommodation and food services, and administrative and support and waste management and remediation services. These five industries account for more than half (about 56 percent) of total employment in El Paso County (BEA 2023a).

Table 3-17. Employment by Industry in El Paso County.

Industry	Employment (2010)	Employment (2022)	Percent Change (2010-2022)	Percent of Total Employment (2022)
Farm	890	1,006	13.0%	0.2%
Forestry, fishing, and related activities	526	597	13.5%	0.1%
Mining, quarrying, and oil and gas extraction	732	622	-15.0%	0.1%
Utilities	1,137	1,607	41.3%	0.3%
Construction	25,755	30,450	18.2%	6.3%
Manufacturing	18,121	19,614	8.2%	4.1%
Wholesale trade	11,831	14,599	23.4%	3.0%
Retail trade	41,977	48,191	14.8%	10.0%
Transportation and warehousing	17,532	33,503	91.1%	6.9%
Information	5,848	6,249	6.9%	1.3%
Finance and insurance	14,772	23,125	56.5%	4.8%
Real estate and rental and leasing	13,562	20,279	49.5%	4.2%
Professional, scientific, and technical services	13,900	18,850	35.6%	3.9%
Management of companies and enterprises	1,407	2,938	108.8%	0.6%
Administrative and support and waste management and remediation services	31,977	37,081	16.0%	7.7%
Educational services	4,904	6,501	32.6%	1.3%
Health care and social assistance	38,091	51,639	35.6%	10.7%
Arts, entertainment, and recreation	4,291	5,517	28.6%	1.1%
Accommodation and food services	29,052	40,331	38.8%	8.4%
Other services (except government and government enterprises)	21,045	25,246	20.0%	5.2%
Government and government enterprises	90,891	94,475	3.9%	19.6%
Federal government civilian	12,542	13,045	4.0%	2.7%
Military	23,713	27,972	18.0%	5.8%
State and local government	54,636	53,458	-2.2%	11.1%
Total Employment	**388,241**	**482,420**	**24.3%**	**100%**

Sources: BEA 2023.

Table 3-18 lists the largest employers in El Paso County. Fort Bliss is a major workforce driver in the ROI, with 1 out of 16 jobs in El Paso tied to the military (EPTX 2024). Fort Bliss is about four miles northeast of the BOTA LPOE, about 10 miles north of the Ysleta LPOE, and about 40 miles north of the Tornillo LPOE. The U.S. Customs and Border Protection's El Paso Sector employs about 2,400 agents (Texas Comptroller 2016).

Table 3-18. Largest Employers in El Paso County.

Company	Industry	Employment
Fort Bliss	Government	47,628
El Paso Independent School District (ISD)	Education	7,875
Socorro ISD	Education	7,144
City of El Paso	Government	6,840
T&T Staff Management	Professional, scientific, and technical services	6,387
Ysleta ISD	Education	6,022
The Hospitals of Providence	Health care	5,300
Walmart	Retail	3,706
The University of Texas at El Paso	Education	3,400
El Paso Community College (five campuses)	Education	3,102
WBAMC Internal Medicine Clinic	Health care	3,000
County of El Paso	Government	2,700
U.S. Customs and Border Protection	Government	2,400
Las Palmas and Del Sol Regional Health Care System	Health care	2,244
Echostar Satellite Corporation	Professional, scientific, and technical services	2,012

Sources: City-Data.com 2024; EPTX 2024; Texas Comptroller 2016.

Earnings

Two measures are used to describe earnings in the ROI: per capita personal income (PCPI) and compensation by industry. Earnings are presented for El Paso County and Texas. The City of El Paso and town of Tornillo are omitted from comparison of earnings statistics with El Paso County and Texas, as the Bureau of Economic Analysis does not have data for these areas.

Per Capita Personal Income

Personal income is the income that people receive from wages and salaries, Social Security and other government benefits, dividends and interest, business ownership, and other sources (BEA 2024a). The Bureau of Economic Analysis calculates PCPI statistics by dividing personal income by population (BEA 2024b).

Table 3-19 lists annual PCPI in 2010, 2020, and 2022 for El Paso County and Texas. All dollar estimates are in current dollars (not adjusted for inflation). Texas' PCPI was about 26 percent higher than El Paso County's in 2010, and about 29 percent higher in 2022. From 2010 to 2022, Texas' PCPI increased by about 61 percent, while El Paso County's increased by 53 percent.

Table 3-19. Annual Per Capita Personal Income in El Paso County and Texas.

	2010	2020	2022	Percent Change (2010-2022)
El Paso County	$28,804	$40,186	$44,198	**53%**
Texas	$38,910	$55,118	$62,586	**61%**

Sources: BEA 2023b.

Industry Compensation

Total industry compensation includes wages and salaries as well as employer contribution for employee retirement funds, social security, health insurance, and life insurance. The term "Total Industry Compensation" is often used in economic data but is somewhat of a misnomer in that a portion of the "industry earnings" stems from government-related activity (Table 3-20). Nevertheless, total industry compensation provides a good picture of the relative sizes of market-related economic activity, or business activity, performed in a county.

Income is generated by economic activity in the ROI through the industry sectors, which include various types of businesses as well as the government. Compensation data are measured and reported for the county of work location and are typically reported on a per job basis. Compensation data indicate the wages and salaries for work done in a particular place (e.g., a county), but if the worker does not live in that county where the work occurred (e.g., a person from a neighboring county may cross county lines to go to work), then a sizeable portion of the income might be spent elsewhere. These expenditures will not remain in or flow back to the workplace county's economy. The employee compensation by industry, however, is a measure of economic activity generated in a county, regardless of where the employee resides.

Table 3-20 lists the employee compensation by industry for El Paso County. Government and government enterprises; health care and social assistance; retail trade; administrative and support and waste management and remediation services; manufacturing; and transportation and warehousing sectors accounted for the majority (70 percent) of the total compensation to employees in the ROI in 2022. The government and government enterprises sector accounted for more than a third (36 percent) of employee compensation in the ROI, which would be considered a high proportion and can be attributed to the presence of the Drug Enforcement Agency, Fort Bliss, the Immigration and Naturalization Service, and the U.S. Customs and Border Protection, as well as local government jobs (EPTX 2024).

Local Economy of the City of El Paso, Town of Tornillo, and Ysleta

The City of El Paso is the largest city in El Paso County and the sixth largest city in Texas (EPTX 2024). Ysleta is an area within the city and is included in these statistics for the city. The City of El Paso's 2022 population was 677,181 (USCB 2022a). As of 2022, the city had a civilian labor force of 308,305, with 295,521 people employed and 12,784 unemployed (BLS 2024b). The city's 2022 annual unemployment rate was 4.1 percent, compared to 4.3 percent for El Paso County and 3.9 percent for Texas (BLS 2024b). Top employers in the City of El Paso are Fort Bliss (47,628 employees); the El Paso, Socorro, and Ysleta Independent School Districts (21,041 employees total); and the city government (6,840 employees) (EPTX 2024). The city's largest and highest paying industries are (DataUSA 2024):

- Largest Industries: Health Care and Social Assistance (43,342 employees); Educational Services (35,613 employees); and Retail Trade (34,692 employees)
- Highest Paying Industries: Mining, Quarrying, and Oil and Gas Extraction ($67,633); Agriculture, Forestry, Fishing and Hunting and Mining ($66,692); and Public Administration ($63,178)

Table 3-20. Compensation of Employees by Industry in El Paso County, 2022.

Industry	Compensation ($000)	Percent of Total Compensation
Farm	$8,086	0.04%
Forestry, fishing, and related activities	$19,254	0.1%
Mining, quarrying, and oil and gas extraction	$4,461	0.02%
Utilities	$201,771	0.9%
Construction	$1,101,498	4.9%
Manufacturing	$1,237,730	5.5%
Wholesale trade	$976,115	4.3%
Retail trade	$1,611,556	7.1%
Transportation and warehousing	$1,196,864	5.3%
Information	$349,499	1.5%
Finance and insurance	$699,942	3.1%
Real estate and rental and leasing	$333,890	1.5%
Professional, scientific, and technical services	$847,693	3.7%
Management of companies and enterprises	$140,749	0.6%
Administrative and support and waste management and remediation services	$1,266,689	5.6%
Educational services	$215,054	1.0%
Health care and social assistance	$2,458,346	10.9%
Arts, entertainment, and recreation	$89,665	0.4%
Accommodation and food services	$979,322	4.3%
Other services (except government and government enterprises)	$667,475	2.9%
Government and government enterprises	$8,229,219	36.4%
Federal government civilian	$1,662,705	7.2%
Military	$2,765,1697	12.2%
State and local government	$3,841,317	17.0%
Total Compensation	**$22,634,878**	**100%**

Sources: BEA 2023c.

The City of El Paso had a median household income of $55,710 in 2022, which is very similar to the county median household income of $55,417, but lower than the state median household income of $73,035 (DataUSA 2024).

The City of El Paso shares a border with the City of Ciudad Juárez, Mexico. Of Texas' total international trade, $408 billion, or 55.2 percent, traveled across the state's border crossings with Mexico, with the El Paso ports of entry accounting for 20.1 percent of land port trade, or about $81.9 billion (Texas Comptroller 2018). Trade through the El Paso ports of entry in 2018 affected about 165,500 jobs in Texas, and about $25 billion in gross domestic product (Texas Comptroller 2018). The City of El Paso is also at the center of a region known as the Borderplex Region that is the convergence of two countries (United States and Mexico) and three states (Texas, New Mexico, and Chihuahua, Mexico) and that includes the City of El Paso, City of Ciudad Juárez, and the City of Las Cruces, New Mexico. The Borderplex Region has a world-class manufacturing center, with manufacturing industries in El Paso including clothing, construction materials, electronic and medical equipment, food production, and plastics. The City of El Paso is developing a regional advanced manufacturing cluster to support the aerospace and defense industries (EPTX 2024).

The small town of Tornillo is an unincorporated community about 40 miles south of the City of El Paso. The town is about 3 miles east of the Tornillo LPOE. The town's 2022 population was 1,548 (USCB 2022a). Tornillo had a median household income of $67,917 in 2022, higher than the county median household income of $55,417, but lower than the state median household income of $73,035 (DataUSA 2024). According to the U.S. Census Bureau, as of 2022 Tornillo had a civilian labor force of 762, with 723 people employed and 39 people unemployed, for an unemployment rate of 5.1 percent (USCB 2022d). The town's largest and highest paying industries are (DataUSA 2024):

- Largest Industries: Accommodation and Food Service (159 employees); Educational Services (95 employees); and Administrative and Support and Waste Management Services (66 employees)
- Highest Paying Industries: Health Care and Social Assistance ($56,435); Other Services Except Public Administration ($38,958); and Educational Services ($37,240)

Quality of Life and Community Services

Quality of life can be characterized as a person's well-being and happiness. Quality of life is a subjective measure and cannot be solidly defined. For this analysis, quality of life considerations focuses on those elements that the public generally associates with a high quality of life: education, safety, recreational opportunities, and a positive and affordable general living environment. Other factors, such as air quality, traffic, and noise could also contribute to a person's sense of quality of life and are addressed later in this document.

Schools

The BOTA and Ysleta LPOEs are within the City of El Paso. Students in the City of El Paso can attend schools at one of the nine public independent school districts (ISDs) or public charter schools (Table 3-21). As mentioned earlier (see Section 3.2.1), there are several schools within a mile of the BOTA LPOE including: Bowie High School, Douglass Elementary, Jefferson High School, Silva Magnet High School, and Zavala Elementary. There are no schools within a mile of the Ysleta LPOE. The nearest is the Capistrano Elementary School, which is about 1.1 miles north of the Ysleta LPOE. The Tornillo LPOE is in the Tornillo ISD (see Table 3-21). There are no schools within a mile of the Tornillo LPOE. The nearest is the Tornillo Elementary School, which is about 3.4 miles to the east. The Texas average student-to-teacher ratio is 14.78 students to 1 teacher (NCES 2022). The national average is 15.4 students to 1 teacher (NCES 2022). Six of the eight school districts have a higher student-to-teacher ratio than the state average, and four of the districts have a higher ratio than the national average. The City of El Paso has three higher education institutions (EPTX 2024). The El Paso Community College and the University of Texas at El Paso each have about 24,000 students. The Texas Tech University Health Sciences Center/Paul L. Foster Medical School has about 900 students (NCES 2024b). From the BOTA LPOE, the Texas Tech University Health Sciences Center/Paul L. Foster Medical School is about 1.3 miles to the northeast; the El Paso Community College Rio Grande campus is about 2.5 miles to the west; and the University of Texas at El Paso campus is about 3 miles to the west.

Police, Fire, and Medical Services

CBP has its own agents that patrol and secure their border patrol stations. The communities in the BOTA, Tornillo, and Ysleta ROI are served by state, county, and local police departments. The Texas State Police patrol the state highways in the ROI. El Paso County has 991 total law enforcement employees with 261 officers and 730 civilians. The City of El Paso Police Department has 1,412 total law enforcement employees with 1,171 officers and 241 civilians (FBI 2019). The nearest El Paso City Police Department to the BOTA LPOE is about 2 miles north of the port. The nearest city Police Department to the Ysleta LPOE is about 4 miles northeast of the port. The nearest police department to the town of Tornillo is the El Paso County Sheriff's Office and county patrol station in Clint, Texas, about 13 miles north of Tornillo.

Table 3-21. Public School Districts in the City of El Paso and Town of Tornillo.

School District	Number of Schools	Student Enrollment	Student-to-Teacher Ratio
Burnham Wood Charter School District	3	1,359	15.32
Clint ISD	14	10,365	15.08
El Paso Academy	2	384	25.4
El Paso ISD	75	50,031	14.27
El Paso Leadership Academy	3	594	15.95
La Fe Preparatory School	1	184	10.15
Socorro ISD	51	47,843	16.58
Tornillo ISD	3	829	12.01
Vista Del Futuro Charter School	1	332	15.58
Ysleta ISD	49	36,183	14.56

Sources: NCES 2024a.

The BOTA, Tornillo, and Ysleta ROI has eight fire departments, including the El Paso City Fire Department (USFA 2024). El Paso City Fire Department stations 5, 7, and 9 are all within 1.5 miles of the BOTA LPOE. El Paso City Fire Department stations 17 and 26 are within about 2 miles of the Ysleta LPOE. The Tornillo Fire Station and the Fabens Volunteer Fire and Rescue Station are about 4- to 5-miles from the Tornillo LPOE.

The City of El Paso has a number of hospitals, including the Hospitals of Providence, Las Palmas Medical Centers, and University Medical Centers (UMCs) of El Paso. The UMC El Paso on Alameda Avenue is about 1.5 miles from the BOTA LPOE and has a 24-hour emergency room. The UMC Ysleta is a medical clinic about 1 mile from the Ysleta LPOE, and the Las Palmas Del Sol Hospital with a 24-hour emergency room is about 5 miles from the Ysleta LPOE. The Hospitals of Providence Horizon City Campus is about 22 miles north of the Tornillo LPOE and is the nearest hospital with an emergency room. The UMC Fabens Clinic is the nearest medical center, about 7 miles north of the Tornillo LPOE.

Property Values

The median home value in the City of El Paso as of mid-2024 was $224,150, up 4.5 percent over the past year. The median home value for the neighborhoods surrounding the BOTA, Tornillo, and Ysleta LPOEs were lower than the city average. The median home value for the neighborhoods in the zip code of the BOTA LPOE were about a third lower than the city average, with a median home value of $149,039, but with prices up 8.6 percent over the past year. For neighborhoods in the zip code of the Ysleta LPOE, home values were at $168,317, up 4.4 percent over the past year. For the Tornillo LPOE, home values were $155,398, up 4.0 percent over the past year (Zillow 2024).

Recreation

The recreational value of natural resources can link residents to an area or attract new residents to an area. The City of El Paso has numerous entertainment and recreational opportunities. The BOTA LPOE is in a developed, urban area of the City of El Paso. The recreational area closest to the BOTA LPOE is the Chamizal National Memorial Park, which borders the BOTA LPOE property to the west. The El Paso Zoo is about a third of a mile to the northeast of the BOTA LPOE. The residential areas to the north, east, and west of the BOTA LPOE have a few small neighborhood parks with greenspace, ball fields, basketball courts, and/or playground equipment.

The Ysleta LPOE also is in an urban area of the City of El Paso, bordered by commercial and industrial development. Beyond the commercial and industrial areas are residential neighborhoods to the

north/northeast of the port. The nearest recreational areas are Adrian Garcia, Caribe, Capistrano, and Ysleta parks, which are neighborhood parks a little over a mile to about 2 miles away from the Ysleta LPOE. The Tornillo LPOE is in a rural area south of the City of El Paso. The closest recreational area is Coyote Park about 5 miles to the east in the town of Tornillo. The park has greenspace, a basketball court, a skateboard park, picnic shelters, and playground equipment.

3.6.3.3 Santa Teresa LPOE

Population

Past and current population data and future population projections are listed in Table 3-22. The population of the community of Santa Teresa experienced strong growth, with a 33.7 percent increase in population from 2017 to 2022. The populations of Doña Ana County and New Mexico also increased from 2017 to 2022, but at lower rates of 2.8 percent and 1.3 percent, respectively. From 2030 to 2050, the population of Doña Ana County is projected to be relatively stable with slight growth of 0.8 percent, but the population of New Mexico is projected to decrease by 2.9 percent.

Table 3-22. Population Growth Community of Santa Teresa, Doña Ana County, and New Mexico.

Metric	Community of Santa Teresa	Doña Ana County	New Mexico
Historical and Current Population			
2017	4,784	213,849	2,084,828
2022	6,396	219,870	2,112,463
Change (2017 – 2023)	1,612	6,021	27,635
Percentage Change (2017 – 2023)	33.7%	2.8%	1.3%
Projected Population [a]			
2030	N/A[b]	228,058	2,161,645
2040	N/A	231,449	2,153,964
2050	N/A	229,861	2,098,886
Change (2030 – 2050)	N/A	1,803	-62,759
Percentage Change (2030 – 2050)	N/A	0.8%	-2.9%

Sources: UNM GPS 2024; USCB 2017b, USCB 2022e.
[a] Population projections are based on the University of New Mexico's Geospatial and Population Studies 2024 population estimates and are not consistent with the 2017 and 2022 American Community Survey Census estimates.
[b] N/A = Not available.

Housing

The total housing units, occupied housing units, rental vacancy rates, and homeowner vacancy rates for the community of Santa Teresa, Doña Ana County, and New Mexico are listed in Table 3-23. The homeowner vacancy rates are low for all locations, indicating a tight housing market for home buyers with no or few units available for sale. Rental vacancy rates are similar for all locations, ranging from almost 5 percent to almost 7 percent.

Table 3-23. Housing Characteristics Community of Santa Teresa, Doña Ana County, and New Mexico.

Location	Total Housing Units	Occupied Housing Units	Rental Vacancy Rate	Homeowner Vacancy Rate
Community of Santa Teresa	2,339	2,233	4.8%	0.0%
Doña Ana County	90,294	81,969	5.6%	1.2%
New Mexico	943,149	812,852	6.7%	1.3%

Sources: USCB 2022f.

Labor, Employment, and Earnings

Labor force and employment statistics are presented for Doña Ana County and New Mexico. The Bureau of Economic Analysis and Bureau of Labor Statistics do not provide data for the community of Santa Teresa.

Labor Force

Labor force data is listed in Table 3-24. From 2010 to 2022, the Doña Ana County labor force grew by about 7 percent. During that same time period, the state of New Mexico labor force grew by 2.0 percent.

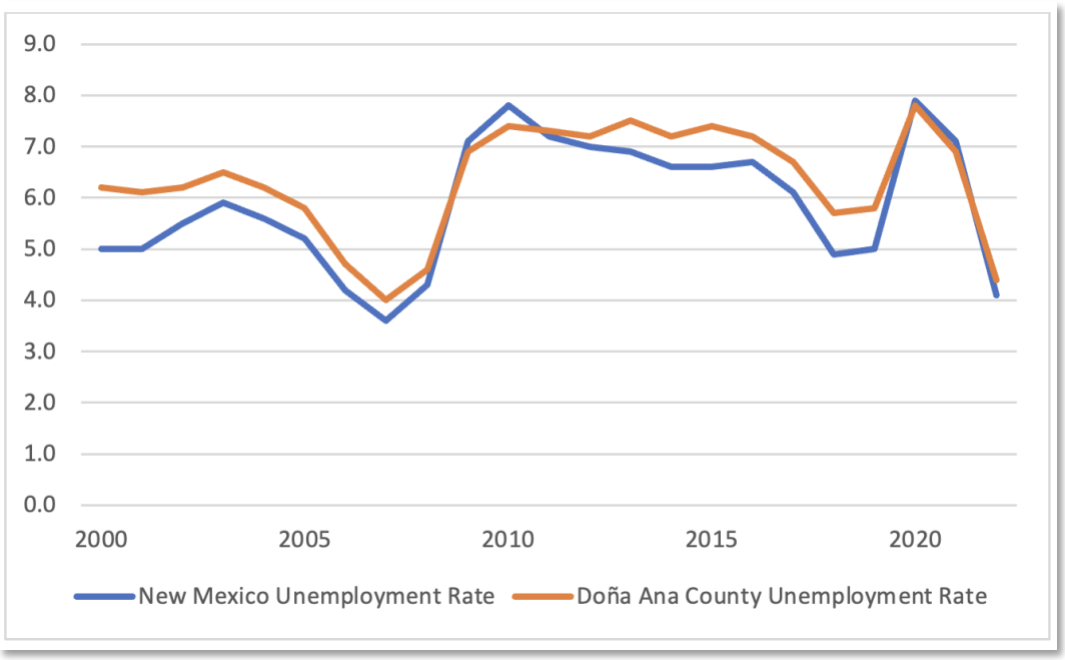
Table 3-24. Civilian Labor Force for Doña Ana County and New Mexico.

Location	2010	2020	2022	Percent Change (2010-2022)
Doña Ana County	92,896	96,511	99,295	6.9%
New Mexico	928,862	931,499	947,411	2.0%

Sources: BLS 2024b.

Unemployment

Figure 3-31 shows the annual unemployment rates for the Doña Ana County and New Mexico from 2000 to 2022. As of 2000, the unemployment rate in the county was about 1 percent higher than the state. Unemployment rates lowered until 2007, then rose to highs of about 7 to 8 percent in 2010 during the recession that began in 2008. Rates decreased to about 5 - 6 percent in 2019, then rose in 2020 because of the COVID-19 pandemic but decreased to about 4 percent in 2022.



Sources: BLS 2024b.

Figure 3-31. Unemployment Rates in Doña Ana County and New Mexico.

Employment by Industry

Employment data by industry for Doña Ana County is listed in Table 3-25. From 2010 to 2022, employment in most of the industries grew except for arts, entertainment, and recreation; farming; government and government enterprises; information; mining, quarrying, and oil and gas extraction; professional, scientific, and technical services; and utilities. The leading industries in the county as of 2022 were government and government enterprises (including federal civilian, military, and state and local government), healthcare and social assistance, retail trade, accommodation and food services, and construction. These five industries accounted for more than half (59 percent) of total employment in Doña Ana County (BEA 2023).

Table 3-26 lists the largest employers in Doña Ana County. Doña Ana County employment is driven by government, including federal (White Sands Missile Range) and county and local government, and education and service industries including the state university and local school districts, health care, and retail businesses. The Santa Teresa LPOE is part of the U.S. Customs and Border Protection's El Paso Sector, which employs about 2,400 agents (Texas Comptroller 2016).

Earnings

Two measures are used to describe earnings in the ROI: PCPI and compensation by industry. Earnings are presented for Doña Ana County and New Mexico. The community of Santa Teresa is omitted from comparison of earnings statistics with the county and state, as the Bureau of Economic Analysis does not have data for the community.

Table 3-25. Employment by Industry in Doña Ana County.

Industry	Employment (2010)	Employment (2022)	Percent Change (2010-2022)	Percent of Total Employment (2022)
Farm	3,025	2,982	-1.4%	2.8%
Forestry, fishing, and related activities	1,116	1,261	13.0%	1.2%
Mining, quarrying, and oil and gas extraction	278	229	-17.6%	0.2%
Utilities	365	311	-14.8%	0.3%
Construction	5,898	6,290	6.6%	5.8%
Manufacturing	3,203	3,653	14.0%	3.4%
Wholesale trade	1,597	2,088	30.7%	1.9%
Retail trade	8,835	9,413	6.5%	8.7%
Transportation and warehousing	2,446	4,468	82.7%	4.1%
Information	1,096	981	-10.5%	0.9%
Finance and insurance	2,644	3,506	32.6%	3.3%
Real estate and rental and leasing	3,489	4,772	36.8%	4.4%
Professional, scientific, and technical services	5,723	5,672	-0.9%	5.3%
Management of companies and enterprises	139	175	25.9%	0.2%
Administrative and support and waste management and remediation services	5,016	5,524	10.1%	5.1%
Educational services	1,184	1,763	48.9%	1.6%
Health care and social assistance	13,403	18,455	37.7%	17.1%
Arts, entertainment, and recreation	2,172	1,700	-21.7%	1.6%
Accommodation and food services	6,810	8,577	25.9%	8.0%
Other services (except government and government enterprises)	4,855	5,130	5.7%	4.8%
Government and government enterprises	22,343	20,817	-6.8%	19.3%
Federal government civilian	4,274	3,452	-19.2%	3.2%
Military	590	794	34.6%	0.7%
State and local government	17,479	16,571	-5.2%	15.4%
Total Employment	**95,637**	**107,767**	**12.7%**	**100%**

Sources: BEA 2023a.

Table 3-26. Largest Employers in Doña Ana County.

Company	Industry	Employment Range
City of Las Cruces	Government	1,000 – 4,999
Gadsden ISD	Education	1,000 – 4,999
Las Cruces ISD	Education	1,000 – 4,999
Memorial Medical Center	Health care	1,000 – 4,999
New Mexico State University	Education	1,000 – 4,999
Walmart	Retail	1,000 – 4,999
White Sands Missile Range	Government	1,000 – 4,999
Addus Health Care	Health care	500 – 999
Doña Ana Community College, Doña Ana Campus	Education	500 – 999
Doña Ana County	Government	500 – 999
Mountain View Regional Medical Center	Health care	500 – 999
Physical Sciences Laboratory, New Mexico State University	Education/Professional, scientific, and technical services	500 – 999
Quintana Learning Center	Education	500 – 999
Sunland Park Racetrack/Casino	Arts, entertainment, and recreation	500 – 999

Source: MVEDA No date.

Per Capita Personal Income

Table 3-27 lists annual PCPI in 2010, 2020, and 2022 for Doña Ana County and New Mexico. All dollar estimates are in current dollars (not adjusted for inflation). New Mexico's PCPI was about 9 percent higher than Doña Ana County's in 2010, and about 13 percent higher in 2022. From 2010 to 2022, New Mexico's PCPI increased by about 55 percent, while Doña Ana County's increased by 49 percent.

Table 3-27. Annual Per Capita Personal Income in Doña Ana County and New Mexico.

	2010	2020	2022	Percent Change (2010-2022)
Doña Ana County	$30,525	$40,871	$45,361	49%
New Mexico	$33,658	$46,631	$52,194	55%

Sources: BEA 2023b

Industry Compensation

Table 3-28 lists the employee compensation by industry for Doña Ana County. Government and government enterprises; health care and social assistance; professional, scientific, and technical services; and retail trade accounted for the majority (66 percent) of the total compensation to employees in the ROI in 2022. The government and government enterprises sector accounted for more than a third (35 percent) of employee compensation in the ROI, which would be considered a high proportion and can be attributed to the presence of the White Sands Missile Range, U.S. Customs and Border Protection, county government, and local government jobs.

Table 3-28. Compensation of Employees by Industry in Doña Ana County, 2022.

Industry	Compensation ($000)	Percent of Total Compensation
Farm	$71,288	1.5%
Forestry, fishing, and related activities	$45,463	0.9%
Mining, quarrying, and oil and gas extraction	$2,574	0.1%
Utilities	$34,531	0.7%
Construction	$230,010	4.8%
Manufacturing	$203,015	4.2%
Wholesale trade	$117,116	2.4%
Retail trade	$300,215	6.2%
Transportation and warehousing	$125,937	2.6%
Information	$38,261	0.8%
Finance and insurance	$126,814	2.6%
Real estate and rental and leasing	$43,355	0.9%
Professional, scientific, and technical services	$311,223	6.4%
Management of companies and enterprises	$9,193	0.2%
Administrative and support and waste management and remediation services	$189,520	3.9%
Educational services	$49,817	1.0%
Health care and social assistance	$892,880	18.5%
Arts, entertainment, and recreation	$22,783	0.5%
Accommodation and food services	$218,697	4.5%
Other services (except government and government enterprises)	$122,574	2.5%
Government and government enterprises	$1,669,917	34.6%
Federal government civilian	$464,214	9.6%
Military	$57,282	1.2%
State and local government	$1,148,421	23.8%
Total Compensation	**$4,825,183**	**100%**

Sources: BEA 2023c.

Local Economy of Doña Ana County and the Community of Santa Teresa

Doña Ana County is the second largest county in the state of New Mexico (Doña Ana County 2024). Data on the county's population, labor force, employment, unemployment, and PCPI are presented earlier in this section. The county's largest and highest paying industries are (DataUSA 2024):

- Largest Industries: Health Care and Social Assistance (14,259 employees); Educational Services (12,298 employees); and Retail Trade (10,105 employees).
- Highest Paying Industries: Public Administration ($70,799); Mining, Quarrying, and Oil and Gas Extraction ($59,316); and Professional, Scientific, and Technical Services ($55,781).

Doña Ana County's agricultural heritage is central to its identity and economy. Although the county has less agricultural land than a generation ago, the value of the crops has increased. Agriculture in the county includes feed crops, vegetables, orchards, and land for grazing and cattle production. Doña Ana County is a leading producer of chile peppers, onions, and pecans (Doña Ana County 2015; Doña Ana County 2024).

The community of Santa Teresa is a suburban, unincorporated community about 40 miles south of the City of Las Cruces, New Mexico, and about 14 miles north of the City of El Paso, Texas. The community of Santa Teresa is about 5 miles northeast of the Santa Teresa LPOE. Santa Teresa's 2022 population was 6,396 (USCB 2022e). It had a median household income of $58,320 in 2022, higher than the Doña Ana County median household income of $51,232, and very similar to the state of New Mexico median household income of $58,722 (DataUSA 2024). According to the U.S. Census Bureau, as of 2022 Santa Teresa had a civilian labor force of 2,745, with 2,687 people employed and 58 people unemployed, for an unemployment rate of 2.1 percent (USCB 2022g). Santa Teresa's largest and highest paying industries are (DataUSA 2024):

- Largest Industries: Retail Trade (489 employees); Health Care and Social Assistance (303 employees); and Construction (276 employees).
- Highest Paying Industries: Real Estate and Rental and Leasing ($177,675); Public Administration ($72,500); and Transportation and Warehousing ($64,050).

Doña Ana County and Santa Teresa are also part of the previously mentioned Borderplex Region. Three industrial parks in the county, just west of Santa Teresa and known as the Border Industrial Parks, continue to expand to serve the growing maquila industry to the south in the nearby City of Ciudad Juárez, Mexico. The parks lie within a Foreign Trade Zone and an Overweight Freight Zone. The Border Industrial Parks have easy access to the Santa Teresa LPOE, the Union Pacific Santa Teresa Intermodal Rail Terminal, and the Doña Ana County International Jetport. The Border Industrial Parks are 20 miles from the El Paso International Airport and are just off Interstate 10 that runs from Los Angeles, California to Jacksonville, Florida. The industrial parks total 621 acres. Tenants include CommScope, Expeditors International, FedEx, Foxconn, MCS Industries, Stanco Metal Products, TPI Composites, and Valley Cold Storage (MVEDA 2024).

Quality of Life and Community Services

Quality of life can be characterized as a person's well-being and happiness. Quality of life is a subjective measure and cannot be solidly defined. For this analysis, quality of life considerations focus on those elements that the public generally associates with a high quality of life: education, safety, recreational opportunities, and a positive and affordable general living environment. Other factors, such as air quality, traffic, and noise could also contribute to a person's sense of quality of life and are addressed later in this document.

Schools

Doña Ana County has 10 public ISDs or public charter schools (Table 3-29). Students in the community of Santa Teresa can attend schools in the Gadsden ISD. There are no schools within 1 mile of the Santa Teresa LPOE. The nearest is the Santa Teresa Middle School in the Gadsden ISD, which is about 5 miles to the northeast.

The New Mexico average student-to-teacher ratio is 14.6 students to 1 teacher (NCES 2022). The national average is 15.4 students to 1 teacher (NCES 2022). Two of the ten school districts have a higher student-to-teacher ratio than the state average and the national average.

Santa Teresa does not have any higher education institutions. The nearest is the Doña Ana Community College Sunland Park campus about 5.5 miles east of the Santa Teresa LPOE and about 5 miles south of the community of Santa Teresa. Doña Ana County is home to the New Mexico State University.

Table 3-29. Public School Districts in Doña Ana County.

School District	Number of Schools	Student Enrollment	Student-to-Teacher Ratio
Alma D'Arte Charter	1	121	9.21
Explore Academy Las Cruces	1	189	13.5
Gadsden ISD	28	12,551	14.5
Hatch Valley ISD	5	1,166	13.14
J Paul Taylor Academy	1	198	12.97
La Academia Dolores Huerta	1	66	5.92
Las Cruces ISD	39	23,631	15.62
Las Montanas Charter	1	162	12.46
New America School - Las Cruces	1	170	17.33
Raices Del Saber Xinachtli Community	1	114	12.67

Sources: NCES 2024a.

Police, Fire, and Medical Services

The U.S. Customs and Border Patrol has its own agents that patrol and secure their border patrol stations. The communities in the ROI are served by state, county, and local police departments. The New Mexico State Police patrol the state highways in the ROI. The Santa Teresa community is served by the Doña Ana County Sheriff's Office, which is headquartered about 35 miles north in Las Cruces. The nearest municipal police station is the Sunland Park Police Department, about 7 miles south of the community of Santa Teresa and about 7 miles east of the Santa Teresa LPOE.

The Santa Teresa ROI has 15 fire departments, including the Doña Ana County Fire Department (USFA 2024). The Doña Ana County Fire Department Station 14 in Santa Teresa is about 8 miles northeast of the Santa Teresa LPOE, and the county's Station 17 at the Doña Ana County International Jetport is about 7 miles north of the Santa Teresa LPOE.

The nearest emergency room to the Santa Teresa LPOE is the El Paso Emergency Room West in the northwestern area of the City of El Paso. It is about 13 miles northeast of the Santa Teresa LPOE. The nearest medical center is the Santa Teresa Medical Center, about 10 miles northeast of the Santa Teresa LPOE.

Property Values

The median home value in Doña Ana County as of mid-2024 was $286,367, up 2.3 percent over the past year. The median home value for the area including the Santa Teresa LPOE and the neighborhoods in the community of Santa Teresa was higher than the county average. The median home value for the neighborhoods in the zip code of the Santa Teresa LPOE were about 7 percent higher than the county average, with a median home value of $305,828, up 2.6 percent over the past year.

Recreation

The recreational area closest to the Santa Teresa LPOE in the community of Santa Teresa is the Villa Valencia Sports Park, which is about 9 miles northeast of the Santa Teresa LPOE. The park has playground equipment, a basketball court, and a grass playing field. Other neighborhood parks in Santa Teresa that provide greenspace and recreational space are Valencia Park and The Grove. Other recreational opportunities in the area include the Sunland Park Sports Complex about 3 miles south of the community of Santa Teresa, and the War Eagles Air Museum at the Doña Ana County International Jetport. The community of Santa Teresa is situated between Las Cruces, New Mexico, and El Paso, Texas, with access to entertainment and recreational opportunities in those cities.

SECTION 3.0
AFFECTED ENVIRONMENT

3.7 Noise and Vibration

This section describes the baseline conditions for the noise levels in the project and potential impacts that could result from implementing the proposed action, in particular, potential impacts to noise sensitive receptors (NSRs) including but not limited to nearby residences, schools, libraries, hospitals, nursing home facilities, and recreational areas.

Because potential effects with greatest intensity would likely occur in El Paso County, Texas for the BOTA, Tornillo, and Ysleta LPOEs, and in Doña Ana County, New Mexico for the Santa Teresa LPOE, these counties are defined as the regions of influence (ROIs), or the areas analyzed for noise levels.

Noise effects would be felt most by individuals, residents, and workers in El Paso County, especially residents in the City of El Paso and town of Tornillo, in areas adjacent to the BOTA, Tornillo, and Ysleta LPOEs; and by individuals, residents, and workers in Doña Ana County, especially residents in the town of Santa Teresa, in areas adjacent to the Santa Teresa LPOE. For the BOTA, Tornillo, and Ysleta LPOEs, data are presented for El Paso County and compared to the state of Texas overall and described for the City of El Paso and town of Tornillo as appropriate or where data is available. Ysleta is an area within the City of El Paso and is included in the data presented for the city. For the Santa Teresa LPOE, data are presented for Doña Ana County and compared to the state of New Mexico overall and described for the town of Santa Teresa as appropriate or where data is available. The most recent and best available data are presented throughout the section. Additional background, regulatory, and other data can be found in Appendix I.

As mentioned earlier in Section 1.6.2.7, acoustical noise is defined as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or is otherwise intrusive. Human response to noise varies according to the type and characteristics of the noise sources, distance between source and receiver, receiver sensitivity, and time of day. Generally accepted average day-night sound pressure levels fall in a range between 50 dB in quiet suburban areas to 70 dB in very noisy urban areas (USEPA 1974). The port and the immediate surrounding area would fall within this range given the highly urbanized and developed nature of the area and the associated traffic. There are no churches or hospitals within 500 feet of the port. As noted earlier, the City of El Paso Code of Ordinances, Title 9 (Health and Safety), Chapter 9.40 (Noise), establishes decibel measurement criteria, designated noise zones, exterior noise standards, and additional noise standards within the City of El Paso. The BOTA LPOE is currently designated as being within Noise Zone III. Noise Zone III establishes an allowable exterior noise levels as follows. These designated noise limits are increased by 5 (five) dB(A) for impulse or simple tone noises:

- 10pm to 7am – 65 dB(A) – 70 dB(A) impulse
- 7am to 10pm – 70 dB(A) – 75 dB(A) impulse

The code further outlines standards to ensure that noise levels on any property do not exceed:

(1) The noise standard for a cumulative period of more than thirty minutes in any hour; or
(2) The noise standard plus five dB(A) for a cumulative period of more than fifteen minutes in any hour; or
(3) The noise standard plus ten dB(A) for a cumulative period of more than five minutes in any hour; or
(4) The noise standard plus fifteen dB(A) for a cumulative period of more than one minute in any hour; or
(5) The noise standard plus twenty dB(A) for any period of time.

Noise sensitive zones have been established throughout the city that include schools, hospitals (or similar healthcare institutions), churches, and libraries. The ordinance prohibits exceeding the standards listed above and/or creating such noise levels that unreasonably interfere with the usage of these facilities or unreasonably disturbs occupants. The City code also addresses vibration, prohibiting ground vibration that is perceptible without instruments at any point on any property or adjoining property. The code allows for several exemptions from the provisions of the ordinance. One pertains specifically to noise and/or vibration from construction-related activities:

- Noise sources associated with, or vibration created by, construction repair, remodeling, or grading of any real property. provided the activities do not take place between the hours of 8pm and 9am on weekdays and Saturdays, or at any time on Sunday or a holiday and provided the noise level created by such activities does not exceed the noise standard of 65 dB(A) plus the limits specified earlier as measured on residential property and any vibration created does not endanger the public health, welfare, and/or safety.

The BOTA LPOE is located along the US/Mexico border in the City of El Paso, Texas. The border crossing includes vehicle traffic and commercial traffic traveling northbound into the USA and southbound into Mexico. Existing noise sources include traffic noise from nearby roadways including I-110, Highway 375, Highway 54, Paisano Drive, and other local roadways. The noise sensitive receptors in the area of the project include single-family residences to the north, Chamizal national Memorial Park and Bowie High School to the west, a sports center to the east, and the El Paso Zoo to the northeast. There are no sensitive noise receptors in the immediate vicinity of the Ysleta, Tornillo, or Santa Teresa LPOEs. The Mt. Carmel Cemetery is located just over ¼ of a mile north of the Ysleta LPOE across Highway 375 and a residential development approximately another ¼ of a mile further to the north. There is primarily vacant land and/or commercial/ industrial development around the Tornillo and Santa Teresa LPOEs. As such, the focus for the noise discussion is the density populated area surrounding the BOTA LPOE. Existing noise levels were evaluated based on current traffic volumes published by TxDOT. A noise model was developed incorporating the surrounding roadways and the existing operations at the BOTA crossing. The model incorporated free flowing traffic along the existing roadways as well as idling cars and trucks at the BOTA crossing. The inputs are further described in Appendix I. The existing noise levels at the receptors are summarized below in Table 3-30 and 3-31.

Table 3-30. Existing Noise Levels.

Receptor Number	Receptor Description	NAC Category	NAC Level (dBA $L_{eq)}$	Existing Noise Level (dBA L_{eq})
R1	Residential	B	67	48
R2	Residential	B	67	55
R3	Residential	B	67	56
R4	Bowie High School	C	67	49
R5	Bowie High School	C	67	59
R6	Residential	B	67	52
R7	Residential	B	67	58
R8	National Memorial	C	67	52
R9	Residential	B	67	57
R10	Residential	B	67	54
R11	Residential	B	67	51
R12	Residential	B	67	58

Table 3-30 (cont.). Existing Noise Levels.

Receptor Number	Receptor Description	NAC Category	NAC Level (dBA $L_{eq)}$	Existing Noise Level (dBA L_{eq})
R13	Residential	B	67	61
R14	Zavala Elementary School	C	67	64
R15	Residential	B	67	62
R16	Residential	B	67	60
R17	Residential	B	67	64
R18	Mexican Cultural Institute	C	67	63
R19	B'nai Zion Cemetery	C	67	60
R20	Residential	B	67	62
R21	Residential	B	67	63
R22	Del Norte Courts Motel	E	72	63
R23	Crustal Mine Museum	C	67	62
R24	Residential	B	67	59
R25	Residential	B	67	60
R26a	El Paso Zoo	E	72	62
R26b	El Paso Zoo	E	72	50
R27	Paisano Green Community	C	67	56
R28	Residential	B	67	63
R29	Residential	B	67	58
R30	Residential	B	67	60
R31	Residential	B	67	60

Table 3-31. Coordinates of Sensitive Noise Receptors.

Sensitive Noise Receptor ID	X Coordinates	Y Coordinates
R-1 (Stadium)	361437.91	3515153.41
R-2	361796.91	3515619.41
R-3	361855.91	3515648.41
R-4 (Bowie High School)	361884.91	3515506.41
R-5 (High School Campus)	361944.91	3515276.41
R-6	361940.91	3515719.41
R-7	362088.91	3515772.41
R-8 (National Memorial)	362388.91	3515635.41
R-9	362232.91	3515834.41
R-10	362389.91	3515863.41
R-14 (Zavala Elementary School)	362987.91	3516013.41
R-15	363005.91	3516152.41
R-17	363172.91	3516485.41
R-18 (Mexican Cultural Institute)	363214.91	3516589.41
R-19 (B'nai Zion Cemetery)	363304.91	3516746.41
R-20	363477.91	3516573.41
R-22 (Del Norte Courts Motel)	363244.91	3516242.41
R-23 (Crustal Mine Museum)	363224.91	3516177.41
R-25	363181.91	3515999.41
R-26a (El Paso Zoo and Botanical Gardens)	363090.91	3515876.41
R-26b (El Paso Zoo and Botanical Gardens)	363386.91	3515594.41
R-27 (Paisano Green Community)	363210.91	3515516.41
R-28	363133.91	3515060.41
R-1	361634.91	3515583.41
R-11	362539.91	3515901.41
R-12	362659.91	3515902.41
R-13	362785.91	3515956.41
R-16	363042.91	3516304.41
R-21	363377.91	3516510.41
R-24	363199.91	3516071.41
R-29	362729.91	3515795.41
R-30	362915.91	3515783.41
R-31	362877.91	3515876.41

3.8 Traffic, Transportation, and Parking

This section describes the baseline conditions for transportation resources in the project area and potential roadway and traffic impacts that could result from implementing the Proposed Action, including the Alternatives 1a and 4, as discussed in Chapter 2.

3.8.1 Region on Influence

The BOTA, Ysleta, Tornillo, and Santa Teresa LPOEs are located in El Paso, Texas. If the proposed improvements to the existing port are fully constructed, the roadway network which serves the traffic related to each LPOE will experience changes in traffic volume; hence the following roadway segments were analyzed to assess the potential impacts of vehicle and truck traffic:

Bridge of the Americas
- I-110 north of US 62
- US 54 north of I-10
- I-10 east of US 54
- I-10 west of US 54

Ysleta
- Loop 375 west of Ysleta border crossing
- Loop 375 east of Ysleta border crossing
- I-10 west of Loop 375
- I-10 east of Loop 375

Tornillo
- FM 3380 north of Tornillo border crossing
- I-10 west of FM 3380
- I-10 east of FM 3380

Santa Theresa
- SH 178 east of Westside Drive
- I-10 north of SH 178
- I-10 south of SH 178

3.8.2 Regulatory Setting and Requirements

The Proposed Actions would take place within El Paso County, Texas for the BOTA, Tornillo, and Ysleta LPOEs, and in Doña Ana County, New Mexico for the Santa Teresa LPOE. The TXDOT and NMDOT are responsible for planning, designing, constructing, operating, and maintaining all state-owned roadways which include interstate highways, U.S. highways, and state highways. State routes in the project vicinity would utilize TXDOT and NMDOT guidelines. The Cities of Tornillo and Ysleta in Texas, and the city of Santa Teresa in New Mexico DOT standards would be referenced for all locally maintained roadways.

3.8.3 Roadway Network

The primary transportation corridors in El Paso County are I-10, I-110, Loop 375, Farm to Market Road 3380, and Highways 54, and 178. These corridors are TxDOT-maintained roadways that link communities, travelers, and freight to neighboring counties, and the country of Mexico.

Interstate Highway 10 (I-10) is a transcontinental Interstate which crosses the vast expanse of West Texas, skirting the Mexican Border and the Rio Grande near El Paso. The roadway is classified as an Interstate by the TxDOT Statewide Planning Map, and the lane configuration within the study vicinity varies from an eight-lane configuration (four lanes in each direction) near the BOTA and Ysleta LPOEs to a four-lane configuration (two lanes in each direction), near the Tornillo and Santa Teresa LPOEs. The posted

speed limit on I-10 also varies from 60 mph (near the BOTA and Ysleta LPOEs) to 75 mph (near the Tornillo and Santa Teresa LPOEs).

U.S. Highway 54 (US-54) is a north-south-aligned roadway with a Principal Arterial classification by the TxDOT Statewide Planning Map. US-54 runs through the city of El Paso for approximately 20 miles before reaching the New Mexico state line. Within the limits for this study, US-54 typically provides a six-lane divided cross-section (three lanes in each direction) with paved shoulders. The posted speed limit on US-54 in the project vicinity is 60 mph.

Interstate Highway 110 (I-110) is a major thoroughfare which connects I-10 and U.S. 54 (Patriot Freeway) in El Paso with the Bridge of the Americas (BOTA) Port of Entry into Ciudad Juárez, Mexico. The short freeway defaults southbound to the BOTA Port of Entry, though a U-turn precedes the customs station. The roadway is classified as an Interstate by the TxDOT Statewide Planning Map and a posted speed limit of 55 mph in the study vicinity. I-110 typically provides a four-lane divided cross section (two through lanes in each direction) and paved shoulders.

State Highway 178 (SH-178) also known as Artcraft Road is a major urban thoroughfare that serves Santa Teresa Port of Entry and is a major artery that feeds trade routes destined for other parts of the United States and Mexico. The roadway is classified as an Interstate by the TxDOT Statewide Planning Map and a posted speed limit of 60 mph in the study vicinity. Within the limits for this study, SH-178 typically provides a four-lane divided cross-section (two lanes in each direction) with paved shoulders.

Texas State Highway Loop 375 (Loop 375) forms a three-quarter beltway around El Paso, traveling 48.99 miles from Downtown to SH 20 at Canutillo. Per TxDOT Statewide Planning Map, Loop 375 has a functional classification of Principal Arterial, and a posted speed limit of 60 mph. Loop 375 typically provides a four-lane divided cross-section (two lanes in each direction) with paved shoulders.

Farm to Market Road 3380 (FM 3380) is a roadway that spans from IH 10 northeast of Tornillo, northwestward to the Tornillo/Guadalupe International Bridge and port of entry, approximately 3.9 miles in length. Per TxDOT Statewide Planning Map, FM 3380 has a functional classification of Principal Arterial, and a posted speed limit of 55 mph. The roadway has a two-lane undivided cross section (one lane in each direction) with paved shoulders.

3.8.4 Traffic Volumes

Historical traffic counts referenced from the TxDOT Traffic Count Database System (TCDS) were used to establish baseline traffic volumes for analysis (TxDOT 2024). TxDOT historical counts provided volumes from 2023. A background growth rate was used to adjust historic volumes to existing (2024) conditions and analysis year (2029) conditions. Figures 3-32 through 3-35 provide a diagram of the project study segments and the 2023 existing volumes.

3.8.5 Growth Rates

Several resources were referenced to determine an appropriate growth rate for potential future traffic conditions. Historical TxDOT volumes showed fluctuating traffic volumes in the area over the years. Based on the available growth indices from the TxDOT statewide planning map, a 2.0% compounded annual growth rate was selected to grow historical counts to 2029 future conditions. In addition to documenting the volume of POVs and COVs at the LPOEs, the El Paso MPO also documented the volume of pedestrians crossing the border. Once in the El Paso area, pedestrians would potentially continue to walk to their destination or take a vehicle (such as a single-passenger vehicle or a ride-share/van) to arrive at their destination. While it is challenging to document exactly how an increase in pedestrian activity at the LPOEs with the proposed enhancements would affect the roadway volumes and congestion within the ROI, the assumed background population growth in the El Paso area would be expected to account for this.

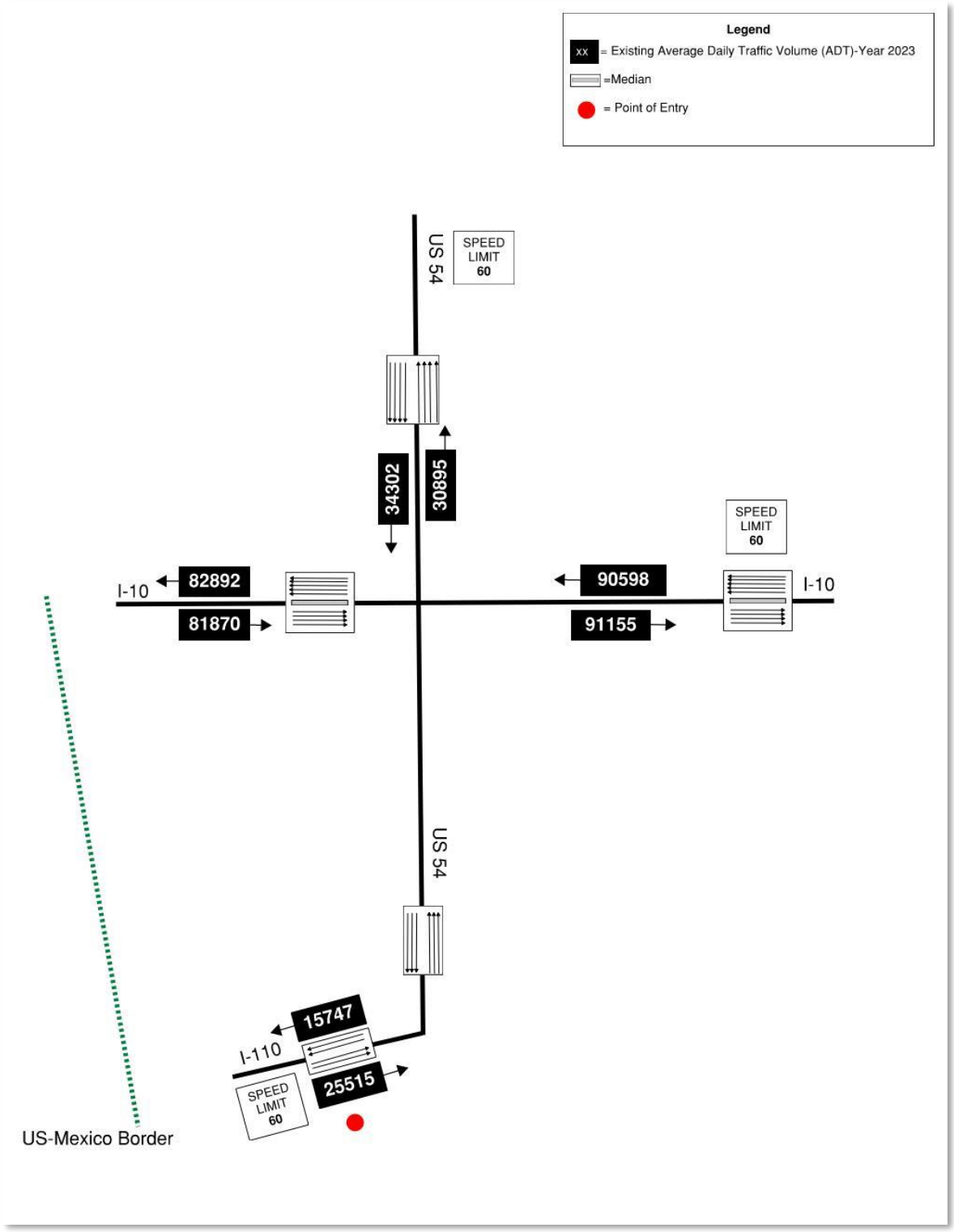


Figure 3-32. 2023 Existing Traffic Volumes – BOTA.

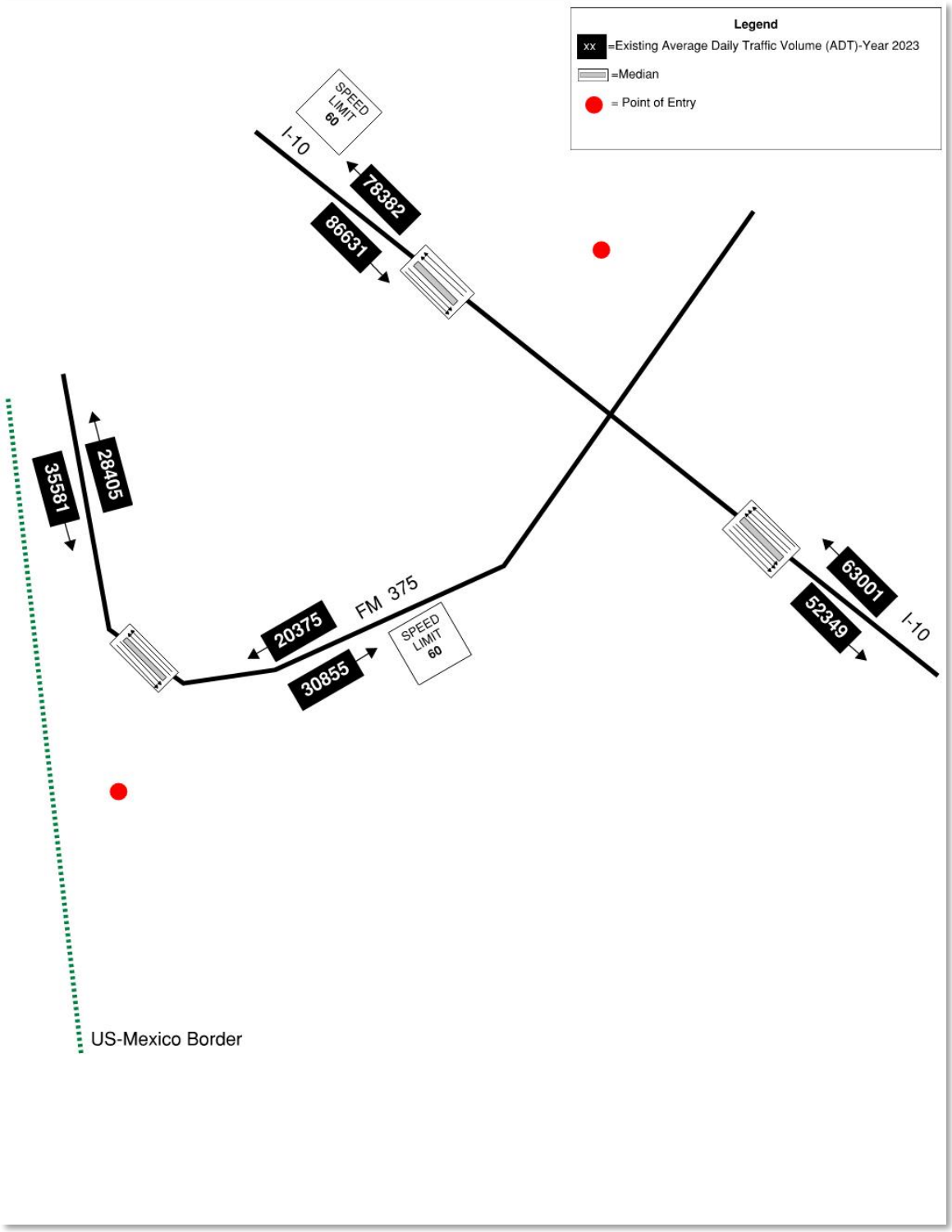


Figure 3-33. 2023 Existing Traffic Volumes – Ysleta.

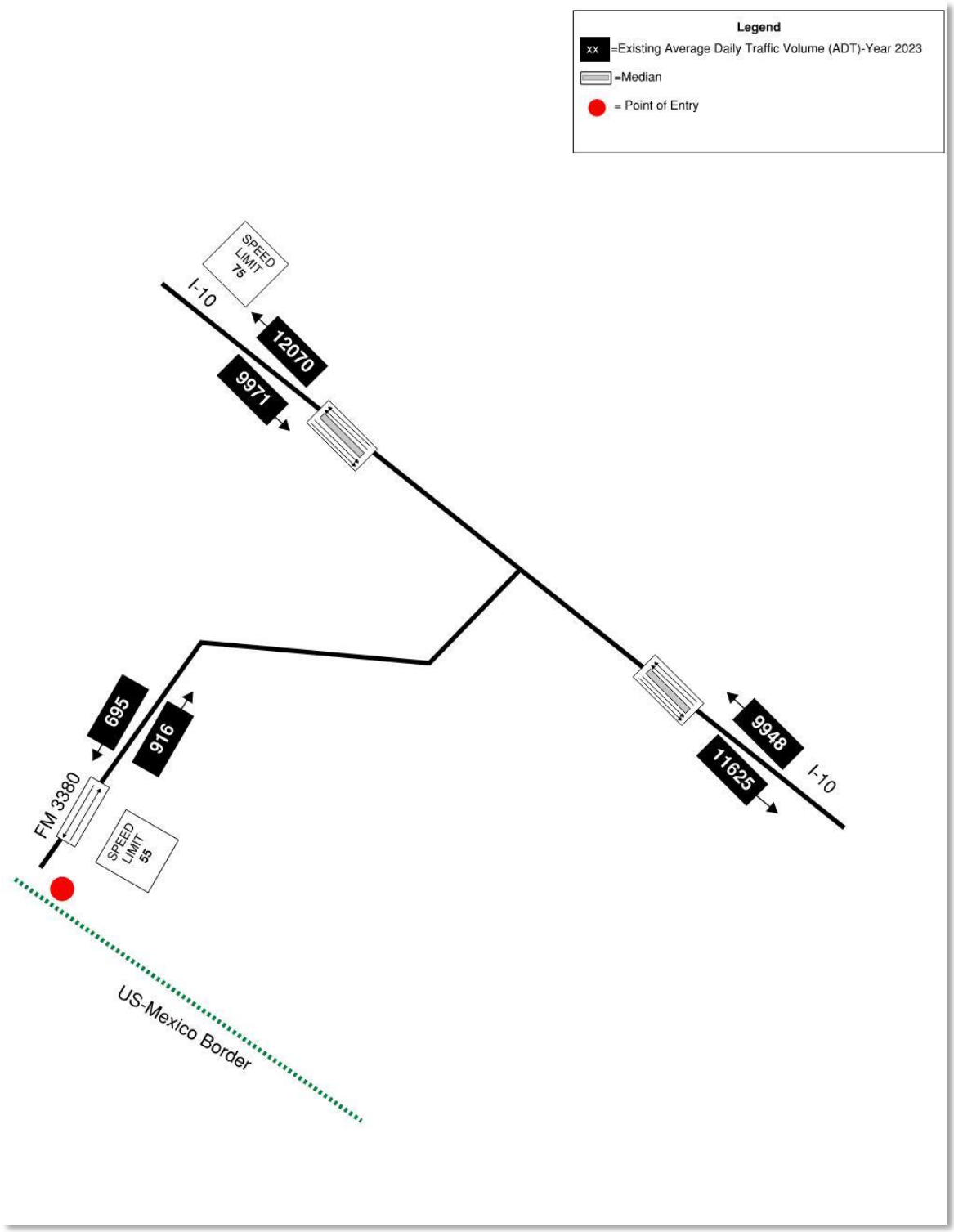


Figure 3-34. 2023 Existing Traffic Volumes – Tornillo.

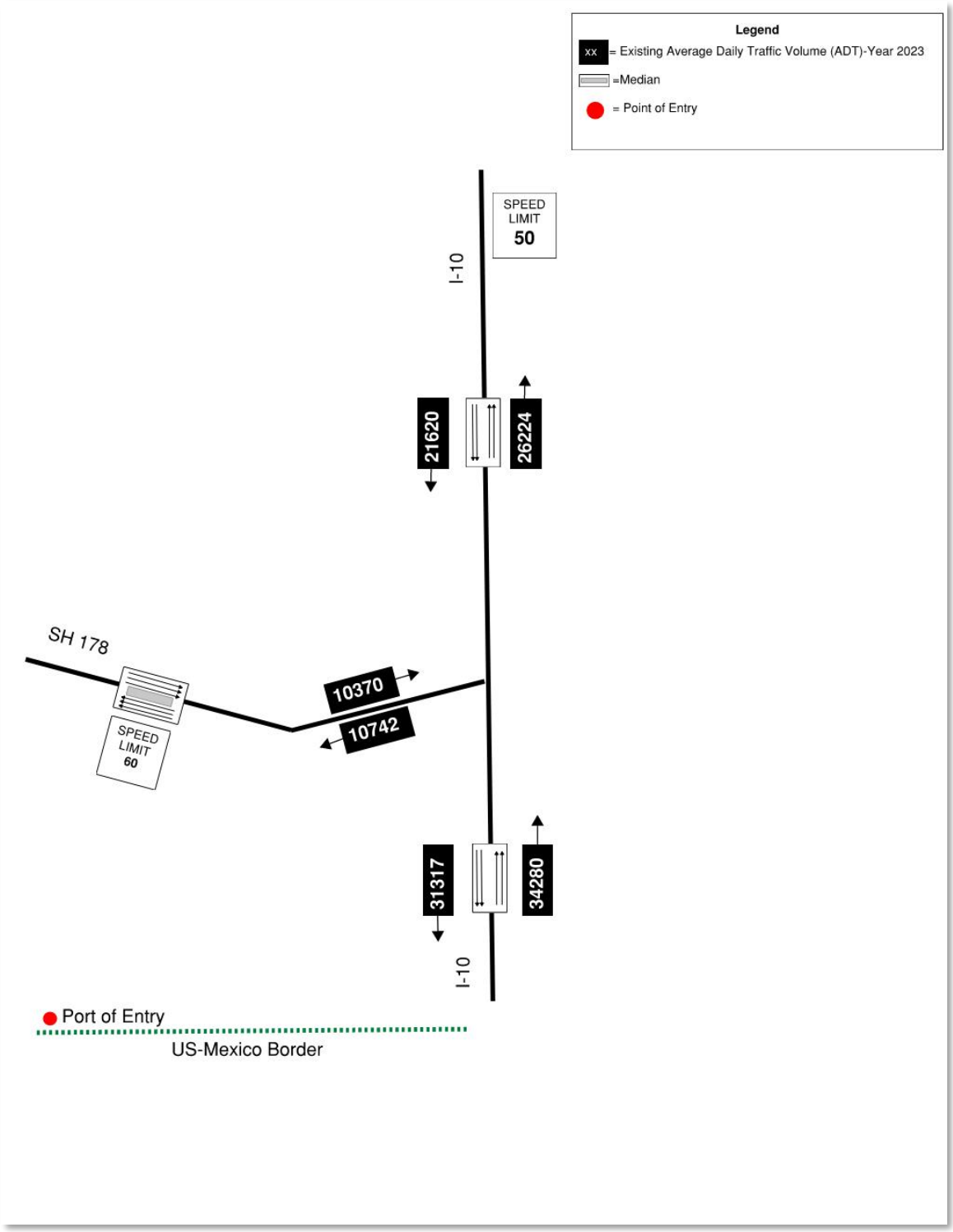


Figure 3-35. 2023 Existing Traffic Volumes – Santa Teresa.

3.9 Air Quality (including Greenhouse Gas Emissions)

As mentioned earlier in Section 1.6.2.9, the CAA provides the framework for federal, state, tribal, and local rules and regulations to protect air quality. The CAA gives the USEPA the responsibility to establish the primary and secondary NAAQS that set safe concentration levels for six criteria pollutants: PM10, SO2, CO, NOX, O3, Pb. Primary NAAQS are established to protect public health, and secondary standards provide protection for the public welfare, which includes wildlife, climate, transportation, and economic values. Additionally, the USEPA also has responsibility for ensuring that air quality standards are met to control pollutant emissions from mobile (i.e., vehicles) and stationary (i.e., factories) sources. The NAAQS represent the maximum levels of background pollutants that are considered safe, with an adequate margin of safety to protect public health and welfare. The TCEQ accepts the federal standards for the El Paso-Las Cruces-Alamogordo Interstate Air Quality Region.

Additionally, GHG emissions released into the atmosphere as a result of human-induced fossil fuel combustion are widely believed to be contributing to changes in global climate. GHGs, which include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), water vapor, and several trace gases, trap radiant heat reflected from the earth in the atmosphere, causing the earth's average surface temperature to rise. Although GHG levels have varied for millennia (along with corresponding variations in climate conditions), increases driven by human activity have been widely believed to have contributed significantly to recent climatic changes. GHGs are regulated under the CAA.

Air quality is the measure of the atmospheric concentration of defined pollutants in a specific area. An air pollutant is any substance in the air that can cause harm to humans or the environment. Pollutants may be natural or human-made and may take the form of solid particles, liquid droplets, or gases. Natural sources of air pollution include smoke from wildfires, dust, and wind erosion. Human-made sources of air pollution include emissions from vehicles or construction equipment; dust from unpaved roads, agriculture, or construction sites; and smoke from human-caused fires. Air quality is affected by pollutant emission sources, as well as the movement of pollutants in the air via wind and other weather patterns.

GHG emissions released into the atmosphere as a result of human-induced fossil fuel combustion are widely believed to be contributing to changes in global climate. GHGs, which include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), water vapor, and several trace gases, trap radiant heat reflected from the earth in the atmosphere, causing the earth's average surface temperature to rise. The predominant GHGs are CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. In the U.S., anthropogenic GHG emissions come primarily from burning fossil fuels. Although GHG levels have varied for millennia (along with corresponding variations in climate conditions), increases driven by human activity are generally accepted as having contributed to recent climatic changes.

Federal regulations (40 CFR §81) have defined Air Quality Control Regions (AQCRs), or airsheds, for the entire U.S. AQCRs are based on population and topographic criteria for groups of counties within a state, or counties from multiple states that share a common geographical or pollutant concentration characteristic. El Paso County is located within AQCR 153 – the El Paso-Las Cruces- Alamogordo Interstate Air Quality Region. The El Paso area is designated as attainment/unclassifiable for all of the USEPA NAAQS criteria pollutants except for PM10 (moderate nonattainment for the City of El Paso) (Figure 3-36). It should be noted that CO is in attainment, but in under maintenance (for a portion of the city). Also, it should be noted that on June 30, 2023, the D.C. Circuit Court of Appeals reversed the ozone nonattainment designation for El Paso County, finding that the USEPA's action was impermissibly retroactive.

Populations that are more susceptible to the adverse effects of air pollution include children and the elderly. Locations where these populations tend to congregate can be considered sensitive receptors. This generally includes schools, daycares, hospitals, elderly housing, and convalescent facilities. Sensitive receptors within a half mile of the port were presented previously (see Table 3-30 and 3-31).

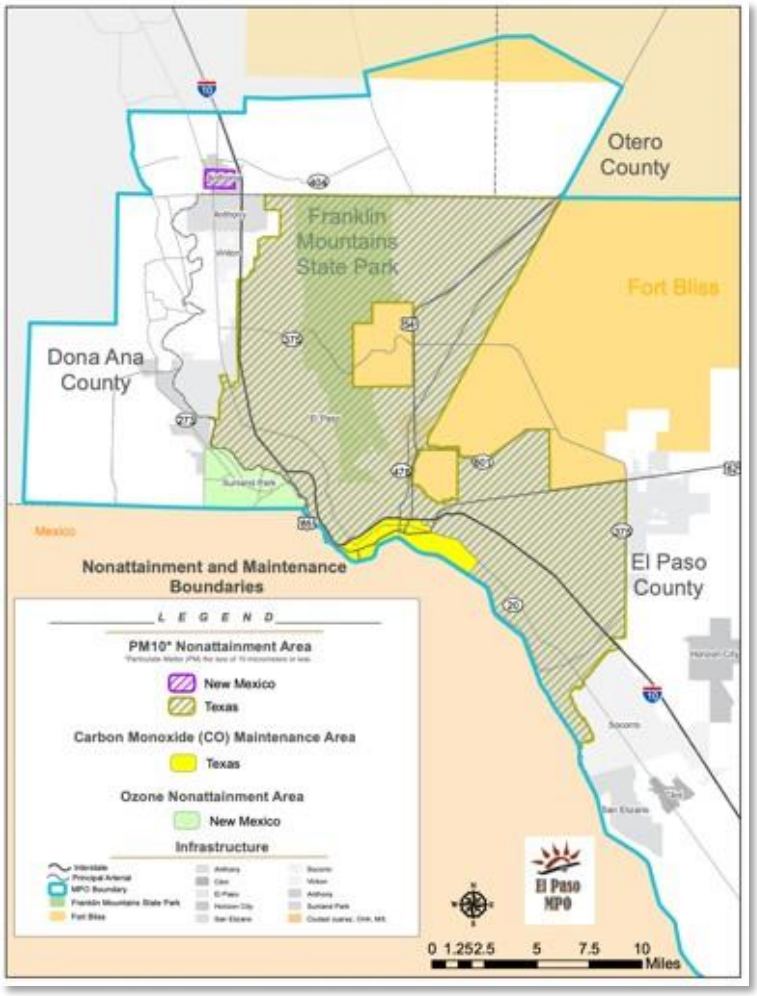


Figure 3-36. Existing Air Quality Nonattainment and Maintenance Areas.

As mentioned earlier in Section 1.6.2.9, increasing GHG concentrations in the atmosphere have been linked to a range of ongoing and potential changes to global climate including rising surface temperatures, changes in precipitation, rising sea levels and an increase in extreme weather events. However, these changes are not geographically uniform across the planet, and some regions are likely to experience greater change than others (IPCC 2018). Further, projections of future climate change are strongly related to predicted trends in GHG emissions, which in turn depend on policy and other actions to reduce GHG emissions.

The Great Plains region of the U.S. has already experienced several climate change-related baseline impacts and these trends are likely to continue in the foreseeable future, as described below (USEPA 2023a):

- **Water Resources** - As patterns of temperature and precipitation change, the Great Plains region is expected to face increased competition for water supplies for use by homes, business, agriculture, and energy production. Water in this region comes largely from the High Plains Aquifer system, made up largely of the Ogallala aquifer. The High Plains Aquifer system is one of the largest freshwater aquifers in the world and underlies approximately 111 million acres in parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming. Nearly 30 percent of all irrigated lands in the U.S. reside above this aquifer, making it one of the primary

agricultural regions in the nation. The High Plains Aquifer also provides drinking water for more than 80 percent of the residents living over the aquifer and is key to the region's energy production.

Long-term declines in the water level within the High Plains Aquifer have resulted from greater water discharge than recharge. Discharge (or withdrawal) occurs largely by irrigation, which has resulted in an average water level decline of 14.2 feet since irrigation began around 1950. This translates to an 80 trillion-gallon reduction in water storage within the aquifer. Recharge (or replenishing) comes primarily from precipitation. In the northern portion of the Great Plains, rain can recharge the aquifer quickly. However, with climate change, precipitation in the winter and spring is projected to increasingly fall in the form of very heavy precipitation events, which can increase flooding and runoff that reduce water quality and cause soil erosion. In the southern portion of the region, little recharge occurs, so declines in the aquifer's water level are much greater. Climate change will worsen this situation by causing drier conditions and increasing the need for irrigation.

- **Agriculture** – Agriculture in the Great Plains utilizes more than 80 percent of the land area. In 2012, agriculture in the region was estimated to have a total market value of $92 million, made up largely of crops (43 percent) and livestock (46 percent) production. projected climate change will have many impacts on this sector. Some impacts may provide short-term benefits, but negative effects are also likely in this time frame. In the long-term, climate impacts will have increasingly detrimental effects that increase variability in crop and agricultural production. Climate change may also cause a northward shift in lands used for agricultural production as temperature and water stresses rise, especially in the southern portion of the region.

  In the Central and Southern Plains, the higher temperatures and decreased precipitation will increase irrigation demands. If irrigation is reduced to conserve water and farmers transition to dryland agriculture, crop yields could be reduced by a factor of two. The Great Plains are already experiencing warmer winters, and further temperature increases are projected. These conditions can increase the survival of some pests and invasive weeds. Additionally, the dormancy period for winter crops is shortening, increasing the potential for damage by spring freezes and reducing yields of some important livestock feed crops, such as winter wheat. As climate impacts worsen in the future, agricultural practices will face increased risks that require new considerations and management strategies.

  Livestock production is a major component of the economy in the Great Plains. By value, Texas produces the most cattle in the U.S. Warmer temperatures and extreme heat stress animals and cause declines in meat, milk, and egg production. Diseases may also increase as temperature and moisture conditions become more favorable for disease spread and range expansion. Additional expenses may also be incurred as the need to cool animal buildings increases. Drought and increasing demand for available fresh water is already affecting the livestock industry. Animal operations require large quantities of water for drinking water, feedlot operations, dairy farms, and other on-farm needs. Some of the largest water withdrawals in the country occur in the Great Plains, with Texas having the highest water usage for livestock in the country. Continued livestock production and associated water usage in this region will exacerbate water shortages as climate change impacts continue.

- **Ecosystems** – Climate and land use are changing simultaneously in the Great Plains and altering many ecosystems. Land development for energy production and urban sprawl are increasing habitat fragmentation. This lessens the ability of plants and animals to adapt by moving to new areas in response to warmer temperatures or changes in water availability. Climate change is also increasing pest outbreaks, spreading invasive species, accelerating wildfire activity, and changing plant flowering times. An increase in frost-free days in the Great Plains has lengthened the pollen season for the common allergen ragweed, increasing the likelihood of allergic reactions and associated health impacts.

Climate change is affecting critical game species in the Great Plains, including a number of birds (including ducks, geese, and quail), mammals (including moose and deer), and fish (including bass). Many of these animals rely on the availability of shallow lakes that periodically dry out. These areas, known as playa lakes in the south, provide habitat for many species to mate and nurture offspring. The lakes also help recharge the High Plains Aquifer. Agricultural practices have changed more than 70 percent of the large seasonal lakes in the southern Great Plains. As temperatures continue to rise, the bird and fish populations that rely on these areas are increasingly impacted.

3.9.1 Background Ambient Air Quality of Criteria Pollutants

Pollutant concentration data to characterize air quality in the vicinity of BOTA were obtained from the USEPA Air Data website (USEPA 2024a). Ambient air quality monitoring data for the most recent available three-year period is summarized in the following table (Table 3-32) for the monitoring stations closest to BOTA. The monitoring data is presented in the statistical form consistent with the NAAQS.

3.9.2 Background Climatology

The project area has a dry climate, with moderate winters and hot summers. Based on data from the El Paso International Airport (NOAA 2024) with records from 1938 to 2023. Summers are typified by hot, dry weather with a highest recorded temperature in 1994 of 114 degrees Fahrenheit (°F). Winters are cool, with the lowest recorded temperature in 1962 of -8 °F. The annual mean average temperature is 64,7 °F. Precipitation is distributed evenly throughout the year; annual average precipitation is 0.28 inches, with a record annual low of 0.14 inches occurring in 2023 and a record annual high of 0.57 inches in 2006.

3.9.3 NAAQS Standards and Attainment Status

El Paso County is located within AQCR 153 – the El Paso-Las Cruces- Alamogordo Interstate Air Quality Region. The El Paso area is designated as attainment/unclassifiable for all of the USEPA NAAQS criteria pollutants except for PM_{10} (moderate nonattainment for the City of El Paso). It should be noted that CO is in attainment, but in under maintenance (for a portion of the city). Also, it should be noted that on June 30, 2023, the D.C. Circuit Court of Appeals reversed the ozone nonattainment designation for El Paso County, finding that the USEPA's action was impermissibly retroactive.

Table 3-32. Background Ambient Air Quality Data in El Paso County.

Pollutant	Averaging Period	Rank	Years	Concentration	NAAQS Standard	Monitoring Station ID	Distance to BOTA (km)	Rationale for Selection
Lead	3-Month	Rolling Average	2021-2023	0.002 µg/m^3	0.15 µg/m^3	Chamizal[a]	0.88	Nearest monitor
PM10	24-Hour	H2H	2021-2023	60.17 µg/m^3	150 µg/m^3	Chamizal[a]	0.88	Nearest monitor
PM2.5	24-Hour	98th Percentile	2021-2023	24.7 µg/m^3	12.0 µg/m^3	Chamizal[a]	0.88	Nearest monitor
PM2.5	Annual	Arithmetic Mean	2021-2023	32 µg/m^3	35 µg/m^3	Chamizal[a]	0.88	Nearest monitor
NO_2[b]	1-Hour	98th Percentile	2021-2023	78.4 ppb	100 ppb	Chamizal[a]	0.88	Nearest monitor
NO_2[b]	Annual	Arithmetic Mean	2021-2023	13.85 ppb	53 ppb	Chamizal[a]	0.88	Nearest monitor
SO2	1-Hour	99th Percentile	2021-2023	6.2 ppm	0.50 ppm	Chamizal[a]	0.88	Nearest monitor
SO2	3-Hour	H2H	2021-2023	5.5 ppm	0.075 ppm[c]	Chamizal[a]	0.88	Nearest monitor
CO	1-Hour	H2H	2021	0.226 ppm	35 ppm	Chamizal[a]	0.88	Nearest monitor
CO	8-Hour	H2H	2021-2023	0.212 ppm	9 ppm	Chamizal[a]	0.88	Nearest monitor
Ozone	8-Hour	4H	2021-2023	0.69 ppm	0.070 ppm	Chamizal[a]	0.88	Nearest monitor

Source: USEPA 2024a: https://www.epa.gov/outdoor-air-quality-data.

[a] Monitoring station is located as indicated in the table nearby. Design value is based on the pollutant per the NAAQS requirements in the most recent years as data available.

[b] Though the monitor is showing greater than the standard, as of June 30, 2023, El Paso County, Texas is no longer designated as nonattainment for ozone.

[c] Secondary standards set limits to protect public welfare, including protection against decreased visibility, and damage to animals, crops, vegetation, and buildings.

3.9.4 Regulatory Requirements (Including Greenhouse Gas Emissions)

The project stationary sources that include a new source of regulated air pollutants are subject to federal and state New Source Review (NSR) rules and appropriate authorization to construct the project must be obtained prior to commencing construction. If emissions exceed threshold amounts, a New Source Review may result in emission limits on a facility to comply with the Prevention of Significant Deterioration (PSD) rules. Additionally, the proposed emissions sources will be required to comply with applicable federal New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP), as well as emissions standards and work practice requirements defined in the state standards.

Upon completion of the construction activities, some stationary sources are required to obtain a Title V operating permit for continued operation. Only major sources of air emissions are subject to the operating permit requirements under Title V of the CAA. An operating permit defines the routine testing, monitoring,

recordkeeping, and reporting requirements applicable to the facility emission sources. It should be noted that nothing in this project is expected to be required to obtain an air permit.

3.9.4.1 New Source Review (NSR) Air Permits

New, modified, or reconstructed stationary sources may be subject to NSR. The NSR permitting process is applied on a source and pollutant-specific basis and considers a source's (and/or modifications, as applicable) potential to emit (PTE) and the attainment status of the area in which the source is located. PTE refers to the maximum capacity of a stationary source to emit a pollutant under its physical and operational design, accounting for any physical or operational limitation on the capacity of the source to emit a pollutant. Air pollution control equipment and restrictions on hours of operation and/or on the types or amount of material combusted, stored, or processed are treated as part of the design if the limitation or the effects they would have on emissions are enforceable.

A source is a major source if its PTE of one or more regulated pollutants exceeds a specified major source threshold. A major modification is a modification of a major source that causes the net PTE of a pollutant to exceed its specified significant emission rate.

Prevention of Significant Deterioration (PSD) is the NSR permitting process for a new major source or an existing major source making a major modification in an area that meets the NAAQS. PSD permitting is designed to prevent operation of a new or modified source from contributing to deterioration beyond an acceptable degree of air quality in an attainment (or the equivalent) area.

Nonattainment New Source Review (NNSR) is the permitting process for a new major source or an existing major source making a modification in a nonattainment area. NNSR is designed to prevent operation of a new major source or a major modification to an existing major source from contributing to the failure of an AQCR to achieve reasonable progress in reaching attainment status. A facility may undergo both PSD for attainment pollutant emissions and NNSR for nonattainment pollutant emissions. No air permit of any kind is expected to be required for this project therefore, further discussion is no warranted.

3.9.4.2 Federal Class I Areas

Areas that are in attainment of the NAAQS are categorized as either "Class I," "Class II," or "Class III," which determines the increment of air quality deterioration allowed. Under the PSD program, all international parks, national wilderness areas, and national memorial parks that exceed 5,000 acres, and national parks that exceed 6,000 acres are designated as mandatory Federal Class I areas. The Federal Class I area designations by state are codified in 40 CFR Part 81. When evaluating the potential impacts from a new major source or major modification subject to PSD permitting, special impacts analyses are required to determine if the emission increases could potentially impair visibility in Federal Class I areas. Two factors determine impacts on Federal Class I areas: (1) magnitude of emissions; and (2) distance to the Federal Class I area. As discussed in previous sections, PSD permitting for regulated NSR pollutants does not apply to the project; therefore, further discussion is not warranted.

3.9.4.3 Title V Operating Permit Program

Title V of the CAA requires states to establish an air quality operating permit program. The requirements of Title V are outlined in the federal regulations in 40 CFR Part 70. The operating permits required by these regulations are often referred to as Title V or Part 70 permits. A facility must obtain a Title V permit if one or more of the following apply:

- A facility PTE or actual emissions of one or more criteria pollutants equals or exceeds 100 tons per year (tpy). For pollutant emissions in nonattainment areas, a more stringent threshold may apply.

- A facility PTE or actual emissions of a single hazardous air pollutant (HAP) or a combination of HAPs equals or exceeds 10 tpy or 25 tpy, respectively.
- The facility is subject to federal acid rain regulations under 40 CFR Part 76.
- The facility includes a solid waste incinerator that is subject to Section 129(e) of the CAA.

No Title V permitting is expected to be required for this project therefore, further discussion is no warranted.

3.9.4.4 Greenhouse Gas Permitting

The USEPA GHG Tailoring Rule, issued in May 2010, established a permitting approach for GHGs under the PSD and Title V permitting programs. The rule sets initial emission thresholds, known as Steps 1 and 2 for PSD or a Title V permitting based on carbon dioxide equivalent (CO_2e) emissions. Step 3 of the GHG Tailoring Rule, issued on June 29, 2012, focused on GHG permitting for the largest emitters by retaining the permitting thresholds established in Steps 1 and 2. On June 3, 2014, the U.S. Supreme Court issued its decision in Utility Air Regulatory Group v. USEPA, 134 S. Ct. 2427 (2014). The Court held that the USEPA may not treat GHGs as an air pollutant for purposes of determining whether a source is a major source required to obtain a PSD or Title V permit.

In accordance with the Supreme Court decision, on April 10, 2015, the D.C. Circuit issued an amended judgement in Coalition for Responsible Regulation, Inc. v. USEPA, Nos. 09-1322, 10-1092, and 10-1167 (D.C. Cir. April 10, 2015), which vacated the PSD and Title V regulations under review in that case to the extent that they require a stationary source to obtain a PSD or Title V permit solely because the source emits or has the potential to emit GHGs above the applicable major source thresholds. However, the Supreme Court stated that the USEPA could continue to require the application of Best Available Control Technology for GHG emissions if a source triggered PSD review based on emissions of NSR regulated pollutants. These sources are known as “Anyway Sources.” As discussed in previous sections, PSD permitting for regulated NSR pollutants and Title V permitting does not apply to this project; therefore, GHG permitting is not required, and further presentation is not warranted.

3.9.4.5 Greenhouse Gas Reporting

The USEPA has promulgated rules requiring monitoring, reporting, and recordkeeping for GHGs beginning with calendar year 2010. The final mandatory reporting rule was published in the Federal Register, Volume 74, No. 209 on October 30, 2009. must report their GHG emissions if the total emissions from all applicable subparts that are more than 25,000 metric tpy of CO_2e. No sources from this project would be expected to emit more than 25,000 metric tpy of CO_2e; therefore, this rule would not apply and further presentation is not warranted.

3.9.4.6 New Source Performance Standards (NSPS)

NSPS regulations under 40 CFR Part 60 establish pollutant emission limits and monitoring, recordkeeping, and reporting requirements for various emission sources based on source type and size. These regulations apply to new, modified, or reconstructed sources. No NSPS requirements were identified as potentially applicable to the specified sources for this project, therefore further discussion is not warranted.

3.9.4.7 National Emission Standards for Hazardous Air Pollutants (NESHAP)

NESHAPs are set by the USEPA and contained in 40 CFR Parts 61 and 63. The NESHAPs establish technology-based Maximum Achievable Control Technology emission standards for specified source categories. Sources with potential emissions equal to or greater than 10 tpy of any single HAP or 25 tpy of total HAPs are major HAP sources. Sources with potential emissions less than the major source thresholds are area sources and may be subject to generally available control technology requirements. No NESHAP

requirements were identified as potentially applicable to the specified sources for the project, therefore further discussion is not warranted.

3.9.4.8 Chemical Accident Prevention Provisions

The Chemical Accident Prevention provisions are established in 40 CFR Part 68 and are federal regulations designed to prevent the accidental release of hazardous substances and minimize the impacts if releases occur. The regulation contains a list of substances and threshold quantities. If a facility stores, handles, or processes a listed substance in an amount equal to or greater than its threshold quantity, the facility must prepare and submit a Risk Management Plan (RMP). If a facility does not have a listed substance onsite, or the quantity of a listed substance is below the applicability threshold, the facility is not required to prepare an RMP. A natural gas pipeline is not required to have an RMP if it is regulated by the U.S. Department of Transportation (USDOT) or an equivalent state natural gas program certified by the USDOT in accordance with 49 CFR §6010.5. The source for this project is not expected to store any substantial chemicals; therefore, an RMP is not required and further discussion is not warranted.

3.9.4.9 General Conformity

Section 176 of the 1990 CAA Amendments required the USEPA to promulgate rules to ensure federal actions conform to the appropriate State Implementation Plan (SIP). These rules, known together as the General Conformity Rule (40 CFR §51.850-860 and 40 CFR §93.150-160), require any federal agency responsible for an action in a nonattainment or maintenance area for any criteria pollutant to determine if the action conforms to the applicable SIP or is exempt from the General Conformity Rule requirements. By conforming to the SIP, federally supported or funded activities will not:

- Cause or contribute to any new air quality standard violations;
- Increase the frequency or severity of any existing standard violation; or
- Delay the timely attainment of any standard, interim emission reduction, or other milestone.

The USEPA amended the General Conformity Rule in 2010 (Federal Register, Volume 75, No. 64 on April 5, 2010). Included in the amendment was the exclusion of emissions regulated by any permit issued under minor and major NSR from a General Conformity applicability analysis. Previously, only major NSR permitted emissions were excluded.

General Conformity applies in designated nonattainment or maintenance areas on a pollutant-by-pollutant basis. Of special note, the 2008 8-hour and 2015 8-hour ozone standards apply. The 2015 8-hour ozone standard was promulgated on October 26, 2015 (Federal Register, Volume 80, No. 206 on October 26, 2015), and became effective on December 28, 2015. The 1997 8-hour ozone standard was revoked on April 6, 2015 (Federal Register, Volume 80, No. 44 on March 6, 2015), and therefore, has been excluded from the General Conformity analysis. For $PM_{2.5}$, the 2006 and 2012 standards apply; however, the 1997 primary annual standard was revoked in attainment and maintenance areas on October 24, 2016 (Federal Register, Volume 81, No. 164 on August 24, 2016). Therefore, the 1997 $PM_{2.5}$ annual standard has been excluded from the General Conformity analysis.

A General Conformity analysis consists of two steps. The first step is an applicability analysis where estimated project emissions from construction and operation (excluding emission sources covered by the NSR permitting program) are compared to the de minimis thresholds defined in the General Conformity Rule. The General Conformity Rule thresholds are shown in Table 3-33, below. In the second step, a General Conformity determination is required for each pollutant where the total of direct and indirect emissions caused by a federal action will equal or exceed de minimis levels as specified in 40 CFR §93.153, with the exceptions specified in 40 CFR §51.853(c), (d), or (e). General Conformity does not apply to federal actions in attainment or unclassified/attainment areas, including counties designated attainment or unclassified/attainment.

For ozone nonattainment or maintenance areas, emissions of VOC and NOx are evaluated since they are precursor pollutants to ozone formation. For $PM_{2.5}$ nonattainment or maintenance areas, emissions of VOC, NO_x, and SO_2 are also evaluated since they are precursor pollutants to $PM_{2.5}$ formation. project activities in counties belonging to the same nonattainment or maintenance area are assumed to contribute cumulatively to the nonattainment or maintenance area.

Table 3-33. General Conformity De Minimis Thresholds.

Pollutant/Area Designation	Tons/Year
Ozone (VOCs or NO_x)	
Serous NAAs	50
Severe NAAs	25
Extreme NAAs	10
Other Ozone NAAs Outside an Ozone Transport Region (OTR)	100
Oxone (NO_x)	
Marginal and Moderate NAAs Inside an OTR	100
Maintenance	100
Ozone (VOC)	
Marginal and Moderate Nonattainment Areas (NAAs) Inside an OTR	50
Maintenance Inside an OTR	50
Maintenance Outside an OTR	100
CO (All NAAs and Maintenance Areas)	100
SO_2 or NO_x (All NAAs and Maintenance Areas)	100
PM_{10}	
Moderate NAAs	100
Serious NAAs	70
$PM_{2.5}$ (Direct $PM_{2.5}$, SO_2, NO_x, VOC, and Ammonia)	
Moderate NAAs	100
Serious NAAs	70
All Maintenance Areas	100
Lead (All NAAs and Maintenance Areas)	25

Source: 40 CFR §93.153

SECTION 4.0
ENVIRONMENTAL CONSEQUENCES

This section of the EIS forms the basis for the comparison of the alternatives identified earlier in Section 2.6. The organization of this section mirrors that of Section 3.0 and describes the likely environmental consequences of taking no action and those associated with modernization of the BOTA LPOE. The likely environmental consequences have been summarized earlier in Section 2.7 (see Table 2-11).

The terms “impacts,” “effects,” and “consequences” are used interchangeably. According to CEQ NEPA regulations (40 CFR 1500-1508), direct and indirect effects are defined as:

- **Direct effects –** Effects, which are caused by the action and occur at the same time and place (1508.1[g][1]). In other words, direct impacts are those that are caused directly and immediately from project-related activities, such as ground-disturbing activities associated with razing the existing buildings/facilities and infrastructure at the port and those associated with installation of new utilities, construction of new buildings/facilities and infrastructure, etc. Most direct effects are confined to the project footprint, but some may extend beyond the project boundary (e.g., noise, air, socioeconomic, etc.).
- **Indirect effects –** Effects, which are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems (1508.1[g][2]). Indirect effects are spatially removed from project-related activities and/or occur later in time but are reasonably certain to occur. For example, soil erosion could lead to adverse impacts on water quality, such as causing turbidity and sedimentation in streams during rain events. These types of impacts tend to be diffuse, resource-specific, and less amenable to quantification or mapping than direct effects.

Impacts may be either adverse or beneficial. For the purposes of this EIS, the following definitions are used in the impacts analyses:

- **Adverse impacts** – Those impacts which, based on prevailing regulatory standards, limits, or other measures, or in lieu of such regulatory standards, in the judgment of an expert resource area analyst, are regarded by the regulatory agency and/or the general population as having a negative and harmful effect on the analyzed resource area.
- **Beneficial impacts** – Those impacts which, based on prevailing regulatory standards, limits, or other measures, or in lieu of such regulatory standards, in the judgment of an expert resource area analyst, are regarded by the regulatory agency and/or the general population as having a positive or supportive effect on the analyzed resource area.

As described earlier in Section 1.0, the CEQ definition of significantly is framed in terms of "context" and "intensity:"

- **Context** - means the geographic, social, and environmental contexts within which the project may have effects (either short- or long-term in nature). The regulations refer to: (1) society as a whole, defined as including all human society and the society of the nation, (2) the affected region, (3) affected interests, such as those of a community, Indian tribe, or other group, and (4) the immediate locality.
- **Intensity** - is the severity of the potential impact considered in context. The regulations direct agencies to consider: (1) both beneficial and adverse impacts, (2) impacts on human health and safety, and (3) impacts on an area's unique characteristics, such as historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, and ecologically critical areas.

Significance criteria have been defined as a means of estimating or measuring the degree of potential environmental impact. The significance of impacts was determined systematically by assessing the magnitude (how much) and duration (how long) of a potential impact. Table 4-1 shows the criteria.

Table 4-1. Environmental Impact Significance Criteria.

Criteria	Magnitude
Significant	Substantial impact or change to a resource that is easily defined, noticeable and measurable, or which exceeds regulatory standards.
Moderate	Noticeable change in a resource occurs but the integrity of the resource remains intact.
Minor	Change in a resource occurs but no substantial impact results.
Negligible	The impact is at the lowest level of detection, barely measurable but with perceptible consequences.
None	The impact is below the threshold of detection with no perceptible consequences.
Duration	
Permanent	Impact would last indefinitely.
Long-Term	Impact would likely last the lifetime of the project.
Short-Term	Impact would last for a short period or portion of the project.

4.1 HAZARDOUS MATERIALS, WASTE, AND/OR SITE CONTAMINATION

Table 4-2 presents a summary of the potential hazardous materials, waste, and/or site contamination impacts associated with each alternative as they relate to the criteria defined earlier (see Table 4-1).

Table 4-2. Summary of Hazardous Materials, Waste, and/or Site Contamination Impacts.

Environmental Attributes (Threshold Criteria)	**No Action** Impact (Magnitude and Duration)	**Alternative 1a** Impact (Magnitude and Duration)	**Alternative 4** Impact (Magnitude and Duration)
Hazardous Materials, Waste, and/or Site Contamination			
Results in significant hazardous materials and/or waste generated, transported, and/or disposed of as a result of construction and/or operational activities? Any anticipated impacts?	No, None	No, None [1]	No, None [1]
Existing hazardous materials, waste, or site contamination issues present and if so, have been investigated/ remediated to appropriate standards for future use of the site? Any anticipated impacts?	No, None	No, None	No, None

1 - Based on environmental commitments associated with implementation of each alternative (see the following sections).

4.1.1 No Action Alternative

Implementing the no action alternative would result in no significant adverse hazardous materials waste, and/or site contamination impacts. Under the no action alternative, the GSA would take no actions to modernize the BOTA LPOE and the existing buildings/facilities and associated infrastructure would remain for continued use by the CBP, tenant agencies, and the travelling public. Operations would remain largely as is for the near future.

4.1.2 Viable Action Alternative 1a – Multi-Level Modernization (High/Low Booths) Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 12 acres – TxDOT)

Implementing this alternative would be expected to result in no significant adverse hazardous materials, waste, or site contamination impacts. As mentioned earlier in Section 3.1, based on a REC identified as part of a Phase I ESA conducted for the proposed land acquisition and modernization effort, GSA conducted limited Phase II investigations. According to the assessment, based on visual and field-screening evidence during drilling and the analytical results of the samples, it appears that no impact to the shallow subsurface soil exists in the areas investigated. However, an area of impact to the soil vapor appeared to be present. As a result, GSA conducted additional Phase II soil and vapor investigations. As part of these additional investigations, three more soil vapor samples were collected. All results were below USEPA standards (see Appendix F). Based on visual and field-screening evidence during drilling and the analytical results of the samples, it appears there has been no impact to the shallow subsurface soil on the northern portion of the site or in the deeper areas closer to groundwater on the southern portion of the site, the two areas investigated. An area of impact to the soil vapor appears to be present on the northern, more highly-elevated portion of the TXDOT property. However, no such impact appears to be present on the southern portion of the site closer to the areas of the BOTA property slated for excavation. As a result, no adverse construction-related impacts would be anticipated.

Implementing this alternative would not be anticipated to result in adverse impacts as a result of hazardous materials or waste products utilized, generated, or disposed of as part of the modernization efforts. Similarly, future on-going port operations would not be expected to involve the use or disposal of hazardous materials or waste other than small amounts of cleaning supplies, solvents, batteries, etc. As mentioned earlier in Section 2.6.2.6, as part of implementing this alternative, a 24-hour spill response program would be implemented in coordination with the El Paso Fire Department. The construction contractor, in accordance with all applicable laws and regulations, would conduct all substantial equipment maintenance at an off-site location. On-site equipment repairs (within the established storage or staging area) would be limited to routine daily maintenance and repairs. Any generated wastes would be recycled or disposed of according to all applicable regulations. All construction debris would be recycled or disposed of at an approved landfill in accordance with all applicable federal, state, and local laws and regulations. Similarly, any hazardous wastes generated during the construction (including oils, lubricants, fuels, solvents, asbestos, lead-based paint, PCB containing materials, mercury, etc.) would be disposed of in accordance with all federal, state, and local regulations. The contractor would be required to adhere to all federal guidelines pertaining to solid waste disposal, including (but not limited to) EO 13514 and EO 13423. As a result, no adverse impacts would be anticipated.

4.1.3 Viable Action Alternative 4 – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (Approximately 4 acres – TxDOT) and Elimination of Commercial Cargo Operations

Similar to Action Alternative 1a, implementing this alternative would be expected to result in no significant adverse hazardous materials, waste, or site contamination impacts. As mentioned earlier in Section 3.1, based on a REC identified as part of a Phase I ESA conducted for the proposed land acquisition and modernization effort, GSA conducted limited Phase II investigations. According to the assessment, based on visual and field-screening evidence during drilling and the analytical results of the samples, it appears that no impact to the shallow subsurface soil exists in the areas investigated. However, an area of impact to the soil vapor appeared to be present. As a result, GSA conducted additional Phase II soil and vapor investigations. As part of these additional investigations, three more soil vapor samples were collected. All results were below USEPA standards (see Appendix F). Based on visual and field-screening evidence

during drilling and the analytical results of the samples, it appears there has been no impact to the shallow subsurface soil on the northern portion of the site or in the deeper areas closer to groundwater on the southern portion of the site, the two areas investigated. An area of impact to the soil vapor appears to be present on the northern, more highly-elevated portion of the TXDOT property. However, no such impact appears to be present on the southern portion of the site closer to the areas of the BOTA property slated for excavation. As a result, no adverse construction-related impacts would be anticipated.

Implementing this alternative would not be anticipated to result in adverse impacts as a result of hazardous materials or waste products utilized, generated, or disposed of as part of the modernization efforts. Similarly, future on-going port operations would not be expected to involve the use or disposal of hazardous materials or waste other than small amounts of cleaning supplies, solvents, batteries, etc. As mentioned earlier in Section 2.6.3.6, as part of implementing this alternative, a 24-hour spill response program would be implemented in coordination with the El Paso Fire Department. The construction contractor, in accordance with all applicable laws and regulations, would conduct all substantial equipment maintenance at an off-site location. On-site equipment repairs (within the established storage or staging area) would be limited to routine daily maintenance and repairs. Any generated wastes would be recycled or disposed of according to all applicable regulations. All construction debris would be recycled or disposed of at an approved landfill in accordance with all applicable federal, state, and local laws and regulations. Similarly, any hazardous wastes generated during the construction (including oils, lubricants, fuels, solvents, asbestos, lead-based paint, PCB containing materials, mercury, etc.) would be disposed of in accordance with all federal, state, and local regulations. The contractor would be required to adhere to all federal guidelines pertaining to solid waste disposal, including (but not limited to) EO 13514 and EO 13423. As a result, no adverse impacts would be anticipated.

4.2 Public Services, Infrastructure, and Utilities

As mentioned earlier in Section 3.3, public services include local government services (i.e., City of El Paso and the EPISD) such as police, fire, emergency services, public transportation (bus, trolley, and/or rail), and public schools. Infrastructure includes publicly provided (City of El Paso) and maintained infrastructure elements and utilities such as roads, sidewalks, storm sewers, sanitary sewers, water lines, etc. Privately provided utilities generally include gas, electricity, and communication lines. To evaluate the potential impacts to existing public services, infrastructure, and utilities, the GSA reviewed the various alternatives to determine whether the proposed modernization efforts would have the potential to result in excessive strain or demand on:

- existing police, fire, emergency services, public schools, or public transit, beyond their current or planned capacity/ability,
- existing public utilities (e.g., storm sewers, sanitary sewers, water lines, etc.), roads, sidewalks, etc. beyond their current or planned capacity/ability, or
- private utilities such as gas, electrical supply, and communications.

Table 4-3 presents a summary of the potential public service, infrastructure, and utility impacts associated with each alternative as they relate to the criteria defined earlier (see Table 4-1).

4.2.1 No Action Alternative

Implementing the no action alternative would result in no significant adverse public services, infrastructure, or utilities impacts. Under the no action alternative, the GSA would take no actions to modernize the BOTA LPOE and the existing buildings/facilities and associated infrastructure would remain for continued use by the CBP, tenant agencies, and the travelling public. There would be no additional strain or demand on existing public services, infrastructure, or private utility providers. The energy efficiency benefits associated with modernization of the port and sustainable building/infrastructure design (see Section 1.6.3.5) would, however, not be realized.

Table 4-3. Summary of Public Service, Infrastructure, and Utility Impacts.

Environmental Attributes (Threshold Criteria)	**No Action** Impact (Magnitude and Duration)	**Alternative 1a** Impact (Magnitude and Duration)	**Alternative 4** Impact (Magnitude and Duration)
Public Services, Infrastructure, and Utilities			
Results in significant strain/demand on existing public services, infrastructure, and/or utilities? Any anticipated impacts?	No, None	No, None	No, None
Results in significant disruption to existing public services, infrastructure, and/or utilities? Any anticipated impacts?	No, None	No, Potential - Negligible/Minor Short-Term Negative[1]	No, Potential – Negligible/Minor Short-Term Negative[1]
Allows GSA and the public to realize the energy efficiency benefits associated with modernization of the port and sustainable building/infrastructure design (see Section 1.6.3.5). Any anticipated impacts?	No, Negligible/Minor Long-Term Negative	Yes – Minor/Moderate Long-term Beneficial Impacts and Negligible/Minor Short Term Adverse Impacts[1]	Yes – Minor/Moderate Long-term Beneficial Impacts and Negligible/Minor Short Term Adverse Impacts[1]

1 - Based on implementation of the mitigative methods/procedures described in Section 2.6.2.6 and 2.6.3.6.

4.2.2 Viable Action Alternative 1a – Multi-Level Modernization (High/Low Booths) Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 12 acres – TxDOT)

Implementing this alternative would result in no significant adverse public services, infrastructure, or utilities impacts. Under this alternative the GSA would conduct the phased razing of all existing buildings/facilities and infrastructure and replace with new modern, energy efficient facilities (see Section 1.6.3.5) entirely within the existing port boundaries and on lands to the immediate east. The new energy efficient facilities would be expected to result in a minor to moderate long-term beneficial impact as it relates to utility consumption. The modernization of the port would place no new demand on existing police, fire, or emergency services within the city. There would also be no new demand placed on the public school system or the public transit system as there would only be a minor planned increase in government employees over the coming years (see Section 2.6.2.9). As mentioned in Section 2.6.2.6, construction activities could result in potential interruptions to adjacent utilities, sidewalks, and/or roads when tying into utility mains or other demolition/construction activities near the port boundaries. This could result in negligible to minor short-term adverse impacts to nearby utilities and/or public infrastructure (including utility customers and the nearby travelling public). However, as stated, any planned disruptions to utilities would be coordinated with the local utility provider in an effort to minimize any potential impacts to their nearby customers. Any required temporary sidewalk or road lane closures and/or traffic/pedestrian rerouting (including potential bus routes and bus stops) would be closely coordinated with TXDOT and the City (including Sun Metro). Any required temporary closures or reroutes would be implemented in accordance with prevailing TXDOT and City regulations with regards to signage and permit requirements. As a result, any impacts would be expected to be only short-term and negligible to minor in nature.

4.2.3 Viable Action Alternative 4 – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (Approximately 4 acres – TxDOT) and Elimination of Commercial Cargo Operations

Similar to the previous alternative, implementing this alternative would result in no significant adverse public services, infrastructure, or utilities impacts. Under this alternative the GSA would conduct the phased razing of all existing buildings/facilities and infrastructure and replace with new modern, energy efficient facilities (see Section 1.6.3.5) entirely within the existing port boundaries and on lands to the immediate east. The new energy efficient facilities would be expected to result in a minor to moderate long-term beneficial impact as it relates to utility consumption. The modernization of the port would place no new demand on existing police, fire, or emergency services within the city. There would also be no new demand placed on the public school system or the public transit system as there would only be a minor planned increase in government employees over the coming years (see Section 2.6.3.9). As mentioned in Section 2.6.3.6, construction activities could result in potential interruptions to adjacent utilities, sidewalks, and/or roads when tying into utility mains or other demolition/construction activities near the port boundaries. This could result in negligible to minor short-term adverse impacts to nearby utilities and/or public infrastructure (including utility customers and the nearby travelling public). However, as stated, any planned disruptions to utilities would be coordinated with the local utility provider in an effort to minimize any potential impacts to their nearby customers. Any required temporary sidewalk or road lane closures and/or traffic/pedestrian rerouting (including potential bus routes and bus stops) would be closely coordinated with TXDOT and the City (including Sun Metro). Any required temporary closures or reroutes would be implemented in accordance with prevailing TXDOT and City regulations with regards to signage and permit requirements. As a result, any impacts would be expected to be only short-term and negligible to minor in nature.

4.3 Surface Waters, Drainage, and Floodplains

As mentioned earlier in Section 3.3, surface waters of potential concern generally include wetlands and/or waters of the U.S. as regulated by the USACE. The EISA of 2007 instructs federal agencies to “use site planning, design, construction, and maintenance strategies for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to temperature, rate, volume, and duration of stormwater flow” for any project with a footprint that exceeds 5,000 sf. EO 13514 also directs all federal agencies to “lead by example” to address a wide range of environmental issues, including stormwater runoff. The EO required the USEPA, in coordination with other federal agencies, to develop guidance for compliance with the EISA. As a result, the USEPA, Office of Water (and other agencies) coordinated the development of the Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the EISA (last revised December 1, 2008). The guidance provides a step-by-step framework to help federal agencies maintain pre-development site hydrology by retaining rainfall on-site through infiltration, evaporation/transpiration, and re-use to the same extent as occurred prior to development. Additionally, EO 11988 requires federal agencies to avoid, to the extent possible, the short- and long-term adverse impacts associated with the occupancy and modification of floodplains. GSA PBS 1095.8A is GSA’s most recent guidance and policy for implementing the requirements of EO 11988. This order establishes policy and assigns responsibility within the GSA concerning GSA actions that may affect floodplains by issuing the PBS Floodplain Management Desk Guide, November 2023.

To evaluate the potential impacts to existing surface waters, drainage, and floodplains, the GSA reviewed the various alternatives to determine whether the proposed modernization efforts would have the potential to result in:

- significant impacts to surface water features including wetlands and/or waters of the U.S.,
- stormwater run-off in excess of that regulated by federal, state, and/or local code/ordinance, or
- development within the defined 100-year flood zone.

Table 4-4 presents a summary of the potential surface water, drainage, and floodplain impacts associated with each alternative as they relate to the criteria defined earlier (see Table 4-1).

4.3.1 No Action Alternative

Implementing the no action alternative would result in no significant adverse surface water, drainage, and/or floodplain impacts. Under the no action alternative, the GSA would take no actions to modernize the BOTA LPOE and the existing buildings/facilities and associated infrastructure would remain for continued use by the CBP, tenant agencies, and the travelling public.

Table 4-4. Summary of Surface Water, Drainage, and Floodplain Impacts.

Environmental Attributes (Threshold Criteria)	**No Action** Impact (Magnitude and Duration)	**Alternative 1a** Impact (Magnitude and Duration)	**Alternative 4** Impact (Magnitude and Duration)
Surface Water, Drainage, and Floodplains			
Results in significant impacts to surface water features including wetlands and/or waters of the U.S? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Results in significant stormwater run-off in excess of that regulated by federal, state, and/or local code/ordinance? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Results in development within the defined 100-year flood zone? Facility is a designated Critical Action Facility? Any anticipated impacts?	No, None	No, None [2]	No, None [2]

1 - Based on implementation of the mitigation/protective measures described in Section 2.6.2.6 and 2.6.3.6.
2 – See Appendix G for CBP Critical Action Facility designation.

4.3.2 Viable Action Alternative 1a – Multi-Level Modernization (High/Low Booths) Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 12 acres – TxDOT)

Implementing this alternative would result in no significant adverse surface water, drainage, and/or floodplain impacts. As mentioned earlier in Section 3.4.1, the only nearby surface water feature is the Rio Grande – approximately 500 feet south of the port's southernmost boundary and across Delta Drive and the Cesar E. Chavez Border Highway (375). This segment of the Rio Grande is considered Riverine habitat as classified by the USFWS NWI mapping. As a result of the distance from the proposed improvements and the protective measures outlined in Section 2.6.2.6, there would be no anticipated adverse impacts to this surface water feature. As stated, prior to demolition/construction activities, and in accordance with the NPDES, TCEQ TPDES, and City requirements (construction sites greater than 5 acres [Phase I] and between 1 and 5 acres [Phase II]), a SWPPP would be developed and implemented for construction activities. A NOI would be filed with the TCEQ at least 48 hours in advance of activities. The SWPPP would be maintained on site and would provide measures to eliminate or reduce any potential impacts to surface water quality in the immediate area (i.e., implementation of BMPs). Additionally, a 24-hour spill response program conducted in conjunction with the El Paso Fire Department would be implemented. As described in Section 2.6.2.6 the contractor, in accordance with all applicable laws and regulations, would conduct all substantial equipment maintenance at an off-site location. On-site equipment repairs (within the established storage or staging area) would be limited to routine daily maintenance and repairs. These measures would further ensure no adverse impacts to the Rio Grande.

As mentioned in Section 1.6.3.5, water management is a high priority goal for both the region and the LEED compliance goals. Federal water policy EISA Section 438 identifies stormwater runoff as a leading source of water pollution in the U.S. As part of overall site design, LEED criteria would include a 25 percent reduction in the volume of stormwater runoff from the 2-year 24-hour design storm and removal of 80 percent of the average annual post development total suspended solids for 90 percent of the average rainfall. Development would include retention or detention of 100 percent of the runoff. As a property adjacent to the Rio Grande River, site hydrology and run-off quality are critical to the river ecosystem. Selection of landscape material, water retention and percolation would be made as design progresses. As a result, no adverse impacts would be anticipated as a result of drainage.

As mentioned in Section 2.6.2.6 and 3.3.2, the port and large portions of the areas to the immediate east are in an area described as an "Area with Reduced Flood Risk due to Levee (Zone X)." The nearby Rio Grande is designated as "Zone A – Area Without Base Flood Elevation (BFE)." The port and the area to the east are considered to be in the 100-year floodplain protected by a levee. Under 500- or 100-year flood conditions, should the levee fail or be overtopped, these areas could be inundated. As a result, as a part of the overall port design and layout, flood-resistant and risk mitigation measures would be employed (per GSA P100 Facility Standards) to ensure no potential adverse impacts should the nearby levee fail or be overtopped under a 500- or 100-year flood event.

In accordance with its Floodplain Management Desk Guide (November 2023), GSA must consider alternative locations or mitigation methods if a potential property for purchase or lease, or construction as in this case, is located in: (1) a 1-percent-annual-chance floodplain; or (2) a 0.2-percent-annual-chance floodplain and is a "critical action." As discussed in Section 3.3.2, CBP has determined that it does not consider the BOTA LPOE to be a Critical Action Facility (see Appendix G). As a result, no floodplain-related impacts would be anticipated.

4.3.3 Viable Action Alternative 4 – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (Approximately 4 acres – TxDOT) and Elimination of Commercial Cargo Operations

Similar to the previous alternative, implementing this alternative would result in no significant adverse surface water, drainage, and/or floodplain impacts. As mentioned earlier in Section 3.4.1, the only nearby surface water feature is the Rio Grande – approximately 500 feet south of the port's southernmost boundary and across Delta Drive and the Cesar E. Chavez Border Highway (375). This segment of the Rio Grande is considered Riverine habitat as classified by the USFWS NWI mapping. As a result of the distance from the proposed improvements and the protective measures outlined in Section 2.6.3.6, there would be no anticipated adverse impacts to this surface water feature. As stated, prior to demolition/construction activities, and in accordance with the NPDES, TCEQ TPDES, and City requirements (construction sites greater than 5 acres [Phase I] and between 1 and 5 acres [Phase II]), a SWPPP would be developed and implemented for construction activities. A NOI would be filed with the TCEQ at least 48 hours in advance of activities. The SWPPP would be maintained on site and would provide measures to eliminate or reduce any potential impacts to surface water quality in the immediate area (i.e., implementation of BMPs). Additionally, a 24-hour spill response program conducted in conjunction with the El Paso Fire Department would be implemented. As described in Section 2.6.3.6 the contractor, in accordance with all applicable laws and regulations, would conduct all substantial equipment maintenance at an off-site location. On-site equipment repairs (within the established storage or staging area) would be limited to routine daily maintenance and repairs. These measures would further ensure no adverse impacts to the Rio Grande.

As mentioned in Section 1.6.3.5, water management is a high priority goal for both the region and the LEED compliance goals. Federal water policy EISA Section 438 identifies stormwater runoff as a leading source of water pollution in the U.S. As part of overall site design, LEED criteria would include a 25 percent reduction in the volume of stormwater runoff from the 2-year 24-hour design storm and removal of 80

percent of the average annual post development total suspended solids for 90 percent of the average rainfall. Development would include retention or detention of 100 percent of the runoff. As a property adjacent to the Rio Grande River, site hydrology and run-off quality are critical to the river ecosystem. Selection of landscape material, water retention and percolation would be made as design progresses. As a result, no adverse impacts would be anticipated as a result of drainage.

As mentioned in Section 2.6.3.6 and 3.3.2, the port and large portions of the areas to the immediate east are in an area described as an "Area with Reduced Flood Risk due to Levee (Zone X)." The nearby Rio Grande is designated as "Zone A – Area Without Base Flood Elevation (BFE)." The port and the area to the east are considered to be in the 100-year floodplain protected by a levee. Under 500- or 100-year flood conditions, should the levee fail or be overtopped, these areas could be inundated. As a result, as a part of the overall port design and layout, flood-resistant and risk mitigation measures would be employed (per GSA P100 Facility Standards) to ensure no potential adverse impacts should the nearby levee fail or be overtopped under a 500- or 100-year flood event.

In accordance with its Floodplain Management Desk Guide (November 2023), GSA must consider alternative locations or mitigation methods if a potential property for purchase or lease, or construction as in this case, is located in: (1) a 1-percent-annual-chance floodplain; or (2) a 0.2-percent-annual-chance floodplain and is a "critical action." As discussed in Section 3.3.2, CBP has determined that it does not consider the BOTA LPOE to be a Critical Action Facility (see Appendix G). As a result, no floodplain-related impacts would be anticipated.

4.4 Land Use and Zoning (including Visual/Aesthetics)

As mentioned earlier in Section 1.6.2.5, land use patterns are natural or imposed configurations resulting from spatial arrangement of the different uses of land at a particular time. Land use patterns typically evolve as a result of: (1) changing economic considerations inherent in the concept of highest and best use of land, (2) imposing legal restrictions (zoning) on the uses of land, and (3) changing (zoning variances) existing legal restrictions. The critical consideration is the extent to which any changes in land use patterns resulting from implementation of a proposed action are compatible with existing adjacent uses and are in conformity with approved or proposed zoning and land use plans. Land use and zoning (including visual and aesthetics associated with development) is regulated by the City of El Paso through its Unified Development Code and associated ordinances. To evaluate the potential impacts to land use and zoning, the GSA reviewed the various alternatives to determine whether the proposed modernization efforts would:

- be in conflict with existing and/or planned land use of the site,
- be in conflict with existing and/or planned land use of the immediate surrounding area,
- be in conflict with prevailing zoning designations, or
- result in visual/aesthetic impacts not consistent with surrounding land use.

Table 4-5 presents a summary of the potential land use and zoning impacts associated with each alternative as they relate to the criteria defined earlier (see Table 4-1).

4.4.1 No Action Alternative

Implementing the no action alternative would result in no significant adverse land use or zoning impacts. Under the no action alternative, the GSA would take no actions to modernize the BOTA LPOE and the existing buildings/facilities and associated infrastructure would remain for continued use by the CBP, tenant agencies, and the travelling public.

Table 4-5. Summary of Land Use and Zoning Impacts.

Environmental Attributes (Threshold Criteria)	No Action Impact (Magnitude and Duration)	Alternative 1a Impact (Magnitude and Duration)	Alternative 4 Impact (Magnitude and Duration)
Land Use and Zoning (including Visual and Aesthetics)			
Results in conflict with existing and/or planned land use of the site? Any anticipated impacts?	No, None	No, None	No, None
Results in conflict with existing and/or planned land use of the immediate surrounding area? Any anticipated impacts?	No, None	No, None	No, None
Would be in conflict with prevailing zoning designations? Any anticipated impacts?	No, None	No, None	No, None
Results in visual/aesthetic impacts not consistent with surrounding land use? Results in a perceived visual impact to residents, visitors, or others in the area? Any anticipated impacts?	No, None	Yes, Minor Short-Term Negative (construction), Minor-Moderate Long-Term Beneficial (new facilities), Minor-Moderate Short/Long-Term Negative (continued truck traffic)[1]	Yes, Minor Short-Term Negative (construction), Minor-Moderate Long-Term Beneficial (new facilities), Moderate Long-Term Beneficial (immediate elimination of truck traffic)[2]

1 – Should the future option to eliminate commercial traffic at the BOTA LPOE be implemented, the visual impact would be eliminated at BOTA and likely shift to one or more of the other nearby ports.
2 – The current negative visual impact of commercial traffic at and around the BOTA LPOE would be immediately eliminated, however, that moderate impact would likely shift to one or more of the other nearby ports.

4.4.2 Viable Action Alternative 1a – Multi-Level Modernization (High/Low Booths) Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 12 acres – TxDOT)

Implementing this alternative would result in no significant adverse land use or zoning impacts. As mentioned in Section 3.4, according to the City's Comprehensive Plan (City of El Paso 2012), the port itself is located in the Civic Uses land use classification. As mentioned earlier in Section 1.3, the port sits on approximately 28 acres of fully developed property surrounded on three sides by an extensive highway system. The port is bordered to the north by E. Paisano Drive/U.S. Highway 62 East, a busy two-way street, U.S. Highway 54/Patriot Highway borders the port to the east, Delta Drive/Loop 375 borders it to the south, and Interstate Highway (I) 110 is on the northwest side of the Port which is a connector to I-10 and is the primary entry and exit from the port. Beyond the surrounding roads/highways, the Chamizal National Memorial borders the site to the west, residential, commercial and the El Paso Zoo and Botanical Gardens are to the north/northeast, and civic (i.e., TxDOT commercial vehicle inspection facility, El Paso County Coliseum and related/similar facilities, Delta Park, etc.), and residential uses can be found to the east of the port (as well as some industrial uses further to the east). The City, in conjunction with the EPMPO, has established detailed planned land use and zoning designations and criteria. Mapping shows that the port itself and the areas immediately east/southeast (south of Paisano Drive) would be located in the Industrial and/or Railyards (G7) land use category with Traditional Neighborhood – Walkable (G2) and Preserve (O1) further to the east/southeast . The Chamizal National Memorial to the immediate west would also be in the

Preserve (O1) land use category, and lands to the north/northeast would include additional Traditional Neighborhood – Walkable (G2) and Preserve (O1) uses. The current use of the port is consistent with prevailing land use and zoning designations and future use of the port and lands immediately east of the port would also be consistent with planned land use and zoning. Future surrounding infill developments and redevelopments in the area would include a variety of Medium Density Residential, Commercial, and other compatible uses intended to enhance the functionality, livability, and visual/aesthetic characteristics of the overall area consistent with prevailing zoning. As a result, there would be no anticipated adverse land use and/or zoning impacts. The Modernization of the existing port would not alter/change or conflict way with existing and/or planned land use and zoning. While it is likely that demolition and construction activities would result in minor localized short-term negative visual/aesthetic impacts, it is anticipated that a new, modern port which incorporates energy efficiency as well as aesthetically pleasing architectural and design elements, would actually result in a minor to moderate long-term beneficial impact as a focal point for entry into the U.S./city and possibly for redevelopment of the surrounding area. However, the current minor to moderate negative visual effect of significant commercial truck traffic at and around the BOTA LPOE would remain until/unless the future option to eliminate that traffic was implemented. At that point, the perceived negative visual effect would likely move to other nearby ports that would then receive more commercial traffic.

As discussed in Section 3.4.1, land use around the BOTA LPOE is significantly denser than that of the other ports (i.e., Ysleta, Tornillo, and Santa Teresa) that would likely receive commercial traffic, should that traffic be eliminated in the future as part of this alternative. Land use around the Ysleta LPOE is also quite dense when compared to Tornillo and Santa Teresa. Both BOTA and Ysleta have residential developments much closer than that of Tornillo and Santa Teresa. Should the future option of eliminating commercial traffic be implemented, and those trucks then utilize Ysleta, Tornillo, and/or Santa Teresa, land use around these ports (primarily Tornillo and/or Santa Teresa) could change in support of that commercial traffic. It is reasonable to assume that an increase in industrial/warehouse-type developments and uses would occur – again, most likely around Tornillo and/or Santa Teresa because there is more undeveloped land. Supporting uses would also likely occur. These potential land use changes are considered to be long-term and negligible to minor in nature.

4.4.3 Viable Action Alternative 4 – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (Approximately 4 acres – TxDOT) and Elimination of Commercial Cargo Operations

Similar to Action Alternative 1a, implementing this alternative would result in no significant adverse land use or zoning impacts. As mentioned in Section 3.5, according to the City's Comprehensive Plan (City of El Paso 2012), the port itself is located in the Civic Uses land use classification. As mentioned earlier in Section 1.3, the port sits on approximately 28 acres of fully developed property surrounded on three sides by an extensive highway system. The port is bordered to the north by E. Paisano Drive/U.S. Highway 62 East, a busy two-way street, U.S. Highway 54/Patriot Highway borders the port to the east, Delta Drive/Loop 375 borders it to the south, and Interstate Highway (I) 110 is on the northwest side of the Port which is a connector to I-10 and is the primary entry and exit from the port. Beyond the surrounding roads/highways, the Chamizal National Memorial borders the site to the west, residential, commercial and the El Paso Zoo and Botanical Gardens are to the north/northeast, and civic (i.e., TxDOT commercial vehicle inspection facility, El Paso County Coliseum and related/similar facilities, Delta Park, etc.), and residential uses can be found to the east of the port (as well as some industrial uses further to the east). The City, in conjunction with the EPMPO, has established detailed planned land use and zoning designations and criteria. Mapping shows that the port itself and the areas immediately east/southeast (south of Paisano Drive) would be located in the Industrial and/or Railyards (G7) land use category with Traditional Neighborhood – Walkable (G2) and Preserve (O1) further to the east/southeast . The Chamizal National Memorial to the immediate west would also be in the Preserve (O1) land use category, and lands to the north/northeast would include additional Traditional Neighborhood – Walkable (G2) and Preserve (O1) uses. The current use of the port

is consistent with prevailing land use and zoning designations and future use of the port and lands immediately east of the port would also be consistent with planned land use and zoning. Future surrounding infill developments and redevelopments in the area would include a variety of Medium Density Residential, Commercial, and other compatible uses intended to enhance the functionality, livability, and visual/aesthetic characteristics of the overall area consistent with prevailing zoning. As a result, there would be no anticipated adverse land use and/or zoning impacts.

The Modernization of the existing port would not alter/change or conflict in any way with existing and/or planned land use and zoning. While it is likely that demolition and construction activities would result in minor localized short-term negative visual/aesthetic impacts, it is anticipated that a new, modern port which incorporates energy efficiency as well as aesthetically pleasing architectural and design elements, would actually result in a minor to moderate long-term beneficial impact as a focal point for entry into the U.S./city and possibly for redevelopment of the surrounding area. Unlike the previous alternative, implementing this alternative would result in the immediate elimination of commercial truck traffic at and around the BOTA LPOE. This is considered to be a moderate long-term visual benefit to residents, visitors, etc. in the BOTA area. However, that perceived negative visual effect would likely move to the other nearby ports that would now receive more commercial traffic.

As discussed in Section 3.4.1, land use around the BOTA LPOE is significantly denser than that of the other ports (i.e., Ysleta, Tornillo, and Santa Teresa) that would likely receive commercial traffic, should that traffic be eliminated in the future as part of this alternative. Land use around the Ysleta LPOE is also quite dense when compared to Tornillo and Santa Teresa. Both BOTA and Ysleta have residential developments much closer than that of Tornillo and Santa Teresa. With the immediate elimination of commercial truck traffic at the BOTA LPOE and those trucks now utilizing the Ysleta, Tornillo, and/or Santa Teresa LPOE, land use around these ports (primarily Tornillo and/or Santa Teresa) could change in support of that commercial traffic. It is reasonable to assume that an increase in industrial/warehouse-type developments and uses would occur – again, most likely around Tornillo and/or Santa Teresa because there is more undeveloped land. Supporting uses would also likely occur. These potential land use changes are considered to be long-term and negligible to minor in nature.

4.5 CULTURAL AND HISTORIC RESOURCES

Table 4-6 presents a summary of the potential cultural and historic resources impacts associated with each alternative as they relate to the criteria defined earlier (see Table 4-1).

Table 4-6. Summary of Cultural and Historic Resources Impacts.

Environmental Attributes (Threshold Criteria)	**No Action** Impact (Magnitude and Duration)	**Alternative 1a** Impact (Magnitude and Duration)	**Alternative 4** Impact (Magnitude and Duration)
Cultural and Historic Resources			
Results in significant effects to archaeological resources (buried historic resources)? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Result in significant effects to historic districts and/or architectural properties (built historic resources)? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Results in significant effects to Tribal religious or cultural resources? Any anticipated impacts?	No, None	No, None	No, None

1 - Based on implementation of the mitigation/protective measures described in Section 2.6.2.6 and 2.6.3.6.

4.5.1 No Action Alternative

Implementing the no action alternative would result in no significant adverse cultural or historic resources impacts. Under the no action alternative, the GSA would take no actions to modernize the BOTA LPOE and the existing buildings/facilities and associated infrastructure would remain for continued use by the CBP, tenant agencies, and the travelling public. There would be no ground-disturbing activities and therefore no potential for impacts.

4.5.2 Viable Action Alternative 1a – Multi-Level Modernization (High/Low Booths) Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 12 acres – TxDOT)

Implementing this alternative would result in no significant adverse cultural or historic resources impacts. As mentioned earlier in Section 3.5, review of available historic aerial photography as well as recent photography revealed/confirmed that a majority of the APE has been widely disturbed over the years through construction activities. As such, much of the APE was recommended as having low probability for intact archaeological resources. As part of an architectural evaluation, a total of 148 resources were identified within the APE or in the neighborhoods associated with the APE. Of those 148 resources, 99 were constructed in 1980 or earlier. Of the 148 resources evaluated, six resources retained sufficient integrity and were recommended eligible for inclusion in the NRHP. None of these resources would be negatively impacted by the proposed improvements. In a June 2023 response to GSA's initial consultation (see Appendix B), the SHPO determined that the proposed modernization of the port would be unlikely to adversely affect historic properties. Regarding above-ground resources, the SHPO determined that there are known historic resources located near the proposed project area including the Chamizal National Memorial and El Paso County Water Improvement District No. 1.

As part of implementing the proposed modernization project as it relates specifically to design features, the GSA would coordinate with the Texas SHPO to ensure no impacts to nearby historic resources/districts (i.e., Chamizal National Memorial and the El Paso County Water Improvement District No. 1). Although there is low probably for intact archaeological resources in areas where ground-disturbing activities would occur, in the unlikely event that archaeological remains were to be discovered, the construction contractor would employ the procedures outlined in the CRA (i.e., Inadvertent Discovery Plan, see Appendix E). Implementing these measures would ensure no adverse cultural resources impacts. Based on consultation with pertinent Federal Tribal entities (see Appendix B), the proposed modernization effort would have no adverse impact on Native American resources.

4.5.3 Viable Action Alternative 4 – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (Approximately 4 acres – TxDOT) and Elimination of Commercial Cargo Operations

Similar to Action Alternative 1a, implementing this alternative would result in no significant adverse cultural or historic resources impacts. As mentioned earlier in Section 3.5, review of available historic aerial photography as well as recent photography revealed/confirmed that a majority of the APE has been widely disturbed over the years through construction activities. As such, much of the APE was recommended as having low probability for intact archaeological resources. As part of an architectural evaluation, a total of 148 resources were identified within the APE or in the neighborhoods associated with the APE. Of those 148 resources, 99 were constructed in 1980 or earlier. Of the 148 resources evaluated, six resources retained sufficient integrity and were recommended eligible for inclusion in the NRHP. None of these resources would be negatively impacted by the proposed improvements. In a June 2023 response to GSA's initial consultation (see Appendix B), the SHPO determined that the proposed modernization of the port

would be unlikely to adversely affect historic properties. Regarding above-ground resources, the SHPO determined that there are known historic resources located near the proposed project area including the Chamizal National Memorial and El Paso County Water Improvement District No. 1.

As part of implementing the proposed modernization project as it relates specifically to design features, the GSA would coordinate with the Texas SHPO to ensure no impacts to nearby historic resources/districts (i.e., Chamizal National Memorial and the El Paso County Water Improvement District No. 1). Although there is low probably for intact archaeological resources in areas where ground-disturbing activities would occur, in the unlikely event that archaeological remains were to be discovered, the construction contractor would employ the procedures outlined in the CRA (i.e., Inadvertent Discovery Plan, see Appendix E). Implementing these measures would ensure no adverse cultural resources impacts. Based on consultation with pertinent Federal Tribal entities (see Appendix B), the proposed modernization effort would have no adverse impact on Native American resources.

4.6 SOCIOECONOMICS (INCLUDING ENVIRONMENTAL JUSTICE AND PROTECTION OF CHILDREN)

4.6.1 Environmental Justice and Protection of Children

Table 4-7 presents a summary of the potential environmental justice and protection of children impacts associated with each alternative as they relate to the criteria defined earlier (see Table 4-1). Consideration of the potential consequences for environmental justice requires three main components:

1) A demographic assessment of the affected community to identify the presence of minority or low-income and child populations that might be potentially affected.
2) An assessment of all potential effects identified to determine if any result in significant adverse effects to the affected environment.
3) An integrated assessment to determine whether any disproportionate and adverse effects exist for people of color or low-income populations and child populations present in or near the BOTA, Santa Teresa, Tornillo, or Ysleta LPOE sites.

To evaluate the effects on environmental justice populations, alternatives were reviewed for their potential to cause the following:

- A disproportionate and adverse effect on a low-income, people of color population, Tribes, or persons with disabilities; or
- A disproportionately high and adverse environmental health and safety risk to children.

Determination of significant effects is informed by the USEPA's Promising Practices for EJ Methodologies in NEPA Reviews (USEPA 2016). Context and intensity of effects on impacted communities is considered when determining whether impacts from the Proposed Action and Alternatives would be considered significant under NEPA. Factors considered when determining significance of effects to environmental justice or child populations include:

- Whether the action would result in environmental, economic, or health impacts due to special vulnerabilities, unique routes of exposure, or cultural practices;
- The degree to which the action may establish a precedent for future actions with significant effects;
- Whether the action results in loss of significant cultural or historical resources;
- Whether the action results in effects with specific concern to low-income or people of color populations that are highly controversial.

Table 4-7. Summary of Environmental Justice and Protection of Children Impacts.

Environmental Attributes (Threshold Criteria)	No Action Impact (Magnitude and Duration)	Alternative 1a Impact (Magnitude and Duration)	Alternative 4 Impact (Magnitude and Duration)
Environmental Justice and Protection of Children			
Result in disproportionate and adverse effect on a low-income, people of color population, Tribes, or persons with disabilities? Any anticipated impacts?	Yes, Long-Term Minor-Moderate Adverse	Yes, Short-Term Minor-Moderate Adverse[1], Short-Term Minor Beneficial, Long-Term Moderate-Significant Adverse or Long-term Moderate-Significant Beneficial[2], Long-Term Minor Beneficial	No, Short-Term Minor-Moderate Adverse[1], Short-Term Minor Beneficial, Long-term Moderate-Significant Beneficial, Long-Term Minor Beneficial
Results in disproportionately high and adverse environmental health and safety risk to children? Any anticipated impacts?	Yes, Long-Term Minor-Moderate Adverse	Yes, Short-Term Minor-Moderate Adverse[1], Long-Term Moderate-Significant Adverse or Long-term Moderate-Significant Beneficial[2]	No, Short-Term Minor-Moderate Adverse[1], Long-term Moderate-Significant Beneficial

1 - Based on implementation of the mitigation/protective measures described in Section 2.6.2.6 and 2.6.3.6.
2 – Long-term moderate-significant adverse effect from southbound trucks idling at the BOTA LPOE would be eliminated should the future removal of all commercial cargo traffic be implemented under the Alternative 1a (Future No Trucks) option. This would be considered to be a long-term moderate-significant beneficial effect.

4.6.1.1 No Action Alternative

Under the no action alternative, the GSA would take no actions to modernize the BOTA LPOE and the existing buildings/facilities and associated infrastructure would remain for continued use by the CBP, tenant agencies, and the travelling public. Under this alternative, long-term moderate-significant adverse effects would be expected to disproportionately affect environmental justice populations and children in the area around the BOTA LPOE. Under the No Action Alternative, GSA would not expand or modernize the BOTA LPOE and would not change commercial cargo operations at BOTA, Santa Teresa, Tornillo, or Ysleta LPOEs. Community concerns at the BOTA LPOE pertaining to pedestrian safety, local air quality, and noise around the BOTA LPOE would continue. Traffic congestion at the BOTA LPOE would be expected to continue, as well as associated air quality and noise conditions (see Section 4.7 Noise, Section 4.8 Traffic, and Section 4.9 Air Quality). Any potential beneficial environmental effects to those living near the BOTA LPOE as a result of a modernized and more efficient port and the potential removal of commercial truck operations under Alternatives 1a or 4, as well as potential beneficial effects to low-income populations from increased job opportunities, would not occur.

4.6.1.2 Viable Action Alternative 1a – Multi-Level Modernization (High/Low Booths) Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 12 acres – TxDOT)

Under this alternative there would be construction at the BOTA LPOE, but no construction at the Santa Teresa, Tornillo, or Ysleta LPOEs. Construction for Alternative 1a would take place within the footprint of the existing BOTA LPOE, plus minimal land acquisition from the TxDOT at the perimeter of the site and to the east of the site. This alternative also includes a future option for elimination of commercial cargo operations at the BOTA LPOE.

Construction

BOTA LPOE

Environmental Justice

Under this alternative, short-term, minor-moderate, adverse effects would be expected from air, noise, and traffic effects, and short-term, minor, beneficial effects from job opportunities. The BOTA LPOE is located within Census Tract 29, Block Group 2 in El Paso County, Texas, which is identified as an environmental justice low-income and people of color population. The BOTA LPOE also is within 2 miles of multiple environmental justice block groups as shown on Figures 33-18 and 3-19. Residential properties, including subsidized, low-income, senior citizen housing, churches, hospitals, parks, and schools were identified adjacent to or within less than 1 mile of the BOTA LPOE project area (see Section 3.6.1.2 and Table 3-4). This EIS identified the following effects that could occur during construction that may affect environmental justice populations in the BOTA LPOE ROI.

- **Air Quality Effects** – Short-term, minor-moderate, adverse, air quality effects would be expected because of increased air emissions from on-road and non-road construction vehicles during construction activities (see Section 4.9, Air Quality). Airborne dust, emissions, and soil surface disturbance from the use of on-road and non-road construction vehicles could affect air quality in the area surrounding the BOTA LPOE, an area that is already experiencing degraded air quality. The majority of the emissions would be associated with vehicle and equipment exhaust. Because these emissions would occur at ground level, they would likely cause short-term increases in air pollutant emissions in the immediate vicinity of the project site; however, for purposes of this analysis a larger impact area was considered, and it was assumed that these emissions would not likely be transported more than one mile, except on windy days. The closest residential properties to the BOTA LPOE are the Paisano Green Community to the east, which would be adjacent to the proposed BOTA LPOE new east site, and a neighborhood about 1,000 feet to the north of the BOTA LPOE. These residences may experience effects from degraded air quality due to on-road and non-road construction vehicles during construction activities at the BOTA LPOE, and effects may be compounded due to existing air quality conditions. Air quality effects would be minimized to the extent possible by standard construction air quality control measures, such as using water to control dust from construction or land clearing, covering open equipment that is conveying or transporting material, using fugitive dust control measures contained in standard specifications, as well as required construction contractor compliance with all applicable federal, state, and local air pollution control regulations (see Section 2.6.2.6).

- **Congestion** – Short-term, minor-moderate, adverse, transportation and traffic effects would be expected because of increased traffic congestion during construction (see Section 4.8, Traffic) and, therefore, delays in daily travel to home, work, and community facilities and possibly in access to and accessibility by emergency care around the BOTA LPOE. Medical facilities are located in the ROI to the northeast and northwest of the BOTA LPOE. Environmental justice populations near the

BOTA LPOE may be delayed during construction activities in reaching their homes, places of employment, or community or healthcare facilities; conversely, emergency services vehicles (i.e., fire, police) could be delayed accessing residences near the BOTA LPOE. To minimize traffic effects, any required temporary closures or rerouting would be closely coordinated with TXDOT and the City of El Paso/Sun Metro and done in accordance with TXDOT and City regulations, and nearby and/or adjacent businesses and residences would be notified of planned road closures and detours (see Section 2.6.2.6).

- **Noise Disturbances** – Short-term, intermittent, minor, adverse effects would be expected because of increased noise during construction (see Section 4.7, Noise). The closest noise-sensitive receptors identified to the BOTA LPOE are the Paisano Green Community, which would be adjacent to the proposed BOTA LPOE new east site, and a church and neighborhood about 1,000 feet north of the BOTA LPOE. Noise effects would be minimized to the extent possible by standard noise control measures, such as project scheduling, sound barriers, using noise controls on vehicles and equipment, and maintaining vehicles and equipment. All construction activity would be conducted in accordance with the City of El Paso Noise Ordinance. Nearby and/or adjacent businesses and residences would be notified of planned demolition/construction days and hours of operation. Activities would be consistent with normal construction activities and would be conducted during normal business hours (Monday through Friday, 7:00 a.m. to 5:00 p.m.). Acoustical sound barriers would be used when demolition/construction would occur within 300 feet of pedestrian traffic and in areas deemed noise sensitive by port personnel. Noise effects from increased construction vehicle traffic would be intermittent, would be restricted to typical business hours, and construction worker commuter traffic would be limited to daily construction start and end times (see Section 2.6.2.6).

- **Job Opportunities** – Short-term, minor, beneficial effects would be expected. Economic effects could benefit environmental justice populations throughout the ROI that are in search of a job. Minor beneficial effects would occur because of the creation of direct, indirect, and induced jobs associated with Alternative 1a (see Section 4.6.2, Socioeconomics). The benefits would not be permanent and would largely be reversed in the long term, after construction is complete. Up to 100 direct jobs in construction-related industries would be created during modernization and expansion of the BOTA LPOE under Alternative 1a; it would be anticipated that many of the jobs could be locally sourced from the El Paso area. Indirect and induced jobs would be created from project-related spending and worker spending (see Section 2.6.2.6).

While environmental justice populations may be disproportionately affected, overall, the effects of the above would be short-term, minor-moderate adverse effects. Adverse effects would be minimized by implementation of the required standard construction air quality and noise control measures and coordinating traffic with TXDOT and the City of El Paso (see Section 2.6.2.6).

Protection of Children

Short-term, minor-moderate, adverse effects would be expected to the health and safety of child populations during construction. There are residences and places that children may regularly attend (e.g., churches, schools, recreational facilities) within the BOTA LPOE ROI, some within 1,000 feet of the BOTA LPOE (see Table 3-5). As discussed under Environmental Justice, these are potential sensitive receptors that may experience effects from degraded air quality, noise, and traffic congestion due to construction activity at the LPOE. Children are especially vulnerable due to higher relative doses of air pollution, smaller diameter airways, and more active time spent outdoors and closer to ground-level sources of vehicle exhaust, vehicle and construction noise, and vehicle traffic. Noise from construction activity could affect children's learning; however, noise levels would be greatest when children are outdoors, which would be for short periods of the day. To minimize effects on child safety, any required temporary traffic rerouting would be coordinated with TXDOT and the City and nearby and/or adjacent businesses and residences would be notified, the construction contractor would install temporary fencing around all work sites for

safety, water would be used to control dust from construction or land clearing, open equipment that is conveying or transporting material would be covered, and the construction contractor would use acoustical sound barriers when demolition/construction would occur within 300 feet of areas deemed noise sensitive by port personnel (see Section 2.6.2.6).

Commercial LPOEs – Santa Teresa, Tornillo, and Ysleta

Environmental Justice and Protection of Children

No effects would be expected, as no construction activity would occur at the Ysleta, Tornillo, or Santa Teresa LPOEs.

Operations

BOTA LPOE

Environmental Justice

Long-term, moderate-significant, adverse effects or long-term moderate-significant beneficial effects would be expected as a result of air, noise, and traffic effects. The long-term moderate to significant adverse effects under Alternative 1a from southbound trucks idling would be eliminated should the future removal of all commercial cargo traffic at the BOTA LPOE be implemented under the Alternative 1a (Future No Trucks) option. There would be potential long-term, minor, beneficial effects from potential job opportunities.

- **Air Quality Effects** – Long-term, moderate-significant adverse air quality effects would be expected to disproportionately affect environmental justice populations from traffic idling at the BOTA LPOE (see Section 4.9, Air Quality). Vehicle emissions could degrade air quality in the area surrounding the BOTA LPOE, an area that is already experiencing degraded air quality and associated health effects. The majority of the emissions would be associated with vehicle exhaust from idling southbound trucks. The closest residential properties to the BOTA LPOE are the Paisano Green Community to the east, which would be adjacent to the proposed BOTA LPOE new east site, and a neighborhood about 1,000 feet to the north of the BOTA LPOE. However, if the Alternative 1a (Future No Trucks) option is implemented, which would eliminate commercial cargo operations at the BOTA LPOE, long-term moderate-significant beneficial air quality effects would be expected for these communities.

- **Congestion** – Long-term, moderate-significant adverse traffic effects would be expected because of increased traffic (see Section 4.8, Traffic). The modernization of the BOTA LPOE would add additional lanes and provide some improvements with regards to traffic flow and efficiency at the port, but moderate-significant adverse effects would still be expected from southbound truck traffic. However, if the Alternative 1a (Future No Trucks) option to eliminate commercial cargo is implemented, that would remove truck traffic and be expected to result in moderate-significant beneficial effects on traffic congestion in the area.

- **Noise Disturbances** – Long-term, minor-moderate adverse effects would be expected from southbound truck idling (see Section 3.7, Noise). However, if the Alternative 1a (Future No Trucks) option to eliminate commercial cargo is implemented, that would remove truck traffic and be expected to result in moderate-significant beneficial effects on traffic congestion and noise in the area. The new east site would have a FMCSA inspection station, kennel, and training facility. Receptors located at the adjacent Paisano Green Community could also experience a negligible increase in intermittent noise levels.

- **Job Opportunities** – Long-term, minor, beneficial effects would be expected. Economic effects could benefit environmental justice populations throughout the ROI that are in search of a job. GSA

has no immediate staffing level increases currently anticipated; however, future programming staffing would ensure continued operational efficiency of the modernized BOTA LPOE. There would be long-term, minor economic benefits from potential new jobs at the BOTA LPOE.

Overall, environmental justice populations would likely be disproportionately affected, with the overall effects of the above being long-term, moderate to significant adverse. However, should the Alternative 1a (Future No Trucks) option be implemented, which would eliminate commercial cargo operations at the BOTA LPOE, long-term moderate-significant beneficial effects for environmental justice populations would be expected.

Protection of Children

Long-term, moderate-significant adverse effects would be expected to the health of children from traffic, air, and noise effects from BOTA LPOE operations. There are residences and other places that children regularly attend (e.g., childcare centers, churches, schools, recreational facilities) within two miles of the BOTA LPOE, some within 1,000 feet of the BOTA LPOE; therefore, children would be within the vicinity of the BOTA LPOE. As discussed above for construction activity and protection of children, these children are potential sensitive receptors that may experience effects from degraded air quality, noise, and traffic congestion from operations at the BOTA LPOE. However, if the Alternative 1a (Future No Trucks) option to eliminate commercial cargo is implemented, that would remove truck traffic and likely result in moderate-significant beneficial effects on traffic congestion, air quality, and noise in the area.

Santa Teresa LPOE

Environmental Justice

Long-term, negligible, adverse effects would be expected if the Alternative 1a (Future No Trucks) option would be implemented. The Santa Teresa LPOE is located within Census Tract 17.01, Block Group 4 in Doña Ana County, New Mexico, which is identified as an environmental justice low-income and people of color population. The Santa Teresa LPOE also is within 5 miles of multiple environmental justice block groups as shown on Figures 3-20 and 3-21; however, the area immediately around the Santa Teresa LPOE ROI is sparsely populated, with the nearest residential areas about four miles to the northeast in the community of Santa Teresa. There are no hospitals, schools, places of worship, or Tribal lands in the Santa Teresa LPOE ROI. Santa Teresa LPOE would be expected to see car traffic stay about the same or decrease and little change in truck traffic under Alternative 1a, or if the option to remove commercial cargo operations from the BOTA LPOE is implemented, it would be expected to see a negligible increase in truck traffic at Santa Teresa LPOE.

- **Air Quality Effects** – No effects would be expected, unless the Alternative 1a (Future No Trucks) option to remove commercial cargo at BOTA LPOE is implemented, then long-term negligible adverse air quality effects could be expected. Effects would be most acute to residences and sensitive receptors to air pollutants closest to the Santa Teresa LPOE, and noticeable within 1 mile of the site. As the nearest residences are about 4 miles away from the Santa Teresa LPOE, no effects from increased commercial truck processing at the LPOE would be expected on those residents and sensitive receptors; however, if the option is implemented, an increase in commercial truck traffic driving on State Road 136/Pete V. Domenici Highway past environmental justice communities in the town of Santa Teresa could have a negligible effect.

- **Congestion** – No effects would be expected, unless the Alternative 1a (Future No Trucks) option to remove commercial cargo at BOTA LPOE is implemented, then long-term negligible adverse effects could occur. As described for air quality, the nearest population is about 4 miles away from the Santa Teresa LPOE. Environmental justice communities in the town of Santa Teresa along State Road 136 could see a negligible increase in commercial truck traffic, but it would not be expected to cause congestion or delays in daily travel or accessibility to emergency services.

- **Noise Disturbances** – No effects would be expected, unless the Alternative 1a (Future No Trucks) option to remove commercial cargo at BOTA LPOE is implemented, then long-term negligible adverse effects could occur. As described for air quality, the nearest population is about 4 miles away from the Santa Teresa LPOE. Environmental justice communities in the town of Santa Teresa along State Road 136 could have a negligible increase in traffic noise from increased commercial truck traffic if that option is implemented.

- **Job Opportunities** –Long-term negligible beneficial effects would be expected that could benefit environmental justice populations in search of a job in the region. Increased commercial traffic at the Santa Teresa LPOE could result in the need for additional personnel at the port and at the Santa Teresa Border Industrial Parks.

Overall, the effects would be anticipated to be long-term, negligible adverse effects that would not disproportionately affect environmental justice populations.

Protection of Children

Long-term negligible adverse effects could occur. As described above for environmental justice, the nearest population is about 4 miles away from the Santa Teresa LPOE. Residential neighborhoods in the town of Santa Teresa along State Road 136 could see a negligible increase in commercial truck traffic if Alternative 1a (Future No Trucks) option is implemented.

Tornillo LPOE

Environmental Justice and Protection of Children

No effects would be expected. Little to no change in automobile or truck traffic would be expected at Tornillo LPOE under Alternative 1a or Alternative 1a (Future No Trucks).

Ysleta LPOE

Environmental Justice

Long-term, minor, adverse effects would be expected if the Alternative 1a (Future No Trucks) option would be implemented. The Ysleta LPOE is located within Census Tract 40.05, Block Group 2 in El Paso County, Texas, which is identified as having an environmental justice people of color population. The Ysleta LPOE also is within 2 miles of multiple block groups with environmental justice low-income and people of color populations, as shown on Figures 3-24 and 3-25. Residential neighborhoods (including public and subsidized housing), Tribal lands, and churches, parks, and schools were identified within the 2-mile ROI of the Ysleta LPOE project area (see Section 3.6.1,2 and Table 3-9). The Ysleta LPOE would be expected to see car traffic stay about the same or decrease and little change in truck traffic under Alternative 1a, or if Alternative 1a (Future No Trucks) option to remove commercial cargo operations from the BOTA LPOE is implemented, a minor increase in truck traffic at Ysleta LPOE.

- **Air Quality Effects** – No effects would be expected, unless the Alternative 1a (Future No Trucks) option to remove commercial cargo at BOTA LPOE is implemented, then long-term minor adverse air quality effects would be expected. Effects would be most acute to residences and sensitive receptors to air pollutants closest to the Ysleta LPOE, and noticeable within 1 mile of the site (see Section 4.9, Air Quality). The nearest residential areas to the Ysleta LPOE are located about 2,800 feet to the north, 3,600 feet to the northeast, and 6,300 feet to the east of the Ysleta LPOE. The American Indian Reservation land and Off-Reservation Trust Land is about 5,200 feet northeast of the Ysleta LPOE.

- **Congestion** – No effects would be expected, unless the Alternative 1a (Future No Trucks) option to remove commercial cargo at BOTA LPOE is implemented, then long-term minor adverse effects would be expected. Residents in the Ysleta LPOE ROI would be expected to see a minor increase in commercial truck traffic in the area.

- **Noise Disturbances** – No effects would be expected, unless the Alternative 1a (Future No Trucks) option to remove commercial cargo at BOTA LPOE is implemented, then long-term negligible adverse effects would be expected. Residential areas, Tribal lands, and other sensitive noise receptors are far enough from the Ysleta LPOE that they likely would not be exposed to any potential change in noise at the Ysleta LPOE from increased commercial truck traffic, should that option be implemented in the future. Residents along Hwy 375 could have a minor increase in traffic noise from increased commercial truck traffic, but it is unlikely it would be distinguishable from existing traffic noise levels from the highway.

- **Job Opportunities** – Long-term negligible beneficial effects would be expected that could benefit environmental justice populations in search of a job in the region. Increased commercial traffic at the Ysleta LPOE could result in the need for additional personnel at the Ysleta LPOE and at nearby commercial and industrial businesses related to port activity.

Overall, the effects would be expected to be long-term, negligible to minor adverse in nature, and would not be expected to disproportionately affect environmental justice populations.

Protection of Children

No effects would be expected, unless the Alternative 1a (Future No Trucks) option to remove commercial cargo at BOTA LPOE is implemented, then long-term minor adverse effects could occur. The area around Ysleta LPOE would experience a minor increase in commercial truck traffic, which would cause minor increases in air pollutant emissions and noise.

4.6.1.3 Viable Action Alternative 4 – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (Approximately 4 acres – TxDOT) and Elimination of Commercial Cargo Operations

Under this alternative there would be construction at the BOTA LPOE, but no construction at the Santa Teresa, Tornillo, or Ysleta LPOEs. Construction would take place within the footprint of the BOTA LPOE as described for Alternative 1a, with the exception that the port would not be expanded to the east as with Alternative 1a. Alternative 4 would result in the immediate elimination of commercial cargo operations at the BOTA LPOE, which would be expected to increase commercial traffic at the Santa Teresa and Ysleta LPOEs.

Construction

BOTA LPOE

Environmental Justice

Under this alternative, short-term, minor-moderate, adverse effects on environmental justice communities would be expected from air, noise, and traffic effects associated with construction activities, and short-term, minor, beneficial effects from potential job opportunities. Effects during construction would be expected to be similar to those described above for Alternative 1a for the BOTA LPOE, except that as part of this alternative, ancillary facilities would not be developed on the east site and modernization could be completed in a slightly shorter duration of time (2.5 to 3 years for Alternative 4, compared to 3 years for

Alternative 1a). While environmental justice populations may be disproportionately affected, overall, the effects would be short-term, minor-moderate adverse effects. Adverse effects would be minimized by implementation of the required standard construction air quality and noise control measures, and coordinating traffic with TXDOT and the City of El Paso (see Section 2.6.3.6).

Protection of Children

Short-term, minor-moderate, adverse effects would be expected to the health and safety of child populations during construction. In an effort to minimize effects on child safety, any required temporary traffic rerouting would be coordinated with TXDOT and the City and nearby and/or adjacent businesses and residences would be notified, the construction contractor would install temporary fencing around all work sites for safety, water would be used to control dust from construction or land clearing, open equipment that is conveying or transporting material would be covered, and the construction contractor would use acoustical sound barriers when demolition/construction would occur within 300 feet of areas deemed noise sensitive by port personnel (see Section 2.6.3.6).

Commercial LPOEs – Santa Teresa, Tornillo, and Ysleta

Environmental Justice and Protection of Children

Under this alternative, no construction would occur at the Ysleta, Tornillo, or Santa Teresa LPOEs, therefore there would be no construction impacts.

Operations

BOTA LPOE

Environmental Justice.

Long-term moderate-significant beneficial effects would be expected from reductions in truck traffic, air emissions, and noise in the area of the BOTA LPOE. There also would be potential long-term, minor, beneficial effects from potential job opportunities. Operational impacts at and around the BOTA LPOE would be expected to be similar to those described above for long-term operations associated with Alternative 1a (Future No Trucks) option, with no trucks at the BOTA LPOE.

Protection of Children

Long-term moderate-significant beneficial effects would be expected from reductions in truck traffic, air emissions, and noise in the area of the BOTA LPOE.

Ysleta, Tornillo, and Santa Teresa

Environmental Justice

Under this alternative, long-term, negligible to minor, adverse effects and long-term negligible beneficial effects would be expected at and immediately around the Ysleta, Tornillo, and Santa Teresa LPOEs. Effects from long-term operations at the Ysleta, Tornillo, and Santa Teresa LPOEs would be expected to be similar to those described above for the Alternative 1a (Future No Trucks) option. Santa Teresa and Ysleta LPOEs would see negligible to minor increases in truck traffic with long-term negligible to minor adverse effects on air, noise, and traffic, and long-term negligible beneficial effects from potential jobs. No effects would be expected at Tornillo LPOE.

Protection of Children

Long-term, negligible to minor, adverse effects could occur. The area around the Ysleta LPOE and in Santa Teresa would have negligible to minor increases in commercial truck traffic, which would cause negligible to minor increases in air pollutant emissions and noise.

4.6.2 Socioeconomics

Table 4-8 presents a summary of the potential socioeconomic impacts associated with each alternative as they relate to the criteria defined earlier (see Table 4-1). This effects analysis considers aspects of the socioeconomic environment that are sensitive to changes and that may be adversely or beneficially affected by activities associated with Alternatives 1a and 4. As noted earlier in Section 3.6.1.1, the ROI for the socioeconomic analysis for the BOTA, Tornillo, and Ysleta LPOEs is defined as El Paso County (including the City of El Paso, Town of Tornillo, and Ysleta area) and the ROI for the Santa Teresa LPOE is defined as Doña Ana County (including the community of Santa Teresa), and effects are presented for these areas. To evaluate the effects on socioeconomic resources, GSA reviewed the alternatives to determine whether any activities have the potential to cause the following within the ROIs:

- Alter local economies;
- Change housing characteristics (e.g., types of units, occupancy, housing values) or residential development patterns;
- Alter population growth or demographic patterns;
- Displace populations, residents, or businesses to accommodate construction;
- Require an amount of public or private resources (time and/or money) that interferes with the performance of other local government functions or the viability of proposed projects; or
- Induce growth without adequate supporting community services (e.g., education, public health and safety).

A significant adverse effect to socioeconomics would occur if the Proposed Action would:

- Alter a local economy on a substantial basis without the capacity to absorb a decrease or increase;
- Change housing characteristics or residential development patterns in a substantial way;
- Place a demand on suitable housing that exceeds availability;
- Alter population growth or demographic patterns in ways that change the overall character of communities;
- Require an amount of public or private resources (time and/or money) that substantially interferes with the performance of other local government functions or the viability of proposed projects; or
- Induce growth that exceeds the capacity of supporting community services, including:
    - Change in the number of users of community services that exceed existing capacity;
    - Change in the demand for emergency and public protection services that would increase response times based on existing personnel resources and equipment; or
    - Change in the funding needed to sustain services or to increase access to services.

Table 4-8. Summary of Socioeconomic Impacts.

Environmental Attributes (Threshold Criteria)	**No Action** Impact (Magnitude and Duration)	**Alternative 1a** Impact (Magnitude and Duration)	**Alternative 4** Impact (Magnitude and Duration)
Socioeconomics			
Result in significant change to area population and housing? Any anticipated impacts?	No, None	No, Short-Term Negligible, Long-Term Negligible	No, Short-Term Negligible, Long-Term Negligible
Results in significant change in area employment, unemployment, and/or income? Any anticipated impacts?	No, None	No, Short-Term Minor Beneficial, Long-Term Minor Beneficial	No, Short-Term Minor Beneficial, Long-Term Minor Beneficial
Results in significant change to area businesses/revenue as a result of purchasing, rentals, etc? Any anticipated impacts?	No, None	No, Short-Term Minor Beneficial, Long-Term Minor Beneficial	No, Short-Term Minor Beneficial, Long-Term Minor Beneficial
Results in a significant change to community services? Any anticipated impacts?	No, None	No, Short-Term Minor Adverse	No, Short-Term Minor Adverse
Results in a significant change to perceived quality of life? Any anticipated impacts?	No, Long-term moderate adverse	Yes, Short-Term Minor to Moderate Adverse, Long-Term Moderate to Significant Adverse *(Future No Trucks)* No, Short-Term Minor to Moderate Adverse, Long-Term Minor Adverse and Moderate Beneficial	No, Short-Term Minor to Moderate Adverse, Long-Term Minor Adverse and Minor to Moderate Beneficial

An estimate of the effect on the region's economy from expenditures made by persons coming into El Paso was calculated using the IMPLAN economic model. This has been compared to each alternative to provide an estimate of potential changes in effects, based on the number of vehicles estimated to enter under each alternative and an estimate of the spending per vehicle on purchases such as retail, restaurant, grocery, fuel, lodging, and sundries. Data on the number of daily crossings by cars and trucks northbound into the U.S. for each alternative is from the EPMPO, and data on crossings expenditures by economic activity are from the City of El Paso (City of El Paso 2024; GSA 2024a). The data was entered into the IMPLAN economic model. See Appendix H for more information on the data, methodology, assumptions, and IMPLAN model.

IMPLAN estimates direct and indirect economic changes for a defined region, in this case El Paso County. "Direct effects" are the initial production changes or expenditures made by producers and consumers as a result of an activity or policy; "indirect effects" include the secondary effects of business-to-business transactions—local industries buying goods and services from other local industries—and the tertiary "induced effects" from household spending of labor income (e.g., consumer spending by the workforce for entertainment, food, healthcare, housing, transportation, and so forth). The IMPLAN model estimates changes in regional employment, labor income, value added, and output as a result of a Proposed Action. "Employment" includes full-time, part-time, and seasonal workers, including wage and salaried employees and proprietors (self-employed individuals). "Labor income" is the sum of all forms of employment income, including employee compensation (wages, salaries, and benefits) and proprietors' income. "Value added" is the difference between an industry's or establishment's total output and the cost of its intermediate inputs. "Output" is the value of industry production, which is equal to revenue less net inventory change (IMPLAN 2024a).

4.6.2.1 No Action Alternative

Under the No Action Alternative, GSA would not expand or modernize the BOTA LPOE and would not change commercial cargo operations at BOTA, Santa Teresa, Tornillo, or THE Ysleta LPOEs. The socioeconomic benefit of the approximately 2,400 government jobs associated with CBP operations in their area would remain. There would be no change in employment or population and no change in demand for housing or community services. The income, spending, and tax revenue associated with these jobs would continue. The spending by people crossing the border into El Paso to eat and shop also would continue. The capacity and efficiency of the BOTA LPOE, however, would degrade over time which could result in long-term, adverse effects to the regional economy. Delays at the border stations cost trucking companies, and consumers, money, because of increased freight costs from labor time, fuel, lost perishable goods, and disruptions in the manufacturing supply chain. A 2023 study found that decreasing wait times at the U.S. – Mexico border (overall; no particular port) by 10 minutes would allow for an additional $25.9 million worth of goods to enter the U.S. every month and $547,000 in extra spending across the United States' four border states (Atlantic Council 2023).

Under this alternative, the long-term, moderate, adverse effects on the quality of life in the neighborhoods around the BOTA LPOE, like Chamizal and San Xavier, from existing air emissions, noise, traffic, and vibrations would be expected to continue.

Table 4-9 presents the IMPLAN results for estimated existing effects on the regional economy from consumer spending (on clothing and accessories, food at grocery stores or restaurants, fuel, lodging, and incidental items) by travelers coming by car and truck into the EL Paso area through the BOTA, Santa Teresa, Tornillo, and Ysleta LPOEs under the No Action Alternative.

Table 4-9. IMPLAN Model Output – Estimated Annual Visitor Effects – No Action Alternative.

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	2,944	$81,160,592	$154,949,406	$319,903,580
Indirect Effect	710	$29,941,491	$52,258,978	$126,727,588
Induced Effect	500	$21,261,432	$42,180,109	$79,139,190
Total Effect	**4,154**	**$132,363,515**	**$249,388,493**	**$525,770,358**

Source: IMPLAN 2024b.

4.6.2.2 Viable Action Alternative 1a – Multi-Level Modernization (High/Low Booths) Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 12 acres – TxDOT)

Alternative 1a would result in construction at the BOTA LPOE, but no construction at the Santa Teresa, Tornillo, or Ysleta LPOEs. Construction would take place within the footprint of the existing BOTA LPOE, plus minimal land acquisition from the TxDOT at the perimeter of the site and to the east of the site. Alternative 1a includes the option for future elimination of commercial cargo lanes at the BOTA LPOE, referred to as Alternative 1a (Future No Trucks), which would be expected to increase commercial traffic at the Santa Teresa and Ysleta LPOEs.

Construction

BOTA LPOE

The IMPLAN model was used to estimate the effect on the ROI's economy from Alternative 1a's construction expenditures at the BOTA LPOE. The estimated construction expenditures would be about

$700 million over an approximately 3-year construction period (GSA 2024). The estimated construction cost was divided evenly across the build-out period at $233.3 million per year and was entered into the IMPLAN model as the change in industry output for 1 year for construction (the IMPLAN model is designed to evaluate on an annual basis). GSA estimated 50 to 100 construction workers would be employed at the site, as a result, the average of 75 was entered into the model for the estimated number of direct construction jobs that would be created.

Short-term, minor, beneficial socioeconomic effects would be expected from construction activity associated with this alternative. The benefits would diminish as the project reaches completion. Total annual direct, indirect, and induced employment generated by construction is estimated to be about 1,000 jobs per year (Table 4-10), with direct jobs in the construction sector; indirect jobs in sectors such as architectural and engineering and related services, building material and equipment supply companies, commercial and industrial machinery equipment rental and leasing businesses, ready mix concrete and stone product manufacturing, truck transportation, and wholesale trade; and induced jobs in sectors such as food and beverage, health services, and retail. It is anticipated that jobs would be filled by people living in the ROI. The increase in employment and income would be minor relative to the size of the ROI's economy and workforce. The ROI had 482,420 people employed in 2022, so the total employment of about 1,000 would be a 0.2 percent increase over that baseline. Labor income would increase by about $135 million, or 0.4 percent over the ROI 2022 total personal income of $38.4 billion (BEA 2023b). Output would increase by about $413 million, or 1 percent over the ROI GDP of $43.1 billion (BEA 2023d).

Table 4-10. IMPLAN Model Output – Annual Construction Effects.

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	75	$90,222,678	$91,384,476	$233,333,333
Indirect Effect	408	$23,069,869	$42,600,965	$96,206,586
Induced Effect	527	$22,361,448	$44,367,035	$83,229,646
Total Effect	**1,010**	**$135,653,995**	**$178,352,476**	**$412,769,565**

Source: IMPLAN 2024b.

Overall effects on population and housing in the BOTA LPOE ROI would be negligible during construction. The population would not be expected to grow during the construction phase or increase demand on local housing because workers would not be expected to relocate to the area. It is anticipated the majority of workers would be local and commute daily to the BOTA LPOE site from their current residences. The demand for local housing would not be expected to increase, or only negligibly increase, during the construction phase. No impacts to property values would be expected. The ability of individuals in El Paso County living on a fixed income to afford housing, and the ability of the county to provide funding for social services, health services, or public schooling would not be affected. Because the population would not be expected to grow during the construction phase and therefore would not increase demand on local public schools, no impacts on the student-to-teacher ratio or quality of education would be expected at schools in the city or county of El Paso.

The phased modernization of the BOTA LPOE could have short-term, minor to moderate, adverse quality of life effects on local businesses, community services, and neighborhoods adjacent to the BOTA LPOE due to increased traffic congestion, noise levels, and air emissions. Construction activity could cause temporary traffic disruptions that might cause short-term delays getting to nearby businesses, community services, and residential areas. Residents adjacent the BOTA LPOE may be delayed in reaching emergency and urgent care facilities during construction activities. The response time of ambulances, fire trucks, and police may increase slightly when attempting to access areas adjacent to the BOTA LPOE if there would be temporary road closures affecting access to the neighborhoods. However, effects reduction measures for resources specific to quality-of-life effects on residents from air, traffic, and noise would be implemented as discussed previously in Section 2.6.2.6. Air quality effects would be minimized to the extent possible by standard construction air quality control measures, such as using water to control dust

from construction or land clearing, covering open equipment that is conveying or transporting material, using fugitive dust control measures contained in standard specifications, as well as required construction contractor compliance with all applicable federal, state, and local air pollution control regulations. Traffic effects would be minimized through close coordination with TXDOT and the City of El Paso/Sun Metro, complying with TXDOT and City regulations, and notifying nearby businesses and residences of planned road closures and detours. Noise effects would be minimized by conducting construction activities in accordance with the City of El Paso Noise Ordinance, notifying nearby businesses and residences of planned demolition/construction days and hours of operation, conducting construction activities consistent within normal business hours (Monday through Friday, 7:00 a.m. to 5:00 p.m.), and using acoustical sound barriers when demolishing/constructing within 300 feet of pedestrian traffic and in areas deemed noise sensitive by port personnel.

Commercial LPOEs – Santa Teresa, Tornillo, and Ysleta

No effects would be expected, as no construction activity would occur at the Santa Teresa, Tornillo, or Ysleta LPOEs.

Operations

BOTA LPOE

Table 4-11 presents the IMPLAN results for estimated effects on the regional economy of consumer spending (on clothing and accessories, food at grocery stores or restaurants, fuel, lodging, and incidental items) by visitors coming by car and truck into EL Paso through the BOTA, Santa Teresa, Tornillo, and Ysleta ports under Alternatives 1a and Alternative 1a (Future No Trucks) and an 80 percent staffing scenario. As these two alternatives would increase the total number of cars coming through the ports, it would potentially increase traveler's personal spending in El Paso. The EPMPO total combined daily traffic volumes for the four ports for northbound border crossings were similar between Alternatives 1a and 1a (Future No Trucks), so the model output is similar; the difference between the two alternatives would be that in the future no trucks would come through BOTA under Alternative 1a (Future No Trucks) and instead trucks would enter mostly through Ysleta and Santa Teresa and some through Tornillo, but the total number coming to El Paso would remain the same (see Appendix H).

Long-term minor beneficial economic effects would be expected from visitor spending under Alternatives 1a and 1a (Future No Trucks) compared to the No Action Alternative. Employment, labor income, value added, and output would increase by about 7 percent compared to the No Action Alternative: employment would increase by an estimated 300 jobs, labor income by about an estimated $9.5 million, value added by about an estimated $17.3 million, and output by about an estimated $38 million (comparing Table 4-10 to Table 4-8). The benefit would come from visitors and truck drivers purchasing meals, gas, lodging, and making retail purchases. These expenditures also would generate tax revenue for the area. The jobs would be in sectors such as convenience stores and gasoline stations; hotels, motels, and other accommodations; restaurants; and retail stores. It is assumed the jobs likely would be filled by persons already residing in the ROI, such as by people entering the workforce, changing jobs, or changing from part-time to full-time shifts. The increase in employment would be minor relative to the size of the ROI's economy and workforce. The ROI had 482,420 people employed in 2022, so the estimated employment increase of about 300 jobs would be 0.1 percent of that baseline. Income would increase by about an estimated $9.5 million, or 0.02 percent of the ROI 2022 total personal income of $38.4 billion. The estimated increase in output of about $38 million would be 0.1 percent of ROI GDP of $43.1 billion.

Table 4-11. IMPLAN Model Output – Estimated Annual Visitor Effects – Alternative 1a and Alternative 1a (Future No Trucks).

Impact Type	Employment	Labor Income	Value Added	Output
Alt 1a Direct Effect	3,152	$86,875,198	$165,311,030	$342,577,21
Alt 1a Indirect Effect	763	$32,164,448	$56,140,244	$136,317,818
Alt 1a Induced Effect	535	$22,781,896	$45,196,540	$84,798,636
Alt 1a Total Effect	**4,450**	**$141,821,542**	**$266,647,814**	**$563,694,175**
Alt 1a (Future No Trucks) Direct Effect	3,153	$86,890,483	$165,271,598	$342,656,654
Alt 1a (Future No Trucks) Indirect Effect	763	$32,184,440	$56,175,310	$136,425,142
Alt 1a (Future No Trucks) Induced Effect	536	$22,788,830	$45,210,299	$84,824,444
Alt 1a (Future No Trucks) Total Effect	**4,452**	**$141,863,753**	**$266,657,207**	**$563,906,240**

Source: IMPLAN 2024b.

The redirection of truck traffic from BOTA to other LPOEs could increase freight transportation costs. Under Alternative 1a, there would be almost no change in port of entry truck daily traffic volumes (see Appendix H). Under Alternative 1a (Future No Trucks) there would be a projected additional number of commercial trucks per day utilizing the Ysleta and Santa Teresa LPOEs. Tornillo LPOE has no projected increase in commercial vehicles (see Appendix H). Based on an original starting and end point of the BOTA LPOE, commercial vehicles would drive about an additional 50 miles round trip to go through Santa Teresa LPOE, and an additional 20 miles round trip to go through Ysleta LPOE. The cost per mile of trucking takes into consideration a number of factors including financing, fuel cost, insurance, maintenance costs, mileage, shipment density and weight, and tolls (Method 2024). The BOTA LPOE is the only toll-free bridge in the El Paso District (GSA 2024b). The southwestern U.S. cost per trucking per mile was $1.90 for vans, $2.16 for refrigerated trucks, and $2.36 for flatbeds, for an average cost per mile of $2.14 (Scale Funding 2024). An estimated annual cost of rerouting commercial vehicles from BOTA to Santa Teresa and Ysleta LPOEs is about $6.5 million. This cost could be passed on to the consumer; but, truck drivers also would be spending some of these dollars for fees, fuel, maintenance, tolls, etc. in the El Paso area.

Another factor to consider is time. Delays at the border stations cost trucking companies, and the consumers, money, from increased freight costs due to labor time, fuel, lost perishable goods, and disruptions in the manufacturing supply chain. Shorter wait times at BOTA LPOE under Alternatives 1a and 1a (Future No Trucks) that could result from the renovated port could reduce delays and costs. Reduced freight transportation costs have the potential to influence international trade competitiveness, commercial output, and jobs. A 2018 study estimated that delays in 2016 at the BOTA LPOE resulted in an annual cost of $1.3 million for BOTA FAST lanes and $10.7 million for BOTA standard lanes (Aldrete et al. 2018).

Long-term, negligible effects to population and housing would be expected to the BOTA LPOE ROI from port operations. GSA has no immediate staffing level increases currently anticipated; however, future programming staffing would ensure continued operational efficiency of the modernized BOTA LPOE. No staffing estimates or staffing timelines were available at the time of preparation of this document. Personnel could be hired from the ROI. The level of in-migration of new personnel from outside the BOTA LPOE ROI cannot be projected, but it is assumed any new CBP personnel that would move into the ROI would prefer locating to the City of El Paso and surrounding communities in El Paso County. Any new permanent staff moving into the ROI would increase the demand for housing and decrease the supply of housing in a tight housing market. This could increase property values which could adversely affect those living on a fixed income. Considering the current low homeowner vacancy rates, renting would likely be the most viable option until the housing market supply adjusts to meet the demand and more homes become available for

sale. An increase in population from any new CBP operations personnel would be expected to increase demand for public services including law enforcement, fire protection, healthcare, and public schools. Some of the public-school districts have student-to-teacher ratios exceeding state or national averages. However, because any permanent CBP jobs could be filled by persons already living in the ROI and because the jobs would be created over time and phased in over the long-term, effects on the services would be expected to be negligible. New jobs would increase the tax base that supports those public services. No effects would be expected on recreation.

Quality of life beneficial effects could occur around the BOTA LPOE under Alternatives 1a and 1a (Future No Trucks) from reduced traffic congestion because of the additional lanes at the modernized port. Under Alternative 1a, however, the number of cars and trucks coming through the BOTA LPOE would increase, adding to the adverse air quality effects on the Chamizal and San Xavier residents close to the BOTA LPOE for long- term moderate to significant adverse effects. However, if GSA implements the Alternative 1a (Future No Trucks), long-term moderate beneficial effects would be expected from improvements in air quality, noise, and vibrations from removing truck traffic at the BOTA LPOE. Noise levels would be expected to return to about existing levels in areas near the BOTA LPOE once construction activities would be completed.

Ysleta, Tornillo, and Santa Teresa LPOEs

Long-term, minor, beneficial economic effects in El Paso and Doña Ana counties could occur under Alternative 1a (Future No Trucks). The Alternative 1a option to remove commercial cargo lanes at the BOTA LPOE would shift commercial operations, mostly to Ysleta and Santa Teresa LPOEs, and some to the Tornillo LPOE but to a much lesser extent. If that would occur, that could increase commercial and industrial growth around those ports. The area immediately adjacent to the Ysleta LPOE is already developed with commercial and industrial businesses, and increased cargo lanes at the port could induce new warehouse development. The area around the Santa Teresa LPOE is already being developed as a commercial and industrial transportation and warehousing hub for international trade; therefore, increased commercial cargo traffic at the port would support that planned growth. No change in commercial cargo operations is projected at Tornillo. The area around the Tornillo LPOE is agricultural, and there are no known plans for rezoning to commercial or industrial, so the possibility of such growth at the Tornillo LPOE is less likely. Beneficial effects would be expected in industries such as accommodation and food services, construction, health care, real estate rental and leasing, retail trade, and transportation and warehousing.

Operations would be expected to result in long-term, minor, adverse effects on local businesses and neighborhoods near the Santa Teresa and Ysleta LPOEs from decreased quality of life. If GSA implements the Alternative 1a (Future No Trucks) option to remove commercial cargo lanes at the BOTA LPOE and reroutes commercial traffic to Ysleta, Santa Teresa, and Tornillo LPOEs, residents living near these ports and the connecting roads would experience localized increases in traffic from the commercial cargo. The nearest residences to the Santa Teresa LPOE, however, are about 4 miles away, along State Road 136/Pete V. Domenici Highway. Effects would be expected to be negligible on the community of Santa Teresa. The Ysleta LPOE is immediately bordered by commercial and industrial properties but beyond that are residential neighborhoods. These residents in Ysleta as well as those along roads such as Route 375 in Ysleta would be the most likely to experience minor adverse quality of life effects from increased commercial traffic. The Tornillo LPOE has two residences adjacent to the port to the north, and residential areas in the towns of Tornillo and Fabens. The two port-adjacent residents and the residents in these towns along Route 20 and I-10 and the connecting roads of Middle Island Road and M.F. Aguilera Road would be the most likely to experience minor adverse quality of life effects from increased commercial traffic.

4.6.2.3 Viable Action Alternative 4 – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (Approximately 4 acres – TxDOT) and Elimination of Commercial Cargo Operations

As discussed earlier, and largely similar to Alternative 1a, the only construction activities associated with this alternative would be at the existing BOTA LPOE and immediately adjacent TxDOT ROW that would be acquired as part of the action. Unlike Alternative 1a, this alternative would include the immediate elimination of all commercial cargo operations at the port and would be expected to increase commercial traffic at the Ysleta and Santa Teresa LPOEs.

Construction

BOTA LPOE

Effects during construction of Alternative 4 would be about the same as those described for Alternative 1a for the BOTA LPOE. Short-term, minor, beneficial socioeconomic effects would be expected from construction, but could be slightly less beneficial as ancillary facilities would not be developed on the east site under Alternative 4, and modernization could be completed in a slightly shorter duration of time (2.5 to 3 years for Alternative 4, compared to 3 years for Alternative 1a). Short-term, negligible effects on population and housing would be the same as described for Alternative 1a, as population would not be expected to grow during the Alternative 4 construction phase or increase demand on local housing because construction workers would not be expected to relocate to the area. Similar to Alternative 1a, Alternative 4 would be expected to result in short-term, temporary, minor to moderate, adverse effects associated with decreased quality of life on businesses and residents in close proximity to the BOTA LPOE due to increased traffic congestion, possible traffic delays, noise levels, and air emissions from construction activity. However, effects reduction measures for resources specific to quality-of-life effects on residents from air, traffic, and noise would be implemented (see Section 2.6.3.6).

Commercial LPOEs – Santa Teresa, Tornillo, and Ysleta

No effects would be expected, as no construction activity would occur at the Santa Teresa, Tornillo, or Ysleta LPOEs.

Operations

BOTA LPOE

Table 4-12 presents the IMPLAN results for estimated effects on the regional economy of consumer spending (on clothing and accessories, food at grocery stores or restaurants, fuel, lodging, and incidental items) by visitors coming by car and truck into EL Paso through the BOTA, Santa Teresa, Tornillo, and Ysleta ports under Alternative 4 (see also Appendix H).

Long-term minor beneficial economic effects would be expected from visitor spending under Alternative 4 compared to the No Action Alternative. Employment, labor income, value added, and output would increase by about 11 percent compared to the No Action Alternative: employment would increase by about an estimated 450 jobs, labor income by about an estimated $14.2 million, value added by about an estimated $25.9 million, and output by about an estimated $57.2 million (comparing Table 4-12 to Table 4-9). The benefit would come from visitors and truck drivers purchasing meals, gas, lodging, and making retail purchases. These expenditures also would generate tax revenue for the area. The jobs would be in sectors such as convenience stores and gasoline stations; hotels, motels, and other accommodations; restaurants; and retail stores. It is assumed the jobs likely would be filled by persons already residing in the ROI, such as by people entering the workforce, changing jobs, or changing from part-time to full-time shifts. The

increase in employment would be minor relative to the size of the ROI's economy and workforce. The ROI had 482,420 people employed in 2022, so the estimated employment increase of about 450 jobs would be 0.1 percent of that baseline. Income would increase by about an estimated $14.2 million, or 0.04 percent of the ROI 2022 total personal income of $38.4 billion. The estimated increase in output of about $57.2 million would be 0.1 percent of ROI GDP of $43.1 billion.

Table 4-12. IMPLAN Model Output – Estimated Annual Visitor Effects – Alternative 4.

Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	3,257	$89,748,122	$170,418,380	$354,004,492
Indirect Effect	790	$33,303,295	$58,128,906	$141,262,954
Induced Effect	553	$23,550,630	$46,721,627	$87,660,004
Total Effect	4,600	$146,602,047	$275,268,913	$582,927,450

Source: IMPLAN 2024b.

Other effects from operations would be the same as those described for Alternative 1a or Alternative 1a (Future No Trucks). Long-term, negligible effects to population, housing, and public services could occur. GSA has no immediate staffing level increases currently planned; however, future programming staffing would ensure continued operational efficiency of the modernized BOTA LPOE. New, permanent CBP jobs could be filled by persons already living in the ROI or by persons in-migrating, but because the jobs would be created over time and phased in over the long-term, effects on population, housing, and public services would be expected to be negligible. New jobs would increase the tax base that supports public services. No effects would be expected on recreation. Like Alternative 1a (Future No Trucks), removal of commercial traffic at the BOTA LPOE and the redirection of that traffic to other LPOEs could have adverse effects from increased freight transportation costs. Also, similar to Alternative 1a (Future No Trucks), long-term, minor to moderate, beneficial effects on local businesses and residents in the Chamizal and San Xavier neighborhoods near the BOTA LPOE would be expected from increased quality of life. These benefits would result from reduced traffic congestion, improved air quality, and reduced noise and vibration effects.

Ysleta, Tornillo, and Santa Teresa LPOEs

Effects for the Santa Teresa, Tornillo, and Ysleta LPOEs would be the same as those described for Alternative 1a (Future No Trucks). Long-term, minor, beneficial, economic effects in El Paso and Doña Ana counties could occur from changes in port operations. Alternative 4 would remove commercial cargo lanes at the BOTA LPOE and move commercial truck operations mostly to the Ysleta and Santa Teresa LPOEs, and some to the Tornillo LPOE. That could increase commercial and industrial growth around Ysleta and Santa Teresa ports, which already have zoning for industrial growth. The area around the Tornillo LPOE is agricultural, and there are no known plans for rezoning to commercial or industrial, so the possibility of such growth at the Tornillo LPOE is less likely. Residents living near the Santa Teresa , Ysleta, and Tornillo LPOEs along major transportation routes would be the most likely to experience minor adverse quality of life effects from increased commercial traffic.

SECTION 4.0
ENVIRONMENTAL CONSEQUENCES

4.7 Noise and Vibration

As mentioned earlier, acoustical noise is defined as any sound that is undesirable because it interferes with communication, is intense enough to damage hearing, or is otherwise intrusive. Human response to noise varies according to the type and characteristics of the noise sources, distance between source and receiver, receiver sensitivity, and time of day. The two most common types of noise are point sources and line sources. Point source noise is usually associated with a source that remains generally in one place for extended periods of time, for example most construction activities. Line source noise is generated by moving objects along a linear corridor, for example highway traffic noise. Noise generated by point and line sources have the potential to impact sensitive noise receptors, such as residences, hospitals, and schools. Persistent and escalating sources of sound are often considered annoyances and can interfere with normal activities, such as sleeping or conversation, such that these sounds could disrupt or diminish quality of life. To evaluate potential noise impacts, the various alternatives were reviewed to determine whether the proposed modernization efforts would:

- be in conflict with any prevailing local noise ordinances,
- result in unacceptable short-/long-term noise levels to workers or port personnel,
- result in unacceptable short-/long-term noise levels to visitors or pedestrian travelers,
- result in unacceptable short-/long-term noise levels to nearby sensitive receptors, or
- result in vibrations that could affect nearby sensitive receptors.

This section describes the potential impacts that could result from implementing the No Action Alternative, Alternative 1a, and Alternative 4. In particular, potential impacts to noise sensitive receptors (NSRs) including but not limited to nearby residences, schools, libraries, hospitals, nursing home facilities, and recreational areas.

Table 4-13 presents a summary of the potential noise impacts associated with each alternative as they relate to the criteria defined earlier (see Table 4-1). It is important to note that additional modeling is currently being conducted and will be included in the Final EIS.

Methodology

To evaluate the potential impacts from noise, the proposed action, the alternatives were analyzed to determine whether any activities have the potential to cause the following within the ROI. Construction and traffic-related noise were evaluated using two separate modeling approaches. Construction noise was analyzed using Cadna-A® while traffic noise was analyzed using the FHWA Traffic Noise Model (TNM) module.

Construction Noise Modeling Approach

Acoustic emission levels for activities associated with construction were based upon typical ranges of energy equivalent noise levels at construction sites, as documented by the USEPA (USEPA 1971) and the USEPA's "Construction Noise Control Technology Initiatives" (USEPA 1980). The USEPA methodology distinguishes between type of construction and construction phase. Using those energy equivalent noise levels as input to a basic propagation model, construction noise levels were calculated at set reference distances.

Table 4-13. Summary of Noise Impacts.

Environmental Attributes (Threshold Criteria)	No Action Impact (Magnitude and Duration)	Alternative 1a Impact (Magnitude and Duration)	Alternative 4 Impact (Magnitude and Duration)
Noise			
Would be in conflict with prevailing local noise ordinances? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Results in unacceptable short-/long-term noise levels to workers or port personnel? Any anticipated impacts?	No, None[1]	Yes, Short-Term Negligible Adverse Construction[1]	Yes, Short-Term Negligible Adverse Construction[1]
Results in unacceptable short-/long-term noise levels to visitors or pedestrian travelers? Any anticipated impacts?	No, None[1]	Yes, Short-Term Negligible Adverse Construction[1]	Yes, Short-Term Negligible Adverse Construction[1]
Results in unacceptable short-/long-term noise levels to nearby sensitive receptors? Any anticipated impacts?	Yes, Long-Term Minor to Moderate Adverse (Truck Idling)	Yes, Short-Term Negligible Adverse (Construction) Yes, Long-Term Minor to Moderate Adverse Truck Idling Yes, Long-Term Moderate to Significant Beneficial (Future No Truck Option) [2]	Yes, Short-Term Negligible Adverse Construction[1] Yes Long-Term Moderate to Significant Beneficial (Immediate Elimination of Truck Traffic)
Results in vibrations that could affect nearby sensitive receptors? Any anticipated impacts?	No, None	No, None[1]	No, None[1]

1 - Based on implementation of the mitigation/protective measures described in Section 2.6.2.6 and 2.6.3.6.
2 – Long-term minor to moderate adverse impact from southbound trucks idling would be eliminated should the future removal of all commercial cargo traffic be implemented. This is considered to be a long-term moderate to significant beneficial impact.

The basic model assumed spherical wave divergence from a point source located at the acoustic center of the BOTA LPOE. Furthermore, the model conservatively assumed that all pieces of construction equipment associated with an activity would operate simultaneously for the duration of that activity. An additional level of conservatism was built into the construction noise model by excluding potential shielding effects due to intervening structures and buildings along the propagation path from the site to receiver locations.

Operational Noise Modeling Approach

The Cadna-A® computer noise model was used to calculate sound pressure levels associated with Project operation and surrounding roadways. An industry standard, Cadna-A® was developed by DataKustik GmbH to provide an estimate of sound levels at distances from sources of known emission (DataKustik 2024). It is used by acousticians and acoustic engineers because it has the capability to accurately describe noise emission and propagation from complex facilities and developments, and it in most cases yields conservative sound pressure level results.

The current International Organization for Standardization (ISO) standard for outdoor sound propagation, ISO 9613 Part 2, “Attenuation of Sound during Propagation Outdoors,” was used within Cadna-A®. The

method described in this standard calculates sound attenuation under weather conditions that are favorable for sound propagation, such as downwind propagation or atmospheric inversion. The calculation of sound propagation from source to receiver locations consists of full octave-band sound frequency algorithms that incorporate the following physical effects:

- Geometric spreading wave divergence
- Reflection from surfaces
- Atmospheric absorption at 10 degrees Celsius and 70 percent relative humidity
- Screening by topography and obstacles
- Effects of terrain features including relative elevations of noise sources
- Sound power levels from stationary and mobile sources
- Locations of noise-sensitive land use types
- Intervening objects including buildings and barrier walls to the extent included in a project's design.
- Ground effects due to areas of pavement and unpaved ground
- Sound power at multiple frequencies
- Source directivity factors
- Multiple noise sources and source type (point, area, and/or line
- Average of a predicted sound levels over a given time period

Topographical information will be imported into the acoustic model using the official U.S. Geological Survey digital elevation dataset to accurately represent terrain in three dimensions. Terrain conditions, vegetation type, ground cover, and the density and height of foliage can also influence the absorption that takes place when sound waves travel over land. The ISO 9613-2 standard accounts for ground absorption rates by assigning a numerical coefficient of G=0 for acoustically hard, reflective surfaces and G=1.0 for absorptive surfaces and soft ground. If the ground is hard-packed dirt, which is typically found in industrial complexes, pavement, bare rock or for sound traveling over water, the absorption coefficient is defined as G=0.0 to account for reduced sound attenuation and higher reflectivity. In contrast, ground covered in vegetation, including suburban lawns and agricultural fields (both fallow with bare soil and planted with crops), will be acoustically absorptive and aid in sound attenuation (i.e., G=1.0). A combination of reflective (G=0) and mixed/semi-reflective (G=0.5) ground factors were used in the Project acoustic modeling analysis. In addition to geometrical divergence, attenuation factors include topographical features, terrain coverage, and/or other natural or anthropogenic obstacles that can affect sound attenuation and result in acoustical screening. To be conservative, sound attenuation through foliage and diffraction around and over existing anthropogenic structures such as buildings is ignored.

Cadna-A® was also used to calculate existing and predicted traffic noise levels. Cadna-A® uses the FHWA traffic noise modeling software (TNM 2.5) algorithms. The model primarily considers the number, type and speed of vehicles; highway alignment and grade; cuts, fills and natural berms; surrounding terrain features; and the locations of activity areas likely to be impacted by the associated traffic noise.

4.7.1 No Action Alternative

4.7.1.1 Construction Noise

Under the No Action Alternative, the proposed BOTA Project would not be developed; therefore, there would be no construction activities and their associated noise emissions. Therefore, this alternative is not evaluated further as it pertains to construction noise.

4.7.1.2 Traffic Noise

Under the No Action Alternative the proposed BOTA LPOE modernization would not occur; therefore, the noise generated by the operation of the port would increase based only on the expected growth. The projected traffic volume data was obtained from the EPMPO (see Appendix J for details). Table 4-14 provides details, showing traffic moving northbound, southbound, eastbound, and westbound on the connecting roadways including Interstate (I) 110, U.S. Highway 54, I-10 (East) and I-10 (West). No additional commercial truck traffic and the associated noise would be expected to utilize the Ysleta, Tornillo, or Santa Teresa LPOEs and therefore no noise increases would be anticipated at these ports.

Table 4-14. No Action Alternative 2029 Projected Traffic Volumes.

Roadway	2029 AADT
I-110 Northbound	28,734
I-110 Southbound	17,734
US 54 Northbound	34,973
US 54 Southbound	38,630
I-10 (East) Eastbound	102,655
I-10 (East) Westbound	102,028
I-10 (West) Eastbound	92,199
I-10 (West) Westbound	93,350

The No Action Alternative noise levels were modeled at identified noise sensitive receptors. This modeling established a baseline condition, which the alternatives can then be compared to. Table 4-15 provides the results of the No Action Alternative, which shows noise level ranging from 59 dBA to 73 dBA. There are twenty exceedances of the NAC category B levels at receptors under the No Action alternative. This is considered to be a long-term, minor adverse impact.

4.7.2 Viable Action Alternative 1a – Multi-Level Modernization (High/Low Booths) Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 12 acres – TxDOT)

4.7.2.1 Construction Noise

Under Alternative 1a, ambient noise levels within the vicinity of the BOTA LPOE would temporarily increase due to construction activity. Construction would require the use of heavy equipment that may be periodically audible at offsite locations. Received sound levels would fluctuate, depending on the construction activity, equipment type, and distance between noise source and receiver. The sound from construction equipment would vary dependent on the construction phase and the number and class of equipment at a location at any given time. Table 4-16 gives the anticipated construction equipment and usage estimates for Action Alternatives 1a and 4.

Table 4-15. No Action Alternative 2029 Noise Levels.

Receptor Number	Receptor Description	NAC Category	NAC Level (dBA $L_{eq)}$	No Action Noise Level (dBA L_{eq})
R1	Residential	B	67	59
R2	Residential	B	67	65
R3	Residential	B	67	66
R4	Bowie High School	C	67	61
R5	Bowie High School	C	67	68
R6	Residential	B	67	62
R7	Residential	B	67	68
R8	National Memorial	C	67	62
R9	Residential	B	67	67
R10	Residential	B	67	65
R11	Residential	B	67	73
R12	Residential	B	67	70
R13	Residential	B	67	72
R14	Zavala Elementary School	C	67	72
R15	Residential	B	67	69
R16	Residential	B	67	71
R17	Residential	B	67	74
R18	Mexican Cultural Institute	C	67	72
R19	B'nai Zion Cemetery	C	67	71
R20	Residential	B	67	71
R21	Residential	B	67	60
R22	Del Norte Courts Motel	E	72	64
R23	Crustal Mine Museum	C	67	71
R24	Residential	B	67	59
R25	Residential	B	67	62
R26a	El Paso Zoo	E	72	67
R26b	El Paso Zoo	E	72	70
R27	Paisano Green Community	C	67	69
R28	Residential	B	67	72
R29	Residential	B	67	70
R30	Residential	B	67	67
R31	Residential	B	67	69

Table 4-16. Construction Equipment and Usage Estimates

Equipment	Alternative 1a	Alternative 4
2 Project/Construction Trailers	1,185 days	1,135 days
35 to 50 Personal Vehicles	1,500 round trips (RT)[2]	1,500 round trips (RT)[2]
18-Wheel Flat Bed for Equipment and/or Materials Delivery	80 RT	70 RT
18-Wheel Covered Cargo/Box for Equipment and/or Materials Delivery	80 RT	70 RT
Mid-Sized Delivery Trucks	100 RT	80 RT
Large Wheeled Forklift	180 days	165 days
Small Forklift	240 days	210 days
Inspectors, Utility, and Other Pick-Up or Equivalent Trucks	120 RT	100 RT
Mid-Sized Drilling Rig	60 days	60 days
Large Drilling Rig	30 days	30 days
Scraper	45 days	30 days
Water Truck	120 days	100 days
Backhoe	120 days	100 days
Medium Track Excavator	90 days	75 days
Medium Wheel Loader	90 days	75 days
Medium Dozer	90 days	75 days
Medium Roller/Soil Compactor	30 days	30 days
Medium Pavement Sweeper	30 days	30 days
Wheeled/Tracked Drop Hammer	30 days	30 days
18-Wheel Open Bed Material Hauler	45 RT	45 RT
Mid-Sized Open Bed Material Hauler	60 RT	60 RT
Hydraulic Truck Crane	30 days	30 days
Concrete Pumping Truck	60 days	45 days
Concrete Mixing Truck	60 days	45 days
2- or 4-Person Bucket Truck/Lift	90 days	90 days
Welding Equipment, Generators, Misc. Power/Pneumatic Tools, Cutters, etc.	1,095 days	1,095 days

1 - Days are considered 10 hours of operation.
2 - Round trips are considered to be 20 miles in total distance (10 miles each way) on existing roadways.

The construction noise levels were evaluated using a screening-level analysis approach. The calculation methodology required the input of the number and type of construction equipment by phase as well as typical noise source levels associated with that equipment. The results of this evaluation are estimated composite sound levels at a distance of 50, 500, 1,000, and 2,000 feet as shown in Table 4-17.

Table 4-17. Anticipated Construction Equipment Noise Levels.

Equipment	Equipment Noise Level at 50 feet (dBA)	Equipment Noise Level at 500 feet (dBA)	Equipment Noise Level at 1,000 feet (dBA)	Equipment Noise Level at 2,000 feet (dBA)
2 Project/Construction Trailers	55	35	29	23
35 to 50 Personal Vehicles	55	35	29	23
18-Wheel Flat Bed for Equipment and/or Materials Delivery	84	64	58	52
18-Wheel Covered Cargo/Box for Equipment and/or Materials Delivery	84	64	58	52
Mid-Sized Delivery Trucks	84	64	58	52
Large Wheeled Forklift	80	60	54	48
Small Forklift	80	60	54	48
Inspectors, Utility, and Other Pick-Up or Equivalent Trucks	55	35	29	23
Mid-Sized Drilling Rig	84	64	58	52
Large Drilling Rig	84	64	58	52
Scraper	85	65	59	53
Water Truck	80	60	54	48
Backhoe	80	60	54	48
Medium Track Excavator	85	65	59	53
Medium Wheel Loader	80	60	54	48
Medium Dozer	85	65	59	53
Medium Roller/Soil Compactor	80	60	54	48
Medium Pavement Sweeper	85	65	59	53
Wheeled/Tracked Drop Hammer	90	70	64	58
18-Wheel Open Bed Material Hauler	84	64	58	52
Mid-Sized Open Bed Material Hauler	84	64	58	52
Hydraulic Truck Crane	85	65	59	53
Concrete Pumping Truck	82	62	56	50
Concrete Mixing Truck	85	65	59	53
2- or 4-Person Bucket Truck/Lift	85	65	59	53
Welding Equipment, Generators, Misc. Power/Pneumatic Tools, Cutters, etc.	73	53	47	41

Construction sound would be attenuated with increased distance from the source. Other factors, such as vegetation, terrain and obstacles such as buildings will act to further limit the impact of construction noise levels but were not considered in the analysis. The variation in power and usage imposes additional complexity in characterizing construction noise levels and the analysis conservatively assumes all phased

construction equipment operating simultaneously; however, equipment is generally not operated continuously.

Noise levels resulting from construction activities would vary significantly depending on several factors such as type and age of equipment, specific equipment manufacture and model, the operations being performed, and the overall condition of the equipment and exhaust system mufflers. Furthermore, all reasonable efforts will be made to minimize the impact of noise resulting from construction activities including implementation of standard noise reduction measures (see Section 2.6.2.6). Due to construction noise levels at the closest receptors being under the 90 dBA noise threshold (from the U.S. DOT Guidelines for Construction Noise Assessment for the daytime period) and the infrequent nature of loud construction activities at the site, the noise impact from construction activities are considered to be a short-term negligible adverse impact with conditions returning to normal once construction activities are complete.

Traffic noise generated during construction on- and off-site would also add to overall sound levels. Construction activity would generate traffic having potential noise effects, such as trucks traveling to and from the port on public roads but would be short-term on nature. Construction could generate noise levels that exceed the ambient levels and have the potential to cause a temporary and short-term disturbance. As such, the potential noise impact from construction traffic is considered to be a short-term negligible adverse impact.

4.7.2.2 Traffic Noise

The projected traffic volume data was obtained from the EPMPO. as well as data for future Alternatives 1a (with and without trucks). The EPMPO data provided as part of this effort is included in Appendix J. Other data is on file with the GSA due to the extensive amount of data provided for analysis. Tables 4-18 and 4-19 provide those details, showing traffic moving northbound, southbound, eastbound, and westbound on the connecting roadways including Interstate (I) 110, U.S. Highway 54, I-10 (East) and I-10 (West).

Table 4-18. Alternative 1a with Trucks 2029 Projected Traffic Volumes.

Roadway	2029 AADT
I-110 Northbound	28,575
I-110 Southbound	17,765
US 54 Northbound	34,805
US 54 Southbound	38,672
I-10 (East) Eastbound	102,383
I-10 (East) Westbound	101,756
I-10 (West) Eastbound	91,956
I-10 (West) Westbound	93,343

Table 4-19. Alternative 1a without Trucks 2029 Projected Traffic Volumes.

Roadway	2029 AADT
I-110 Northbound	29,079
I-110 Southbound	17,238
US 54 Northbound	34,858
US 54 Southbound	38,632
I-10 (East) Eastbound	102,542
I-10 (East) Westbound	102,486
I-10 (West) Eastbound	92,265
I-10 (West) Westbound	93,437

Alternative 1a is considered to be a compact and land-efficient design/site layout. It is a multi-level design, with the majority of port operations located on the existing site, with FMCSA inspections co-located with TxDOT to the east and the kennel and auxiliary training facility located on the east site as well.

With this design/site layout, inbound traffic capacity would be increased by the addition of six primary POV lanes and four additional commercial lanes. The new POV primary booth would be just east of the existing booth, mainly occupying the existing building location. The addition of the six lanes would allow more processing booths for inbound traffic with the traffic flow following the existing route as they get inspected by CBP. Once cleared, all vehicles would be directed towards the western part of the port where there are four exit lanes of traffic that would allow connection to I-110 and East Paisano Dr. (Hwy 62). If required to go to secondary inspection, there would be 42 dock locations where POVs could be inspected just north of the primary inspection. Minor modifications to the Paisano Drive (Hwy 62) access point would also be provided.

As such, Alternative 1a (with and without trucks) is expected to result in a decrease in volume traffic relative to the No Action Alternative or existing conditions. Predicted traffic noise levels were modeled at receptor locations and are provided below in Tables 4-20 and 4-21, which represent the land uses adjacent to the BOTA LPOE that could be impacted by traffic noise. The predicted change in traffic-related noise levels at receptors range from -1 dBA to 0 dBA showing the same or decrease in sound levels due to reduced traffic volumes. A change in traffic-related noise levels of -1 dBA indicates an improvement relative to the No Action Alternative. An increase of 3 dB or less has been considered a less than significant impact because this change in noise level is considered barely perceptible. Exceedances of the applicable NAC levels remain but the results reflect an improvement relative to the No Action Alternative. Therefore, the noise impact from Alternative 1a with and without trucks would be expected to result in long-term minor negative impacts (see Tables 3-30 and 3-31 for sensitive receptor locations).

Table 4-20. Alternative 1a (with Trucks) Noise Levels.

Receptor Number	Receptor Description	NAC Category	NAC Level (dBA L_{eq})	Modeled Noise Level (dBA L_{eq})	Increase to No Action Noise Level (dB)
R1	Residential	B	67	59	0
R2	Residential	B	67	64	-1
R3	Residential	B	67	65	-1
R4	Bowie High School	C	67	60	-1
R5	Bowie High School	C	67	68	0
R6	Residential	B	67	61	-1
R7	Residential	B	67	67	-1
R8	National Memorial	C	67	62	0
R9	Residential	B	67	66	-1
R10	Residential	B	67	64	-1
R11	Residential	B	67	73	0
R12	Residential	B	67	70	0
R13	Residential	B	67	72	0
R14	Zavala Elementary School	C	67	72	0
R15	Residential	B	67	69	0
R16	Residential	B	67	71	0
R17	Residential	B	67	74	0
R18	Mexican Cultural Institute	C	67	72	0
R19	B'nai Zion Cemetery	C	67	71	0
R20	Residential	B	67	71	0
R21	Residential	B	67	60	0
R22	Del Norte Courts Motel	E	72	64	0
R23	Crustal Mine Museum	C	67	71	0
R24	Residential	B	67	58	0
R25	Residential	B	67	62	0
R26a	El Paso Zoo	E	72	67	0
R26b	El Paso Zoo	E	72	70	0
R27	Paisano Green Community	C	67	69	0
R28	Residential	B	67	72	0
R29	Residential	B	67	70	0
R30	Residential	B	67	67	0
R31	Residential	B	67	69	0

Table 4-21. Alternative 1a (without Trucks) Noise Levels.

Receptor Number	Receptor Description	NAC Category	NAC Level (dBA L_{eq})	Modeled Noise Level (dBA L_{eq})	Increase to No Action Noise Level (dB)
R1	Residential	B	67	59	0
R2	Residential	B	67	65	0
R3	Residential	B	67	66	0
R4	Bowie High School	C	67	61	0
R5	Bowie High School	C	67	68	0
R6	Residential	B	67	62	0
R7	Residential	B	67	68	0
R8	National Memorial	C	67	62	0
R9	Residential	B	67	67	0
R10	Residential	B	67	65	0
R11	Residential	B	67	73	0
R12	Residential	B	67	70	0
R13	Residential	B	67	72	0
R14	Zavala Elementary School	C	67	72	0
R15	Residential	B	67	69	0
R16	Residential	B	67	71	0
R17	Residential	B	67	74	0
R18	Mexican Cultural Institute	C	67	72	0
R19	B'nai Zion Cemetery	C	67	71	0
R20	Residential	B	67	71	0
R21	Residential	B	67	60	0
R22	Del Norte Courts Motel	E	72	64	0
R23	Crustal Mine Museum	C	67	71	0
R24	Residential	B	67	59	0
R25	Residential	B	67	62	0
R26a	El Paso Zoo	E	72	68	0
R26b	El Paso Zoo	E	72	70	0
R27	Paisano Green Community	C	67	69	0
R28	Residential	B	67	72	0
R29	Residential	B	67	70	0
R30	Residential	B	67	67	0
R31	Residential	B	67	69	0

4.7.3 Viable Action Alternative 4 – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (Approximately 4 acres – TxDOT) and Elimination of Commercial Cargo Operations

4.7.3.1 Construction Noise

Like Alternative 1a, implementing this alternative would be expected to result in no significant noise impacts, however, a short-term negligible to minor increase above existing levels could be expected throughout the duration of construction activities. Unlike the previous alternative, this alternative consists only of demolition/construction only within the immediate port boundaries and immediately adjacent to the port (i.e., current TxDOT ROW). These activities would take place over 1,000 feet from the Paisano Green Community (senior residential living) located to the east. As such, only short-term negligible adverse noise impacts in the area would be anticipated and when construction activities are completed, conditions would return to normal. It should also be noted, that with the elimination of commercial truck traffic as part of this alternative, any existing noise associated with trucks idling would also be eliminated, resulting in an expected long-term moderate to significant beneficial impact.

4.7.3.2 Traffic Noise

The projected traffic volume data for Alternative 4 was obtained from the El Paso Metropolitan Planning Organization as well as data for future Alternatives 1a (with and without trucks). Table 4-22 provides those details, showing traffic moving northbound, southbound, eastbound, and westbound on the connecting roadways including Interstate (I) 110, U.S. Highway 54, I-10 (East) and I-10 (West).

Table 4-22. Alternative 4 2029 Traffic Volumes.

Roadway	2029 AADT
I-110 Northbound	28,599
I-110 Southbound	17,606
US 54 Northbound	34,790
US 54 Southbound	38,676
I-10 (East) Eastbound	102,352
I-10 (East) Westbound	101,656
I-10 (West) Eastbound	91,934
I-10 (West) Westbound	93,343

Under this alternative, inbound pedestrians and bus passengers would be processed in a more streamlined manner. Buses would be routed through NII lanes to the far east side of the port for CBP and FMCSA inspections before exiting and collecting passengers at the Paisano pickup plaza. All POV inspection lanes and booths would be aligned across the site on a general east-west axis. This axis would be bisected by the main building and pedestrian/bus processing along a central spine that connects the inbound bridge lanes with a new pick-up plaza along East Paisano Drive. Outbound vehicle, bus and pedestrian processing would remain relatively like the previous alternative. There would be four non-commercial vehicle inspection lanes (with space and infrastructure for four additional future lanes), six secondary inspection bays, and a small building to house pedestrian processing and outbound support functions. With all lanes in alignment along a transverse axis, this alternative would provide operational adaptability to reassign inbound lanes to outbound inspections as required.

Similar to Alternative 1a future no trucks option, this alternative would be expected to result in a decrease in volume traffic relative to the No Action Alternative or existing conditions. Predicted traffic noise levels were modeled at receptor locations which represent the land use activity areas adjacent to the proposed project that might be impacted by traffic noise (Table 4-23). The predicted change in traffic-related noise levels at receptors are shown to be less than 1 dB relative to the No Action Alternative. An increase of 3 dB or less is considered a less than significant impact because this change in noise level is considered barely perceptible. Exceedances of the applicable NAC levels remain but the results reflect an improvement relative to the No Action Alternative (i.e., a long-term minor beneficial impact).

Table 4-23. Alternative 4 Noise Levels.

Receptor Number	Receptor Description	NAC Category	NAC Level (dBA L_{eq})	Modeled Noise Level (dBA L_{eq})	Increase to No Action Noise Level (dB)
R1	Residential	B	67	59	0
R2	Residential	B	67	65	0
R3	Residential	B	67	66	0
R4	Bowie High School	C	67	61	0
R5	Bowie High School	C	67	68	0
R6	Residential	B	67	62	0
R7	Residential	B	67	68	0
R8	National Memorial	C	67	62	0
R9	Residential	B	67	67	0
R10	Residential	B	67	65	0
R11	Residential	B	67	73	0
R12	Residential	B	67	70	0
R13	Residential	B	67	72	0
R14	Zavala Elementary School	C	67	72	0
R15	Residential	B	67	69	0
R16	Residential	B	67	71	0
R17	Residential	B	67	74	0
R18	Mexican Cultural Institute	C	67	72	0
R19	B'nai Zion Cemetery	C	67	71	0
R20	Residential	B	67	71	0
R21	Residential	B	67	60	0
R22	Del Norte Courts Motel	E	72	64	0
R23	Crustal Mine Museum	C	67	71	0
R24	Residential	B	67	59	0
R25	Residential	B	67	62	0
R26a	El Paso Zoo	E	72	67	0
R26b	El Paso Zoo	E	72	70	0
R27	Paisano Green Community	C	67	69	0

Table 4-23 (cont.). Alternative 4 Noise Levels.

Receptor Number	Receptor Description	NAC Category	NAC Level (dBA $L_{eq)}$	Modeled Noise Level (dBA L_{eq})	Increase to No Action Noise Level (dB)
R28	Residential	B	67	72	0
R29	Residential	B	67	70	0
R30	Residential	B	67	67	0
R31	Residential	B	67	69	0

4.8 Traffic (Vehicular and Pedestrian), Transportation, and Parking

As mentioned earlier, the effects of an increase in vehicles or increased traffic flow in a given area as well as a need for increased parking can have an effect on existing homes and/or businesses in a particular area as well as those that visit the area. Increases in traffic or changes in traffic patterns can also negatively impact pedestrian traffic flow in a given area. Increases in pedestrian traffic flow as a result of a new or changed use can also be an issue when it comes to overall safety for the traveling public and employees at a particular facility. It is important that the local road network (existing or planned) can handle any potential added capacity and that appropriate measures are taken to account for pedestrian traffic and vehicle parking. Construction or renovation of a new facility can also result in temporary traffic delays and/or traffic reroutes (both vehicular and pedestrian) in the area which can also result in vehicle/pedestrian conflicts and overall safety concerns. To evaluate the potential traffic and parking impacts the various alternatives were reviewed to determine whether the proposed modernization efforts would result in a/an:

- change in vehicular traffic congestion, delays, or safety risks on roadways;
- change in the LOS on roadways;
- change in the operating capacity of the LPOEs; and
- change in pedestrian and bicycle activity.

A significant adverse impact to transportation facilities would occur if the action would result in:

- increase in traffic volumes that would exceed the capacity of local roadways and intersections within the study area (i.e., significant degradation of LOS);
- increase in traffic volumes resulting in deficient operations at the LPOEs;
- increase in traffic resulting in traffic hazards to workers and users at the LPOEs; and
- disruption or interference with existing pedestrian and bicycle facilities.

Table 4-24 presents a summary of the potential traffic, transportation, and/or parking impacts associated with each alternative as they relate to the criteria defined earlier (see Table 4-1). It is important to note that additional modeling is currently being conducted and will be included in the Final EIS. Current data utilized in the Draft modeling is included in Appendix J.

Table 4-24. Summary of Traffic Impacts.

Environmental Attributes (Threshold Criteria)	No Action Impact (Magnitude and Duration)	Alternative 1a Impact (Magnitude and Duration)	Alternative 4 Impact (Magnitude and Duration)
Traffic (Vehicular and Pedestrian), Transportation and Parking			
Would result in a change in vehicular traffic congestion, delays, or safety risks on roadways? Any anticipated impacts?	No, None (no construction) Yes, Minor-Moderate (approaching significant) Long-Term Adverse (SB truck traffic, increased traffic over time w/ no improvements)	Yes, Negligible-Minor Short-Term Adverse (Construction)[1] Yes, Moderate-Significant Long-Term Adverse Operations (SB truck traffic)[2]	Yes, Negligible-Minor Short-Term Adverse (Construction)[1] Yes, Moderate to Significant Long-Term Beneficial (elimination of truck traffic)
Would result in change in the LOS on roadways? Any anticipated impacts?	No, Minor-Moderate Long-Term Negative	Yes, Minor-Moderate Long-Term Adverse Operations (Alt 1a without truck traffic)	No, Minor-Moderate Long-Term Beneficial
Would result in change in the operating capacity of the LPOEs? Any anticipated impacts?	No, Minor-Moderate Long-Term Negative	No, Minor-Moderate Long-Term Beneficial	No, Minor-Moderate Long-Term Beneficial
Would result in change in pedestrian and bicycle activity? Any anticipated impacts?	No, None	No, Minor- Long-Term Beneficial	No, Minor- Long-Term Beneficial

1 - Based on implementation of the mitigation/protective measures described in Section 2.6.2.6 and 2.6.3.6.
2 – Long-term moderate to significant adverse impact from southbound trucks idling would be eliminated should the future removal of all commercial cargo traffic be implemented. This is considered to be a long-term moderate to significant beneficial impact.

Growth Rates

Several resources were referenced to determine an appropriate growth rate for potential future traffic conditions. Historical TxDOT volumes showed fluctuating traffic volumes in the area over the years. Based on the available growth indices from the TxDOT statewide planning map, a 2.0% compounded annual growth rate was selected to grow historical counts to 2029 future conditions.

In addition to documenting the volume of POVs and COVs at the LPOEs, the El Paso MPO also documented the volume of pedestrians crossing the border. Once in the El Paso area, pedestrians would potentially continue to walk to their destination or take a vehicle (such as a single-passenger vehicle or a ride-share/van) to arrive at their destination. While it is challenging to document exactly how an increase in pedestrian activity at the LPOEs with the proposed enhancements would affect the roadway volumes and congestion within the ROI, the assumed background population growth in the El Paso area would be expected to account for this.

Evaluation Scenarios

To estimate the impact to traffic volumes and assess any adverse effects to roadway segments for the project alternatives, traffic analyses were conducted for the year 2029 (expected substantial completion of construction for the proposed Commercial LPOE under Alternative 1a and Alternative 4). The 2022 existing conditions and projected baseline conditions (for the years 2029) were also evaluated to establish a baseline for comparison (i.e., traffic conditions under the No Action Alternative).

Thresholds

The roadway segments were evaluated for operational deficiencies without and with the proposed LPOE modifications. The highway capacity analysis was performed using the Highway Capacity Software (HCS) version 2024, with both the Freeways and Two-Lane Segment modules for the applicable highways and roadway segment. First, growth calculations were conducted to determine the average daily traffic anticipated on each roadway segment for the analysis year, and the roadway segments were categorized by their professional classification and number of through lanes. The analysis was based on the geometric assumptions provided earlier

LOS for a roadway segment is graded from A to F, with A representing free flow conditions and F representing forced or breakdown flow with stop and go conditions. Cities and municipalities consider LOS A through D as representing adequate operating conditions and LOS E or F representing unacceptable operating conditions; therefore, requiring roadway improvements. The Highway Capacity Manual (HCM) specifies the LOS criteria for a basic freeway segment shown in Table 4-25. The analysis was based on the geometric inputs and assumptions given in Table 4-26**.**

Table 4-25. Definition of Level-of-Service Criteria for Basic Freeway Segments.

LOS	Traffic Condition	Density
A	Free Flow	<= 11
B	Light congestion	> 11 <= 18
C	Stable flow with lower speeds	> 18 <= 26
D	High density with stable flow	> 26 <= 35
E	Severe congestion	> 35 <= 45
F	Total breakdown	> 45

Source: Highway Capacity Manual

4.8.1 No Action Alternative

Under the No Action Alternative, the GSA would not satisfy the purpose and need for action by renovating/updating the BOTA LPOE to bring infrastructure in line with current CBP land port design standards (i.e., CBP Land Port of Entry Design Standard [CBP 2018]) and operational requirements while addressing existing deficiencies identified with the ongoing port operations. Therefore, vehicular trip generation and distribution of traffic on the local and regional roadways would remain unchanged from baseline conditions.

Future traffic conditions under projected baseline conditions (i.e., the No Action Alternative) were calculated to provide a baseline comparison of the impacts for Alternative 1a and Alternative 4. The 2% compounded annual growth rate (reflecting anticipated growth conditions) was applied to the 2023 TxDOT AADT to estimate the future 2029 traffic volumes under the projected baseline conditions. The average daily traffic summaries for the 2029 projected baseline conditions are provided in Table 4-27 and 4-28.

Under the No Action Alternative, roadway segments within the ROI are anticipated to continue operating at acceptable LOS levels in 2029, as summarized in Tables 4-27 and 4-28, except at I-10 East of US 54 and I-10 West of US 54 which will operate at LOS F in the peak hour analysis period. This is mainly a result of the peak hour volume exceeding the maximum capacity of the roadways. I-10 East of US 54 and I-10 West of US 54 will see a an average of about 2,560 and 2,320 vehicles per hour per lane, respectively, compared to a maximum capacity of 2,300 vehicles, per hour, per lane. Overall, long-term, minor to moderate adverse impacts to transportation and traffic would be expected under the No Action Alternative.

Table 4-26. Level-of-Service Criteria for Basic Freeway Segments.

Location	Roadway	No. of Lanes	Free Flow Speed	Terrain	PHF	% Trucks (2023 Data)	All Familiar Users	K Factor
BOTA								
	I-110	2	55	Level	0.94	3.5	Yes	10%
	US 54	3	60	Level	0.94	4.1	Yes	10%
	I-10 East of US 54	4	60	Level	0.94	8.7	Yes	10%
	I-10 West of US 54	4	60	Level	0.94	8.2	Yes	10%
Ysleta								
	Loop 375 West of Ysleta Border Crossing	2	60	Level	0.94	6.6	Yes	10%
	Loop 375 East of Ysleta Border Crossing	2	60	Level	0.94	10.2	Yes	10%
	I-10 North of Loop 375	4	60	Level	0.94	9.1	Yes	10%
	I-10 South of Loop 375	4	60	Level	0.94	14.6	Yes	10%
Tornillo								
	FM 3380 North of Tornillo Border Crossing	1	55	Level	0.94	5.5	Yes	10%
	I-10 West of FM 3380	2	75	Level	0.94	36.4	Yes	10%
	I-10 East of FM 3380	2	75	Level	0.94	36.2	Yes	10%
Santa Teresa								
	SH 178 East of Westside Dr	2	60	Level	0.94	9.3	Level	8%
	I-10 North of SH 178	2	75	Level	0.94	25.6	Level	10%
	I-10 South of SH 178	2	75	Level	0.94	14.9	Level	10%

Traffic operational analysis for the No Action Alternative at the Santa Teresa LPOE, shows that roadway segments within the ROI are anticipated to operate with sufficient capacity and at acceptable LOS levels in 2029, except at I-10 South of SH 178 which will operate at LOS E in the peak hour analysis period. Similar traffic operational results will be experienced along the roadways within the ROI for the Tornillo LPOE; all the study roadway segments are anticipated to operate with sufficient capacity and at acceptable LOS levels in 2029. For the Ysleta LPOE, potential impacts to transportation and traffic under the No Action Alternative show that the roadway segments within the ROI are anticipated to operate over capacity and at unacceptable LOS levels in 2029 except the westbound traffic along Loop 375 in the vicinity of Ysleta border crossing; which will operate at LOS C west of Ysleta crossing and LOS D east of Ysleta crossing. Overall, long-term, minor to moderate adverse impacts to transportation and traffic would be expected as volume grows in the ROI.

Table 4-27. 2029 Projected No Action Alternative LOS Results at the BOTA LPOE.

Roadway	Direction	# Thru Lanes	Classification	ADT	Max Capacity (veh/hr/ln)	Peak Hour Volume (veh/hr)	V/C Ratio	Density	LOS
I-110	NB	2	Interstate	28,734	2,250	2,873	0.70	28.8	D
I-110	SB	2	Interstate	17,734	2,250	1,173	0.43	17.7	B
US 54	NB	3	Principal Arterial	34,793	2,300	3,479	0.56	16.0	B
US 54	SB	3	Principal Arterial	38,630	2,300	3,863	0.62	17.8	B
I-10 East of US 54	EB	4	Interstate	102,655	2,300	10,266	1.29	45.0	F
I-10 East of US 54	WB	4	Interstate	102,028	2,300	10,203	1.28	45.0	F
I-10 West of US 54	EB	4	Interstate	92,199	2,300	9,220	1.15	45.0	F
I-10 West of US 54	WB	4	Interstate	93,350	2,300	9,335	1.17	45.0	F

Table 4-28. 2029 Projected No Action Alternative LOS Results at Ysleta, Tornillo, and Santa Teresa.

Roadway	Direction	# Thru Lanes	Classification	ADT	Max Capacity (veh/hr/ln)	Peak Hour Volume (veh/hr)	V/C Ratio	Density	LOS
Ysleta									
Loop 375 West of Ysleta	EB	2	*Not available*	34,748	2,300	3,475	0.89	36.1	E
Loop 375 West of Ysleta	WB	2	*Not available*	22,946	2,300	2,295	0.59	22.4	C
Loop375 East of Ysleta	EB	2	*Not available*	40,070	2,300	4,007	0.99	43.9	E
Loop375 East of Ysleta	WB	2	*Not available*	31,989	2,300	3,199	0.79	30.6	D
I-10 North of Loop 375	NB	4	Interstate	88,271	9,200	10,240	1.11	41.3	F
I-10 North of Loop 375	SB	4	Interstate	97,561	9,200	11,318	1.23	41.3	F
I-10 South of Loop 375	NB	4	Interstate	70,949	9,200	8646,	0.94	34.7	F
I-10 South of Loop 375	SB	4	Interstate	58,953	9,200	7,184	0.78	30.3	E

Table 4-28 (cont.). 2029 Projected No Action Alternative LOS Results at Ysleta, Tornillo, and Santa Teresa.

Roadway	Direction	# Thru Lanes	Classification	ADT	Max Capacity (veh/hr/ln)	Peak Hour Volume (veh/hr)	V/C Ratio	Density	LOS
Tornillo									
FM 3380 North of Tornillo	NB	1	Principal Arterial	1,032	1,700	110	0.06	0.4	A
FM 3380 North of Tornillo	SB	1	Principal Arterial	782	1,700	83	0.05	0.2	A
I-10 West of FM 3380	EB	2	Interstate	13,092	2,400	1,309	0.40	12.6	B
I-10 West of FM 3380	WB	2	Interstate	11,203	2,400	1,120	0.34	10.8	A
I-10 East of FM 3380	EB	2	Interstate	11,229	2,400	1,123	0.34	10.9	A
I-10 East of FM 3380	WB	2	Interstate	13,593	2,400	1,359	0.41	13.1	B
Santa Teresa									
SH 178 East of Westside Dr.	EB	2	*Not available*	11,678	2,300	934	0.24	9.0	A
SH 178 East of Westside Dr.	WB	2	*Not available*	12,097	2,400	106	-1.00	0.0	A
I-10 North of SH 178	NB	2	Interstate	29,532	2,400	2,953	0.82	30.6	D
I-10 North of SH 178	SB	2	Interstate	24,348	2,400	2,435	0.68	23.0	C
I-10 South of SH 178	NB	2	Interstate	38,605	2,400	3,860	0.98	43.2	E
I-10 South of SH 178	SB	2	Interstate	35,268	2,400	3,527	0.90	35.8	E

4.8.2 Viable Action Alternative 1a – Multi-Level Modernization (High/Low Booths) Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 12 acres – TxDOT)

Alternative 1a is considered to be a compact and land-efficient design/site layout. This alternative has a multi-level design, with the majority of port operations located on the existing site, with FMCSA inspections co-located with TxDOT to the east and the kennel and auxiliary training facility located on the east site as well.

With this design/site layout, inbound traffic capacity would be increased by the addition of six primary POV lanes and four additional commercial lanes. The new POV primary booth would be just east of the existing booth, mainly occupying the existing building location. The addition of the six lanes would allow more processing booths for inbound traffic with the traffic flow following the existing route as they get inspected by CBP. Once cleared, all vehicles would be directed towards the western part of the port where there are four exit lanes of traffic that would allow connection to I-110 and East Paisano Dr. (Hwy 62).

The 2029 operational evaluation combines the growth of the existing traffic volumes and the anticipated changes to traffic on the surrounding roadway network. As discussed earlier, an “anticipated growth”

scenario where a 2% growth rate would occur for population/POV and COV growth. The results of the 2029 operational evaluation for Alternative 1a are summarized in Table 4-29 and 4-30.

Under Alternative 1a, beneficial impacts to traffic and transportation resources would be long-term and minor to moderate overall; the BOTA LPOE would experience a long-term, beneficial impact by improving vehicular and pedestrian traffic flow and processing times. This alternative only evaluated the traffic at BOTA.

Table 4-29. 2029 Projected Alternative 1a LOS Results (BOTA LPOE).

Roadway	Direction	# Thru Lanes	Classification	ADT	Max Capacity (veh/hr/ln)	Peak Hour Volume (veh/hr)	V/C Ratio	Density	LOS
I-110	NB	2	Interstate	28,575	2,250	2,858	0.70	28.6	D
I-110	SB	2	Interstate	17,765	2,250	1,777	0.43	17.8	B
US 54	NB	3	Principal Arterial	34,805	2,300	3,481	0.42	16.0	B
US 54	SB	3	Principal Arterial	38,672	2,300	3,867	0.47	17.8	B
I-10 East of US 54	EB	4	Interstate	102,383	9,200	11,839	1.29	45.0	F
I-10 East of US 54	WB	4	Interstate	101,756	9,200	11,767	1.28	45.0	F
I-10 West of US 54	EB	4	Interstate	91,956	9,200	10,588	1.15	45.0	F
I-10 West of US 54	WB	4	Interstate	93,343	9,200	10,747	1.17	45.0	F

Table 4-30. 2029 Projected Alternative 1a (No Trucks Option) LOS Results (BOTA LPOE).

Roadway	Direction	# Thru Lanes	Classification	ADT	Max Capacity (veh/hr/ln)	Peak Hour Volume (veh/hr)	V/C Ratio	Density	LOS
I-110	NB	2	Interstate	29,079	2,250	2,908	0.71	29.1	D
I-110	SB	2	Interstate	19,238	2,250	1,924	0.47	19.3	C
US 54	NB	3	Principal Arterial	34,858	2,300	3,486	0.42	16.1	B
US 54	SB	3	Principal Arterial	38,632	2,300	3,863	0.46	17.8	B
I-10 East of US 54	EB	4	Interstate	102,542	9,200	11,857	1.29	45	F
I-10 East of US 54	WB	4	Interstate	102,486	9,200	11,851	1.29	45	F
I-10 West of US 54	EB	4	Interstate	92,256	9,200	10,621	1.15	45	F
I-10 West of US 54	WB	4	Interstate	93,437	9,200	10,758	1.17	45	F

Under Alternative 1a with trucks, some of the roadways within the ROI are anticipated to continue operating over capacity and with unacceptable LOS levels for the year analyzed, as summarized in Table 4-29 and Table 4-30. I-10 East and West of US 54 will experience LOS F and operate at over capacity, while the other roadways would continue to operate at acceptable LOS and with sufficient capacity. Similar results were observed under Alternative 1a without trucks along the same roadways within the ROI; however, I-110 would experience a slight deterioration in LOS, going from LOS B to LOS C. Overall, long-term, minor to moderate adverse impacts to transportation and traffic would be expected under the Alternative 1a.

Vehicular traffic volumes in the city along the study roadway networks with Alternative 1a would experience a net decrease with the option with trucks compared to without Trucks. It is uncertain how the increased efficiency of the modernized port would impact future traffic volumes; however, because the BOTA LPOE would be upgraded and with the option to remove trucks, there would be more POVs passing through per hour as processing times would likely decrease. Additionally, the traffic analysis assumed a conservative growth rate of 2% to estimate the increase in POV traffic volumes. As such, vehicular traffic volumes at the BOTA LPOE could increase beyond the analysis year 2029, thus leading to more traffic volumes and long-term, minor to moderate indirect adverse impacts to transportation resources. The measures outlined earlier in Section 2.6.2.6 would help to reduce/minimize overall construction and on-going operational impacts. Additionally, consideration should be given by TxDOT, FHWA, and/or the EPMPO with regards to additional regional traffic/transportation studies in an effort to improve the existing and modelled future traffic operations along the roadways that are currently at or over capacity or that have been modeled to be so by 2029 (with or without implementation of this alternative).

4.8.3 Viable Action Alternative 4 – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (Approximately 4 acres – TxDOT) and Elimination of Commercial Cargo Operations

Alternative 4 is considered to be a compact and land-efficient design/site layout with the existing site utilized for POV, bus, and pedestrian traffic. As part of this alternative, there would no longer be commercial cargo operations at the port, instead, the number of POV lanes would substantially increase. Under Alternative 4, construction of the proposed improvements to the LPOE would result in long- term, minor to moderate, beneficial impacts to transportation resources and traffic levels, and temporary minor adverse impacts to pedestrian facilities.

The 2029 operational evaluation combines the growth of the existing traffic volumes and the anticipated changes to traffic on the surrounding roadway network. As discussed earlier, an “anticipated growth” scenario where a 2% growth rate would occur for population/POV and COV growth. The traffic analysis for this alternative was performed for the surrounding roadway network along all study LPOEs: BOTA, Santa Teresa, Tornillo, and Ysleta LPOEs. The results of the 2029 operational evaluation for Alternative 4 are summarized in Table 4-31.

Potential impacts to transportation and traffic under Alternative 4 for the BOTA LPOE, would be similar to those discussed under Alternative 1a. Compared to Alternative 1a, vehicular traffic volumes along the study roadway networks in the ROI would experience a net decrease of about 11%. As shown in Table 4-31, the roadways within the ROI are anticipated to continue operating over capacity and with unacceptable LOS levels for the year analyzed, similar to alternative 1a with Truck. However, Alternative 4 will provide a better overall volume to capacity ratio than Alternative 1a; which means that the roadway operational capacity is better with Alternative 4.

Traffic operational analysis for Alternative 4 at the Santa Teresa LPOE, shows that roadway segments within the ROI are anticipated to continue operating with sufficient capacity and at acceptable LOS levels in 2029, except at I-10 South of SH 178 which will operate at LOS E in the peak hour analysis period. Similar traffic operational results will be experienced along the roadways within the ROI for the Tornillo LPOE; all the study roadway segments are anticipated to continue operating with sufficient capacity and at acceptable LOS levels in 2029. For the Ysleta LPOE, potential impacts to transportation and traffic under Alternative 4 show that the roadway segments within the ROI are anticipated to operate over capacity and at unacceptable LOS levels in 2029. Overall, long-term, minor to moderate adverse impacts to transportation and traffic would be expected under Alternative 4 for the BOTA and Ysleta LPOEs. Similar to the previous alternative, the measures outlined earlier in Section 2.6.3.6 would help to reduce/minimize overall construction and on-going operational impacts. Additionally, consideration should be given by

TxDOT, FHWA, and/or the EPMPO with regards to additional regional traffic/transportation studies in an effort to improve the existing and modelled future traffic operations along the roadways that are currently at or over capacity or that have been modeled to be so by 2029 (with or without implementation of this alternative).

Table 4-31. 2029 Projected Alternative 4 LOS Results.

Roadway	Direction	# Thru Lanes	Classification	ADT	Max Capacity (veh/hr/ln)	Peak Hour Volume (veh/hr)	V/C Ratio	Density	LOS
BOTA									
I-110	NB	2	Interstate	28,599	2,250	2,860	0.70	28.6	D
I-110	SB	2	Interstate	17,606	2,250	1,761	0.43	17.6	B
US 54	NB	3	Principal Arterial	34,790	2,300	3,479	0.42	16	B
US 54	SB	3	Principal Arterial	38,676	2,300	3,867	0.47	17.8	B
I-10 East of US 54	EB	4	Interstate	102,352	2,300	10,235	1.21	45	F
I-10 East of US 54	WB	4	Interstate	101,656	2,300	10166	1.20	45	F
I-10 West of US 54	EB	4	Interstate	91,934	2,300	9,193	1.15	45	F
I-10 West of US 54	WB	4	Interstate	93,343	2,300	9,334	1.17	45	F
Ysleta									
Loop 375 West of Ysleta	EB	2	*Not available*	4,010	2,300	4,010	0.99	43.9	E
Loop 375 West of Ysleta	WB	2	*Not available*	3,200	2,300	3,200	0.79	30.6	D
Loop375 East of Ysleta	EB	2	*Not available*	34,867	2,300	3,487	0.89	36.3	E
Loop375 East of Ysleta	WB	2	*Not available*	22963	2,300	2,296	0.59	22.4	C
I-10 North of Loop 375	NB	4	Interstate	88,001	9,200	10,209	1.11	45	F
I-10 North of Loop 375	SB	4	Interstate	97,560	9,200	11,318	1.23	45	F
I-10 South of Loop 375	NB	4	Interstate	70,974	9,200	8,648	0.94	39.8	F
I-10 South of Loop 375	SB	4	Interstate	58,990	9,200	7,188	0.78	30.3	F

Table 4-31 (cont.). 2029 Projected Alternative 1a LOS Results.

Roadway	Direction	# Thru Lanes	Classification	ADT	Max Capacity (veh/hr/ln)	Peak Hour Volume (veh/hr)	V/C Ratio	Density	LOS
Tornillo									
FM 3380 North of Tornillo	NB	1	Principal Arterial	1,062	1,700	113	0.07	0.4	A
FM 3380 North of Tornillo	SB	1	Principal Arterial	805	1,700	86	0.05	0.2	A
I-10 West of FM 3380	EB	2	Interstate	11,250	2,400	1,309	0.4	12.6	B
I-10 West of FM 3380	WB	2	Interstate	13,619	2,400	1,120	0.34	10.8	A
I-10 East of FM 3380	EB	2	Interstate	13,092	2,400	1,125	0.34	10.9	A
I-10 East of FM 3380	WB	2	Interstate	11,203	2,400	1,362	0.41	13.2	B
Santa Teresa									
SH 178 East of Westside Dr.	EB	2	*Not available*	11,720	2,300	938	0.24	9.1	A
SH 178 East of Westside Dr.	WB	2	*Not available*	12,139	2,300	971	0.25	9.4	A
I-10 North of SH 178	NB	2	Interstate	29,563	2,400	2,956	0.82	30.6	D
I-10 North of SH 178	SB	2	Interstate	24,401	2,400	2,440	0.68	23.1	C
I-10 South of SH 178	NB	2	Interstate	38,648	2,363	3,865	0.98	43.4	E
I-10 South of SH 178	SB	2	Interstate	35,328	2,400	3,533	0.9	35.9	E

4.9 Air Quality (including Greenhouse Gas Emissions)

As mentioned earlier in Section 3.9, El Paso County is located within AQCR 153 – the El Paso-Las Cruces-Alamogordo Interstate Air Quality Region. The El Paso area is designated as attainment/unclassifiable for all of the USEPA NAAQS criteria pollutants except for PM_{10} (moderate nonattainment for the City of El Paso). It should be noted that CO is in attainment, but in under maintenance (for a portion of the city). Also, it should be noted that on June 30, 2023, the D.C. Circuit Court of Appeals reversed the ozone nonattainment designation for El Paso County, finding that the USEPA's action was impermissibly retroactive.

To evaluate potential air quality impacts, the various alternative were reviewed to determine whether the proposed modernization efforts would:

- result in a short-term increase above de minimis standards or cause an exceedance or violation of prevailing NAAQS,
- result in a long-term increase above de minimis standards or cause an exceedance or violation of prevailing NAAQS, or
- result in GHG emissions above established standards.

Table 4-32 presents a summary of the potential air quality impacts associated with each alternative as they relate to the criteria defined earlier (see Table 4-1). Modelling and other activities related to and supporting the results provided in this section can be found in Appendix J.

Table 4-32. Air Quality Impacts.

Environmental Attributes (Threshold Criteria)	No Action Impact (Magnitude and Duration)	Alternative 1a Impact (Magnitude and Duration)	Alternative 4 Impact (Magnitude and Duration)
Air Quality			
Results in a short-term increase above de minimis standards or causes an exceedance or violation of prevailing NAAQS? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Results in a long-term increase above de minimis standards or causes an exceedance or violation of prevailing NAAQS? Any anticipated impacts?	No, None	No, None[1]	No, None[1]
Results in short- or long-term public/community health or other related environmental impact?	Yes, Long-Term Moderate-Significant Adverse Impact	Yes, Long-Term Moderate-Significant Adverse Impact (Truck Traffic) Yes, Long-Term Moderate-Significant Beneficial Impact (elimination of truck traffic future option)[2]	Yes, Long-Term Moderate-Significant Beneficial Impact (immediate elimination of truck traffic)
Results in short- or long-term impacts as a result of Regional NOx and/or VOC increases? Any anticipated Impacts?	Yes, Long-Term Negligible to Minor Adverse	Yes, Long-Term Negligible to Minor Beneficial	Yes, Long-Term Negligible to Minor Beneficial
Results in GHG emissions above established standards? Any anticipated impacts?	No, None	No, None	No, None

1 - Based on implementation of the mitigation/protective measures described in Section 2.6.2.6 and 2.6.3.6.
2 – Long-term moderate to significant adverse impact from cargo trucks would be eliminated should the future removal of all commercial cargo traffic be implemented. This is considered to be a long-term moderate to significant beneficial impact.

4.9.1 Temporary Construction Emissions (Including Greenhouse Gas Emissions)

Construction related emissions (and resulting air quality impacts) would only occur at and immediately around the BOTA LPOE, as no construction is planned at the nearby Ysleta, Tornillo, or Santa Teresa LPOEs as part of either Alternative 1a or Alternative 4. The duration of construction at the BOTA LPOE has been estimated to be approximately three years. The construction emissions estimates are presented for each alternative are shown in tons and represent both total project emissions and tons per year. The emissions data and calculations can be found in Appendix J.

4.9.1.1 No Action Alternative

There would be no anticipated construction emissions associated with the No Action Alternative, as no construction would occur.

4.9.1.2 Viable Action Alternative 1a – Multi-Level Modernization (High/Low Booths) Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 12 acres – TxDOT)

Construction air quality impacts associated with Alternative 1a would be anticipated to be short-term (during phased demolition and construction activities) and negligible to minor adverse in nature with conditions returning to normal once construction activities are completed. It is anticipated that earth-moving equipment and other non-road sources would be powered by both gasoline and diesel engines and would be short-term sources of combustion-related emissions including criteria pollutants such as NOx, CO, SO2, VOCs, PM; GHG emissions; and small amounts of HAPs. Additionally, fugitive dust would result from clearing, grading, excavation, utilities, concrete work and vehicle traffic. These short-term construction-related impacts would be minimized by implementation of the measures outlined previously in Section 2.6.2.6. Estimated construction emissions for Alternative 1a are shown in Table 4-33 (see Appendix J for additional details).

Table 4-33. Summary of Estimated Construction Emissions (TPY) for Alternative 1a.

Criteria	CO	NO_x	SO_2	VOC	HAPs	PM_{10}	$PM_{2.5}$	CO_2	CH_4
Fugitive Dust						1.37	0.14		
Non-Road Equipment Engines	2.14	1.30	0.01	0.24	0.00	0.05	0.05	624.43	0.02
On-Road Engines	0.02	0.01	0.00	0.00	0.00	0.00	0.00	9.79	0.00
Project Construction Totals	**2.16**	**1.32**	**0.01**	**0.24**	**0.00**	**1.42**	**0.18**	**634.22**	**0.02**

NOTE: "0.00" indicates emissions are <0.01 tons. Sums in table are based on Excel spreadsheet/multiple decimal places and may differ from sums added from table due to rounding. Emissions are in tons for the entire project.

4.9.1.3 Viable Action Alternative 4 – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (Approximately 4 acres – TxDOT) and Elimination of Commercial Cargo Operations

Similar to Alternative 1a, construction air quality impacts associated with Alternative 4 would be anticipated to be short-term (during phased demolition and construction activities) and negligible to minor adverse in nature with conditions returning to normal once construction activities are completed. It is anticipated that earth-moving equipment and other non-road sources would be powered by both gasoline and diesel engines and would be short-term sources of combustion-related emissions including criteria pollutants such as NOx, CO, SO2, VOCs, PM; GHG emissions; and small amounts of HAPs. Additionally, fugitive dust would result from clearing, grading, excavation, utilities, concrete work and vehicle traffic. These short-term construction-related impacts would be minimized by implementation of the measures outlined previously in Section 2.6.3.6. Estimated construction emissions for Alternative 4 are shown in Table 3-34 (see Appendix J for additional details).

Table 3-34. Summary of Estimated Construction Emissions (TPY) for Alternative 4.

Criteria	CO	NO_x	SO_2	VOC	HAPs	PM_{10}	$PM_{2.5}$	CO_2	CH_4
Fugitive Dust						0.46	0.05		
Non-Road Equipment Engines	1.97	1.19	0.01	0.21	0.00	0.04	0.04	534.53	0.02
On-Road Engines	0.02	0.01	0.00	0.00	0.00	0.00	0.00	9.79	0.00
Project Construction Totals	**1.99**	**1.20**	**0.01**	**0.21**	**0.00**	**0.50**	**0.09**	**544.32**	**0.02**

NOTE: "0.00" indicates emissions are <0.01 tons. Sums in table are based on Excel spreadsheet/multiple decimal places and may differ from sums added from table due to rounding. Emissions are in tons for the entire project.

4.9.2 Operating Mobile Source Emissions (Including Greenhouse Gas Emissions)

The data in the following sections were provided by the EPMPO (see Appendix J). The EPMPO used the USEPA Motor Vehicle Emission Simulator ("MOVES") software. This software was developed by USEPA's Office of Transportation and Air Quality. This model estimates emissions for mobile sources such as cars, trucks, and motorcycles, covering a broad range of pollutants and allows multiple scale analysis. Emission factors were estimated for VOC, NO_X, CO, PM_{10}, $PM_{2.5}$, SO_2, and CO_2. The estimates were based on MOVES software using 2022 emission factors and estimated traffic patterns for 2024. These emissions are presented as 80 percent of the lanes being used and reviewing idling emissions. The review is based on total emissions data at each location – i.e., the BOTA, Ysleta, Tornillo, and Santa Teresa LPOEs.

4.9.2.1 No Action Alternative

Table 4-35 below represents emissions in kilograms per day (kg/day) of traffic at each crossing point on the United States (U.S.) side of the border if No Action is taken. The No Action Alternative would result in keeping existing air emissions as they are. This would keep pollution levels as they are for both short-term and long-term air quality (see Appendix J for additional details).

Table 4-35. No Action Alternative Mobile Source Emissions at 80 Percent Lane Usage.

Location	CO (kg/day)	CO_2 (kg/day)	NOx (kg/day)	VOC (kg/day)	PM_{10} (kg/day)	$PM_{2.5}$ (kg/day)
Ysleta	405	70,982	272	40	9	8
Santa Teresa	85	15,420	47	15	1	1
Tornillo	60	10,489	18	7	0	0
BOTA	713	61,694	192	38	5	5
TOTAL	**1,263**	**158,585**	**529**	**100**	**15**	**14**

4.9.2.2 Viable Action Alternative 1a – Multi-Level Modernization (High/Low Booths) Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 12 acres – TxDOT)

Table 4-36 below represents emissions in kg/day of traffic at each crossing point on the U.S. side of the border if Alternative 1a with commercial trucks is implemented. This alternative would result in an increase in both short-term and long-term air emissions in comparison to the existing air emissions (see Appendix J for additional details).

Table 4-36. Alternative 1a with Trucks Mobile Source Emissions at 80 Percent Lane Usage.

Location	CO (kg/day)	CO_2 (kg/day)	NOx (kg/day)	VOC (kg/day)	PM_{10} (kg/day)	$PM_{2.5}$ (kg/day)
Ysleta	376	64,014	237	36	7	8
Santa Teresa	161	18,133	38	8	1	1
Tornillo	60	10,512	18	7	0	0
BOTA	803	71,015	254	43	7	9
TOTAL	**1,400**	**163,674**	**547**	**94**	**15**	**18**

Table 4-37 below represents emissions in kg/day of traffic at each crossing point on the U.S. side of the border if Alternative 1a without commercial trucks is taken. This alternative would result in an increase in both short-term and long-term air emissions in comparison to the existing air emissions (see Appendix J for additional details).

Table 4-37. Alternative 1a without Trucks Mobile Source Emissions at 80 Percent Lane Usage.

Location	CO (kg/day)	CO_2 (kg/day)	NOx (kg/day)	VOC (kg/day)	PM_{10} (kg/day)	$PM_{2.5}$ (kg/day)
Ysleta	385	73,234	305	40	10	9
Santa Teresa	80	19,620	54	9	2	2
Tornillo	59	10,491	19	7	0	0
BOTA	901	73,107	164	47	3	3
TOTAL	**1,425**	**176,452**	**542**	**103**	**15**	**14**

4.9.2.3 Viable Action Alternative 4 – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (Approximately 4 acres – TxDOT) and Elimination of Commercial Cargo Operations

Table 4-38 below represents emissions in kg/day of traffic at each crossing point on the U.S. side of the border if Alternative 4 is taken. This alternative would result in a decrease in both short term and long-term air emissions in comparison to the existing air emissions. Further, as shown in Table 4-38, Alternative 4 provides the greatest decrease in air pollution over both the short-term and long-term compared to the No Action Alternative, or the other action alternative (i.e., Alternative 1a) evaluated. Finally, it would result in significant, positive impacts on air quality in the area (see Appendix J for additional details).

Table 4-38. Alternative 4 Mobile Source Emissions at 80 Percent Lane Usage.

Location	CO (kg/day)	CO_2 (kg/day)	NOx (kg/day)	VOC (kg/day)	PM_{10} (kg/day)	$PM_{2.5}$ (kg/day)
Ysleta	392	73,975	306	41	10	9
Santa Teresa	82	20,008	55	9	2	2
Tornillo	55	9,893	18	6	0	0
BOTA	690	41,441	108	27	2	2
TOTAL	**1,219**	**145,317**	**487**	**83**	**14**	**13**

4.9.3 Operating Mobile Emissions (including Greenhouse Gas Emissions) at 80 Percent Land Usage Comparison by Location

For comparative purposes, the following tables present the expected operating mobile emissions at 80 percent lane usage by alternative and location (see Appendix J for more details).

4.9.3.1 BOTA LPOE

At the BOTA LPOE, winds are predominantly out of the east with air emission being carried to a mix of nearby commercial and residential areas in El Paso. As demonstrated in Table 4-39, implementing Alternative 4 would be expected to result in the least amount of air emission impacts when compared to the No Action Alternative or either Alterative 1a (with trucks or future without trucks). All other alternatives would result in emissions that would significantly deteriorate the air quality of the area.

Table 4-39. Mobile Source Emissions at the BOTA LPOE at 80 Percent Lane Usage.

Alternative	CO (kg/day)	CO_2 (kg/day)	NOx (kg/day)	VOC (kg/day)	PM_{10} (kg/day)	$PM_{2.5}$ (kg/day)
No Action	713	61,694	192	38	5	5
Alternative 1a with Trucks	803	71,015	254	43	7	9
Alternative 1a without Trucks	901	73,107	164	47	3	3
Alternative 4	690	41,441	108	27	2	2

4.9.3.2 Ysleta LPOE

At the Ysleta LPOE, winds are predominantly out of the east with air emission being carried into Mexico. As demonstrated in Table 4-40, implementing Alternative 1a with trucks would be expected to result in the least amount of overall air emission impacts when compared to the No Action Alternative or the other alternative. However, the air impacts would be carried outside of the U.S. and/or over rural lands. Due to this, there would be minimal to no effect of any of the alternatives to the U.S. lands near this location.

Table 4-40. Mobile Source Emissions at the Ysleta LPOE at 80 Percent Lane Usage.

Alternative	CO (kg/day)	CO_2 (kg/day)	NOx (kg/day)	VOC (kg/day)	PM_{10} (kg/day)	$PM_{2.5}$ (kg/day)
No Action	405	70,982	272	40	9	8
Alternative 1a with Trucks	376	64,014	237	36	8	7
Alternative 1a without Trucks	385	73,234	305	40	10	9
Alternative 4	392	73,975	306	41	10	9

4.9.3.3 Tornillo LPOE

At the Tornillo LPOE, winds are predominantly out of the east with air emission being carried over open/undeveloped land, commercial areas, and/or into Mexico. As demonstrated in Table 4-41, implementing Alternative 4 would be expected to result in the least amount of overall air emission impacts when compared to the No Action Alternative or the other alternative. However, the air impacts would be carried outside of the U.S. and/or over rural lands. Due to this, there would be minimal to no effect of any of the alternatives to the U.S. lands near this location.

Table 4-41. Mobile Source Emissions at the Tornillo LPOE at 80 Percent Lane Usage.

Alternative	CO (kg/day)	CO_2 (kg/day)	NOx (kg/day)	VOC (kg/day)	PM_{10} (kg/day)	$PM_{2.5}$ (kg/day)
No Action	60	10,489	18	7	0	0
Alternative 1a with Trucks	60	10,512	18	7	0	0
Alternative 1a without Trucks	59	10,491	19	7	0	0
Alternative 4	55	9,893	18	6	0	0

4.9.3.4 Santa Teresa LPOE

At the Santa Teresa LPOE, winds are predominantly out of the east with air emission being carried over open/undeveloped land and/or commercial areas. As demonstrated in Table 4-42, implementing Alternative 1a with trucks would be expected to result in the least amount of overall air emission impacts when compared to the No Action Alternative or the other alternative. However, the air impacts would be carried mostly outside of the U.S. and/or over rural lands. Due to this, there would be minimal to no effect of any of the Alternatives to the U.S. lands near this location.

Table 4-42. Mobile Source Emissions at the Santa Teresa LPOE at 80 Percent Lane Usage.

Alternative	CO (kg/day)	CO_2 (kg/day)	NOx (kg/day)	VOC (kg/day)	PM_{10} (kg/day)	$PM_{2.5}$ (kg/day)
No Action	85	15,420	47	15	1	1
Alternative 1a with Trucks	161	18,133	38	8	1	1
Alternative 1a without Trucks	80	19,620	54	9	2	2
Alternative 4	82	20,008	55	9	2	2

4.9.4 Operating Mobile Emissions and Construction Emissions (Including Greenhouse Gas Emissions) at 80 Percent Lane Usage Comparison by Alternative and Total Network

As presented in the following tables, Alternative 4 would be the best option as to overall air quality. When reviewing the various scenarios based on a “per site” basis; different scenarios have a positive effect depending on the location. However, the effect of the daily (short term) emissions which include the

construction emissions in Table 4-43; show that when reviewing all scenarios at once for the total network reveals that Alternative 4 would result in an overall 9% decrease in air emissions. Further, annual decrease of emissions from Alternative 4 are from just a ton per year to hundreds of tons per year.

Though the difference in air emissions may not appear to be great; the cumulative annual effect of the daily emissions from Alternative 4 would result in an annual decrease in air emissions that would be an overall benefit for the region. Also, though air emissions are associated with the construction of Alternative 4, the construction emissions would be short-term and the overall decrease in annual emissions (noted in Table 4-44) would be significant for the region in the long-term.

Table 4-43. Mobile Source Emissions Summary of Total Network by Alternative at 80 Percent Lane Usage Short-Term.

Alternative	CO (kg/day)	CO_2 (kg/day)	NOx (kg/day)	VOC (kg/day)	PM_{10} (kg/day)	$PM_{2.5}$ (kg/day)	Percent Delta (From No Action) By Sum of all Emissions
No Action	1,263	158,585	529	100	15	14	
Alternative 1a with Trucks With Construction	1,405	163,674	550	95	19	18	3.17%
Alternative 1a without With Construction Trucks	1,430	176,452	545	101	19	14	10.11%
Alternative 4 With Construction	1,224	145,317	490	84	15	13	-9.08%

Table 4-44. Mobile Source Emissions Summary of Total Network by Alternative at 80 Percent Lane Usage Long-Term.

Alternative	CO (ton/yr)	CO_2 (ton/yr)	NOx (ton/yr)	VOC (ton/yr)	PM_{10} (ton/yr)	$PM_{2.5}$ (ton/yr)	Percent Delta (From No Action) By Sum of all Emissions
No Action	508	63,806	213	40	6	6	
Alternative 1a with Trucks	563	65,853	220	38	6	7	3.16%
Alternative 1a without Trucks	573	70,994	218	41	6	6	10.11%
Alternative 4	490	58,467	196	33	6	5	-9.09%

4.9.5 Regional Emissions Modeling

4.9.5.1 No Action Alternative

Implementing the no action alternative would likely result in moderate to significant long-term adverse air quality impacts as a result of continued north- and southbound commercial truck traffic and a likely increase in traffic over time with no improvements made (i.e. increased traffic and queuing/processing and idling times). Under the no action alternative, the GSA would take no actions to modernize the BOTA LPOE and the existing buildings/facilities and associated infrastructure would remain for continued use by the CBP, tenant agencies, and the travelling public. Operations would substantially remain the same at the BOTA, Santa Teresa, Tornillo, and Ysleta LPOEs. The baseline modeling of regional emissions resulting from exiting POV and truck traffic at all ports is shown below in Table 4-45.

Table 4-45. Baseline (No Action) 2024 Regional Emissions Modeling from Vehicles (POVs and Trucks) and Idling.

LPOE	Daily NOx (kg/day)[1]	Daily VOC (kg/day) [1]
BOTA	***139***	***39***
Tornillo	8	2
Ysleta	247	33
Santa Teresa	8	1
TOTAL	**478**	**98**

EPMPO 2024. 1 – ozone precursors.

4.9.5.2 Viable Action Alternative 1a – Multi-Level Modernization (High/Low Booths) Primarily within Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port and Additional Land Acquisition to the East (Approximately 12 acres – TxDOT)

Implementing this alternative would be expected to result in no short- or long term violation of the NAAQS. However, the continued north- and south bound commercial truck traffic (and associated wait, queuing/processing and idling times) is considered to be a long-term moderate to significant negative health or other related environmental impact to the local community based on comments received as part of the scoping/public involvement aspects of the proposed project. Should the option to eliminate all commercial truck traffic be implemented in the future, this long-term adverse impact should be largely replaced by a long-term moderate to significant beneficial localized air quality impact. Although POV traffic has been modeled to increase, no violation of the NAAQS would be anticipate as vehicle processing, idling, and queuing time would be decreased. Table 4-46 shows the modeled daily traffic volumes that would be expected at all ports under this alternative. As shown both daily NOx and daily VOCs have been modeled to decrease slightly at BOTA and increase quite a bit at Santa Teresa. Overall, both daily NOx and VOCs would increase under this alternative.

Table 4-46. Alternative 1a 2024 Regional Emissions Modeling from Vehicles (POVs and Trucks) Idling at 80%.

LPOE	Daily NOx (kg/day) [1]	Daily VOC (kg/day) [1]
BOTA	***254***	***43***
Tornillo	18	7
Ysleta	237	36
Santa Teresa	38	8
TOTAL	**547**	**94**

EPMPO 2024. 1 – ozone precursors.

Should the future elimination of all commercial truck traffic option be implemented, daily NOx has been modeled to increase slightly at BOTA (largely likely due to POV traffic) with daily VOCs slightly decreasing. Ysleta demonstrates the largest daily NOx increase under this alternative (Table 4-47). Overall, both daily NOx and VOCs would increase slightly under this option.

Table 4-47. Alternative 1a (Future No Trucks) 2024 Regional Emissions Modeling from Vehicles (POVs and Trucks) and idling at 80%.

LPOE	Daily NOx (kg/day) [1]	Daily VOC (kg/day) [1]
BOTA	***164***	***47***
Tornillo	19	7
Ysleta	305	40
Santa Teresa	56	9
TOTAL	**544**	**103**

EPMPO 2024. 1 – ozone precursors.

4.9.5.3 Viable Action Alternative 4 – Multi-Level Modernization within the Existing Port Boundaries with Minor Land Acquisition Immediately Adjacent to the Port (Approximately 4 acres – TxDOT) and Elimination of Commercial Cargo Operations

Similar to the previous alternative, implementing this alternative would be expected to result in no short- or long term violation of the NAAQS. The elimination of all commercial truck traffic (and associated wait, queuing/processing, and idling times) is expected to result in a long-term moderate to significant beneficial health or other related environmental impacts to the local community. Although POV traffic has been modeled to increase, no violation of the NAAQS would be anticipate as vehicle processing, idling, and queuing time would be decreased. Table 4-48 shows the modeled daily traffic volumes that would be expected at all ports under this alternative. As shown, both daily NOx and daily VOC have been modeled to decrease fairly significantly at BOTA and would remain similar to the baseline at all other ports. Overall both daily NOx and VOCs have been modeling to decrease significantly under this alternative.

Table 4-48. Alternative 4 2024 Regional Emissions Modeling from Vehicles (POVs and Trucks) and Idling at 80 Percent.

LPOE	Daily NOx (kg/day) [1]	Daily VOC (kg/day) [1]
BOTA	***108***	***27***
Tornillo	18	6
Ysleta	306	41
Santa Teresa	55	9
TOTAL	**487**	**83**

EPMPO 2024. 1 – ozone precursors.

4.9.6 Overall Regional Emissions Modeling Summary

Tables 4-43 and 4-44 show the regional emissions by scenario of the effect of the total network. The emissions data presented above in Table 4-43 and 4-44 present the short-term and long-term emissions for the region. When reviewing the data as to the overall region and considering the effects to each individual location; Alternative 4 would have the greatest short-term and long-term effect on decreasing air emissions. As shown the previous tables, the various alternatives have varying affects to each location. However, as stated in those sections, most alternatives would have minimal effect on U.S. lands as the wind would likely blow emission into Mexico and/or over rural, undeveloped land. In considering the varying

affects at each location and the significant short-term and long-term beneficial impacts on air emissions, Alternative 4 would be the best choice as to air quality based on the alternatives reviewed and data provided.

As to cumulative impacts of air emissions, Alternative 4 would be the best choice as well as. This is because it would decrease air emissions compared to existing conditions. Thus, this would improve air quality in the area after implementation. Then, it would offset any future, direct or indirect projects, in the area.

4.10 CUMULATIVE IMPACTS

This section discusses the likelihood for potential cumulative effects to the environment that could be associated with implementation of the Proposed Action – the Proposed Modernization of the BOTA LPOE. It is important to note that additional modeling is currently being conducted and will be included in the Final EIS. The CEQ regulations define cumulative effects as:

> …the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time (40 CFR §1508.7).

As this regulation suggests, the purpose of cumulative effects analysis is to view the impacts of a proposed project within the larger context of past, present, and future activities that are independent of the proposed project, but which have, and could likely affect, resources of greatest concern. This approach allows the decision-maker to evaluate the incremental impacts of the proposed project in light of the overall health and abundance of selected resources. The focus of the analysis is on the sustainability of each resource of interest; the discussion, therefore, is generally not limited to the immediate project area but takes into consideration larger areas that represent the base for sustaining the resource.

In a sense, a cumulative effects evaluation first asks two questions: (1) "What is the current condition and trend for a particular resource?" and (2) "What are the expected impacts to the resource from independent foreseeable future actions?" The answers to these questions become the baseline for assessing the effects of the proposed project; that is, this baseline is the predicted condition of each resource independent of the proposed project (i.e., in essence, the baseline reflects what would happen to a resource if the no action alternative were ultimately selected). The net result of the evaluation may be that a seemingly minor incremental impact of a particular proposed project, when viewed in light of other planned projects, may in fact contribute to a significant cumulative impact to a resource that is rare or in poor health; thus, whether an impact is "significant" would depend on the abundance and health of a given resource, as viewed in light of the current condition and trend of the resource. In sum, a significant cumulative effect on the environment means a potentially substantial adverse or beneficial change in any of the physical conditions within the area affected by the project that results from the collective environmental effects of the proposed project and other reasonably foreseeable projects. The evaluation process may be expressed as follows:

Baseline Condition	**+**	**Project Impacts**	**=**	**Cumulative Impacts**
Historical, Current, and Future Effects		Significant Direct and Indirect		

Cumulative effects analysis is still an emerging discipline, and the continuing challenge is to focus on the important cumulative issues, recognizing that a better decision, rather than a perfect cumulative effects analysis, is the goal of NEPA. There is no universally accepted approach to the preparation of cumulative effects analyses, but there are many guidelines available for setting up a methodology that accomplishes the intent of the CEQ regulation. Guidance includes:

- CEQ, Considering Cumulative Effects under the National Environmental Policy Act, 1997

- CEQ, Incorporating Biodiversity Considerations into Environmental Impact Analysis under the National Environmental Policy Act, 1993
- USEPA, Consideration of Cumulative Impacts in EPA Review of NEPA Documents, 1999
- USEPA, Considering Ecological Processes in Environmental Impact Assessments, 1999

The analysis of cumulative effects includes the identification of actions with possible effects that would be coincident with those of the proposed project on resources, ecosystems, and human communities. Coincident effects are possible if there is overlap between the geographic and time boundaries for the effects of the proposed action and past, present, and reasonably future actions. In essence, a cumulative effects evaluation examines the baseline condition for a given resource by first identifying the resources and associated study areas, assesses the current health and historical context for each resource, and then describes the anticipated effects of reasonably foreseeable future actions and the proposed project on each resource.

For a cumulative effects analysis to be worthwhile it must be limited through scoping to the effects that can be evaluated meaningfully. This important initial step requires the identification of significant cumulative effects issues associated with the proposed project and definition of assessment goals. Guidance from multiple sources stresses that:

> "If a project would not cause significant direct or indirect impacts on a resource, it would not contribute to a cumulative impact on the resource."

That is, the cumulative effects analysis should focus only on those resources that are significantly affected by the proposed project, or resources that are currently in poor or declining health or are at risk even if the proposed project impacts are not significant. Similarly, CEQ guidelines recommend narrowing the focus of the cumulative effects analysis to important issues of national, regional, or local significance so as to "count what counts."

4.10.1 Historical Effects and Current Condition of Resources

Founded as El Paso del Norte (at what is now Ciudad Juárez, Mexico), the El Paso area was originally primarily farmland, agricultural, and mining in nature. Later, as railroads were built through the area, it began to develop more as a commercial center. Two world wars and the Texas oil boom further shaped the city's economy. As international trade became increasingly important in the U.S., and Juárez grew into a manufacturing center, El Paso's economic importance continued to expand benefiting from low wages, international crossings, and an important regional transportation network. The development of the maquiladora industry in Juárez aided significantly in the development of multiple industries. El Paso has grown into a commercial and financial center for an extensive trade territory where livestock ranching, irrigated cotton farming, and mineral production are major economic activities. Once an agricultural and major copper refining area, El Paso now has a highly diversified industrial structure centering on primary metals, petroleum and gas operations, food products, and apparel. Multiple Fortune 500 companies call El Paso their home.

With El Paso's attractive climate and natural beauty, tourism has also become a booming industry as well as continued trade with neighboring Juárez. Education is also a driving force in El Paso's economy. El Paso's three large school districts are among the largest employers in the area. Fort Bliss (originally a calvary post in 1848) is also a major contributor to El Paso's economy. In addition to the military, the federal government has a strong presence in El Paso to regulate traffic and goods that pass through the multiple ports of entry. As mentioned above, what was once historically open farmland, agriculture, and mining eventually became a densely populated urban area centered on business, commerce, and trade. A summary of the historical effects and current condition of the resources considered relevant to the proposed action (see Section 1.6.2) is included below in Table 4-50.

Table 4-49. Historical Impacts and Current Condition of Resources.

Issue/Resource	Historical Effects/Impacts	Current Condition [1, 2]
Hazardous Materials, Waste, and/or Site Contamination	Increased contamination issues as a result of population growth and associated economic development.	**Unknown.** Potential soil and/or groundwater contamination immediately north of the port in the TxDOT ROW[3].
Socioeconomics (including Environmental Justice and Protection of Children)	Increase in population, employment, and housing over time due to economic development and expansion. Increase in minority population due to border proximity and economic development.	**Average to Poor.** Significant portion of the population in the ROI are considered low-income in nature and meet or exceed the criteria for populations that may already be experiencing disproportionate environmental justice impacts and/or could be susceptible to such impacts in the future.
Public Services, Infrastructure, and Utilities	Substantial development over time. Extensive public services and utilities developed to sustain growing population.	**Good.** Public services and **i**nfrastructure appear to be adequate to support existing population and planned growth. Multiple planned infrastructure and public services future projects.
Surface Waters, Drainage, and Floodplains	Increased surface and/or groundwater contamination issues as a result of population growth and industry. Historical localized Rio Grande flooding.	**Average to Good.** Some water quality issues in adjacent Rio Grande. Existing drainage and flooding infrastructure (USIBWC levee system) appear to be mostly adequate. Improvements pending accreditation.
Land Use and Zoning (including Visual and Aesthetics)	Substantial development over time. Extensive land use, zoning, and other regulations and guidance developed to regulate and control growth.	**Good to Excellent.** Extensive and detailed regulations, codes, and ordinances guide development and redevelopment in the city.
Traffic, Transportation, and Parking	Substantial development over time (increased traffic) as a result of population growth and industry. Extensive infrastructure developed in support of population and trade/industry growth.	**Average to Poor. R**oad improvements around the port have not historically kept up with demand – especially southbound traffic. LOS at most intersections varies. Some parking issues and pedestrian/vehicle conflicts in the area.
Air Quality	Degraded over time by population growth and associated trade and overall economic development.	**Average to Poor** The area is maintenance for ozone and CO and Moderate nonattainment for PM_{10}.
Noise and Vibration	Increase in ambient conditions over time due to population growth and associated trade and overall economic development.	**Average to Good.** The area is urban in nature and highly developed with substantial vehicular traffic. The ambient noise conditions would generally be expected to average in the 50 to 70 dBA range. There are no sensitive receptors within the immediate area.
Cultural and Historic Resources	Historical occupation and development of the area resulted in extensive archaeological and historic resources. Many buildings and sites lost over time, however current regulations and statewide and local efforts continue to preserve the history of the area.	**Good to Excellent.** Existing archaeological and historic resources protected. Some were destroyed or degraded over time due to growth, development, and natural disasters.

1- As they relate specifically to the port and immediate surrounding area.
2- From a cumulative impacts standpoint, those issues/resources highlighted would likely show the greatest propensity for decline/ further decline as a result past, present, and reasonably foreseeable projects.
3 - Currently under further investigation by GSA, results (including any necessary mitigation measures) to be included in the Final EIS.
N/A – not applicable.

4.10.2 Reasonably Foreseeable Plans and Projects in the Area

From a cumulative impacts standpoint, which considers past, current, and reasonably foreseeable projects and impacts, the area that now comprises/surrounds the port is a vibrant, highly urbanized, ever developing/redeveloping, and historic part of the City. The area has seen continued growth and redevelopment over the years, but at the same time, the rich cultural history of the area has continually been preserved. The area continues to thrive and grow to this day largely due to the planning efforts undertaken by the City. As mentioned earlier, the City's Zoning Division is responsible for upholding the zoning and platting regulations according to the local development code and regulations. Zoning is a regulatory tool that the City uses in order to ensure stable property values and an adequate mix of uses while protecting the health, safety, and welfare of the general public – including the environment. As part of planning for the future growth and changing needs of the citizens of El Paso (and the surrounding area), the City, and it's planning partner (i.e., the EPMPO, etc.), have developed several plans/programs to help guide future development. The primary plans include (but are not necessarily limited to):

- **City of El Paso Comprehensive Plan, Plan El Paso** – The El Paso Comprehensive Plan provides a foundation for guiding the future growth and development of the City (a 10-year planning horizon) that is consistent with the vision and goals of the community (City of El Paso 2012). Plan El Paso provides the basis for El Paso's regulations and policies that guide its physical and economic development. Plan El Paso establishes priorities for public action and direction for complementary private decisions. The plan provides a flexible framework that can be updated, revised, and improved upon over time to stay relevant to the issues the City must confront as well as the ambitions the City chooses to pursue. The plan also serves as a tool to evaluate new development proposals and direct capital improvements and to guide public policy in a manner that ensures that El Paso continues to be the community that its citizens desire it to be.

- **Sun Metro Transit Asset Management Plan (TAM) FY 2023-2026** - All transit agencies are required to develop and implement a TAM plan that serves as a guide for operations and maintains capital assets in its efforts to provide public transportation and received federal financial assistance under 49 USC, Chapter 53. The TAM Plan is intended to assist Sun Metro in maintaining all their assets in a SoGR in the performance of operating the transit system (City of El Paso 2022).

- **Sun Metro Rising, State of the System Report** – The report details the existing and evolving conditions of Sun Metro including an overview of services and supporting capital facilities, system ridership and on-time performance trends, and other important information/data necessary to evaluate the ongoing performance of the transit system (e.g., demographics, employment centers, travel patterns, strengths, weaknesses, opportunities, etc.) (City of El Paso 2022a).

- **Regional Mobility Strategy (RMS) 2050, Metropolitan Transportation Plan (MTP)** - The MTP provides the ways the region plans to invest in the transportation system. Per federal regulations, the plan "includes both long-range and short-range program strategies/actions that lead to the development of an integrated intermodal transportation system that facilitates the efficient movement of people and goods (EPMPO 2022).

- **RMS 2025-2028, Transportation Improvement Program (TIP)** - As part of the TIP, the EPMPO identifies the transportation projects and strategies laid out in the MTP that it plans to undertake over the next four years. All projects receiving federal funding must be in the TIP. The TIP is the region's way of allocating its limited transportation resources among the various capital and operating needs of the area, based on a clear set of short-term transportation priorities (EPMPO 2024b).

In addition to these more localized and regional planning efforts, the US-Mexico Environmental Program: Border 2025 (USEPA 2021) is a five-year (2021-2025) binational effort designed "to protect the environment and public health in the US-Mexico border region (the four U.S. border states (Texas, New Mexico, Arizona,

and California) and the six Mexican border states (Tamaulipas, Nuevo León, Coahuila, Chihuahua, Sonora, and Baja California) plus 26 US border tribes), consistent with the principles of sustainable development." Its implementation is accomplished within the framework of the respective laws and regulations of the US and Mexico.

Border 2025 is the latest cooperative effort implemented under the 1983 La Paz Agreement. It builds on previous binational efforts and establishes guiding principles that support the mission statement, ensure consistency among all aspects of the Border 2025 Program, and continue successful elements of previous binational environmental programs.

Border 2025 includes four strategic goals to address environmental and public health challenges in the border region. Within the goals are specific objectives that identify actions to be taken in support of the programs mission. The goals and objectives were determined binationally between the USEPA and the Ministry of Environment and Natural Resources of Mexico (SEMARNAT) (and also took into consideration and input from state and local Tribal partners) to address ongoing environmental challenges at the border. The Border 2025 strategic goals are:

- Reduce Air Pollution
- Improve Water Quality
- Promote Sustainable Materials and Waste Management and Clean Sites
- Improve Joint Preparedness for and Response to Hazardous Environmental Emergencies

The overriding mission of Border 2025 is states as follows:

Protect the environment and public health in the US-Mexico border region consistent with the principles of sustainable development. Sustainable development is defined as "conservation-oriented social and economic development that emphasizes the protection and sustainable use of resources while addressing both the current and future needs and present and future impacts of human actions."

In support of, and as provided for in these plans, one can reasonably expect continued growth and development/redevelopment in the area immediately surrounding the port including efforts related to:

- Revitalization and Commercial Development,
- Transportation (Multi-Modal) and Parking Improvements,
- Utility Improvements,
- Drainage/Floodplain Improvements,
- Open Space Improvements, and
- Community Facilities (Police, Fire, and Emergency Management Services [EMS]).

All of these potential planned/programmed improvements would be done consistent with overall planning efforts and would ensure measures would be taken to protect and enhance the environment as part of implementation. In fact, the City's Comprehensive Plan includes the following vision with regards to growth/redevelopment within the City in a sustainable manner:

Secure the viability of environmental resources for El Paso's people, flora, and fauna so that future generations may experience a constantly improving environment that is always more resilient than that of the previous generation.

Consistent with these plans and programs, there are a variety of ongoing and/or planned improvements by the state, local government, and commercial/private entities in the city and the border region. The largest consists of transportation-related planning and improvements including (TxDOT 2024):

- Loop 375-Managed Lanes
- Loop 375 Transmountain West
- Loop 375-Border Highway West
- Loop 375 Border Highway East
- Loop 375 Franklin Mountains State Park Entrance
- I-10 Operational Improvements
- I-10 from Antonio to Mesa
- I-10 Collector-Distributor Lanes
- I-10 Frontage Roads
- I-10 Connect
- SH 178 (Artcraft Road) Project
- FM 2185 Proposed Improvements
- Borderland Expressway
- SH 20 Alameda/Paisano
- Downtown 10
- Spur 1966 Connection

In addition to these planned infrastructure improvements, ongoing and/or future transportation-related planning efforts include (TxDOT 2024):

- FM 3255 (Martin Luther King Jr. Boulevard) Corridor Study
- FM 1281 Horizon Corridor Master Plan
- Regional Mobility Strategy
- Reimagine I-10 Planning Study
- Six County Multimodal Study
- SH 20 Alameda Avenue Planning Study
- SH 20 Doniphan Drive Corridor Plan
- SH 20 Mesa Street Multimodal Master Plan

A variety of additional transportation-related plans and projects have been programmed for the future as part of the El Paso Regional Intelligent Transportation Systems (ITS) Architecture. The ITS a roadmap for transportation systems integration in the El Paso region. The architecture has been updated in 2020 to provide stakeholders within the region with a plan for ITS implementation over the next 20 years. The architecture was developed through a cooperative effort by the region's transportation agencies, covering all modes and all roads in the region. It represents a shared vision of how each agency's systems will work together in the future, sharing information and resources to provide a safer, more efficient, and more effective transportation system for travelers in the region. ITS programmed efforts include (but are not limited to) (EPMPO 2024c):

- Active Transportation and Demand Management (ATDM) Implementation
- Automated Traffic Incident Detection System
- City of El Paso ITS Asset Management Program and Maintenance Plan
- City of El Paso Traffic Management Center Upgrade
- Critical Infrastructure Monitoring Systems
- Doniphan Drive (SH 20) ITS and Fiber Expansion
- Alternate Route Traffic Management Study and Implementation
- Automated Traffic Signal Performance Measures
- City of El Paso ITS Field Equipment Expansion
- Connected Vehicle Pilot Program
- Doniphan Drive (SH 20) / Horizon Boulevard (FM 1281) HAWK Signal Deployment
- El Paso County Transit Fare Payment System Enhancement

- Doniphan Drive (SH 20) Railroad Crossing Improvements
- El Paso County Transit Automatic Passenger Counters
- El Paso County Transit Traveler Information System
- Emergency Vehicle Preemption Expansion
- Fiber Optic Communications Expansion
- IH–10 Adaptive Lanes
- Mesa Street (SH 20) Mid Term ITS Improvements
- Mesa Street (SH 20) Short Term ITS Improvements
- Pedestrian/Cyclist Detection and Warning System
- Regional Transportation Data Hub with Analytic Tools
- Regional Traveler Information System
- Sun Metro Automated Passenger Counters Expansion
- Sun Metro Fare Payment System Enhancement
- Sun Metro Real–time Transit Arrival/Departure Sign Expansion
- Sun Metro Security Cameras on Transit Centers, Stations and Vehicles
- TMC and Public Safety CAD Integration
- TxDOT Flood Warning System
- TxDOT High Wind Warning System
- TxDOT ITS Asset Management Program and Maintenance Plan
- TxDOT RWIS at Strategic Locations
- TxDOT Slippery Pavement Warning System
- TxDOT Traffic Signal Controller Upgrades
- TxDOT Visibility Warning System
- US 67 ITS Projects – Long-Term
- US 67 ITS Projects – Mid-Term
- El Paso County Transit Real–Time Bus Arrival / Departure Signs
- IH–10 Integrated Corridor Management System
- IH–10 Queue Detection System
- IH–10 Truck Parking Space Availability System (TPAS)
- ITS at BOTA and Zaragoza Ports of Entry
- Mesa Street (SH 20) Long Term ITS Improvements
- Portable Weigh–in–Motion Scales
- Regional Traffic Signal Timing Optimization and Coordination
- Regional Transit Data Hub
- Traffic Incident Management Program Refinement
- Transit Signal Priority Expansion
- TxDOT C2C Protocols for Interagency Data Sharing
- TxDOT CCTV Modernization and Expansion
- TxDOT Coastcom (T1) Ring Replacement
- TxDOT Curve Speed Warning System
- TxDOT DMS Modernization and Expansion
- TxDOT Smart Street Lighting
- TxDOT Smart Work Zones
- TxDOT Speed Feedback and Warning System
- TxDOT Static Travel Time Displays
- TxDOT TMC Upgrades
- US 67 ITS Projects – Short–Term
- Weigh–in–Motion Scales and Virtual Weigh Stations
- Wireless Communications Expansion
- Wrong Way Driver Detection System

As mentioned earlier (see Section 3.3.2), the USIBWC has several ongoing Rio Grande Flood Control System Levee Improvements in the area, specifically the El Paso-Juarez Valley – International Dam to Riverside improvements which include the portion of the levee just south of the BOTA LPOE. There is also a significant amount of private and/or commercial development/redevelopment occurring and planning for the future within the city.

With the exception of the USIBWC levee improvements, these large-scale projects are primarily TxDOT projects and therefore would include the appropriate level of NEPA analysis as necessary (in accordance with the TxDOT environmental compliance process), including development and implementation of environmental commitments/mitigation when appropriate prior to implementation. Similar review would also be conducted as part of any non-TxDOT infrastructure improvements (e.g., USIBWC, etc.). As noted

earlier, the city has also demonstrated a clear commitment to growth and development/redevelopment in support of its citizenry and overall economy in an environmentally sensitive manner.

4.10.3 Cumulative Effects

As demonstrated above, there are a substantial number of projects planned in and immediately around the El Paso to support the local population and overall economic growth well into the future. Resources potentially affected by these projects include those typical of any facility or infrastructure construction project. In fact, the expected issues would be largely similar to those associated with this proposed action. While the planned improvements could be considered extensive, as just mentioned, they would all be implemented in accordance with prevailing environmental regulations (e.g., NEPA and related state and federal laws, EOs, etc.) and in accordance with prevailing city ordinances/codes where required. As a result, growth should be adequately supported, with the needed infrastructure improvements made in a manner that places the highest regard on potential environmental impacts and the importance of mitigating/minimizing any such impacts. Because of this, when combined with the proposed modernization of the port, which also has demonstrated no significant adverse environmental impacts, there would be no expected significant cumulative effects to resources in the area.

4.10.3.1 Hazardous Materials, Waste, and/or Site Contamination

As demonstrated earlier (see Section 4.1), implementing the proposed action through selection of either action alternative would result in no significant hazardous materials and/or waste generated, transported, and/or disposed of as a result of construction and/or future operational activities. The same is true for the no action alternative. Additionally, as noted earlier there is the potential for localized soil and/or groundwater contamination immediately adjacent to the port as a result of past commercial operations (i.e., a filling station). This issue is currently being investigated further by the GSA and should contamination be found, the GSA would coordinate with the TCEQ to ensure that any and all appropriate mitigative/corrective measures be implemented to fully provide for the safety and protection of construction workers, port staff, the travelling public, and the environment.

Cumulatively, the reasonably foreseeable plans and projects identified in Section 4.10.2, along with the proposed modernization of the port should not result in any future hazardous materials, waste, and/or site contamination issues because of the due diligence that would be conducted with such projects. In fact, a potential beneficial cumulative effect could be realized should due diligence discover past environmental contamination issues that could/would be mitigated.

4.10.3.2 Public Services, Infrastructure, and Utilities

As demonstrated earlier (see Section 4.2), implementing the proposed action through selection of either action alternative would result in no significant adverse strain/demand on existing public services, infrastructure, and/or utilities. The same is true for the no action alternative. Under either action alternative, there is, however, the potential for minor short-term adverse impacts as a result of possible disruption of existing public services, infrastructure, and/or utilities. This potential would be largely mitigated through implementation of the BMPs and procedures outlined earlier in Section 2.6.2.6 and 2.6.3.6.

Cumulatively, the reasonably foreseeable plans and projects identified in Section 4.10.2, along with the proposed modernization of the port should not result in any undue stain or demand on existing services, infrastructure, and/or utilities. This would largely be the result of the inherent planning and coordination that would be conducted as part of future development and/or growth in the area. There would still likely be the potential for short-term adverse impacts resulting from construction activities, but those conditions would return to normal once activities were completed.

4.10.3.3 Surface Waters, Drainage, and Floodplains

As demonstrated earlier (see Section 4.3), implementing the proposed action through selection of either action alternative would result in no significant adverse impacts to nearby surface water features (i.e., the Rio Grande), result in significant stormwater runoff, or result in development that could be impacted by a 100-year flood event. The same is true for the no action alternative. This would be ensured by the implementation of the BMPs outlined earlier as part of each action alternative (see Section 2.6.2.6 and 2.6.3.6) and adherence to the overall site design LEED criteria outlined in Section 1.6.3.5. Additionally, as noted earlier (see Section 3.4.2), the port and large portions of the areas to the immediate east are in an area described as an "Area with Reduced Flood Risk due to Levee (Zone X)." The port and the area to the east are considered to be in the 100-year floodplain protected by a levee. Under 500- or 100-year flood conditions, should the levee fail or be overtopped, these areas could be inundated. As a result, as a part of the overall port design and layout, flood-resistant and risk mitigation measures would be employed (per GSA P100 Facility Standards) to ensure no potential adverse impacts should the nearby levee fail or be overtopped under a 500- or 100-year flood event.

Cumulatively, the reasonably foreseeable plans and projects identified in Section 4.10.2, along with the proposed modernization of the port should not result in any future significant adverse surface water, drainage, or floodplain impacts. This would largely be the result of the required adherence to prevailing city, state, and federal rules/regulations, the environmental due diligence that would accommodate development and growth plans and projects, and the ongoing planning and coordination efforts that take place in the region with regards to future infrastructure improvements.

4.10.3.4 Land Use and Zoning (including Visual/Aesthetics)

As demonstrated earlier (see Section 4.4), implementing the proposed action through selection of either action alternative would result in no significant conflicts with existing or planned land use and/or zoning. The same is true for the no action alternative. While it is likely that demolition and construction activities would result in minor localized short-term negative visual/aesthetic impacts, it is anticipated that a new, modern port which incorporates energy efficiency as well as aesthetically pleasing architectural and design elements, would actually result in a minor to moderate long-term beneficial impact as a focal point for entry into the U.S./city and possibly for redevelopment of the surrounding area.

Cumulatively, the reasonably foreseeable plans and projects identified in Section 4.10.2, along with the proposed modernization of the port should not result in any future significant adverse land use, zoning, or visual/aesthetic impacts. This would largely be the result of the required adherence to prevailing city land use and zoning regulations for all future development/redevelopment in the area.

4.10.3.5 Cultural and Historic Resources

As demonstrated earlier (see Section 4.5), implementing the proposed action through selection of either action alternative would result in no significant adverse effects to archaeological and/or historic resources, or Tribal religious or cultural resources. The same is true for the no action alternative. The majority of the APE has been widely disturbed over the years through construction activities. As such, much of the APE was recommended as having low probability for intact archaeological resources. As part of an architectural evaluation, a total of 148 resources were identified within the APE or in the neighborhoods associated with the APE. Of the 148 resources evaluated, six resources retained sufficient integrity and were recommended eligible for inclusion in the NRHP. None of these resources would be negatively impacted by the proposed improvements. As part of implementing the proposed modernization project as it relates specifically to design features, the GSA would coordinate with the Texas SHPO to ensure no impacts to nearby historic resources/districts (i.e., Chamizal National Memorial and the El Paso County Water Improvement District No. 1). Although there is low probably for intact archaeological resources in areas where ground-disturbing activities would occur, in the unlikely event that archaeological remains were to be discovered, the construction contractor would employ the procedures outlined in the CRA. Implementing these measures

would ensure no adverse cultural resources impacts. Based on consultation with pertinent Federal Tribal entities the proposed modernization effort would have no adverse impact on Native American resources.

Cumulatively, the reasonably foreseeable plans and projects identified in Section 4.10.2, along with the proposed modernization of the port should not result in any future significant adverse cultural or historic resources effects. This would largely be the result of the required adherence to prevailing state and federal regulations regarding the preservation of cultural and historic resources and the Tribal coordination that would be conducted.

4.10.3.6 Socioeconomics (Including Environmental Justice and Protection of Children)

Environmental Justice and Protection of Children

Under the No Action Alternative and Alternative 1a, it is expected that there would be disproportionate effects to environmental justice communities and child populations around the BOTA LPOE from traffic, air emissions, and noise both from construction and long-term operation of the port. Cumulatively, the development projects discussed in Section 4.10.2 could also have disproportionate adverse effects from increased air emissions and congestion if the construction of the projects occurred at the same time as, and in the area of, the BOTA LPOE. Emergency response services could experience time delays over a longer period of time if the construction periods from these projects occurred sequentially. Because of the demographics of the area surrounding the BOTA LPOE, these effects would disproportionately affect environmental justice populations and children. Economic benefits could benefit the environmental justice communities from potential jobs from development projects in addition to that of the BOTA LPOE modernization project.

Socioeconomics

Implementing the proposed action through selection of either action alternative would result in no significant adverse socioeconomic effects. The same is true for the no action alternative. Potential effects to area population, housing, employment, income, local business revenue, community services, and/or quality of life would be negligible to minor or moderate and both adverse and beneficial.

Cumulatively, the reasonably foreseeable plans and projects identified in Section 4.10.2, along with the proposed modernization of the BOTA port, also should not result in any future significant adverse cumulative socioeconomic effects. These plans and projects generally have the potential to provide future development and support permanent job creation, which would result in long-term beneficial, cumulative economic effects. Additionally, other future development/redevelopment projects in El Paso County, as well as Doña Ana County, would likely have short- and long-term beneficial economic effects on the region by increasing employment, income, and business sales volume, increasing the tax base, and increasing financial support of public services.

4.10.3.7 Noise and Vibration

Cumulative effects pertaining to noise were considered as part of the Project assessment. There would be short-term adverse effects associated with the action alternatives from construction, but those effects would be consistent with construction-related noise levels associated with road construction projects of similar size and scale. During operations, as demonstrated earlier (see Section 4.7), implementing the proposed action through selection of either action alternative would not be expected to result in any significant adverse noise effects. Implementation of Alternatives 1a (with or without trucks) or Alternative 4 would result in no change in traffic-related noise levels relative to the No Action Alternative. With the elimination of all commercial truck traffic as called for as a future option to Alternative 1a and immediately with Alternative 4, the long-term adverse effects would be expected to result in long-term beneficial impacts. Cumulatively,

the reasonably foreseeable plans and projects, along with the proposed modernization of the port should not result in future significant adverse noise effects.

4.10.3.8 Traffic (Vehicular and Pedestrian), Transportation, and Parking

As demonstrated earlier (see Section 4.8), selection of either the No Action or Alternative 1a could result in likely long-term moderate to significant adverse traffic impacts as a result of continued commercial truck operations at BOTA. However, with the elimination of all commercial truck traffic as called for as a future option to Alternative 1a and immediately with Alternative 4, the long-term adverse effects would be expected to change to long-term beneficial impacts. The other ports (Tornillo, Ysleta, and Santa Teresa) should experience no significant traffic related issues as a result of additional trucks utilizing those entry/exit points. Each action alternative could result in short-term negligible to minor traffic impacts from potential construction reroutes, however, conditions would return to normal once activities were completed.

Cumulatively, the reasonably foreseeable plans and projects identified in Section 4.10.2, along with the proposed modernization of the port should also not result in any long-term significant adverse traffic effects. This would be primarily the result of the extensive planning, coordination, and project review conducted within the area by the City, the EPMPO, TxDOT, and others.

4.10.3.9 Air Quality (including Greenhouse Gas Emissions)

Similar to the noise and traffic discussion above, and as demonstrated earlier (see Section 4.9), selection of either the No Action or Alternative 1a would result in likely long-term moderate to significant adverse air quality impacts as a result of continued commercial truck operations at the BOTA LPOE. However, with the elimination of all commercial truck traffic as called for immediately with Alternative 4, the localized long-term adverse effects would be expected to change to long-term beneficial impacts. The other ports (Tornillo, Ysleta, and Santa Teresa) should experience no significant air quality related issues as a result of additional trucks utilizing those entry/exit points. From a regional standpoint, the elimination of commercial truck traffic has been modelled to result in a long-term negligible to minor beneficial impact as well.

Similar to the traffic discussion above, cumulatively, the reasonably foreseeable plans and projects identified in Section 4.10.2, along with the proposed modernization of the port should also not result in any long-term significant adverse air quality effects. This would be primarily the result of the extensive planning, coordination, and project review conducted within the area by the city, the EPMPO, TxDOT, and others as well as the proactive approach these entities/agencies have taken over the years and continue to take to ensure that both local and regional growth are supported with transportation options designed to improve the air quality of the area. This is evidenced by the cited transportation-related plans and projects presented earlier in Section 4.10.2.

4.11 SHORT-TERM USE OF THE ENVIRONMENT VS LONG-TERM PRODUCTIVITY AND COMMITMENTS OF RESOURCES

4.11.1 Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

NEPA requires that the environmental analysis addresses "the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity". This involves the consideration of whether a proposed action is sacrificing a resource value that might benefit the environment in the long-term, for some short-term value to the project proponent (GSA) or the public. As described earlier in Section 1.4, the purpose of the proposed action is for the GSA to support CBP's mission by bringing the BOTA LPOE operations in line with current CBP land port design standards (i.e., CBP Land Port of Entry Design Standard) and operational requirements while addressing existing deficiencies identified with the ongoing port operations.

As described in Section 2.6.2 and 2.6.3, both Action Alternatives developed to implement the proposed action would largely take place entirely within the footprint of the existing port with the exception of the acquisition of approximately 12 acres of TxDOT land under Action Alternative 1a and approximately 4 acres under Action Alternative 4. This land is TxDOT ROW immediately around the existing port boundaries and additional TxDOT land utilized as for commercial inspections. As such, implementing the proposed action through selection of either Action Alternative would not be sacrificing a land resource value that might benefit the environment in the long-term for the short-term value to the GSA, it's tenant agencies, and/or the public.

4.11.2 Irreversible and Irretrievable Commitment of Resources

NEPA requires than in EIS address "any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented." Irreversible and irretrievable commitments of resources mean losses to or impacts on natural resources that cannot be recovered or reversed. More specifically, "irreversible" implies the loss of future options. Irreversible commitments of resources are those that cannot be regained, such as permanent conversion of wetlands and loss of cultural resources, soils, wildlife, agricultural, and socioeconomic conditions. The losses would be permanent and incapable of being reversed. "Irreversible" applies mainly to the effects from use or depletion of nonrenewable resources, such as fossil fuels or cultural resources, or to those factors, such as soil productivity, that are renewable only over long periods of time. "Irretrievable" commitments are those that are lost for a period of time, such as the temporary loss of timber productivity in forested areas that are kept clear for use as a ROW, road, or winter sports site. The lost forest production is irretrievable, but the action is not irreversible. If the use changes back again, it is possible to resume timber production.

Irreversible Commitment of Resources

Should the proposed action be implemented through selection of either Action Alternative (1a or 4), the following irreversible commitments of resources would likely occur:

- Consumption of fossil fuels (primarily diesel) and lubricants by heavy construction equipment operation (e.g., bulldozers, graders, scrapers, excavators, loaders, trucks, etc.) utilized during the demolition and construction aspects of the proposed modernization effort;
- Materials used to construct the new facilities, including cement/concrete, steel, iron and other metallic alloys, copper wiring, PVC pipe, plastic, etc.;
- Energy, supplied by fossil fuels or some other source of electricity, used over the operational life of the port;
- Water used during demolition/construction activities and ongoing future port operations; and
- Federal funds spent on the overall modernization effort.

Irretrievable Commitment of Resources

As noted above, "irretrievable" commitments of resources are those that are lost for a period of time, but not permanently. Both Action Alternatives would result in the irretrievable commitment of land already in use by port operations and those that would be acquired under each Action Alternative – specifically approximately 12 acres of TxDOT ROW under Action Alternative 1a and approximately 4 acres under Action Alternative 4.

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SECTION 6.0
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SECTION 7.0
ACRONYMS AND ABBREVIATIONS

A/E	architect/engineering
AADT	annual average daily traffic
ACHP	Advisory Council on Historic Preservation
ACM	asbestos-containing materials
ADT	Average Daily Traffic
AHPA	Archeological and Historic Preservation Act
AIRFA	American Indian Religious Freedom Act
AMSD	approximate minimum search distance
APE	area of potential effect
APHIS	Animal and Plant Health Inspection Service
ARPA	Archeological Resources Protection Act
ASHRAE	American Society of Heating, Refrigerant, and Air Conditioning Engineers
AST	above-ground storage tank
ASTM	American Society for Testing Materials
AUL	Listing of Institutional/Engineering Control Registries
BIL	Bipartisan Infrastructure Law
BMP	best management practices
CAA	Clean Air Act
CBP	Customs and Border Protection
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESQG	Conditionally Exempt SQG
CFR	Code of Federal Regulations
CO	carbon monoxide
CORRACTS	RCRA Corrective Action Site
CPSC	Consumer Product Safety Commission
CRA	Cultural Resources Assessment
CREC	Controlled REC
CST	Central Standard Time
CWA	Clean Water Act
dB	decibel
dBA	A weighted decibels
DC	Downtown Core
DG	Downtown General
DHS	U.S. Department of Homeland Security's
DNL	day-night average sound level
DOD	Department of Defense
EDR	Environmental Data Resources, Inc.
EIS	environmental impact statement
EISA	Energy Independence and Security Act
EO	Executive Order
EPACT	Energy Policy Act
ERCOT	Electric Reliability Council of Texas
EPMPO	El Paso Metropolitan Planning Organization
ERNS	Emergency Response Notification System
ESA	Endangered Species Act
ESA	Environmental Site Assessment
FAMU-UAC	Family Units-Unaccompanied Alien Children
FEMA	Federal Emergency Management Agency
FICON	Federal Interagency Committee on Noise

FINDS	Facility Index System/Facility Registry System
FIRM	Flood Insurance Rate Map
FIS	Federal Inspection Service
FM	Farm-to-Market Road
FWPCA	Federal Water Pollution Control Act
GHG	Greenhouse gas
GSA	General Services Administration
GWP	global warming potential
HREC	Historical Recognized Environmental Condition
HUD	Housing and Urban Development
IECC	International Energy Conservation Code
IIIJA	Infrastructure Investment and Jobs Act
ISD	Independent School District
LEED	Leadership in Energy and Environmental Design
L_{max}	maximum A-weighted sound level
LOS	level of service
LPOE	land port of entry
LPR	license plate readers
MGD	million gallons per day
MSC	Map Service Center
N/A	not applicable
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
ND	No Data
NEPA	National Environmental Policy Act
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NFRAP	No Further Remedial Action Planned
NHPA	National Historic Preservation Act
NII	non-intrusive inspection technology
NOI	notice of intent
NO_X	nitrous oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priority List
NRCS	USDA-Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	national wetlands inventory
O_3	ozone
OSHA	Occupational Safety and Health Administration
P	Palustrine
Pb	lead
PBS	Public Buildings Service
PCB	polychlorinated biphenyls
PCPI	per capita personal income
PEL	permissible exposure limit
$PM_{2.5}$	particulate matter measuring less than 2.5 microns in diameter
PM_{10}	particulate matter measuring less than 10 microns in diameter
POE	port of entry
POR	program of requirements
ppb	parts per billion
ppm	parts per million
ppt	parts per trillion
R	Riverine
RC	Regional Center
RCRA	Resource Conservation and Recovery Act

REC	Recognized Environmental Condition
ROD	Record of Decision
ROI	region of influence
ROW	right-of-way
RPM	radiation portal monitors
RTHL	Recorded Texas Historic Landmark
SAL	State Antiquities Landmark
SARA	Superfund Amendments and Reauthorization Act
SEL	sound exposure level
sf	square feet
SH	State Highway
SHPO	State Historic Preservation Office
SHWS	State Hazardous Waste Sites
SIP	State Implementation Plan
SO_2	sulfur dioxide
SWMP	Stormwater Management Program
SWPPP	Stormwater Pollution Prevention Plan
TABC	Texas Alcohol Beverage Commission
TCEQ	Texas Commission on Environmental Quality
TERP	Texas Emissions Reduction Plan
THC	Texas Historical Commission
TN-MU	Traditional Neighborhood Mixed Use
TPDES	Texas Pollutant Discharge Elimination System
TPWD	Texas Parks and Wildlife Department
TPY	tons per year
TSC	Texas Southmost College
TSCA	Toxic Substances Control Act
TSDF	Treatment, Storage, and Disposal Facility
TXDOT	Texas Department of Transportation
UB	Unconsolidated Bottom
UMC	University Medical Center
USACE	U.S. Army Corps of Engineers
USC	United States Code
USCB	U.S. Census Bureau
USFWS	U.S. Fish and Wildlife Service
USGBC	U.S. Green Building Council
USIBWC	U.S. Section of the International Boundary and Water Commission
UST	underground storage tank
UTRGV	University of Texas Rio Grande Valley
VCP	Voluntary Cleanup Program
VOC	volatile organic compound
$\mu g/m^3$	micrograms per cubic meter

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